

BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
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In the Matter of	)	
	)	DOCKET FILE COPY ORIGINAL
Deployment of Wireline Services Offering	)	CC Docket No. 98-147
Advanced Telecommunications Capability	)	
	)	
And	)	
	)	
Implementation of the Local Competition	)	CC Docket No. 96-98 ✓
Provisions of the	)	
Telecommunications Act of 1996	)	

COMMENTS OF SBC COMMUNICATIONS INC.

MICHAEL K. KELLOGG  
SEAN A. LEV  
COLIN S. STRETCH  
KELLOGG, HUBER, HANSEN, TODD  
& EVANS, P.L.L.C.  
1615 M Street, N.W.  
Suite 400  
Washington, D.C. 20036  
(202) 326-7900

PAUL K. MANCINI  
ROGER K. TOPPINS  
GARY L. PHILLIPS  
SBC COMMUNICATIONS INC.  
1401 I Street, N.W.  
Suite 1100  
Washington, D.C. 20005  
(202) 326-8891

*Counsel for SBC Communications Inc.*

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## INTRODUCTION AND SUMMARY

SBC Communications Inc., on behalf of itself and its subsidiaries (collectively referred to as “SBC”), respectfully submits these comments in response to the Third Further Notice of Proposed Rulemaking in CC Docket No. 98-147 and the Sixth Further Notice of Proposed Rulemaking in CC Docket No. 96-98 (the “*FNPRM*”).

The Commission today stands at a precipice. For years, it has spoken of its commitment to a hands-off broadband policy. Chairman Powell in particular has explained that “restraint should be the watchword for governments in any new economy driven by unrelenting currents of technological change and innovation, such as communications and advanced services.”<sup>1</sup> Indeed, in just the past few weeks, Chairman Powell has stressed that under his leadership the Commission would “place much greater emphasis on the importance of deregulation” and would “understand” that regulations in evolving markets “need to be removed or altered in a way that will provide better incentives, lower cost structures, less distortion, so that companies can actually take advantage of the marketplace.”<sup>2</sup>

But at the same time that it has paid lip-service to deregulation and market-based solutions, the Commission has adopted more and more intrusive regulation of broadband facilities and services – so long as they are owned or provided by ILECs, and not the cable companies that remain the dominant player in this market. These asymmetrical

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<sup>1</sup> Michael K. Powell, Commissioner, FCC, Remarks before the Federal Communications Bar Association (Chicago Chapter), Chicago, IL (June 15, 1999).

<sup>2</sup> *Interview with FCC Chairman Michael Powell*, CNBC/Dow Jones Business Video (Feb. 9, 2001), available at <http://www.telecomclick.com/newsarticle.asp?newsarticleid=132115>.

regulatory mandates include, but are not remotely limited to, the line-sharing obligations already imposed in this docket.

The Commission now threatens to go much further, jettisoning the last pretense of broadband deregulation. The *FNPRM* in this docket raises the possibility that competitors with little or no facilities or investment of their own can provide service by obtaining UNE access to – and exhausting the capacity of – the key facilities, including Next Generation Digital Loop Carriers (“NGDLCs”), that SBC and other ILECs are now deploying in their networks to support advanced services. The *FNPRM* affixes a variety of labels to these proposals, but they all result in the same thing: allowing CLECs to free-ride on the ILEC’s assumption of investment risks and to provide broadband services without deploying any of their own facilities. Indeed, the *FNPRM* goes so far as to raise expressly the possibility of mandating that incumbents provide CLECs with a turn-key “UNE platform” for advanced services.

Instead of considering such further, highly intrusive regulations that would apply to the ILECs alone, the Commission should rationalize the entire structure of broadband regulations. As SBC and BellSouth demonstrated in their comments in response to the Notice of Inquiry in GN Docket No. 00-185, *Inquiry Concerning High-Speed Access to Internet over Cable and Other Facilities* (filed Dec. 1, 2000), broadband technology is fully competitive and widely available from several sources, the most prevalent of which is cable modem service. Accordingly, the only economically rational result in this context is to apply the same regulatory rules to ILEC broadband facilities and those of cable modem providers. As Chairman Powell has stated, the Commission must “work to harmonize regulatory treatment in a manner consistent with converged technology and

markets. . . . Additionally, we must recognize that the Digital Migration involves every segment of the communications industry (*i.e.*, telephone, cable, broadcast, wireless, and satellite) and *none should be examined in isolation.*”<sup>3</sup>

However, if the Commission does dive into these issues now, the data platform concept, and the other proposals raised in the *FNPRM* that would lead to the same result, are deeply misguided as a matter of both law and policy. Any such mandates would further distort competition and seriously erode the incentives that ILECs have to invest in advanced services facilities. There is little business sense in SBC’s ILEC subsidiaries investing billions of dollars to deploy NGDLCs if the prospect of a return on that investment is compromised by more and more intrusive regulation. As the Chairman and CEO of AT&T has acknowledged, “[n]o company will invest billions of dollars to become a facilities-based . . . services provider if competitors who have not invested a penny of capital nor taken an ounce of risk can come along and *get a free ride* on the investments and risks of others.”<sup>4</sup>

By the same token, CLECs that can use the existing facilities of incumbents at UNE rates and on UNE terms, without incurring the investment risk of deploying their own facilities, will do so. Thus, while purporting to implement the 1996 Act, which instructed the Commission to “remove barriers to advanced services infrastructure investment,” the Commission would affirmatively undermine the facilities-based

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<sup>3</sup> Michael K. Powell, Commissioner, FCC, Remarks before the Progress & Freedom Foundation, Washington, D.C. (Dec. 8, 2000) (emphasis added).

<sup>4</sup> Remarks of C. Michael Armstrong, Chairman and CEO, AT&T, delivered to Washington Metropolitan Cable Club, Washington, D.C. (Nov. 2, 1998) (emphasis added), *available at* <http://www.att.com/speeches/item/0,1363,948,00.html>.

competition that is the 1996 Act's central goal and that will bring real benefits to consumers.<sup>5</sup>

These points are far more than theoretical. In Illinois, where the Illinois Commerce Commission has adopted proposals akin to those raised in the *FNPRM* – including collocation of line cards and unbundling of SBC's Project Pronto facilities<sup>6</sup> – SBC's ILEC subsidiary has suspended deployment of NGDLCs configured to support DSL service. The installation of these facilities no longer makes business sense. If the Commission adopts the proposals contained in this *FNPRM*, it risks creating a similar disincentive to investment, but on a much larger scale and with much greater harm to consumers.

The Commission's proposals are also contrary to established law. The suggestion that CLECs be permitted to "collocate" – a misnomer in this context – line cards *within* ILECs' NGDLCs is directly contrary to the D.C. Circuit's holding in *GTE Service Corporation v. FCC*, 205 F.3d 416, 422 (D.C. Cir. 2000), that the 1996 Act requires collocation to be strictly "necessary" for one of the two statutorily defined functions, interconnection and access to unbundled elements. And the *FNPRM* proposals that,

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<sup>5</sup> See, e.g., Notice of Proposed Rulemaking and Notice of Inquiry in WT Docket No. 99-217, and Third Further Notice of Proposed Rulemaking in CC Docket No. 96-98, *Promotion of Competitive Networks in Local Telecommunications Markets*, 14 FCC Rcd 12673, 12676, ¶ 4 (1999) ("in the long term, the most substantial benefits to consumers will be achieved through facilities-based competition"); H.R. Conf. Rep. No. 104-458, at 1 (1996) (the 1996 Act is intended "to accelerate rapidly private sector deployment of advanced telecommunications and information technologies").

<sup>6</sup> Arbitration Decision on Rehearing, *Covad Communications Co. and Rhythms Links, Inc. Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996*, Nos. 00-0312 & 00-0313 (Ill. Commerce Comm'n Feb. 15, 2001).

under different names, would unbundle the packet switching functionality served by the NGDLC's line card and related, inseparable equipment such as the "optical concentration device" (or "OCD") cannot be squared with the *UNE Remand Order*.<sup>7</sup> In that order, which was issued barely a year ago, the Commission held that ILECs normally do not have to unbundle such packet switching functionalities, precisely because such a requirement could "alter the successful deployment of advanced services that has occurred" and "stifle burgeoning competition."<sup>8</sup> Nothing that has occurred in the wake of the *UNE Remand Order* justifies the Commission turning its back on that analysis and reversing one of the key rules that the Commission then claimed would define the "competitive landscape of telecommunications markets *for the foreseeable future*."<sup>9</sup>

\* \* \*

These Comments first explain why the Commission should reject all the *FNPRM* proposals as wholly incompatible with the proper direction of broadband regulation. The Comments then demonstrate that, even if the Commission does decide to go ahead with consideration of the specific proposals in the *FNPRM* at this time, it should reject each of them. First, SBC will show that a line card "collocation" requirement would be unlawful, hugely inefficient, technically infeasible, and contrary to sound policy. Second, SBC will demonstrate that the existing methods by which CLECs may provide DSL service to customers served over NGDLC are more than adequate. Third, SBC will explain why the

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<sup>7</sup> Third Report and Order and Fourth Further Notice of Proposed Rulemaking, *Implementation of the Competition Provisions of the Telecommunications Act of 1996*, 15 FCC Rcd 3696 (1999).

<sup>8</sup> *Id.* at 3840, ¶ 316.

<sup>9</sup> *Id.* at 3700, ¶ 4 (emphasis added).

Commission's proposal to unbundle Project Pronto functionalities is directly contrary to the year-old *UNE Remand Order* and would have a devastating effect on broadband investment – and thus on consumer access to advanced services. Finally, SBC will explain why the Commission's closely related proposal to unbundle the functionality provided by the NGDLC line card and the connected optical fiber and OCD is unlawful and unwise under each of the various theories that the *FNPRM* posits.

**I. THE COMMISSION SHOULD END ITS ASYMMETRICAL TREATMENT OF BROADBAND AND ESTABLISH A DEREGULATORY FRAMEWORK THAT APPLIES EVEN-HANDEDLY TO THE ENTIRE INDUSTRY.**

Just days ago, Chairman Powell stated that the Commission's task now is to *deregulate* the provision of DSL by incumbent LECs in order to level the playing field between broadband technologies, not to add regulations to the incumbents' existing burdens. The Chairman explained that the Commission must move to "some degree of *less regulation*" in the broadband market that would be "*not so technology centric*."<sup>10</sup> "We need these things *harmonized*," he said.<sup>11</sup> "Otherwise, we're penalizing a competitive technology simply because of its legacy."<sup>12</sup>

The proposals in the *FNPRM* would result in *more, not less*, regulation of broadband services, and would do so in a way that is *more, not less*, technology centric. These proposals are therefore flatly inconsistent with the Chairman's stated goals.

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<sup>10</sup> *Cable Bureau Suggests Regulatory Forbearance for New Services*, Communications Daily, Feb. 23, 2001 (emphasis added).

<sup>11</sup> *Id.* (emphasis added).

<sup>12</sup> *Id.*

They are also fundamentally unwise. The Commission must build a new foundation for broadband regulation – or, more properly, deregulation – not add to the creaking edifice that prior orders have constructed.

Five critical, uncontested facts frame the issue here. *First*, the broadband market is a distinct market that is different from both the traditional voice market and the market for slower speed “dial-up” Internet access.<sup>13</sup>

*Second*, the Commission has correctly concluded that the “preconditions for monopoly appear absent” in the broadband market.<sup>14</sup> “[T]he number of consumer broadband options within the various broadband technologies” and the existence of “price competition” between those technologies underscores “the competitive nature of the broadband market.”<sup>15</sup>

*Third*, the broadband market remains “nascent,” and it is growing extraordinarily fast. *UNE Remand Order*, 15 FCC Rcd at 3840, ¶ 317. Companies such as SBC are

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<sup>13</sup> See, e.g., FCC Staff Report, *Broadband Today* at 42 (Oct. 1999) (“*Broadband Today*”) (arguing that cable’s dominance over broadband will be tempered not by dial-up services but rather by “alternative platforms to use for high-speed data access”); Third Report and Order and Memorandum Opinion and Order, *Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission’s Rules to Redesignate the 27.5-29.5 GHz Frequency Band*, 15 FCC Rcd 11857, 11864-65, ¶ 18 (2000) (“*Fixed Wireless Competition Order*”) (discussing competition in the broadband market); Competitive Impact Statement at 9, *United States v. AT&T Corp.*, Civil No. 00-CV-1176 (D.D.C. filed May 25, 2000) (“A relevant product market affected by [the AT&T/MediaOne] transaction is the market for aggregation, promotion, and distribution of broadband content and services.”); Complaint ¶ 21, *AOL, Inc. v. Time Warner, Inc.*, Docket No. C-3989 (FTC filed Dec. 14, 2000) (“The relevant product market in which to assess the effects of the proposed merger is the provision of residential broadband internet access service.”).

<sup>14</sup> Report, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, 14 FCC Rcd 2398, 2423-24, ¶ 48 (1999) (“*First Advanced Services Report*”).

<sup>15</sup> *Fixed Wireless Competition Order*, 15 FCC Rcd at 11867, ¶ 23.

today making multi-billion dollar investments in new plants and equipment. It is the deployment of those new facilities that will permit consumers to realize the potential for full competition in the provision of broadband service.

*Fourth*, there is significant intermodal competition in the broadband market. The key competitors of incumbent LECs in the broadband market – cable companies, fixed wireless providers, and satellite providers<sup>16</sup> – do not, in any way, depend upon the wires owned by the incumbent telephone companies.

*Finally*, cable modem providers, not incumbent LECs, are the dominant players in the broadband market. Cable operators were the first to enter the market, and they have signed up close to three out of every four residential broadband subscribers. *See* Comments of SBC Communications Inc. and BellSouth Corp., Attach. A, *Inquiry Concerning High-Speed Access to Internet*, GN Docket No. 00-185 (filed Dec. 1, 2000) (“SBC/BellSouth Comments”).<sup>17</sup> Together, the two largest cable modem providers – AT&T’s Excite@Home and Time Warner’s Road Runner – have far more residential subscribers than all DSL providers combined. *See* SBC/BellSouth Comments, Attach. A.

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<sup>16</sup> *See, e.g., Broadband Today* at 21-22; *Fixed Wireless Competition Order*, 15 FCC Rcd at 11865, ¶ 19 (identifying “a continuing increase in consumer broadband choices within and among the various delivery technologies – xDSL, cable modems, satellite, fixed wireless, and mobile wireless”).

<sup>17</sup> *See also, e.g., Second Report, Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, CC Docket No. 98-146, FCC 00-290, ¶¶ 71, 72 (rel. Aug. 21, 2000) (as of December 31, 1999, cable had 87.5% of all residential “advanced services” subscribers and 78% of all residential “high-speed” subscribers).

The Commission itself has estimated that cable companies would reach 61 million households by the end of 2000, a better than 65% advantage over DSL.<sup>18</sup>

Given these facts, an asymmetric approach to broadband services is untenable as a matter of both policy and law. From a policy standpoint, there can be no rationalizing a regime that imposes burdensome and costly regulations on the non-dominant players, while leaving completely deregulated the dominant player in the same market. Asymmetric regulatory frameworks of any kind impose social costs by distorting competition – in effect, “handicapping” the competitive process. But a regime in which the small players, and not the large players, are subject to extensive regulation is irrational and indefensible. And the true losers in such an environment are consumers, who are denied the benefits of true competition. Indeed, the asymmetric regulatory proposals at issue here put at risk the incumbent LECs’ commitment to go forward with the huge capital investments necessary to bring broadband services to the general public.

As a legal matter, the disparity is equally unsustainable. As SBC explained in detail in its Comments in response to the *Notice of Inquiry* in GN Docket No. 00-185, the key legal point is that the Commission is duty-bound to make determinations based on

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<sup>18</sup> See *Broadband Today* at 26; see also Sanford C. Bernstein & Co. and McKinsey & Co., *Broadband!* at Exhs. 22, 23, 26 (Jan. 2000) (forecasting that cable will reach 63,558,000 households, and DSL 38,560,000, by year end 2000); compare Bear Stearns Equity Research, *Byte Fight!* at 36 (Apr. 2000) (by year-end 2000, all major cable operators “will have at least 70% of their plant at 750 MHz or above,” and most will be “largely completed with their upgrades by the middle of 2002”) with *Fixed Wireless Competition Order*, 15 FCC Rcd at 11870, ¶ 29 (“Forty percent to fifty percent of local lines in the National Exchange Carrier Association pools exceed three miles, at or beyond DSL’s practical limit of 3.4 miles. . . .”).

the nature of a service, not the name or history of the entity providing it.<sup>19</sup> Thus, when a cable company provides services that are functionally the same as those provided by a telephone company, the two must be regulated the same way. Indeed, the Commission itself has repeatedly acknowledged that the 1996 Act is “technologically neutral and is designed to ensure competition in all telecommunications markets.”<sup>20</sup> By eliminating regulatory distinctions between incumbent LECs, cable operators, and others, the 1996 Act allows these providers not only to challenge one another in their traditional

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<sup>19</sup> For instance, the Commission once reasoned that anything offered by a service provider primarily in the business of common carriage is “common carriage,” even though the service had been offered only on a private-contract basis. The D.C. Circuit overturned that decision, noting that “[w]hether an entity in a given case is to be considered a common carrier” turns not on its usual status but “on the *particular practice* under surveillance.” *Southwestern Bell Tel. Co. v. FCC*, 19 F.3d 1475, 1481 (D.C. Cir. 1994) (emphasis added). Similarly, when the Commission declined to place NEXTEL’s “private” wireless service on the same regulatory footing as functionally equivalent “public” service, Congress enacted legislation to ensure that “services that provide equivalent mobile services are regulated in the same manner.” H.R. Rep. No. 103-111, at 259-60 (1993) (discussing Pub. L. No. 103-66, tit. VI, § 6001(a), 107 Stat. 312 (1993)). And when the Commission still sought to regulate PCS differently from cellular, the Sixth Circuit found the Commission’s decision arbitrary. *See Cincinnati Bell Tel. Co. v. FCC*, 69 F.3d 752, 768 (6th Cir. 1995).

<sup>20</sup> *See* Order on Remand, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 15 FCC Rcd 385, 386, ¶ 2 (1999); Memorandum Opinion and Order, and Notice of Proposed Rulemaking, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 13 FCC Rcd 24011, 24017-18, ¶ 11 (1998); *see also* Report to Congress, *Federal-State Joint Board on Universal Service*, 13 FCC Rcd 11501, 11548, ¶ 98 (1998) (“We are mindful that, in order to promote equity and efficiency, we should avoid creating regulatory distinctions based purely on technology.”); *see generally* Barbara Esbin, Office of Plans and Policy, FCC, *Internet Over Cable: Defining the Future in Terms of the Past* at 96 (OPP Working Paper No. 30, Aug. 1998) (noting the “fundamental communications policy goal[]” of “competitive and technological neutrality”).

strongholds, but also to compete on equal terms in the creation and development of new markets, whatever technology they might use.<sup>21</sup>

The *FNPRM* in this docket is, accordingly, completely on the wrong track. It would increase the already one-sided and onerous regulations imposed on ILEC DSL services, while continuing to give a free pass to cable modem service and other technologies. The *FNPRM* would continue to treat a platform (DSL) as if it were a stand-alone market. But the market is broadband services, and DSL is just one of four completely independent technological platforms for providing those services.

In SBC's view, even though cable modem has a dominant share of the market today, there is sufficient actual and potential competition to warrant deregulation across the board. Certainly, there is no justification for continuing to regulate only ILECs, with their significantly *smaller* share of the market. And it would be wholly arbitrary and irrational to increase those one-sided regulatory burdens, as the *FNPRM* proposes to do. The proposals in the *FNPRM* should be rejected, and the Commission should immediately take steps to establish a common deregulatory framework applicable to all broadband services.

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<sup>21</sup> See, e.g., Sixth Annual Report, *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 15 FCC Rcd 978, 982, ¶ 10 (2000) (the 1996 Act "removed barriers to LEC entry into the video marketplace in order to facilitate competition between incumbent cable operators and telephone companies"); *Fixed Wireless Competition Order*, 15 FCC Rcd at 11861, ¶ 8 (noting "the 1996 Act's mandate to stimulate competition in telecommunications markets with a minimum of regulatory interference").

**II. A REQUIREMENT THAT CLECS BE ALLOWED TO COLLOCATE LINE CARDS WOULD BE UNLAWFUL AND UNWISE (FNPRM ¶ 56).**

The *FNPRM* asks first whether a requesting carrier “may physically or virtually collocate its line card at the remote terminal by installing it in the incumbent’s NGDLC for the purposes of line sharing.” *FNPRM* ¶ 56. As a matter of law, the answer is no. Such a requirement would go well beyond the Commission’s authority to order collocation. And in any event, numerous policy and technical reasons stand in the way. Most significantly, a line card collocation requirement would artificially diminish the capacity of NGDLCs, changing the economics of NGDLC deployment and forcing ILECs to reconsider whether additional investment in NGDLCs is financially sound.

A. As the Commission acknowledges (¶ 56), a prerequisite to a collocation requirement is the statutory limitation set out in section 251(c)(6) – *i.e.*, that the “equipment” sought to be collocated is “necessary for interconnection or access to unbundled network elements.”

As SBC has explained in other rulemakings,<sup>22</sup> even if line cards could be used for one of these statutorily enumerated purposes (which they cannot, as discussed below), it is impossible to see how the collocation of line cards is *necessary* for interconnection or access to unbundled elements. As the D.C. Circuit has explained, “necessary” in this context means “*required or indispensable*”<sup>23</sup> to interconnect or to provide access to UNEs, and multi-function equipment that “unnecessarily *includes a switching*

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<sup>22</sup> See Comments of SBC Communications Inc. at 9-16, 36-41, CC Docket Nos. 98-147 & 96-98 (FCC filed Oct. 12, 2000); Reply Comments of SBC Communications Inc. at 17-22, CC Docket Nos. 98-147 & 96-98 (FCC filed Nov. 14, 2000).

<sup>23</sup> *GTE Serv. Corp.*, 205 F.3d at 422 (emphasis added).

*functionality, provides enhanced service capabilities, or offers other functionalities”*  
does not meet this standard.<sup>24</sup>

This aspect of the D.C. Circuit’s ruling could have been written with line cards in mind. To the extent that line cards can be considered as equipment at all – which they cannot, as discussed below – they are multi-function equipment used for switching and advanced services functionalities, not for interconnection or access to UNEs. Line cards “split[] the voice and data signal and generate[] an ATM packet signal for the data path.”<sup>25</sup> They provide “a DSLAM functionality,” which the Commission has expressly concluded is a component of packet switching. *Project Pronto Order*, 15 FCC Rcd at 17528-29, ¶ 14 (internal quotation marks omitted); see *UNE Remand Order*, 15 FCC Rcd at 3834, ¶ 304 (“The packet switching network element includes the necessary electronics (e.g., routers and DSLAMs).”). Line cards are therefore precisely the sort of “multifunctional equipment,” providing “switching” and “enhanced services functionality,” that the D.C. Circuit concluded is *not* eligible for collocation under section 251(c)(6). See *GTE Serv. Corp.*, 205 F.3d at 422. A decision to require collocation of such facilities would thus contravene the D.C. Circuit’s mandate.

In fact, line cards are not even useful for the two statutory purposes for which collocation can be required. Interconnection involves “the linking of *two* networks for

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<sup>24</sup> *Id.* at 424 (emphasis in original) (quoting First Report and Order and Further Notice of Proposed Rulemaking, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 14 FCC Rcd 4761, 4776, ¶ 28 (1999)).

<sup>25</sup> Second Memorandum Opinion and Order, *Ameritech Corp., Transferor, and SBC Communications Inc., Transferee, For Consent to Transfer Control of Corporations*, 15 FCC Rcd 17521, 17528, ¶ 14 n.34 (2000) (“*Project Pronto Order*”).

the mutual exchange of traffic.” 47 C.F.R. § 51.5 (emphasis added). A line card is not used to link two separate networks; it is placed within a single network. In particular, a line card is a sub-component of the NGDLC architecture. The line card thus serves as part of a single, integrated piece of equipment within one network, not as a link between two networks. Far from being “necessary” to provide interconnection, the line card is *incapable* of doing so.

Nor can a line card be used to access any UNE. The primary candidate proposed to date is the subloop.<sup>26</sup> But the Commission has made clear that access to subloops is available only at accessible cross-connect points.<sup>27</sup> The line card is not located at such a cross-connect point. Rather, it resides in a slot in the NGDLC, which in turn is hard-wired to the NGDLC’s supporting environment. Only the NGDLC itself, not the subloop, is accessible from that point. Thus, under the Commission’s own decisions, the line card does not provide access to UNEs.

Finally, because the line card is merely a sub-component of the NGDLC, it does not even constitute “equipment” for purposes of collocation. The Commission’s requirements for collocation involve complete units of equipment, not piece-parts or sub-components that operate inside of ILECs’ equipment.<sup>28</sup> If the rule were otherwise, CLECs could argue that they were “collocating” by installing software in an incumbent’s

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<sup>26</sup> See, e.g., CoreComm Comments at 46-47, CC Docket Nos. 98-147 & 98-96 (FCC filed Oct. 12, 2000).

<sup>27</sup> *UNE Remand Order*, 15 FCC Rcd at 3789, ¶ 206.

<sup>28</sup> See 47 C.F.R. § 51.323(b); see also *Project Pronto Order*, 15 FCC Rcd at 17528-29, ¶ 14 (discussing collocation in the context of complete units of equipment, e.g., NGDLCs).

switch. That is not the law.<sup>29</sup> And, as that example shows, to abandon the notion that collocation involves placement of complete units of equipment would effectively authorize CLECs to re-engineer an ILEC's choice as to how to configure its equipment, in conflict with Commission precedent.<sup>30</sup>

**B.** Even assuming that collocation of a line card is lawful under section 251(c)(6), numerous technical and policy reasons make a line card collocation requirement untenable.

**1.** Most fundamentally, collocation of line cards could prematurely exhaust the capacity of NGDLCs, diminishing ILECs' incentives to continue their deployment.

As noted, line cards are installed in NGDLC "slots." Each slot is capable of serving a fixed number of customers (typically, four). The slots are wired directly to the copper feeder cables that serve end users. If a carrier other than the ILEC owns a line card, that carrier by necessity will have control over the entire slot in which the line card is installed. And unless the CLEC happens to be serving the exact number of customers that the slot is capable of serving, a certain number of cable pairs would be left unused and unavailable for use by any other carrier.

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<sup>29</sup> See, e.g., First Report and Order, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 FCC Rcd 15499, 15708, ¶ 415 ("the incumbent LEC is not required to relinquish control over operations of the switch"), *modified on recon.*, 11 FCC Rcd 13042 (1996), *vacated in part, Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997), *aff'd in part, rev'd in part sub nom. AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999), *decision on remand, Iowa Utils. Bd. v. FCC*, 219 F.3d 744 (8th Cir. 2000), *cert. granted*, 121 S. Ct. 877 (2001).

<sup>30</sup> See *id.*

The resulting inefficiencies can add up quickly. If, for example, a CLEC is allowed to install a line card to serve one customer, fully 75% of the slot's capacity would be rendered useless. Moreover, in most cases the geographical area served by a remote terminal encompasses several distribution areas, each of which is accessed via a particular Serving Area Interface ("SAI"). In these areas, remote terminals are prewired to allocate potential customers in a particular SAI to a slot in the NGDLC. Thus, if a CLEC has one customer served through one SAI, and another served through another SAI, the CLEC would have to install *two* cards, in *two* slots, but would only be using two of the eight ports potentially available to those slots.

An example shows the dramatic decline in efficiency that would come with a line card collocation requirement. SBC's Project Pronto commonly uses the Alcatel Litespan 2000 NGDLC, with three DSL-capable channel bank assemblies ("CBAs"). Each CBA has 56 slots, with four ports per slot. In a common configuration, each slot is wired to one of five SAIs. Now assume (conservatively) that three types of line cards are used for each SAI, and that, for each type of line card, one card serves only one line. The equipment in this example is capable of serving 672 end users.<sup>31</sup> If the ILEC owns all of the line cards, the number of underutilized ports would be 45.<sup>32</sup> That translates to a 93% utilization rate. If, however, five carriers (the ILEC and four CLECs) own and control the line cards, the number of unutilized ports balloons to 225,<sup>33</sup> a utilization rate of only 67%.

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<sup>31</sup> 3 CBAs x 56 slots x 4 ports = 672 ports.

<sup>32</sup> 3 ports x 3 types of line card x 5 SAIs = 45 unutilized ports.

<sup>33</sup> 3 ports x 3 types of line card x 5 SAIs x 5 carriers = 225 unutilized ports.

This example holds not just where CLECs have installed a card and have not signed up enough customers to use the full capacity of that card, but also where a CLEC chooses a “flavor” of DSL that consumes excessive slot capacity. Thus, for example, a CLEC might choose to provide HDSL2, using a symmetrical 1.5 mbs line card. That card requires an entire slot to provide service to a single customer, even though the slot itself is designed to provide service to four end users. In this case too, consumers who would otherwise “benefit . . . from a more rapid deployment of advanced services” would in fact suffer, as the CLEC is using a slot designed to serve four end users to serve fewer than four.<sup>34</sup>

Accordingly, a decision allowing CLECs to place CLEC-owned line cards in SBC’s NGDLCs would almost certainly strand a substantial amount of the capacity of the NGDLC. That result would not only diminish the utility of equipment already installed, it would also substantially alter ILECs’ incentives to install such equipment in the future. As the Commission is well aware, the \$6 billion Project Pronto deployment is designed to make DSL technology available “to some 77 million consumers,” “20 million of [whom] cannot receive DSL service today.” *Project Pronto Order*, 15 FCC Rcd at 17523. ¶ 4. If the Commission imposes a regulatory requirement that diminishes the number of consumers that can be served by Project Pronto, SBC will have to reconsider whether it makes financial sense to continue the deployment.<sup>35</sup>

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<sup>34</sup> See *Project Pronto Order*, 15 FCC Rcd at 17521-22, ¶ 2.

<sup>35</sup> SBC’s voluntary Broadband Offering does not raise the same efficiency concerns because it allows the ILEC to manage the NGDLC on a line-by-line (rather than a slot-by-slot) basis. See *id.* at 17537-38, ¶ 31.

Indeed, SBC has already undertaken such reconsideration in Illinois, where the state commission appears intent on allowing CLECs to collocate line cards in remote terminals. As SBC has explained to the Illinois Commerce Commission, because of such rulings, “Ameritech Illinois has suspended its further deployment of any wholesale DSL-related Project Pronto facilities.”<sup>36</sup>

2. In addition to stranding capacity, a line card collocation requirement would create additional problems of technical feasibility, service quality, and cost.

CLECs have made clear that their goal in pursuing this requirement is to enable them to offer various “flavors” of DSL by plugging their own line cards “into anybody’s DLC.”<sup>37</sup> As leading equipment manufacturers have explained, however, that suggestion is “laughable” and “ludicrous.”<sup>38</sup> A line card cannot provide service without, among other things, its “backplane” – *i.e.*, the wiring and connectors, electronic circuitry, and software that control the operation of the NGDLC. The backplane is vendor-specific, and there are no “industry standards . . . to allow interchangeability of line cards.”<sup>39</sup> Without

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<sup>36</sup> Ameritech Illinois’ Brief on Exceptions at 44, *Covad Communications Co. and Rhythms Links, Inc. Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996*, Nos. 00-0312 & 00-0313 (Ill. Commerce Comm’n filed Jan. 25, 2001).

<sup>37</sup> Transcript at 127, *Public Forum: Competitive Access to Next-Generation Remote Terminals* (FCC May 10, 2000) (statement of Stephen Bowen, representing Rhythms NetConnections, Inc.).

<sup>38</sup> *Id.* at 129 (statement of Neil Ransom, Vice President and General Manager, Alcatel); *id.* at 133 (statement of John Reister, Assistant Vice President, Copper Mountain).

<sup>39</sup> Comments of Nortel Networks Inc. at 4, CC Docket Nos. 98-147 & 96-98 (FCC filed Oct. 12, 2000).

such standards, "it would be virtually impossible to use different manufacturers' line cards in a single DLC."<sup>40</sup>

Indeed, the risk presented here runs beyond the nonfunctionality of a single card. NGDLC systems, including line cards, are controlled by vendor-specific software. The placement of an incompatible line card in the system could cause the entire system to fail, much like running an incompatible software program on a personal computer often causes the computer's operating system to "freeze."<sup>41</sup> Accordingly, a rule that allowed "collocation" of any line cards could create significant system reliability problems.

Even aside from that, placement of CLEC-owned line cards in SBC's NGDLCs would threaten service quality. Assuming that a CLEC installed line cards that were compatible with the ILEC's NGDLC, the CLEC may choose a card type that is unfamiliar to the ILEC's technicians. In the event a customer experiences service trouble, the ILEC may be unable to trace the trouble accurately, much less repair it without causing damage to the line card in particular and the NGDLC in general.

The CLEC's choice of line card may also generate a disproportionate amount of traffic on the fiber facilities that connect the central office and the remote terminal. This strain on facilities could seriously impact the service quality to other consumers served over the same fiber. To be sure, the ILEC could limit this service quality impairment by increasing the facilities available to carry the traffic, but a regulatory requirement that it do so runs afoul of the 1996 Act's mandate that ILECs not be required to build a superior

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<sup>40</sup> *Id.*

<sup>41</sup> Comments of Alcatel USA, Inc. at 16-17, CC Docket Nos. 98-147 & 96-98 (FCC filed Oct. 12, 2000).

network for the benefit of CLECs. *See Iowa Utils. Bd. v. FCC*, 219 F.3d 744, 758-59 (8th Cir. 2000). *pet 'n for cert. granted on other grounds*, 121 S. Ct. 877 (2001).

**III. COLLOCATION AT THE REMOTE TERMINAL AND USE OF “HOME-RUN” COPPER PROVIDE DATA CLECS MORE THAN SUFFICIENT OPPORTUNITIES TO COMPETE (FNPRM ¶¶ 57-58).**

A requirement that ILECs permit CLECs to collocate their own line cards would not only be unlawful and unworkable, but also wholly unnecessary. CLECs already have ample opportunity to provide DSL service to end users that are served over digital loop carrier. For example, CLECs can collocate at or near the remote terminal in order to access the copper distribution subloop. In addition, CLECs can take advantage of home-run copper to serve many customers that SBC chooses to serve over NGDLC.

Paragraphs 57 and 58 of the *FNPRM* ask a series of questions regarding the practicality of these options. CLECs are successfully using these alternatives today; there can be no doubt that they provide meaningful opportunities to compete.

A. As the Commission has explained, in the advanced services context, a CLEC can collocate at the remote terminal in order to gain access to the copper distribution subloop over which it can provision DSL service. *See UNE Remand Order*, 15 FCC Rcd at 3794-95, ¶ 218. Paragraph 57 of the *FNPRM* raises the issue of how a CLEC that has done so can transport its digital traffic, either back to the central office or directly to its own packet-switching facility.

The first and best option for this purpose is to self-provision facilities, or to secure them on the open market. Any number of telecommunications firms are deploying fiber networks that CLECs can use to transport data. As the Commission has explained, the very point of requiring ILECs to provide access to subloops is to encourage this

deployment – *i.e.*, to “accelerate the development of alternative networks” by “allow[ing] requesting carriers efficiently to connect their facilities with the incumbent’s loop plant.” *Id.* at 3795, ¶ 219; *see also id.* at 3792, ¶ 215 (permitting access to subloops will encourage facilities-based competition by carriers “that are attempting to rely primarily on their own facilities”).

In addition, as the *FNPRM* notes (¶ 57), where a CLEC is unwilling to undertake the investment necessary to secure its own facilities for this purpose, it may rely upon leased ILEC facilities – particularly, the subloop and dark fiber UNEs – to carry traffic from the remote terminal back to the central office. Indeed, such facilities are available in almost all of the new Pronto locations where SBC has deployed fiber in the loop.

1. ***Subloops.*** SBC’s ILECs have spare feeder subloops available for use by CLECs in many remote terminal locations. In some Project Pronto locations, the SBC ILEC has deployed stand-alone SONET systems that are capable of delivering high-capacity subloops for CLEC use. In addition, in the numerous locations where the SBC ILEC’s initial deployment of fiber in the loop occurred prior to the deployment of an advanced services-capable remote terminal, spare DS-1 loops – which are capable of feeding some, though not all, advanced services applications – are available to CLECs.<sup>42</sup>

Such spare feeder subloops undoubtedly provide CLECs with a viable alternative for carrying digital traffic from a collocated DSLAM. Indeed, one CLEC in Kansas has already secured a DS3 subloop to carry traffic between the CLEC’s remote space near the

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<sup>42</sup> This spare fiber generally exists because such a voice-only DLC architecture does not use as much fiber capacity.

remote terminal and its collocated space in the central office. This arrangement was completed in January 2001, and is capable of providing service as soon as the CLEC submits a service order.

Nor are there any technical issues that would prevent CLECs from using feeder subloops between the remote terminal and the central office. In the Kansas example noted above, the CLEC simply provided a coaxial cable from its remote terminal site, which the SBC ILEC terminated to a coaxial DS3 handoff constructed for this purpose. The project – which also included termination of the CLEC’s copper facility to the SAI in order to facilitate access to the distribution subloop – was constructed in timely fashion, pursuant to a special construction arrangement and according to the CLEC’s proposed implementation schedule.

2. **Dark Fiber.** Where spare subloops are not available, dark fiber presents an equally viable alternative for carrying traffic from a collocated DSLAM back to the central office. In deploying Project Pronto, SBC has included enough fiber to meet long-term demand. Only a fraction of the resulting capacity is now in service, leaving the remaining, unlit fibers available for CLEC use. Moreover, SBC ILECs generally deploy fibers into remote terminals in “ribbons,” or groups of 12. Where SBC’s own uses do not require exactly 12 fibers, as is commonly the case, the remaining terminated fibers are normally available for CLEC use.

Where a CLEC leases dark fiber, of course, it must install the electronics necessary to light the fiber. That step requires certain prerequisites, including space, power, heat, ventilation, and air conditioning, that are in limited supply at most remote terminals. Yet it would be incorrect to infer that, as a result, dark fiber is not an adequate

alternative for carrying traffic from the remote terminal to the central office. The availability of these prerequisites – like the question of whether there is sufficient space in the remote terminal to collocate a DSLAM to begin with – must be evaluated on a case-by-case basis.

In most cases, where a hut, CEV, or large cabinet is designed to accommodate collocation of DSLAMs, it is also designed to accommodate the infrastructure requirements that come with CLEC collocation. It can thus be assumed that, in the great majority of circumstances where a CLEC finds enough space to collocate a DSLAM, it will also find enough space (and other requirements) to install electronics to light the dark fiber that it may wish to use to carry traffic back to the central office.

It also bears repeating that, where such space is not available in the remote terminal, other means of collocation are available to the CLEC, such as adjacent structure collocation. Where a CLEC takes advantage of these alternative means of collocation, it can also find the necessary space and other requirements to install electronics to light dark fiber.

The Commission references Rhythms' claim that dark fiber is an "inadequate" means of carrying digital traffic back to the central office. *See FNPRM* ¶ 57 n.126 (quoting Comments of Rhythms NetConnections Inc. at 80, CC Docket Nos. 98-147 & 96-98 (FCC filed Oct. 12, 2000)). Rhythms' principal claim appears to be based on price – specifically, that ILECs offer dark fiber in this circumstance as part of an effort to "redefine" the loop UNE in order to "increase" charges to CLECs. *See id.* But, contrary to Rhythms' apparent understanding, the NGDLC architecture is not itself a "single loop UNE" that carries DSL traffic from an end user to the central office. Rather, as noted

above and explained further below, the NGDLC architecture includes packet-switching functionality that this Commission has determined is generally not subject to unbundling. The portion of the architecture that is subject to unbundling – the copper distribution subloop – is of course available to CLECs, as is any available dark fiber (or spare subloop) that the CLEC wishes to rely upon to carry its traffic from the remote terminal to the central office. But when a CLEC takes advantage of these products to carry traffic from the end user to its collocated space at the remote terminal, and from the remote terminal to the central office, it is in fact purchasing multiple UNEs. And, in that circumstance, it is only right that the CLEC should pay for those products at the rates that it has negotiated or that the relevant state commission has arbitrated.<sup>43</sup>

**B.** As the Commission acknowledges (*FNPRM* ¶ 58), a CLEC may in many circumstances also rely on home-run copper to provide advanced services to an end user that the SBC ILEC serves over digital loop carrier.

The use of home-run copper is a viable way to provide their chosen flavors of DSL service to end users. And, as SBC has previously explained, the deployment of Project Pronto only increases CLECs' options; it in no way diminishes CLECs' ability to rely on SBC's existing copper network. *See Project Pronto Order*, 15 FCC Rcd at 17561, App. A ¶ 7 (noting that SBC "has no current plans or plans under development to

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<sup>43</sup> Rhythms also asserts that some ILEC dark fiber tariffs do not provide for access at every technically feasible point or at every remote terminal. Rhythms fails to substantiate this allegation, and, in any event, the allegation raises a question whether certain ILECs are in compliance with Commission rules, not whether those rules should be changed. Rhythms' final claim, that reliance on dark fiber requires CLECs to collocate equipment in remote terminals in order to light the fiber, is addressed above. *See supra* pages 22-23.

retire mainframe terminated copper facilities related to th[e] deployment” of Project Pronto, and that it has committed to keep *at least* 95% of that copper in place until September 2003).

Nor is it the case that the minor service disruption that may occur when an ILEC migrates the end user’s voice service to an all-copper loop has any impact on the viability of this alternative. *See FNPRM* ¶ 58. In SBC’s ILEC service areas, the migration is accomplished via a “line and station transfer,” whereby the ILEC transfers the end user’s service to an all-copper loop that either exists in the network or can be assembled from existing copper feeder and distribution pairs. Such a procedure typically involves transferring the end user’s service to a different cable pair within the same cable sheath, which not only limits any complications that might otherwise occur where a user’s service is changed to an alternative facility, but also ensures that the transfer can be done quickly. Indeed, a typical line and station transfer is completed in a matter of minutes. Thus, as a practical matter, the end user usually experiences little or no service disruption at all, much less enough disruption to render this alternative infeasible.

SBC’s experience confirms that line-and-station transfers provide a meaningful opportunity for CLECs. Though SBC’s ILECs perform hundreds of line-and-station transfers daily for plain old telephone service (“POTS”) and other customers, SBC receives hardly any consumer complaints regarding resulting outages.