

Kansas that it could “potentially submit hundreds of applications for collocation at DLCs or requests for space availability reports for DLCs within a few days *for a given [Metropolitan Statistical Area (“MSA”)]*.”³³ If this pace of application submissions is extrapolated to the state level, a flood of potentially thousands of applications on the ILEC could result. SBC’s internal records document clearly that this “dumping” by CLECs is not a rare occurrence³⁴ and is a situation that must be addressed. Such enormous spikes in demand make it impossible to meet a shortened time interval standard. Indeed, it is for this reason that state commissions that set provisioning intervals account for such demand patterns in their intervals.

It is also why staggered intervals, as described in the SBC Collocation PFR, are necessary. *See* SBC Collocation PFR at 7-9. An ILEC can only accommodate a certain number of applications at one time, because an ILEC cannot staff for unforeseeable spikes in demand. If an ILEC were to employ additional labor to address any level of demand, it would actually *decrease* efficiency. Each office is planned and designed by a single equipment engineer. The addition of a second engineer would mean that two people would be making simultaneous decisions about the placement of equipment in a common space. The opportunities for error would multiply in the absence of perfect coordination for each decision and action.

³³ Direct Testimony of Michael West at 9, Sprint, Docket 733-TAR (Kan. Corp. Comm’n Apr. 24, 2000) (emphasis added).

³⁴ For example, on October 2, 2000, SBC received 340 collocation orders from a single customer, with 170 of those orders in a single state. The same customer submitted 187 collocation orders covering five states on September 6, 2000. Between May and October of this year, in a *single* state, SBC received the following large collocation orders, each an independent order from a total of five customers: 43 orders (May 2, 2000); 109 orders (May 4, 2000); 55 orders (June 20, 2000); 74 orders (June 20, 2000); 82 orders (July 20, 2000); 41 orders (Aug. 7, 2000); 74 orders (Aug. 31, 2000); and 95 orders (Oct. 2, 2000).

An interval shorter than 90 days for conditioned space and 180 days for unconditioned space would not only ignore preparation time and demand patterns; it would also exceed the intervals that an SBC ILEC uses for itself when preparing space for growth or for provisioning facilities to its retail customers. And shortened intervals would require the SBC ILEC to lengthen its own provisioning of retail orders to devote vendor and supplier resources to meeting the mandatory intervals. Thus, any such interval would be discriminatory against the SBC ILEC's retail customers.

3. Adjacent Structure Collocation

As to adjacent structure collocation arrangements and other types of non-standard collocation requests, *NPRM* ¶ 115, no specific maximum interval is appropriate. Instead, collocation should be provisioned on an individual case basis. First, ILECs and CLECs have no experience in provisioning adjacent space collocation arrangements. Out of more than 13,000 collocation arrangements in the SBC ILECs' 13-state service area, there are no known adjacent space collocation arrangements either in place or in progress. The Commission's policy is to refuse to set collocation intervals in the absence of sufficient experience. *See Advanced Services Collocation Order*, 14 FCC Rcd at 4790, ¶ 54.

Second, a standard or maximum interval is not feasible or reasonable for adjacent space collocation arrangements because of the vast number of variables involved in provisioning this type of arrangement, which are in addition to all of the same planning and engineering tasks required for preparing the space inside the CO (less site preparation for lighting, HVAC, etc.). These include:

- *Power delivery and the size of the cable necessary to ensure that power is delivered safely.* Cable size is affected by the amperage requested and the distance from the power

source to the collocation arrangement. As distance increases, a larger cable is necessary to conduct the same amount of electricity. Since adjacent structure arrangements are farther away from the power source than collocation arrangements within the central office, more engineering is required to determine the appropriate cable size and path to reach the outside arrangement. Additionally, longer lengths of these larger cables are not readily available on the market and usually must be manufactured. Finally, more labor time is required to run the larger cables, which are heavier, longer, and less flexible.

- *Surface conditions (dirt, asphalt, concrete).* The delivery of power and CFA cabling to adjacent space collocation arrangements requires conduit to be placed underground for safety. That ground must be trenched. The trenching of the various surface types requires different time elements on a per-foot basis. Adding distance to this equation compounds the problem. Additionally, power cables have to be placed in conduits separate from CFA cabling to prevent transmission interference.
- *Underground conditions.* The following conditions must be accounted for in the engineering process: water pipes, sewer pipes, cable ducts, electrical cables, fuel tanks, etc. This will vary by location, which makes setting any standard interval infeasible.
- *City code and zoning restrictions.* These regulations vary by municipality, which makes setting any standard interval infeasible.
- *Location of adjacent arrangement.* The factors relevant to provisioning include safety, security, and building expansion plans.
- *Unforeseen obstacles.* Neighborhood conditions might preclude working anytime except broad daylight; contractors might be unavailable to perform the construction work, etc.

- *Core Boring.* “Core Boring” into the basement of the central office will be necessary to provide an entrance facility for the adjacent structure arrangement. This will entail determining the point or points on the exterior wall that can be drilled without affecting the integrity of the structural load-bearing wall.
- *Augments to adjacent space arrangements.* As a collocator grows, new entrance facilities and conduit for power or CFA cabling might be needed by the CLEC.

Under these circumstances, a specific maximum interval would be completely speculative and wholly inappropriate.

G. Space Reservation Policies

The Commission seeks comment on whether it should adopt a national space reservation policy. *NPRM* ¶ 117. SBC does not believe that a national standard for space reservation should be established to serve in the absence of a state standard. Nor is there any evidence that such a national standard is necessary. A national space reservation policy could not take into account the differences in underlying incumbent networks and systems. Because “[t]here are so many different permutations” that affect this question, it is better left to the state commissions to decide. *See* Florida PSC Comments at 3.

Indeed, the Commission has already acknowledged as much. In its *Local Competition Order*, the Commission pointed out that “Section 251(c)(6) requires the incumbent LEC to demonstrate *to the state commission’s satisfaction* that there are space limitations on the LEC premises or that technical considerations make collocation impractical.” 11 FCC Rcd at 15805, ¶ 602 (emphasis added). The Commission has found that space limitation issues “are best handled on a case-by-case basis” because they “will vary considerably depending on the location at which competitor equipment is to be collocated.” *Id.* Accordingly, the Commission has

required incumbent LECs to “provide the state commission with detailed floor plans or diagrams of any premises where the incumbent alleges that there are space constraints,” *id.*, and to allow CLECs to tour such premises and have disputes reviewed and resolved by the states, *Advanced Services Collocation Order*, 14 FCC Rcd at 4792, ¶ 57. Thus, the Commission has already recognized that questions of space and space reservation properly rest with state commissions because they alone have the ability to address the location-by-location differences that necessarily impact the appropriate policy choices. There is no basis for reaching a different conclusion in this proceeding. A national standard could not possibly reflect these vast differences among locations. Moreover, there is no evidence that the state commissions are not carrying out this task or that the requirements they have adopted are lenient toward incumbent LEC reservations of space. Given these circumstances, a national standard would be wholly inappropriate.

If the Commission nevertheless adopts a national standard, it must protect the interests of all service providers and their customers. The Commission has recognized the importance of allowing both ILECs and CLECs to reserve space to meet the future needs of their customers. In its *Local Competition Order*, the Commission stated:

Incumbent LECs are allowed to retain a limited amount of floor space for defined future uses. Allowing competitive entrants to claim space that incumbent LECs had specifically planned to use could prevent incumbent LECs from serving their customers effectively. Incumbent LECs may not, however, reserve space for future use on terms more favorable than those that apply to other telecommunications carriers seeking to hold collocation space for their own future use.

Local Competition Order, 11 FCC Rcd at 15805-06, ¶ 604 (footnote omitted).

ILECs’ and CLECs’ space reservation needs vary based on the type of equipment at issue. Thus, the different space requirements for “common system equipment” (*i.e.*, the switch,

main distribution frame, power, DSX, and DCS) and transport equipment must be taken into account when setting space reservation guidelines. Indeed, all state commissions have recognized the differences. At a general level, at its inception, a central office is designed to accommodate growth in an area over a 20-year timeframe. Because of common system design constraints, the floor space needs for common system components are fixed and cannot be changed over the life of the central office without negatively impacting the life of the common systems of the building. In contrast, transport equipment space reservation requires shorter planning intervals and can be added as the demand in the area served by the central office continues to grow.

ILECs and CLECs have similar space reservation needs concerning transport equipment. They both need to be able to reserve space for transport equipment for a period of time long enough that, if the ILEC runs out of space in the central office, there will be a reasonable likelihood that the ILEC may have added more space by the time the reserved space runs out. Construction of an addition to a central office normally takes two to three-plus years, and construction of a new central office normally takes three and one-half to four years.³⁵ Therefore, the minimum period that either ILECs or CLECs should be allowed for reservations of space for their transport equipment should be the remainder of the current planning year (current year) plus two years. A shorter period would create a shortfall from the period required for expansions and

³⁵ Declaration of Ross K. Ireland in Support of Pacific Bell's Petition to Modify D.98-12-069, at 5-6, ¶ 13 ("*Ireland Decl.*"), attached as Exhibit A to Petition of Pacific Bell (U 1001 C) to Modify D.98-12-069, *Rulemaking on the Commission's Own Motion to Govern Open Access to Bottleneck Services and Establish a Framework for Network Architecture Development of Dominant Carrier Networks*, R.93-04-003 *et al.* (Cal. Pub. Utils. Comm'n filed Mar. 24, 1999).

could result in held orders for critical transport services for both retail and wholesale customers.³⁶ This will impact CLECs the most, as they are the largest users of transport facilities today.

ILEC and CLEC space reservation needs vary with regard to common system equipment such as switching, power, the main distribution frame, DSX, and DCS. CLECs do not need to reserve space for switching equipment, as they do not collocate such equipment (as noted above, it is not “necessary” for interconnection or access to UNEs). CLECs, like other ILEC customers, however, depend on ILECs having sufficient reservation periods for switching equipment because this common system equipment is used in providing service and UNEs to CLECs as well as other customers.³⁷ For technical reasons, ILECs cannot place collocators in the growth path of such common system equipment without destroying the ultimate capacity and efficiency of that equipment. The manufacturers’ technical requirements for growth of this type of equipment include, for example, the need for contiguity, for meeting distance limitations, and for various elements of the equipment to be configured in specific ways, which require contiguous growth space.³⁸ Use of this space for collocation can cause the premature need to create a new wire center and central office.

If ILECs run out of technically required growth space in central offices because collocators had to be placed in space initially planned for common system growth, ILECs will not

³⁶ *Ireland Decl.* at 6, ¶ 15.

³⁷ Examples of such services include, among others: A host switch provides CLECs with unbundled switch port capacity and the ability to resell existing services. DCS systems provide interoffice trunking facilities and connection facilities. Central office power plants provide a protected and continuous source of power for SBC’s equipment and collocated CLECs’ equipment. The MDF is critical in provisioning for access to unbundled links. *Ireland Decl.* at 6, ¶ 14.

³⁸ *See Ireland Decl.* at 3-5, ¶¶ 6-12.

be able to attain the utilization specifications of common system equipment and thus will not be able to support as much traffic, including collocation traffic, in the existing central offices. For example, switching and DCS equipment have lead-length limitations based on the design of the equipment and the need for signals to be sent and responses to be received within specified time frames. The equipment cannot be grown into areas that do not meet these limitations, which means that the equipment cannot be grown as necessary to serve the customer base. Thus, a certain amount of space must be reserved to accommodate these lead-length needs. Indeed, that is why states have recognized longer space reservation periods – of up to 20 years or the ultimate footprint of the equipment – for common equipment, depending on the conditions in those states.

Moreover, switching equipment must be fed by a single power source. Power equipment has floor-loading requirements that are double what is required for normal equipment placement; it also needs space for additional air circulation. If space is not available to accommodate the power source, the switching equipment cannot grow. Therefore, ILECs would need to build new wire centers or expand existing ones prematurely. Because of the time needed for new construction – which could take from 20 months for a simple addition to 43 months to build a new building (where land is available) – additional service to customers (including collocators) likely would be delayed. Moreover, this waste of resources would raise costs for all users of the central offices, including the costs for collocators. Any required premature construction of new central offices and a split of existing wire centers would require CLECs to establish additional collocation arrangements in the new central office building to be able to continue to access loops previously served out of the original building.

These inefficient uses of space, higher costs, and increased delays would disserve the needs of all users of ILEC central offices (including CLECs) and be in direct conflict with the

Commission's goals. *See Advanced Services Collocation Order*, 14 FCC Rcd at 4784-86, 4790-91, ¶¶ 42-43, 52-55. Accordingly, common system equipment, including Switch, Power, MDF, and DCS equipment, should be covered under a space reservation standard of the current year plus 10 years.

II. FIFTH FURTHER NOTICE OF PROPOSED RULEMAKING IN CC DOCKET NO. 96-98

Before the Commission can modify its unbundling rules to include new technologies and equipment, it must apply two sections of the 1996 Act. First, the Commission must determine that the equipment it seeks to unbundle satisfies the "necessary" and "impair" test of section 251(d)(2). As discussed in more detail below, the equipment on which the Commission seeks comment fails to meet this statutory threshold. Indeed, the Commission's recent advanced services report confirms that the advanced services market is technologically heterogeneous and that there is no bottleneck in this market. ILECs have no advantage in this marketplace.³⁹ Indeed, cable dominates this market – with a full 77% market share at the end of 1999.⁴⁰ The growth rate for CLECs in DSL subscribership is *higher* than the growth rate for ILECs.⁴¹ These facts – which the Commission itself found less than two months ago – demonstrate that

³⁹ See Second Report, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable And Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-146, FCC 00-290, 2000 WL 1199533, ¶ 71 (rel. Aug. 21, 2000) ("*Section 706 Report*") ("At year-end 1999, of the 1.8 million residential customers who subscribed to high-speed services, approximately 1.4 million subscribed to services using cable coaxial technology [and] approximately 0.3 million subscribed to asymmetric DSL services, while the balance subscribed to other media, including satellite and fixed wireless services.").

⁴⁰ *Section 706 Report* ¶ 71.

⁴¹ *Section 706 Report* ¶ 191 ("Incumbent LECs reported increases of between 25 and 50%, and competitive LECs reported subscriber increases of between 50 and 80%.").

meaningful alternatives to the incumbent's network are available. The Commission may not now reject the necessary inferences from its prior, uncontestable findings. *See Allentown Mack Sales & Serv., Inc. v. NLRB*, 522 U.S. 359, 378 (1998) (holding that an agency "is not free to prescribe what inferences from the evidence it will accept and reject, but must draw all those inferences that the evidence fairly demands"). And the necessary inference is that CLECs are not impaired without access to the broadband equipment being considered in this proceeding.

Second, the Commission must consider section 706's mandate to make advanced telecommunications capabilities available to all Americans. In its *UNE Remand Order*, the Commission refused to require the unbundling of packet switching precisely because of the deleterious effects such unbundling could have on investment in new technologies – and therefore on the consumers who reap the benefits of such new technologies. The Commission emphasized that its "overriding objective, consistent with the congressional directive in section 706, is to ensure that advanced services are deployed on a timely basis to all Americans so that consumers across America have the full benefits of the 'Information Age.'" 15 FCC Rcd at 3840, ¶ 317. The Commission recognized that "investments in facilities used to provide service to nascent markets are inherently more risky than investments in well established markets" and that "[c]ustomer demand for advanced services is also more difficult to predict accurately than is the demand for well established services, such as traditional plain old telephone service (POTS)." *Id.* at 3839, ¶ 314. The Commission therefore acknowledged that, "in such a dynamic and evolving market, regulatory restraint on our part may be the most prudent course of action in order to further the Act's goal of encouraging facilities-based investment and innovation." *Id.* at 3840, ¶ 316. "[R]egulatory action should not alter the successful deployment of advanced services that has occurred to date." *Id.*

Those same concerns must inform the Commission's decision in this *NPRM*. Carriers considering whether to make huge investments in new broadband technologies and network architectures will not do so unless the rewards of such an undertaking outweigh the costs. If the regulatory costs are too high, carriers will simply forgo these investments. And, in so doing, consumers will suffer.

SBC's Project Pronto, for example, is designed to make ADSL and other future advanced services available on a mass-market basis to customers within its serving territory. Upon full deployment, it will enable SBC and other carriers to offer high-speed Internet access service to approximately 20 million additional retail customers who cannot be served today. But Project Pronto and undertakings like it may not continue or even occur in the first place if it means that incumbents must subject themselves to new unbundling requirements. The deployment of new technology, as the Commission recognized in the *UNE Remand Order*, inherently involves more risks. This is especially true for ILECs because of cable's lead in providing advanced services to the residential market⁴² and the already wide regulatory disparity between ILECs and cable companies. ILECs will lack the incentive to innovate and upgrade aggressively their networks if the fruits of that effort must be further shared while the great risk of incorporating the new technology rests entirely on the ILECs. As Justice Breyer observed in *Iowa Utilities Board*, "[r]egulatory rules that go too far, expanding the definition of what must be shared beyond that which is essential to that which merely proves advantageous to a single competitor, risk costs that, in terms of the Act's objectives, may make the game not worth the candle." 525 U.S. at 430 (Breyer, J., concurring in relevant part and dissenting in part); *see also id.* at 428-29 ("[A]

⁴² *Section 706 Report* ¶ 120.

sharing requirement may diminish the original owner's incentive to keep up or to improve the property by depriving the owner of the fruits of value-creating investment, research, or labor.").

Excessive unbundling also stifles CLECs incentives to invest in new technologies. A CLEC will not risk a large investment in facilities when it can free ride on the investments of others. See 3A Phillip Areeda & Herbert Hovenkamp, *Antitrust Law* ¶ 773c, at 209 (1996) (unbundling will reduce an entrant's incentives to enter the market by other means); *id.* ¶ 771b, at 175 (when government forces a company to "provide [a] facility and regulat[es] the price to competitive levels, then the [prospective entrant's] incentive to build an alternative facility is destroyed altogether").

Thus, excessive unbundling of new technologies and facilities not only plainly conflicts with the requirements of section 251(d)(2), but also with Congress's intent "to accelerate rapidly private sector deployment of advanced telecommunications and information technologies." H.R. Conf. Rep. No. 104-458, at 1 (1996). It is for this reason that the Commission has pursued a consistent policy of *not* regulating innovative services offered in competitive markets. And it is for this reason that the Commission should not adopt new unbundling rules in the *Fifth Further NPRM* and further widen the regulatory gulf between ILECs and cable providers in the provision of advanced services.

A. Access to Loops, Subloops, and Interoffice Transport

1. Loops and Interoffice Transport

The Commission invites comment on "whether the individual optical wavelength generated by [dense wavelength division multiplexing ("DWDM")] equipment is itself a loop or is it a feature, function, or capability of the fiber loop." *NPRM* ¶ 121. The Commission's consideration of how to treat DWDM equipment is premature. The SBC ILECs currently

anticipate starting trials of DWDM use for interoffice transport next year. The SBC ILECs do not yet have interoperability or design standards available for this equipment. Moreover, the use of DWDM in RTs is unlikely, given the size and power requirements of DWDM and the space limitations in RTs. It would be unwise for the Commission to make a regulatory pronouncement regarding this technology before it ever gets off the ground. Indeed, by regulating this technology prematurely, the Commission is likely to inhibit carriers from deploying DWDM in the first place.

The Commission also seeks comment on what types of electronics “should be excluded from the definition of the loop” and “on what basis.” *Id.* ¶ 122. The Commission’s inquiry misinterprets what is required under the 1996 Act. The Commission cannot start from the assumption that all electronics attached to the loop must be unbundled and ask commenters to show that some electronics should be excluded. Indeed, this was precisely the error the Commission committed in its *Local Competition Order*, which started from the assumption that section 251(c)(3) requires incumbents generally to make available all the elements in their networks to which it is feasible to provide access. 11 FCC Rcd at 15643, ¶ 286. The Supreme Court expressly rejected this analysis and held that the Commission must, as a threshold matter, “determine on a rational basis *which* network elements must be made available, taking into account the objectives of the Act and giving some substance to the ‘necessary’ and ‘impair’ requirements.” *Iowa Utils. Bd.*, 525 U.S. at 391-92.

Thus, before electronics attached to the loop can be unbundled, the Commission must make a finding that those specific electronics satisfy the necessary/impair test of section 251(d)(2). Thus, the burden is not on commenters to show that some electronics should be excluded; rather, the burden is on commenters seeking to have such electronics unbundled to

show that they satisfy the necessary/impair test of section 251(d)(2). The Commission cannot avoid its statutory responsibility by the simple expedient of expanding the definition of a loop; if network elements could be expanded in such a manner, section 251(d)(2)'s limiting standard would be stripped of all meaning.⁴³ Rather, the Commission must evaluate each type of electronic equipment under section 251(d)(2) to ensure that the statutory threshold is satisfied.

The types of electronics being considered by the Commission fail to meet that standard. The Commission is concerned with electronics that are used in part to provide advanced services. *NPRM* ¶ 122. This includes equipment such as line cards and common equipment cards. Together with shelf hardware and system software, these pieces of equipment collectively perform the same function as stand-alone, central office-based DSLAM equipment. They also can be used to provision voice services (POTS). It is clear, however, that carriers are not impaired in their ability to provide voice service without access to these types of electronics. Carriers are fully able to provide voice service as long as they have access to unbundled loops, which they do. CLECs may elect to provide service via a standard copper loop from the central office or from any available access point, as described in the Commission's *UNE Remand Order*. In addition, the SBC ILECs are deploying an NGDLC network. Because this is an overlay network, carriers have precisely the same access to unbundled loops as they did before the NGDLC deployment. In addition, CLECs can use the NGDLC architecture to provide voice service, without access to the attached electronics, because the NGDLC can provide a POTS

⁴³ Indeed, the Commission has recognized that the definition of "network element" requires it to identify, within a single facility or capability, the various network elements that comprise that facility or capability. *Local Competition Order*, 11 FCC Rcd at 15631-32, ¶ 259.

UNE loop. Moreover, even when the NGDLC architecture is deployed in a new area (such as a new housing tract), CLECs still have access to loops to provide voice service.

Thus, these electronics do not satisfy the “impair” standard with regard to voice service. As to their advanced services functionality, the Commission has already concluded that electronics used exclusively to provision advanced services should not be unbundled. *Id.* (citing 47 C.F.R. § 51.319(a)(1)). There is no rational basis for drawing a distinction between equipment used exclusively to provide advanced services and equipment used in part to provide advanced services, where the lack of access to the latter equipment does not impair a carrier’s ability to provide voice service. Put another way, the mere presence of an additional functionality does not change the analysis under section 251(d)(2). Carriers are not impaired without access to this multi-functional equipment any more than they are impaired without access to equipment used solely to provide advanced services. In neither case is unbundling permitted under section 251(d)(2).

The Commission has already concluded that carriers are not impaired without access to advanced services and packet switching equipment in the medium and large business segment of the market. *UNE Remand Order*, 15 FCC Rcd at 3835, ¶ 306. The Commission’s recent factual findings confirm that carriers are also not impaired without access to this equipment in serving the small business and residential segment of the market. That market segment is served by at least four major technologies: cable modem service, DSL, fixed wireless, and satellite. *Section 706 Report* ¶¶ 187-202. Cable remains dominant in the provision of advanced services to residential and small business customers, with 1.4 million of the 1.8 million advanced services subscribers at the end of 1999. *Id.* ¶ 71. By year-end 2000, the subscription total for cable is expected to double. *Id.* ¶ 189. Indeed, over the next five years, cable subscribership will, in the

Commission's words, increase dramatically, reaching an average estimate of 15.2 million subscribers by year-end 2004.

The market for fixed wireless high-speed services is also expected to grow significantly over the next three to five years. Analysts cited by the Commission project that this market will attract to 2.6 million subscribers in 2003 and 3.0 to 4.4 million subscribers in 2004. *Id.* ¶ 197. Capital expenditures in fixed wireless have increased significantly in the past few years. *Id.* ¶¶ 198-199. Thus, this mode of technology has the power to reach residential and small business customers. *Id.* ¶ 200.

Satellite, too, offers high-speed service. Projected subscription rates by 2004 vary from 1.2 to 4.6 million. *Id.* ¶ 202. Some analysts predict that satellite high-speed systems will become *the* dominant means of delivering high-speed data and Internet access to users outside urban areas. *Id.* The investment in this technology over the next 10 years is expected to be \$28.55 billion. *Id.*

Of the wireline providers of advanced services, CLECs lead ILECs in subscribership growth rates. ILECs reported increases in the first quarter of 2000 of between 25% and 50%, whereas CLECs reported increases of between 50% and 80%. *Id.* ¶ 191. CLECs' capital expenditures have grown dramatically, rising from \$5 billion in 1997 to \$9.2 billion in 1998 to \$15.1 billion in 1999. *Id.* ¶ 192. CLECs have increased their deployment of fiber 66% in 1998 alone. *Id.* ¶ 193. The number of CLECs is also on the rise, going from nine public CLECs with a total market capitalization of \$3.1 billion in 1996, to 35 CLECs with a market capitalization of \$86.4 billion in 1999. *Id.* ¶ 194.

Thus, based on the Commission's own recent factual findings, it is clear that CLECs are not impaired without access to the additional equipment being considered by the Commission in

this proceeding. The *Section 706 Report* makes clear that the advanced services market has myriad actual and potential competitors employing (or capable of employing) several different categories of broadband technologies. A market that supports so many methods of entry is, by definition, not dependent on any one method. Thus, potential entrants do not need access to the ILEC's network to be successful providers of broadband services, and, accordingly, their ability to provide such services is not "impaired" by lack of such access to the equipment at issue in this proceeding. See 47 U.S.C. § 251(d)(2)(B). Indeed, the Commission has already acknowledged that there is no incumbent provider of advanced services to the residential and small business market segment.⁴⁴ By definition, then, such new technologies are not uniquely available to the ILEC and, given the nondiscrimination and network disclosure safeguards already in place, the ILEC has no head start in their deployment. Rather, it is cable that has the head start – and the commanding lead.

The Commission has also concluded that the equipment at issue is readily available on the open market, at a relatively low cost, and can be used efficiently even by carriers without large economies of scale and scope. See *UNE Remand Order*, 15 FCC Rcd at 3836, ¶ 308. In addition, carriers already have access to unbundled loops, the DSLAM under certain conditions, and the high-frequency portion of the loop, thus giving them more than enough access to the incumbent's network to provide advanced services. Under any proper section 251(d)(2) standard, therefore, ILECs should not be required to unbundle the advanced services/packet switching equipment at issue.

⁴⁴ See, e.g., *1999 Advanced Services Report*, 14 FCC Rcd at 2423, ¶ 48 & n.103 (“[t]he preconditions for monopoly appear absent” in the “last mile” of the advanced services market); *id.* ¶ 48 (“no competitor has a large embedded base of paying residential consumers” and there is no “indicat[ion] that the consumer market is inherently a natural monopoly”).

Moreover, the Commission has already concluded that extending UNE regulation to packet switching would stifle the incentives of carriers to use such technology, in flat contradiction to section 706. This rationale applies with equal force to multi-functional packet switching equipment. Deploying this equipment is just as risky as deploying DSLAMs. And customer demand is just as uncertain. *See id.* at 3839, ¶ 314. Thus, under these circumstances, the Commission has already acknowledged that “regulatory restraint on our part may be the most prudent course of action in order to further the Act’s goal of encouraging facilities-based investment and innovation.” *Id.* at 3840, ¶ 316. If carriers must unbundle multi-functional electronics, they will simply stop deploying the advanced architectures that use them. And consumers will suffer the anti-competitive consequences.

Although the analysis under section 251(d)(2) and section 706 fatally condemns an unbundling requirement for mixed-use electronics, it is important to emphasize that unbundling this equipment would also deleteriously affect network utilization. If carriers obtain unbundled access to this type of equipment (such as line cards), they could prematurely exhaust system capacity. For example, under SBC’s Project Pronto architecture, the data portion is transported from the RT and the central office over a shared OC-3c. The OC-3c has a maximum capacity that cannot be expanded. If a CLEC has unbundled access to a line card, the incumbent would lose its ability to manage the network to maximum use of the shared facility. A CLEC with unbundled access to a line card would be able to exhaust prematurely the system’s capacity, thus preventing other CLECs from using the service.

2. Subloops

a. The Commission's Rules Regarding Unbundling of Subloops

The Commission's current rules regarding subloop unbundling do not need to be changed or modified. *See NPRM* ¶ 123. Under the current regulatory regime, a CLEC already has access to subloops whenever the feeder or distribution portion of the loop is vacant (or spare). That is, everything between the network interface device ("NID") and the Service Area Interface ("SAI") is considered to be a distribution pair; any spare distribution pair is available to a CLEC that wants that portion of the loop. Further, the Commission's current rules allow the ILEC and a CLEC data provider to occupy the same portion of the copper loop through line sharing.⁴⁵ By defining the high-frequency portion of the loop as a network element, the Commission makes this element available to CLECs under section 251(c)(3). *See* 47 C.F.R. § 51.319 (h)(1) and (2). Thus, no modifications to the current regulatory regime are necessary to give CLECs full access to subloops.

b. Notification of Fiber Deployment

Section 251(c)(5) addresses the circumstances under which an ILEC is required to give notice of changes in its network. Pursuant to that provision, the ILEC has "[t]he duty to provide reasonable public notice of changes in the *information necessary for the transmission and routing of services* using that local exchange carrier's facilities or networks, as well as of any other *changes that would affect the interoperability* of those facilities and networks." 47 U.S.C. § 251(c)(5) (emphases added). Thus, under the plain terms of the 1996 Act, an ILEC can be

⁴⁵ Third Report and Order in CC Docket No. 98-147, Fourth Report and Order in CC Docket No. 96-98, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 14 FCC Rcd 20912 (1999) ("*Line Sharing Order*").

required to give notice of fiber deployment (*see NPRM* ¶ 124) only if that information is necessary for the transmission and routing of services or if it would affect the interoperability of the ILEC's network.

The deployment of growth fiber fails to meet the 1996 Act's requirements. It does not in any way affect the transmission and routing of services by a telecommunications carrier using the ILEC's existing fiber facilities or network, nor does it impact the interoperability of those facilities and the network. Thus, under the 1996 Act, incumbents cannot be required to provide this information.

That Congress would limit disclosure to information necessary for transmission or interoperability is unsurprising; requiring disclosure of current business plans raises a host of competitive concerns. If an incumbent were required to provide notice of fiber deployment, it would be akin to providing its competitors with notice of its expansion plans to reach new markets and customers. This would enable the incumbent's competitors to game their own expansion plans to undercut the incumbent.

Moreover, the SBC ILECs already provide CLECs with information beyond what is required by the 1996 Act. The SBC ILECs have publicly disclosed projected DSL-capable dates for their NGDLC RTs, and have implemented a mechanized system that allows CLECs to view the projected service dates.

c. Features and Functions of NGDLC Equipment

The Commission asks whether carriers should be entitled access to all technically feasible transmission speeds and quality of service ("QoS") classes – such as Constant Bit Rate ("CBR") and real time and non-real time Variable Bit Rate ("VBR") – that exist in the attached electronics. *NPRM* ¶ 125.

As noted above, the Commission must first conclude that the attached electronics are properly unbundled under the standards in section 251(d)(2) before it reaches the question whether a CLEC gets all the features of those electronics. And, as noted, most of the electronics fail to pass the 1996 Act's "necessary" and "impair" threshold, and section 706's mandate to promote the deployment of advanced services.

Even if the Commission could get past the threshold standard of section 251(d)(2), the Commission should not allow CLECs unrestricted access to all transmission speeds and QoS classes because to do so would degrade service quality to end users. Providing different transmission speeds and QoS classes on a broadband facility is very different from providing dial-tone and other voice-grade services over twisted copper pairs in the same cable. Unlike the provision of service over copper – where it is possible to have one copper pair providing POTS and another carrying dial-up data at various speeds such as 2400 baud or 9600 baud without any negative impact on other users or the network – the transmission speeds and QoS classes have a tremendous impact on the service performance and capacity of any shared broadband architecture. In order to guarantee the availability, reliability, and functionality of a shared network and equal access to all customers, it is critical that the owner of that shared broadband network have the ability to determine and administer the services that may be offered on it. Allowing CLECs unrestricted access to all transmission speeds and QoS classes would destroy the availability, reliability, and functionality of the broadband facility.

In order to appreciate the negative impact that such access would have, it is necessary to understand the basic network architecture. A set of fiber strands and its attached electronic equipment are shared resources in NGDLC network architecture. In the equipment deployed by SBC's ILECs, one set of fibers is allocated to the Time Division Multiplexing ("TDM") or POTS