Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Unbundled Access to Network Elements	)	**WC Docket No. 04-313**
Review of the Section 251 Obligations of Incumbent Local Exchange Carriers	)	**CC Docket No. 01-338**

REPLY DECLARATION OF

MARK DAVID VAN DE WATER

ON BEHALF OF AT&T CORP.

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REPLY DECLARATION OF MARK DAVID VAN DE WATER ON BEHALF OF AT&T CORP.

1. My name is Mark David Van de Water. My business address is 2701 East Rawhide Street, Gilbert, AZ 85296-9512. My current responsibilities, employment history, and educational background are described in the separate Joint Declaration that I submitted in this proceeding with John S. Sczepanski and Sharon E. Norris on October 4, 2004, regarding batch hot cut processes ("Sczepanski-Van de Water-Norris Dec.").

I. PURPOSE AND SUMMARY OF DECLARATION

2. The purpose of this Declaration is to respond to the position taken by BellSouth Corporation ("BellSouth") regarding the Commission's rules requiring that incumbent local exchange carriers ("ILECs") provide competitive carriers with access to the transmission path over hybrid loops served by Integrated DLC ("IDLC") systems. The *Notice of Proposed Rulemaking* ("*NPRM*") issued by the Commission on August 20, 2004, invited comments on whether and how it should clarify its rules regarding IDLC access "in a manner that promotes facilities-based deployment." *NPRM* ¶ 11 n.38.

3. In its initial comments, BellSouth asserts that "the Commission should refrain from creating any further rules" regarding access to customers served by IDLC equipment, because it makes all of its loops available to competitive carriers in a nondiscriminatory manner, and provides access to IDLC loops "in at least eight different ways."[1] The Commission, however, should reject BellSouth's suggestion. Although the Commission should reaffirm the requirements that it adopted in the *Triennial Review Order* with respect to access to IDLC, it should clarify its rules to ensure that competitive carriers have access to the full functionalities of the loop.

4. Thus, for the reasons stated below, the Commission should reaffirm the holding of its *Triennial Review Order* that an ILEC must (1) provide unbundled access to all of the features, functions, and capabilities of hybrid loops that are not used to transmit packeted information"; and (2) provide requesting carriers "access to a transmission path over hybrid loops served by Integrated DLC systems."[2]. However, in order to ensure that competitive carriers receive the full functionality of the loop to which they are entitled under the *Triennial Review Order*, the Commission should clarify its rules in two respects.

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[1] *See* Initial Comments of BellSouth Corporation filed October 4, 2004, at 31 n.117 and Affidavit of W. Keith Milner, ¶ 3 ("Milner Aff.").

[2] *See Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, and Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-331, 96-98, and 98-147, Report and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd. 16978, ¶¶ 289, 297 ("*Triennial Review Order*"), *aff'd in part and vacated and remanded in part sub nom. United States Telecomm. Assn. v. FCC*, 359 F.3d 354 (D.C. Cir. 2003) ("*USTA II*"), *petitions for certiorari denied,* October 12, 2004.

5. First, the Commission should require that when a competitive carrier is providing only voice service to a new or existing customer, and the ILEC wishes to provision IDLC, the ILEC must provide access to the IDLC loop either through spare copper facilities or through Universal Digital Loop Carrier ("UDLC"). When neither spare copper nor UDLC is available, the ILEC should be required to allow the competitive carrier to continue to provide service to the customer through the UNE platform.

6. Second, because competitive carriers can provide DSL service to customers only through UNE loops, the Commission should require that:

- When an existing customer of a competitive carrier is currently being provided with voice and DSL service through a copper loop, and the ILEC wishes to upgrade the customer's facilities to IDLC, the ILEC must either maintain the existing DSL-capable copper loop or move the competitive carrier's customer onto DSL-capable spare copper facilities; and
- When a customer is receiving both voice and DSL service from the ILEC through an NGDLC arrangement and that customer wishes to move these services to a competing carrier, the ILEC must move the customer onto DSL-capable spare copper facilities.[3]

Absent such action, the ILEC's use of IDLC (or NGDLC) will deny the competitive carrier the full functionality of the loop, and the customer will be unable to choose a competing provider to provision both voice and DSL service. These requirements, as well as the above-described requirement requiring service to new or existing customers to whom a competitive carrier provides only voice service, will promote the development of facilities-based competition.

[3] In those instances when DSL-capable spare copper is not available, the ILEC should be required either to move the customer to fiber so that the competitive carrier can continue to provide voice and broadband service to the customer, or to develop and provide some technically feasible method of unbundled access to the transmission path of the ILEC-served loop.

II. BACKGROUND

7. In its *Triennial Review Order*, the Commission held that ILECs are not required to unbundle the next-generation network, packetized capabilities of their hybrid loops to enable requesting carriers to provide broadband services to the mass markets. *Triennial Review Order* ¶ 289. However, the Commission emphasized that ILECs "remain obligated to provide unbundled access to the features, functions, and capabilities of hybrid loops that are not used to transmit packetized information." *Triennial Review Order* ¶ 289. To ensure that competitive carriers have the ability to provide broadband capabilities, the Commission specifically required that ILECs "provide unbundled access to a complete transmission path over their TDM networks." *Id.*

8. With respect to the provision of narrowband services where hybrid loops are involved, the Commission required ILECs to provide "an entire non-packetized transmission path capable of voice-grade service (*i.e.*, a circuit equivalent to a DS0 circuit) between the central office and customer's premises." *Id.* ¶ 296. As part of this overall requirement, the Commission specifically required that ILECs provide such access even when hybrid loops are served through IDLC systems:

> We recognize that providing unbundled access to hybrid loops served by a particular type of DLC system, *e.g.*, Integrated DLC systems, may require incumbent LECs to implement policies, practices, and procedures different from those used to provide access to loops served by Universal DLC systems. These differences stem from the nature and design of Integrated DLC architecture. Specifically, because the Integrated DLC systems is integrated directly into the switches of incumbent LECs (either directly or through another type of network equipment know as a "cross-connect') and because incumbent LECs typically use concentration as a practice for engineering traffic on their networks, a one-for-one transmission path between an incumbent's central office and the customer premises may not exist at all times.

> Even still, *we require incumbent LECs to provide requesting carriers access to a transmission path over hybrid loops served by Integrated DLC systems.* We recognize that in most cases this will be either through a spare copper facility or through the availability of Universal DLC systems. Nevertheless *even if neither of these options is available, incumbent LECs must present requesting carriers a technically feasible method of unbundled access.*

Id. (emphasis added).

9. The Commission incorporated these requirements into the regulations that it established in the *Triennial Review Order.* The regulations require an ILEC to provide "access to all features, functions, and capabilities of the hybrid loop that are not used to transmit packetized information" when the requesting carrier seeks such access for the provision of broadband services. *See* 47 C.F.R. § 319(a)(2)(ii). The regulations further state that when a requesting carrier seeks access to a hybrid loop for the provision of narrowband services, the ILEC must either provide nondiscriminatory access to an entire hybrid loop capable of voice-grade service *or* "provide nondiscriminatory access to a spare home-run copper loop serving that customer on an unbundled basis." *Id.* § 51.319(a)(2)(iii).

10. The Commission's finding that competitive carriers need access to a transmission path over hybrid loops served by IDLC was clearly correct. Without such access, competitive carriers would be denied access to the full functionalities of hybrid loops served by IDLC even to provide voice service. This is because, as the *Triennial Review Order* recognized, the architecture for IDLC is different from the ILECs' standard architecture. This standard architecture involves the use of a Main Distribution Frame ("MDF") in the central office at which each copper wire loop is individually cross-connected with another pair of wires that are connected to a switch port connector block or to a competitive carrier's collocated facilities.

11. By contrast, when IDLC is used, a digital circuit carrying numerous multiplexed loops bypasses the MDF and is attached directly to a switch. In the usual IDLC configuration, a copper loop runs directly from the customer's premises to a serving area interface ("SAI"). This portion of the loop is known as the distribution plant. The SAI is a point where the copper distribution "sub-loops" from a number of customers terminate. Typically, the loops are cross-connected to additional copper facilities that connect the SAI to a remote terminal ("RT"). RTs are enclosures typically located in the ILEC's outside plant – *i.e.*, closer to the customers' premises. At the RT, the analog voice communication is converted into a digital format and the digital signals are multiplexed together (to efficiently utilize costly transmission facilities) onto a digital carrier system and transmitted to the central office through the feeder plant of the local loop. With an IDLC arrangement, the traffic carried over the feeder plant is terminated directly onto the ILEC's local circuit switch, and is not demultiplexed at the central office. Accordingly, when IDLC architecture is used, an individual customer's loop arrives at the central office commingled with other customers' loops.

12. IDLC architecture therefore makes it difficult to switch a customer's loop to a competitive carrier's' facilities, because there are no wires at the MDF that are associated with the customer's individual loop that can be disconnected for reconnection to a competitive carrier's collocated equipment. To convert a customer served by IDLC to a competitive carrier, the incumbent carrier must be able to separate the loop for a particular customer from the loops of other customers that are commingled on the feeder facility.

III. BELLSOUTH'S "ALTERNATIVES"

13. BellSouth's witness Milner lists eight methods by which BellSouth is able to convert a customer from an IDLC loop to a competitive carrier, which he calls "alternatives."

Each of these "alternatives," however would require substantial manual work, which creates a greater likelihood of provisioning errors and delays, and would increase costs for both the competitive carrier and the ILEC.[4] Moreover, with the exception of the use of spare copper or UDLC, BellSouth's "alternatives" would be extremely costly for a competitive carrier. And, under most of the alternatives, a competitive carrier would be unable to provide DSL service.

14. The "alternatives" described by Mr. Milner are as follows:

- **Alternative 1:** BellSouth reassigns the loop from the IDLC system to a physical copper pair, if sufficient physical copper pairs are available.
- **Alternative 2:** Where the loops are served by Next Generation Digital Loop Carrier ("NGDLC") systems, BellSouth "grooms" the IDLC loops to form a virtual remote terminal arranged for universal service (*i.e.*, a terminal that can accommodate both switched and private line circuits). Under "grooming," an ILEC arranges certain loops (in the output stage of the NGDLC) in such a way that discrete groups of multiplexed loops can be assigned to transmission facilities in the output stage of the NGDLC.
- **Alternative 3:** BellSouth removes the loop distribution pair from the IDLC and re-terminates the pair either to a spare copper pair or to spare Universal Digital Loop Carrier equipment.
- **Alternative 4:** BellSouth removes the loop distribution pair from the IDLC and re-terminates the pair to utilize spare capacity of existing Integrated Network Access ("INA") systems or other existing IDLC that terminates on Digital Cross-Connect System ("DCS") equipment. BellSouth will thereby route the loop to a channel bank, where it can be de-multiplexed for delivery to the requesting competitive carrier.
- **Alternative 5:** If the switch into which the IDLC loop terminates has "side-door/hairpin" capabilities, BellSouth will perform "hairpinning," under which the IDLC loop remains terminated directly into the switch while the "side-door/hairpin" functionality allows the loop to be provided individually to the requesting competitive carrier.

[4] *See* Sczepanski-Van de Water-Norris Decl.¶¶ 22-27, 43-45 (describing problems resulting from the manual work involved in hot cuts).

- **Alternative 6:** If the IDLC loop does not terminate into a switch with a "side-door/hairpin" functionality, BellSouth will move the IDLC system to switch peripheral equipment that has this capability and then performs "hairpinning."

- **Alternative 7:** BellSouth will install and activate new UDLC facilities or NGDLC facilities and then move the requested loop from the IDLC to these new facilities.

- **Alternative 8:** BellSouth will convert some existing IDLC capacity to UDLC when it is expected that growth will not create the need for additional capacity within the next two years.[5]

15. Although Mr. Milner describes these "alternatives" as eight different methods, in reality they are only four different methods (with two "alternatives" essentially being variations of the same method). The four methods are: (1) reassignment of the loop to a physical copper pair or to UDLC (Alternative 1 and Alternative 3)[6]; (2) using the NGDLC capabilities of the RT and establishing the loop on an existing INA arrangement (Alternative 2 and Alternative 4); (3) hairpinning (Alternative 5 and Alternative 6) and (4) installation of UDLC or NGDLC capacity that does not exist today (Alternatives 7 and 8). I will discuss each of these in turn.

16. **Reassignment of IDLC Loops To Copper Pairs or UDLC (BellSouth's Alternatives 1 and 3).** One common method of converting a customer with an IDLC loop is to dispatch an ILEC technician to the serving area interface, manually remove the connection between the existing customer's copper distribution wire pair and the IDLC feeder termination,

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[5] Milner Aff. ¶ 5.

[6] Because Mr. Milner offers only very brief descriptions of Alternative 1 and Alternative 3, the difference between the two alternatives is not entirely clear. However, based on his descriptions, it appears that under Alternative 1, the customer's entire loop would be replaced by existing spare copper facilities from the central office to the customer's premises. By contrast, it appears that under Alternative 3, the distribution portion of the customer's loop would remain the same, but the feeder portion (from the SAI to the central office) would be replaced by a copper feeder pair.

and manually reconnect the customer's copper distribution wire pair to a pre-existing copper facility, which has a presence at the MDF. This process, however, presents a number of potential difficulties. For example, any spare copper loop may have been placed out of service by the ILEC, frequently because a copper loop offers customers inferior quality to the digital service provided over IDLC. In addition, spare copper loops may be unavailable, particularly in areas (such as newly constructed areas) where IDLC has been employed from the outset.

17. As BellSouth's "Alternative 3" suggests, the ILEC could alternatively use the same manual-intensive procedure, but transfer the customer to UDLC, rather than to spare copper. Like copper loops, UDLC loops have a presence on the MDF in the central office. Under this alternative procedure, the ILEC could install a central office terminal ("COT") which demultiplexes the IDLC-fed feeder facility at the central office and converts the traffic back from a digital to an analog format. When such technology is implemented, the DLC loop used to serve the competitive carrier's customer is separated by the COT, and each customer's line that was served by that feeder facility will now have an appearance on the MDF. This process allows the competitive carrier to access a specific customer's loop through the hot cut process. At that juncture, the competitive carrier would *again* convert the analog signal on that loop to digital format and transport it over digital facilities to its switch. Such a procedure, however, is extremely cumbersome for both the ILEC and the competitive carrier.

18. The reassignment of a customer served by an IDLC loop to UDLC also precludes the competitive carrier from providing DSL service to the customer. As previously indicated, in a UDLC arrangement that customer's analog signal is digitized and multiplexed onto a high-capacity facility at the remote terminal located in the vicinity of the customer's

premises. This modification of the signal coming from the customer's premises is not compatible with DSL service.

19. **Using the NGDLC Capabilities of the Remote Terminal or Spare Capacity of Integrated Network Access (BellSouth's Alternatives 2 and 4).** The ILEC could also migrate a loop served by IDLC to a high-capacity facility. Under one approach, the ILEC would use the NGDLC capabilities of the remote terminal to place the loop on a high-capacity facility that is dedicated to the competitive carrier and connected to the competitive carrier's collocated facility. The NGDLC capabilities would "groom" (arrange) the traffic of the competitive carrier's customers so that only that traffic would "ride" the high-capacity facility.

20. The use of Integrated Network Access systems would achieve essentially the same result as that achieved by the use of NGDLC. As I understand Mr. Milner's testimony, the only difference between the INA and NGDLC approaches is that under BellSouth's INA arrangement, the high-capacity facility handling the competitive carrier's traffic would not be dedicated to the competitive carrier, but instead would terminate on a digital cross-connection frame at the central office. *See* Milner Aff. ¶ 5 (description of Alternative 4). From this frame, BellSouth would make a software cross-connection to connect the single channel of the customer's loop to a channel bank that would convert the digital signal to an analog output from the channel bank with an appearance on the MDF, which can then be physically cross-connected to the competitive carrier's collocated appearance on the frame.

21. Regardless of which technology is used, the use of NGDLC capabilities or an INA arrangement would be an extremely costly, and potentially inefficient, approach for a competitive carrier. If NGDLC capabilities were used, the competitive carrier would be required

to pay for a high-capacity digital facility from the RT to the carrier's collocated facility. This could impose significant costs and inefficiencies on competitive carriers, because the high-capacity facility would be used only for those lines that are served by IDLC at the specific remote terminal. For example, under this approach a competitive carrier who wins its first customer served via IDLC at a specific RT would be required to use (and pay for) a DS1 loop – which can serve up to 24 customers – to deliver its traffic from that RT to its collocated facility. Unless this same competitive carrier can win a sufficient number of customers who are served by the same RT, the competitive carrier cannot economically justify providing a competitive choice to those customers. Similarly, if INA spare capacity was used, the competitive carrier would be required to acquire, at considerable expense, a high-capacity channel to transport the line to the ILEC central office, as well as the equipment in that central office (digital cross connection and channel bank termination) that is required to segregate out the digital channel to an analog loop. Additionally, because both NGDLC and INA require the customer's loop to be digitized and multiplexed at the RT, neither of these "alternatives" is compatible with DSL service and therefore would preclude the competitive carrier from being able to make a competitive DSL offer.

22. **Hairpinning (BellSouth's Alternatives 5 and 6).** Two of the alternatives described by Mr. Milner involve "hairpinning," which is offered by various ILECs (including BellSouth and Qwest) for migrating customers from IDLC. With a hairpinning arrangement, the DS1 facility that carries the lines of the customers served by the RT to the central office is fed directly into a DS1 switch port by the digital cross-connection frame. Once the DS1 facility is connected to the switch, the individual customer line is "hairpinned" by a software command in the switch to identify the individual line of the competitive carrier's customer by telephone

number. This line is then permanently connected via the switch software through the switch fabric to an analog switch port on the switch. This switch port, which has an appearance on the MDF, is then connected to the competitive carrier's collocated equipment, thereby unbundling the customer's loop.

23. Hairpinning is an expensive and inefficient method of enabling competitive carriers to serve customers with IDLC loops. Because hairpinning uses two switch ports, rather than one, the cost of the procedure is substantially increased. The use of two switch ports in the process also accelerates the exhaustion of switch ports available to other customers. Also, because it is not a standard procedure, hairpinning is potentially prone to problems (for example, a technician might inadvertently remove the software command that established the hairpin arrangement, thereby inadvertently disconnecting service to the competitive carrier's customer).

24. Hairpinning is also unacceptable because it only enables a competitive carrier to provide voice service, not DSL service. As long as a customer is served by digital loop carrier, the competitive carrier cannot provide DSL service to that customer – and, in the hairpinning approach, the customer's loop continues to be served by IDLC. Furthermore, the hairpinning approach requires that the line pass through the ILEC's circuit switch, which does not support high-speed DSL.

25. In the initial comments that it has filed in this proceeding, Qwest recognizes that hairpinning is an inadequate method of providing access to competitive carriers seeking to serve customers with IDLC loops. Qwest's declarant, Dennis Pappas, describes hairpinning (as well as building an INA system) as only "an interim process until a more permanent solution can be

implemented."[7] In an *ex parte* letter that it filed in this proceeding less than two years ago, Qwest described hairpinning as "a last resort solution" to provisioning an unbundled loop over IDLC.[8]

26. **Installation of New UDLC or NGDLC Capacity (BellSouth's Alternatives 7 and 8).** Based on Mr. Milner's description, under his Alternatives 7 and 8, BellSouth would install at the remote terminal (and perhaps at the central office) UDLC or NGDLC capacity that does not exist today. Under Alternative 7, BellSouth would install new UDLC facilities or NGDLC facilities to which it would move the customer's loop from IDLC. Under Alternative 8, BellSouth would convert some existing IDLC capacity to UDLC.

27. It appears that BellSouth regards the installation of new UDLC/NGDLC capacity as a last resort if no other alternative is available. Mr. Milner states that a given loop would "rarely" be unbundled only through the use of these alternatives. Milner Aff. ¶ 6. However, if BellSouth used either of these alternatives, the cost to the competitive carrier would be substantial. Mr. Milner states that in situations where only these alternatives are available, the competitive carrier would be required to pay "special construction charges to build the necessary facilities." *Id.* Typically, such costs are very high. Apparently recognizing that fact, Mr. Milner states that the competitive carrier would have the option to serve the customer through the UNE platform at the Total Element Long-Run Incremental Cost ("TELRIC") rate. However,

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[7] Declaration of Dennis Pappas, ¶¶ 45-46, attached to Comments of Qwest Communications International Inc., filed October 4, 2004.

[8] *Ex parte* letter from Cronan O'Connell (Qwest) to Marlene H. Dortch, filed November 14, 2002, in CC Docket Nos. 01-338, 96-98, and 98-147, at 23.

BellSouth will make the UNE-P option available only in those areas where it is not required to provide unbundled switching. *Id.* ¶¶ 6, 8.

28. The use of new UDLC or NGDLC capacity would be unacceptable to a competitive carrier for other reasons. First, like the use of spare UDLC capacity, the use of new UDLC or NGDLC capacity would render a competitive carrier unable to provide DSL service. As previously discussed, DLC is incompatible with DSL. Second, the use of new capacity could be a time-consuming process. Installation of new network facilities such as these cannot be performed within a single day, or overnight, but would typically take months to accomplish.

* * *

29. In short, all of the various "alternatives" discussed by Mr. Milner are flawed, in varying degrees. Each "alternative" requires manual work to migrate the customer's line from the existing IDLC arrangement. This manual work can result in delays in the provisioning process and extended disruptions of service.

30. Furthermore, most of BellSouth's alternatives would also be extremely costly for the competitive carrier, who would bear the expenses of the migration. The conversion of a customer to existing copper or UDLC facilities is not particularly costly, because these alternatives involve the use of existing facilities. By contrast, BellSouth's remaining six alternatives require new network arrangements that currently do not exist or would impose substantial inefficiencies on the competitive carrier.[9] Finally, with the exception of the use of

[9] Theoretically, in lieu of the alternatives described by Mr. Milner, a competitive carrier could either lease facilities from the ILEC at the RT where copper subloops are terminated in the IDLC architecture, or collocate equipment of its own at the RT. Such an approach, however, would be enormously costly. As AT&T witnesses and other parties have testified in this proceeding, the

spare copper facilities, none of the alternatives would enable a competitive carrier to provide voice *and* DSL service.

IV. THE NEED FOR CLARIFICATION OF THE COMMISSION'S RULES

31. Of the various alternatives described by Mr. Milner, the use of spare copper or UDLC would be the most practical means of transferring a customer using a loop served by IDLC. Although not an optimal solution (since it would involve manual work), the use of spare copper or UDLC has the advantage of being relatively inexpensive and quick to implement, because (unlike BellSouth's other alternatives) it involves facilities already in existence and does not require the construction or acquisition of new facilities. The Commission, however, needs to clarify the obligations of the ILEC with respect to these methods in the context of loops served by IDLC.

32. A transfer of the customer to spare copper or UDLC would be acceptable to a competitive carrier if the customer subscribes only to voice service, but not DSL service, from the carrier. However, if the competitive carrier is providing both voice *and* DSL service to the customer, *only* a transfer of the customer to a copper loop will enable the carrier to continue to provide both types of services. If such a customer is migrated to UDLC, the competitive carrier

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percentage of loops served by IDLC loops is steadily increasing, and is as high as 70 percent in some central offices. The expense of installing collocated facilities in every RT where one or more competitive carrier customers are served by IDLC would be staggering. In fact, such an approach could not be cost-justified in those areas where only a relatively small number of the competitive carrier's customers are served by IDLC loops. Furthermore, if the competitive carrier preferred to collocate at the RT with its own equipment, the logistics of doing so would be very difficult and complex. Available space at RTs is typically quite limited. Even where space is available, a competitive carrier might encounter resistance when the RT is located in residential neighborhoods, where residents might object to the installation of additional equipment for aesthetic reasons.

will be unable to provide DSL service – and the customer, upon learning that the carrier will be unable to continue providing DSL service, is likely to turn to a different carrier (most likely the ILEC) that can provide both voice and DSL service.

33. Regardless of whether the customer subscribes to both voice and DSL service, however, the ability of a competitive carrier to continue providing its customer with the same services depends on the ILEC's ability to provide the necessary copper or UDLC in a timely manner. This fact, combined with the increasing presence of IDLC, poses a substantial threat to a competitive carrier's ability to provide service to customers served by IDLC. As previously indicated, the percentage of lines served by IDLC is already substantial. That percentage is likely to increase in the future. Thus, competitive carriers face the prospect of migrating not only those customers currently served by IDLC, but also customers currently on copper loops who are "upgraded" to IDLC in the future. Under either scenario, the competitive carrier will lose the full functionality of the loop—and be forced to cease its service to the customer – if the ILEC lacks sufficient copper or UDLC facilities.

34. A competitive carrier should not be required to "give up" a customer served by IDLC simply because the ILEC has failed to maintain sufficient inventories of copper or UDLC. Indeed, such a result would be illogical, because it would likely result in the return of the customer to the ILEC – the party responsible for the problem. It would also discourage competitive carriers from attempting to provide facilities-based competition. Before they make the substantial investments that are required to serve customers through their own facilities, competitive carriers must have the assurance that they will enjoy the full functionalities of the loop when they serve customers through their own switches. A competitive carrier will be reluctant, or even totally unwilling, to make the necessary investments in switches and other

facilities to provide service if many of its customers on IDLC may be "lost," due to the carrier's inability to provide the voice and DSL service that the customer wants.

35. The Commission should therefore clarify its ruling in Paragraph 297 of the *Triennial Review Order* to hold that, where a competitor offers only voice service to a new or existing customer, and the ILEC wishes to provision IDLC, the ILEC must move the competitive carrier's customer to spare copper loop facilities or UDLC. If no such facilities are currently available, the ILEC should be required to allow the competitive carrier to continue to serve the customer through the UNE platform until the necessary copper or UDLC becomes available, and the customer is transferred to those facilities.[10] Only in this manner can the Commission ensure that the competitive carrier will continue to be able to provide a "voice only" customer with service.

36. The Commission should also ensure that, when an ILEC seeks to upgrade the facilities of a competitive carrier's customer to IDLC, or a retail customer wishes to migrate to a competitive carrier, the competitive carrier will be able to provide any DSL service currently taken by the customer. DSL services continue to be an ever-increasing component of the services that customers expect their carriers to provide. The dramatic growth of DSL in recent years is well-known, and DSL growth rates continue to be high today.[11] The ability of a carrier

[10] As previously described, Mr. Milner appears to agree that the customer should be served through the UNE platform if his Alternatives 7 and 8 are the only methods available for transferring the customer from an IDLC-served loop, the competitive carrier is unwilling to pay special construction charges to build the necessary facilities, and BellSouth is no longer required to provide unbundled switching. *See* Milner Aff. ¶¶ 6, 8. Although the scope of his "UNE-P exception" is too narrow, Mr. Milner at least recognizes that the continuation of service through the UNE-P may be necessary in some circumstances.

[11] The declaration that MCI attached to its opening comments, for example, points out that data

to satisfy a customer's demand for DSL services is therefore critical to the carrier's ability to compete. If it cannot provide DSL service to a customer expecting it, the customer is likely to change to the ILEC, which can provide both types of service. However, the customer will be able to transfer its voice *and* DSL service to a competitive carrier only if that carrier has access to the same functionality of the loop as the customer can receive from the ILEC.

37. ILECs currently can provide both voice and broadband service to their customers through NGDLC. SBC, for example, has deployed NGDLC in connection with its "Project Pronto" offering of voice and broadband to consumers in its region. Most IDLC systems, however, enable carriers to provide only voice-grade service (*i.e.*, voice and dial-up Internet service), not broadband service such as DSL.

38. When a competitive carrier provides voice and DSL service to an existing customer, however, assignment of the customer to a copper loop is the only means by which the carrier can continue to provide both voice and DSL service to a customer. UDLC and IDLC facilities support only voice-grade loops, and, therefore, cannot be used to provision DSL service. Even NGDLC, which, as indicated above, is capable of providing broadband service only for the ILEC, cannot support DSL for the competitive carrier. Similarly, although the UNE platform can be used to provide voice service to a customer, the UNE-P – which uses the ILEC's circuit switch, rather than the competitive provider's switch – does not enable a competitive carrier to provide DSL service.

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recently released by the Commission show that high-speed lines among residential and small business customers increased by nearly 1,350 percent over the last four years alone, and that this momentum is continuing. Declaration of Michael Starkey and Sidney Morrison on Behalf of MCI, Inc., ¶ 48 & n.23.

39. For these reasons, the Commission should also clarify its rules regarding broadband in the context of hybrid loops. First, the Commission should require that if an existing customer of a competitive carrier is currently being provided voice and DSL service through a copper loop, but the ILEC wishes to upgrade the customer's facilities to IDLC, the ILEC must either maintain the existing DSL-capable copper loop or move the competitive carrier's customer onto DSL-capable spare copper facilities, whenever such spare copper is physically available, in order to maintain the full functionality of the existing loop. Second, the Commission should require that when a customer is currently receiving both voice and DSL service from the ILEC through an NGDLC arrangement, and that customer wishes to migrate its service to a competing carrier, the ILEC should be required to move the competitive carrier's customer onto DSL-capable spare copper facilities. In those situations where no spare cooper facilities exist, the ILEC should nonetheless be required either (1) to move the customer to fiber (whenever fiber is physically available) in order to enable the competitive carrier to provide voice and broadband service to the customer or (2) to provide some other "technically feasible method of unbundled access" to a transmission path over the customer's loop. *See Triennial Review Order* ¶ 297.

40. These requirements are necessary to provide a competitive carrier with access to the full functionality of the loop, because DSL service can be provided only through a copper loop. By clarifying its rules in this manner, the Commission will encourage the development of facilities-based competition. If adopted, the clarifications will assure competitive carriers that they will have the ability to provide voice and DSL service to its customer on a continuous basis. With that assurance, the competitive carrier will have the necessary incentive to serve its customers through its own facilities.

41. This concludes my declaration.

VERIFICATION

I declare under penalty of perjury that the foregoing is true and correct.

October 19, 2004

/s/ Mark David Van de Water
Mark David Van de Water