future use by the incumbent. The Commission could further clarify this requirement so as to allow the incumbent LEC to place "just and reasonable" restrictions on the use of space for collocation, so long as the incumbent provides written certification that it will itself not use space similar to that requested by the CLEC. The Commission should make clear that such requirements are necessary to place the CLEC on the same competitive footing as the incumbent.

Second, the Commission should reinstate its prohibition on the ILEC's unilaterally imposing an arbitrary or unreasonable requirement that the CLEC construct a room, cage, or similar structure for its equipment, collocate equipment on a separate floor, or create a separate entrance to its collocation space.[119] Such separation requirements go beyond increasing the costs borne by CLECs; they constitute clear barriers to entry not faced by the incumbent. For example, a requirement that CLECs collocate on separate floors or rooms creates the potential for isolation/marginalization of CLEC equipment, reducing the universe of space available to CLECs, while leaving the incumbent LEC free to locate its equipment anywhere.[120] Requiring CLECs to construct separate entrances, instead of leaving CLECs free to use existing entrances, increases costs for CLECs.

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[119] ILECs frequently justify separate room/isolated space requirement based on "security" concerns. However, the cost of resolving security concerns should not be placed solely at the feet of the CLECs, but should also be shared by the incumbent LECs. Moreover, State commissions have found less restrictive ways to address the purported ILEC security concerns, such as security cameras, monitoring systems, or badges. *Ordinary Tariff Filing of New York Telephone Company to Provide for the introduction of Cageless Collocation Open Environment (CCOE); rates and regulations for Adjacent Structures; and, clarifications and modifications to existing collocation offerings*, Case 99-C-0715, and consolidated case 95-C-0657, Order Directing Tariff Revisions at pp. 4-5 (NY PSC 1999).

[120] For instance, in New York, Bell Atlantic unilaterally imposed a requirement that CLECs place their equipment in a separate lineup at least 10 feet away from working BA-NY equipment. CLECs argued that this rule limits the amount of space available, increases costs and may force CLECs to collocate in a separate room. The NY PSC agreed and disallowed this practice. *Id.*

Finally, the Commission should specifically prohibit ILECs from establishing intermediate points of interconnection in lieu of direct connection to its network facilities. Here, the Commission can rely *both* on the technical feasibility of such direct connection and the ILEC's obligation to provide collocation on just and reasonable and nondiscriminatory terms and conditions. Under the terms of the Act, incumbent LECs are obligated to provide interconnection "at any technically feasible point within the carrier's network."[121] This requirement, by definition, precludes a requirement of indirect interconnection in circumstances where direct connection is feasible. Moreover, unless justified by technical, operational, safety, engineering or security considerations, such a requirement places the CLEC at less than competitive parity with the incumbent LEC, thus violating the incumbent's obligation to offer interconnection at just and reasonable and nondiscriminatory terms and conditions. Accordingly, the Commission should prohibit ILECs from requiring *indirect* interconnection unless the incumbent LEC certifies in writing that it cannot overcome the conditions that mandate such requirement.

F. The Commission Should Establish Minimum Provisioning Intervals for the Full Range of Collocation Arrangements.

The FCC has also requested comment on: (1) whether it should reduce the maximum provisioning interval for physical collocation arrangements to a number shorter than 90 days; and (2) whether it should establish separate minimum installation intervals for various other types of collocation.

DSLnet applauds the decision of the Commission to adopt a maximum provisioning interval for physical collocation of 90 days. However, as the incumbent LECs have gained more

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[121] 47 U.S.C. § 251(c)(2)(B).

experience with collocating CLEC equipment, and in installing equipment used to provide advanced services both for the incumbent LEC itself and its tenant CLECs, DSLnet believes that shorter intervals are appropriate.

DSLnet would add, however, that the Commission should adopt considerably *shorter* intervals where collocation necessitates *less* than the full complement of activities necessary for LECs to provision a full blown collocation application – *i.e.*, for modifications or additions to existing collocations, collocations within already prepared or conditioned space, or where the CLEC agrees to perform the work necessary to install a collocation cage. Of particular interest to DSLnet is the provisioning interval for augmenting existing collocation space necessary to install equipment associated with advanced services, such as splitters and cabling. Such collocation typically involves attaching equipment to existing structures with a few bolts and the attaching of pre-prepared cables. Acknowledging that such collocation necessarily involves less planning and logistical issues, Verizon has reduced the information required for applications for collocation augments by two-thirds. This reduction in paperwork – with its implications for the reduction in administrative tasks – should correspond to a shorter provisioning interval, especially when taken together with the decreased physical work required for collocation augments. Thus, for example, the Texas Commission has affirmed GTE's obligation to provide collocation augments within 30 calendar days, which time frame SWBT already has specified in its collocation tariff.[122] Less generous, but still shorter than the 90 day interval for full collocation, is the 45-business day interval adopted by the Pennsylvania Commission for collocation arrangements.[123]

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[122] *See* Docket No. 22168, *Petition of Covad Communications Co. and Rhythms Links, Inc. Against Southwestern Bell Telephone Co. and GTE Southwest Inc, etc.*, Interim Award, at 25.

[123] *See infra* note 168.

A similar reduction in provisioning intervals for collocation is appropriate where the CLEC is willing to construct portions of the collocation itself.

V. COLLOCATION AT REMOTE TERMINALS

A. Collocation At Remote Terminals of Line Cards, DSLAMS, and other Equipment Is Necessary for Interconnection and Access to UNEs.

As the use of fiber based DLC systems becomes more ubiquitous, due to the accelerating growth in the provision of advanced services, remote terminals are fast becoming the equivalent of the central office. [124] The Commission has already recognized the status of remote terminals as essential aggregation points for access to loops and other essential network facilities.[125] Therefore, ILECs must be required to provide CLECs that want more access to remote terminals the same access there as they have today to central offices.

The critical role of the remote terminal in facilitating the provision of advanced telecommunications services cannot be overstated. Traditionally, with first generation xDSL technology, it was assumed that the customer must reside within 18,000 feet of the Digital Subscriber Line Access Multiplexer ("DSLAM") to receive reliable xDSL service. However,, placing next generation DLC or IDLC equipment in forward-deployed remote terminals overcomes this operational roadblock, allowing local exchange companies to push deeper into its neighborhoods and install or upgrade neighborhood broadband gateways containing digital electronics. Thus, for example, SBC is on record with respect to its Project Pronto initiative for its claim that:

> SBC has two primary goals: to bring advanced broadband data services to nearly all customers, and to integrate its voice and data networks to more efficiently and

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124 *UNE Remand Order* at 218.

125 *Id.*

> effectively transport that traffic. The more than $6 billion Project Pronto initiative should make these goals a reality. The strategy includes plans to: Install fiber optics deeper into neighborhood networks and install or upgrade approximately 25,000 neighborhood broadband gateways containing *next generation digital loop carriers*. These neighborhood gateways will expand the reach of DSL service by taking the capabilities of the network closer than ever before to customers.[126]

The strategic assumptions underlying SBC plans have been widely recognized (and emulated) by others in the ILEC industry. In a recent public forum on *Competitive Access to Next-Generation Remote Terminals* held at the FCC on May 10, 2000, senior executives from three of the largest regional Bell Operating companies, together with representatives of major switch manufacturers and competitive local exchange companies, all *agreed* in touting the advantages of next generation remote terminals or providing advanced services. Several of the incumbent LEC representatives spoke at length concerning their *current* plans to deploy next generation DLC as an integral part of their independent plans to push fiber deeper into neighborhoods to offer DSL service. Notably, Mr. Masters of SBC expanded on the company's previous boasts made on behalf of Project Pronto, stating that:

> we have a very large initiative going on to try to put a lot more remote terminals in our network. . . . . We said earlier we have about 35,000 remote terminals, and they were adding another roughly 13,000. *We're upgrading 7-10,000 of existing ones to provide a broadband service, next generation DSL, and actually a broadband capability to the network bay.*[127]

Mr. McNamara of Bell-South echoed this sentiment, stating that "*all* of our growth today is going on next generation products. We aren't deploying *any* old technology to DLC any more. It

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[126] SBC Communications, Inc., *Project Pronto: SBC's Network Vision and Strategy* (November 1999).

[127] Tr. 12 (emphasis added).

is all next generation products with copper feeder."[128]

B. ILECs Must Have An Absolute Obligation to Provide Sufficient Collocation Space at Remote Terminals

The Commission should give little weight to ILEC justifications and excuses for not providing collocation at remote terminals. It is rare that there will ever be insufficient space, if for no other reason because the ILEC can always provision additional space. The difficulty and expense of expanding remote terminal space is far less than with respect to central office space. Essentially, the Commission should require ILECs to provide collocation at remote terminals - period.

Nowhere in Section 251 (c)(6) of the Act is there any suggestion that the duty to "provide physical collocation of equipment necessary for interconnection or access to unbundled network elements," 47 U.S.C.§ 251(c)(6), is limited to central offices. As ILECs move to deploy many central office functions to remote terminals, collocation at the remote terminal becomes increasingly "necessary" to achieve interconnection and meaningful access to UNEs. To the extent that any service – that is provided by an ILEC – *cannot* be provided by the CLEC without collocation at the remote terminal, the incumbent LEC must be obligated to provide such collocation. Otherwise, the incumbent LEC cannot possibly satisfy its obligation to provide nondiscriminatory interconnection "that is at least equal in quality to that provided . . . to itself . . . ." [129] Nor can it satisfy its obligation to provide access to UNEs on "just and reasonable" and "nondiscriminatory" terms and conditions.[130]

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128 *Id.* at 14 (emphasis added).

129 47 U.S.C. § 251(c)(2)(C).

130 47 U.S.C.§ 251(c)(3).

Under this statutory scheme, collocation at remote terminals is clearly "necessary." Without the ability to collocate DSLAMs, line cards and other equipment at remote terminals, CLECs are essentially denied interconnection with ILEC DLC equipment and access to the feeder subloop, thereby limiting xDSL service by CLECs to customers served by spare, home-run copper loops shorter than 18,000 feet.

That ILECs have used the remote terminal as an obstacle to competition cannot be gainsaid. For example, ILECs have sought to reserve space for collocation at remote terminals, denying CLECs access to space on the blatantly discriminatory pretext that such space is necessary to enable the ILEC to serve future demand. SBC has also sought to impose draconian procedures for Special Construction Arrangements – in essence, recovering additional charges for access to remote terminals that are already recovered in other approved rates. Similarly, in proceedings in Verizon's region, Verizon has taken the position that it need not allow data CLECs to engage in line sharing over DLC loops, contending that, by definition, line sharing can only be done over home-run copper.[131] Verizon has rejected the "plug and play option" advocated by Covad – whereby CLECs collocate line cards in incumbent LEC DSLAMS – as somehow incompatible with the functionality of its own equipment, offering instead to permit adjacent collocation, where CLECs are left to obtain the necessary permits and easements and overcome the aesthetic objections of local homeowners to ubiquitously deployed remote terminal "farms."

ILECs should have an absolute obligation to provide collocation space at remote terminals, there should be no distinction between current and future collocation space in remote

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[131] *See, PA ALJ Order* at p. 38.

terminals, and pricing should be consistent with forward-looking incremental cost pricing. In addition, ILECs should not be permitted to use retail and wholesale demand projections as the basis for denying collocation space. An ILEC should be required to provide additional space regardless of its demand forecasts. Otherwise, ILECs can effectively block CLECs from collocating in remote terminals by a combination of undersizing and overforecasting, knowing that CLECs may not be able to construct adequate space at all or in time to compete.[132] To the extent that it any case an ILEC would be permitted to address space exhaustion by use of an adjacent or near remote terminal, the Commission should make clear that the ILEC should bear the responsibility and cost of resolving all issues relating to easements and land-use restrictions. Moreover, the ILEC should be required to provision the near remote terminal within 90 days.

B. Disclosure of Remote Terminal Information Should be Required.

The same pre-application information as to space availability is needed for remote terminals as for central offices. CLECs, particularly those providing advanced services, need to know if there is collocation space available at the remote terminal.

When a CLEC makes a request of an ILEC for collocation space at a remote terminal, the ILEC should, within 10 calendar days, provide it with schematic drawings of the remote terminal itself and of all adjacent space, as well as information concerning: (1) the amount of collocation space available, and dimensions of any discrete blocks of space; (2) separate identification, through color coding or similar scheme, of the space occupied by the incumbent LEC, by type of equipment; (3) the number of other collocators and space they occupy; (4) any modifications or augments to the space since the last report; and (5) plans on the part of the incumbent to make

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[132] As noted, as fiber is deployed in the loop, collocation in remote terminals is becoming

any additional space available.

C. ILECs Should Be Required to Deploy Remote Terminals That Support Interconnection By CLECs.

As mentioned above, the remote terminal is becoming the new central office. ILECs must not be permitted to artificially constrain interconnection at remote terminals by using equipment that unnecessarily constrains CLECs ability to effect interconnection there. DSLnet acknowledges that any restriction on the ability of an incumbent LEC to select the equipment that best serves its needs is an inconvenience. However, at the same time, some uniformity is necessary to achieve the timely provision of competitive advanced services offerings under the Act. Thus, the incumbent LECs should be required to take steps to ensure that the equipment they deploy to interface with CLEC equipment should be outfitted with universal interfaces and protocols so as to enable efficient interconnection on just and reasonable and nondiscriminatory terms and conditions.

VI. THE COMMISSION SHOULD IMPLEMENT A NATIONAL SPACE RESERVATION POLICY FOR BOTH CENTRAL OFFICE AND REMOTE TERMINAL COLLOCATION

A. The Need for a National Standard

The Commission clearly recognizes the value and importance of policies regarding the reservation of space in ILEC premises.[133] The Commission has recognized that ILECs have both

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as important as collocation in central offices for provision of competitive advanced services.

[133] This section will focus on ILEC space reservation. While CLECs also reserve space, the abuse of space reservation and the anti-competitive effects is more an issue in regard to ILEC space reservation since they exert control over the premises. Any policy that this Commission formulates that allows for ILECs to reserve space should provide the same opportunities to the CLECs to reserve space.

"the incentive and capability to impede competition by reducing the amount of space available for collocation of competitors."[134] Unchecked ILEC space reservation will limit the amount of available collocation space and inhibit the timely deployment of competitive services, particularly advanced services.[135] Without policies limiting the time frame for reserving space, there is no check on how long ILECs may keep vital collocation space out of the reach of competitors. Pacific Bell, prior to the implementation of a space reservation policy by the California Public Utilities Commission, had an "unlimited" reservation policy for dissimilar equipment, *i.e.*, switching equipment, Main Distribution Frames, and power.[136] SBC has previously argued that space reservation periods of 10 to 20 years would be appropriate for such equipment.[137] Thus, without space reservation policies chunks of valuable potential collocation space could be cordoned off from competitors for years regardless of the true need to reserve such space.[138]

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[134] *Collocation Reconsideration Order and NPRM* at ¶ 50, *quoting Advanced Services Report and Order*, 14 FCC Rcd at 4793, ¶ 56.

[135] *Collocation Reconsideration Order and NPRM* at ¶ 50.

[136] *Rulemaking on the Commission's Own Motion to Govern Open Access to Bottleneck Services and Establish a Framework for Network Architecture Development of Dominant Networks*, Decision 98-12-069, 1998 WL 995609, 69 (Ca. PUC 1998). Dissimilar equipment is equipment that will be deployed by the ILEC in the ILEC premises that will not be deployed by the CLEC. Similar equipment is equipment that both the ILEC and CLEC will likely deploy in an ILEC premises, *e.g.*, multiplexers.

[137] *Collocation Reconsideration Order and NPRM* at ¶ 49, n. 131.

[138] The space that is reserved is fully vacant space, and does not cover space that the ILEC may be deeming to be occupied but in actuality is being used to "warehouse" inactive or underutilized equipment. The Washington Utilities and Transportation Commission deemed this "warehousing" practice to be a "de facto reservation of space for future use." *Re MFS Communications Company, Inc.*, Docket Nos. UT-960323, UT-960326, UT-960337, 1998 WL 996190, 10 (WUTC 1998). Thus, usable space is already being foreclosed even before space is "reserved" by the ILEC.

Recognizing this, the Commission "strongly" urged state commissions to adopt space reservation policies. The issue of space reservation cries out for a national standard, however. It is laudable that state commissions in California, Texas, and Washington have implemented such policies. These policies will help ensure that competitors have space to collocate their equipment such that residents of those states may partake of competitive advanced services. In states where such policies have not been implemented, however, ILECs will be able to thwart competition by reserving space indefinitely. A baseline national standard needs to be established such that disparities in the amount of time ILECs may restrict the availability of collocation space will not lead to "inconsistent deployment of advanced services" throughout the U.S.[139]

B. A National Standard is Feasible

The Commission has heretofore declined to implement a national standard for space reservation because it felt that states, given their knowledge of local circumstances, were in a better position to determine whether a carrier has reserved more space than is necessary or is utilizing space reservation policies that is impeding physical collocation.[140] The determination of how long an ILEC should be allowed to reserve space is not one that requires a state-specific or CO-specific determination. Rather in determining what is an appropriate time for space reservation, one must determine what is the time period that best reflects, and balances, the need of ILECs to plan their networks, with that of CLECs need to collocate their equipment.

The Commission can determine a time frame that would reasonably allow for ILEC

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139 CC Docket No. 98-147, Reply to Oppositions to Sprint's Petition for Partial Reconsideration and/or Clarification at p. 9 (July 27, 1999)("*Sprint Reply*").

140 *Collocation Reconsideration Order and NPRM*, at ¶ 52.

network planning and buildout that can apply in Michigan just as well as it would in Georgia. It is quite illuminative that three of the states that have implemented space reservation policies, California, Texas, and Washington, are three of the largest states in the United States, and ones presumably with a large diversity of central office arrangements and space disputes. Yet, these states have implemented space reservation policies that apply in San Luis Obispo as well as Los Angeles; in Austin as well as Dallas. This is no way intended to mitigate the state PUCs' role in issues of space reservation. State PUCs would be the best entities to apply and police the space reservation polices; but the Commission should first establish and implement a national standard.

C. A Move from Space Reservation to Space Enhancement

The Commission needs to shift its focus from space reservation to space enhancement. Much of the underlying basis for space reservation plans has been undercut by technological advancements. The record in this proceeding will undeniably demonstrate that telecommunications equipment is becoming smaller and more integrated. For instance, switching, transport, and power equipment are all being integrated in multi-functional equipment that occupies a fraction of the space needed before. Yet, ILECs argue that they need ten years to plan for the orderly growth and expansion of equipment such as main distribution frames and switches and two years for equipment such as multiplexers and fiber optic terminals.[141] Yet, equipment is not expanding, it is contracting, and equipment that used to take up significant amounts of space, such as switches, and main distribution frames are becoming smaller or

[141] *Sprint Reply* at p. 7.

marginalized.[142] Project Pronto is a demonstration of how evolving technological equipment is becoming smaller and can be rapidly deployed.[143]

As this Commission has recognized, remote terminals are becoming the central offices of today, with many of the essential telecommunications functions being moved out to such structures. The quick way in which SBC plans to deploy these remote terminals demonstrates that network planning and expansion requires less time than it did a few years ago.

Thus, there is simply no basis for the excessive time periods ILECs seek to reserve space. The fact that ILECs are continuing to insist on such excessive space reservation time frames demonstrates that ILECs are not basing these policies on the realities of the market, but on their desire to leverage their control of available collocation space. The Commission has taken a wonderful first step in recognizing the way in which ILEC space reservation plans can impede competition and the need for the policies to check such plans. The Commission needs to take the next step and implement a national, uniform policy that will limit these space reservation plans. DSLnet proposes that a period of a year would be sufficient to give carriers an opportunity to engage in network planning. In the evolving telecommunications market, any period longer than a year is not needed and will exclude valuable space that can be used in ILEC premises.[144]

It is worth noting that Qwest has recently proposed that it will not reserve space for itself

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[142] For instance, SBC's Project Pronto architecture utilizes integrated DLC technology that bypasses the main distribution frame altogether. *IL Line Sharing Order* at p. 11.

[143] As part of its Project Pronto, SBC will "install or upgrade approximately 25,000 neighborhood broadband gateways containing next-generation digital loop carriers." SBC Communications, Inc., *Project Pronto: SBC's Network Vision and Strategy* (November 1999).

[144] The time frame should not be equipment-specific, *i.e.*, the similar/dissimilar distinction should be eliminated. Technology is integrating equipment and blurring old definitional lines. There is no need for a longer time frame for equipment such as switches.

on terms more favorable than those it offers to CLECs.[145] It also proposes to remove obsolete or unused equipment at its own expense in order to provide more collocation space.[146] These commitments show that ILECs can implement space reservation policies that do not disadvantage CLECs.

In addition, the Commission's focus needs to shift from allowing ILECs to reserve space to encouraging ILECs to utilize configurations and equipment that will enhance available space and allow for more carriers to be able to collocate. Rather than allowing ILECs to have the ability to reserve space for indefinite periods, policies should be implemented that will place on ILECs an affirmative obligation to ensure space is available both in the central office and remote terminals. Technology is providing ways to address the space limitation issues that have inhibited the development of competition to date. These developments should not be undercut by ILEC practices that will limit space in the future.

A classic example of this is how SBC has committed to making more collocation space available in remote terminals it deploys after September 15, 2000.[147] This shows that ILECs do have capabilities to plan their networks not only to meet their needs, but to provide for space to effectuate non-discriminatory access to their premises. It also suggests that up to this point, SBC was not providing for such space in its remote terminals given the lack of collocation space at the existing terminals. The Commission needs to implement policies that transform the focus of network planning from unnecessarily reserving existing space in premises to encouraging the

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[145] Statement of Generally Available Terms and Conditions for Interconnection, Unbundled Network Elements, Ancillary Services, and Resale of Telecommunications Services Provided by Qwest Corporation, Six State Workshop, September 27, 2000, Section 8.2.1.16.

[146] *Id.* Section 8.2.1.14.

[147] *Project Pronto Order* at ¶ 34.

provision of more space in these premises. The focus has to switch from space reservation to space enhancement.

VII. The Commission Should Modify Its Collocation Rules to Facilitate Line Sharing

A. Splitter Collocation

When promulgating its rules on line sharing, the Commission operated under the premise that the ILECs would desire to maintain control over the splitter functionality.[148] Such control presupposes that ILECs would own the splitter and provide the splitter functionality to the CLEC. ILECs, however, have been asserting that they have no obligation to provide CLECs with splitter functionality, and that its current offerings of splitter functionality are purely "voluntary."[149] For those CLECs utilizing line sharing who desire not to have their access to high frequency portion of the loop subject to the whims of the ILECs and their "voluntary" offerings, ownership of the splitter will be the only feasible option. Thus, their ability to collocate the splitters will become a very central aspect of their ability to line share. For this reason, this Commission needs to specify line-sharing specific collocation rules that will ensure, that CLECs will be able to collocate equipment, including the splitter, that will give the CLEC access to the full features, functions, and capabilities of the high-frequency portion of the loop.

The splitter plays an essential role in the ability of a line-sharing CLEC to access the high frequency portion of the loop. The capability to provide both voice and data traffic over the loop has necessitated that, at least for the time being, that the voice and data transmissions be "split" with the voice traffic being directed to the circuit-switched network and data traffic being

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[148] *Line Sharing Order* at ¶ 76.
[149] *Illinois Line Sharing Order* at p. 6.

directed to the packet-switched network.[150] Thus, where a line carries both POTS and data channels, the carrier must separate these two streams.[151] This is done through use of the splitter which separates the high frequency, xDSL signals, from low frequency (voiceband) analog signals.[152] The DSLAM then routes the traffic to the particular network.[153] Without the splitter functionality, there would be no way for the line sharing CLEC to access the traffic. Thus, as a threshold matter, the equipment that provides the splitter functionality is "necessary" for access to the line sharing UNE and, thus, allowed to be collocated under Section 251(c)(6).

The Commission, however, must not limit itself to simply stating that a carrier should be allowed to collocate equipment with a splitter functionality in the remote terminal and/or central office. The Commission needs to implement collocation rules that will give CLECs flexibility in regard to what types of equipment they may collocate and where this equipment may be located. Such rules are needed to give CLECs access to the full "features, functions and capabilities" of the high-frequency portion of the loop on a competitive parity basis with the ILEC and/or its advanced services affiliate.

B. Multi-functional Equipment

As demonstrated throughout these Comments, telecommunications equipment is becoming much more integrated. The Commission has already noted that today's equipment is capable of integrating the splitter and DSLAM functionality. Cards are being developed that will combine the DSL functionality, DSLAM functionality, and splitter functionality.[154] The

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[150] *Line Sharing Order* at ¶ 8. In the future, it is anticipated that voice traffic will be migrate to a packet-switched network.
[151] *Line Sharing Order* at ¶ 9.
[152] *Id.*
[153] *Id.* In some cases, the splitter and DSLAM are integrated in the same equipment.
[154] *PA ALJ Line Sharing Order* at p. 36.

Commission, when defining its collocation rules in regard to line sharing, needs to provide for rules that will encompass technological developments in equipment.

The Commission has determined that it should not mandate a particular technological approach to the use of a line for multiple services.[155] The Commission has also held that when the ILEC maintains control of the splitter, it must promptly accommodate, "in response to a competitive CLEC request to do so, any line sharing technology that meets the deployment criteria established in this proceeding."[156] Thus, CLECs should be given flexibility to collocate equipment for line sharing as long as that equipment is utilized for the purposes of accessing the "functions, features, and capabilities" of the high-frequency portion of the loop and meets the deployment criteria in this proceeding.

C. Location of Equipment

CLECs need to be given a flexible menu of configurations for the location of the splitter equipment. Specifically, ILECs should be required to provide the following menu of configurations: (1) an ILEC owned splitter located on the main distribution frame ("MDF"); (2) an ILEC or CLEC owned splitter located as close to the DS0 terminations or the MDF as possible; and (3) a CLEC-owned splitter in the CLEC's physical collocation arrangement. CLECs have been experiencing difficulty getting flexibility in the configuration options.[157] In particular, CLECs have been experiencing difficulty in locating the splitter at, or near, the main distribution frame.

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[155] *Line Sharing Order* at ¶ 26.
[156] *Id.* at ¶ 77.
[157] For instance, Verizon refuses to own the splitter. *See PA ALJ Order* at p. 20. Ameritech also declines to own the splitter and will only offer a CLEC owned splitter to be located in either the CLEC's physical collocation arrangement or in a common area which is frequently not near the DS0 terminations or the frame. *IL Line Sharing Order* at p. 7.

This Commission has recognized the importance of having splitters near the main distribution frame to prevent signal attenuation.[158] Unless CLECs are allowed to have the splitter at or near the MDF, they incur needless costs for extra cross-connects and tie cables. For instance, locating the splitter at or near the MDF would only require the use of two cross-connects and one tie cable.[159] The configurations offered by ILECs would require the use of many more cross-connects and tie cables.[160] This unnecessarily inflates the costs CLECs must incur to utilize splitter functionality, particularly when the ILEC refuses to provide the splitter. The inefficient configurations also heighten the risk of service failures attendant with use of excessive tie cables and cross-connects.[161] Finally, the inefficient ILEC configurations increases the length of cable that carries the DSL signal from a customer's premises to a CLEC's DSLAM. In certain multi-storied COs, if the splitter configuration added 500 to 1,000 feet to the overall length of the cable, it may preclude the CLECs ability to offer xDSL service to some customers served by that CO since DSL is a distance sensitive technology.[162]

These ILEC-proposed configurations for the splitter disadvantage the CLEC vis-à-vis the ILEC, or its affiliate, in that ILECs are increasingly using integrated splitter/DSLAM equipment that does not require excessive cross-connects and tie cables. This coupled with the fact that some ILECs are allowing their affiliates to line share over the fiber DLC loops while denying CLECs this opportunity exacerbates the competitive disadvantage CLECs face.[163] CLECs need

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[158] The further the splitter is from the MDF, the more likely the signal will experience some attenuation. *Line Sharing Order* at ¶ 79.
[159] *IL Line Sharing Order* at p. 10.
[160] For instance, Ameritech's proposed configuration would require CLECs to use three extra cross-connects and three extra tie cables. *Id.*
[161] *Id.*
[162] *Id.*
[163] *Id.* at 31.

to be provided with a menu of configuration options for the splitter such that it matches the network efficiencies ILECs or their affiliates are able to utilize in the provision of advanced services. Otherwise, CLECs will not be able to offer advanced services at parity with the ILEC or its affiliate given the increased costs effected by the inefficient splitter configuration and the possible loss of customers due to distance limitations.

D. Provisioning Intervals for Collocation Augments for Line Sharing

The Commission should establish a provisioning interval for splitter and cable augments of 30 days. In such a situation, CLECs are seeking the augmentation of an existing collocation site, not the construction of a new one. The augment required for the provisioning of line sharing is generally the connection of cables from the CLEC collocation arrangement to the ILEC mainframe or splitter location.[164] The actual physical work involved includes only the running of one or several cables and should not take more than one or two days.[165] This is in contrast to constructing a new site which is more complex since it requires space planning, power provided to the site and the installation of racks, shelves and relay racks.[166] There is no reason to subject collocation augments for line sharing to the longer interval utilized for constructing new sites.

State commissions have determined that thirty days is sufficient to provide the cable and splitter augments to facilitate line sharing.[167] Short provisioning intervals for cable and splitter

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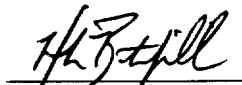
[164] *PA ALJ Order* at p. 16.
[165] *Id.*
[166] *Id.* at p. 16.
[167] *Id.* at p. 17. The Texas PUC has established a 30 day interval for cable augments. *See supra* note 123. The PA ALJ recommended a 30 day interval for cable and splitter augments for line sharing. The PA PUC increased the interval on an interim basis to 45 days but reaffirmed the principle that the time involved should be less than that associated with a new collocation site and stating that it may shorten the interval after a more developed record is produced. *Petition of Covad Communications Company for an Arbitration Award Against Bell Atlantic-Pennsylvania, Inc, Implementing the Line Sharing Unbundled Network Element; Petition of Rhythms Links,*

augments are especially vital when an ILEC refuses to own and manage the splitter capacity, because if the CLEC under-forecasts splitter capacity it will have to endure a 90 day interval to reinforce the capacity.[168] A shorter interval will ultimately benefit end users as they will be able to partake of xDSL service more quickly.

VIII. CONCLUSION

For the foregoing reasons, the Commission should adopt the policies and requirements urged by DSLnet.

Respectfully submitted,



Andrew D. Lipman
Patrick J. Donovan
Harisha J. Bastiampillai
Swidler Berlin Shereff Friedman, LLP
3000 K Street, N.W., Suite 300
Washington, D.C. 20007-5116
(202) 424-7500 (Telephone)
(202) 424-7545 (Facsimile)

Wendy Bluemling
Assistant Vice President
Regulatory and Industry Affairs
DSLnet Communications, LLC
545 Long Wharf Drive, Fifth Floor
New Haven, Connecticut 06511
(203) 772-1000 (Telephone)
(203) 624-3612 (Facsimile)

Counsel for DSLnet Communications, LLC

October 12, 2000

Inc., for an Expedited Arbitration Award Implementing Line Sharing, Docket Nos. A-310696F0002 and A-310698F0002, Opinion and Order at p. 23 (PA PUC, August 17, 2000).

[168] *Id.* at p. 18.

CERTIFICATE OF SERVICE

I Harisha J. Bastiampillai do hereby certify that on this 12th day of October, 2000 the foregoing Comments of DSLnet Communications, LLC were delivered by hand and first class mail to the following:

Harisha J. Bastiampillai

VIA HAND DELIVERY
Magalie Roman Salas
Office of the Secretary
Federal Communications Commission
The Portals - TW-B204
445 12th Street, S.W.
Washington, DC 20554

VIA HAND DELIVERY
Janice Myles
Common Carrier Bureau
Policy & Program Planning Division
445 12th Street, SW
Washington, DC 20554

VIA HAND DELIVERY
International Transcription Service, Inc.
1231 20th Street, NW
Washington, DC 20036