

BEFORE THE  
Federal Communications Commission  
WASHINGTON, D.C.

In the Matter of	)	
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket No. 98-147
	)	

**COMMENTS OF ALLEGIANCE TELECOM, INC.**

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## TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION AND SUMMARY.....	1
II. THE COMMISSION SHOULD RELY ON CONVENTIONAL MARKET POWER ANALYSIS AS A GUIDE TO THE APPLICATION OF THE IMPAIRMENT STANDARD....	6
III. THERE IS NO BASIS IN LAW OR FACT FOR REDUCING ILEC UNBUNDLING OBLIGATIONS FOR THE SOLE PURPOSE OF PROMOTING ILEC DEPLOYMENT OF BROADBAND. ....	11
IV. THE COMMISSION SHOULD RETAIN ALL FORMS OF LOOPS AND INTEROFFICE TRANSPORT, AS WELL AS SS7 AND OSS AS UNES.....	18
A. Loops .....	19
1. High-Capacity Loops.....	19
2. Voice-Grade Loops.....	24
3. Loops Connected To Digital Loop Carrier Arrangements.....	25
B. Interoffice Transport.....	26
C. SS7.....	31
D. OSS.....	37
V. CONCLUSION .....	38

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Allegiance Telecom, Inc. ("Allegiance"), by its attorneys, hereby submits these comments in response to the Notice of Proposed Rulemaking<sup>1</sup> in the above-referenced proceeding.

**I. INTRODUCTION AND SUMMARY**

In the NPRM, the Commission asks questions regarding a breathtaking number of issues associated with its unbundling regime. But, when viewed together, most of the questions concern two fundamental issues: (1) how should the Commission design its UNE regime in a targeted manner that best promotes facilities-based competition; and (2) can and should the Commission design its UNE regime in a manner that promotes the deployment of broadband. The answer to both of these questions is that the only sound policy and the only policy that

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<sup>1</sup> 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; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Notice of Proposed Rulemaking, FCC 01-361 (rel. Dec. 20, 2001) ("NPRM").

comports with the intent of Congress in enacting the Telecommunications Act of 1996 is to impose unbundling obligations on ILECs where they have market power.

Relying on a market power analysis, in which the Commission considers third-party wholesale offerings and competitive carrier self-deployment, will promote both facilities-based competition generally and the deployment of broadband more specifically. It will promote facilities-based competition because, as the Commission held in the *UNE Remand Order*, the availability of UNEs where non-ILEC alternatives are insufficient allows competitive carriers to build the scale and scope economies needed to invest in their own facilities. This logic applies equally in the broadband context. For example, Allegiance will be able to self-deploy interoffice transport over time to carry broadband data traffic if it is able to obtain access to the high-capacity loops it needs to provide such services to small and medium-sized businesses. Absent such unbundling, however, Allegiance will simply be unable to provide broadband, and it will never invest in alternative facilities.

Notwithstanding the soundness of this approach, the Commission seeks comment in the NPRM on whether it should relieve the ILECs of unbundling obligations as a means of promoting ILEC investment in broadband facilities, apparently without regard to the effects such an approach may have on competition. But the Commission has no authority to adopt this approach. Section 251(d)(2) does give the Commission the authority to consider factors in addition to the impairment standard in establishing ILEC unbundling obligations. *See* 47 U.S.C. § 251(d)(2). Moreover, given the language of Section 706, the Commission may consider the effect its unbundling obligations have on the deployment of broadband. But the Commission must construe Sections 251(d)(2) and 706 in a manner that comports with the underlying purpose

Allegiance Comments  
CC Docket No. 01-338  
April 5, 2002

of the 1996 Act. The purpose of that Act is, above all else, the promotion of competition. The terms of Section 251 and 252, the requirement that BOCs open their markets to competition before receiving interLATA relief, the limitation on the Commission's authority to forbear from Sections 251(c) and 271, and the Commission's decision that Section 706 does not constitute an independent basis for forbearance (among many other facts) demonstrate that Congress intended that competition, not increased ILEC profits, should be the mechanism used by the Commission to promote innovation and investment in new services, including broadband services. The Commission may not exercise its authority under Section 251(d)(2) in a manner that conflicts with this statutory purpose.

Eliminating unbundling obligations solely to promote ILEC investment in broadband would also be terrible policy. As the Commission well knows, a firm with market power has the incentive to increase profits by *restricting* output. If unbundling requirements are eliminated in markets where the ILECs continue to have market power, they will therefore have no incentive to expand deployment of broadband. These inefficient incentives are likely to be especially powerful in markets such as the small and medium-sized business market served by Allegiance. Allegiance relies on high-capacity loops to provide broadband to these customers, and the ILECs are often the only source for such end-user connections. As a result, the only significant source of broadband competition for small and medium-sized businesses comes from intramodal competitors like Allegiance. If the Commission were to eliminate the UNEs needed by such intramodal competitors, the ILECs would be free to restrict production without significant loss of market share.

Allegiance Comments  
CC Docket No. 01-338  
April 5, 2002

In any event, notwithstanding their overstated assertion that unbundling obligations have caused them to scale back deployment of broadband, the ILECs are busily investing billions of dollars in xDSL. To the extent that any ILEC has scaled back the deployment of xDSL (only SBC appears to have done so to a material extent), this is more a response to the recession and limits on demand than a response to regulatory uncertainty. Indeed, the cable operators have also been subject to very significant regulatory uncertainty, and they have continued to invest aggressively in cable modem service. Moreover, the elimination of unbundling solely to promote ILEC investment in broadband would, ironically, create new incentives for the ILECs to invest inefficiently. This is because they would likely have the incentive to design their networks to deploy as much broadband functionality as possible so that they could shelter as much of their networks as possible from unbundling obligations. Of course, such investments would be made in response to changes in regulation and would have nothing to do with increased efficiency.

It is clear, therefore, that the Commission must rely on the impairment test, informed by a conventional market power analysis, to determine ILEC unbundling obligations. In so doing, the Commission should “find evidence of actual marketplace conditions to be more probative than other kinds of evidence.” NPRM ¶ 17. Given the substantial entry barriers associated with constructing any of the network elements demanded by competing carriers, the “actual marketplace” evidence most probative to the unbundling analysis is the extent to which non-ILEC sources of a UNE have actually been deployed. Indeed, the Commission should not relieve the ILECs from unbundling obligations for any element unless it has been demonstrated

that at least four non-ILEC alternatives have been deployed that are reasonably equal to the ILEC UNE offering in terms of cost, timeliness, quality, ubiquity and other operational issues.

This approach yields the following conclusions. First, there can be no question that the ILECs continue to be the only source of end-user connections in the vast majority of cases. Although CLECs have deployed some high-capacity end-user connections, these are by no means ubiquitous. Moreover, it should be beyond dispute that there are simply no practical alternatives to ILEC voice grade loops. Loops of all kinds must therefore continue to be UNEs.

Interoffice transport is a similar situation. Allegiance itself has self-deployed interoffice transport where it is efficient to do so. For most point-to-point routes, however, Allegiance cannot efficiently self-deploy transport and must therefore purchase from a wholesaler. In a very substantial percentage of the central offices in which it is collocated, the only such wholesale source is ILEC unbundled transport. Where the ILECs do face competition, it is usually only from a single wholesale supplier. The presence of a single competitor hardly eliminates the ILECs' market power. Interoffice transport must therefore also continue to be available as a UNE.

Although some non-ILEC sources of signaling have been deployed, the ILECs continue to have substantial market power in the provision of this input. This is because the available non-ILEC sources of SS7 signaling are not adequate substitutes for UNE SS7. As was the case at the time of the *UNE Remand*, non-ILEC sources of SS7 rely on a dangerously small number of signal transfer points. This means that a very large portion of a CLEC's network is harmed where only a single STP pair experiences an outage. This is not the case with UNE SS7, since ILECs generally deploy an STP pair in each LATA. Furthermore, the introduction of a separate

Allegiance Comments  
CC Docket No. 01-338  
April 5, 2002

SS7 network into the exchange of traffic between a CLEC and an ILEC increases the number of potential failure points and in general increases the likelihood of service degradation. SS7 self-deployment exposes CLECs to similar risks.

Finally, there should be no dispute that the ILECs' operations support systems must remain an unbundled network element. Only the ILECs can provide access to their own OSS.

## **II. THE COMMISSION SHOULD RELY ON CONVENTIONAL MARKET POWER ANALYSIS AS A GUIDE TO THE APPLICATION OF THE IMPAIRMENT STANDARD.**

In the NPRM, the Commission asks many questions regarding the appropriate methodology for conducting the impairment analysis. For example, the Commission seeks comment on the relative weight of the factors in the impairment analysis (NPRM ¶ 19); whether network elements or impairments should be identified first (NPRM ¶ 20); and the appropriate level of granularity in its impairment analysis (NPRM ¶¶ 34-46). These questions can almost all be answered by relying on the well-established methodology the Commission uses for assessing a firm's market power. In fact, the Commission can simplify and clarify its approach to UNEs by expressly concluding in the instant proceeding that a requesting carrier is not impaired in the absence of a UNE *only* if the ILEC lacks market power in the provision of the UNE.<sup>2</sup>

As in its market power analysis, the Commission should begin its impairment analysis by identifying UNEs (*i.e.*, the relevant product markets), based on what CLECs demand to provide

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<sup>2</sup> In the *UNE Remand Order*, the Commission rejected the argument that requesting carriers are unimpaired in the absence of a UNE only when an efficient wholesale market exists for a particular UNE based on the conclusion that consideration of the wholesale market did not take into consideration self-provisioning as an alternative to the UNEs. See *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696, ¶ 56 (1999) ("*UNE Remand Order*"). A proper market power analysis would consider self-provisioning as a source of inputs for competitive carriers. Thus, the Commission's rejection of the wholesale market argument in no way precludes reliance on conventional market power analysis.

services. This approach comports with the Commission's reliance on demand for defining relevant product markets.<sup>3</sup> Defining product markets is essentially focused on identifying products that purchasers view as substitutes to which they will turn in the event a firm increases the price of a product. In assessing substitutability, the Commission should focus on the elements of its impairment test: whether the cost, timeliness, quality, ubiquity, and impact on network operation of a non-ILEC source qualify it as a substitute for a UNE. Furthermore, wherever possible, the Commission should review aggregations of UNEs where they appear to be subject to similar levels of competition.<sup>4</sup> For example, this would make it logical to analyze the ILECs' market power in the provision of the entire loop, including the network interface device or "NID," rather than analyzing each separate sub-loop element separately. On the other hand, where ILECs appear to possess different levels of market power for different product markets associated with a single UNE, it makes sense to analyze those different product markets separately.

The analysis of the relevant geographic market should again begin with an analysis of demand patterns.<sup>5</sup> For example, the geographic market for loops and transport, like long

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<sup>3</sup> See *Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area; Policy and Rules Concerning the Interstate, Interexchange Marketplace*, Second Report and Order in CC Docket No. 96-149 and Third Report and Order in CC Docket No. 96-61, 12 FCC Rcd 15756, ¶¶ 28, 40 (1997) ("*ILEC Classification Order*") (explaining that product markets should be defined based on demand substitutability).

<sup>4</sup> In the context of its market power analysis, the Commission generally treats product markets separately where there is reason to believe that a firm has market power in the particular market. See *ILEC Classification Order* ¶ 42. The purpose of this approach is to take advantage of the efficiencies of treating all other product markets in which there is no basis for believing that a firm has market power as a single product market. See *id.* ¶ 43. Similarly, in the UNE context, the Commission should take advantage of the efficiencies of treating all product markets in which ILECs possess similar levels of market power as a single product market.

<sup>5</sup> See *ILEC Classification Order* ¶¶ 28, 64 (explaining that geographic markets are defined based on demand substitutability of the product offered in one location with the product offered in another geographic location).

distance, is (as the Commission has recognized) limited to point-to-point routes. *See ILEC Classification Order* ¶ 65; *UNE Remand Order* ¶ 333. On the other hand, the geographic demand for SS7 is not point-to-point. The Commission's assessment of the ILECs' market power in the provision of these UNEs (*i.e.*, CLECs' impairment in the absence of rules requiring that they be provided as UNEs) must reflect these differences. Moreover, in all cases, the Commission should follow its past practice of defining geographic markets pragmatically. Where it is clear that the ILECs possess substantial market power in all geographic areas, it would be a waste of administrative resources to establish granular geographic markets. Separate geographic markets should only be defined where different geographic areas demonstrate significantly different levels of ILEC market power in the provision of UNE inputs. Wherever possible, the Commission should use the entire country as the relevant geographic market. This approach is consistent with both the goals of promoting certainty in the marketplace and administrative ease. *See UNE Remand Order* ¶¶ 114-116.

Once the Commission has identified UNEs (*i.e.*, product markets) and geographic markets, it should consider the elements of the impairment test with an eye to conventional market power analysis, taking into consideration market share, entry barriers, supply and demand elasticity, size or resources of the firm, and control over underlying facilities. *See ILEC Classification Order* ¶ 93. Most importantly, as the Commission has explained, the entry barriers associated with provisioning UNEs (whether in the form of self-deployment or deployment for offering at wholesale) are very substantial.<sup>6</sup> Although the entry barriers for all

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<sup>6</sup> *See UNE Remand Order* ¶¶ 75-79, 84-87, 89-92 (describing sunk costs, fixed costs, economies of scale and scope, delay, as well as other entry barriers).

UNEs are not identical, they are all high enough to justify heavy reliance on alternative supply in the marketplace as a measure of the ILECs' market power in the provision of UNEs. There is no basis for relying on the potential for non-ILEC sources to appear. As the Commission concluded in the *UNE Remand Order*, the availability of non-ILEC sources of UNEs in the "marketplace" is "the most persuasive evidence of the actual availability of alternatives as a practical, economic, and operational matter." *UNE Remand Order* ¶ 66. This is all the more so now since the capital markets have been essentially closed to competitive providers of telecommunications service and are unlikely to be opened any time in the foreseeable future. Even if it would be efficient for competitors to borrow money to construct their own facilities, that option is simply not available. The process of building out networks has therefore become much slower than might otherwise have been the case, and the Commission must make UNEs available to CLECs for a longer period of time than might otherwise have been needed. As Commissioner Abernathy recently observed, "if the Commission were to conclude [as it must] that CLECs are unable to obtain the capital required to deploy new networks, it would then need to assess the availability of facilities under section 251(c) to ensure that CLECs' ability to provide service is not 'impaired.'"<sup>7</sup>

Based on these considerations, the Commission should not eliminate any UNE unless and until it can be demonstrated that four non-ILEC sources of supply (either in the form of non-

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<sup>7</sup> Letter from Commissioner Kathleen Abernathy, to Senators Ernest F. Hollings, Daniel K. Inouye, Byron L. Dorgan, and Ted Stevens, at 4 (Mar. 5, 2002).

ILEC self-deployment or non-ILEC wholesale offerings) have been deployed. Of course, all four non-ILEC sources must be available in the relevant geographic market.<sup>8</sup>

There are at least two bases for adopting four non-ILEC sources of supply as the Commission's guideline for eliminating unbundling obligations. First, this approach is consistent with the Department of Justice's merger guidelines. The Department's guidelines regard a market with a post-merger Herfindahl-Hirschman Index ("HHI") of 1800 or above to be highly concentrated.<sup>9</sup> In a five firm market where each supplier has a 20 percent market share, the HHI would be 2000. This level falls only slightly above the Department's 1800 cut-off and is therefore probably adequate.<sup>10</sup> Second, game theory teaches that the probability of anticompetitive coordinated interaction by up to four competitors in a market is 100 percent.<sup>11</sup> By contrast, the probability of this anticompetitive behavior drops to 22 percent with the addition

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<sup>8</sup> In the NPRM, the Commission seeks comment on whether an ILEC's tariffed offerings should be viewed as relevant to the unbundling analysis. NPRM ¶ 44. They should not. Under a proper construction of the impairment analysis, the true question is whether the ILEC has market power in the provision of the particular UNE. That analysis is the same, regardless of whether the ILEC offers the input pursuant to Sections 251 and 252 or under a tariff. Moreover, Section 251(c)(3) demonstrates Congress' intent that, where ILECs possess market power in the provision of a particular input, requesting carriers should be entitled to obtain the input as a UNE, and *not* as a tariffed service. *See also UNE Remand Order* ¶¶ 67-70 (explaining other reasons for not considering tariffed offerings in the impairment analysis).

<sup>9</sup> Dept. of Justice/Federal Trade Comm'n, *1992 Horizontal Merger Guidelines*, 57 F.R. 41552, § 1.5 (1992) (rev. Apr. 8, 1997) ("Merger Guidelines").

<sup>10</sup> In most cases, it is obviously unlikely that actual market share will be equal, since the ILECs control overwhelming market share in every relevant category of service. But where alternative sources of supply have actually been deployed in the market, available capacity is the most appropriate indicator of a firm's future competitive significance. *See Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier*, Order, 11 FCC Rcd 3271 (1995) (relying on alternative sources of supply, rather than market share); Merger Guidelines § 1.41 (stating that "[m]arket shares [should] be calculated using the best indicator of firms' future competitive significance").

<sup>11</sup> *See 1998 Biennial Regulatory Review Spectrum Aggregation Limits for Wireless Telecommunications Carriers*, Report and Order, 15 FCC Rcd 9219, ¶ 30 (1999) ("*Spectrum Cap Order*") (citing Reinhard Selten, *A Simple Model of Imperfect Competition, Where 4 Are Few And 6 Are Many*, International Journal of Game Theory at 141-201 (1973)).

of a fifth competitor in the market. *See Spectrum Cap Order* ¶ 30. The difference between four and five competitors is therefore very significant.

Finally, in assessing demand substitutability, the Commission must recognize that carriers will only purchase from financially stable third parties. This is because of the possibility that the third party will be forced into bankruptcy, thereby jeopardizing the continued provision of service to its customers. Indeed, this fact requires that the Commission scrutinize non-ILEC sources of supply very closely when conducting its impairment analysis. Any sources of supply that are in economic distress should not be counted as viable alternatives.

**III. THERE IS NO BASIS IN LAW OR FACT FOR REDUCING ILEC UNBUNDLING OBLIGATIONS FOR THE SOLE PURPOSE OF PROMOTING ILEC DEPLOYMENT OF BROADBAND.**

In the NPRM, the Commission seeks comment on whether it should eliminate or scale back unbundling obligations in order to give the ILECs a greater incentive to deploy broadband facilities, such as fiber in the distribution plant. *See NPRM* ¶¶ 22-30. But the Commission does not have the legal authority to adopt this approach since it is flatly inconsistent with the national policy established in the 1996 Act of relying on competition to increase investment in broadband. Moreover, even if lawful, premature deregulation of ILEC broadband unbundling obligations would be terrible policy. Current unbundling obligations have established the preconditions for efficient deployment of broadband, and, as the Commission itself has concluded, such deployment is occurring at a reasonable pace. The elimination of ILEC unbundling obligations would only diminish the competition that has resulted in deployment and would give the ILECs inefficient incentives.

As it recognized in the *Local Competition Order*, the Commission's discretion to consider factors other than the necessary and impair standards is limited to those factors that are "consistent with the objectives of the 1996 Act."<sup>12</sup> There can be no question that the central purpose of the 1996 Act is to promote local competition. As the Commission has stated, "Congress has emphasized that a major goal of the 1996 Act is to accelerate the development of local competition." *UNE Remand Order* ¶ 107. Numerous courts have reached the same conclusion.<sup>13</sup>

It is also clear that ILEC deregulation under the Act is permissible only where competition can be relied upon to replace regulation as a means of limiting ILECs' incentives and opportunities to engage in inefficient behavior. In describing the purpose of the Act, Congress explained that the Act is a "pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies ... by opening all telecommunications markets to competition..."<sup>14</sup> This means that a "goal of the Act is to deregulate *where market conditions warrant*." *UNE Remand Order* ¶ 113 (emphasis added).

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<sup>12</sup> See *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, First Report and Order, 11 FCC Rcd 15499, ¶ 280 (1996) ("*Local Competition Order*"); see also *UNE Remand Order* ¶ 102; *AT&T Corp. v Iowa Utils. Bd.*, 525 U.S. 366, 388 (1999) (explaining that the Commission must apply the "impairment" standard in a manner that is "rationally related to the goals of the Act").

<sup>13</sup> See e.g., *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. at 371 (stating that Section 251 obligations are "intended to facilitate market entry"); *Texas Office of Pub. Util. Counsel v. FCC*, 265 F.3d 313, 317 (5th Cir. 2001); *Qwest Corp. v. FCC*, 258 F.3d 1191, 1196 (10th Cir. 2001); *Sprint Communications Co. v. FCC*, 274 F.3d 549, 555 (D.C. Cir. 2001) ("the Act aims directly at stimulating competition..."); *Alenco Communications, Inc. v. FCC*, 201 F.3d 608, 620 (5th Cir. 2000) (stating that the "goal of the Act" is "to introduce competition into the market.").

<sup>14</sup> Joint Statement of Managers, S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess., at 1 (1996).

The terms of the 1996 Act support this conclusion. The unbundling, resale, collocation, and interconnection requirements of Section 251(c) are the core Title II provisions of the 1996 Act. The BOCs are not permitted the deregulatory reward of in-region, interLATA entry until they have cooperated in establishing these preconditions for competition in the local market. As the Commission observed, “there is a common purpose between sections 251 and 271 of the Act of opening the incumbents’ monopoly local exchange networks to competition.” *Id.* ¶ 109.

Moreover, while Section 10 of the Act grants the Commission the power to forbear from applying the requirements to Title II, the Commission is expressly prohibited by that provision from forbearing from Sections 251(c) and 271 until those provisions are “fully implemented.” *See* 47 U.S.C. § 160(d). There is simply no basis for concluding that Section 251(c) has been “fully implemented” when local competition is at such an early and halting stage of development, the ILECs routinely violate UNE-related merger conditions, and the Commission is in the process of considering whether to establish performance measurements, standards, and penalties for ILEC provision of UNEs. Even if the Commission were permitted to forbear from the unbundling requirements of Section 251(c), it has concluded that forbearance is appropriate only where it is necessary to promote competition.<sup>15</sup>

In the NPRM, the Commission goes to great lengths to explain that the promotion of advanced telecommunications services (*i.e.*, broadband deployment) is an important goal of the 1996 Act. It assuredly is. Section 706 requires that the Commission “encourage” deployment of

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<sup>15</sup> *See Petition of U S WEST Communications, Inc. for a Declaratory Ruling Regarding the Provision of National Directory Assistance; Petition of U S WEST Communications, Inc. for Forbearance; The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, Memorandum Opinion and Order, 14 FCC Rcd 21086, ¶ 48 (1999) (assessing whether to grant forbearance petition on whether the relief sought would promote competitive market conditions).

advanced services “on a reasonable and timely basis” by “utilizing, in a manner consistent with the public interest, convenience and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other [regulatory] methods that remove barriers to infrastructure investment.” 47 U.S.C. § 157(a) nt. Importantly, the Commission has ruled that the reference to “forbearance” in Section 706 does not establish a forbearance power independent of Section 10, but merely cross-references the latter provision.<sup>16</sup> Advanced services deployment may not therefore be “encouraged” by forbearing from the requirements of Section 251(c) in a manner inconsistent with Section 10. In fact, the reference to “measures that promote competition in the local telecommunications market” in Section 706 confirms that Congress intended that broadband deployment would be encouraged by forcing carriers to respond to competition, not by allowing them to respond to some purported incentive created by premature deregulation.<sup>17</sup> Nor does the reference to the use of price caps indicate otherwise, since in this context, changes to price caps made at appropriate times would be necessary to allow ILECs to respond to competitive pressures.<sup>18</sup>

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<sup>16</sup> See *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd 24012, ¶ 69 (1998).

<sup>17</sup> The ILECs themselves agree that the purpose of Section 706 is to promote competition in the provision of broadband services. See SBC Comments, CC Docket No. 01-337 at 8 (Mar. 1, 2002) (“in adopting section 706, Congress established a clear national policy that favors unfettered competition in the market.”). SBC of course erroneously views regulation as the obstacle to such competition, while market power is the true obstacle. In any event, SBC is correct to the extent that it acknowledges that Congress chose competition, not monopoly profits, as the approach the Commission must take to encouraging broadband deployment. See also Verizon Comments, CC Docket No. 01-337 at 32-33 (Mar. 1, 2002) (stating that the forbearance provision (Section 10), the biennial review provision (Section 11), and Section 706 “all require the Commission to ask the same basic question: Do local telephone companies possess market power in the broadband market?”).

<sup>18</sup> See *Access Charge Reform*, Fifth Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 14221, ¶¶ 81-107, 141-157 (1999) (“*Pricing Flexibility Order*”) (establishing framework for the elimination of price cap regulation for special access where competition has reached predetermined levels).

All of this shows that the Commission is precluded from exercising its authority to apply factors other than the impairment test in Section 251(d)(2) in a manner that would undermine the promotion of competition. In fact, in the analogous context of universal service, in which the Commission is required to base its policies on certain principles set forth in the Section 254(b), the Fifth Circuit held that those principles must be construed in a manner that is consistent with the pro-competition goals of the Act. In rejecting the argument that portable subsidies conflict with the principles of “sufficiency” and “predictability” of universal service, the Fifth Circuit held that “what petitioners seek is not merely predictable funding mechanisms, but predictable market outcomes. Indeed, what they wish is protection from competition, the very antithesis of the Act.” *Alenco Communications, Inc. v. FCC*, 201 F.3d at 622. Eliminating unbundling to spur ILEC investment is equally antithetical to the Act.

This is all the more so since the Commission recently concluded that advanced services are being made available to consumers in a “reasonable and timely” fashion.<sup>19</sup> Section 706 requires nothing more. The Commission may not, therefore, rely on the Congress’ goal of encouraging widespread availability of advanced services for major shifts in regulatory policy where it has found that the goals of Section 706 are being met.

ILEC arguments that unbundling requirements prevent them from investing in xDSL are simply empty rhetoric. As one analyst recently explained, “the BOCs’ track records so far strongly suggest that deregulation won’t have much impact [on xDSL penetration] because their

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<sup>19</sup> See *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable And Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Third Report, 17 FCC Rcd 2844, ¶ 89 (2002) (“*Broadband Report*”).

primary problems aren't regulatory."<sup>20</sup> Furthermore, "[w]ith the popular press widely lamenting the slow rollout of broadband, it has overlooked that terrestrial broadband, and DSL particularly, is already available to the vast majority of U.S. households." *Id.* Lower-than-expected penetration rates are not due to lack of investment, but are instead due to "DSL economies, an inflexible shareholder base and a spotty track record pursuing growth initiatives." *Id.* at 4.

Notwithstanding these problems, the ILECs are investing heavily in broadband. For example, Duane Ackerman, CEO of BellSouth, recently identified deployment of xDSL as a "top priority" for the company.<sup>21</sup> A significant portion of the \$5.5 to \$6.0 billion BellSouth allocated to capital expenditures was allocated to xDSL deployment in 2001.<sup>22</sup> Ivan Seidenberg, President of Verizon, recently stated that Verizon's capital expenditures for 2001 were \$17 billion and that expenditures for 2002 would also be significant.<sup>23</sup> In 2001, Verizon has estimated that 25 percent of its capital expenditures were for "telecommunications data."<sup>24</sup> Seidenberg stated that the "[g]rowth items that the carrier continues to fund aggressively" in 2002 include "[d]ata infrastructure such as DSL equipment." *See Seidenberg.* Similarly, "Qwest reports that of total capital investment in 2001, 11 percent was for 'local broadband' and 15 percent was for 'data.' The company projects that in 2002, 9 percent will be for local broadband, and 20 percent will be

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<sup>20</sup> See Douglas S. Shapiro, *Broadband Brief, What Does Telecom Deregulation Mean For Cable?*, Bank of America Securities Equity Research, Vol. 4.2 at 2 (Mar. 13, 2002).

<sup>21</sup> See Robert Luke, "BellSouth Chief Sees Broadband Era Ahead," *Atlanta Journal and Constitution* (Dec. 5, 2001).

<sup>22</sup> See BellSouth Corporation, Form 8-K, Nov. 16, 2000 (estimating the cost of xDSL deployment at seven cents per share in 2001).

<sup>23</sup> See "Seidenberg Call For Deregulation Of Broadband Technologies," *Local Competition Report*, Warren Publishing, Inc., (Feb. 11, 2002) ("*Seidenberg*").

<sup>24</sup> See *Broadband Report* ¶ 69 (citing Verizon Communications, 2000 Annual Report (2001)).

for data.”<sup>25</sup> SBC’s well-publicized attempt to blame its decision to deploy xDSL less aggressively than initially advertised has not prevented the company from spending approximately \$3.2 billion as of December 31, 2001 on fiber, electronics, and other technology for Project Pronto, its xDSL initiative.<sup>26</sup> Moreover, to the extent that some ILECs have moderately scaled back investment in xDSL, this is most accurately attributed to the recent demise of their competitors in the provision of xDSL services and to the recession. Eliminating unbundling obligations would exacerbate the first problem and would have no effect on the latter (and the recession is apparently over in any event).

Premature elimination of unbundling obligations would therefore have no effect on ILEC investment in xDSL but it could well create new incentives and opportunities for the ILECs to engage in inefficient and anticompetitive behavior. Most fundamentally, to the extent that the elimination of unbundling obligations allows ILECs to retain their market power in the provision of broadband service, they will have the incentive to restrict output in order to increase profit. This is an especially big problem in broadband markets in which the ILECs face competition primarily from intramodal competitors. This is the case, for example, in the market for the provision of broadband to small and medium sized businesses. Competitors such as Allegiance would be simply unable to compete with the ILECs in the provision of broadband if the relevant unbundled elements were unavailable. The result would likely be increased ILEC market power and an increased incentive to scale back current levels of broadband investment.

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<sup>25</sup> See *id.* n.163 (citing Afshin Mohebbi, Presentation at Qwest 2001 Investment Community Conference (Dec. 13, 2001)).

<sup>26</sup> See SBC Communications Inc., 2001 Annual Report 14 (2002).

Elimination of broadband UNEs would have other harmful effects on ILEC incentives. In the short term, ILECs would have the incentive to classify as “broadband” as much of their networks as possible, to limit their competitors’ opportunities to obtain access to UNEs. Such deregulation would give the ILECs yet another means of denying and delaying access to even those network elements to which Section 251(c)(3) continues to apply.

In the long term, the ILECs would likely have the incentive to design their networks so that as many of their facilities as possible could be classified as “broadband,” thus maximizing the opportunities to deny inputs needed by CLECs. The Commission’s zeal to eliminate regulations that purportedly distort competition would therefore likely cause the ILECs to make investment decisions based on criteria unrelated to efficiency. Moreover, this kind of behavior is very difficult for regulators to police, since the ILECs will have much greater access to information needed to decide how to classify a facility.

**IV. THE COMMISSION SHOULD RETAIN ALL FORMS OF LOOPS AND INTEROFFICE TRANSPORT, AS WELL AS SS7 AND OSS AS UNES.**

As mentioned above, the Commission’s impairment analysis should begin with the definition of the relevant product and geographic markets. At this point, there is good reason to use the existing UNEs as the relevant product markets, since competitors demand all of them as stand-alone inputs. Moreover, in most cases, the Commission should be able to rely on a national geographic market for UNEs, since the level of deployment of non-ILEC sources of supply does not come close to eliminating the ILECs’ market power. More granular market definitions are warranted only where there is a significant likelihood that the ILECs no longer have market power in the provision of a UNE in a discrete area.

As explained below, the ILECs have substantial and persisting market in the provision of virtually all existing UNEs. This fact can most easily be seen from the fact that there are few non-ILEC sources for most UNEs. Where non-ILEC sources appear to exist, differences in quality and price render most non-ILEC sources inadequate substitutes for UNEs.

#### **A. Loops**

In the *UNE Remand Order*, the Commission concluded that “requesting carriers are impaired without access to loops, and that loops include high-capacity lines, dark fiber, line conditioning, and certain inside wire.” *UNE Remand Order* ¶ 165. The Commission reasoned that “[r]equiring carriers to obtain loops from alternative sources would materially raise entry costs, delay broad-based entry, and limit the scope and timeliness of the competitor’s services offerings.” *Id.* There is no reason to question the continued validity of this conclusion. ILECs continue to possess overwhelming market power in the provision of loops. As Chairman Powell recently observed, “loops are probably the most difficult network element for competitors to duplicate and, thus, the most critical asset.”<sup>27</sup>

##### **1. High-Capacity Loops**

As the Commission found in discussing competitive carrier construction of loop facilities in the *UNE Remand Order*, “replicating an incumbent’s vast and ubiquitous network would be prohibitively expensive and delay competitive entry.” *UNE Remand Order* ¶ 182. “[W]ithout access to unbundled loops, competitors would need to invest immediately in duplicative facilities in order to compete for most customers, and ... such investment and construction would likely delay, if not prohibit, market entry and postpone, perhaps indefinitely, the benefits of telephone

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<sup>27</sup> Letter from Chairman Michael K. Powell, to Senator Ernest F. Hollings (Mar. 5, 2002).

competition for consumers.” *Id.* Moreover, the Commission concluded that “[b]uilding out any loop is expensive and time-consuming, regardless of its capacity.” *Id.* ¶ 184.

These conclusions are equally true of high-capacity loops today. There simply has not been a significant amount of actual non-ILEC deployment of high-capacity loops. Indeed, since the Commission’s last review, self-provisioning and wholesale deployment of loops by competitive carriers has become more difficult as the surviving competitors have increasing difficulty attracting investment to fund self-deployment.

To begin with, in the urban markets in which Allegiance operates, there is little intermodal competition in the provision of high-capacity loops from fixed wireless, satellites, or cable. First, the Commission’s most recent data indicates that less than one percent of lines terminate over fixed wireless facilities.<sup>28</sup> Moreover, many terrestrial fixed wireless service providers have been forced to exit the market or scale back their offerings due to technical limitations, availability of capital, costs of deployment, and problems associated with building access. *See Broadband Report*, Appendix B ¶¶ 31-34.

Second, provision of high-speed services using satellite technology is not an adequate substitute for ILEC high-capacity loops. Satellite technology is still in the early stages of deployment and suffers from severe technical limitations.<sup>29</sup> Last mile satellite connections are

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<sup>28</sup> *See Local Telephone Competition: Status as of June 30, 2001*, Industry Analysis Division, Common Carrier Bureau at 2 (Feb. 2002) (“*Local Competition Report*”).

<sup>29</sup> *See id.* ¶ 60. Satellite data services such as those provided by Starband and Hughes have limited upstream speeds and are marketed only to residential customers. *See id.*, Appendix B ¶ 45. Technological limitations, such as the need for clear line of sight to the south and the loss of signals in heavy snow or rain, also limit the extent to which satellite offers a viable substitute for high-capacity loops. *See id.*, Appendix B ¶ 49.

also limited by the cost of providing the service, as demonstrated by the bankruptcies and financial problems of major satellite service providers that serve business customers.<sup>30</sup>

Third, the residential focus and technical limitations of cable modem services limit their viability as a reasonable substitute for ILEC high-capacity loops. Cable systems are largely deployed in primarily residential areas. *See Broadband Report* ¶ 45. Moreover, “cable’s shared network characteristics make it difficult for providers using currently deployed cable modem technology to guarantee the consistently high speeds and other advanced features that some business customers [especially that need high-capacity loops] require.... [T]he relatively narrow bandwidth typically allocated to upstream transmission renders cable unable, again using currently deployed cable modem technology, to provide upstream speeds and symmetric transmission capabilities sufficient to support the requirements of some business customers.” *Id.*, Appendix B ¶ 23. These facts indicate that cable modem service is not an adequate substitute for ILEC high-capacity loops used for any but the very smallest business customers (such as small or home offices).

Moreover, among providers of traditional high-capacity wireline and fiber-to-the-customer end-user connections, the ILECs remain dominant. For example, the Commission’s *Local Competition Report* shows that reporting CLECs served 9,481,656 medium and large business, institutional, and government local telephone customer lines, which overwhelmingly

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<sup>30</sup> See Satellite News, *For Globalstar, Bankruptcy Is No Panacea* (Feb. 25, 2002) (discussing the February 2002 bankruptcy filing of the satellite voice and data service company); Jared Bazy, Telecommunications Americas, *Beleaguered Satellite Industry Looks to 2002* (Jan. 1, 2002) (stating that “[b]ankruptcy filings from Globalstar, an end to the planned merger between ICO and Teledesic, a divestiture from Astrolink by TRW and Lockheed Martin, and failures by Iridium and Elypso will go on the books as the hexes of 2001.”); Satellite News, *FCC Denies Orbcomm LEO Request* (Dec. 3, 2001) (noting that, of the three low-Earth-orbit mobile satellite companies that planned to launch data only systems, only Orbcomm has managed to begin operating such a system, despite its Chapter 11 bankruptcy and subsequent purchase by new owners).

use high-capacity loops.<sup>31</sup> The report does not provide specific data as to the number of these business lines for which the CLECs constructed their own end-user facilities, but it does report that CLECs constructed 5,776,000 total end-user connections. *See Local Competition Report* Table 3. Even if one assumes that all of these self-constructed lines serve business customers, they show that CLECs must rely on ILEC end-user connections to serve approximately 40 percent of business customers.<sup>32</sup> Even this “best case scenario” demonstrates that ILECs continue to dominate the provision of high-capacity end-user connections.<sup>33</sup>

In addition, it is critical to recognize that these statistics count only those customers actually served by CLECs. It is likely that firms with fiber built into select numbers of large

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<sup>31</sup> *See Local Competition Report* Table 2. The *Broadband Report's* statistics on availability of last mile connections demonstrate that traditional wireline and fiber connections are used in the vast majority of cases to serve medium and large business customers. Approximately 78 percent of these services are traditional wireline broadband services (*e.g.*, DS1, DS3, etc.) and fiber-to-the-customer services. These numbers were calculated as follows. Table 1 in Appendix C of the *Broadband Report* lists separately the total number of reported ADSL, other wireline, coaxial cable, fiber, and satellite or fixed wireless connections that deliver over 200 Kbps in at least one direction to all types of customers. *See Broadband Report* Appendix C, Table 1. Table 3 lists the total number of such lines provided to small business and residential customers. *See id.* Table 3. When the totals from Table 3 are subtracted from the Table 1 figures, the difference is the total number of such lines sold to medium and large business customers (as well as institutional and government customers). *See id.* Table 8, n.1. These numbers can then be used to determine the percentage of total broadband lines purchased by medium and large businesses, institutional, and government customers from each technology category.

<sup>32</sup> Indeed, due to the limitations on the availability of data, this figure is likely significantly understated. For example, Ameritech reported that as of February 1999, it provided the underlying facilities for 51.5 percent of special access channel terminations. *Petition of US West Communications, Inc. for Forbearance from Regulation as a Dominant Carrier in the Phoenix, Arizona MSA, Petition of the SBC Companies for Forbearance from Regulation as a Dominant Carrier for High Capacity Dedicated Transport Services in Specified MSAs, Petition of US West Communications, Inc. for Forbearance from Regulation as a Dominant Carrier in the Seattle Washington MSA, Petition of Bell Atlantic Telephone Companies for Forbearance from Regulation as Dominant Carriers in Delaware, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Washington, D.C., Vermont, and Virginia, Petition of Ameritech for Forbearance from Dominant Carrier Regulation of its Provision of High Capacity Services in the Chicago LATA*, Memorandum Opinion and Order, 14 FCC Rcd 19947, ¶ 29 (1999) (“*US West Non-Dominant Petition Order*”), *remanded, AT&T Corp. v. FCC*, 236 F.3d 729 (D.C. Cir. 2001).

<sup>33</sup> *See also UNE Remand Order* ¶ 184 (concluding that CLEC construction of a limited number of loops suggests “only that carriers are unimpaired in their ability to serve those particular customers. This evidence tells us nothing about the customer the competitor would like to serve but cannot” because of the costly, time consuming, and often prohibitive process of building the loop.).

buildings in dense metropolitan areas target the customers in those buildings. Thus, the statistics regarding the percentage of customers served by using self-deployed high-capacity loops almost certainly overstate substantially the percentage of *total* end users whom it would be efficient for competitors to serve with self-deployed high-capacity loops.

Furthermore, competitors that self-deploy high-capacity loops determine where they will do so on a building-by-building basis, based on considerations such as the size of the building, the nature of the businesses occupying the building, proximity of the building to the carrier's transport network, and obstacles to obtaining building access. A large office building in a downtown area with non-ILEC high-capacity end-user connections is likely to abut other buildings for which such self-deployment by competitors is inefficient or impractical. The impairment analysis for high-capacity loops can therefore only be performed on a building-by-building basis. Yet this is a practical impossibility for any regulatory agency. Moreover, even if possible, such an undertaking would be of negligible utility, given the limited overall deployment of non-ILEC high-capacity end-user connections.

In sum, as the Commission has recognized, it is both expensive and time-consuming (often prohibitively) for competitors to build loops, and the availability of third-party sources is limited.<sup>34</sup> Neither is a sufficient substitute for ubiquitously-deployed ILEC high-capacity loops.

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<sup>34</sup> See *UNE Remand Order* ¶ 183; see also *id.* ¶ 197 (“We find, however, that the nascent wholesale market in fiber loop facilities is not yet extensive enough for us to conclude that competitors are not impaired without access to incumbent LECs’ unbundled dark fiber loops.”). Moreover, as indicated, the availability of alternatives to ILEC high-capacity loop facilities continues to be compromised by obstacles to gaining building access. Reasonable estimates of commercial buildings served by CLECs range from only three to six percent. See AT&T Corp. Reply Comments, CC Docket No. 96-98 at 26 (Apr. 30, 2001) (estimating that 5.7 percent of commercial buildings are served by CLECs); WorldCom Comments, CC Docket No. 96-98 at 7 (June 11, 2001) (“WorldCom Joint Petition Comments”) (estimating that three to five percent of commercial buildings are served by CLECs). Indeed, many buildings served by CLECs are served using ILEC facilities to enter the building, rather than the CLEC’s own facilities.

Without access to these facilities on an unbundled basis, CLECs would unquestionably be impaired. Therefore, the Commission cannot justify excluding high-capacity loops from an ILEC's unbundling obligation under Section 251(c)(3).

## 2. Voice-Grade Loops

As the Commission explained in the *UNE Remand Order*, “without access to unbundled loops, competitive LECs would be required to sink a large initial investment in loop facilities before they had a customer base large enough to justify such an expenditure, thereby increasing the risk of entry and raising the competitive LEC's cost of capital.” *UNE Remand Order* ¶ 182. In no case is the ILECs' market power over the provision of inputs greater than in the case of voice-grade loops. The Commission's most recent local competition data shows that ILECs continue to control these inputs and that few CLECs are able to self-provision or obtain third-party loops. According to the Commission's recent *Local Competition Report*, CLECs reported providing about one-third of switched access lines over their own loop facilities. *See Local Competition Report* at 1. As the Commission notes, there is reason to believe that even this number is overstated.<sup>35</sup> Perhaps more significantly, the report indicates that there has been virtually no growth in the percentage of CLEC services provided over their own loop facilities

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<sup>35</sup> *See id.* at n.3 (“In general, local exchange and exchange access lines provisioned over facilities (other than dark fiber) and services obtained from another carrier are not the reporting carrier's “own facilities” for purposes of FCC Form 477, irrespective of whether those facilities or services are obtained under interconnection arrangements, under tariff, or by other means. In particular, owning the switch that provides dialtone (and other services) over a UNE loop leased from another carrier does not qualify a line as being provisioned over the reporting carrier's own facilities. We believe the reports of at least some CLECs are not consistent with these directions, and we expect such providers to report data more accurately as they gain experience with the program.”).

since December 1999. *See id.* Table 3. Moreover, intermodal competition for customers served by voice-grade loops, while growing, remains insignificant.<sup>36</sup>

### 3. Loops Connected To Digital Loop Carrier Arrangements

To the extent that ILECs deploy digital loop carrier arrangements in their networks, the Commission should prohibit them from removing the existing copper loops that are replaced by fiber facilities. This approach is consistent with both the Commission's precedent and sound policy. First, in the *UNE Remand Order*, the Commission held that extra copper loops fall within the definition of the loop network element's "facilities, functions, and capabilities" and ordered ILECs to provide them on an unbundled basis. *See UNE Remand Order* ¶ 174. There is no basis for altering this conclusion solely because the ILEC has deployed fiber in the distribution plant. The definition of a "network element" is any "facility or equipment used in the provision of a telecommunications service." 47 U.S.C. § 153(29). As the Commission concluded with regard to dark fiber loops, a facility meets this statutory definition if it is "unused loop capacity that is physically connected to facilities that the incumbent LEC currently uses to provide service; was installed to handle increased capacity and can be used by competitive LECs without installation by the incumbent." *Id.* n.323. Unused copper loops are physically connected to "facilities that the incumbent LEC currently uses to provide service;" they were

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<sup>36</sup> For example, only about one percent of local telephone lines, largely residential, terminated over coaxial cable at the end of June 2001. *See Local Competition Report* at 2. In addition, as mentioned, the Commission's most recent data indicates that less than one percent of lines terminate over fixed wireless facilities. *See id.* Estimates of CMRS substitution for primary residential wireline service using voice-grade loops are only about three percent of mobile telephone subscribers. *See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, Sixth Report, 16 FCC Rcd 13350, 13381 (2001).

originally installed to carry ILEC traffic; and they can “be used by competitive LECs without installation by the incumbent.” They therefore fall within the definition of UNEs.

Moreover, treating spare copper in this manner is sound policy. Without a requirement to maintain existing copper loops, CLECs would be impaired in their ability to provide xDSL services to customers and ILECs would be able to thwart competition from competitive xDSL providers.<sup>37</sup> The ILECs in most cases can exercise complete monopoly power over the copper loop connection between an end user and the central office. The ILECs should not be given a free hand to abuse that market power by preventing the further development of intramodal competition by firms that have designed their business plans around being able to obtain access to the bottleneck facility.

#### **B. Interoffice Transport**

In the *UNE Remand Order*, the Commission found that “[l]ack of access to unbundled interoffice transport impairs a carrier’s ability to provide the services it seeks to offer.” *UNE Remand Order* ¶ 332. The Commission concluded that alternative sources of transport facilities “are not ubiquitously available, and therefore competitive transport [is] not available as a practical, economic and operational matter.” *UNE Remand Order* ¶ 340. The ILECs, in other words, had very substantial market power in the provision of interoffice transport.

Since the Commission released the *UNE Remand Order* in 1999, nothing has changed -- CLECs continue to rely heavily on ILEC interoffice transport facilities to provide service to

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<sup>37</sup> The requirement to maintain copper loops would not be an unreasonable burden on ILECs, as demonstrated by SBC’s voluntary commitment to preserve certain existing copper transmission facilities. *See Ameritech Corp., Transferor, and SBC Communications, Inc., Transferee for Consent to Transfer Control of Corporations Holding Commission Licenses and Lines Pursuant to Sections 214 and 310(d) of the Communications Act and Parts 5, 22, 24, 25, 63, 90, 95, and 101 of the Commission’s Rules*, Second Memorandum Opinion and Order, 15 FCC Rcd 17521, ¶¶ 6, 38-40 (2000).

customers. The evidence supporting this conclusion submitted by several different parties is substantial. For example, as of June 2001, WorldCom determined that alternative transport is available to only 11.6 percent of central offices in RBOC petitions for pricing flexibility.<sup>38</sup> Even in those wire centers where alternatives exist, there is often only one CLEC alternative, the wire center can be reached by CLEC transport only by using less efficient routing, or can be reached only if the carrier requesting interoffice transport is willing to bear the additional cost of coordinating multiple vendors.<sup>39</sup>

Although it has declined to make specific data available to the public, AT&T has characterized its confidential data as supporting these conclusions.<sup>40</sup> It stated that, for local traffic, “AT&T almost never provides DS-1 transport and self-provides DS-3 transport only a small fraction of the time.” AT&T Joint Petition Comments, Exhibit 1 at 11. In AT&T’s experience, the ILECs are often the only choice for interoffice transport. *Id.*

Allegiance’s experience also demonstrates that nothing in the interoffice transport market has changed since the adoption of the *UNE Remand Order*. When at all possible, Allegiance deploys its own facilities or purchases transport facilities from a third-party provider. In most

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<sup>38</sup> WorldCom Joint Petition Comments at 15. The RBOCs included in WorldCom’s data are Ameritech, BellSouth, Verizon, Pacific Bell, and Southwestern Bell. *Id.*, Attachment E.

<sup>39</sup> *See id.* at 15. By way of example, WorldCom relied on data from five Ameritech pricing zones that comprise 71.3 percent of Ameritech’s interoffice revenues. *Id.* In zones 3, 4, and 5, CLECs have built their own transport facilities to only 41 of 1073 central offices -- a mere 3.8 percent of the offices. *Id.* at 15-16. In zones 1 and 2, there are 69 Ameritech central offices, and CLECs have built transport to only 29 offices. *Id.* at 16. These two pricing zones, however, account for only 28.4 percent of Ameritech’s interoffice transport revenues. *Id.* WorldCom also evaluated data submitted by BellSouth in its August 2000 petition for pricing flexibility. *Id.* at 15, citing *BellSouth Pricing Flexibility Petition*, Attachment 3 (filed Aug. 24, 2000). In the cities in which BellSouth sought pricing flexibility, it reported that 237 wire centers had CLEC interoffice transport alternatives. *Id.* Of these 237, 100 wire centers had only a single CLEC transport alternative. *Id.* There were three or more alternative interoffice transport providers in only 93 of the 237 wire centers. *Id.*

<sup>40</sup> *See* AT&T Comments, CC Docket No. 96-98 (June 11, 2001) (“AT&T Joint Petition Comments”).

instances, however, Allegiance is forced to purchase ILEC interoffice transport, either because that is the only alternative or because other alternatives are not true substitutes for ILEC UNEs. Overall, Allegiance leases 70 percent of its interoffice DS-3 circuits from ILECs.<sup>41</sup> The remaining 30 percent is either purchased from competitive providers or self-deployed.

Moreover, Allegiance remains critically dependent on ILEC transport even in those urban markets that have seen the most significant investment in competitive sources of interoffice transport. For example, in the Washington, D.C. LATA, Allegiance leases 61 percent of its local DS-3 transport from Verizon. *See Allegiance Presentation* at 12. Thirty-six percent of its interoffice transport lines are Allegiance's own dark fiber facilities. *See id.* The remaining three percent of interoffice transport facilities are leased from other providers. *See id.* According to a review of non-ILEC alternatives in the 61 percent local DS-3 transport circuits Allegiance buys from Verizon, there are no alternatives to Verizon interoffice transport in 44 percent. In the remaining 17 percent of transport circuits that Allegiance purchases from Verizon, the price differential for non-ILEC providers combined with the costs of relying on multiple transport vendors render the non-ILEC sources inadequate substitutes for UNEs. In these cases, there simply are not enough non-ILEC sources to have reduced the market power of the ILEC. Indeed, as mentioned, the Commission cannot be confident that the ILECs have relinquished their market power for a particular point-to-point transport route until at least four non-ILEC sources of transport have been demonstrably deployed on that route and that those transport

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<sup>41</sup> *See Ex Parte* Letter from Mary C. Albert, Allegiance Telecom, to William F. Caton, FCC, at 13 (Mar. 8, 2002) ("*Allegiance Presentation*").

providers (to the extent they wholesale service) can make their networks available to other CLECs as a practical matter.<sup>42</sup>

It should be emphasized that Allegiance's initial market entry was focused on the most concentrated central business districts of the largest cities in the country. The ILECs' market power in the provision of interoffice transport is likely even greater in other geographic markets. Indeed, as Allegiance expands its footprint beyond the central business districts, it is becoming even more dependent on ILEC interoffice transport facilities.

Furthermore, this is a market in which demand elasticities are decreasing. Many of the alternative providers of interoffice transport that CLECs rely on are either experiencing financial difficulties or have declared bankruptcy. Firms with fiber transport facilities, such as Level 3 and Williams Communications are reportedly considering filing for Chapter 11 bankruptcy, and at the very least are struggling financially.<sup>43</sup> XO Communications also is reportedly on the verge of filing Chapter 11 bankruptcy any day now, despite its ongoing efforts to restructure and relinquish some of its debt.<sup>44</sup> These possible bankruptcies follow a wave of filings from other facilities-based providers, such as e.spire, Network Plus, and Winstar.<sup>45</sup> It is simply too risky to

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<sup>42</sup> For example, it must be possible, as a practical matter, for CLECs to establish cross-connects to the alternative transport provider's network in a timely and efficient manner.

<sup>43</sup> See *McLeodUSA Files for Bankruptcy*, Reuters (Jan. 31, 2002) (noting that Level 3 recently issued a warning that it may violate a debt covenant, but hopes to avoid bankruptcy); Rebecca Byrne, *Williams Cos. Facing Tough Choices*, www.thestreet.com (Feb. 5, 2002) (noting a 14 percent drop in Williams Communications' stock after lenders told the company that it might default on its credit agreement).

<sup>44</sup> See Hilary Smith, *XO Restructuring Progresses With Bankruptcy Cloud Overhead*, RCR Wireless News, at 4 (Mar. 11, 2002).

<sup>45</sup> See Jonathan Stempel, *Telecom Bonds 2002: Hell, Purgatory and Heaven*, Reuters (Jan. 28, 2002); e.spire Communications, Inc., Press Release, *Bankruptcy Court Approves Sale of e.spire Internet Subsidiary to George F. Schmitt* (Jan. 9, 2002); *Network Plus Says Files Chapter 11*, Associated Press, (Feb. 5, 2002); *McLeodUSA Files for Bankruptcy*, Reuters, (Jan. 31, 2002); Winstar, Press Release, *Winstar Files Voluntary Chapter 11 Petition* (Apr. 18, 2001).

purchase transport from firms such as these, given the possibility that a bankruptcy filing could be followed quickly by discontinuance of service.

The problems Metromedia Fiber Network (“MFN”) has experienced poignantly illustrate the risks associated with opting for non-ILEC sources of interoffice transport. In March, MFN announced that it would be restructuring its debt and deferred its interest payment to Verizon -- a creditor, investor, and customer of MFN.<sup>46</sup> MFN indicated, however, that if it is unable to make arrangements with Verizon during the 30-day grace period, MFN may be forced to file for bankruptcy. *Id.* Allegiance has purchased metropolitan fiber rings from MFN in several major markets to provide interoffice transport. *Id.* MFN’s restructuring “creates uncertainty regarding carriers’ fiber ownership and use rights. ... [I]n a bankruptcy scenario, there is a question of whether these three operators’ [Allegiance, Sprint FON, and SBC] IRUs [Indefeasible Rights of Use] will remain valid, and if they are, whether they will be able to gain physical access to the fiber.” *Id.* This is a very serious problem, and it has made competitive providers like Allegiance wary of purchasing interoffice transport from non-ILEC sources in the future. The Commission must consider these risks when assessing the viability of non-ILEC sources of transport in this proceeding. No such provider should be considered as a true alternative to UNEs for purposes of this proceeding if it is in financial distress.

In sum, the ILECs are, in the vast majority of cases, the only viable source of interoffice transport. Unbundling requirements are therefore necessary to prevent ILECs from exercising market power in the provision of these inputs to their competitors.

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<sup>46</sup> See UBS Warburg, Global Equity Research, *Wireline Services: MFNX Fall Knocks Telecom Dominoes*, at 1 (Mar. 19, 2002).

### C. SS7

In the *UNE Remand Order*, the Commission “conclude[d] that neither self-provisioning signaling networks, nor obtaining this element from third-party sources, is a sufficient substitute that would justify excluding signaling networks from the incumbent LECs’ unbundling obligation under section 251(c)(3).” *UNE Remand Order* ¶ 383. Since that time, nothing has changed that should alter the Commission’s conclusion. As the Commission recognized, “the mere existence of alternatives outside the network does not mean that requesting carriers are not impaired without unbundled access to the incumbent LEC’s network.” *Id.* ¶ 390. Instead, as the Commission reasoned, “a competitive LEC’s ability to provide the service it seeks to offer is materially diminished, because alternative providers’ signaling networks lack the ubiquity of the incumbent LECs’ networks, and that larger portions of a requesting carrier’s network would likely be affected by a single point of failure on the signaling network.” *Id.* ¶ 397.

While Illuminet, TSI, Southern New England Telephone (“SNET”), AT&T, WorldCom, and Sprint all provide signaling services that bear some resemblance to unbundled ILEC SS7, none is a true substitute.<sup>47</sup> To begin with, the major interexchange carriers’ wholesale SS7 signaling service offerings provide only hubbing (*i.e.*, pure SS7 message transmission) services without the capability to access service control points (“SCPs”)<sup>48</sup> or to perform local number portability functions. As a result, although they offer national signaling, the IXC signaling

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<sup>47</sup> See Illuminet Holdings, Inc., Form 10-K at 14 (Dec. 31, 2000) (“Illuminet 10-K”). Illuminet was acquired by VeriSign in December 2001. See Illuminet Holdings, Inc., Press Release, *VeriSign Completes Acquisition of Illuminet Holdings, Inc.* (Dec. 12, 2001). Illuminet’s December 2000 Form 10-K was its last annual financial report to the SEC prior to the acquisition.

<sup>48</sup> Service Control Points are “computers that house databases containing customer and network information. This information is used by the SS7 network for call routing, billing and intelligent network database services.” Illuminet 10-K at 12.

networks do not provide a reasonable substitute for ILEC SS7 signaling from the perspective of CLECs.

Furthermore, non-IXC affiliated providers of SS7 such as Illuminet, TSI, and SNET offer service that, while perhaps adequate for long distance and mobile wireless service providers, is not a substitute for UNE SS7 as far as CLECs are concerned. First, these non-ILEC providers continue to rely on a dangerously small number of signal transfer point (“STP”)<sup>49</sup> pairs. UNE SS7 allows CLECs to connect their switches directly to the ILEC STP pair in each LATA. By contrast, alternative sources do not offer STP pairs in each LATA. They instead rely on a single STP pair to serve regions covering several states or indeed the entire country. Because alternative SS7 signaling providers have not deployed STP pairs as ubiquitously as the ILECs, CLECs using third-party sources are dependent on a significantly smaller number of STP pairs and therefore larger portions of their networks would be affected by a single point of failure.

Even Illuminet, which appears to have deployed more STP pairs than any non-IXC affiliated wholesale provider of SS7, relies on only 14 STP pairs to serve 230 LATAs. *See* Illuminet 10-K at 12. This means that, while UNE SS7 results normally in reliance on a single STP pair for *each* LATA in which a CLEC provides service, each Illuminet STP pair serves on average more than 16 LATAs. Moreover, while Allegiance has not been able to find public information regarding TSI and SNET wholesale SS7 signaling offerings, it is likely that those providers rely on far fewer STP pairs than Illuminet.<sup>50</sup>

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<sup>49</sup> Signal Transfer Points are “packet switches that provide access to the SS7 network and route SS7 messages among service switching points and service control points. These are the traffic controllers of the SS7 network. Signal transfer points typically consist of highly reliable computers running special software.” Illuminet 10-K at 12.

<sup>50</sup> TNS is a privately-held corporation, and SNET is a subsidiary of SBC.

Not only are the consequences of a failure in the SS7 network greater when relying on a non-ILEC source, but the likelihood of such a failure is also greater. For example, Illuminet does not even own many of the STP pairs in its network. As of the end of 2000, Illuminet leased capacity on seven of the pairs in its network from other carriers. As Illuminet has explained, this means that it is critically dependent on the “capacity, reliability and security of the infrastructure owned by third parties.” *Id.* at 16. Indeed, Illuminet has admitted that it has “no control over the operation, quality or maintenance of a significant portion” of its SS7 network, and it has no control over “whether or not [] third parties [from whom it leases STP capacity] will upgrade or improve their equipment.” All of this increases very significantly the chance that Illuminet’s and other similarly situated wholesale providers’ networks will experience outages.

Nor is the risk of network failure simply a matter of theory. Illuminet has been compelled to disclose in its SEC filings instances in which its network experienced significant outages with far-reaching consequences. For example, Illuminet experienced a major outage in June 2000 in which “several ... [wholesale carrier] customers in the Northeast region of the United States experienced ... disruption when a road maintenance crew cut a carrier’s fiber cable bundle that contained multiple links servicing [its] two pairs of signal transfer points to [its] SS7 network in that region. Because several of these links were routed by the carrier through the severed cable bundle, the redundant design of [the] network did not prevent a service interruption.” *Id.* at 15. Of course, service interruption to “several” carrier customers results in the loss of service for probably thousands of end-user customers. Moreover, this was not an isolated incident. In both 1997 and 1998, Illuminet experienced major service outages that

“disrupted the ability of [its] customers to connect through [its] network to other parts of the U.S. telecommunications system.” *Id.*

More generally, the use of third-party SS7 signaling providers introduces inefficiencies and compromises the reliability of the exchange of SS7 signaling traffic between a CLEC and the ILECs (with whom CLECs exchange most of their traffic).<sup>51</sup> Rather than sending signaling traffic directly between the CLEC switch and the ILEC STP pair within a LATA (as would be the case where UNE SS7 is used), reliance on a third-party SS7 provider requires that traffic flow between the CLEC switch, the independent SS7 provider’s STP pair and the ILEC’s STP pair. Instead of only two failure points (at the CLEC switch and the ILEC STP), reliance on third-party SS7 creates four failure points (at the CLEC switch, on each side of the independent SS7 provider’s STP pair, and at the ILEC STP pair).

Reliance on non-ILEC providers of SS7 also makes network failures more difficult to detect accurately and causes delay in the resolution of such problems. Resolution is slower because identifying and isolating the trouble requires coordination between three rather than two carriers. These situations inevitably result in providers shifting responsibility to others, thereby delaying resolution of the problem and degrading service quality to the end-user customer.

Moreover, reliance on third-party SS7 providers degrades the critical process of signing up new customers. That process is slower because reliance on a third-party SS7 provider requires the population of an additional database -- the third-party’s SCP. The process is also less accurate because reliance on a third-party SS7 network creates additional opportunities for

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<sup>51</sup> For example, Allegiance exchanges 99 percent of its traffic with the ILEC serving the same local area.

human error. This is because human intervention is often required to complete or maintain the SCP data population.

Number portability illustrates the point. Allegiance must perform number portability for a very significant percentage of its new customers. For number portability to work, each end user customer's telephone number is associated with a specific location routing number or "LRN" that is contained in an SCP that is in turn queried by STPs in the SS7 network. The LRN identifies the switch that serves a particular customer. When Allegiance signs up a new customer, it must change the LRN associated with an end user customer to the LRN associated with the Allegiance switch. This LRN information is administered via the Number Portability Administration Center ("NPAC") database. All SS7 carriers have central Service Management Systems ("SMS")<sup>52</sup> that obtain updated information from the NPAC SMS. The SMS interacts with the SCPs to identify the LRN associated with a ported telephone number. But if the information in the relevant SCP is incorrect, this "translation" process is delayed. Where a CLEC purchases SS7 signaling as a UNE, the only SMS/SCP that must be updated is the ILEC's. However, where a third-party SS7 provider is used, at least two different SMS/SCPs must be updated -- the ILEC's and the third-party's. This increases the likelihood of delay caused by inaccuracies. In addition, use of a third-party signaling provider introduces additional opportunity for human error. Manual translation of STPs, SCPs, and SMSs is sometimes required to associate a destination point code with an LRN. Reliance on a third-party provider of

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<sup>52</sup> A Service Management System is "a database or computer system not part of the public switched network that, among other things: (1) interconnects to an SCP and sends to that SCP the information and call processing instructions needed for a network switch to process and complete a telephone call; and (2) provides telecommunications carriers with the capability of entering and storing data regarding the processing and completing of a telephone call." *Telephone Number Portability*, First Memorandum Opinion and Order on Reconsideration, 12 FCC Rcd 7236, ¶ 15 at n.38 (1997).

SS7 requires that manual work be performed on an extra set of STPs and SCPs. Thus, the chances that a mistake will be made increase significantly.

The increased risk of delay and error resulting in degraded customer service is a very serious issue. Allegiance constantly fights an uphill battle to convince ILEC subscribers to change service providers, even though Allegiance offers innovative service offerings at competitive prices. A central reason why Allegiance has achieved a measure of success in winning customers is that it has kept delays in initiating service and service outages at a minimum. It is highly unlikely that Allegiance would have been as successful in this area if it had used non-ILEC SS7. Such an approach would almost certainly have resulted in degraded service and harm to Allegiance's reputation. Even if it had not had this result, reliance on non-ILEC SS7 would have forced Allegiance to waste substantial resources detecting and preventing problems like the ones described herein. From a CLEC's perspective, therefore, there are simply no adequate substitutes for ILEC SS7, the ILECs have unquestioned market power in the provision of this wholesale service, and Section 251(c)(3) unbundling obligations must continue to apply.

Finally, self-provisioned SS7 networks suffer from the same quality problems associated with alternative providers. In order to efficiently deploy an SS7 network for its own use, a CLEC would likely deploy a single STP pair, at least initially, to serve its entire nationwide network. This approach would expose the CLEC to the same risks of a widespread service outage resulting from a single point of failure that is present where the CLEC uses an independent SS7 provider.

Given the absence of non-ILEC substitutes, therefore, the Commission must conclude that CLECs are impaired in the absence of UNE SS7. While the available substitutes in the market may well be adequate for different types of carriers, CLECs are critically dependent on the ILEC's SS7.

#### **D. OSS**

Competitors would be severely impaired without unbundled access to ILEC OSS for pre-ordering, ordering, provisioning, repair and maintenance, and billing functions. In the *UNE Remand Order*, the Commission “conclude[d] that lack of access to the incumbent LEC’s OSS impairs the ability of requesting carriers to provide the services they seek to offer.” *UNE Remand Order* ¶ 433. Competitors would not only be impaired without unbundled access to the critical ILEC OSS functions, but in fact, would be denied any opportunity to compete. In requiring OSS unbundling, the Commission reasoned that “[t]he incumbents’ OSS provides access to key information that is unavailable outside the incumbents’ networks and is critical to the ability of other carriers to provide local exchange and exchange access service.” *Id.* Indeed, “OSS is a precondition to accessing other unbundled network elements and resold services because competitors must utilize the incumbent LEC’s OSS to order all network elements and resold services. ... Without unbundled access to the incumbent LEC’s OSS, competitors would not be able to provide their customers comparable, competitive service, and hence would have to operate at a material disadvantage.” *Id.* ¶ 434. ILECs continue to “have access to exclusive information and functionalities needed to provide service (*e.g.*, customer service record information, provisioning of orders for unbundled network element and resold services, ability to initiate repairs for unbundled network elements and resold services, etc.).” *Id.* As a result, self-

provisioning or third-party alternatives could not be viable substitutes for ILEC OSS. The Commission's conclusion that "the success of local competition depends on the availability of access to the incumbent LEC's OSS" is equally valid today. *Id.* Therefore, the Commission should find that competitors would be impaired without unbundled access to OSS and that OSS remains subject to the unbundling obligations of Section 251(c)(3).

**V. CONCLUSION**

For the reasons described herein, the Commission should adopt unbundled network element rules in accordance with these comments.

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