Before the
Federal Communications Commission
Washington, D.C. 20554

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

COMMENTS OF SPRINT CORPORATION

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Sprint Corporation, on behalf of its operating subsidiaries, hereby submits its comments in response to the Second Further Notice of Proposed Rulemaking in CC Docket No. 98-147 and the Fifth Further Notice of Proposed Rulemaking in CC Docket No. 96-98, released August 10, 2000 (FCC 00-297) (collectively referred to as "Further Notice").

I. INTRODUCTION AND SUMMARY

Sprint approaches the collocation and unbundling issues raised in these proceedings from the standpoint of a corporation whose operating subsidiaries are on both sides of these issues. Sprint's long-distance subsidiary ("Sprint LD") is in the

process of implementing competitive local services that range from simple POTS to the revolutionary Sprint ION service, a broadband offering that enables all classes of subscribers — from residential to large business — to combine all their communications needs, including voice, data and high-speed Internet access, on a single communications path. Sprint LD expects to be collocated in close to 1000 ILEC central offices by the end of this year. Sprint also owns a group of incumbent local telephone companies ("Sprint ILEC") that now comprise the fifth largest ILEC in the nation; these companies will, of course, be subject to the rules adopted in this proceeding. Sprint is interested in a set of rules that will facilitate CLEC[1] entry on economically viable terms and in a fashion that minimizes the ability of other ILECs to increase artificially the costs of entry and to delay the entry process. At the same time, Sprint is fully cognizant of the need to implement the local competition provisions of the 1996 Act in a way that is faithful to the limits of the statute and is fair to the legitimate interests of the ILECs. As a result, the positions Sprint takes in these comments reflect its own internal efforts to weigh the needs of CLECs against the legitimate concerns of ILECs in a fashion that, at least in Sprint's view, reasonably accommodates both sets of interests. Obviously, there are many different ways of reconciling these conflicting interests, and Sprint does not pretend that its position reflects the only means of doing so. However, in reading Sprint's comments, the Commission should keep in mind that these comments are the product of the same process of weighing CLEC and ILEC interests that the Commission will itself have to undertake in reaching its own resolution of these issues.

[1] Although any requesting carrier is entitled to collocate under Section 251(c)(6), for convenience, "requesting carriers" will often be referred to herein as "CLECs."

In the next section of these comments, Sprint proposes a two-step approach to defining equipment "necessary" for collocation. First, the Commission should establish a "safe harbor" list of equipment that clearly satisfies the test of what is necessary for interconnection and access to UNEs. Second, the Commission should institute expedited procedures to resolve disputes concerning equipment that is not on this safe harbor list.

With respect to cross-connects between CLECs that are collocated in an ILEC office (Section III), the Commission should reinstate original rule 51.323(h), which required ILECs to provide such cross-connects.

As for space assignment policies (Section IV), the Commission should construe the *GTE* decision as applying only to central office collocation. Space constraints in remote terminals are such that it is not practicable to physically separate CLEC equipment from ILEC equipment.

Further with respect to remote terminal collocation (Section V), Sprint addresses several issues raised in the Further Notice and makes detailed proposals on the information on remote terminals (and the customers they serve) that should be provided to CLECs. Sprint also addresses the roles of ILECs and CLECs regarding easements and use of rights-of-way.

As for changes in collocation rules to facilitate line sharing (Section VI), Sprint proposes that where a CLEC wishes to add line-sharing equipment in existing collocation space, it should not have to file an augment application if the equipment is "passive" — *i.e.*, does not require electrical power.

In Section VII, Sprint proposes detailed nationwide provisioning intervals for various types of collocation, as well as for augment orders and the installation of ILEC

interconnection facilities. Sprint explains that the collocation intervals should run from the date the ILEC receives acceptance of its price quote from the CLEC, rather than the date on which the CLEC files its collocation request. Adoption of a provisioning deadline for the interconnecting facilities is especially needed — Sprint LD has faced inordinate delays from some ILECs in being able to actually utilize the collocation space it has ordered and paid for, because of ILEC delays in installing the interconnection facilities.

As for space reservation policies (Section VIII), Sprint believes the rules should not establish different periods for different types of equipment. Instead, the current year plus 12 months is a period that is reasonable and consistent with typical corporate budget horizons.

In Section IX, Sprint argues that optical wavelengths generated by DWDM equipment are UNEs that are already required by the current rules. Sprint also urges the Commission not to expand the advanced services DSLAM exception to the general loop UNE definition, and addresses issues of capacity shortages in sub-loop plant and OSS requirements.

Where an ILEC wishes to retire copper feeder plant (Section X), CLECs should have the right to purchase such plant from the ILEC, since it may be the best vehicle for providing xDSL services to consumers. But in such cases, the purchasing CLEC should be deemed to be the successor or assign of the ILEC with respect to such plant.

Finally, in Section XI, Sprint addresses cross-connections between CLECs and ILECs in remote terminals and the need for an engineering controlled splice to facilitate connections to all serving area interfaces subtending the remote terminal.

II. IDENTIFICATION OF EQUIPMENT THAT IS "NECESSARY FOR INTERCONNECTION OR ACCESS TO UNBUNDLED NETWORK ELEMENTS"

The first set of issues raised in these proceedings arises from the remand of the First Report and Order in CC Docket 98-147 by the Court in *GTE Service Corp. v. FCC*, 205 F.3d 416 (DC Cir. 2000). There, the Court concluded that the Commission's "used or useful" standard for determining the types of equipment that may be physically collocated in ILEC central offices was overly broad when weighed against the language of the statute that such equipment be "necessary for interconnection or access to unbundled network elements … " (Section 251(c)(6)). In the Further Notice (paragraphs 74-80), the Commission seeks comment on the proper meaning of "necessary" in that section, the limiting standards that can be used to determine which functions are "unnecessary," and whether collocation of multi-function equipment can be required.

In view of the plain language of the statute, it is clear to Sprint that in order to be eligible for mandatory collocation,[2] the equipment must perform functions that are directly necessary for interconnection or UNE access. Although certain types of equipment, such as stand-alone analog voice switches, clearly are not "necessary," whether a particular piece of equipment is "necessary" is something that inevitably will evolve over time. Likewise, how tenuous the various functions of a piece of multi-function equipment are to interconnection and UNE access may change in ways that no one can fully appreciate today.

[2] Of course, an ILEC may voluntarily permit collocation of additional equipment if it wishes to. However, any ILEC engaging in such action should be required do so on a nondiscriminatory basis, so as not to favor, for example, its own advanced services affiliate over unaffiliated CLECs.

In giving content to "necessary" in an industry that undergoes such rapid technological change, it may be helpful to analogize this issue to the role that personal computers play today in the legal profession. Although attorneys for centuries were able to practice their professions with pencil, paper and books, few attorneys today could envision their working life without a personal computer at their desks. By any common-sense meaning of the term, the personal computer — a frill fifteen years ago — has now become "necessary." Moreover, the same processing and communications capabilities that enable a lawyer's personal computer to perform word processing or access electronic legal research services also enable him or her to utilize other types of programs, such as financial software, and to access other information over the Internet, such as the weather in a city where a close relative is living, or the price of a favorite compact disk, that are clearly "unnecessary" to the performance of his or her job. Yet, attempting to limit the capabilities of an attorney's desktop PC only to those essential functions that are essential to the practice of law would undoubtedly increase the cost and complexity of the equipment for no apparent purpose.

Just as it may have been impossible to forecast 15 years ago the degree to which a "frill" such as a personal computer would have become a professional necessity today, and likewise to predict the full range of capabilities of today's PCs, it is ultimately a futile exercise for the Commission to attempt to fashion a definitional approach in giving content to the phrase "necessary for interconnection or access to unbundled network elements" that will have lasting value in view of the very rapid technological changes that are taking place in the telecommunications industry. Equally impossible is the task of attempting to determine, in the abstract, which functions in a multi-functional piece of

equipment are so tenuous that the equipment, as a whole, cannot reasonably be said to satisfy the statutory standard, or which functions are so close to being "necessary" that no legitimate issues can be raised as to whether the equipment qualifies for collocation.

Rather than attempt to engage in definitional exercises that, at best, will shortly be rendered obsolete by technological change, Sprint advocates a two-step approach to determining the types of equipment that may be collocated on ILEC premises. First, the Commission should adopt a "safe harbor" list of equipment that today clearly is, under any reasonable definition, necessary for interconnection or UNE access. Second, for other types of equipment, or for multi-functional pieces of equipment, to whose collocation an ILEC objects, the Commission should fashion an expedited process for dispute resolution described more fully below. In Sprint's view, this approach not only has the advantage of maintaining a flexible approach to the implementation of the statute that will accommodate changes in technology over time, but it is also one that can be adopted more expeditiously than a definitional approach which attempts to deal with a wide range of issues that, for now, may be purely hypothetical.

The types of equipment that Sprint believes can clearly be placed in the "safe harbor" list, and the functions they perform, are described below. This list is not exhaustive; it includes only the equipment currently used or known to be available for interconnection or access to unbundled network elements. As such, this list should not preclude the future use of equipment that, due to technological advancements, may provide similar or additional functionality, as long as such equipment complies with NEBS Level 1 Safety and other pertinent technical standards as appropriate.

Digital Subscriber Line Access Multiplexer (DSLAM) — The DSLAM aggregates high-capacity data traffic from multiple xDSL loops for transport back to the CLEC's service node. The DSLAM is necessary for interconnection because it provides a means for multiplexing traffic from several customers within the ILEC's network onto an ATM output stream either to another aggregation point or directly to the CLEC's network.

Network Management Device — Provides remote connectivity and alarming capabilities to the elements in the collocation space, which is necessary for provisioning, management, and surveillance.

ATM Multiplexer — Provides aggregation for subtended DSLAMs from various smaller offices into one larger office. The ATM Multiplexer then routes the aggregated traffic to the CLEC's network.

Timing Source — Although timing may be received from the ILEC, the timing source within the CLEC's collocation space distributes timing synchronization to the appropriate collocated equipment. Network synchronization is the means of ensuring that the physical layer signals in the digital network are effectively clocked by a single, well-defined set of precisely related frequencies. Inadequate synchronization will result in "network slips." For example, in a T1, if timing is lost, information is lost. (The smallest loss of information is a "network slip.")

Fiber Optical Terminating Equipment and Cross-Connect Equipment — Provides CLECs the capability to connect to the ILECs transport whether it is OCn, DS3, DS1 or DS0. These panels also serve as a demarcation point within the CLEC's collocation space.

Test Head — Provides the hardware and platform to implement a variety of telephone loop testing capabilities. Enables one to determine subscriber line characteristics for POTS and xDSL.

Fuse and Alarm Panels — Fuse panels enable CLECs to terminate and distribute the power they receive from the ILEC to various relay racks within the collocation space. Alarm panels alert the CLEC when power is lost to a particular relay rack or piece of equipment.

Splitter — A passive device that divides a telephone signal into two or more signals, each carrying a selected frequency range, and can also reassemble signals from multiple signal sources into a single signal. For ADSL, the splitter sends low-frequency voice signals on to the voice telephone network and sends high-frequency data to a DSLAM for transmission on a packet-switched data network.

Line Cards — Found in the central office and remote terminals, line cards determine the characteristics of subtending loops, and perform multiplexing functionality.[3]

[3] As explained in Section V.A below, in the case of line cards, Sprint believes that, for now, only virtual collocation should be required.

As indicated above, if a CLEC seeks to collocate a type of equipment that is not on this list, or a type of equipment that performs the same functions as "safe harbor" equipment but has other capabilities as well, the ILEC may choose voluntarily to allow its collocation without addressing the issue of whether such collocation would be mandatory under the statute. However, if an ILEC wishes to challenge its obligation to permit collocation of a particular type of equipment, there should be an expedited dispute resolution process. That process would be triggered by an ILEC's rejection of that equipment in response to a CLEC's initial collocation request or an augment order (placed by a CLEC to inform the ILEC that it wishes to place additional equipment in an existing collocation space). To protect the legitimate interests of the CLECs when such a rejection notification is sent by an ILEC, the Commission's rules should require the ILEC, when rejecting collocation of a particular type of equipment, to specify the grounds for rejection, *e.g.*, whether it is being rejected because of safety considerations, or because the equipment is not on the Commission's "safe harbor" list and the ILEC does not believe the equipment is "necessary" for interconnection or unbundled access. In addition, when the rejected equipment appears on the CLEC's initial request for collocation space, the rejection of one individual piece of equipment should not be grounds for refusing to provide the collocation space altogether. Rather, if the CLEC is willing to proceed with the collocation despite the rejection of a type of equipment, a notification to that effect to the ILEC should be deemed to have cured the defect in the initial application, and the ILEC should be obligated to proceed to provide the requested collocation.

Once the CLEC receives this rejection notice from the ILEC, it should have the right to petition either this Commission, or the state commission in the locale where the collocation request was denied, for a ruling that the equipment in question satisfies the statutory standard. The burden of persuasion would be on the CLEC to demonstrate that the functions performed by the equipment are "necessary" for interconnection or UNE access. Likewise, if the ILEC's denial is due to the multi-functional nature of the equipment, the burden would be on the CLEC to show why mandatory collocation is appropriate with respect to the other functions of this equipment. Relevant criteria the CLEC might include in such a showing would be whether the ILEC in question (or other ILECs operating elsewhere) commonly employ the same multi-functional equipment themselves; the differences in cost and size between single-function equipment and multi-functional equipment; and whether having to relocate the other functions performed by the equipment imposes significant operational obstacles on the CLEC.

If the CLEC chooses to litigate the issue at this Commission, the following procedures should apply. The CLEC's petition should be served on the ILEC simultaneously with its filing with the Commission. Oppositions by the ILEC and comments by other interested parties would be due 15 days after the petition is filed, and replies would be due by the petitioning CLEC 10 days after oppositions and comments are filed.[4] The Commission should endeavor to act as expeditiously as possible after the close of the pleading cycle, but it should commit itself to act in no more than 90 days after the close of the pleading cycle. To ensure the availability of prompt judicial review to the losing party, the Commission should amend its delegation of authority rules to

[4] This procedural schedule is patterned after the procedural schedule for pricing flexibility set forth in Section 1.774 of the Commission's Rules.

preclude the staff from acting on these positions, so that all decisions will be Commission-level decisions that are immediately ripe for judicial review.

To minimize repetitive litigation, once this Commission (acting under the procedures outlined above) determines that particular types of equipment meet the statutory criteria for mandatory collocation, then the ILEC involved in the proceeding must allow collocation of this equipment nationwide, and other ILECs should bear the burden of demonstrating that the collocation of these types of equipment is beyond the scope of the statutory standard. Such ILECs should allow this equipment to be collocated on a provisional basis, but should have the right to challenge this obligation to permit collocation of the equipment through the same expedited pleading schedule set forth above. This procedure is akin to the "best practices rule" for interconnection or UNE access set forth in Section 51.321(c)-(d).

If the CLEC initially chooses to litigate the issue before a state commission, then the state commission's ruling should only bind that ILEC in that state. However, the presumption on that ILEC in other states and on any other ILECs nationwide should then shift to the ILEC to show that the collocation is beyond the scope of the statute.

III. CROSS-CONNECTS BETWEEN REQUESTING CARRIERS IN AN ILEC CENTRAL OFFICE

Another issue implicated by the Court's remand in *GTE v. FCC* was whether the Commission could compel an ILEC to allow CLECs collocated in an ILEC office to interconnect with each other and to deploy their own cross-connect facilities.

The Commission should understand the commercial importance of allowing CLECs that are both collocated in an ILEC's central office to be able to interconnect with each other in that ILEC office. In the case of Sprint LD, for example, it is collocating (as

noted above) in a large number of ILEC central offices, primarily for the purpose of purchasing loop UNEs for Sprint ION and other services. At the present time, however, Sprint LD lacks its own local transport facilities to carry traffic from these end offices back to its network. If Sprint LD cannot deliver its traffic in a collocated ILEC office to another collocated CLEC, it will be forced either to use ILEC transport services or to build out its own local transport facilities. Forcing a CLEC to use the ILEC for transport entrenches the ILEC's market power. The CLEC's alternative would be to build facilities that, given the very high capacity of fiber optical cable today, may be so underutilized as to be uneconomic. Furthermore, without CLEC-to-CLEC interconnection, CLECs that do have their own transport facilities are deprived of the opportunity to increase the utilization of such facilities by transporting the traffic of other CLECs.

Sprint does not believe that allowing CLECs to interconnect directly in ILEC central offices (*i.e.*, supply their own cross-connect facilities) is particularly intrusive to ILECs. However, if the Commission concludes that it lacks the statutory power to allow CLECs to directly interconnect their facilities with each other in an ILEC central office, then it must, at a minimum, require ILECs to provide the necessary cross-connect facilities. Prior to the determination in the *Advanced Services* First Report and Order giving CLECs the right to construct their own cross-connects, the Commission, in the *Local Competition Order*, required ILECs to supply the cross-connect facilities. See paragraph 595 of that order, and rule 51.323(h) as adopted therein.[5] Those determinations were not affected by judicial review of that order and constitute final and legally binding determinations. Thus, if the Commission concludes that CLEC-provision

[5] 11 FCC Rcd 15499, 15802, 16216 (1996) (subsequent history omitted).

of the cross-connects is impermissible, it should simply restore the original rule 51.323(h).

IV. SPACE ASSIGNMENT POLICIES

In *GTE*, the Court also vacated rules that (1) allowed CLECs to choose which unused space in an ILEC central office should be made available for collocation; (2) precluded ILECs from placing CLECs in rooms or floors separate from those where the ILECs' equipment is collocated; and (3) forbade ILECs from requiring competitors to use separate entrances to access their own equipment.

Sprint believes that in view of the *GTE* decision, the Commission has little choice but to allow the ILEC, in the first instance, to choose which unused space in a central office it wishes to make available for collocation. However, the Commission should be aware that ILEC choices in this regard could affect both the costs and scope of services offered by CLECs. In the extreme, an ILEC whose central office is located in a large building could select collocation space that is as far away as possible from its own equipment in order to increase the costs of cross-connect facilities and to impair, at least marginally, the CLEC's ability to offer services, such as xDSL-based services, whose quality would be degraded by increasing the distance between the end user premises and the CLEC's collocation space. Thus, despite the ILECs' apparent right, in the first instance, to select which unused space in their central offices to make available for collocation, they should not be able to exercise their discretion in a way that imposes unnecessary costs or technical limitations on the services the CLECs wish to offer;[6]

[6] The pricing of central office interconnection facilities on a per-foot, rather than flat, basis is one factor that should be taken into account in determining whether the ILEC's space selection is intended to artificially increase the CLEC's costs.

likewise, the ILECs should not be able to select space for collocation in such a way as to reduce the total amount of space available for collocation. If a CLEC believes that the ILEC's choice of space has any of these negative effects, it should be allowed to challenge the ILEC's choice.

Furthermore, if an ILEC desires to have its equipment in a space that is physically separate from the space available for collocation, and as a result needs to construct walls and/or separate entrances to be used by collocating carriers, as appears to be the ILECs' right under the Court's decision in *GTE*, the ILECs should have to bear the costs of any such construction. Such construction would be a measure taken by the ILEC solely for its own convenience, and there is no reason to force the collocating carriers to bear the costs. Otherwise, the ILECs would have an incentive, other things being equal, to choose collocation space that would require such construction, simply to increase artificially the CLECs' costs of collocation.

With respect to the CLECs' needs for less than a full rack or bay of space in an ILEC central office, it is Sprint LD's own experience to date — but we also point out that there are carriers with more extensive collocation experience than Sprint LD — that it does not foresee a need for a space as small as a partial rack in a central office. Furthermore, given the Court's decision in the *GTE* case that allows the ILECs to physically separate their equipment from those of CLECs, it is not clear that the Commission would be able to require ILECs to provide partial racks of space to CLECs when the rest of the rack or bay houses ILEC equipment. It is also Sprint's experience that attempting to physically secure one carrier's equipment from another through the use of cabinets can result in damage to adjacent equipment when doors are opened carelessly.

However, in deciding that the ILECs could not be prohibited from physically separating their equipment from those of CLECs, we believe the Court in *GTE* had in mind the context of a central office. The remote terminal presents entirely different space considerations, and the court's holding in *GTE* should not be construed to apply to collocation in remote terminals.

In the Sprint ILEC networks, remote terminals are of two general types. One is a room-size location that is usually, but not always, in a standalone building, with typical dimensions of 10 feet by 26 feet and often with some spare electrical power and spare space available. However, the spare space could not begin to accommodate the typical 10 feet by 10 feet cages used in central offices. The second type of remote terminal is a standalone cabinet, installed above ground on a concrete slab or below ground in a vault, typically with dimensions of 6 feet high by 7 feet wide by 4 feet deep. This type of remote terminal is usually sized for a 5-year build-out of capacity, and the cabinet, together with the equipment it contains, is provided as an integrated unit by the vendor. Thus, there is generally little or no spare space in the racks within the cabinet for additional equipment, and often no spare electric power. Furthermore, these cabinets are typically not air-conditioned, and thus even if there is additional space within the cabinet for other carriers' equipment, the heat generated by such equipment is a very legitimate concern to the ILEC.[7]

To the extent that the ILECs do have space available in either type of remote terminal for the equipment of collocators, the very nature of the remote terminal makes it difficult to separate physically the CLEC's equipment from that of the ILEC. Thus,

[7] In this regard the equipment (such as DSLAMs) used for advanced services tends to generate a substantial amount of heat.

Sprint does not believe that in remote terminals, the ILECs can legitimately deny a request for collocation simply on the grounds that there is insufficient space to physically separate the equipment of the CLEC from the ILEC's own equipment. At the same time, however, in cases where collocation of unseparated equipment is required, the ILECs should be able to undertake reasonable measures to protect the security and physical integrity of their equipment.

V. COLLOCATION AT ILEC REMOTE TERMINALS

In addition to the issues raised by the court remand in the *GTE* case, the Commission seeks comment on several other issues relating to collocation and the provision of unbundled network elements, the first of which (paragraphs 103-112) involve whether the existing collocation rules need to be modified in order to facilitate sub-loop unbundling.

A. CLEC Collocation Needs For Sub-Loop Unbundling

As described in the preceding section, the remote terminals that the Sprint ILECs operate tend to be one of two types: A room-size structure with conventional racks and bays and, in many cases, a modest amount of space available for collocation of the types of equipment (*e.g.*, DSLAMs and fiber optic terminals) needed for sub-loop unbundling. The second type tends to be a small, self-contained cabinet with electrical power but typically not air-conditioned, that is built and sized for the equipment it contains, with little or no space for equipment of other carriers (except for line cards that can be placed in the next generation digital loop carrier (NGDLC) systems). These cabinets — and the equipment they contain — are typically sized to accommodate five years of expected demand, and thus they are replaced with reasonable frequency. Depending on the size of the population serviced by a particular remote terminal and the expected demand for the

particular CLEC's service offerings, the space needs of a CLEC may range from limited space for line cards or a small amount of equipment in an NGDLC to sufficient space to accommodate several DSLAMs. As discussed in the preceding section, because of the severe space limitations that can exist in remote terminals of all types, the Commission's rules should require ILECs to allow placement of CLEC equipment in the same racks or bays as ILEC equipment, with due regard for the legitimate security concerns of the ILEC (and other CLECs collocated in the same remote terminal), even if such a practice is not mandated in central offices.

If the experience of other ILECs is similar to Sprint's, then it can be assumed that there is very limited available space for collocation in the cabinet-type remote terminals, but that, over time, opportunities exist to create such space when these cabinets are replaced with equipment that can accommodate more capacity. Section 51.323(f)(3) already requires ILECs to take into account projected demand for collocation of equipment when planning renovations of existing facilities or constructing new facilities. This rule places a requirement on ILECs to build in additional space for collocation when they are replacing a remote terminal cabinet so long as they have some reasonable expectation of demand for collocation space. However, to remove any doubt on this issue, the Commission should so indicate in its final order in this proceeding. At the same time, the existing rules do not require ILECs to replace their existing used and useful facilities merely to create space for collocation, and thus the ILECs are not obligated to replace these cabinets prematurely.

If the CLEC simply seeks collocation of individual line cards in the ILEC DLCs for the provision of advanced services (see ¶¶ 109 and 112), Sprint believes that virtual

collocation should be sufficient and should alleviate most ILEC concerns about security and network integrity issues. In addition, Sprint believes it should be the responsibility of the equipment manufacturer to identify line cards that are compatible with its equipment until such time as multi-carrier devices become commercially available. ILECs should also provide CLECs with information regarding the type of DLCs that are deployed within their network as well as identifying which DLCs in their network are capable of supporting advanced services. However, virtual collocation of line cards should not be regarded as an acceptable substitute for physical collocation of a DSLAM. Depending on the nature of the equipment the ILEC is using, and the services the CLEC intends to offer, the CLEC's inability to collocate a DSLAM could unduly limit the range and quality of services that the requesting carrier may wish to offer to the public. Thus, when a CLEC wishes to collocate a DSLAM and there is insufficient room within the remote terminal for collocation of a DSLAM, the CLEC should have the right to collocate its DSLAM in adjacent space.

Although the existing rule 51.323(k)(3) already allows for adjacent collocation "where space is legitimately exhausted in a particular incumbent LEC premises," Sprint urges the Commission to make one clarifying change in that rule — to require the ILEC to make available adjacent collocation "where space is legitimately exhausted <u>for the equipment sought to be placed by the requesting carrier</u> in a particular incumbent LEC premises …" (clarifying language underscored). This clarification of the rule is necessary to preclude the ILECs from being able to play the "Catch 22" game that one megaBOC is currently playing with Sprint. The DSLAM Sprint LD is seeking to collocate in a remote terminal is too deep for the equipment bay used at that particular

site. As a result, Sprint has requested adjacent collocation, but that request has been denied on the grounds that there is collocation space available in the remote terminal. In short, this megaBOC is denying Sprint its right to adjacent collocation on the grounds that there is space in the remote terminal, even though that space is insufficient to accommodate the particular type of equipment Sprint seeks to collocate. The clarification of the rule requested by Sprint would make clear that the question of space exhaustion is a function of the particular type of equipment the requesting carrier seeks to collocate, rather than whether there is some space available for some other equipment.[8]

The Commission has also requested comment on whether deployment of DLCs affects distinct types of collocating carriers differently, and for illustrative purposes refers to interexchange carriers operating as competitive LECs as compared to data LECs (paragraph 109). Sprint believes it is dangerous for the Commission to attempt to engage in any such distinctions. Each carrier, regardless of the other types of services it may provide, should have complete flexibility in the types of competitive local services it wishes to offer, including both traditional and advanced services, and both broad-based services and services narrowly targeted at particular types of subscribers. Indeed, with respect to Sprint LD's own collocation activities, those activities are today more in the nature of those associated with data CLECs, than simply those of a long-distance carrier seeking to capture the voice traffic of existing long-distance customers. Any

[8] In requesting this clarification of the rule, Sprint does not concede that the existing rule, fairly construed, permits the ILEC to refuse a request for adjacent collocation in the circumstances outlined above, and Sprint reserves its right to bring whatever enforcement actions may be necessary against the carrier in question under the existing rule. The clarification would simply eliminate that carrier's ability to play this particular game in the future.

Commission effort to distinguish between different types of collocating carriers would be arbitrary, unjustifiable, and ultimately anticompetitive.

Finally, where the CLEC is physically collocated in the remote terminal or is using adjacent collocation, the ILEC should be responsible for electrical power (including emergency power) unless the provision of electrical power is technically infeasible for the particular equipment configuration in the remote terminal. However, the CLECs should understand that ILEC provision of power, particularly direct current, may be expensive, and that ILEC-provided emergency power may often be unavailable. To avoid electrical dissonance, CLECs that choose to obtain their own power should use the same provider as the ILEC.

B. Information Needs Relating to Remote Collocation

In paragraph 107, the Commission asks whether incumbent LECs should be required to provide requesting carriers with demographic and other information regarding particular remote terminals similar to the information available regarding ILEC central offices. There is a sharp contrast between the availability of information pertaining to central offices and information on remote terminals. As stated previously, Sprint has made the decision to collocate in approximately 1000 central offices in 2000 based on information that was readily available. In contrast, Sprint is very reluctant to do the same at a remote terminal given the lack of information. To do so would be financially irresponsible due to the uncertainty of ever receiving an acceptable return on the investment. To illustrate one such example, Sprint spent considerable time and effort trying to acquire and analyze data provided by one RBOC. Four full-time employees spent two full weeks analyzing over 40,000 rows of data and contacted two third-party

database providers, only to determine that the information required to make a sound economic decision was not available.

Thus, detailed information is essential if requesting carriers are to have any hope of determining whether it is both technically and economically feasible to request interconnection at ILEC remote terminals. Unless a potential requesting carrier knows how many customers are served by each remote terminal, what type of equipment is located in the remote terminal, whether there is any space available within the remote terminal for collocation, etc., the carrier will have no idea whether it is economic even to consider attempting to engage in virtual or physical collocation. In order to give CLECs a meaningful opportunity for analysis, the ILECs should be required to furnish the following information in a digital tabular form (*e.g.*, Excel):

- Serving Wire Center CLLI
- Serving Wire Center CLLI Address (city, street, zip code)
- Remote Terminal (RT) CLLI
- Remote Terminal Address (city, street, zip code)
- Remote Terminal Equipped Lines
- Remote Terminal Working Lines
- Remote Terminal to Central Office Transport Type(s) Available and Planned, *e.g.*, dark fiber, DS3, etc.
- Remote Terminal Type (manufacturer, model, etc.)
- Remote Terminal Housing Size and Type, *e.g.*, CEV

- All Serving Area Interface ("SAI") CLLIs for each Remote Terminal[9]
- Serving Area Interface Address(es) (city, street, zip code)
- Number of Terminal Connections (F1 & F2) Available in each Serving Area Interface[10]
- All Services Addresses for each Serving Area Interface (city, street, zip code)

Even though much of the above information might arguably be encompassed by the existing definition of preordering and ordering information in rule 51.5, which the ILECs are required in Section 51.319(g) to provide through access to their operations support systems, Sprint believes that the rules should be amended to require ILECs to provide the above information, apart from ordering and preordering data. The information here at issue is needed well before the requesting carrier even comes to the point of having the potential to place an order for a particular loop or sub-loop to serve a particular customer. Rather, as explained above, this information is needed before the carrier can make a sound decision whether to interconnect at a particular remote terminal — a decision that would come well before the CLEC is able to start soliciting customers served via that remote terminal. In addition, rules that specify exactly what information the ILEC must provide to CLECs eliminate unnecessary controversy and delay. The information Sprint is requesting is substantially similar to information that one RBOC has already agreed to make available and is, in Sprint's view, a reasonable trade-off between

[9] Serving Area Interfaces are cross-connect boxes located between the remote terminal and the customer premises. Several SAIs may feed into a single DLC.
[10] The F1/F2 connections are feeder-to-distribution connections at various points in the loop plant, including SAIs and remote terminals. CLECs need to know whether there is space available for additional connections at each such point.

the burden on the ILEC of furnishing such information and the CLECs' need for detailed information upon which to base sound entry and network engineering decisions.

C. Easement and Right-of-Way Issues

In paragraph 111, the Commission asks a number of questions regarding easements and rights-of-way, including whether zoning, rights-of-way, and other property laws affect an ILEC's ability to enlarge its remote terminals, whether the ILECs' easements permit adjacent collocation, and whether local governments, other utilities, or third parties will allow collocators to place their own structures at remote locations either on ILEC easements or on public rights-of-way. In addition, the Commission asked for comment on what role the CLECs should play in obtaining any required approvals.

These questions are very fact-specific, and the answers will vary depending on the type of easement and on state law. If the easement is a public easement (*i.e.*, one involving publicly-owned rights of way), such easements are typically available to all public utilities. Hence, any CLECs trying to collocate adjacently to an ILEC remote terminal should be able to use the easement. More problematic are easements granted by private parties. The types of easements the Sprint ILECs obtain are generally classified as commercial easements in gross. Under the laws of most states, such easements can be assigned or divided (*i.e.*, used by others) as long as the assignment or division does not impose an unreasonable burden on the property encumbered by the easement. However, what constitutes an unreasonable burden is an issue that must be decided on a case-by-case basis. The general common law applicable to commercial easements in gross can be modified by the instrument creating the easement; thus, it would be necessary to examine the terms of each easement, along with the law of that state, to definitively resolve a

CLEC's right to engage in adjacent collocation or to place its property within the remote terminal of the ILEC.

If the nature of the CLEC's request is to use the ILEC's easement (*e.g.*, placement of CLEC equipment within the ILEC remote terminal, or adjacent collocation by the CLEC in the space governed by the ILEC's easement), the ILEC should be responsible, in the first instance, for securing the necessary permission from the property owner. In cases where the property owner is entitled to impose a charge for the use of the easement, however, either the CLEC must become involved in the negotiations.

Where the CLEC needs its own easement (*e.g.*, in cases where it needs to collocate adjacently to the ILEC's remote terminal, but the ILEC's easement lacks sufficient space), the ILEC should assist the CLEC to the extent of providing the name, address and other relevant contact information of the property owner and should indicate to the property owner that it does not object to a grant of the easement by the property owner to the requesting carrier.

In any case, the ILEC should provide a copy of the easement agreement for its remote terminal location to the CLEC requesting interconnection. Without a copy of the agreement, the CLEC will have no means of verifying whether the ILEC is fulfilling its own responsibility under the Commission's rules and no basis for verifying whether the ILEC needs to secure the owner's permission for the CLEC to utilize the easement or whether the CLEC needs its own easement, as the case may be.

VI. LINE-SHARING

In paragraph 113, the Commission asked for comment on whether changes to the collocation rules are necessary to facilitate line-sharing. Sprint recommends one such change. In cases where a requesting carrier wishes to place line-sharing equipment in

existing collocation spaces, it should not be required to file an augment application as long as the equipment is passive — *i.e.*, does not require electrical power — such as line splitters. Although ILECs have a legitimate need for advance knowledge of any equipment that is going to consume electrical power, the need to file augment applications for passive equipment simply injects unnecessary delay into a requesting carrier's ability to utilize line-sharing.

In addition, although rule 51.323(i) already requires ILECs to allow access to collocated equipment 24 hours a day, 7 days a week, the Commission should reiterate that this requirement applies equally to remote terminals (including those that consist of locked cabinets). Such reiteration would reduce opportunities for needless controversy and delay.

VII. PROVISIONING INTERVALS

In paragraph 27 the Order on Reconsideration accompanying this Further Notice, the Commission adopted a 90-day deadline, to apply in the absence of any state-commission-prescribed interval, to complete any physical collocation arrangement including caged or cageless and regardless of whether the space is conditioned or unconditioned, with the deadline running from the ILEC's receipt of an acceptable collocation application. In the Further Notice, however, the Commission invited comment on whether it should prescribe different maximum provisioning intervals for different types of collocation arrangements.

Although paragraph 114 refers to "shorter intervals" for particular types of collocation, paragraph 115 clearly invites open-ended comment on provisioning intervals:

> "We ask commenters to suggest possible maximum intervals for caged, cageless, shared, and adjacent collocation arrangements, modifications to existing collocation arrangements, collocation within remote incumbent LEC premises, and collocation involving conditioned and unconditioned space [footnote omitted]."

Taking paragraph 115 at face value, Sprint proposes two overarching changes in the space provisioning intervals, as well as specific intervals for particular types of collocation.

First, the Commission's rules should be of nationwide applicability, rather than default provisions that apply only in the absence of state rules. If the Commission is satisfied that the provisioning intervals it adopts are reasonable, then there is no apparent reason for allowing states to grant ILECs more or less than this reasonable amount of time for collocation. The provisioning intervals that states have adopted are relevant points of reference that may guide the Commission in its determinations, but once the Commission has acted, its rules should apply nationwide, rather than on a default basis. Having a multiplicity of mandated intervals that can vary from state to state imposes undue complexity on the operations of both ILECs and CLECs.

Second, the provisioning intervals recommended below (other than for augment orders) should run from the date the CLEC accepts the ILEC's price quote, rather than the date the CLEC submits its application, as provided in the Order on Reconsideration; for that purpose, the ILEC should be required to provide a price quote within 5 days after the 10-day period allowed for acceptance of the CLEC's application. Since the present rule, at least for conditioned space, was adopted in response to Sprint's petition for reconsideration,[11] Sprint confesses to a bit of embarrassment in seeking a different point

[11] Sprint had sought a 180-day period for provisioning collocation in unconditioned space.

from which to start the clock running. However, the simple fact is that after an additional sixteen months' experience with collocation, both as an ILEC and a CLEC, Sprint believes that its previous position, coupled with a 90-day period for provisioning caged collocation in conditioned space, was unrealistically short to be a general rule. To meet that interval would require the ILEC to commence work as soon as the order is received — before determining that the order is acceptable, before providing a price quote to the CLEC, and before receiving a firm order commitment from the CLEC. The ILEC would incur costs that, absent a rule to the contrary, would not be recoverable if the CLEC's application were defective or if the CLEC rejected the ILEC's price quote. With the benefit of hindsight, the more logical approach would be to require prompt price quotes by the ILECs — as noted above, Sprint proposes a 5-day period after the ILEC has approved the CLEC's collocation request — and start the clock running for the provisioning intervals listed below as soon as the CLEC notifies the ILEC of its acceptance of the price quote.

The specific provisioning intervals Sprint proposes are the following:

1. Central and Remote Office physical caged, unconditioned space — 120 days
2. Central and Remote Office physical caged, conditioned space — 90 days
3. Central and Remote Office physical cageless, unconditioned space — 90 days
4. Central and Remote Office physical cageless, conditioned space — 60 days
5. Central and Remote Office virtual — 60 days
6. Augment Orders:

   Simple Augments, such as the placement of additional AC convenience outlets, or only a fuse change for additional DC power, should be provided within 20 days of receipt of a complete augment application.

Minor Augments, consisting primarily of interconnection cabling arrangements where the panels, relay racks, and other infrastructure exist should be provided within 45 days of receipt of a complete augment application.

Intermediate Augments, consisting of additional interconnect panels/blocks, cabling, DC power arrangements, where minor infrastructure work is required, should be provided within 60 days of receipt of a complete augment application.

Major Augments, requiring major infrastructure work (*e.g.*, cage expansion, power cabling) should be provided in 60-90 days of receipt of a complete augment application.

Specific examples of these augment orders are:

Simple Augments (20 days) —

- Duplex (or Quad) AC convenience outlets
- DC power requirements were only a fuse change is required

Minor Augments (45 days) —

- Up to 2 DS3s (cabling only; panels, relay racks and overhead racking exist)
- Up to 400 copper (shielded or nonshielded) cable pairs (blocks and cabling only; panels, relay racks and overhead racking exist)
- Additional overhead lighting
- Cage-to-cage interconnection conduit within the same collocation area
- Cable pull within same collocation area

Intermediate Augments (60 days) —

- Up to 400 copper (shielded or nonshielded) cable pairs (4 blocks)
- Arrange/install fiber cable through inner duct
- Arrange/install timing leads (no synchronization off stratum clock)
- Arrange and install fiber interconnections up to 12 fiber pairs

Major Augments (60-90 days) —

- Power cables added to accommodate greater DC amperage requests within existing power panels
- Cage expansion of 300 square feet or less immediately adjacent to a collocator's existing cage within the collocation area, as long as the collocation area does not have to be reconfigured and does not involve HVAC work
- Arrange/install bay lighting front and back up to three (3) bays

7. Interconnection Facilities — 15 days after completion of the collocation space[12]

There are four aspects of the above proposals that merit more detailed comment. First, Sprint is proposing an extra 30 days whenever unconditioned space must be conditioned for the requested type of collocation. Sprint is mindful that the Commission, in the Order on Reconsideration, rejected Sprint's earlier reconsideration request for a longer space preparation interval for unconditioned space (at that time, Sprint was requesting an additional 90 days, rather than 30 as proposed above). However, it is simply a fact of life that in general it will take longer to provide collocation in unconditioned space than conditioned space. Unless some allowance is made in the rules for the additional time necessary for space conditioning, the ILECs will be driven to seek waivers when more time is required, and consideration of a multiplicity of waiver requests will needlessly consume scarce regulatory resources.[13] Recognizing in the rules that, on average, the provision of collocation in unconditioned space takes longer than

[12] In the case of adjacent collocation, the 15-day period would run from the date the CLEC notifies the ILEC that it has completed its adjacent collocation facility.
[13] Sprint recommends that the Commission's rules provide that an ILEC seeking a waiver from these provisioning intervals be allowed to file such a waiver application either with this Commission or the state regulatory commission, and should delegate to the states the authority to grant waivers.

doing so in space that has already been conditioned, will reduce the need for such waivers.

Second, with respect to all of the provisioning intervals Sprint has recommended, the Commission should recognize that because of various unusual circumstances, there will be a legitimate need for waivers on the part of ILECs. For example, with respect to unconditioned space, the removal of asbestos may greatly extend the period of time otherwise needed for adding power and HVAC to the unconditioned space. In addition, unusual spikes in demand for collocation can strain scarce ILEC resources and cause delays in processing. For example, from January 1999 through February 2000, the Sprint ILECs in its mid-Atlantic region received a total of 60 collocation requests, or 4.3 per month on average, but in March 2000, the number of requests jumped astronomically to 82. Clearly, no carrier can be expected to staff up to meet such dramatic and unforeseen increases in the number of collocation requests. There is an inherent trade-off between any prescribed interval for collocation provisioning and the legitimate need for waivers of the rules.[14] The provisioning intervals Sprint has recommended are not intended to allow for all unusual circumstances. Thus, if the Commission adopts Sprint's proposed intervals, it should be aware that there will undoubtedly be legitimate reasons for waiving these rules in particular circumstances.

Third, Commission rules prescribing intervals for space preparation are of little benefit to CLECs if the ILECs then have unlimited time thereafter to install the ILEC facilities needed to interconnect with the CLECs' collocation spaces. Sprint LD has

[14] Sprint's earlier recommendation to the Commission of an additional 90-day allowance for space conditioning, for example, would have reduced the number of waivers needed for circumstances such as asbestos removal.

experienced instances of more than 440 days between its submission of a collocation request and the completed provisioning of the interconnection facilities, largely due to the delay in provisioning the interconnection facilities after completion of the collocation space. The CLEC should know, at the time it files its collocation application, what type of interconnection facilities (including transport) it needs from the ILEC. If it notifies the ILEC of its needs at that time, even if the ILEC is not yet ready to begin processing the facilities request, the ILEC should be able — absent unusual circumstances — to complete the installation of the requested facilities within 15 days after the collocation space has been turned over to the CLEC.

Finally, the proposed augment intervals can be achieved by the ILEC if it has standardized pricing for augments and if the CLEC issues a Blind Firm Order Confirmation (FOC) upon submission of the augment application. The Blind FOC means that the CLEC is aware of its expected costs and intervals for the augments requested and wants the ILEC to proceed with the augment once its administrative work is completed without checking back with the CLEC for approval. The Blind FOC would be beneficial in instances where, for example, the CLEC simply wishes to augment the number of DS0 cable pairs delivered to its collocation space for line sharing. If the CLEC knows that it wants 400 additional DS0 pairs, and price will not affect its decision, the CLEC could issue a Blind FOC with its augment application and eliminate the need for the ILEC to check back with the CLEC once its price quote function is complete.

VIII. SPACE RESERVATION POLICIES

In paragraph 117, the Commission seeks comment on whether it should adopt a national space reservation policy that would apply where a state does not set its own

standard and asks whether varying standards should be employed for different types of equipment. Sprint very much supports national standards for space reservation policies, but, as is the case with the provisioning intervals discussed above, urges the Commission to adopt such standards as true national standards rather than default standards that apply only if the states do not otherwise adopt standards of their own.

Sprint does not believe it is appropriate to distinguish the space reservation standards on the basis of the type of equipment involved. Distinctions between equipment types are becoming less clear all the time, and increasingly will be blurred as technology changes and as new and innovative services are offered by both ILECs and requesting carriers. Rather than adopt standards that will inevitably lead to disputes as to their application to specific types of equipment, Sprint believes a simple, "one-size-fits-all," approach is the best one, and for that purpose we believe a standard of the remainder of the current year plus the next 12 months is the appropriate standard to employ both for space reservations by both ILECs and CLECs. This is consistent with the typical corporate planning and budget horizon and would prevent any carrier from prejudicing the collocation opportunities of other carriers through speculative, longer run forecasts that can be made obsolete by both changes in business plans and changes in technology that can affect the space requirements of central and remote office equipment.

IX. IMPACT OF NEW TECHNOLOGIES ON ACCESS TO LOOP AND TRANSPORT ELEMENTS

In the final section of the Further Notice, the Commission asks a series of questions relating to the deployment of new and loop transport technologies by ILECs, and the impact of those technologies on the availability of loop (including sub-loop) and transport UNEs. First, the Commission asks for comment (in paragraph 121) on whether

an individual optical wavelength generated by dense wavelength division multiplexing (DWDM) equipment (either in loop plant or transport plant) is itself a loop or a feature, function or capability of the fiber loop. Sprint believes that, analytically, the individual optical wavelength generated by DWDM equipment is no different than any other level of capacity obtainable from fiber or copper facilities through optical or electronic equipment, such as a DS1, a DS3 or an OCn facility. The rules already require high capacity loops (51.319(a)(1)) and "all technically feasible capacity-related" transport facilities (51.319(d)(1)(i)) to be made available, and Sprint believes that such rules clearly encompass other levels of capacity that can be created with deployment of new technologies such as DWDM. However, in order to avoid unnecessary obstruction and delay, the Commission should make clear that the current rules do encompass DWDM optical wavelengths.

In addition, noting that the current rules specify that the loop includes attached electronics except those, such as DSLAMs, used for provision of advanced services, the Commission seeks comment (paragraph 122) on whether this rule should be modified to exclude only those electronics used "exclusively" or "primarily" in the provision of advanced services, *i.e.*, whether there is specific equipment other than a DSLAM that should be excluded from the definition of the loop and the basis for such exclusion. The Commission's exclusion of the DSLAM in its definition of the loop is a direct function of a policy determination, in the *UNE Remand* order, to encourage deployment of broadband services and a belief that there was sufficient deployment of packet switching by non-ILECs that the unbundling of packet switching should not, as a general rule, be required to be made available as a UNE and that doing so might stifle the ILECs'

incentives to deploy broadband services.[15] Sprint urges the Commission not to enlarge this exception by removing other electronics attached to the loop from the definition of the loop element. An enlargement of the exception could make it more difficult for requesting carriers to utilize loop UNEs and, by forcing them to place their own electronic equipment in ILEC central and remote offices, can create additional collocation burdens for ILECs as well.

Next, the Commission asked whether deployment of new technologies and architectures in loop plant requires modification or clarification of the rules concerning sub-loops and line sharing (paragraphs 123-128). As for the Sprint ILECs' deployment of fiber in loop plant (see paragraph 124), the plans for both feeder and distribution plant over the next several years include increasing amounts of fiber optic technology and NGDLCs, some overlay electronics to increase the capacity of existing copper plant, and some minor extensions of copper distribution plant for new growth. The fiber feeder plant will use SONET and ATM technologies.

As a general matter, ILEC deployment of fiber to the curb (FTTC) or fiber to the home (FTTH) may make it nearly impossible for requesting carriers to utilize sub-loops. The FTTC or FTTH technologies limit collocation for the purpose of accessing the copper sub-loop to the line card level in the Optical Network Unit (ONU), which converts the optical signal to an electrical signal.

With respect to whether ILECs are required to notify competing carriers when they deploy fiber facilities in the loop, Sprint believes that the existing rules — specifically sections 51.325-51.335 — clearly encompass such a requirement. Sprint

[15] *See UNE Remand* order at paragraphs 304, 314-17.

would merely request that those rules be clarified to apply also to new installations (*e.g.*, new housing subdivisions or office locations not heretofore served by the ILEC). Just as CLECs need to be aware of changes in plant used to serve existing locations, CLECs need to be aware of the ILECs' network configurations in newly developed areas so that they will have an opportunity to compete for provision of services to customers located in those areas.

Within the new network architectures, requesting carriers should have access to all technically feasible transmission speeds and quality of service classes, including constant bit rate (CBR) and real-time and non-real-time variable bit rate (VBR) that exist in the attached electronics. To the extent the Commission is concerned about interference or congestion that could lead to service degradation (paragraph 125), this is conceptually no different than the spectrum management issues the Commission has previously addressed in this proceeding. What is needed are industry standards to govern the resolution of such issues, rather than permitting each individual ILEC to dictate the standards that will be binding on all other carriers seeking to operate in that ILEC's serving area.

Where there is inadequate capacity in the sub-loop to accommodate all services that all carriers seek to provide (see paragraph 126), the only practical solution is to use a first-come, first-served approach, with reasonable allowances for reservation of future capacity requirements subject to essentially the same regime as reservation of collocation space, discussed in Section VIII above. The Commission should not allow requesting carriers to install multiplexing equipment in the remote terminal and central office that would enable them to access the sub-loop. Attaching such equipment to the fiber loop

plant raises a whole host of network implications. Adding additional multiplexing on one leg of the loop plant has to be coordinated with the rest of the local network, and thus the actions of one requesting carrier could have spillover effects on other carriers and other parts of the local serving area. There are multiple nodes on the fiber rings, and interface and synchronization with non-integrated CLEC terminals would be problematic and will have negative impact on customers and overall service levels of the respective carriers.

Furthermore, Sprint believes that capacity shortages are likely to be short-lived problems. If there is insufficient capacity in the sub-loop plant, that means that the ILEC itself will be short of capacity and, in the ordinary course of business, will want to expand its capacity to provide its own services to its own customers. Thus, this is a largely self-correcting problem. The ILEC, of course, cannot be required to build loop capacity just for other carriers, but when the ILEC expands sub-loop capacity for its own needs, it should take the needs of requesting carriers into account, just as the Commission's rules for collocation require.

With respect to OSS modifications needed for loop and sub-loop unbundling, and testing requirements (paragraph 128), the information Sprint delineated with respect to remote terminal collocation in Section V.B above should accommodate the essential OSS needs of requesting carriers for the time being. However, as new features are made available from the deployment of new technology, modifications to OSS will be needed in order to allow a full range of access to those new features, including pre-ordering and ordering information as well as maintenance, repair and (perhaps) billing information as well. As for testing capabilities, the equipment vendors need to be sensitive to the CLECs' need to monitor and test the UNEs that they obtain from ILECs. However, this

is an issue that is primarily for the equipment vendors to address in their equipment design.

X. SPARE COPPER

In paragraphs 129-131, the Commission asks for comment on the obligations of ILECs with respect to copper loop plant that is being replaced by fiber, including whether the ILEC should be required to leave the copper in place so that requesting carriers can utilize it for DSL-based services, whether competitors should bear the cost and responsibility of maintaining this copper to the extent they seek to utilize it, and whether there should be regulatory constraints on the ILECs' ability to retire and remove loop plant. These are difficult and complex issues. Obviously, spare copper can be a valuable resource for requesting carriers, particularly in view of the difficulty of providing DSL services to end users that are served via remote terminals. On the other hand, the cost of maintaining the copper in working order and paying for aerial attachments on poles that may be owned by other utilities can impose a considerable expense on ILECs. Furthermore, the ILECs may not be compensated at all for these costs during periods when there is no demand for the spare copper facilities from CLECs or, if there is such demand, the demand is only for a portion of the copper in question.

The Commission should not be in the position of micromanaging decisions by ILECs on whether and when to abandon copper plant. At the same time, CLECs should have an opportunity to retain this potentially valuable resource. The existing notification requirements for network changes should be sufficient to inform requesting carriers of the ILECs' plans to retire copper facilities. As suggested in paragraph 131, an interested CLEC should have the opportunity to purchase the spare copper from the ILEC. In that case, and only for that limited facility (*i.e.*, the copper transmission facilities), the CLEC

should be considered a successor or assign of the ILEC, so that one CLEC could not monopolize the spare copper and deny the use of this valuable resource to other CLECs. These are the very types of facilities that Congress intended to be made available on a non-discriminatory basis, and that intent should not be overridden by replacing one monopolist with another.

XI. CROSS CONNECTIONS IN NEW LOOP ARCHITECTURE

Finally, in paragraph 133, the Commission asks, in light of the new ILEC network architectures, what the technically feasible points are for accessing the copper distribution portion of the loop and the fiber feeder portion of the loop at remote terminal locations and whether, with respect to new build-outs, the Commission should require ILECs to ensure that there is a technically feasible access point at the remote terminal and whether a special construction arrangement, including a cable splice, is necessary to access a loop.

The Sprint ILECs do not hard-wire cables containing copper pairs into the remote terminal equipment. Rather, they provide a cross-connect box between the DLC and the copper distribution sub-loops. Thus, a CLEC could access the distribution plant at this cross-connect box. However, special construction of a tie cable would be needed, and if the CLEC uses fiber feeder cable, special construction would be needed to extend the fiber feeder to the CLEC's equipment.

Sprint's understanding of the Engineering Controlled Splice (ECS), as proposed and offered by SBC in conjunction with its Project Pronto deployment, is that upon request, SBC will construct an arrangement at a remote terminal that will provide a connection from the CLEC's remotely collocated equipment to the SAIs subtending that remote terminal. The ECS is needed when CLECs are pursuing remote collocation arrangements. Remote collocation requires that one DSLAM be placed in the field for

every remote terminal requiring access. In some ILEC network architectures there can be dozens of remote terminals per central office and dozens of SAIs per remote terminal. The ECS extends a CLEC's reach to a larger quantity of SAIs, and consequently, sub-loops than would otherwise be available through a single remote collocation arrangement without the delay and expense of engaging in numerous remote collocations at every SAI. Sprint urges the FCC to encourage other ILECs whose remote terminals are hard-wired to their SAIs to offer an arrangement similar to the above-mentioned cable splice, that will facilitate the rapid deployment of advanced services to a broader base of consumers.

Respectfully submitted,

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