



April 5, 2002

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William Caton  
Office of the Secretary  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, D.C. 20554

**REDACTED – FOR PUBLIC INSPECTION  
COMMENTS OF SPRINT CORPORATION**

Re: 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

Dear Mr. Caton:

Attached for filing via ECFS are the Comments of Sprint Corporation ("Sprint") in response to the Notice of Proposed Rulemaking released December 21, 2001 (FCC 01-361).

Separately, Sprint is submitting under seal a confidential copy of its comments, appropriately labeled. They contain proprietary, unredacted data that should not be subject to public disclosure.

Sincerely,

A handwritten signature in black ink, appearing to read "John E. Benedict".

John E. Benedict

Attachment

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**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

<b>In the Matter of</b>	)	
	)	
<b>Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers</b>	)	<b>CC Docket No. 01-338</b>
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<b>Deployment of Wireline Services Offering Advanced Telecommunications Capability</b>	)	<b>CC Docket No. 98-147</b>
	)	

**COMMENTS OF SPRINT CORPORATION**

**John E. Benedict  
H. Richard Juhnke  
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**April 5, 2002**

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	)	

**COMMENTS OF SPRINT CORPORATION**

Sprint Corporation, on behalf of its incumbent local exchange ("ILEC"), competitive LEC ("CLEC")/long distance, and wireless divisions, respectfully submits its comments in the above-captioned proceeding in response to the Notice of Proposed Rulemaking ("NPRM"), released December 21, 2001 (FCC 01-361).

Sprint's interests encompass all segments of the telecommunications industry. Sprint's incumbent local division provides unbundled network elements ("UNEs").<sup>1</sup>

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<sup>1</sup> Sprint is a global communications company with more than 23 million customers in the U.S. and 70 other countries. Sprint's local division provides service in 18 states, with more than 8 million access lines. Sprint's mobile wireless division operates the nation's largest all-digital nationwide PCS network, covering more than 4,000 communities.

Sprint's CLEC/long distance and wireless divisions are requesting carriers that are entitled under the Communications Act of 1934, as Amended ("Act") to secure UNEs from ILECs. Thus, Sprint approaches the complex issues before the Commission in this proceeding from the dual perspectives of both a provider and a purchaser of UNEs. Sprint's position is one that, at least in Sprint's internal calculus, fairly balances the legitimate needs and concerns of both types of carriers.

For this review, the Commission has incorporated the record from the many occasions when it has received submissions about UNEs. These include submissions in the UNE Remand Order<sup>2</sup> docket, including petitions for reconsideration; submissions on UNE loops, transport, and combinations, including carrier petitions; and submissions on next-generation network architectures. NPRM ¶¶ 11-14. Sprint has provided extensive comments on these issues. In today's filing, Sprint will not burden the Commission with repetitive comments, but will focus on the issues that are currently of most importance to Sprint.

## **I. INTRODUCTION AND SUMMARY**

Access to network elements is critically important to enable requesting carriers the opportunity to acquire the customer base essential for supporting their own investment in facilities-based services. The Commission clearly recognized this fact in paragraph 5 of the UNE Remand Order:

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<sup>2</sup> Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, Third Report and Order and Fourth Further notice of Proposed Rulemaking, 15 FCC Rcd 3696 (1999) ("UNE Remand Order") (subsequent history omitted).

We continue to believe that the ability of requesting carriers to use unbundled network elements, including various combinations of unbundled network elements, is integral to achieving Congress' objective of promoting rapid competition to all consumers in the local telecommunications market. Moreover, in some areas, we believe that the greatest benefits may be achieved through facilities-based competition, and that the ability of requesting carriers to use unbundled network elements, including various combinations of unbundled network elements, is a necessary precondition to the subsequent deployment of self-provisioned network facilities.

That was true in late 1999, and it remains equally true today.

Sprint believes some changes to and clarifications of the Commission's unbundling rules are appropriate. However, with few exceptions, it is premature to remove individual network elements from the list mandated in the UNE Remand Order.

The Commission has acknowledged that competition cannot develop overnight. Despite considerable investment by many carriers, including Sprint, local competition remains in its early stages. For most elements, lifting unbundling requirements would impair requesting carriers' ability to provide competitive services, would violate the Commission's statutory mandate, and would frustrate the Commission's and the Act's stated goals.

As the Commission is aware, the CLEC industry is facing very difficult times. Many new entrants are not making money and are having trouble servicing their debt. Many have gone bankrupt; many more are struggling. Business plans are being significantly scaled back, and investment capital is now very difficult to come by.

Sprint knows first-hand how difficult it is to enter the local market as a competitive carrier. In October 2001, Sprint canceled its pioneering Sprint ION service

and wrote off \$1.8 billion in related investment.<sup>3</sup> Although other factors played major roles, the costs, delays, and difficulties of obtaining RBOC last-mile facilities contributed to this decision. Encouraging facilities-based competition is important, but it is clear, particularly given the continuing limited availability of last-mile facilities and the current limits of fixed wireless technology, that ILEC UNEs remain essential to that goal.

As Commissioner Martin explained in his statement accompanying this NPRM, "No one expects CLECs to build entire networks from scratch overnight." For that reason, "[e]nabling CLECs to gain meaningful access to essential facilities controlled by ILECs thus remains crucial to promoting facilities-based competition."<sup>4</sup> Chairman Powell emphasized the importance of "use of facilities and individual UNEs ... to promote local competition while simultaneously furthering the related goals of encouraging deregulation and innovation."<sup>5</sup> However, as Commissioner Copps cautioned, regulatory "uncertainty" has contributed to the difficulties all requesting carriers face today.<sup>6</sup> The Commission should take this opportunity to reduce, not increase, uncertainty and litigation about these issues.

Many carriers, including Sprint, have built investment and business plans based on the reasonable belief that they will have access to unbundled network elements, and the Commission must proceed carefully before taking any steps to limit or scale back the

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<sup>3</sup> Although Sprint no longer offers Sprint ION service, it continues to serve customers through the use of ILEC UNEs.

<sup>4</sup> NPRM, Separate Statement of Commissioner Kevin J. Martin.

<sup>5</sup> NPRM, Separate Statement of Chairman Michael K. Powell.

<sup>6</sup> NPRM, Separate Statement of Commissioner Michael J. Copps.

UNEs identified less than three years ago. The Commission should foster regulatory certainty by confirming access to all those network elements where competitive carriers are impaired. The Commission also should resist calls by some ILECs to fashion geographic carve-outs. Competitive alternatives to ILEC facilities remain far from ubiquitous. Fundamental changes in unbundling ground rules would only serve to choke off developing competition, while placing the Commission in the untenable position of defining -- indeed micromanaging -- a varied, complex, and continually-changing marketplace.

Sprint believes that sufficient alternatives now exist for databases and signaling -- other than the E911 databases and the signaling used to reach those databases -- and that these elements can be removed from the mandatory list. But all others should remain. To promote innovation and competition in broadband and advanced services, the Commission should clarify that unbundled loops include attached electronics and that ILECs must support packetized loop functionality even where that requires installation of new equipment. The Commission need not make packet-switching a stand-alone UNE, but it should confirm that requesting carriers are impaired without access to a DSL-capable loop whenever an ILEC has deployed digital loop carrier systems -- or any other system in which fiber optic facilities replace copper in the distribution portion of the network -- and has deployed DSL functionality in those systems. The unbundled, DSL-capable loop should be delivered to the CLEC at a reasonable aggregation point. The Commission should modify the exception, adopted in the UNE Remand Order, that permits requesting carriers to obtain packet switching capability only where (1) the ILEC has deployed it for its own use, (2) spare copper is unavailable, (3) the end-user is served

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via a DLC or other remote terminal, and (4) the ILEC has not permitted the requesting carrier to deploy a DSLAM in the remote terminal. Specifically, the "spare copper" and remote terminal collocation conditions in Section 51.319(c)(5)(ii) and (iii) should be eliminated. This is especially important as ILECs upgrade their networks and substitute fiber for copper facilities.

Restrictions on commingling of UNEs and tariffed services impose needless costs and inefficiencies on requesting carriers and retard competition. In certain circumstances, the Commission should affirmatively allow commingling, employing ratcheting in the same manner adopted in previous FCC dockets.

The Commission should also end discrimination based on technology, type of service, or provider classification, by reconfirming that wireless carriers may secure access to UNEs. There is no basis under the Act for treating one type of carrier differently from any other requesting carrier or for discriminating among emerging local providers, especially against wireless carriers that are continuing to build out their networks. Removing this improper distinction will promote competition and benefit consumers.

**II. FRAMEWORK FOR UNBUNDLING [NPRM ¶¶ 15-46]**

**A. Threshold Statutory Analysis [NPRM ¶¶ 18-20]**

The Commission has asked whether it should change the way it has applied the "necessary" and "impair" standards of Section 251(d)(2).<sup>7</sup> Sprint believes the Commission interpreted the standards appropriately in the UNE Remand Order.<sup>8</sup>

The Commission considered factors of (1) cost, (2) timeliness, (3) quality, (4) ubiquity, and (5) operational issues in determining when the requesting carrier's ability to provide the service is impaired. UNE Remand Order ¶¶ 72-99. In this NPRM, the Commission has asked parties to comment on these five factors and the importance of each. NPRM ¶ 19.

Sprint believes each of these factors is relevant and vitally important to requesting carriers and must be retained. The relative importance of any one of these factors is situational. For example, in the UNE Remand Order, cost and timeliness were the

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<sup>7</sup> Section 251(d)(2)(a) provides that "[i]n determining what network elements should be made available for purposes of subsection (c)(3), the Commission shall consider, at a minimum, whether (A) access to such network elements as are proprietary in nature is necessary; and (B) [whether] the failure to provide access to such network elements would impair the ability of the telecommunication carrier seeking access to provide the services that it seeks to offer." 47 U.S.C. Section 251(d)(2)(A)-(B) (Access Standards).

<sup>8</sup> For elements that are proprietary, the "necessary" standard means "taking into consideration the availability of alternative elements outside the incumbent's network, including self-provisioning by a requesting carrier or acquiring an alternative from a third-party supplier, lack of access to that element would, as a practical, economic, and operational matter, *preclude* a requesting carrier from providing the services it seeks to offer." UNE Remand Order ¶ 44 (emphasis in original). For elements that are not proprietary, the "impair" standard means "taking into consideration the availability of alternative elements outside the incumbent's network, including self-provisioning by a requesting carrier or acquiring an alternative from a third-party supplier, lack of access to that element materially diminishes a requesting carrier's ability to provide the services it seeks to offer." *Id.* ¶ 51.

primary reasons why carriers were impaired without the unbundled loop element,<sup>9</sup> whereas the Commission found that quality and ubiquity were the primary reasons why ILEC databases should be unbundled.<sup>10</sup> Therefore, Sprint believes the Commission cannot reasonably attempt to "weight" the factors. The set as a whole provides a measure of predictability and balance that is essential to foster investment and competition. There is no justification for removing or diminishing any of these factors, nor any reason to change a system the Commission found reasonable less than 36 months ago. The Commission can, however, reiterate that an impairment showing does not require that all of the criteria are met.

The Commission has also asked whether it should set network element definitions and then determine impairment, as it has done to date, or whether it should define impairment and then determine the elements necessary to remedy that impairment. NPRM ¶ 20. Sprint believes the Commission should continue adhering to the former approach. Carriers, including CLECs and ILECs, are familiar with that approach, and changing it invites confusion, uncertainty, and disputes, while providing no apparent benefit. The Commission should use this opportunity to reduce, not increase, uncertainty and litigation about these issues.

**B. "At a Minimum" Statutory Analysis [NPRM ¶¶21-33]**

In the UNE Remand Order, the Commission determined that section 251(d)(2) contemplates that other factors advancing the goals of the Act may be relevant to an

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<sup>9</sup> UNE Remand Order ¶ 182.

<sup>10</sup> Id. ¶ 410.

unbundling analysis. 47 U.S.C. section 251(d)(2). The Commission identified five factors that may further the goals of the Act in its unbundling determination: (1) rapid introduction of competition in all markets, (2) promotion of facilities based competition, investment, and innovation; (3) reduced regulation; (4) market certainty; and (5) administrative practicality. UNE Remand Order ¶¶ 107-116.

Sprint agrees these five factors are important and, all things being equal, may be considered in conducting a statutory unbundling analysis. However, they are and should remain secondary to the impairment analysis. The key focus should always remain on competition -- not on a particular technology, type of service, or geographic market segment.

**1. Encouraging Facilities Investment and Broadband Deployment [NPRM ¶¶ 21-30]**

On facilities investment and broadband deployment, the Commission should take a realistic, and long-term, regulatory view. The appropriate definition of advanced telecommunications capability changes over time, but the Commission should adhere to its use of a high-speed threshold for lack of a better alternative.

Although Congress directed the Commission to "encourage" deployment of advanced capability, it directed it to do so by utilizing, *inter alia*, "measures that promote competition in the local telecommunications market" and "measures that remove barriers to infrastructure investment."<sup>11</sup> Development of competition -- particularly facilities-based competition -- takes time, and carriers must be able to develop business plans that

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<sup>11</sup> Section 706 of the Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56 (1996), reproduced at 47 U.S.C. Section 157 nt.

incorporate reliance on unbundled network elements, without being at the mercy of ever-shifting regulatory winds. The Section 706 mandate should be a general guide to Commission policy, but not a specific factor in evaluating access to a given UNE.

The Commission has determined, on two occasions, that advanced services must be unbundled. First, in 1998, the FCC found in the Advanced Services Order that incumbent LECs were subject to the obligations imposed by section 251 in connection with offering of advanced services employing packet switching or other specific technologies such as digital subscriber line technologies.<sup>12</sup> US West (now Qwest) sought judicial review of that order.

On appeal, the Commission requested and received the court's permission to supplement the record on the issue. The Commission received additional comments and determined, once again, that "because advanced services are telecommunications services, an incumbent LEC (as defined in section 251(h)) must provide nondiscriminatory access to network elements used to provide xDSL-based advanced services consistent with the requirements of section 251(c)(3)."<sup>13</sup> The Commission recognized that the unbundling obligations of section 251(c)(3) are limited by the necessary and impair tests in section 251(d)(2). *Id.* ¶ 14.

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<sup>12</sup> Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, *Memorandum Opinion and Order and Notice of Proposed Rulemaking*, 13 FCC Rcd 24012 (1998) ¶ 11.

<sup>13</sup> Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket. No. 98-147, *Remand Order*, 15 FCC Rcd 385 (1999) ¶ 11 ("Remand Order").

US West also sought judicial review of the Remand Order. The court ruled, "we find no error in the Commission's conclusion that it can apply the § 251(c)( unbundling and resale) duties to a firm that met the § 251(h) criteria on February 8, 1996 (definition of ILEC) *and* is still providing 'exchange access' or 'telephone exchange service.'"<sup>14</sup> The Act's unbundling obligations make no exception for advanced services, and the Commission need not revisit that issue.

Sprint believes that unbundling has generally positive effects on the deployment of advanced service infrastructure and, just as important, of consumer well-being. Intramodal competition enabled by CLEC access to unbundled elements can serve as a controlling factor on end-user prices, and thus will spur the consumer demand -- for services provided by both CLECs and ILECs -- that is essential to warrant continuing build-out of ILEC facilities. By contrast, limiting the number of potential competitors to a cable/ILEC duopoly is more likely to result in higher consumer prices that stifle, rather than stimulate, demand.

The deployment of this technology will be driven by consumer demand for more sophisticated services and the development of more advanced equipment that lowers their costs. This holds true even if ILECs must make the technology available on an unbundled basis, especially since ILECs are permitted to recover all reasonable costs of sharing advanced technologies with requesting carriers.

Sprint also disagrees with RBOC claims that ILECs have no incentive to invest in xDSL facilities if they must provide competitors with access to remote terminal

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<sup>14</sup> WorldCom, Inc., et al. v. FCC, 246 F.3d 690, 694 (D.C. Cir. 2001).

equipment at TELRIC prices. Customer demand for broadband and xDSL services is growing. If any ILEC ignores those customer expectations, it stands to lose many of its most desirable customers to cable systems, while diluting the value of its company brand. That potential impact is certainly more important than any purported inadequacy of TELRIC rates for unbundled xDSL-capable loop facilities. Meanwhile, the cost structure of most ILECs has improved and the cost of capital equipment has fallen significantly. Indeed, the research firm TeleChoice released a report just last week, concluding that it would be “shortsighted” and self-damaging for ILECs to delay investing in xDSL services because of unbundling requirements.<sup>15</sup>

As for stimulating facilities investment more generally, Sprint has already noted that in the UNE Remand Order, the Commission recognized that a carrier needs to develop a customer base before it can build facilities. Moreover, the RBOCs themselves have followed essentially a pure resale policy in their expansion into the interstate long distance market. ILECs are large resellers of Sprint’s long distance network. Thus, even the well-funded RBOCs understand the importance of developing a sufficient customer base before investing in their own facilities.

Even where cable TV-based broadband and telephony services are available, unbundling remains essential to promote competition, investment, and greater broadband availability. Nationwide, ILECs dominate the provision of non-cable broadband services with their DSL service offerings. In most parts of the country, cable based services remain limited to residential customers. Lifting unbundling requirements in those areas

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<sup>15</sup> The report, *Why DSL Still Matters*, is summarized in Communications Daily (Mar. 29, 2002) p. 4.

would allow only a duopoly of two closed systems. Consumers would be left to choose between two monopoly-based alternatives, either the cable TV company or the ILEC. As the Commission determined in 1997, mobile and fixed wireless systems are no substitute for wireline broadband facilities. As the Commission recognized then, “declining to unbundle loops in areas where cable telephony is available would be inconsistent with the Act’s goal of encouraging entry by multiple providers.” UNE Remand Order ¶ 189.

The concern expressed in ¶ 23 that the availability of UNEs at cost-based rates might deter investment in or use of alternative facilities is illogical and unfounded. In adopting its pricing standard for UNEs in the First Report and Order in CC Docket No. 96-98,<sup>16</sup> the Commission found that this standard would "encourage efficient levels of investment and entry." *Id.* ¶ 672. Obviously, it makes little sense to encourage investment in uneconomic facilities. Society is better off only if an alternative provider can achieve lower costs than the ILEC through investment in its own facilities. Artificially restricting the availability of facilities to encourage alternative investment would simply result in uneconomic duplication and, ultimately, the failure of enterprises whose cost structures are inherently higher than those of the ILECs.

The Commission should proceed carefully to avoid fostering needless and counterproductive regulatory uncertainty. Such uncertainty actually discourages investment, raises the cost of capital, and reduces competition. The Commission can, merely by debating these well-settled factors, undermine the goals that Congress has

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<sup>16</sup> 11 FCC Rcd 15499 (1996) (subsequent history omitted) ("Local Competition Order").

directed the Commission to advance.<sup>17</sup> That is especially true today, given the difficult time that non-ILEC carriers are having throughout the industry.

**C. More Granular Statutory Analysis [NPRM ¶¶ 34-46]**

**1. Geographic or Market Specific Considerations**

The Commission should not attempt a geographic or market-by-market application of the section 251(d)(2) impairment analysis. The Commission made extensive findings in support of adopting a nationwide list of minimum unbundled elements in the UNE Remand Order (see ¶¶ 120-143). In the short time since, nothing has changed to justify a departure from the use of nationwide standards. Even in high-density business districts, competitive alternatives remain far from the ubiquitous level needed to justify eliminating those requirements. To eliminate unbundling requirements in selected localities would frustrate investment and competition where it is just beginning to take root.

In the UNE Remand Order, the Commission also concluded that geographic or market-specific impairment analysis would impose an unrealistically heavy administrative burden on the Commission and the industry.

[A]pplication of the "necessary" and "impair" standard is fact-intensive. Determining the availability of practical alternatives to the incumbents' network elements on a market-by-market basis, even through the use of bright-line tests as proposed by the incumbent LECs, would potentially require the Commission or the states to analyze the availability of alternatives in almost every wire center. In addition to creating uncertainty in the market, such a proposal would consume enormous

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<sup>17</sup> NPRM, Separate Statement of Commissioner Michael J. Copps.

amounts of resources and time, thereby undermining the goal of the Act to bring the benefits of rapid competition to all consumers. Such an approach would also require a new analysis each time a new carrier sought to initiate service in a particular market, and would likely lead to additional litigation by adversely affected carriers.

UNE Remand Order ¶ 142 (footnotes omitted). The Commission explained, "we cannot evaluate the needs of every potential entrant for every network element on a carrier-by-carrier, market-by-market, week-by-week (or other time period) basis." *Id.* ¶ 65.

A geographic or market approach would place the Commission in the untenable position of defining -- indeed micromanaging -- a varied and complex series of geographic and product marketplaces. The analysis would be "unworkable" (*id.* at ¶ 142) and inevitably arbitrary. There can be no reasonable, predictable criteria for deciding what the boundaries of any particular geographic market are or should be a month, a year, or five years from now. Furthermore, any criteria for defining geographic market area would continually vary among elements. The relevant geographic area for loops would be different than that for transport, for example. Nor is there any basis upon which the Commission could rationally, or predictably, apply those criteria. It would indeed foster litigation and breed regulatory uncertainty that discourages competitive investment.

Regardless, there should be no legitimate business need for any geographic carve-outs. If non-ILEC alternatives are actually available to requesting carriers in a particular area to such an extent that requesting carriers would not be impaired by the absence of ILEC facilities, then it should be no particular burden to require ILECs to continue making those unbundled elements available. If the market is in fact competitive, then the ILECs -- pursuing their own business self-interest -- would rationally be offering

unbundled elements anyway. If ILECs did not make elements available, they would risk the possibility of stranded investment as alternatives became available to buildings or groups of buildings. The history of mandatory long distance resale shows why.

Two decades ago, the FCC determined that interexchange carriers had to make their facilities-based services available for resale without restriction.<sup>18</sup> At the time, the market was dominated by a single carrier, AT&T, which opposed resale. Today, however, all network-based IXCs -- including AT&T -- vigorously compete for reseller customers, in order to increase their network utilization and lower their own unit costs, so they can better compete with each other. Today, of course, IXCs remain subject to the Commission's mandatory resale and shared use policies, yet no one would argue that this imposes a significant business restraint on the network-based IXC industry.

The same would be true of ILECs and the local market. Ultimately, it is in the interest of any ILEC to have the largest and best facilities-based network in its market, and not to allow any competitor to grow to rival its scale and scope. Thus, even if competitively provided facilities were available on a wide enough scale that the impairment test were no longer satisfied, retaining the legal obligation to make UNEs available should not work a hardship on the ILEC. The ILEC would want to continue to sell network elements, regardless of these regulatory requirements, to maintain its market position. In the long distance market, no IXC is actively lobbying the FCC to eliminate resale and shared use requirements, even though the long distance market is now fully

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<sup>18</sup> See *Regulatory Policies Concerning Resale and Shared Use of Common Carrier Domestic Public Switched Network Services*, 83 FCC 2d 167, 168 (1980) (subsequent history omitted).

competitive. Likewise, in the access market, when CAPs began offering alternatives to incumbent access services, the RBOCs did not seek to eliminate their obligation to provide access. Instead, they sought downward pricing flexibility to compete for that business. The fact that the RBOCs oppose unbundling, even in high-density business markets, merely confirms that adequate competitive alternatives do not exist, and that requesting carriers are still impaired today.

Moreover, the Commission previously considered and rejected a specific geographic or market review of access to UNEs, sought by BellSouth. In the UNE Remand Order, the Commission rejected that carrier's proposal to exempt from unbundling large business loops in Special Access pricing zones 1 and 2. The Commission recognized that the cost of constructing such loops -- even to serve large businesses in concentrated urban districts -- makes it infeasible to duplicate the ILEC plant that was built over decades. The Commission recognized that the size of the investment required would lead "to patches of competition rather than seamless offerings." UNE Remand Order ¶ 185. The same reasoning holds true now.

### **III. SPECIFIC NETWORK ELEMENTS [NPRM ¶¶ 47-67]**

With some exceptions, the UNEs established in the Remand Order remain vital to the operations and plans of new competitive entrants like Sprint. Despite investment by CLECs, alternative access vendors, and other providers, alternatives to most ILEC unbundled elements remain limited, and will likely continue to remain so until CLECs have expanded their own facilities vastly beyond their current reach.

**A. Loop, HSD Loops, Dark Fiber, Subloop, and NID [NPRM ¶¶ 48-52]**

As the Commission determined in the Line Sharing Order,<sup>19</sup> "[u]sing the loop to get to the customer is fundamental to competition." Line Sharing Order ¶ 30. Requesting carriers are impaired without access to ILEC loops, including subloops, dark fiber, and the high speed and high-frequency portions of the loop. As Sprint will show below, ILEC loop facilities continue to be a bottleneck.

Nor should the loop unbundling obligation be lifted for "new construction" or "overlay" facilities. Cf. NPRM ¶50. ILEC loop facilities were initially constructed under the protection afforded a monopoly with guaranteed cost recovery. ILECs continue to enjoy massive advantages of scale and scope over emerging carriers that enable them to maintain and upgrade their networks. Eliminating the unbundling obligation for upgrades would ignore this fact. Moreover, technological developments will allow the merging of multiple services over a single new technology platform. Thus, services like traditional switched voice can and indeed will be offered over the same new facilities that will provide broadband connectivity.<sup>20</sup>

For example, last year Sprint's incumbent Local Division announced an ambitious plan that will convert its entire network from a circuit-switched network to a packet network. This conversion includes the replacement of its older generation digital loop carriers, which are classified as loop plant. The new technology, while similar to SBC's

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<sup>19</sup> Deployment of Wireline Services Offering Advanced Telecommunications Capability, et al., 14 FCC Rcd 20912 (1999) ("Line Sharing Order").

<sup>20</sup> In the Broadband proceeding (CC Docket No. 01-337), Sprint recommended that the Commission allow retail pricing flexibility for ILEC broadband services, but only when the ILEC makes the underlying facilities availability to requesting carriers as UNEs.

Project Pronto architecture, is different in that the voice services will be packetized and switched with ATM switches, as are the data services. This common platform will be used to provide voice, high-speed data, and advanced services.

Some ILECs may argue that this is an overlay and should not be unbundled or that it should be protected from unbundling under the guise of promoting advanced service deployment.<sup>21</sup> Sprint disagrees. The deployment of these technologies is justified based on increased functionality and extending the reach of new and existing services. Denying CLECs access to these "loops" would eliminate an increasing percentage of the total loops in Sprint's territory. Calling these networks an overlay is simply a shell game. One of the benefits of these types of platforms is the ultimate elimination of real overlay networks. Regardless, the Commission noted in the UNE Remand Order (at ¶ 199) that ILECs must unbundle their loop network no matter what technology is deployed.

Sprint believes that the Commission's existing definitions for loop and subloop should be maintained with few modifications. The separate elements should not be

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<sup>21</sup> For example, Ameritech and Southwestern Bell have argued in state proceedings in which Sprint has participated that SBC's "Project Pronto" is an overlay and should be exempt from unbundling. Three state commissions – Texas, Illinois, and Wisconsin -- have concluded that this Next Generation Digital Loop Carrier network initiative is subject to unbundling as an end-to-end DSL-capable loop. The Wisconsin commission and the Texas arbitrators ruled specifically that SBC's Project Pronto is not an overlay network. See Investigation into Ameritech Wisconsin's Unbundled Network Elements, Final Decision. Wisc. Pub. Serv. Comm'n, Docket No. 6720-TI-161 (Mar. 22, 2002) ("Wisconsin Final Decision") p. 10 ("Project Pronto is not an overlay network."); and Petition of IP Comms./Petition of Covad Comms. and Rhythm Links, Inc., Arbitration Award, Public Util. Comm'n of Tex., Docket Nos. 22168 and 22469 (July 2001) ("Texas Arbitration Decision") p. 76 ("SWBT's argument that this is an overlay network is not persuasive.").

eliminated or combined into a single, "unified" loop network element. The loop, subloop, and network interface device, for example, are each separate elements and stand-alone parts of a network. The Commission should focus on them separately, rather than simply on the end-to-end connection. Additionally, the definition should be technology-neutral and readily adapted to new technologies as they are deployed. There are some cases, such as a copper loop, where the requesting carrier will want the entire loop facility. There are other cases, such as a high-capacity loop, where the requesting carrier may want bandwidth, such as a DS3, or perhaps dark fiber.

High capacity loops should include attached electronics. ILECs should be required to add electronics (such as add/drop multiplexers) at TELRIC for equipment that is normally deployed in their network and in the course of normal capacity augments. High capacity loops are analogous to special access channel terminations, and the same rules for adding electronics for special access facilities should apply to high capacity loops. In the case where additions are necessary, TELRIC-based "special construction" practices should apply.

### **1. Loop**

In the UNE Remand Order, the Commission recognized that self-provisioning of the loop is not viable, given the prohibitive cost and time necessary to duplicate the vast and ubiquitous network that the ILECs built over decades. ILECs enjoy advantages of scope and scale, a large existing customer base, predictable revenue streams, and lower costs of capital. Building out any loop plant is expensive and time consuming regardless of the capacity. But requiring CLECs to build before developing a customer base greatly

increases their risk and raises their cost of capital. UNE Remand Order ¶ 182. Loop deployment carries more risk than other types of facilities, such as switching, because loops serve a highly limited area and are dedicated to a particular location. *Id.* ¶ 183. The customer base acquired by CLECs thus far has not provided them the scale necessary to build a ubiquitous loop plant. Surely, each CLEC cannot be expected to build to 100% of the market when dozens of CLECs combined have less than a 10% share of the market.

ILEC investment in loop plant, as set out in the 2000 ARMIS 43.04 Reports, is over \$167 billion.<sup>22</sup> In stark contrast, the Commission's latest report on local telephone competition revealed that reporting CLECs served just 9% of the nation's end-user switched access lines -- spread among 91 CLECs -- and that 33.4% of those lines were CLEC-owned.<sup>23</sup> That means only 3% of the nation's lines are served by CLECs on their own "last-mile" facilities.

Recognizing the readily apparent direct correlation between lines served and loop investment, it is clear that CLEC loop facilities do not compare favorably to ILEC facilities. Given the current state of the capital market, the economy, and of the telecommunications industry in particular, it is unreasonable to assume that CLECs have the financial capability to build on a substantial scale. Even though competing carriers have begun building out to some customers does not suggest that it is economical to build

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<sup>22</sup> This figure includes both cable and wire and loop circuit equipment, as set out in rows 1277 and 1460.

<sup>23</sup> Industry Analysis Division, Common Carrier Bureau, *Local Telephone Competition: Status as of June 30, 2001* (Feb. 2002) (published at <http://www.fcc.gov/ccb/stats>) at Tables 1, 3.

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Comments of Sprint Corporation  
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to all customers. UNE Remand Order ¶ 184. As the Commission knows, in today's environment, investors have become very cautious about carriers that are investing heavily in their own facilities, particularly before securing a solid customer base, and many CLECs have gone bankrupt. Moreover, the costs of constructing new loop plant are high and vary greatly depending on the specific circumstances of the area. Sprint has received quotes averaging \$[ ] per foot or \$[ ] per mile to construct new fiber loop in metropolitan areas. One of Sprint's major alternative access providers has quoted Sprint over \$[ ] per mile. These quotes do not include right of way ("ROW") costs, environmental and regulatory costs, or franchise fees.

Because of these substantial fixed costs, it is simply too risky for a CLEC to construct its own loop plant unless it has a sufficiently long-term commitment from a customer in that building to justify the investment. It is difficult to secure such a commitment when the customer has the option to switch back to the ILEC, or to a competitor using ILEC facilities.

Construction of facilities by any given carrier or an Alternative Access Vendor ("AAV")<sup>24</sup> is also impractical due to the long time it takes to bring such facilities on-line. In addition to the time necessary to build, competing carriers face delays securing ROW access and obtaining permits, as well as delays stemming from municipal "franchise" conditions, construction moratoriums, preservation constraints, even endangered species

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<sup>24</sup> In these comments, Sprint treats AAVs as a subset of CLECs, i.e., CLECs that offer facilities to other carriers.

issues.<sup>25</sup> ROW and conduit exhaustion are serious problems in major business centers, including Washington and New York. Recently, for example, Sprint was unable to pull its own fiber through New York's Lincoln Tunnel for two years because of lack of available space. Only after another carrier's copper cable was removed was Sprint able to proceed. Customers will not wait the months required by CLECs to acquire permits, cut streets, install additional equipment, engineer, construct, and test new facilities. With the ILEC, the customer seldom faces any such delays. Also, an AAV necessarily requires some level of commitment from a carrier, because it faces the same risks of stranded investment when constructing new facilities.

The small percentage of buildings that are in fact served by alternative sources of supply is evidence of the barriers and constraints to loop deployment discussed above. There are 744,000 commercial buildings alone in the U.S.<sup>26</sup> Except for an insignificant number, all of those are reached by the incumbent LEC. Despite growth in alternative access provider facilities over the last three years, AAVs reach only a tiny fraction of that number. Sprint has developed a comprehensive, nationwide database of buildings served by AAVs, which it originally developed to identify AAV alternatives to ILEC special

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<sup>25</sup> See Ex Parte Submission of the Industry Rights-of-Way Working Group, submitted in CC Docket No. 98-146, WT Docket No. 99-217, and CC Docket No. 96-98 (January 25, 2002).

<sup>26</sup> U.S. Dep't of Commerce, Statistical Abstract of the United States (2000), Table 969. This figure understates the number of buildings that house heavy telecommunications end-users. It excludes hospitals, university buildings, hotels, small buildings, many government and military facilities, and other categories of buildings.

access channel terminations.<sup>27</sup> The database shows that [ ] commercial and office buildings, or just [ ] percent of the nation's total, are reached by an AAV. Even among major buildings where Sprint currently has an existing special access customer, [ ]% have no AAV connection. For the period of January 1 through February 19, 2002, of [ ] special access loops ordered by Sprint, only [ ] -- or [ ]% -- terminated in buildings that had some form of AAV option.<sup>28</sup> But these figures actually *overstate* the availability of feasible AAV alternatives, particularly for high capacity loops. Because of various factors, including circuit availability, cost, the quality of the AAV's plant and service, the AAV's financial stability, and the administrative impracticability of dealing with multiple small companies, AAV facilities will often be unsuitable to meet a competitor's needs.

In the UNE Remand Order, the Commission also found that mobile telephone and fixed wireless do not offer an alternative to ILEC loops. UNE Remand Order ¶ 188. Since then, wireless phone subscribership has grown significantly, but the great majority of consumers that have wireless phones still maintain their wireline services. Although 3G deployment holds promise of higher speeds, deployment of 3G technology is only beginning. Fixed wireless is even less developed. Sprint also has significant experience with fixed wireless and, due to limitations of current technology, is not pursuing sales

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<sup>27</sup> Channel terminations are essentially the same as high-capacity loops, and thus the lack of alternatives for special access equates to a lack of alternatives for high capacity loops.

<sup>28</sup> This lack of suitable alternatives exists even though Sprint has abandoned its former policy of avoiding reliance on affiliates of its major long distance competitors -- AT&T and WorldCom -- for special access loop facilities. In order to reduce access costs, Sprint now fully considers their capabilities whenever it needs alternate sources of supply.

aggressively at this time. Additionally, as the Commission is aware, some fixed wireless carriers such as Winstar are in bankruptcy, and other carriers, like Sprint, have scaled back or delayed investments in this still-developing technology.

Nor is cable TV plant an adequate alternative source of loop. Although voice service provided by cable TV companies is growing, recent statistics from the NCTA suggest that as of December 2001, cable-delivered telephone service reached no more than 1.5 million subscribers nationwide, predominantly residential.<sup>29</sup> Moreover, the Commission has recognized that "declining to unbundle loops in areas where cable telephony is available would be inconsistent with the Act's goals of encouraging entry by multiple providers," and at best would force consumers to choose between just the ILEC and the cable TV provider. UNE Remand Order ¶ 189.

Removing the loop unbundling requirement would not stimulate CLEC deployment of facilities, especially given the existing capital constraints in the telecommunications industry. It would only inhibit the growth of local competition. Eliminating ILEC obligations to offer unbundled loop facilities would introduce uncertainty in the competitive marketplace and would cast doubt on the ability of any carrier to compete effectively against the ILEC.

## **2. High Capacity Loops**

The UNE Remand Order distinguished between high-capacity loops and loops capable of providing high-speed services. High-capacity loops "retain the essential

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<sup>29</sup> See *Industry Statistics of the National Cable & Telecommunications Association*, published at [http://www.ncta.com/industry\\_overview/indStats.cfm?indOverviewID=2](http://www.ncta.com/industry_overview/indStats.cfm?indOverviewID=2).

characteristic of the loop” since they use attached electronics to “boost the wire’s capacity.” UNE Remand Order ¶ 176. DS1, DS3, and OCN loops are examples.

Retaining the requirement to include attached electronics on high-capacity loops is imperative given the new architectures that are being and will be deployed by ILECs. As noted above, Sprint's incumbent local division is planning to deploy an all-packet network that relies heavily on electronics in loop facilities. Eliminating the requirement to include electronics, even those capable of providing high-speed and advanced services, would effectively preclude competing carriers from offering high-speed services to large segments of customers.

### **3. High Speed Data Loops**

Loops capable of providing high-speed data services are loops stripped of devices that would "preclude the ability of competitors to offer high-speed data services." Id. ¶ 190. These conditioned loops allow competitors to provide the advanced services envisioned in Section 706 of the Act, including xDSL. The Commission determined that access to these loops was essential, because "[w]ithout access to these loops, competitors would be at a significant disadvantage, and the incumbent LEC, rather than the marketplace, would dictate the pace of the deployment of advanced services." Id. Nothing has changed since the UNE Remand Order to justify reaching any other conclusion.

In order to provide high-speed services, requesting carriers like Sprint need DSL-capable loop functionality from the end-user to a point where they can efficiently interconnect with the ILEC. The end-to-end DSL-capable loop consists of the following:

- Lit fiber subloops between the remote terminal and the optical concentration device in the central office, consisting of one or more permanent virtual paths ("PVPs") and/or one or more permanent virtual circuits ("PVCs") at the option of the CLEC;
- Copper subloops consisting of the following segments:
  - The copper subloop from the remote terminal to the NID at the customer premises;
  - the copper subloop from the remote terminal to the SAI ("serving area interface") and the copper subloop from the SAI to the NID at the customer premises.
- ADLU line cards owned by the ILEC in the DLC equipment in the remote terminal, which provide DSLAM functionality; and
- A DS1, DS3, and OCN port on the packet switch in the CO.

Each of these elements is required in combined form to give CLECs the ability to provide DSL service to customers served by remote terminals. Without them, requesting carriers like Sprint are impaired in their attempts to provide these services, and competition is hampered.

The Commission should include DSLAM functionality as part of the loop element if this functionality is at the remote terminal. The Commission also should specify that a CLEC does not need to collocate at every central office where the ILEC places its ATM switches. Instead, requesting carriers should have the option to purchase dedicated transport from one ILEC ATM switch to where the CLEC is collocated.

#### **4. Dark Fiber**

In the UNE Remand Order, the Commission rejected attempts by some ILECs to distinguish dark fiber unbundling from that of other loops and was not persuaded by their data allegedly showing that there are enough competitive fiber vendors to provide CLECs

with viable alternatives to unbundled ILEC dark fiber. Since, as explained above, AAVs reach only [ ]% of commercial buildings, ILEC dark fiber, where available, may be essential for a requesting carrier to reach a customer.

Ironically, although ILECs do not argue that competitors should be stringing their own copper wire facilities, they nevertheless argue that it is reasonable to require them to bury their own fiber. While fiber has far greater capacity than copper, the cost of laying fiber -- plowing, trenching, street cuts -- is little different than the cost of laying a large copper cable. The greater capacity of fiber is essential for providing some services, but the fact remains that competitive carriers incur significant risk if they invest in those facilities without first securing a stable, long-term customer base. The risk of stranded investment is too high, because customers can return to the ILEC, or competitors using ILEC facilities, long before the costs of the construction are recovered.

In spite of the Commission's previous order unbundling dark fiber, Sprint has encountered repeated attempts by RBOCs to limit access to this element, and it has had to arbitrate the issue several times.<sup>30</sup> In particular, RBOCs have hidden behind hyper-technical readings of the "combinations" rules<sup>31</sup> and have refused to run the connections between fiber patch panels or to make routine fusion splices -- something they do every day to bring their own fiber into service. In an analogous situation, in the UNE Remand Order, the Commission found that ILECs must provision cross-connect facilities at any

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<sup>30</sup> One RBOC, for example, insists that dark fiber is not available to Sprint if it has not yet been connected to RBOC facilities. Moreover, when Sprint is told that dark fiber is not available, it has no way of knowing whether the fiber is not in place or whether the RBOC is simply delaying its connection to a panel.

<sup>31</sup> 47 C.F.R. Section 51.319 (c)(5).

technically feasible point. "We conclude that such a requirement is needed wherever a competitor seeks access to the loop, because cross connection offers a potential bottleneck, and incumbents may have incentive to impose unreasonable rates, terms, and conditions for cross-connect facilities." UNE Remand Order ¶ 179. The same reasoning should apply to the connections needed for dark fiber.

The Commission should confirm that ILECs must make available, as a form of unbundled transport, continuous dark fiber, through splicing or the addition of jumpers, even through intermediate central offices where the requesting carrier is not collocated.<sup>32</sup> ILECs provide this service for themselves, and requesting carriers need the same flexibility and efficiency. If the Commission does not clarify this requirement, given these costs and delays, Sprint will continue to be impaired as it attempts to build out and provide its end-to-end service, and competition will be delayed.

## 5. Subloops

The Commission concluded in the UNE Remand Order that requesting carriers should not have to buy the entire loop if they have built part of the network, and that unbundled subloops support the Commission's goal of encouraging investment in facilities-based competition. UNE Remand Order ¶ 212. Taking an all-or-nothing approach to the local loop would undermine the Commission's and the Act's stated goals.

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<sup>32</sup> Some of the RBOCs have refused to provide dark fiber to Sprint unless it is physically collocated in every office through which the cable runs. Also, typical non-recurring charges from the RBOCs simply to splice two pieces of dark fiber together are \$50,000-\$60,000, which is clearly excessive.

Sprint realizes that CLEC use of ILEC subloops, to date, has been very limited. Sprint believes CLECs have not taken advantage of the subloop element because it generally is not economically viable until the CLEC has achieved a customer base that supports at least a partial building out of loop plant. The Commission reached the same conclusion in the UNE Remand Order, finding "that access to subloop elements promotes self-provision of part of the loop, and thus will encourage competitors, *over time*, to deploy their own loop facilities and *eventually* to develop competitive loops where it is cost efficient to do so." UNE Remand Order ¶ 209 (emphasis added). Although in Sprint's experience, there is little current demand for subloops, there are several subloop applications that are feasible even today, and they are likely to occasion increased future demand. An example is an office park or a campus with multiple buildings. Often, there may be a logical point of separation between the ILEC loop and a common access point to all of the buildings. If the requesting carrier decides to build facilities within the campus and to connect them to the ILEC loop, there is no reason it should not be allowed to secure the subloop from that point. Likewise, if the ILEC has built the distribution plant in the office park or campus, and a CLEC succeeds in gaining the customer, the CLEC may want to access the distribution subloops, which it could connect to its own feeder plant to reach its own switch. In addition, unbundled subloops will ensure an ability to have optical fiber interface arrangements within manholes or at other technically feasible interface points.

At the same time, Sprint's Local Division has not incurred large burdens or increased costs in having the subloop defined as a UNE, and Sprint doubts that it has been a burden for other ILECs, either. It is a competitive risk, not an operational burden.

For all these reasons, Sprint believes the Commission should retain subloops on the list of mandatory UNEs to allow time for competitive networks to develop.

#### **6. Network Interface Device**

The Commission should retain the current definition of the NID and maintain it as a standalone network element. As the demarcation point between the loop and the customer-owned inside wire, a requesting carrier may need access to the NID to access the inside wire even when it provides its own loop facilities.

In the UNE Remand Order, the Commission recognized (see ¶ 238) that "[t]here are no economic or practical alternatives to the NID that would enable requesting carriers to provide service." In the FCC's recent report on telephone competition, ILECs reported having over 174 million end-user switched lines, of which 134.3 million were residential and small business lines. While not all lines terminate at an individual NID, they all terminate in some device, and it is not practical to expect requesting carriers to replicate the tens of millions of NIDs existing in the ILEC networks today. NIDs are specific to the customer premises, and site visits are costly and time-consuming -- especially for small business and residential customers. Although the NID itself may not be very expensive, it is the total cost of installing a NID at every customer location that substantially impairs requesting carriers, as the Commission has found. *Id.* ¶ 239. Self-provisioning would require expensive, time-consuming site visits, which are especially problematic for provisioning service to small business and residential customers.

Moreover, in some instances, rerouting the inside wire to the location of a NID placed by the requesting carrier may be physically impossible. Even where possible, a

requesting carrier may face daunting delays and costs negotiating with building owners for separate access. In some cases, there may be no space available to install a separate NID, or the building owner may assess expensive conditions or charges. The CLEC is placed at a competitive disadvantage to the ILEC that already has a NID in place, typically free of any charges. In addition, if requesting carriers were required to provide NIDs where they obtained the loop from the ILEC, this would require moving the ILEC loop and customer inside wire to the CLEC NID or the installation of a complicated system of jumpers or cross connects. These arrangements would simply have to be undone if the end user ever changed service back to the ILEC, which would be a waste of resources for all carriers involved.

Sprint is unaware of any alternative providers of standalone NIDs. When Sprint is successful in securing alternative vendors for loop facilities, they may provide the connectivity at the customer's premises. When Sprint does provide its own loop facilities, Sprint typically provides its own terminals. Even then, however, access to the ILEC NID may be essential to connect to inside wiring or intra-building cable. While not allowing access to ILEC NIDs may not absolutely bar facilities-based investment, it would certainly impair requesting carriers from providing service, by adding prohibitive service costs and delays. In short, as the Commission correctly found, self-provisioning NIDs "would be a needless waste of carrier resources." *Id.* ¶ 238.

**B. Added Electronics/Multiplexing [NPRM ¶ 52]**

The Commission has ample authority to order ILECs to include related electronics when provisioning other UNEs. The Commission should either expressly add

multiplexing to the list of UNEs, or clarify that it is a feature that must be made available to requesting carriers with either loop or transport. The loop already includes attached electronics, including multiplexers. For example, in SONET network architecture, the multiplexer typically includes functionality necessary to make the loop operable.

The Commission also should exercise its authority to direct ILECs to provide multiplexing as a feature available to CLECs upon request even where it is not currently available. Requesting carriers, including Sprint, are impaired from providing their competitive services by ILECs' refusal to provide multiplexing with unbundled loops or transport. State commissions in Georgia, Kentucky, and Pennsylvania have mandated multiplexing as a UNE, and Qwest currently offers a UNE loop multiplexing service under tariff.

Sprint is in the process of implementing metropolitan area networks ("MANs") in [ ] major cities across the United States. This project includes constructing or purchasing fiber optic facilities that will connect collocation cages in [ ] central offices within those [ ] markets. Sprint intends to connect high capacity unbundled loops to these facilities, and multiplexing is essential for that connection. Due to the high cost of the necessary multiplexing equipment and the collocation space required to house it, Sprint will be impaired at each of those central offices without access to the ILEC's multiplexing functionality. In these [ ] markets, Sprint estimates the cost of multiplexing equipment alone to be approximately \$[ ]. The estimated annual cost of managing this multiplexing equipment is \$[ ]. The nonrecurring cost to acquire additional collocation space is an estimated \$[ ], and recurring costs for collocation are estimated at over \$[ ] per year.

Even apart from cost, the time required to acquire collocation space and to install all the multiplexing equipment will delay Sprint's ability to provide its service.

Assuming collocation space is readily available, Sprint would require at least six and more realistically nine months to complete the installation and commence service. The costs and delays are prohibitive.

ILEC networks already incorporate the multiplexing functionality without which Sprint and other requesting carriers are impaired. RBOCs' refusal to provide UNE multiplexing effectively precludes access to certain high capacity UNE loops. However, just as the Commission permits use of loop UNEs if a carrier is collocated in a central office where the loop terminates, it should allow a collocated carrier to have access to UNE multiplexing even if it is using non-ILEC transport.

In short, to fulfill the Act's goals of promoting competition and deployment of advanced services, the Commission should ensure that requesting carriers have unbundled access to multiplexing.

**C. High Frequency Portion of the Loop [NPRM ¶¶ 53-54]**

Sprint supports the continued unbundling of the high frequency portion of the loop ("HFPL"). In the Line Sharing Order, the Commission determined that requesting carriers are impaired without access to line sharing arrangements that allow CLECs to provide advanced services while the ILEC provides voice services to a single customer over a single unbundled loop.

[L]ack of access to the high-frequency portion of the local loop materially diminishes the ability of competitive LECs to provide certain types of advanced services to residential and small business users, delays broad facilities-based market entry, and

materially limits the scope and quality of competitor service offerings.

Line Sharing Order ¶ 5. The Commission concluded that "line sharing is vital to the development of competition in the advanced services market, especially for residential and small business customers." Id. "An incumbent LEC's failure to provide access impairs the ability of a competitive LEC to offer, on a competitive basis, certain forms of xDSL-based service that are capable of line sharing with voice services." Id. ¶ 25. Furthermore, the Commission later found that requesting carriers are impaired without access to line splitting arrangements where a CLEC provides the voice service over the low frequency portion of the loop and the same or a different CLEC provides xDSL over the HFPL. Line Sharing Reconsideration Order ¶ 16.<sup>33</sup>

CLECs certainly would be impaired from providing service if the Commission rolled back the requirement. The same impairment analysis -- and same result -- applies to the HFPL as for the local loop generally. The Commission concluded that the capital costs, expense costs, economy of scale issues, and time delays show that self-provisioning is not a viable option for competition. There are no alternative vendors providing ubiquitous loop plant, and it is unreasonable to expect competitors to duplicate the vast ILEC loop network. The FCC concluded in the Line Sharing Order that the loop remains a facility available only from ILECs, Line Sharing Order ¶ 29, and that "[u]sing the loop to get to the customer is fundamental to competition." Id. ¶ 30.

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<sup>33</sup> Deployment of Wireline Services Offering Advanced Telecommunications Capability, et al., 16 FCC Rcd 2101 (2001) ("Line Sharing Reconsideration Order").

Requiring requesting carriers to purchase second loops would be an obvious barrier to entry. The Commission previously found that purchasing a second loop was prohibitively expensive and that CLECs could not provide service on a sustained economic basis if they were required to do so. Line Sharing Order ¶ 39. Second pairs are not available to every end-user, and ILECs utilizing the same pair to provide both voice and data would enjoy a significant cost advantage, especially -- as the Commission has recognized -- since ILECs typically attribute virtually all of their loop costs to voice services. Line Sharing Order ¶ 41.

Many requesting carriers need access only to the HFPL. Sprint's current competitive xDSL offerings, for example, are standalone and are not combined with voice. Data CLECs, by definition, do not provide traditional voice services. Furthermore, even where a CLEC may offer both voice and data services, many end-users are less willing to shift their voice service from the ILEC than their data service. Requiring CLECs to purchase their own circuit-switching equipment would hinder the development of advanced services. As the Commission concluded in 1999, "frustrating the development of packet switched networks capable of bringing advanced telecommunications capability to all Americans is wholly inconsistent with the goals of section 706 and of the 1996 Act and the deployment of efficient networks." Line Sharing Order ¶ 45.

If the Commission were to remove the HFPL requirement, it would eliminate an efficient option for CLECs, increase their cost of service above that of ILECs, and erect a barrier to entry. The Commission concluded in the Line Sharing Order, "An incumbent LEC's failure to provide access impairs the ability of a competitive LEC to offer, on a

competitive basis, certain forms of xDSL-based service that are capable of line sharing with voice services." Line Sharing Order ¶ 25. Clearly, requesting carriers would be precluded from providing competitive xDSL services if the HFPL were not offered. In no way would such an action promote competition or the deployment of advanced services, especially for small business and residential end-users.

Contrary to some RBOC claims, requiring ILECs to provide unbundled access to the HFPL does not impose an unreasonable burden. It does not prevent their xDSL offerings from being competitive with cable modems. In all of the state proceedings that Sprint has participated in, no ILEC has presented credible evidence to support such a claim.

When a CLEC uses the HFPL, it invests in collocations, DSLAMs, packet switching, transport, and a variety of other equipment. The CLEC uses the existing ILEC infrastructure only to gain loop access to the end user. ILECs have already incurred the cost of establishing the back office systems and processes required for providing the HFPL. The ongoing cost of maintaining these processes and systems should be recovered via the ILECs' TELRIC charges. Any additional investment required by the CLEC to establish service, such as cross-connects, is paid for by the requesting carrier. Non-recurring costs for establishing the connections are recovered up front.

In ¶ 10 the Line Sharing Reconsideration Order, the Commission clarified that the obligation to line-share applied to the entire loop, even when fiber had been deployed in the loop, and stated that while the HFPL is limited to copper, "access to that network element is not limited to the copper loop facility itself." This is especially critical as ILECs install more fiber and more electronics in their networks. Eliminating this

obligation would effectively put the ILECs in the driver's seat. It would enable ILECs to prevent competitors from entering large segments of the market and will have the effect, whether or not intended by the ILEC, of driving competitors out of business as ILECs eliminate copper from their network. This conclusion is consistent with the FCC's findings in the Line Sharing Order:

All indications are that fiber deployment by incumbent LECs is increasing, and that collocation by competitive LECs at remote terminals is likely to be costly, time-consuming, and often unavailable. We provide this clarification because we find that it would be inconsistent with the intent of the Line Sharing Order and the Statutory goals behind Section 706 and 251 of the 1996 Act to permit the increased deployment of fiber-based networks by incumbent LECs to unduly inhibit the competitive provision of xDSL services.

Line Sharing Order Reconsideration ¶ 13.

Sprint has participated in several state proceedings on line-sharing in an effort to enforce the ILEC obligation to provide an end-to-end path suitable for advanced services such as xDSL. The records in these proceedings establish that it is technically feasible and that CLECs are impaired without access to such technologies as SBC's Project Pronto on an unbundled basis.

In Texas, the arbitrators found, "the record in this case clearly establishes that the transmission facilities that comprise SWBT's Project Pronto are part of the unbundled loop element and without access to those facilities CLECs would be 'impaired' in their ability to provision line sharing." Texas Arbitration Decision, supra, at 70. In Illinois, on rehearing of its original order directing Ameritech to unbundle the Project Pronto architecture, the commission ruled that Ameritech must provide an end-to-end HFPL UNE, stating, "[w]e remain convinced that, unless and until requesting carriers have

meaningful access to the Project Pronto architecture for the use of line cards that will provision the various types of services they wish to provide, they would indeed be impaired in providing those services."<sup>34</sup> The Wisconsin Public Service Commission, in ordering Ameritech to make its line-sharing Broadband Service available as an end-to-end UNE, determined that:

Project Pronto must be made available to CLECs as an end-to-end UNE. The Commission makes this finding on the grounds that unbundling Project Pronto serves the public interest and promotes competition by facilitating the provision of advanced services by CLECs, who would otherwise be impaired without access to these facilities.

Wisconsin Final Decision at 114. The Wisconsin commission further stated that it is "unbundling Project Pronto as it is packaged and sold as a single product." *Id.* at 116. Ameritech's Broadband Service contains a line-shared, data-only offering and a voice-and-data offering. The Wisconsin order confirms that CLECs can purchase either a line-shared loop or an entire loop, and that both the HFPL offering and the entire loop offering will be made available as an end-to-end UNE and subject to the pricing and other obligations that apply to UNE offerings.

In all of these states, the commissions recognized that requesting carriers are impaired without access to the HFPL even where loops contain fiber feeder and the DSLAM functionality at the remote terminal. Retreating from this requirement would

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<sup>34</sup> Illinois Bell Tel. Co. Proposed Implementation of High Frequency Portion of Loop (HFPL)/Line Sharing Service, Order on Rehearing, Illinois Commerce Commission, Docket No. 00-0393 (Sept. 26, 2001) p. 36.

prevent requesting carriers from providing a competitive service to large segments and would ultimately put CLECs out of the xDSL business.

**D. Switching and Interoffice Transmission Facilities [NPRM ¶¶ 61-63]**

**1. Packet Switching**

The Commission need not create a stand-alone UNE for packet switching. However, the Commission should confirm that ILECs are required to make unbundled xDSL-capable loop elements available where remote terminals or DLCs are present.

In order to provide xDSL-based services, a CLEC needs DSLAM functionality. Collocation of CLEC DSLAMS in an ILEC central office can work only for those ILEC customers who are served without the use of intermediate DLCs or other remote terminal devices, and whose loop length is less than 18,000 feet. Sprint estimates that requesting carriers can reach fewer than half of ILEC customers through end office collocation. And the percentage is declining as ILECs deploy more DLCs at remote terminals.

Collocating DSLAMs in remote terminals, however, is generally not feasible for reaching end users served via remote terminals. These terminals increasingly are compact, freestanding cabinets, without space for expansion or additional carriers' equipment. Even where some space for additional equipment may exist, power supply and heat dissipation issues usually preclude collocation of a CLEC's DSLAM. The Commission acknowledged the problems of collocating DSLAMs at the remote terminal when it issued the Line Sharing Reconsideration Order. "All indications are that fiber deployment by incumbent LECs is increasing, and that collocation by competitive LECs at remote terminals is likely to be costly, time consuming, and often unavailable." Line

Sharing Reconsideration Order ¶ 13. After hearing evidence about Sprint's own efforts to collocate DSLAMs at the remote terminal, the Wisconsin commission likewise concluded:

Collocation by CLECs at RTs is costly, time consuming, and often unavailable. Difficulties encountered when collocating at a RT include space considerations, availability of dark fiber, and completing an ECS (engineered control splice). All of these processes involve individual case basis-pricing and/or time frames for completion that add uncertainty and vast costs for the CLECs intending to pursue broadband deployment strategies.

Wisconsin Final Decision at 115.<sup>35</sup>

Nor is adjacent collocation a viable option for CLECs. It requires securing local permits, handling ROW and easement issues, pouring a slab, installing a cabinet, securing a separate power supply, and engineering suitable connections to ILEC equipment at the remote terminal and at the multiple Serving Area Interfaces between the remote terminal and the customer premises. Competitors' "suitable connections" between the remote terminal and the central office are wholly dependent upon the ILEC and its availability of high capacity bandwidth.<sup>36</sup>

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<sup>35</sup> See also Texas Arbitration Decision at p. 78; Illinois Order on Rehearing at p. 36 ("DSLAM collocation fails again because of the same problems associated with lack of collocation space at RTs, timeliness and poor economics. The only 'new' evidence the Commission finds persuasive on this issue cuts against Ameritech. Sprint's witness estimated, in un rebutted testimony, that each RT-DLSAM collocation would cost \$130,000.").

<sup>36</sup> A CLEC DSLAM may require DS3/OCN transport, but the ILEC may have only DS1 transport availability due to mismanagement of its remote terminal equipment.

Sprint recently conducted a trial of adjacent collocation in Overland Park, Kansas. As Sprint previously reported to the Commission,<sup>37</sup> the total costs were approximately \$130,000, and it took more than twelve months to complete. These fixed costs are simply too great to justify expanding the CLEC's reach to a relatively modest number of potential customers.

The most straightforward approach to resolving this issue is to include the DSLAM in the definition of "attached electronics" in the loop element when the DSLAM functionality resides in a remote terminal or NGDLC.<sup>38</sup> Sprint has already set forth the type of DSL-capable loop it believes should be required in Section III(A)(3), above.

Failing that, if the Commission continues to regard the DSLAM as "packet switching," it needs to lift the restrictive conditions imposed by the UNE Remand Order. Currently, a requesting carrier may obtain packet switching capability only where (1) the ILEC has already deployed packet switching for its own use, (2) the end-user is served via a DLC or other remote terminal, (3) the ILEC has not permitted the requesting carrier to deploy a DSLAM in the remote terminal, and (4) "there are no spare copper loops capable of supporting the xDSL services the requesting carrier seeks to offer." 47 C.F.R. Section 51.319 (c)(5)(ii).

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<sup>37</sup> See Sprint's July 18, 2001 ex parte letter in CC Docket Nos. 96-98 and 98-147.

<sup>38</sup> Where the DSLAM is in the central office, a CLEC is not necessarily impaired by lack of access to the DSLAM.

Sprint has previously argued that the "spare copper" requirement should be eliminated.<sup>39</sup> If this condition is read literally, it would be of no benefit to requesting carriers. Just one spare copper loop available at the remote terminal could prompt the ILEC to argue that conditions for the packet switching exception are not met, and that the requesting carrier should serve the end user by collocating at the central office, installing its DSLAM, and using this one available copper loop to connect with the end user. Obviously, that is uneconomic and surely not what the Commission intended.<sup>40</sup> Sprint contends there is no single number of spare copper loops per remote terminal that can be prescribed as a commercially realistic minimum that could justify collocation at the central office.

Furthermore, ILECs have no incentive to maintain copper between the remote terminal and the central office once they have deployed fiber. Any claims by the ILECs that they will maintain this copper should be closely scrutinized. Some RBOCs have shown that they will go to great lengths to protect market share by creating obstacles to CLECs trying to enter the market. Copper that is in place today may be pulled out of service at any point in time once the ILEC no longer needs it. This could result in CLECs being forced to disconnect customers because they no longer have a copper loop between the central office and the customer premises.

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<sup>39</sup> See Sprint's Petition for Reconsideration and Clarification, February 17, 2000, filed in CC Docket 96-98 (Local Competition).

<sup>40</sup> The Texas arbitrators agreed. "[We] interpret this prong of the test broadly, as a literal reading proposed by SWBT would make this an impossible hurdle to clear." Texas Arbitration Decision at p. 77.

Another aspect of the spare copper loop is quality. ADSL throughput speeds are reduced as copper loop length increases. A CLEC forced to deploy ADSL service from an end office DSLAM will be disadvantaged compared to the ILEC who has deployed ADSL functionality at the remote terminal. A driving factor in the deployment of ADSL at a remote terminal is to effectively shorten the loop length to less than 12,000 feet. The idea that a CLEC with ADSL being deployed from a central office can compete on equal footing with an ILEC deploying ADSL at a remote terminal is mistaken.

The spare copper condition is just one problem. More seriously, as a practical matter, these conditions mean, wherever the customer is served via a remote terminal, the ILEC can deny packet switching loop functionality simply by offering terms for remote terminal collocation regardless of whether collocation at the remote terminal is actually feasible. Some RBOCs have attempted to equate adjacent collocation -- which, as demonstrated above, is wholly uneconomic -- with collocation in the remote terminal itself. And one RBOC claimed that the collocation condition was not satisfied because there was some space for collocation in the remote terminal, even though the space was insufficient for the particular type of equipment Sprint wanted to use. These examples illustrate the RBOCs' ability to block competitors from offering service to customers served by remote terminals. As discussed above, collocation is, by and large, so seldom available in remote terminals that the collocation condition should simply be eliminated.

Like the state commissions of Texas, Illinois, and Wisconsin, the Commission should act to promote the expansion of competitively provided xDSL services. It should confirm that ILECs are required to make unbundled elements available in a manner that supports packet switching capability, in the form of an end-to-end DSL-capable loop,

where remote terminals or DLCs are present. The Commission should also modify the exception applicable to packet switching adopted in the UNE Remand Order to eliminate the spare copper and remote collocation requirements.

## **2. Interoffice Transmission Facilities [NPRM ¶¶61-63]**

In the UNE Remand Order, the Commission found that requesting carriers are impaired without access to entrance facilities and interoffice facilities on a shared<sup>41</sup> or dedicated basis.<sup>42</sup> UNE Remand Order ¶ 321. The Commission required ILECs to provide access to all technically feasible capacity levels of unbundled transport, including DS1, DS3, OC3, and dark fiber. The Commission should confirm that all network technologies, including SONET technology and ring architecture, are subject to unbundling obligations.

From Sprint's actual experience, the great majority of ILEC central offices, even in larger metropolitan areas, still do not have viable alternatives for transport. No alternative vendor or combination of vendors yet provides coverage that can approach the ubiquity of the ILECs' interoffice networks. Meanwhile, it remains unreasonable to

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<sup>41</sup> The Commission defined shared transport as "transmission facilities shared by more than one carrier, including the incumbent LEC, between end office switches, between end office switches and tandem switches, and between tandem switches, in the incumbent LEC network." 47 CFR Section 51.319(d)(1)(iii).

<sup>42</sup> The Commission defined dedicated transport as "incumbent LEC transmission facilities ... dedicated to a particular customer or carrier, that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunications carriers." 47 CFR section 51.319(d)(1)(i).

require competing carriers to construct dedicated transport to each and every ILEC central office in order to provide service to customers.

As Sprint explained above, Sprint is establishing metropolitan fiber rings in the [ ] U.S. cities that are the most commercially important to Sprint. These rings utilize Sprint's own fiber facilities and those of alternative providers. Of the [ ] RBOC central offices in the LATAs encompassing those [ ] cities, Sprint has identified only [ ] -- or 28% -- that are accessible by CLEC-provided transport. But [ ] of these offices are served only by CLECs that are in bankruptcy or financially unstable. Thus, only [ ] RBOC central offices, or less than [ ]% of the total, have a viable alternative source of access that is even worth evaluating. Sprint was interested in collocating in [ ] of these [ ] RBOC end offices, but found alternative sources of transport that were adequate (in terms of cost, availability, and bandwidth requirements) in only [ ]. Sprint also solicited bids for constructing facilities to these other offices, but many were uneconomical. The construction bids Sprint received averaged \$[ ] per foot for new fiber. Construction will require approximately six to nine months, plus additional time for regulatory approvals. Clearly, without access to unbundled ILEC dedicated transport, Sprint would be impaired from reaching the vast majority of ILEC end offices, on the basis of cost, ubiquity, and timeliness, without continued access to ILEC transport UNEs.

### 3. Transport for Wireless Carriers

The Commission should confirm that carriers using all technologies are entitled to purchase UNEs.<sup>43</sup> In particular, it should modify its definitions to ensure that fixed wireless and CMRS carriers also have undisputed access to UNE transport, and it should confirm that wireless carriers may convert interoffice transmission facilities purchased from ILEC special access or private line tariffs to unbundled dedicated interoffice transport.

There is no basis in the Act to justify treating carriers differently based on the technology they use. The Act obliges ILECs to provide UNEs "to *any* requesting telecommunications carrier," including wireless carriers. 47 U.S.C. Section 251(c)(3). The FCC definition of "telecommunications carrier" expressly includes "CMRS providers," 47 C.F.R. Section 51.5, and the Commission found in the Local Competition Order that wireless providers are carriers and "entitled to the benefits of section 251(c)," including access to UNEs.<sup>44</sup> The Commission has also acknowledged that the Act is to be interpreted and applied in a technology-neutral manner.

Nevertheless, the RBOCs have used narrow and literal readings of the FCC's UNE rules to deny wireless carriers unbundled transport, even though the Commission has already found that any requesting carrier is impaired without access to UNEs.

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<sup>43</sup> Sprint generally supports the joint petition filed by AT&T Wireless and VoiceStream. See Petition for Declaratory Ruling of AT&T and VoiceStream, in Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98 (filed Nov. 19, 2001) at pp. 7-14.

<sup>44</sup> Implementation of the Local Competition Provisions of the Telecommunications Act of 1999, Report and Order, 11 FCC Rcd 15499 at ¶ 552 (1996) (subsequent history omitted) (Local Competition Order).

Wireless carriers are treated differently based simply on the technology they use to provide service to end-users.

Mobile wireless providers typically request UNEs for the transport between their cell sites (or base stations) and their mobile switching centers ("MSCs"), a connection that almost always passes through at least one ILEC serving wire center. RBOCs have argued that they need not provide this facility on a UNE basis. RBOCs generally concede that the MSC serves switching functions. However, they contend that the base station is neither a wire center nor a switch, and that connections to and from the base station therefore do not meet the definition of dedicated transport. However, just like a wire center or end office switch, the base station receives and aggregates traffic from and terminates traffic to multiple end users. The base station also transmits signaling information to the MSC to register the customer's location; monitors signal strength and quality for determining any hand-off from cell site to cell site; and completes an electrical path between the MSC and the end-user by extending radio frequency channels for communication. Fixed wireless carriers using cellular-type systems also employ base stations in a similar fashion.

The base station is the wireless equivalent of a wireline carrier's wire center, and the connections between the MSC and the base station fall within the concept of dedicated transport. Thus, the definition of "dedicated transport" should be modified to include transmission facilities between cell sites or base stations of mobile wireless carriers, as well as fixed wireless carriers using cellularized technology, and such carriers' switch locations.

The single largest network operating cost of Sprint's mobile wireless division is the purchase of dedicated transport facilities. CMRS carriers typically provide service coverage, with the accompanying need for transport, over much larger territories than their wireline counterparts. Wireless carriers are increasingly competitors of wireline carriers for local service. Forcing wireless carriers to purchase transport as special access prevents wireless carriers from competing on a level playing field against both ILECs – that incur only incremental forward-looking costs for their own needs -- and other wireline carriers that can obtain transport at TELRIC rates.<sup>45</sup>

**E. Other Network Elements [NPRM ¶¶ 64-67]**

**1. Signaling and Call-Related Databases [NPRM ¶¶ 65-66]**

Sprint's experience shows that -- with one possible exception relating to the E911 database -- requesting carriers are not impaired without access to signaling. In the UNE Remand Order, the Commission cited several alternative vendors and found no impairment on the basis of cost or service quality. It nevertheless required the continued unbundling of ILEC signaling networks on the basis of ubiquity and network diversity. UNE Remand Order ¶¶ 394-398. If there was any impairment in 1999, however, there is no longer.

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<sup>45</sup> The Commission should direct that the conversion of existing facilities requires only a simple billing change that can be accomplished through a records conversion. The Commission should preclude RBOCs from requiring a termination and a new order to convert existing facilities. The Commission should also require ILECs to cooperate in a timely and effective manner to help wireless carriers identify circuits suitable for conversion.

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Today, several alternative providers offer service with redundancy, quality, reliability, and ubiquitous coverage. They include TSI, Illuminet, Revenue Communications, IDG, and several other companies.

The experience of Sprint's Local Division shows that CLECs are not impaired without ILEC signaling. Most of the CLECs providing service in Sprint's Local Division territories are not purchasing UNE signaling from Sprint. Instead, they have selected one of these vendors or are self-provisioning. In fact, out of [ ] CLEC and CMRS carriers that interconnect and exchange traffic with Sprint's local networks, only [ ] secure signaling from Sprint. Sprint's Local Division territories cover cities, small towns, and rural areas in 18 states. Sprint's experience is undoubtedly representative for the nation as a whole.

Since competitive alternatives for signaling are available, and at comparable quality, Sprint believes the Commission may remove signaling from the UNE list. ILECs should be required to provide UNE signaling only to access the ILEC's E911 database.

Requesting carriers also are not impaired without access to call-related databases, with the exception of the E911 database. Other call-related databases may be removed from the UNE list. A carrier's SS7 vendor generally will use its own databases for local number portability queries, toll free code queries, and LIDB queries. The carrier will also store its own customer name information for the calling name database with its SS7 vendor. As a rule, the SS7 vendors and carriers that self-provision signaling and database

networks have agreements to share database information with each other, typically on a per-query basis.<sup>46</sup>

The calling name database is an example. ILECs are no longer the only quality source of such information. Although the Commission determined in the UNE Remand Order (see ¶¶ 402-417) that the CNAM database should be classified as a call-related database and made available as a UNE, there are non-ILEC alternatives, just as there are for directory assistance and operator services. One example is Targus Information Services. It advertises that its Caller Name Express service provides nationwide calling name delivery with over 140 million names, from a simple database accessible through SS7.

However, the ILECs' E911 databases generally cannot be reproduced elsewhere. These databases are maintained for use by the E911 authority, and processes must remain in place to allow all carriers to maintain their customer information in that database.

## **2. Operations Support Systems [NPRM ¶¶ 67]**

In the Remand Order, the Commission recognized that "[a] requesting carriers ability to compete is materially diminished if it does not have access to ILEC OSS." UNE Remand Order ¶ 424. UNE access to incumbent OSS functions (including pre-ordering, ordering, provisioning, maintenance and repair, billing) obviously remains critical. Timely pre-qualification for high-capacity loops is especially important. The Commission also has recognized that competitive carriers need access, on request, to

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<sup>46</sup> Sprint believes these relationships should be continued as negotiated contractual arrangements not falling under unbundling requirements or the TELRIC pricing standard.

ILEC engineering and plant records, as well as other back office systems, so they can determine for themselves if the loop is suitable for their intended service. UNE Remand Order ¶ 428. Nothing has changed since then to lessen CLECs' dependence on ILEC OSS.

#### **IV. GENERAL UNBUNDLING ISSUES [NPRM ¶¶ 68-74]**

The Commission has properly recognized that Congress intended "nondiscriminatory," as used in Section 251, to impose a more stringent standard for prohibiting discrimination than just the "unjust and unreasonable discrimination" standard in section 202 of the Act. The Commission has required ILECs to provide all technically feasible methods of access to network elements. Nothing has changed to warrant a departure from that mandate.

##### **A. ILEC Obligations to Modify Network or Build UNEs [NPRM ¶ 68]**

The Commission has asked to what extent ILECs should be required to modify their existing networks to provide access to UNEs. Sprint believes ILECs should be required to modify their networks to provide access to network elements. In its initial Local Competition Order, the Commission concluded that this was appropriate since the requesting carriers "bear the costs of other methods of interconnection or access, and would not impose an undue burden on ILECs."<sup>47</sup> Such construction is considered a reasonable accommodation of interconnection or access. Sometimes upgrades are as easy as installing the appropriate equipment card (e.g., at the add/drop multiplexer). ILEC

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<sup>47</sup> Local Competition Order ¶ 552 (1996).

networks are not necessarily designed to accommodate third party access and some new facilities, such as cabling or other connecting equipment, are usually necessary to provide access. Without this requirement, of course, network elements simply could not be provided at all.

Sprint believes ILECs have an obligation to make any reasonable accommodation to modify their networks when necessary to support access to UNEs. On many occasions, network modification is essential to avoid cost, quality, and timeliness issues.

ILECs certainly should be required to install facilities that are essential for connecting the requesting carrier's equipment with the network element. For instance, when an ILEC deploys remote DSLAMs connected to central office-based packet switches, the only facility necessary to provide an end-to-end broadband loop to a CLEC is the cross-connect between the packet switch port and the CLEC's equipment.

The Commission also asked to what extent ILECs should be required to construct UNEs for requesting carriers. Sprint believes ILECs should have an obligation to construct new network elements, in some circumstances. Currently, ILECs may tell requesting carriers that requested UNEs are unavailable, because they contend they have no obligation to construct. However, if a requesting carrier's need can be met with just the addition of a line card, certainly the ILEC should be required to install the card, rather than characterize it as "construction."

In Sprint's view, installing an additional card or changing cards in existing equipment may be better termed "provisioning," not "construction." Provisioning merely makes available capacity that already exists or increases the capacity of existing equipment. An ILEC should be required to fulfill such requests.

Construction, by contrast, involves building, installing, or deploying facilities that do not yet exist. Examples include replacing or installing communications equipment and installing fiber optic cable. Requesting carriers are impaired by ILECs' refusal to undertake new construction. It is entirely appropriate to require ILECs to undertake construction, subject to reasonable conditions. Sprint recommends that those conditions include the following:

- An ILEC should maintain ownership of the new facilities.
- An ILEC should not be required to utilize equipment that is not "ILEC Standard" for either the provisioning or construction of facilities.
- An ILEC should have no obligation to construct facilities that are inconsistent with its serving area, central office, remote terminal, or route-specific network plans that are in place at the time of a request to construct.
- An ILEC should construct facilities where the requesting carrier is willing to pay TELRIC-based non-recurring charges ("NRCs") and monthly recurring charges ("MRCs").
- NRCs should be based on the special access, special construction structure in place at the time of the Commission's release of the UNE Triennial Order. The schedule of NRC payments should be consistent with physical collocation cage construction payment schedule or the ILEC's existing special construction NRC schedule (e.g., a 50% payment at the time of acceptance of quotation and 50% at delivery).
- An ILEC should have the obligation to reasonably rearrange circuits or facilities in an effort to gain efficiencies and to free additional capacity for requesting carrier use. Special construction charges should not apply.
- An ILEC should be required to add capacity to existing equipment by adding channel cards to existing equipment or terminating existing fiber or cabling to accessible terminals. Special construction charges should not apply.
- An ILEC should rearrange cables, install copper or fiber optic jumpers or splices, or cross-connect copper or fiber optic cable at any accessible point. Special construction charges should not apply.

- An ILEC should add or deploy equipment on an existing fiber optic facility to accommodate a requesting carrier's needs, unless the ILEC can show that there is no reasonable forecasted need for the additional equipment within 24 months of the request. Special construction charges should apply.
- An ILEC should make every reasonable attempt to accommodate the requesting carrier's time frames, but should not have to place ILEC projects unreasonably at risk. The ILEC should have the burden to justify why it cannot meet the requesting carrier's time frame.

These guidelines are consistent with how ILECs treat special construction for special access. They balance the needs of requesting carriers and the needs of ILECs to avoid unreasonable risk of unrecoverable costs. By adopting them, the Commission would support the goals of the Act, by promoting competitive choice where it is unavailable today. Allowing ILECs to refuse to construct or expand any UNE facilities services only to impair competition, limit customer choice, and discourage innovation.

**B. Commingling of UNEs and Tariffed Service [NPRM ¶72]**

Regardless of whether the Commission retains local use restrictions on enhanced extended links ("EELs"), the Commission should affirmatively allow commingling of UNEs and tariffed services in certain circumstances. Commingling restrictions retard competition and artificially raise costs by limiting flexibility for new entrants and requiring needless, inefficient duplicate facilities. Specific examples of commingling that should be allowed include (1) UNE loops and access multiplexing and (2) commingling of access and UNEs on the same high-capacity transport circuits (including entrance

facilities). The rates for commingled use should be assessed on a ratcheted basis, in the same manner adopted by the Commission in previous dockets.<sup>48</sup>

To manage networks efficiently, IXCs routinely combine several types of traffic on a single transport pipe. A DS3 from the IXC's serving wire center to a particular end office may simultaneously be carrying special or switched access traffic (e.g., DS1s from that end office to an end user premises), and traffic that terminates over UNE loops from that end office. It makes no sense to force a requesting carrier to buy transport separately for access and UNE traffic. Rather it is more efficient -- both for the ILEC and the requesting carrier -- to use a single multiplexer or transport "pipe" rather than to have to utilize separate facilities for each.

Requiring that requesting carriers purchase separate sets of facilities for different types of traffic serves no legitimate purpose. It prevents requesting carriers the opportunity to enjoy the same economies of equipment usage and transport that ILECs experience. It would artificially and anticompetitively inflate the requesting carriers' costs, and entail needless duplication of facilities.

Nor are measurement and billing costs associated with commingling an issue. To the extent that some of the commingled traffic is subject to additional charges (e.g.,

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<sup>48</sup> See, e.g., *Expanded Interconnection Order*, 7 FCC Rcd 7369, 7463 at ¶ 199 (1992) (subsequent history omitted); and *Transport Reconsideration Order*, 8 FCC Rcd 5370, 5380 ¶ 57 (1993). Ratcheting is a procedure for developing a blended rate, under two different pricing structures, for a single facility. For example, if a DS3 transport facility is used for both dedicated transport purchased from the ILEC's access tariff and UNE traffic, the charge for the facility would be the average of the access transport DS3 rate and the UNE transport DS3 rate, weighted by the relative access/UNE use of the facility. In cases where the ILEC does not offer multiplexing as a UNE, it should allow the requesting carrier to multiplex UNE traffic with access traffic through the use of multiplexing services purchased from the ILEC's access tariff.

reciprocal compensation or switched access charges), the traffic can be measured directly and billed, or it can be accounted for using percentage of interstate or local use, subject to audit.

Sprint believes that one of the Commission's goals should be to promote network efficiency. Forcing competing carriers to buy unnecessary, duplicate facilities only increases costs and hinders competition.

**C. The Role of the States [NPRM ¶¶ 75-76]**

Congress gave the Commission the central role in administering the Act. As the Supreme Court explained in Iowa Utils. Bd.,

The question is whether the state commissions' participation in the administration of the new federal regime is to be guided by federal-agency regulations. If there is any "presumption" applicable to this question, it should arise from the fact that a federal program administered by 50 independent state agencies is surpassing strange.

116 S. Ct. at 730 n.6 (emphasis added).

The telecommunications industry needs national standards for competition and unbundling, just as Congress clearly intended. The Commission cannot delegate its rulemaking authority to the states, 47 U.S.C. Section 5(c), and states must adhere to the Commission's rules when arbitrating disputes over unbundling. E.g., 47 U.S.C. Sections 252(c)(1), (e)(2)(B).

The Commission may, at appropriate times, solicit the views of the various state commissions on particular unbundling requirements, or on individual waivers of them. However, the Act does not allow states to relieve an ILEC from unbundling obligations established by the Commission as a mandatory minimum. After all, giving 50 states any

authority to decide whether a particular element need not be unbundled in light of its availability from other sources in the state would be tantamount to no federal minimum requirements at all.

Moreover, the industry needs some measure of regulatory certainty. CLECs cannot afford shifting standards and interpretations, especially given the RBOCs' bitter resistance – amply reflected in the record here -- to local competition and unbundling obligations. State-by-state rulemakings, inquiries, and litigation on UNEs would certainly have a chilling effect on investment. It would raise costs, create delay, obstruct multistate deployment of competitive facilities, and create operational problems for CLECs. This, in turn, would retard the growth of competition and would discourage innovation by increasing regulatory risks many-fold.

## **V. CONCLUSION**

Clearly, it is premature to limit access to those unbundled network elements that requesting carriers need to provide service and to compete. Competition remains in its earliest stages, competing carriers are impaired without access to most UNEs, and artificial barriers distort the market. The Commission should take this opportunity to affirm its commitment to the principles of the 1996 Act and to lift artificial barriers to competition. It should take this opportunity to reduce, not increase, uncertainty and litigation about these issues.

(1) The Commission should resist calls by ILECs to unlawfully roll back unbundling requirements on a market-by-market basis.

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(2) It should foster regulatory certainty by confirming access to all those unbundled network elements that continue to satisfy the impairment test.

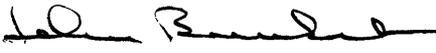
(3) Given the impairment that competitive carriers face and the need to promote competition in high speed and advanced services, the Commission should clarify that unbundled loops include attached electronics and that ILECs must support DSL functionality to allow CLECs to reach customers behind a DLC, even if that requires installation of new equipment.

(4) The Commission should affirmatively allow commingling of UNEs and tariffed services, on a ratcheted basis, to avoid wasteful duplication of facilities that otherwise only retards competition.

(5) The Commission should eliminate any discrimination based on technology, service type, or provider classification, by reconfirming that wireless carriers may secure UNE transport, and that conversion of existing facilities requires only a simple records conversion.

Respectfully submitted,

SPRINT CORPORATION

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April 5, 2002

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing Comments of Sprint Corporation in CC Docket Nos. 01-338, 96-98 and 98-147 was sent by United States First-Class Mail, postage prepaid, and/or electronic mail on this the 5th day of April, 2002 to the following parties.

  
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