

for some competitive LECs in certain circumstances, particularly those that seek to provide non-ADSL based services.¹⁸² Some incumbent LECs erroneously maintain that they have no legal obligation to retain and maintain spare copper for use by competitive LECs as they deploy next-generation architecture.¹⁸³ However, existing federal law provides that competitive LECs are entitled to use spare copper where technically feasible,¹⁸⁴ and that use should be for a commercially reliable period of time, consistent with incumbent LECs' obligations to provide nondiscriminatory access to their loop plant.¹⁸⁵ As the Commission has recognized, incumbent LECs have a natural incentive to ignore competitive LECs' need to access spare copper as the incumbents upgrade their networks.¹⁸⁶ Accordingly, the Commission's rules should ensure that

¹⁸² See, e.g., Conectiv at 42-46; Joint Commenters at 94; NorthPoint at 24-27; RCN at 24-25; Sprint at 38-39.

¹⁸³ SBC at 73-74; BellSouth 5th NPRM Comments at 24; Qwest at 39-40.

¹⁸⁴ Under the *UNE Remand Order*, competitors are entitled to access subloops on a nationwide basis in all instances where such access is technically feasible. *UNE Remand Order* ¶ 205. Moreover, the obligation to provide spare copper loops on an unbundled basis applies with full force to loops provided through DLC arrangements. *Local Competition Order* ¶ 383; *UNE Remand Order* ¶ 218.

¹⁸⁵ The *UNE Remand Order* unquestionably found that spare copper qualifies as the incumbent LEC's loop plant and is accordingly subject to the loop unbundling obligations of the Act. *UNE Remand Order* ¶ 174. In that *Order*, the Commission reiterated that incumbent LECs have an obligation to provide competitors with access to local loops nationwide. *Id.* ¶ 165. In delineating the scope of this access right, the Commission held that the definition of loop plant includes dark or unactivated fiber, just as the definition of the loop plant includes unused or vacant loop capacity. *Id.* ¶174. Indeed, the Commission analogized dark fiber to spare copper, which the Commission and at least one other incumbent already considered to be loop plant. "Because it is in place and easily called into service, we find that dark fiber is analogous to 'dead count' or 'vacant' copper wire that carriers keep dormant but ready for service. Thus, we disagree with GTE's argument that unlike vacant copper, dark fiber does not qualify as loop plant." *Id.* Finally, the Commission concluded "dark fiber and *extra copper* both fall within the loop network element's 'facilities, functions, and capabilities.'" *Id.* (emphasis added).

¹⁸⁶ "After moving its customers onto new fiber-served NGDLC systems, however, SBC incumbent LECs will not have as great an incentive to work with competitors to preserve their access to existing copper transmission facilities between the central office and remote terminal." *Ameritech Corp., Transferor and SBC Communications, Inc., Transferee For Consent to Transfer Control of Corporations Holding Commission Licenses and Lines Pursuant to Sections*

incumbent LECs cannot use their control over their loop plant to deny competitors the ability to transition their customers to other facilities seamlessly.

In particular, AT&T agrees with the commenters that incumbent LEC must retain and maintain existing copper for a specified period of time in order to ensure that competitive LECs' existing investment is not stranded.¹⁸⁷ The Commission should also:

- ensure transparency, impartiality, and fairness in the copper retirement process by requiring incumbent LECs to provide full and timely disclosure of plans to replace or retire spare copper;¹⁸⁸ and

214 and 310(s) of the Communications Act and Parts 5,22,24,25,63,90,95, and 101 of the Commission's Rules, CC Docket No. 98-141, ASD File No. 99-49, Second Memorandum Opinion and Order, FCC 00-336, ¶ 38 (rel. Sept. 8, 2000) ("SBC Waiver Order").

¹⁸⁷ See NorthPoint at 26 (proposing that incumbent LECs retain and maintain existing copper for five years after it commences service from a remote terminal, subject to a waiver procedures initiated by the incumbent LECs); BellSouth claims that any requirement to retain spare copper will delay deployment of its fiber infrastructure. BellSouth 5th NPRM Comments at 23-26. However, SBC's voluntary copper retirement commitments in the *SBC Waiver Order* appear to undermine the veracity of BellSouth's statements. In any event, the Commission can certainly craft waiver procedures -- such as those proposed by NorthPoint -- to ensure that incumbent LECs do not have to unnecessarily retain and maintain existing spare copper.

¹⁸⁸ NorthPoint's copper retirement proposal (at 26-27) appears to incorporate these characteristics in a fair and balanced manner. Despite some ILECs' statements to the contrary, both the Act and the Commission's rules clearly contemplate such an orderly retirement process. Section 251(c)(5) requires ILECs to "provide reasonable public notice of changes in the information necessary for the transmission and routing of services using that local exchange carrier's facilities and networks, as well as of any other changes that would affect the interoperability of those facilities or networks." 47 U.S.C. § 251(c)(5). The Commission has also determined that the network disclosure requirement must be a "broad standard" that includes changes to network configurations. *Implementation of Local Competition Order, Second Report and Order and Memorandum Opinion and Order, CC Docket No. 96-98 (Aug. 8, 1996) ¶ 182.* An incumbent LEC's decision to migrate customers from copper facilities to NGDLC facilities, and to subsequently retire or remove those copper facilities from service, should obviously trigger the same advance notice requirements.

- require incumbent LECs to identify whether and where they have spare copper facilities available and to consider the availability of these facilities when a competitive LEC requests a local loop UNE.¹⁸⁹

2. **Physical Collocation at Remote Terminal.** The Commission has determined that competitors have a right to collocate “at any technically feasible point, from the largest central office to the most compact FDI [feeder distribution interface]”¹⁹⁰ and, in particular, to collocate DSLAM functionality at the incumbent LEC’s premises (*i.e.*, in or adjacent to the central office or remote terminal) where the customer’s unbundled loop or subloop terminates.¹⁹¹ As a practical matter, in order to effect these collocation rights, the Commission should modify its existing collocation rules. In particular, AT&T agrees with commenters that have requested the Commission to:

- Encourage the deployment of remote terminal equipment that accommodates multiple competitive providers on the incumbent LECs’ architecture to the maximum extent possible;¹⁹²
- Require incumbent LECs to allow competitive LECs to place their equipment within the same racks or bays used by the incumbent LECs or their affiliates in remote terminals;¹⁹³

¹⁸⁹ The Commission’s loop qualification rules require incumbent LECs to provide access to *any* information about the loop that is available to the incumbent in its engineering records, plant records, and other back office systems. *UNE Remand Order* ¶ 428. Moreover, an “incumbent LEC must provide the requesting carrier with nondiscriminatory access to the same detailed information about the loop that is available to the incumbent, so that the requesting carrier can make an independent judgement about whether the loop is capable of supporting the advanced services equipment the requesting carrier intends to install.” *UNE Remand Order* ¶ 427.

¹⁹⁰ *UNE Remand Order* ¶ 221; 47 C.F.R. §§ 51.321-323. The FCC notes that it is amending its collocation rules to make clear its intent to require collocation in either controlled environment huts or vaults, as well as other remote terminals. *FNPRM* ¶ 104 n.226.

¹⁹¹ *UNE Remand Order* ¶ 313.

¹⁹² *Rhythms* at 55-56.

¹⁹³ *Sprint* at 18.

- Support industry-wide development of workable OSS solutions for securely accessing, monitoring and reconfiguring shared equipment deployed in remote terminals;¹⁹⁴
- Require that the incumbent LECs submit space plans upon request and establish procedures and criteria for determining space exhaustion in remote terminals;¹⁹⁵
- Require competitively neutral space reservation practices;¹⁹⁶
- Ensure that incumbent LECs work with competitive LECs as closely as they do with data affiliates,¹⁹⁷ because competitive LECs should not be put in a position where, due to decisions by the incumbent LECs, they are always faced with catching up to the technology and service deployment of the incumbent LECs' data affiliates;¹⁹⁸
- Make collocation available at rates consistent with the pricing for interconnection and unbundled network elements;¹⁹⁹ and
- Require that the Commission's accelerated complaint process be available for resolving remote collocation disputes.²⁰⁰

3. **Network Planning.** The 1996 Act clearly mandates parity between competitive and incumbent LECs.²⁰¹ As the Commission well knows, openness and process visibility are significant tools in protecting against discriminatory tactics. In support of these principles, the Act requires openness in the network upgrade process and specifically directs the

¹⁹⁴ Sprint at 37-38.

¹⁹⁵ Corecomm at 39-40; *see* Sprint at 18-19.

¹⁹⁶ Corecomm at 61; Network Access Solutions at 22-24; NorthPoint at 23-24; Rhythms at 34-35, 60; Sprint at 33.

¹⁹⁷ *See, e.g., SBC Waiver Order* ¶ 36.

¹⁹⁸ Rhythms at 71-72.

¹⁹⁹ GSA at 12.

²⁰⁰ NorthPoint at 28-29.

²⁰¹ The parity mandate stems from section 251, which – as interpreted by the Commission – requires incumbent LECs to provide access to competitors in a manner no less efficient than an incumbent LEC provides to itself. *See Local Competition Order* ¶ 208. Moreover, the Commission has repeatedly indicated that the type of services that carriers are able to provide vis-à-vis incumbent LECs' services is not the measure of parity. *See Local Competition Order* ¶ 184; *Advanced Services Order* ¶¶ 46-47.

incumbent LECs to keep other industry participants abreast of their plans to make any changes.²⁰² Implicit in this requirement is the expectation that, once those changes occur, market participants will continue to have the ability to interact with the incumbent's network in a nondiscriminatory manner. This cannot occur unless: (1) competitive LECs have the opportunity to modify their own networks to accommodate such changes; and (2) the incumbent LECs' network changes are made in a manner that is minimally disruptive to their competitors' services.

The manner in which the incumbent LECs have undertaken the deployment of the next-generation network -- and the subsequent months of regulatory wrangling -- provide a clear example of the pitfalls that result when the incumbent LECs' network planning does not account reasonably for, and fails to meet the needs of, competitive LECs. Precluding competitive LECs from participating in such changes is inefficient, sets back competition, and is simply discriminatory.

The Commission should thus act now to ensure that future network changes are not implemented in such a discriminatory manner.²⁰³ Specifically, the Commission should ensure that competitors' network needs are addressed in the network planning stage on par with

²⁰² 47 U.S.C. § 251(c)(5).

²⁰³ The Commission has already recognized that the nondiscrimination requirement obligates SBC to consider competitors' needs as it develops new network standards and services. *SBC Waiver Order* ¶ 43. Toward that end, the Commission also indicated that collaborative sessions would provide a forum for considering competitors' unique needs. *Id.* However, the existence of a forum for competitors to engage in the network standards and development process, standing alone, is not sufficient to ensure nondiscriminatory behavior in network planning. Forum discussions are not binding and are only as productive as the intentions of the participants. Thus, the Commission must require the incumbent LECs not only to participate in such a collective forum, but also to incorporate competitors' needs into their network plans.

those of the incumbent LECs and their affiliates. This means that network plans should not presuppose to limit competitors exclusively to functionalities that have been requested by, and made available to, the incumbent LEC affiliates (or specifically designed to be uniquely beneficial to the incumbent LEC affiliates). Further, nondiscrimination in network planning also means that competitive LECs are entitled to have their own unique needs met on an equivalent basis.

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November 14, 2000

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Attachment 1

<u>Commenter</u>	<u>Abbreviation</u>
Advanced Telecom Group	ATG
Arbros Communications Co., Association for Local Telecommunications Services, Competitive Telecommunications Association, E.Spire Communications, Inc., FairPointe Communications Solutions, Intermedia Communications, Inc.	Joint Commenters
AT&T Corp.	AT&T
Cisco	Cisco
Competitive Telecommunications Association	CompTel
Conectiv Communications, Inc.	Conectiv
Corecomm, Inc., Vitts Networks and Logix, Inc.	Corecomm
Covad Communications Company	Covad
CTSI, Inc. and Waller Creek Communications, Inc. d/b/a/ Pontio Communications Corporation	CTSI
Fiber Technologies, LLC	Fiber
Focal Communications Corporation	Focal
General Services Administration	GSA
Intraspan Communications, Inc.	Intraspan
Lightbonding.Com, Inc.	Lightbonding
McLeodUSA Telecommunications Services, Inc.	McLeod
Nortel Networks, Inc.	Nortel
Northpoint Communications, Inc.	Northpoint
Qwest Communications International, Inc.	Qwest
RCN Telecom Services	RCN
Rhythms Netconnections, Inc.	Rhythms
SBC Communications, Inc.	SBC
Sprint Corporation	Sprint
Supra Telecommunications & Informationsystems, Inc.	Supra
Tachion Networks, Inc.	Tachion
United States Telecom Association	USTA
Verizon Telephone Companies	Verizon
WorldCom, Inc.	WorldCom

ATTACHMENT 5

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

In the Matters of)	
)	
Deployment of Wireline Services Offering)	CC Docket No. 98-147
Advanced Telecommunications Capability)	
)	
And)	
)	
Implementation of the Local Competition)	CC Docket No. 96-98
Provisions of the)	
Telecommunications Act of 1996)	

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February 27, 2001

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EXECUTIVE SUMMARY

In this proceeding, the Commission continues the discussion it began last year in the *Next-Generation Digital Loop Carrier NPRM* (“*NGDLC NPRM*”). While the Commission asks several questions in this proceeding, they are largely directed at determining whether, and to what extent, the Commission should modify its unbundling rules when incumbent local exchange carriers (“ILECs” or “incumbent LECs”) deploy fiber-fed digital loop carrier (“DLC”) systems and other next-generation loop architectures.

For example, the Commission asks whether the evolving loop architecture, which includes fiber-fed loops attached to DLC systems housed in remote terminals that are equipped with next-generation products such as line cards that combine both splitting and multiplexing functionalities, changes the nature of the local loop. It does not. The loop remains the quintessential monopoly bottleneck. Thus, the Commission has consistently held that competitive local exchange carriers (“CLECs” or “competitive LECs”) are entitled to access the full features, functions, and capabilities of the loop, regardless of the loop architecture deployed by the ILECs.

Nothing about next-generation loop architecture alters the basic functionality of a loop: to provide transmission functionality needed for a customer to send and receive telecommunications signals between his location and his chosen service provider’s network. As with all network elements, the local loop is defined by its functionality and is not limited to particular services or technologies. As AT&T explains in detail in these comments, as well as in its comments and reply comments in the *NGDLC NPRM* proceeding, the next-generation loop architecture now being installed by the ILECs provides exactly what the traditional loop has always provided: transmission functionality for telecommunications signals between a

customer's premises and the serving ILEC's central office. Thus, the Commission should clarify that CLECs are entitled to access the "entire" loop, including all of the attached electronics used to support the provision of transmission functionality. Such attached electronics include, but are not limited to, remotely deployed digital subscriber line access multiplexers ("DSLAMs") and Optical Concentration Devices ("OCDs"), which provide complementary multiplexing/demultiplexing functions in incumbent LECs' central offices.^{1/} Likewise, the implementation of next-generation loop architecture does not change any of the fundamental legal and policy principles that underscore the Commission's other rules relating to the provision of network elements, especially line sharing and line splitting.

In response to the Commission's specific questions in this FNPRM, AT&T also urges the Commission to:

- Reiterate that an ILEC must provide both line sharing and line splitting arrangements to requesting carriers over the "entire loop," regardless of the loop architecture the incumbent LEC has deployed.
- Reiterate that a CLEC's use of the fiber feeder between a remote terminal and the ILEC's central office is included within the definition of the loop.
- Clarify that the existence of fiber feeder in the loop does not change the fact that the line sharing and line splitting transmission functionality between the remote terminal and the central office is part of the loop element and is not shared transport.
- Clarify that the Central Office Terminal ("COT"), OCD, or similar device is part of the transmission path between the customer's premises and the equivalent of a main distribution frame in the incumbent LEC's central office, so that the end of the loop is the network side of the COT, OCD, or similar device.

^{1/} Generally the term multiplexing refers to either multiplexing or demultiplexing. For example, when communications are sent from a customer's premises to the service provider's network, the DSLAM performs the multiplexing and the OCD performs the demultiplexing. When the communication flow is reversed, the OCD performs the multiplexing and the DSLAM performs the demultiplexing. For simplicity the functionality is generally referred to herein as multiplexing.

- Clarify that the rules permitting a CLEC the option of obtaining access to unbundled subloops, dark fiber, or “all-copper” loops do not -- and cannot -- displace a CLEC’s right to access an entire loop.
- Remove all reference to DSLAMs from the Commission’s “packet switching” and loop definitions to assure that CLECs have access to line sharing and line splitting transmission functionalities associated with the entire loop. In this regard, the Commission must also clarify in the *NGDLC NPRM* proceeding that ILECs are required to provide collocation for “true” packet switching equipment.

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

In the Matters of)	
)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability)	CC Docket No. 98-147
)	
And)	
)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996)	CC Docket No. 96-98

COMMENTS OF AT&T CORP.

AT&T Corp. (“AT&T”) submits these comments in response to the Commission’s Third Further Notice of Proposed Rulemaking in CC Docket No. 98-147 and Fifth Further Notice of Proposed Rulemaking in CC Docket No. 96-98 (“*FNPRM*”).

INTRODUCTION AND SUMMARY

The primary objective of the Telecommunications Act of 1996 was to end almost a century of monopoly control over the local telephone market and bring the benefits of competition to consumers. Foremost among the market-opening tools of the 1996 Act was the obligation imposed on incumbent local exchange carriers (“ILECs” or “incumbent LECs”) in section 251(c)(3) to open their networks for use by competing carriers. In particular, section 251(c)(3) requires ILECs to provide requesting carriers with nondiscriminatory access to unbundled network elements. In this context, a network element is defined to mean “a facility or equipment used in the provision of a telecommunications service,” including all “features, functions, and capabilities that are provided by means of such facility or equipment.”^{2/} As the

^{2/} 47 U.S.C. § 153(29).

Commission has repeatedly recognized, granting competitive LECs unbundled access to the local loop is *paramount* in the effort to foster local competition.^{3/}

In response to the passage of the Act and the Commission's implementing rules, AT&T and dozens of others companies invested billions of dollars in new telecommunications facilities and services. These companies took substantial risks in reliance on the promise of the 1996 Act to establish a regulatory framework in which they would have a fair chance to compete with the established incumbents. But implementation of the Act has been derailed by the ILECs' guerrilla warfare tactics of foot-dragging, litigation, and general intransigence in dealing with new entrants. The ILECs' tactics have deprived consumers of competitive choice virtually everywhere. As AT&T Chairman Michael Armstrong recently pointed out, "rather than make local competition work, the incumbent LECs have been working to make competition disappear."^{4/} When the Telecommunications Act was passed, the ILECs controlled 99 percent of the local telephone market. Now, five years after the passage of this landmark bill, ILECs still provide local telecommunications services to nearly 94 percent of residential and small business customers.^{5/}

Thus, by all accounts, the ILECs are still monopolists with respect to their primary service offering -- local telephony -- and their local loop remains (in the Commission's apt description) the "quintessential bottleneck facility for competing telecommunications carriers."^{6/} This indisputable fact has far-ranging consequences for the telecommunications industry, both for traditional voice services and new digital subscriber line ("DSL") services. Indeed, the

^{3/} See, e.g., *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, 15 FCC Rcd 3696 ¶ 163 (1999) ("UNE Remand Order"); *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, 11 FCC Rcd 15499 ¶¶ 377-378 (1996) ("Local Competition Order").

^{4/} C. Michael Armstrong, Remarks at the National Press Club (Feb. 7, 2001).

^{5/} See *Trends in Telephone Service*, Federal Communications Commission, Common Carrier Bureau, at 9-5 (Dec. 21, 2000).

^{6/} FCC Brief for Respondents at 22, *WorldCom, Inc., et al. v. FCC* (D.C. Cir. filed Nov. 2, 2000) (No. 00-1002) ("FCC Appellate Br.").

Commission has recognized that ILECs can use their control over the local loop both to “perpetuate their monopolistic dominance of existing” voice markets and to dominate the “emerging” advanced services market, thus reducing CLECs’ short-term and long-term viability.^{7/} As a result, the Commission has consistently found that, absent unbundling of the loop element, the ILECs would retain the ability to use their bottleneck control over the facilities used to provide voice and DSL services to impede competition in both the voice and data market segments:

[T]he loop connecting a subscriber to the incumbent’s central office is a key bottleneck facility that can be used either for circuit-switched voice telephony or for the DSL-based services at issue here. Imposing the service specific limitations . . . on a competitor’s access to such facilities would allow incumbents, contrary to the central purpose of the 1996 Act, to leverage their ownership of bottleneck assets to continue exercising monopolistic control of telecommunications markets.^{8/}

To achieve the competition that Congress intended, the Commission must stay the course here and assure that CLECs have effective access to all ILEC loops. Consumers are increasingly demanding voice and high-speed services over a single line, and incumbent LECs are already satisfying that demand today by aggressively marketing packaged voice and data offerings to their customers. Critically, the ILECs have made it clear that they consider the ability to offer bundled voice and data services over a single loop a significant competitive advantage. The ILECs have also responded to consumer demand for bandwidth-rich DSL services through the deployment of next-generation loop architecture, which greatly enhances both the transmission functionality and the economies of their local loop plant.

There can be no doubt that the evolving loop architecture, which includes fiber-fed loops attached to digital loop carrier (“DLC”) systems housed in remote terminals equipped with next-generation products such as line cards that combine both splitting and transmission functionalities, holds the potential for great consumer benefits. If, however, CLECs cannot access all of the functionalities of the loops that use next-generation transmission equipment,

^{7/} *Id.*

^{8/} *Id.* at 16; *see also id.* at 22-24.

they would be unable to compete for the rapidly increasing number of consumers who are demanding a combined voice/data offering, because consumers will have only one carrier who can meet that demand -- the ILEC.

The ILECs' monopoly control over local loops gives them the incentive and the unique opportunity to use new advances in loop technology as leverage to shut down competition for *all* local telecommunications services, both voice and advanced services alike. Unfortunately for everyone but the ILECs, their efforts thus far have been enormously successful. Notably, although the ILECs showed no interest in offering high-speed residential DSL service until prompted to do so in response to emerging competition from cable operators and competitive LECs like Covad and Northpoint,^{9/} they now control approximately 90 percent of all residential DSL lines.^{10/} Moreover, over the past year, and despite the Commission's carefully-crafted rules in the *UNE Remand* and *Line Sharing Orders* which were explicitly designed to encourage competition for advanced telecommunications services, the data CLEC industry has virtually collapsed. Some of those would-be competitors have already declared bankruptcy, and others are perilously close. The more fortunate data CLECs have "only" lost 90 percent of their market capitalization in less than a year.^{11/}

Critically, larger competitors such as AT&T and WorldCom also have not fared much better in their efforts to compete against the ILECs. For over a year, AT&T and WorldCom have

^{9/} See *Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 14 FCC Rcd 2398 ¶ 42 (1999) ("[a]ll this investment, especially that by cable television companies and competitive LECs, appears to have spurred incumbent LECs to construct competitive facilities"); *Telecommunications @ The Millenium: The Telecom Act Turns Four*, Federal Communications Commission, Office of Plans and Policy, at 5 (Feb. 8, 2000) ("[c]able companies' service offerings have spurred telephone companies (both incumbents and their competitors) to deploy Digital Subscriber Line (DSL) technologies to deliver broadband access over telephone lines").

^{10/} See *TeleChoice DSL Deployment Projections*, at http://ww.xdsl.com/content/resources/deployment_info.asp (last updated Feb. 13, 2001) ("*TeleChoice DSL*").

^{11/} See John Shinal, *Broadband's Pioneers May Get Beaten, Then Eaten*, BUS. WK., Dec. 4, 2000, at 42. Moreover, CLECs as a whole have lost over 73% of their market capitalization since the beginning of 2000. See ALTS, *An ALTS Analysis: Local Competition Policy & The New Economy*, at 11 (Feb. 2, 2001).

demonstrated that ILECs are preventing them from providing competitive voice and data services over a single loop as the ILECs and their data affiliates do. At the time AT&T first brought this disparity to the Commission's attention, the ILECs had less than 500,000 DSL customers. They now have almost four times as many.^{12/} And the ILECs *still* do not provide AT&T and other competitive carriers with the ability to provide a voice and DSL service (either on their own or with other competing carriers) in a commercially meaningful manner. Thus, while ILECs continue to sign up growing numbers of DSL customers -- most to long-term contracts -- the number of potential customers that can choose competitive carriers to provide both voice and DSL service is decreasing.

In the recent *Line Sharing Reconsideration Order*, the Commission took some key steps to reduce the incumbent LECs' ability to leverage their monopoly control over the loop in an anticompetitive manner by clarifying that the incumbent LECs' obligation to provide line sharing extends to situations in which the loop is served through a fiber-fed DLC at a remote terminal.^{13/} In that order, the Commission, rejecting ILEC arguments to the contrary, found that line splitting for UNE-P CLECs must be available on terms and conditions equivalent to line sharing, without creating discriminatory excess costs or service disruption.^{14/} Nevertheless, the Commission's *Line Sharing Reconsideration Order* does not, by itself, eliminate the ILECs' ability to limit access to their loop technology to prevent competing carriers from providing the telecommunications services that CLECs want to offer their customers and that customers want to buy.

In order to address some of these important competitive concerns, the Commission asks here whether, and to what extent, it should modify its unbundling rules when incumbent LECs

^{12/} See *TeleChoice DSL* (indicating that ILECs have captured nearly 1.9 million DSL subscribers at the end of 2000).

^{13/} *Deployment of Wireline Services Offering Advanced Telecommunications Capability; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket Nos. 98-147, 96-98, FCC 01-26 ¶ 10 (rel. Jan. 19, 2001) ("*Line Sharing Reconsideration Order*").

^{14/} *Id.* ¶¶ 18-23.

deploy fiber-fed DLCs and other next-generation loop architecture.^{15/} For example, in the *FNRPM*, the Commission asks whether the fiber feeder that runs from the remote terminal to the central office should be included within the definition of the local loop. The Commission also asks whether the ILECs should be required to provide line sharing -- and, by implication, line splitting -- over fiber-fed, DLC-equipped loops. The answer to both questions is an unequivocal yes.

As a threshold matter, the Commission must recognize that the ongoing changes in network technology do not -- and cannot -- alter the basic functionality of a loop. Nor do they alter competitive LECs' fundamental need for access to their customers. As discussed in Section I.A., the Commission's rules already make clear that competitive LECs are entitled to access all of the features, functions and capabilities of a loop, *regardless* of the loop architecture deployed by an incumbent LEC. That section also demonstrates that the ILECs' implementation of next-generation architecture does not change *any* of the fundamental legal or policy principles that apply to the provision of network elements, especially the fundamental requirement that line sharing and line splitting apply to the "entire loop even where the incumbent has deployed fiber in the loop."^{16/} Likewise, as shown in Section I.B., the mere existence of fiber-fed DLC-equipped loops does not change loops into shared transport.

In Section II, AT&T responds to the Commission's inquiry as to whether it should limit a CLEC's right to access a next-generation loop -- for line sharing, line splitting, or any other unbundling purpose -- in circumstances when other "alternatives" are available. The answer is no. In particular, Section II explains why it is imperative that the Commission make it absolutely clear that competitive LECs are entitled to access transmission functionality associated with line sharing and line splitting in *all* circumstances when ILECs deploy fiber in the loop. A review of the facts concerning the architecture and economics of remote terminals shows that neither

^{15/} See *FNRPM* ¶ 55.

^{16/} *Line Sharing Reconsideration Order* ¶ 10.

subloop nor dark fiber alternatives involving remote terminal collocation nor access to all-copper loops is a practical or economic mass-market competitive strategy. Indeed, to interpret these requirements any other way would limit customers who want voice and data services provided on the same line to a choice of the ILEC alone -- an outcome that is entirely at odds with the purpose of the Act.

Finally, as reiterated in the *Line Sharing Reconsideration Order*, the Commission must make certain that its local competition rules can be adapted to the changes in technology and the market, so they will foster economically rational facilities deployment by competitive LECs. As discussed in Section III, to the extent that the Commission's existing rules may be interpreted to limit competitive LECs' access to an entire loop, this is a definitional error that must be corrected. Specifically, AT&T demonstrates that the Commission's packet switching and loop definitions must be modified to conform to the fact that DSLAM functionality deployed in a remote terminal loop architecture performs *only* a transmission (*i.e.*, encoding/decoding, buffering, and multiplexing/demultiplexing, not a packet switching) function. Moreover, AT&T shows that proper resolution of this issue -- assuming a parallel determination that CLECs may collocate "true" packet switching functions at an ILEC's premises -- would free the Commission from the need to create the data equivalent of the UNE platform.

I. INCUMBENT LECs MUST PROVIDE COMPETITIVE LECs ACCESS TO THE TRANSMISSION FUNCTIONALITY ASSOCIATED WITH LINE SHARING AND LINE SPLITTING, REGARDLESS OF THE LOOP ARCHITECTURE THE INCUMBENT LECs MAY DEPLOY

A. The Implementation of Next-Generation Loop Architecture Does Not Change Any of the Fundamental Legal and Policy Principles That Guide the Commission's UNE Rules.

As the comments in the *NGDLC NPRM* proceeding make clear,^{17/} the ILECs' deployment of next-generation loop architecture does not change any of the fundamental legal

^{17/} See *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, *Second Further Notice of Proposed Rulemaking; Implementation of the*