

Attachment B
To The Petition

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:)	
)	
Review of the Section 251 Unbundling Obligations Of Incumbent Local Exchange Carriers)	CC Docket No. 01-338
)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996)	CC Docket No. 96-98
)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability)	CC Docket No. 98-147

**COMMENTS AND CONTINGENT PETITION FOR FORBEARANCE
OF THE VERIZON TELEPHONE COMPANIES**

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I. INTRODUCTION AND SUMMARY

Developments in the marketplace since the time of the Commission's last review confirm that significant course corrections are indeed necessary if the Act is to achieve its core objective of promoting meaningful and sustainable facilities-based competition in all segments of the communications marketplace – narrowband and broadband, local and long distance, voice, data and video alike.¹

On the one hand, marketplace experience demonstrates that competing providers unquestionably are able to enter and compete without access to many of the unbundled elements required by the current rules. For example, since the time of the last review, the number of competing circuit switches has nearly doubled to some 1300 switches, those switches now serve customers in wire centers that contain about 86 percent of local access lines, and they already are being used to serve between 16 and 23 million access lines – including at least 3 million residential lines. In addition, competing providers have deployed at least 1700 packet switches that either are being or can be used to provide voice as well as data. Likewise, with respect to competing transport and high capacity loops, the number of known route miles of fiber deployed by competing providers also has nearly doubled from 100,000 to 184,000 miles, the number of known buildings served has tripled to some 330,000, and competing providers now serve at least 156 million voice grade equivalent circuits, including a third of all special access demand (and substantially more in key business centers).

Perhaps the most dramatic change has been the rapid emergence of inter-modal competition. Cable companies now offer local telephone service to some 10 million homes, and

¹ These Comments are being filed on behalf of the Verizon Telephone Companies, which are listed in Attachment A.

already are serving more than 1.5 million lines. Altogether, more than 80 percent of all cable lines have been upgraded to offer two-way capabilities, laying the groundwork for the addition of basic telephone service -- whether circuit-switched or in the form of IP telephony services now being trialed by each of the major cable operators. Likewise, wireless now competes directly with wireline for both primary and secondary lines, has displaced some 10 million wireline access lines already, and is expected to displace many millions more in the next few years. And in addition to the extensive competition for individual *lines*, billions of *minutes* also are being lost to a host of sources ranging from competing wireless providers to the now ubiquitous e-mail and instant messaging services.

The state of competition in the separate broadband market is even more pronounced. Cable companies have captured some 70 percent of the mass market for broadband services, continue to add subscribers faster than other competitors, and, unencumbered by unbundling requirements, have upgraded their networks passing roughly 81 million homes. Recently introduced two-way satellite services are now available nationwide and are expected to be among the fastest growing delivery platforms, while terrestrial wireless technologies now reach a majority of the population. At the same time, the DSL services offered by the insurgent local telephone companies account for less than a third of the market, and significant additional investment is still needed to match the reach of the cable incumbents. Likewise, the business broadband market is dominated by the long distance incumbents, which collectively control more than two-thirds of the nationwide market, and Verizon and other local telephone companies have only single-digit shares.

On the other hand, the current unbundling policies stand as an affirmative deterrent to continued investment and deployment of competing facilities, undermine existing facilities-based

competitors, and in the most competitive market segments, risk snatching defeat from the jaws of victory. Numerous facilities-based competitors, high tech groups, prominent economists, and independent analysts have confirmed this very fact. For example, one major provider of facilities-based residential service (Cox Cable) has explained that the current regime “discourages competing carriers from building their own networks and leaves them dependent over the long term on the ILECs, to the detriment of the public interest.” In a fit of candor, even the CEO of the leading proponent of unlimited unbundling (AT&T) agreed, admitting that “[n]o company will invest billions of dollars to become a facilities-based . . . provider” if other companies “can come along and get a free ride on the investment and risk of others.” And the adverse impact of the unbundling requirements is especially pernicious with respect to inherently risky new technologies, such as broadband.

Moreover, unbundled network elements were intended as a transitional mechanism to help achieve the Act’s core goal of long-lasting facilities based competition (rather than as a permanent fixture on the regulatory landscape). But they have not served that purpose, as market experience in Verizon’s own service areas in New York and elsewhere abundantly shows. While the two largest long distance incumbents have extensive facilities in place over which they provide service to the most lucrative segments of the business market, they have made no move to migrate the million-plus customers they serve using the so-called UNE-platform to their own facilities. And this is true despite the fact that numerous other competitors have shown it is possible to enter the market and to compete using their own facilities, including in the mass market. In fact, other facilities-based providers that compete aggressively in all segments of the market using their own switches have made virtually no use of unbundled switching or the UNE-platform, just as competing providers who serve large business customers have made virtually no

use of unbundled high capacity loops. And the fact that the broad availability of unbundled elements undermines the development of facilities-based competition is only highlighted by the finding of one of the Commission's own economists that "states with lower UNE prices have less facilities-based entry."

As one independent analyst has concisely summed up the current state of affairs, the effect of the existing unbundling policy "has been to effectively devalue all infrastructure investment by everyone, incumbents and competitors alike." Moreover, because the telecommunications sector is vital to the broader economy, the current policy acts as a drag on the economy as a whole because it "is fundamentally deflationary and unintentionally discourages investment and economic growth."

Given this experience, it is apparent that a course correction is sorely needed. The current rules have in practice produced (whether intentionally or not) what amounts to a least efficient competitor standard, requiring particular elements to be unbundled even in market segments where some competitors unquestionably are competing using their own facilities solely because others have chosen not to. In order to steer a more prudent course, the Commission should modify those rules to incorporate more meaningful limits that are rationally related to the Act's core goal of promoting facilities-based competition.

As an initial matter, under the express terms of the Act, the Commission may require a particular network element to be unbundled only where it first determines that competing providers generally would be impaired without access to that element. That determination, of course, must be based on concrete and verifiable evidence -- not mere speculation or conjecture. Consequently, once there is evidence that competing providers are entering the market without using a particular unbundled element, the proponents of unbundling must bear the burden of

providing evidence to support a determination that there are specific market segments in which their ability to enter and compete is impaired.

In making the required determination, the relevant inquiry is whether competing providers are impaired *competitively* compared to the incumbent or other providers. It is not enough to claim that they are impaired in some abstract sense just because they have to incur the same costs or perform the same tasks as the incumbent or any other competing platform provider. On the contrary, where competing providers merely incur the same costs of operating a business that confront any network operator -- such as connecting various elements to make up a network, performing marketing functions, or arranging for franchises -- they are not impaired in any competitively meaningful sense.

Moreover, as the Commission itself has held, the required determination for a particular unbundled element must be both service-specific and market-specific, and any unbundling requirement that is adopted must be carefully calibrated to only those specific circumstances where competing providers are proven to be impaired. To put it another way, if competing providers already have entered the market and are competing to provide specific services, or to serve particular customer classes or geographic areas, without using a given unbundled element, then they self-evidently are not impaired in their ability to do so. Under those circumstances, it is up to the proponents of unbundling to prove that there are some other circumstances under which they are impaired, and any unbundling requirement must be limited to those other circumstances.

Of course, in making its determination, the Commission also must take into account competition from all sources, whether inter-modal or intra-modal. Where consumers already benefit from the availability of alternatives from competing facilities-based platform providers,

there is no conceivable justification for imposing an unbundling obligation (let alone one that applies to only a single competitor). On the contrary, imposing an unbundling obligation under these circumstance only undermines the core goal that Congress sought to achieve, and is antithetical to the statutory scheme.

Likewise, that determination also must take into account the availability of all alternative to unbundled elements, whether inside or outside the incumbent's network. Where competing providers have entered and are competing successfully using alternatives to unbundled elements, they obviously are not impaired in their ability to so regardless of the source of those alternatives.

Finally, to remain faithful to Congress's intent and goals, the Commission must take two other steps. It must either hold that the parallel Section 271 checklist items are satisfied where a particular network element does not meet the Section 251(d)(2) standard, or, to the extent necessary, it should exercise its authority to forbear from imposing a separate requirement under section 271, and Verizon hereby formally petitions it to do so. In addition, because imposing an unbundling obligation under circumstances where the statutory standard is not met would affirmatively undermine the Act's core objective, the Commission should make clear that the states cannot reimpose an unbundling obligation that it has removed, nor can they expand upon the obligations imposed by the Commission in exercising its statutorily-prescribed duties.

Upon considering the evidence in light of the Act's requirements, the Commission should eliminate substantial portions of its current unbundling obligations. In particular, circuit switching (and the UNE-P) as well as dedicated transport and high-capacity loops, should not be subject to unbundling anywhere. Further, there should be no obligation to unbundle broadband facilities, including the high-frequency portion of the loop, packet switching, and fiber loop

architectures. Non-high capacity loops should not be subject to unbundling where both cable telephony and digital CMRS are available. In addition, loops used to serve multiple dwelling units (MDUs) and new developments should no longer be subject to unbundling. Moreover, CLECs would not be impaired without access to unbundled signaling and access to databases. Finally, the Commission should sunset any remaining unbundling obligations within three years in order to minimize the deterrent effect on facilities-based competition and investment.

II. FACTUAL BACKGROUND: MARKETPLACE DEVELOPMENTS AND CHANGED CIRCUMSTANCES COMPEL A FUNDAMENTAL RE-EXAMINATION OF THE COMMISSION'S UNBUNDLING POLICIES.

This review takes place against the backdrop of far more diverse and competitive communications markets than existed three years ago. In the traditional narrowband telephony market, other wireline providers now serve millions of business and residential customers in both urban and rural locations using some or all of their own facilities. In addition, ILECs have lost millions of lines to cable companies and CMRS providers and billions of minutes to a wide range of new communications alternatives, including wireless, e-mail, and instant messaging. In the broadband market, the ILECs' lack of market power – which the Commission recognized even before the UNE Remand Order – has been confirmed. The ILECs are minor players in the provision of broadband services to businesses, and in the mass market they are a distant second behind the cable MSOs, with satellite and wireless companies and other emerging platforms contributing to a competitive free-for-all.

These market changes compel a full reexamination of prior decisions concerning unbundled elements.

A. The Narrowband Market.

Over the past three years, the traditional local phone business has seen tremendous growth from both traditional wireline CLECs and inter-modal competitors. Importantly, both classes of entrants have demonstrated that they are able to enter and compete, for both mass market and business customers, throughout the nation,² without relying on the ILECs' network elements.

Switches. In the past three years, the number of CLEC voice switches has jumped from roughly 700 to 1300.³ CLECs are using these switches to serve between 16 and 23 million lines – including three million residential lines – an increase of approximately 600 percent since 1998.⁴ In Verizon's region alone, CLECs have now deployed at least 458 voice switches,⁵ and they are using those switches to serve, based on a very conservative estimate, 3.7 million business lines and one million residential lines.⁶ The CLECs' voice switches are now so widespread that they serve local customers in wire centers containing some 86 percent of the Bell companies' access lines.⁷ In Verizon's territory, CLECs have ported numbers in 44 percent

² More than one dozen CLECs are pursuing a strategy of serving only smaller (Tier II, III, and IV) markets. See UNE Fact Report 2002 ("2002 Fact Report"), V-12, Table 3. In addition, many CLECs that initially focused on larger markets have expanded into smaller markets as well. *Id.*, V-11.

³ *Id.*, I-2.

⁴ *Id.*, I-5, Table 3. In 1998, the comparable numbers were 3 million business lines and fewer than 200,000 residential lines served by CLEC switches. *Id.*

⁵ *Id.*, Appendix B.

⁶ *Id.*, II-4, Table 2.

⁷ *Id.* at I-2. Importantly, the CLECs use the same switches to serve both business and residential customers. *Id.*, II-18.

of wire centers, accounting for 90 percent of Verizon's business lines and 83 percent of our residential lines.⁸

In addition, the number of known CLEC packet switches has doubled since 1998, from 860 to 1700.⁹ All forms of telecommunications traffic – including voice – now can be transmitted and switched, end-to-end, in digital rather than analog format, and packet switches are far more efficient at handling digital traffic than voice switches are.¹⁰ Many business customers directly connect to packet switches (bypassing the circuit-switched network) through IP-based PBXs,¹¹ and cable operators and other alternative telephony providers are introducing IP telephony services that likewise use packet rather than circuit switching.¹² Moreover, at least 950 switches deployed by wireless carriers that are unaffiliated with the BOCs divert billions of minutes each year away from ILEC circuit switches; wireless calls now account for some 12 percent of all U.S. telephone calls.¹³ And CMRS carriers are not just taking minutes away from the wireline network; they are winning lines as well – to date, approximately three percent of primary lines and approximately 10 million total access lines were replaced by wireless as of year-end 2001.¹⁴

⁸ *Id.*, II-6, Tables 4-5.

⁹ *Id.*, II-1, II-23.

¹⁰ *Id.*, II-20.

¹¹ *Id.*, II-22-23.

¹² *Id.*, II-30-34, Tables 14 & 15.

¹³ *Id.*, II-3, II-35 and Appendix F.

¹⁴ *Id.*, II-38, I-10.

Interoffice transport. In the past three years, the number of CLEC fiber networks in the top 150 MSAs (which encompass nearly 70 percent of the population) has almost doubled, from 1100 to 1800.¹⁵ Focusing on Verizon's region, the number of alternative networks has grown dramatically in the past three years. For example, in the New York MSA, there were 57 alternative fiber networks in 2001, compared to 42 in 1998; in the Philadelphia MSA, the number of such networks more than doubled, from 20 to 41; in the Washington, D.C. MSA, the number nearly doubled from 32 to 60; and marked increases occurred even in smaller markets, such as Norfolk (from 5 networks to 18); Richmond (from 7 to 12); and Scranton (from 7 to 11).¹⁶ Nationwide, the CLECs' fiber networks now comprise at least 184,000 route miles (compared to 100,000 in late 1998), a very large portion of which are local.¹⁷

In addition, CLECs have terminated their own fiber interoffice transport facilities in collocation arrangements in wire centers representing 54 percent of business lines and 44 percent of overall access lines served by the BOCs.¹⁸ They use these transport facilities to compete vigorously in the provision of special access and private line services; competing providers already use their own facilities to serve roughly one-third of the market and make their services available to the vast majority of potential special access customers.¹⁹ In the top 100 MSAs, at least one CLEC with fiber-based collocation is present in wire centers accounting for 61 percent

¹⁵ *Id.* at III-7.

¹⁶ *Id.*, Appendix K.

¹⁷ *Id.*, I-3.

¹⁸ *Id.*, III-2, Table 1.

¹⁹ *See* 2002 Fact Report, Appendix L.

of all lines.²⁰ Central offices containing 5000 or more business lines serve 84 percent of all business lines; in these quantities, independent analysts agree that traffic volumes are sufficient to justify competitive fiber-optic transport.²¹ And CLEC transport is even more pervasive than these numbers indicate; given the prevalence of alternative fiber networks, a tremendous amount of traffic entirely bypasses ILEC wire centers.

High-capacity loops. CLECs now serve the vast majority of their medium- and large-business customers using their own last mile facilities.²² In Verizon's region alone, CLECs serve between 3.3 and 6.3 million business lines over their own loops.²³ Moreover, because CLECs can target the most attractive segments of the market first – the largest and most lucrative customers – their impact has been much greater than a simple count of “lines” would suggest. Indeed, just 12 of the CLECs included in the line count supply over *156 million voice-grade equivalent circuits*.²⁴ Notably, in contrast to the millions of lines served over their own loop facilities, the CLECs have purchased only 12,300 DS-1 UNEs from Verizon, only 60 DS-3 UNEs, and not a single unbundled loop of greater than DS-3 capacity.²⁵

As of late 2000, CLECs served at least 175,000 commercial office buildings.²⁶ Even WorldCom concedes that in wire centers with fiber-based collocation, 13 percent of buildings –

²⁰ *Id.*, III-3, Table 2.

²¹ *Id.*, III-3.

²² *Id.*, I-3.

²³ *Id.*, IV-2, Table 1.

²⁴ *Id.*, IV-2.

²⁵ *Id.*, IV-6, Table 2.

²⁶ Special Access Fact Report at 11, attached to the Joint Comments of SBC and Verizon, CC Docket No. 96-98, filed April 5, 2001 (“Special Access Fact Report”).

almost certainly the buildings housing customers most likely to have demand for high-capacity loops – are served by CLEC loop plant,²⁷ and WorldCom itself has fiber to some 50,000 office buildings and campuses nationwide.²⁸ CLECs routinely extend their networks to serve new buildings, and each time they do so they find it economical to build out their networks even further. Both Time Warner Telecom and XO, for example, recently informed the Securities and Exchange Commission that they continue substantially to expand their loop plant (XO, for example, increased its on-net buildings by 33 percent in the twelve months ending September 30, 2001),²⁹ and WorldCom has said that “[a] lot of what we do today is simply extend the capability we may already have in an existing metro market.”³⁰

Non-high capacity loops. Competitive non-high cap loop facilities have been deployed by three classes of competitors: cable companies, wireless carriers, and traditional wireline CLECs.

Cable-based telephony. At the time of the last UNE review, cable telephony was available in only a few markets. Already, AT&T offers cable telephony to one million homes or more just in eastern Massachusetts and to many more in western Pennsylvania, and Cox offers this service in virtually the entire state of Rhode Island and the Tidewater region of Virginia.³¹

²⁷ Comments of WorldCom, CC Docket No. 01-321, filed Jan. 22, 2002, at 35 (“WorldCom 01-321 Comments”).

²⁸ Eric Krapf, “Fiber Access: The Slog continues; Industry Tent or Event,” *Business Communications Review*, Aug. 1, 2001, at 38 (quoting Fred Briggs, WorldCom’s Chief Technical Officer) (“Fiber Access”).

²⁹ See section V.C, *infra*.

³⁰ Fiber Access, *supra*.

³¹ In Rhode Island, the Commission has found that “Cox has the capability to provide cable telephony service to 75 to 95 percent of Rhode Island customers, and a substantial number of those potential customers have in fact chosen Cox as their local telephone carrier.”). *Application*

In fact, in eastern Massachusetts, Verizon faces cable-based telephony competition from both AT&T and RCN in many areas.

Moreover, cable companies have enjoyed great success signing up subscribers to cable telephony – they already provide this service to more than a million-and-a-half customers, and they are adding 70,000 customers each month.³² The number of cable telephony subscribers is expected to increase to 2.4 million by the end of this year³³ and cable telephony is expected to serve more than 10 million circuit-switched lines and almost 5 million packet-switched lines by 2006.³⁴ AT&T Broadband alone has garnered more than one million subscribers and increased its customer base by more than 100 percent in 2001.³⁵ AT&T enjoys an overall penetration rate of almost 15 percent of its marketable homes, rising to 30 percent in some communities.³⁶ As of September 2001, Cox provided such service to almost 400,000 customers (nearly double the number it had a year earlier),³⁷ with a 14.5 percent penetration rate in areas where its local

(Continued . . .)

of Verizon New England Inc., et al. for Authorization To Provide In-Region, InterLATA Services in Rhode Island, FCC 02-63, CC Docket No. 01-324 (rel. Feb. 22, 2002), at ¶ 105 (“Rhode Island 271 Order”).

³² 2002 Fact Report, II-11.

³³ *Id.*, II-11.

³⁴ Charles Golvin, “Sizing US Consumer Telecom” (Forrester, January 2002), at 10-12 (“Sizing US Consumer Telecom”).

³⁵ Applications for Consent to the Transfer of Control of Licenses from Comcast Corporation and AT&T Corporation, CS Docket No. 02-70, filed Feb. 28, 2002, at 23 (“AT&T/Comcast Application”).

³⁶ *Id.* at 36.

³⁷ Keith Darce, “Local phone users get 3 choices,” *New Orleans Times Picayune*, Feb. 8, 2002, at C-6 (stating that Cox had 398, 813 cable telephony subscribers in September).

telephone service is available.³⁸ And Comcast provides cable telephony to almost 50,000 lines and “has taken a leadership role in developing cable-delivered IP telephony.”³⁹

CMRS. Wireless services are now a potent alternative for wireline telephony: approximately 18 percent of CMRS subscribers use their mobile phone as their primary phone,⁴⁰ and this number is expected to increase substantially.⁴¹ Between 3 and 5 percent of wireless subscribers have now abandoned their wireline phones,⁴² and one of the six nationwide CMRS providers, VoiceStream, recently informed the Commission that this proportion will rise to “11 percent by 2006, and to a strong, and perhaps overwhelming, majority share by 2012.”⁴³ A major regional CMRS carrier, Leap Wireless, has reported that seven percent of its one million customers no longer use land lines, and 61 percent of its customers use their cell phone as their primary line, employing land lines only for Internet connections.⁴⁴ In a December 2001 report, IDC found that, by the end of that year, “10 million wireline access lines will have been displaced by wireless, primarily by consumers choosing wireless service over installing an additional access line at home,” and that by 2005, wireless phones will replace 30 to 35 percent

³⁸ *Annual Assessment of the Status of Competition in the Market for Video Programming*, Eighth Annual Report, CS Docket No. 01-129, FCC 01-389, rel. Jan. 14, 2002, at ¶ 52 (“Eighth Video Competition Report”).

³⁹ AT&T/Comcast Application at 13-14 (Comcast provides cable telephony to approximately 41,500 customers totaling 46,000 lines).

⁴⁰ See “18% see cellphones as their main phones,” *USA Today*, Feb. 1, 2001, at B1.

⁴¹ See Yuki Noguchi, “More Cell-Phone Users Cut Ties to Traditional Service,” *Wash. Post*, Dec. 28, 2001, at E1 (“Users Cut Ties to Traditional Service”).

⁴² 2002 Fact Report, IV-14, *citing Sixth CMRS Competition Report* at 32, n.207.

⁴³ Reply Comments of VoiceStream, CC Docket No. 01-321, filed Feb. 12, 2002, at 18, *citing* Cnet News.com, “Study: Consumers Go Wireless at Home,” Jan. 29, 2002.

⁴⁴ Users Cut Ties to Traditional Service, *supra*.

of second and additional wireline access lines.⁴⁵ Notably, the quality of wireless services has improved significantly over the past three years – digital service is available in virtually all major markets and is subscribed to by more than 80 percent of wireless customers⁴⁶ – while prices have dropped dramatically

Not only is wireless taking lines away from the ILECs, but it is siphoning billions of minutes off the circuit-switched telephone network. An inestimable number of phone calls – by both business and residential customers – are made using wireless phones that previously would have been made over the wireline network. At the end of 2001, wireless calls accounted for an estimated 12 percent of all U.S. phone calls, a figure that is projected to increase to almost 50 percent by 2005.⁴⁷ Further, many wireless carriers heavily market their “free long distance” national calling plans.⁴⁸ These efforts have been successful and, as one analyst explained “wireless continues to take share from wireline local and long distance usage.”⁴⁹

Wireline CLECs. Traditional wireline CLECs continue to overbuild ILEC loops in a wide variety of circumstances and geographic locations. In the BOCs’ regions, CLECs provide

⁴⁵ See 2002 Fact Report, IV-12, *citing* S. Ellison, IDC, “Wireless Displacement of Wireline Forecast and Analysis, 2001-2005, at 1, 12, Figure 15 (Dec. 2001); *see also* Sizing US Consumer Telecom at 9.

⁴⁶ 2002 Fact Report, IV-14.

⁴⁷ *Id.*, II-35 and n. 139. Furthermore, there were approximately 200 billion billable minutes of wireless use in the first half of 2001, up 77 percent from June 2000, and up 34 percent from December 2000. *Id.*

⁴⁸ 2002 Fact Report, II-36-37.

⁴⁹ 2002 Fact Report, II-37 (*citing* M. Rollins, Salomon Smith Barney, Investext Rpt No. 8223022, Sprint PCS Group – Company Report at *4 (Oct. 18, 2001)). Similarly, AT&T recently noted that its wireline long-distance minutes of use were down about 10 percent, while its wholesale wireless long-distance traffic was up about 35 percent. *Id.*

between 11 and 19 million business loops using their own facilities.⁵⁰ While many of these loops are high capacity, a very substantial number must represent ordinary voice grade or other non-high capacity loops. Overbuilding also is common in the mass market, where a typical strategy is to deploy a broadband pipe to provision high-speed bundled service offerings to individual neighborhoods or to the roughly one-third of residential customers who live in MDUs.⁵¹ For example, RCN has built out its network to pass more than 1.5 million homes, and in the fourth quarter of 2001, RCN added nearly 47,000 new subscribers to its network.⁵² Moreover, such overbuilds occur in both urban and rural areas; many CLEC affiliates of rural ILECs are overbuilding networks in the territories of neighboring ILECs.⁵³

B. The Broadband Market

Even before the UNE Remand Order, the Commission properly recognized that “the preconditions for monopoly appear absent” in the broadband market,⁵⁴ and in the UNE Remand Order itself, the Commission noted that “[c]ompetitive LECs and cable companies appear to be leading the incumbent LECs in their deployment of advanced services.”⁵⁵ This holds even more true today: there is vigorous broadband competition for both business and mass market

⁵⁰ 2002 Fact Report, IV-2 and Table 1.

⁵¹ *Id.*, IV-15.

⁵² *Id.*, IV-15-16.

⁵³ *Id.*, IV-15-17 and Table 4. For example, Penn Telecom recently announced that it is overbuilding Sprint’s ILEC network in Butler, Pennsylvania. *See Telecom Reports*, Feb. 11, 2002, at 41.

⁵⁴ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, 14 FCC Rcd 2398, 2423-24 (1999).

⁵⁵ *See Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, 15 FCC Rcd 3696 (1999), ¶ 307 (“UNE Remand Order”).

customers, and the ILECs are insurgents rather than incumbents in the provision of broadband services.

1. The mass market.

Consumers in the broadband market enjoy a choice of four diverse facilities-based competitors, with additional technology platforms on the horizon. Notably, none of the non-telephony competitors relies on the ILECs' network in order to deliver its broadband services to end users.

Cable. The broadband leaders, by far, are the cable companies. Unburdened by network sharing obligations, the cable MSOs have captured almost 70 percent of the market for current broadband services,⁵⁶ and they are adding market share faster than other broadband technologies.⁵⁷ Their upgraded networks pass roughly 81 million homes,⁵⁸ they have garnered approximately 7.5 million subscribers,⁵⁹ and they are well-positioned to continue their predominance with respect to next-generation broadband services.⁶⁰ In fact, cable is expected to

⁵⁶ 2002 Fact Report, IV-19, Figure 6.

⁵⁷ *Id.*, IV-19-20.

⁵⁸ Eighth Video Competition Report, ¶ 44. Upgraded cable infrastructure passes more than 70 percent of the homes in the United States. Bringing Home the Bits, at 4-4. The cable industry expects this number to increase to nearly 90 percent of all U.S. homes passed by cable by the end of this year. *See* 2002 Fact Report, IV-18.

⁵⁹ *See id.*, IV-18.

⁶⁰ *See, e.g.*, "CableLabs® Completes DOCSIS™ 2.0 Specs, Enabling More Advanced Modems," http://www.cablelabs.com/news_room/PR/02_pr_docsis_2dot0_011602.html (DOCSIS 2.0 will be available for possible certification testing in the third quarter of 2002 and will create "a network that has 30 megabit per second (Mbps) capacity in two directions," tripling current data capacity and enabling "services such as videoconferencing and peer-to-peer applications."); *see also* Bringing Home the Bits, 4-11 ("In rough terms, the HFC infrastructure is capable of offering the consumer a factor-of-10 improvement over the next five years – by decreasing the number of homes in each cluster and/or increasing the capacity allocated to data services – at relatively low incremental cost.").

maintain a considerable lead over DSL and other broadband technologies for the foreseeable future.⁶¹ Moreover, the cable companies are beginning to extend last-mile broadband connections to small and medium-sized business customers as well.⁶²

ILECs. The DSL services provided by incumbent telephone companies account for only one-third of the current broadband market (3.3 million subscribers).⁶³ DSL service is available to only 51.5 million homes⁶⁴ – almost 40 percent fewer than cable and the lowest of all the major broadband platforms – and ILECs must make tremendous additional investments in order to expand the availability of DSL, increase bandwidth, and, ultimately, deploy fiber and the next generations of broadband service further into the field.

Satellite. Broadband satellite services are available in all 50 states,⁶⁵ making such services more widely available than either cable modems or DSL. In addition, satellite providers only recently have introduced two-way high-speed Internet access that does not rely on a telephony return path.⁶⁶ Although satellite broadband service is still in the early stages of deployment, at a conservative estimate, satellite broadband service already has 140,000

⁶¹ 2002 Fact Report, IV-19-20.

⁶² *Id.*, IV-22.

⁶³ *Id.*, IV-18-29, Figure 6; *see also Internet over Cable Declaratory Ruling*, FCC 02-77, GN Docket No. 00-185, rel. March 15, 2002, at ¶ 9 (“Internet over Cable Declaratory Ruling”) (explaining that about 29% of residential broadband subscribers use DSL service).

⁶⁴ Eighth Video Competition Report, ¶ 44. DSL service is available to approximately 45 percent of all U.S. homes.

⁶⁵ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, Third Report, FCC 02-33, CC Docket No. 98-146, rel. Feb. 6, 2002, at ¶ 60 (“Third Advanced Services Report”).

⁶⁶ *See, e.g.*, “Consumer Two-Way Satellite Internet Service Unveiled,” <http://www.pcworld.com/resource/printable/article/0,aid,34085.asp>; *see also* <http://www.hns.com/direcway/intro.htm>.

subscribers.⁶⁷ Moreover, reports indicate that the newly-available “[t]wo-way satellite broadband Internet access will be the fastest growing single access technology.”⁶⁸ The number of subscribers is expected to increase to 4 to 5 million by 2005, with industry revenues ranging from approximately \$ 3.5 to \$ 7.5 billion at that time.⁶⁹ Importantly, satellite broadband service is not limited to the residential market. For example, Hughes offers DirecWay service, a “business edition Internet access” service that gives “small business access to the same advanced technology that powers global enterprises.”⁷⁰ Finally, while satellite spectrum may have been constrained in the past, the Commission is in the process of licensing new systems in the Ku and Ka bands that will offer even more competitive satellite choices.⁷¹

Fixed wireless. Broadband services delivered over terrestrial fixed wireless technologies currently reach 55 percent of the population⁷² – thereby exceeding the reach of DSL by 10 percent – and should reach 90 percent of the population by the end of 2004.⁷³ Terrestrial fixed

⁶⁷ Third Advanced Services Report, ¶ 60.

⁶⁸ Business Communications Co., “Market for Broadband Internet Access Continues to Soar,” Broadband Opportunities: A Mini Series (Nov. 1, 2001).

⁶⁹ Third Advanced Services Report, ¶ 78.

⁷⁰ 2002 Fact Report, IV-23.

⁷¹ *In the Matter of the Establishment of Policies and Service Rules for the Non-Geostationary Satellite Orbit, Fixed Satellite Service in the Ka-Band, Notice of Proposed Rulemaking*, IB Docket 02-19, FCC 02-30, ¶ 1, rel. Feb. 6, 2002 (explaining that the systems “will introduce additional means of providing advanced broadband services to the public”); *see also In the Matter of the Establishment of Policies and Service Rules for the Non-Geostationary Satellite Orbit, Fixed Satellite Service in the Ku-Band, Notice of Proposed Rulemaking*, IB Docket No. 01-96, FCC 01-134, ¶2, rel. May 3, 2001 (finding that “[i]mplementation of these new NGSO FSS systems will allow the introduction of an additional means to provide advanced broadband services to the public by satellite...”). *See also* 2002 Fact Report, V-27 (discussing other satellite broadband options).

⁷² Third Advanced Services Report, ¶ 58.

⁷³ *Id.*, ¶ 61.

wireless providers serve at least 50,000 to 150,000 broadband subscribers,⁷⁴ and may serve as many as 300,000.⁷⁵ Thanks to technological advances such as non-line of sight transmission, moreover, the expense of providing both broadband and voice services through terrestrial fixed wireless systems should decline significantly.⁷⁶ As the National Research Council has noted, “wireless data and broadband Internet services seem poised for technical and market breakthroughs over the next 3 to 5 years, and should thus provide an important alternative for facilitation of broadband services”⁷⁷

Additional broadband platform providers. In addition to the four strong competitors noted above, there are at least two other likely sources of near-term broadband competition. First, as Chairman Powell recently suggested, power line communications will be a “fifth” broadband platform:

Somebody is going to [figure out how to] use the electrical grid as a broadband platform. Just last week, there were a number of new companies announcing new businesses that are going after using the electrical system for broadband. Think about it. If every electrical plug becomes a broadband port, that would be huge. If all those things mature, that’s five competitive platforms offering consumers differentiated choice of service. Telephone never achieved anything remotely like that.⁷⁸

⁷⁴ Third Advanced Services Report, ¶ 55.

⁷⁵ *Id.*, ¶ 58.

⁷⁶ 2002 Fact Report, V-27-28.

⁷⁷ Bringing Home the Bits, at A-17.

⁷⁸ “The FCC’s Powell on Broadband Rules,” *Business Week Online*, Feb. 22, 2001; *see also* Michael P. Bruno, “Online Access Planned Through Power Lines,” *Wash. Post*, Jan. 25, 2002, at E5.

And, third-generation wireless services should be widely deployed within the next three years; 3G networks will support data rates competitive with ADSL and cable modem service, with the significant added benefit of mobility.⁷⁹

2. The business market.

The large business market, which is comprised of services such as Frame Relay, ATM, and Gigabit Ethernet, is dominated by the three largest interexchange carriers, which collectively control more than two-thirds of the nationwide market.⁸⁰ AT&T's domestic Frame Relay and ATM network has over 620 points of presence (POPs). WorldCom's network is similarly extensive, and numerous other carriers provide service in dozens of markets each.⁸¹

ILECs have no economies of scale or other cognizable advantages in providing broadband services to business customers. Indeed, ILECs have little presence in this market at all. Verizon has only a four percent share of nationwide frame relay revenues and a six percent share of nationwide ATM revenues,⁸² and all ILECs together account for less than 20 percent of the market for these services.⁸³ Moreover, even once they are freed to provide interLATA services, ILECs have a difficult time breaking into this market. ILECs need to make substantial additional investments in order to deploy the nationwide infrastructure that is required to compete for the broadband business of most of these customers, and the entities that purchase

⁷⁹ Third Advanced Service Report, ¶ 80; 2002 Fact Report, V-26-27. Other promising wireless broadband technologies include ultra-wideband and software defined radio. *Id.*, V-27.

⁸⁰ *Id.*, II-24.

⁸¹ *Id.*, fn. 90, fn. 91, Appendix I.

⁸² *Id.*, II-26, Figure 5.

⁸³ *Id.*

business broadband services overwhelmingly sign long-term contracts with clauses that make it uneconomical to change suppliers before the end of the contract term.⁸⁴

* * *

It is a testament to the feasibility of facilities-based competition that CLECs have deployed so many switches and laid so much fiber even when UNEs are pervasively available. The Commission should not, however, presume from the foregoing factual developments and changed circumstances that unbundling is not a drag on investment. The “low-hanging fruit” has been picked, particularly with respect to broadband facilities. Future network upgrades will require a substantial incremental resource commitment and will involve significant additional risks – circumstances under which regulatory costs and uncertainty can and will deter investments that otherwise would have been made.

As one independent analyst has explained, the “consequence of [pervasive unbundling] has been to effectively devalue all infrastructure investment by everyone, incumbents and competitors alike, whether it is fiber, cable, or fixed wireless. ... Why overbuild if one can lease it more cheaply than one can build it?”⁸⁵ As a consequence, carriers are using UNEs even when they would have found it economical to build their own facilities.⁸⁶ Indeed, the market evidence

⁸⁴ See Declaration of Jeffrey M. Bolton, ¶ 9 (attached to the Comments of Verizon, CC Docket No. 01-337, filed March 1, 2001).

⁸⁵ Prepared Statement of Scott C. Cleland, Managing Director, Legg Mason Precursor Group, Deployment of Broadband Technologies, Hearing Before the Subcommittee on Telecommunications, Trade, and Consumer Protection of the House Commerce Committee, 106th Cong., 2d Sess. 69 (May 25, 2000).

⁸⁶ Declaration of Dr. Howard Shelanski Decl., ¶ 21 (Attachment C hereto); see also 2002 Fact Report, V-2, Table 1 (“Choice One’s business experience demonstrates that new entrants can provide service to small business customers ... without the need to rely on unbundled local switching purchased from an incumbent LEC.”)

indicates that the emergence of the UNE-platform, in particular, has frustrated – rather than promoted – the transition to facilities-based competition.⁸⁷

Accordingly, while the record of investment has been impressive to date – and is certainly sufficient to demonstrate a lack of general impairment without access to UNEs – the Commission should ask itself how much better things could have been – and how much better they will be – in a regime where unbundling requirements are properly limited as required by the Act.

III. THE COMMISSION MUST ADOPT A NEW UNBUNDLING STANDARD THAT INCORPORATES MEANINGFUL LIMITS RATIONALLY RELATED TO THE CORE GOALS OF THE ACT.

Under Section 251(d)(2), the Commission can order unbundling of a network element only if (1) the lack of access to that element would “impair” competitors from providing the services they seek to offer,⁸⁸ and (2) unbundling would be consistent with the Act’s policy objectives.⁸⁹ As the Supreme Court has explained, Section 251(d)(2) “requires the Commission to apply *some* limiting standard, rationally related to the goals of the Act,” in determining which elements should be unbundled⁹⁰:

The Commission cannot, consistent with the statute, blind itself to the availability of elements outside the incumbents’ networks. . . . The Commission’s assumption that *any*

⁸⁷ 2002 Fact Report, V-1-2 and Table 1. For example, Allegiance Telecom explained that expanding “the availability of UNE-P” “threatens to harm those CLECs that have built their own facilities and do not need to rely on the UNE-P to serve customers.”

⁸⁸ 47 U.S.C. § 251(d)(2)(B). The impairment standard applies to non-proprietary elements; an even more stringent standard (necessity) applies to proprietary elements. *Id.* § 251(d)(2)(A).

⁸⁹ The Commission has recognized that the “at a minimum” language in Section 251(d)(2) compels it to determine whether unbundling would advance Congress’s goals of promoting investment and facilities-based competition. *See* UNE Remand Order, ¶¶ 104-105.

⁹⁰ *AT&T v. Iowa Util. Bd.*, 525 U.S. 366, 388 (1999).

increase in cost (or decrease in quality) imposed by denial of a network element renders access to that element “necessary,” and causes the failure to provide that element to “impair” the entrant’s ability to provide its desired services, is simply not in accordance with the ordinary and fair meaning of those terms.⁹¹

As the Court noted, “if Congress had wanted to give blanket access to incumbents’ networks on a basis as unrestricted as the scheme the commission has come up with [in the Local Competition Order], it would not have included section 251(d)(2) in the statute at all. It would simply have said (as the Commission in effect has) that whatever requested element can be provided must be provided.”⁹²

To apply this standard faithfully, the Commission must do two things. First, it must recognize that the Act’s core goal is the development of facilities-based competition, that the availability of unbundled elements was intended as a transitional mechanism to help reach that goal where specific statutory standards are met, and that maintaining overbroad unbundling requirements undermines, rather than promotes, achievement of that goal. Second, the Commission must adopt a market-calibrated approach, under which it examines “evidence of actual marketplace conditions.”⁹³ Where CLECs are competing using their own facilities or other alternatives, then the Commission cannot require the relevant UNEs to be unbundled absent a showing that for some specific geographic areas, types of customers, and types of services, CLECs would be impaired without access to those UNEs. For market segments in which some CLECs are competing without using particular UNEs, there can be no finding that

⁹¹ *Id.* at 389-90 (emphasis in original).

⁹² *Id.* at 390.

⁹³ *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-338; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98; *Deployment of Wireline Service Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Notice of Proposed Rulemaking, FCC 01-361, ¶ 17, rel. Dec. 29, 2001 (“NPRM”).

CLECs generally would be impaired without access to those particular UNEs. And, once it is shown that CLECs are competing without using particular UNEs in some market segments, then CLECs must be presumed to have the ability to compete without access to those same elements in other market segments, absent concrete evidence to the contrary – mere speculation or conjecture is not enough.

A. The Core Goal of the Act Is Facilities-Based Competition, and Unbundling Generally Is Inconsistent with Achievement of that Goal.

In passing the Act, Congress sought to establish “a pro-competitive and deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans”⁹⁴ – that is, facilities-based competition. To this end, Congress not only limited access to UNEs under Section 251(d)(2), but ordered the Commission to “encourage the deployment ... of advanced telecommunications capability” by “remov[ing] barriers to infrastructure investment.”⁹⁵

There is good reason for this focus: as the Commission has recognized, “it is only through owning and operating their own facilities that competitors have control over the competitive and operational characteristics of their service, and have the incentive to invest and innovate in new technologies that will distinguish their services from those of the incumbents.”⁹⁶ That is, “only by encouraging competitive LECs to build their own facilities or migrate toward

⁹⁴ H.R. Rep. No. 104-458, 104th Cong., 2nd Sess. at 1 (1996).

⁹⁵ Section 706 of the Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56 (1996), reproduced in the notes under 47 U.S.C. § 157.

⁹⁶ UNE Remand Order, ¶ 7.

facilities-based entry will real and long-lasting competition take root in the local market.”⁹⁷ As Justice Breyer observed, Congress recognized that “[i]t is in the *unshared*, not in the shared, portions of the enterprise that meaningful competition would likely emerge.”⁹⁸

Against this background, Congress intended UNEs to be used only as a transitional mechanism to facilities-based competition, not as a perpetual alternative avenue for entry. As the Commission itself has recognized, it was Congress’s “expectation that new competitors would use unbundled elements from the incumbent LEC until it was practical and economically feasible to construct their own networks.”⁹⁹ To this end, Congress in Section 251(d)(2) expressly limited the availability of UNEs to those circumstances where the Commission first determines that competing providers would be “impaired” in their ability to provide specific services without them – ensuring that the availability of UNEs was circumscribed temporally, geographically, and with regard to the types of services provided and customers served. That is, UNEs are to be made available only in the specific instances where the Commission finds, based on concrete evidence, that CLECs would be impaired without access. And Congress went further and made clear that a finding of impairment is the “minimum” – but not necessarily sufficient – requirement to impose an unbundling obligation. Whatever else this means, the fact that some market segments already are characterized by competition from multiple facilities-based platform providers has to be taken into account in determining whether to require network elements to be unbundled to serve those market segments. Once the transition is complete, there is no conceivable argument for imposing an unbundling requirement.

⁹⁷ *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Fourth Report and Order, CC Docket No. 98-147, FCC 01-204 (rel. Aug. 8, 2001), ¶ 4.

⁹⁸ *Iowa Util. Bd.*, 525 U.S. at 430 (emphasis in original).

⁹⁹ UNE Remand Order, ¶ 6.

Until now, the Commission's rules placed undue emphasis on the rapid introduction of *any* form of competition, even where such entry is unsustainable in the long-term and actually impedes the deployment of alternative facilities.¹⁰⁰ Indeed, notwithstanding the Supreme Court's admonition that the Commission adopt a "limiting standard" that is "rationally related to the goals of the Act," the UNE Remand Order adopted an interpretation of "impair" that resulted in *more* unbundling than the order struck down by the Court. Under the approach in the UNE Remand Order, the Commission essentially adopted a "least common denominator" standard that resulted in universal unbundling as long as any competitor, anywhere, would be better off with access to an element – even if a multitude of competitors, in a multitude of circumstances, were competing successfully using alternatives to that element.

This approach is inconsistent with the Act and, as the National Research Council has warned, is terribly short-sighted: "such measures ... could lock in the current situation, undercutting the longer-term goal of full facilities-based competition, especially if the rule is that competitors will be granted access at controlled prices to any new facilities the incumbent puts in place."¹⁰¹ This risk is present and substantial, as discussed in the remainder of this subsection.

1. Mandatory Unbundling Is a Disincentive to Investment and Facilities-Based Competition.

There can be no doubt that unbundling is a disincentive to investment – and therefore to facilities-based competition and deployment of advanced telecommunications capabilities – by both ILECs and CLECs. The Commission has found as much,¹⁰² as has Justice Breyer,¹⁰³

¹⁰⁰ See 2002 Fact Report, section V for a review of the failure of the "easy entry" competition models based on continued reliance on the ILECs' networks.

¹⁰¹ Bringing Home the Bits at 5-12.

¹⁰² See, e.g., UNE Remand Order, ¶¶ 314-317.

numerous high-tech industry groups,¹⁰⁴ the National Research Council,¹⁰⁵ a slew of economists,¹⁰⁶ and numerous financial and industry analysts.¹⁰⁷ Indeed, the CEO of the leading proponent of unlimited unbundling has candidly acknowledged that “[n]o company will invest billions of dollars to become a facilities-based ... provider” if other companies “that have not invested a penny of capital nor taken an ounce of risk can come along and get a free ride on the

(Continued . . .)

¹⁰³ See *Iowa Util. Bd.*, 525 U.S. at 428-29 (“a 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.”) (separate opinion of Justice Breyer).

¹⁰⁴ See TechNet, *A National Imperative: Universal Availability of Broadband by 2010*, at 10 (hereinafter “TechNet”); Letter from Matthew J. Flanigan, President, Telecommunications Industry Association to the Honorable George W. Bush, President of the United States of America, Oct. 4, 2001; Computer Systems Policy Project, “Building the Foundation of the Networked World.”

¹⁰⁵ Bringing Home the Bits, S-14-S-15 (unbundling deters competitors from investing in their own infrastructure and disincentivizes new investment by incumbents).

¹⁰⁶ See, e.g., Letter from Robert Crandall, George Gilder, Lawrence Kudlow, William A. Niskanen, Jeffrey A. Eisenach, Thomas W. Hazlett, James C. Miller III, and Alan Reynolds to The Honorable Donald L. Evans, The Honorable Glenn Hubbard, The Honorable Lawrence Lindsey, and The Honorable Paul H. O’Neill, dated Dec. 4, 2001, at 2 (“mandatory facilities sharing requirements reduce the incentives of telecom companies to invest in new or modernized facilities, including those needed to provide affordable broadband services to homes and small businesses. Further, they reduce the incentive of new entrants and other competitors to risk investing in their own infrastructures, since they can lease parts of the incumbents’ networks at regulated prices.”) (“Joint Economists’ Letter”); T. Jorde, J.G. Sidak, and D. Teece, “Innovation, Investment, and Unbundling,” *17 Yale J. on Reg. 1* (2000) (“Innovation, Investment, and Unbundling”); Declaration of Alfred E. Kahn and Timothy J. Tardiff (“Kahn/Tardiff Decl.”), at 24 (explaining that the “essential evil of such [unbundling] policies is that they discourage or delay the introduction of services that cannot be predicted beforehand. The costs to consumers can be enormous.”).

¹⁰⁷ See, e.g., Scott C. Cleland, Precursor Group Independent Research, “Telecom/Tech Policy: From Economic Propeller to Growth Anchor” (Oct. 2, 2001) (“Cleland, Telecom/Tech Policy”); J. Kraemer, “Summary of Strategic Trends in the U.S. Telecommunications Industry (Law and Economics Consulting Group 2002), at 15 (“[t]he current dispute as to whether RBOCs must unbundle newly constructed fiber networks ... will slow down the near-term deployment of telephone network-based high-speed access capabilities. ... Deployment of fiber by the telephone companies to the neighborhood, curb, or home will be delayed materially.”).

investment and risks of others.”¹⁰⁸ That point has been echoed by some of the leading facilities-based competitors, who have urged the Commission to “set real limits on the availability of UNEs,” explaining that a “regulatory regime that fosters the broad availability of incrementally priced UNEs discourages competing carriers from building their own networks and leaves them dependent over the long term on the ILECs, to the detriment of the public interest.”¹⁰⁹ The result, as one independent analyst has bluntly put it, is that “current Federal telecom policy is fundamentally deflationary and unintentionally discourages investment and economic growth.”¹¹⁰

It is equally certain that the investment disincentives of mandatory unbundling are even more deleterious in the broadband context. The reason is simple: broadband deployment already requires “substantial investment”¹¹¹ that is “expensive and risky.”¹¹² For example, providing DSL on long loops requires billions of dollars of investment to deploy equipment at remote locations, rearrange the existing network, construct new fiber transmission facilities, and develop and deploy new OSS capabilities. The investment that will be required to bring future

¹⁰⁸ C. Michael Armstrong, Chairman and CEO, AT&T, “Telecom and Cable TV: Shared Prospects for the Communications Future,” Remarks before the Washington Metropolitan Cable Club, Washington, D.C. (Nov. 2, 1998).

¹⁰⁹ Comments of Cox Communications, Inc., UNE Remand Proceeding, CC Docket No. 96-98, filed May 26, 1999, at 3 (“Cox UNE Remand Comments”).

¹¹⁰ Cleland, *Telecom/Tech Policy*, *supra*.

¹¹¹ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, CC Docket No. 02-33, FCC 02-42, rel. Feb. 15, 2002, ¶ 5 (“Broadband NPRM”); TechNet at 10.

¹¹² TechNet at 10. As Dr. Shelanski cautions, “[w]hen new, advanced technology becomes available and new kinds of services are introduced into the marketplace, the costs, risks, and uncertainty may all be quite substantial. To require ILECs to unbundle such facilities to competitors will impede deployment of new technologies and services, to the detriment of consumers.” Shelanski Decl., ¶ 10.

generations of broadband, which ultimately will require fiber-to-the-curb or fiber-to-the-home architectures, will be orders of magnitude greater – anywhere from 100 to 200 billion dollars.¹¹³

Overly broad unbundling requirements deter investment by increasing the costs and risks of deployment and reducing the potential rewards, and the problem is only further compounded by the Commission's current TELRIC pricing rules. As Drs. Kahn and Tardiff explain, current unbundling rules:

(1) effectively allow[] CLECs to share in the rewards from the new investments while paying only bare-bones TELRIC prices for that privilege, (2) impos[e] the costs of accommodating those CLECs—for examples, the costs of increasingly sophisticated operations support systems—only on the ILECs and not on their other facilities-based competitors, and (3), in particular, effectively perpetuat[e] mandatory unbundling as new technologies move potential points of interconnection out of the central office ... and farther into the network, where collocation arrangements are decreasingly available and/or more costly.¹¹⁴

Dr. Shelanski confirms this analysis:

[T]he incentive to engage in innovation in the first place declines when rival service operators use a shared network. For, the innovator will share any benefits it creates with others using the network rather than capturing the returns itself. The incumbent's investment in its network will in effect create a positive externality for UNE users, and the operator's incentive to undertake such investments will diminish to the extent it cannot capture the returns from that externality. Much of the incentive to innovative can

¹¹³ See *Bringing Home the Bits* at 4-24 (“The cost of entirely new broadband infrastructure – rewiring to provide fiber-to-the-home to all of the roughly 100 million U.S. households – would be some \$ 100 billion”); 2002 Fact Report at V-26, *citing* Testimony of Douglas Ashton, Bear Stearns, before the House Committee on Energy and Commerce, April 25, 2001 (estimating the costs at \$ 200 billion).

¹¹⁴ Kahn/Tardiff Decl., ¶ 24; *see also* *Innovation, Investment, and Unbundling*, at 13-14 (“When investing in a particular technology to support a new service, an ILEC bears two risks. First, consumers may not adopt the service as widely as informed parties envision at the time that the ILEC must commit to its investment. Second, consumers may adopt the product, but with a different supporting technology. In the best-case scenario, when the new service is widely adopted by consumers and the technology chosen by the ILEC proves to be the most effective, a policy of mandatory unbundling enables the CLEC to purchase the ILEC's unbundled element at cost, as set by TELRIC. Alternatively, if either of the risks eventuates, then the CLEC does not bear any of the cost; to the contrary, the ILEC's shareholders bear the entire cost of the unsuccessful investment.”).

come from the desire to gain an edge over rivals, which is not possible if those rivals automatically get access to the innovation [through UNEs] in question.¹¹⁵

For similar reasons, mandatory unbundling deters CLECs from investing in competing facilities. As Professors Areeda and Hovenkamp have cautioned, where 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.”¹¹⁶ Dr. Shelanski explains that this is so because “an entrant may perceive entry over the incumbent’s facilities as less risky or more profitable than entry on a facilities basis, even where, absent the unbundling option, an entrant would have found it economical to build its own facilities.”¹¹⁷ Likewise, Drs. Kahn and Tardiff warn that, “if rivals can share whatever ILEC facilities they ask for that can feasibly be provided ... it cannot but have a discouraging effect on [the CLECs’] own initiative and innovation...”¹¹⁸ Unbundling, in short, “gives imitators an advantage over innovators” and “confers a second-mover advantage and substantially decreases a CLEC’s

¹¹⁵ Shelanski Decl., ¶ 8; *see also id.*, ¶ 36 (“Deployment of new infrastructure proceeds well in advance of demand. Substantial risk and uncertainty accompany any such investment. If ILECs must also contemplate having to unbundle such infrastructure to competitors at cost, the return on such investment becomes less certain and hence less attractive.”); Innovation, Investment, and Unbundling, at 13-14 (“[I]f [the new service] is widely adopted by consumers, then CLECs, by obtaining unbundled [elements] at TELRIC prices, will be able to eliminate any risk reward that the ILEC would hope to earn on its investment in an uncertain technology. In practice, the ILEC will earn, at most, its cost of capital. The ILEC cannot know with certainty, however, whether [the new service] will be adopted widely by consumers. Therefore, in the presence of mandatory unbundling, the ILEC will expect rationally that regulation will greatly diminish the reward for successful innovation. The ILEC, therefore, will choose to reduce investment in the new technology or avoid such investments altogether.”).

¹¹⁶ 3A Phillip E. Areeda & Herbert Hovenkamp, *Antitrust Law* ¶ 771b, at 175 (1996). This is especially true where, as under the TELRIC regime, the government-mandated price is below competitive levels. *See* sections III.A.2, III.B.9 of these Comments.

¹¹⁷ Shelanski Decl., ¶ 21.

¹¹⁸ Kahn/Tardiff Decl., ¶ 28.

incentives to make a sunk investment.”¹¹⁹ The inevitable result is delayed or foregone investment by CLECs.

2. TELRIC Pricing of UNEs Further Exacerbates the Investment Disincentive of Mandatory Unbundling.

Although any forced unbundling regime will diminish investment, the perverse impact of unbundling at TELRIC prices – both in the abstract and as implemented in many states – is even more profound.¹²⁰ The TELRIC model requires regulators to set prices based on the estimated forward-looking cost of a hypothetical, maximally efficient network.¹²¹ To the extent new technology pushes costs down, TELRIC prices that are re-set every few years will ratchet further down as well, precluding the ILEC from ever recovering the costs of its actual investments (even where those investments, when made, were the most efficient forward-looking technology available). “Consumers suffer as a result, because the mandatory unbundling deters efficiency-enhancing investments.”¹²²

Such below-cost pricing of UNEs will reduce the ILECs’ incentive and ability to invest in innovative new technologies and services. As Intel explains, “[i]f regulation gives the telephone

¹¹⁹ Innovation, Investment, and Unbundling, at 21.

¹²⁰ As we discuss below in section III.B.5, the Commission cannot lawfully use TELRIC-based rates as a benchmark in determining whether CLECs are impaired without access to particular UNEs.

¹²¹ 47 C.F.R. § 51.505. Notably, regardless of the merits of TELRIC either in the abstract or as applied, any regulatorily-determined price for mandatory access is likely to depress investment over time. If such prices “understate the total costs of unbundled entry, they will systematically bias entrants towards unbundling and away from facilities-based competition,” Shelanski Decl., ¶ 23. Accordingly, an “unrealistically strong assumption of sustained accuracy in setting regulated UNE prices is required before one can say with any confidence that an unbundling option will not affect incentives to build new, competing facilities or to improve existing ones.” *Id.*, ¶ 25.

¹²² Innovation, Investment, and Unbundling, at 17.

companies 100 percent of the risk where investments do not pan out and effectively caps the upside return where they prove successful, they will invest more cautiously.”¹²³ In addition, “[f]orcing facilities-unbundling will also discourage new competitors from investing in broadband facilities. Who wants to compete against resellers who are renting facilities at forward-looking incremental cost rates calculated using cost of capital estimates for plain old telephone service?”¹²⁴ Drs. Kahn and Tardiff confirm this analysis, explaining that “the disincentive to innovation ... is grossly accentuated by the TELRIC costing method.”¹²⁵

Moreover, merely raising the prices for UNEs would not mitigate the disincentives created by overly broad unbundling requirements. As Dr. Shelanski explains, “[t]he potential economic costs of unwarranted unbundling cannot be cured through mere adjustments in the price of unbundled access. Once facilities-based competition in a UNE market arises or proves economically feasible, unbundling should not be mandated at any price. The question of whether to require a network element to be unbundled should be treated independently of, and prior to, the question of the pricing of such unbundled access.”¹²⁶ As is discussed further below, however, once an appropriate impairment analysis is conducted – one that does not consider the cost differences between UNE rates and alternatives – any network elements that remain subject to unbundling must be priced rationally to minimize the deterrent effect on facilities-based competition and assure ILECs are fairly compensated.

¹²³ Comments of Intel, CC Docket No. 98-146, filed Sept. 24, 2001, at 13.

¹²⁴ *Id.*

¹²⁵ Kahn Decl., ¶ 29.

¹²⁶ Shelanski Decl., ¶ 26. Dr. Shelanski also notes that ongoing price regulation “entails ongoing administrative costs” and “may induce new entrants to resort to UNE price negotiations or arbitration in the hope of obtaining comparatively advantageous entry terms, even where they face no impairment in entering on a non-UNE basis.” *Id.*, ¶¶ 27, 28.

3. The Adverse Impact of Mandatory Unbundling on Investment Is far from Theoretical.

Not surprisingly, the economic disincentives engendered by mandatory unbundling have had disturbing real-world consequences.¹²⁷ A report from one of the Commission's economists has found, as should be expected, that "states with lower UNE prices have less facilities-based entry."¹²⁸ As noted above, moreover, existing unbundling policies have not only deterred investment and growth in the telecom sector directly, but because of the importance of that segment to the overall economy, those policies have unintentionally created a drag on the economy as a whole.¹²⁹

Similarly, facilities-based CLECs have warned that unbundling penalizes them for having taken the risk of investing, thus deterring future investment. For example, Allegiance Telecom has cautioned that expanding the availability of the UNE-P "threatens to harm those CLECs that have built their own facilities and do not need to rely on the UNE-P to serve customers."¹³⁰ And TCG (before being acquired by AT&T) urged the Commission to "ensure that wholesale competition does not drive out or diminish the development of strong, facilities-based competition."¹³¹ As a result, the harm from unbundling is not limited to the ILECs, but impacts the entire industry, and affirmatively undermines the investments that competing providers already have made.

¹²⁷ The NPRM (at ¶ 25) asks whether decreased reliance on the incumbent's network "correlates to more sustainable competition." Because facilities-based competition is inherently more sustainable and vibrant, and because the availability of UNEs tends to undermine facilities-based competition, the answer plainly is "yes."

¹²⁸ Regulatory Behavior and Competitive Entry at 4.

¹²⁹ See, e.g., Cleland, Telecom/Tech Policy; Joint Economists' Letter.

¹³⁰ 2002 Fact Report, V-2, Table 1.

¹³¹ *Id.*

Likewise, on the broadband side of the ledger, independent industry analysts have blamed the relatively low penetration rates of DSL compared to cable modem service on “unfavourable regulatory decisions with respect to wholesale DSL services that continue to inhibit deployment.”¹³² In particular, “[w]idespread deployment of DSL has been slow to develop due to a combination of factors, including ... state government legislation in the U.S. that may require the ILECs to unbundle DSL, further reducing the economics” and “increased regulatory uncertainty in the U.S. with respect to DSL line sharing.”¹³³ Alcatel has confirmed this assessment, explaining that deployment of technology to upgrade remote access systems “has now stalled with no more than 15 percent of such systems having been upgraded to support DSL,” due to “the uncertainty surrounding the federal and state regulation of remotely provisioned advanced services, including potential rules that would greatly increase the cost of remote terminals.”¹³⁴

This is plainly true in Verizon’s case. The “uncertainty” engendered by the prospect that ILECs might be forced to unbundle and allow collocation of line cards “is one of the key reasons that Verizon to this point has significantly constrained deployment of DSL capability in our remote terminals.”¹³⁵ The rationality of this reaction is confirmed by the National Research

¹³² Deployment of Broadband Networks and Advanced Telecommunications, § 4.1 (*citing* “Residential High Speed Internet Access,” BMO Nesbitt Burns, Oct. 15, 2001, at 5).

¹³³ *Id.*, § 4.4, *citing* BMO Nesbitt Burns at 20, 36.

¹³⁴ Reply Comments of Alcatel, CC Docket No. 98-146, filed Oct. 9, 2001, at 2.

¹³⁵ Letter from Thomas J. Tauke, Senior Vice President – External Affairs & Public Policy and Michael E. Glover, Senior Vice President & Deputy General Counsel, Verizon, to Michael K. Powell, Chairman, FCC, dated Nov. 6, 2001, at 4. Likewise, as the Commission is aware, SBC shut down Project Pronto in Illinois following a decision by the Illinois Commerce Commission to require collocation of line cards. Letter from Ed Whitacre, Jr., Chairman, SBC to The Honorable J. Dennis Hastert, Speaker, U.S. House of Representatives (March 14, 2001). A senior SBC official also has indicated that the company does not intend to move forward with trials of passive optical network technology in California and Texas as long as the possibility

Council, which has warned that “an unbundling obligation may deter an [ILEC] from pushing fiber farther into the neighborhood. ... Unbundling at remote terminals is problematical because of space limitations and because the relatively small number of subscriber lines terminated at each remote terminal make collocation and interconnection ... more difficult to achieve here than was the case in the central office.”¹³⁶ Moreover, the prospect of regulatory intrusion “is even more problematic” for next-generation broadband services that will require additional deployment of fiber in the loop:

For example, FTTH [Fiber to the Home] relies on shared electronics in the central office and a shared passive optical distribution network to provide broadband services to many end-users. Mandating unbundled access to the data architecture in such a system would require that individual fibers, splitters or other equipment be dedicated to specific carriers, thus undermining the economics of the shared architecture Unbundling of FTTH would also create enormously complex technical, practical, and operational problems. For instance, physical access by competitors to the distribution fiber and passive splitting devices in the field could potentially disrupt existing services to other customers. ... [S]till further uncertainty is generated by the possibility that telephone companies might be required to maintain copper plant in areas where fiber feeder or distribution facilities are deployed, which would further reduce the incentive to deploy fiber.¹³⁷

Notably, the National Research Council agrees that unbundling in a deep fiber architecture is difficult, costly, and counter-productive.¹³⁸

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remains open that unbundling, resale, and TELRIC pricing rules may be applied to deployment of this technology. *See* Letter from Wendell P. Weeks, President, Corning Incorporated, to The Honorable Michael K. Powell, Chairman, Federal Communications Commission, CC Docket Nos. 96-98 and 98-147, dated Dec. 3, 2001, at 1-2.

¹³⁶ Bringing Home the Bits, 4-20.

¹³⁷ Comments of Verizon Communications before the NTIA, Docket No. 011109273-1273-01, filed Dec. 19, 2001, at 18.

¹³⁸ *See* Bringing Home the Bits at S-16 (“the ultimate performance and reach of the physical links may be impaired by such low-level sharing”), 4-7 n.7 (“Issues such as collocation become more complicated when the loop terminates at a curbside pedestal or controlled environment

4. UNEs Are not Being Used as Intended, as a Transition to Facilities-Based Competition.

The Commission has recognized that UNEs were intended to serve as a transition mechanism to facilities-based entry.¹³⁹ The marketplace evidence, however, shows that UNEs have not been used as a stepping-stone to deployment of alternative facilities, but rather have been employed as a substitute for such deployment. Indeed, the prediction of facilities-based competitors, that the current unbundling requirements would “discourage[] competing carriers from building their own networks and leave[] them dependent over the long term on the ILECs,” has proven to be correct.¹⁴⁰

The two largest purchasers of UNEs, WorldCom and AT&T, certainly do not use UNEs as a transition to their own facilities, as indicated by their continuing use of the UNE-P to serve over a million mass market customers in New York alone rather than migrating those customers to their own switches (of which they have plenty). Nor could they reasonably claim that they are impaired in their ability to serve mass market customers without access to the UNE-P; many smaller CLECs are competing in that market using their own switches.¹⁴¹

Moreover, in the years leading up to this proceeding, no other CLEC has advanced any evidence (other than unsupported, self-serving statements) that UNEs are being used serve a

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vault. Collocation is even more complicated if fiber is pushed deep enough that it reaches to the polestop or even into the home.”).

¹³⁹ See UNE Remand Order, ¶¶ 6-7.

¹⁴⁰ Cox UNE Remand Comments, *supra*, at 3.

¹⁴¹ See 2002 Fact Report, II-18-19. In fact, after AT&T and WorldCom, virtually every other switch-based CLEC makes no use of unbundled circuit-switching or the UNE platform. *Id.*

transitional purpose.¹⁴² On the contrary, the most successful CLECs have used their own facilities to compete in the most lucrative market segments, followed by an incremental extension of those facilities to new geographic and product markets.¹⁴³ And the CLECs that have focused on facilities-based entry have not made extensive use of unbundled elements. For example, CLECs that have pursued a strategy of entry utilizing their own switches have made virtually no use of unbundled local switching, and CLECs that are providing high-capacity service to large business customers have made little use of high-capacity loops.¹⁴⁴ UNEs, in short, are not needed for, and not used as, a transition to facilities-based competition.

B. A Rational Interpretation of the Impairment Standard Must Focus on the Relevant Markets and Duly Consider All Alternatives to the Use of UNEs.

1. Section 251(d)(2) Requires a Service-Specific and Market-Specific Analysis for each UNE To Determine Whether the Lack of Access for that UNE would Competitively Impair Competing Providers.

The substantial deployment of alternative facilities by CLECs, IXC, CMRS providers, cable companies, wholesale carriers, and energy utilities, among other entities, precludes any notion that requesting carriers are generally impaired without access to UNEs. Rather, it is undeniable that CLECs are not impaired in a wide range of circumstances. Consequently, the Commission can only mandate unbundling for a UNE where it first finds that CLECs would be impaired without access, and that finding must be based on concrete evidence that there are

¹⁴² Verizon is aware of no documented evidence that CLECs are using UNEs as a transition to facilities-based competition. To the extent CLECs claim in this proceeding that they are making such use of UNEs, they must provide concrete supporting evidence rather than merely making unsupported assertions.

¹⁴³ 2002 Fact Report, V-1, V-4-6.

¹⁴⁴ *Id.*, II-18, Figure 4, IV-6 and IV-7, Table 2.

particular circumstances where the impairment standard is satisfied. Absent such a showing, forced unbundling cannot be squared with the statute.¹⁴⁵

Such a service-specific and market-specific analysis is mandated by the plain language of Section 251(d)(2), which focuses on whether a requesting carrier is impaired in providing “the services that it seeks to offer.”¹⁴⁶ As the Commission has recognized, “it is appropriate to consider the *specific services* and *customer classes* a requesting carrier seeks to serve when considering whether to unbundle a network element,”¹⁴⁷ and application of the impairment test must “consider the particular types of customers that the carrier seeks to serve.”¹⁴⁸ Likewise, “section 251(d)(2) does not compel us, once we determine that any network element meets the ‘impair’ standard for one market, to grant competitors automatic access to that same network

¹⁴⁵ As Dr. Shelanski explains, “the process of rigorously defining a market for purposes of antitrust analysis applies to the question of unbundling. It is important, in deciding whether a network element needs to be unbundled, to examine both the competitive alternatives to the ILEC’s facilities as well as the ease of entry into provision of the element at issue. This analysis may require defining markets both in terms of product and of geography. If there are competitive providers of an element, or if the evidence shows that firms, either nationwide or in particular geographic markets, are successfully providing the elements for themselves ... then the case that competition is impaired without access to the incumbent’s facilities fails.” Shelanski Decl., ¶ 40

¹⁴⁶ 47 U.S.C. § 251(d)(2).

¹⁴⁷ *Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 96-98, FCC 99-355 (rel. Dec. 9, 1999), ¶¶ 31-32 (emphasis added) (“Line Sharing Order”) (finding no impairment with respect to SDSL and HDSL services and limiting the availability of the line-sharing UNE for providing voice-compatible forms of xDSL).

¹⁴⁸ UNE Remand Order, ¶ 81; *see also id.*, ¶ 96 (suggesting that some elements might be made available for “data services” but not for “voice service”). The same holds true for geographic factors, since it is conceivable that requesting carriers are not generally impaired without access to particular network elements, but are so impaired in certain smaller markets, for example. In fact, the Commission expressly took market size into account in the switching carve-out. *See* UNE Remand Order, ¶ 280.

element solely or primarily for a different market.”¹⁴⁹ Indeed, the Commission has recognized that the Act requires a service-specific and market-specific analysis on several occasions, including in its order requiring access to the high-frequency portion of the loop for specific services (although it incorrectly failed to take into account competition from all competing platforms), in the case of circuit switching (where it limited availability in certain geographic areas for certain customer segments), and with respect to loop/dedicated transport UNE combinations (where it limited the availability of unbundled elements to provide already competitive special access services).¹⁵⁰ Thus, it is only by engaging in such a market-specific analysis that the Commission properly can “give substance to” the unbundling limits contained in Section 251(d)(2).

This is not to say that the Commission must resign itself to an extremely granular analysis in every case. For many key elements – those used in providing broadband services, circuit switching, and dedicated transport, for example – there has been such pervasive deployment of alternative facilities that there is no basis for a finding of impairment under any circumstances. For others, such as high-capacity loops, there has been very substantial deployment, warranting a presumption that CLECs are not impaired without access to this element unless they can demonstrate the contrary under specific, limited circumstances. And for POTS and other non-high capacity loops, the Commission should scrutinize the marketplace

¹⁴⁹ *Implementation of the Local Competition Provisions of the 1996 Act*, Supplemental Order Clarification, CC Docket No. 96-98, FCC 00-183, rel. June 2, 2002, ¶ 15 (“Supplemental Order Clarification”).

¹⁵⁰ *See* Line Sharing Order, ¶¶ 31-32; UNE Remand Order, ¶ 280 (declining to mandate unbundling of a circuit-switching UNE for certain customers in the top 50 MSAs); Supplemental Order Clarification.

evidence to identify particular geographic locations or types of customers for which impairment still exists.

The Commission must therefore take a fresh look at each UNE. As the Commission itself has recognized, a triennial review is needed precisely because of “rapid changes in technology, competition, and the economic conditions of the telecommunications market.”¹⁵¹ Consequently, the CLECs, and ultimately the Commission, must bear “the burden of demonstrating that each network element is unbundled only to the extent that, without it [CLECs] could be impaired from providing service.”¹⁵² Indeed, any other result would severely undermine facilities-based competition, since these are the very types of costs that every network provider must incur to do business – ILECs and facilities-based providers alike.

In making that determination, the Commission must examine whether CLECs are *competitively* impaired compared to ILECs and other providers. To put it another way, it is not enough that they are impaired in some abstract sense because they have to incur the costs of operating a business; they must be impaired in their ability to compete. Where CLECs have to incur costs or perform tasks that ILECs do – such as connecting various elements to make up a network, digging trenches, performing marketing or customer care functions, or obtaining franchises – they suffer no competitively cognizable impairment.¹⁵³

¹⁵¹ UNE Remand Order, ¶ 148; *see also* NPRM, ¶ 1 (“Recognizing that market conditions would change and create a need for commensurate changes to the unbundling rules, the Commission determined to revisit its unbundling rules in three years”).

¹⁵² Press Statement of Commissioner Powell, dissenting in part, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, CC Docket No. 96-98, at 1 (Sept. 15, 1999) (“Powell UNE Remand Partial Dissent”).

¹⁵³ *See* Shelanski Decl., ¶ 30.

Likewise, in making its determination, the Commission must recognize that CLECs enjoy many cost advantages over ILECs, which must be factored into the impairment analysis. For example, CLECs often enjoy lower labor costs and can deploy the most efficient new equipment without regard to whether that equipment is compatible with legacy networks and operating systems. Moreover, CLECs have the considerable benefit of being able to target their marketing to the most lucrative customers rather than building and operating a network that must provide service to all customers, wherever they may be located. So, even if CLECs may incur higher prices for certain inputs – like the spring on a mousetrap – that proves nothing about their ability to compete to provide their version of a better mousetrap. The question is whether they can still enter and compete, and where there is marketplace evidence that they are doing so, they obviously can.

2. Where Competing Providers Are Using Non-ILEC Facilities To Provide Service to Some Market Segments, The Commission Cannot Meet Its Burden of Finding Impairment Absent a Concrete Showing that CLECs Are in Fact Impaired in Other Market Segments.

Placing the burden on CLECs to demonstrate impairment when there is evidence that CLECs have entered markets without relying on ILEC facilities is required by the Act. Under Section 251(d)(2), the Commission may require unbundled access to a particular network element only if it first makes an affirmative determination that lack of access to that UNE “would impair” the CLECs’ ability to provide service. As with any determination the Commission is required to make, it cannot base a decision to require an element to be unbundled on speculation or conjecture.¹⁵⁴ Nor can it require unbundled access in all cases just because

¹⁵⁴ See, e.g., *Illinois Public Telecom Ass’n v. FCC*, 117 F.3d 555, 563-64 (D.C. Cir. 1997) (vacating portion of Commission’s order that “had ignored record evidence”); *AT&T Corp. v. FCC*, 86 F.3d 242, 247 (D.C. Cir. 1996) (explaining that, “[u]nder the APA, [the court] must set

some CLECs might be impaired under certain circumstances. Rather, any such determination must be based on concrete evidence that there are specific circumstances under which competing providers generally would be impaired without access to the element at issue. And any unbundling requirement must be carefully calibrated to correspond to those specific circumstances.

Moreover, in determining whether CLECs would be impaired without access to a particular UNE, the Commission cannot limit its analysis to whether alternative facilities actually exist to serve a particular customer or location. Rather, as Chairman Powell has pointed out, evidence of facilities deployment “strongly suggests” that competitors “are not significantly impaired,” both in areas where they have deployed “and in areas in which they have not done so.”¹⁵⁵

As Dr. Shelanski explains:

[T]he fact that CLECs are in some cases supplying their own facilities or procuring them from third parties demonstrates that competitive provision of the element at issue is economically feasible. That in itself weakens any argument for impairment. When a substantial number of CLECs are deploying facilities other than UNEs, and when those facilities serve or potentially serve a large proportion of access lines, then the impairment argument is not merely weakened but unsupportable. . . . Under such circumstances, CLECs’ decisions not to deploy their own facilities are likely driven either by decisions not to serve certain end-user customers or by preferences for unbundled access even though the lack of such access would not be a true competitive impairment.¹⁵⁶

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aside a Commission order if the record lacks ‘substantial evidence’ to support its conclusion, 5 U.S.C. § 706(2)(E), considering the ‘whole record’”).

¹⁵⁵ See Powell UNE Remand Partial Dissent.

¹⁵⁶ Shelanski Decl., ¶ 72

Thus, if some CLECs use non-ILEC facilities to serve particular types of customers or geographic locations, then no CLEC should be considered impaired without access to the relevant UNEs – not just with respect to the specific customers or locations served by the original CLECs, but with respect to all similar customers or locations.¹⁵⁷ Where the types of customers or locations are similar, the ability to compete should be essentially the same.

Absent a concrete showing to the contrary, once competing providers have entered some market segments without relying on ILEC facilities, this same analysis holds true even where the circumstances are not strictly similar. As Dr. Shelanski notes “[i]n such cases, the presumption against impairment should be strong and be rebuttable only by a convincing and particularized demonstration to support a finding by the FCC that, without unbundling, efficient entry into a given market would not be feasible.”¹⁵⁸ It is only natural that CLECs will deploy facilities first in areas where the returns are likely to be most lucrative – for example, in urban areas and for large businesses. This does not mean, however, that deployment of alternative facilities outside such areas and customer groups is impractical. Rather, the most successful CLECs have grown incrementally, establishing a foothold and then expanding core network facilities step by step into new geographic and product markets.¹⁵⁹ None of the successful CLECs has viewed ubiquitous service or instant roll-out as prudent, let alone competitively necessary.¹⁶⁰ For this

¹⁵⁷ See Shelanski Decl., ¶ 39 (“if the economic evidence and market data show that some entrants are entering with their own facilities, then that evidence also suggests that, even if the absence of unbundling would disadvantage some individual competitors, it would not impair competitive entry itself. If policy is driven by the firms pleading impairment rather than by those entering with their own facilities, then the end result may be to replace meaningful competition with an expanded group of less meaningful competitors.”).

¹⁵⁸ Shelanski Decl., ¶ 6.

¹⁵⁹ 2002 Fact Report, V-1, V-3-6.

¹⁶⁰ *Id.*, V-4-6.

reason, then-Commissioner Powell was inarguably correct in noting (with respect to circuit switching) that “[t]here are obvious reasons that CLEC deployment has not yet reached some smaller markets. CLECs are profit maximizers, and thus it is unremarkable that they first deploy ... in denser areas where they can reach more customers at lower cost. The simple absence of ... deployment in smaller markets, tells us precious little.”¹⁶¹

Failing to recognize this fact would depress investment, making impairment a self-fulfilling prophecy.¹⁶² Automatically finding impairment whenever alternative facilities do not exist would make it less likely that such facilities will be deployed, particularly where facilities-based entry is economically viable but not as lucrative as in larger markets. CLECs would continue relying on easy and cheap access to the ILEC’s network rather than incurring the risk of investing in their own networks.

For this reason, if some CLECs make use of alternative facilities, the Commission cannot make a finding of impairment unless there is concrete evidence demonstrating that the statutory standard is met in particular circumstances. The Commission “should presume impairment does not exist where the market demonstrates the entry of alternative facilities and should in such cases place the burden on CLECs rigorously to demonstrate that impairment persists if

¹⁶¹ Powell UNE Remand Partial Dissent, at 3.

¹⁶² As Dr. Shelanski points out, “[c]ostly tradeoffs are likely to result if regulations require unbundling of a network element once market evidence demonstrates that new competitors can – whether they actually choose to or not – economically provide that facility for itself, obtain it from third parties, or obtain it from the ILEC under arrangements other than regulated unbundling. Such a policy runs the risk of supplanting the substantial benefits of facilities-based entry with the comparatively anemic returns, and potentially high costs, of unbundled access.” Shelanski Decl., ¶ 16.

unbundling of a given element is to be continued.”¹⁶³ CLECs cannot merely quibble with the ILECs’ data.¹⁶⁴ Rather, the proponents of continued unbundling, in the face of substantial evidence of non-UNE based competition, must provide sufficient, detailed evidence to demonstrate that they are unable to compete effectively without access to specific UNEs in specific locations for specific purposes. Overblown and unsupported allegations of obstacles to competition are entitled to no credence. Any other rule would be antithetical to the fundamental statutory goal of promoting facilities-based competition, because mandating access where competing carriers are not impaired not only harms the ILEC, but undercuts competitors that have invested or might invest in competing facilities.

3. Where Substantial Intermodal Competition Exists in the Provision of Particular Services, There Can Be no Impairment with Respect to the Facilities Used To Provide Those Services.

The NPRM properly recognizes that intermodal competition “requires a special focus” in reviewing the unbundling rules.¹⁶⁵ The existence of intermodal competition is highly relevant to the Commission’s analysis under Section 251(d)(2). First, the Act itself speaks broadly about a competitor’s ability to provide a particular “service.” The general term, “service,” cannot properly be understood to be limited to a single technology or service delivery platform.

¹⁶³ *Id.* As the Chairman has explained, “anyone advocating the extension or intrusion of regulation” into a competitive market “bears a heavy burden of proving that the public, as opposed to firms with a particular business plan, will likely be harmed absent doing so.” Commissioner Michael K. Powell, Statement to the Senate Committee on Commerce, Science and Development (May 26, 1999).

¹⁶⁴ Allowing the CLECs merely to criticize the ILECs’ data and assert that they remain impaired without adducing their own proof would violate the Court’s decision in *Iowa Utilities Board*. The Court explicitly warned that presuming that the impairment standard is met just because a CLEC has requested access to a UNE would improperly “allow[] entrants, rather than the Commission, to determine ... whether the failure to obtain access ... would impair the ability to provide service.” *Iowa Util. Bd.*, 525 U.S. at 389.

¹⁶⁵ NPRM, ¶ 27.

Accordingly, whether competing providers offer service as a traditional wireline CLEC, over cable or wireless networks, or in some other way is irrelevant to the statutory standard. If competing providers are offering service without using unbundled elements, they self-evidently are not impaired without access to those UNEs.

Indeed, as the Court has made clear, the Commission “cannot, consistent with the statute, blind itself to the availability of elements outside the incumbent’s network,”¹⁶⁶ and it must “establish limits that are consistent with the” goals of the Act.¹⁶⁷ Inter-modal competitors must be considered “competitive alternatives to the incumbent’s network.”¹⁶⁸ In fact, Congress understood and intended that competition would come from a multitude of sources, with various technologies being used to provide substitutable services. Indeed, both Congress and the Commission have emphasized the importance of treating competing service providers consistently, regardless of the underlying technology used.¹⁶⁹ The Commission cannot refuse to consider evidence of competition because it comes from cable companies or is based on the use of non-wireline technologies.¹⁷⁰

¹⁶⁶ *Iowa Util. Bd.*, 525 U.S. at 389.

¹⁶⁷ *Id.* at 388.

¹⁶⁸ NPRM, ¶ 28.

¹⁶⁹ *See, e.g.*, Statement of Sen. Pressler, 141 Cong. Rcd. S7885 (daily ed. June 9, 1995) (“regulatory apartheid” no longer makes sense); Statement of Sen. Leahy, 141 Cong. Rec. S8067 (daily ed. June 9, 1995) (“We need to update our laws to take account of the blurring of the formerly distinct separation of cable, telephone, computer, and broadcast services”); Federal-State Board on Universal Service, Report to Congress, 13 FCC Rcd 11501, 11548 (1998) (the Commission must “avoid creating regulatory distinctions based purely on technology”).

¹⁷⁰ *See Shelanski Decl.*, ¶ 43 (“inter-modal rivalry is of central importance to the analysis of competitive impairment. If firms can provide substitutes for ILEC local exchange services over networks that bypass the telephone networks by using alternative kinds of facilities, then it is hard to make a case that entry in any way depends on unbundled access to the ILECs’ networks. Even were it the case that entrants into the local market could not, for example, obtain

Moreover, Congress further intended that unbundling requirements would apply only until competition emerged, regardless of the form that competition took. The animating vision of the 1996 Act was to create a transition from monopoly to competitive markets,¹⁷¹ as is illustrated by the label Congress assigned to Part II of Title 47: “Development of Competitive Markets.”¹⁷² Where a competitive market already exists, perpetuating an unbundling obligation would be antithetical to Congress’s core goals of facilities-based competition and expanded deployment of advanced technologies and services.

Second, impairment is a necessary but not sufficient condition to mandate unbundling; Section 251(d)(2) compels the Commission to consider impairment “at a minimum.” As the Commission has recognized, whatever else that provision encompasses, it certainly means that the Commission must decline to order unbundling if such compulsory access would frustrate achievement of Congress’s goals, notwithstanding the possibility that some requesting carriers might be impaired.¹⁷³ And with respect to services or market segments that already are subject to inter-modal competition; imposing an unbundling obligation would be affirmatively harmful to existing facilities-based competition and would be antithetical to the Congressional scheme.

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conventional wireline loops without unbundling, there would be no impairment to *competition* if cable or wireless loops provided an alternative way to connect to customers.”) (emphasis in original).

¹⁷¹ See, e.g., H.R. Rep. No. 104-204 at 89 (the Act is intended “to shift monopoly markets to competition as quickly as possible”).

¹⁷² Part II of Title 47 contains Sections 251-261 of the Act.

¹⁷³ See UNE Remand Order, ¶¶ 306, 316-317 (declining generally to unbundle packet switching even if impairment might exist in some instances).

That there are no explicit facilities-sharing requirements applicable to non-ILEC competitors is irrelevant to the impairment analysis.¹⁷⁴ First, the Commission must interpret “impair” to establish limits on unbundling that are consistent with the goals of the Act.¹⁷⁵ Congress sought facilities-based competition and investment. It did not seek to prop up in perpetuity a slew of imitators who remain dependent on government largesse (in the form of guaranteed access to the ILECs’ networks at artificially low rates) in order to survive.

Second, it would be irrational to justify continued unbundling of ILEC facilities on the fact that other facilities-based competitors face no such obligation. Under this rationale, ILECs would remain subject to unbundling regardless of whether there were three, five, or ten non-telephone network-based platform providers. There is no conceivable policy or legal justification for interpreting the “impair” standard in this manner. Consumers would gain nothing and lose much; not only the ILECs, but cable companies, wireless carriers, and other potential platform providers would find it more difficult to justify investment in the face of “competition” from regulatorily-subsidized, non-facilities-based rivals.

Third, while irrelevant to the statutory impairment standard, in a market characterized by substantial inter-modal competition, platform owners will have an economic incentive to offer access to their facilities at commercially reasonable rates and terms that preserve investment incentives while maximizing utilization of their capacity.¹⁷⁶ As Drs. Kahn and Tardiff note, “the more competitive the market is, the more sufficient are the incentives of facilities-based

¹⁷⁴ See NPRM, ¶ 28 (suggesting that if non-ILEC competitors have no unbundling obligations, consumer choice may be limited).

¹⁷⁵ *Iowa Util. Bd.*, 525 U.S. at 388.

¹⁷⁶ Cf. NPRM, ¶ 30 (asking about the potential for development of a wholesale market from intra-modal, facilities-based competitors).

providers to negotiate such agreements [W]here, as here, a market is competitive, market forces are sufficient to encourage participants to reach agreements that will maximize consumer welfare.”¹⁷⁷

Notably, the prospect of such “voluntary business arrangements to open facilities”¹⁷⁸ is more than theoretical. Voluntary access has happened in the wireless market, where licensees have embraced resale as a distribution mechanism even though the resale obligation will soon sunset.¹⁷⁹ It has happened in the provision of satellite broadband services, where WorldCom has announced that it would resell Hughes’s DirecWay service to small- and medium-sized business customers beginning in January 2002, rebranding the service with WorldCom’s name.¹⁸⁰ It has even happened in the provision of cable modem services, where AOL Time Warner has stated that permitting third parties to use its platform makes good business sense,¹⁸¹ AT&T has reached an agreement with EarthLink to open its cable network,¹⁸² and Comcast has struck one access

¹⁷⁷ Kahn/Tardiff Decl., ¶ 36.

¹⁷⁸ Bringing Home the Bits at A-2.

¹⁷⁹ See 2002 Fact Report, V-10 (noting that the Sixth CMRS Competition Report found that the top 20 CMRS resellers had over three million subscribers as of year-end 2000, twice as many as they had at year-end 1999).

¹⁸⁰ *Id.*, IV-23.

¹⁸¹ Alicia Pounds, *Texas.Net files FCC complaint against AOL Time Warner*, Austin Business Journal, August 9, 2001 (“Kathy McKiernam, a spokeswoman for AOL Time Warner, says the [Texas.net] complaint is without merit. After all contracts with ISPs are wrapped up, Time Warner’s cable customers will be able to choose from a variety of Internet services, she says. ‘It is good business sense to offer choices to consumers,’ McKiernam says.”), available at <<http://austin.bizjournals.com/austin/stories/2001/08/06/daily42.html>>; see also 2002 Fact Report, V-10-11.

¹⁸² Jila Angwin, *AT&T To Offer EarthLink, Inc. On Cable Lines*, Wall Street Journal, B7 (March 13, 2002); see also 2002 Fact Report, V-11, fn. 32; AT&T/Comcast Application, 94 (detailing the trials). As AT&T just asserted, “both AT&T Broadband and Comcast already have ample market incentives to make commercially reasonable, customer-friendly arrangements with unaffiliated ISPs in order to maximize the attractiveness of their Internet offerings to customers

deal with an unaffiliated ISP and has stated that its “goal is to have multiple providers.”¹⁸³ And, it is likely to happen in the broadband market, if the Commission steps aside and allows that market to develop in accordance with its natural contours. In fact, Verizon already has indicated a willingness to offer a broadband transport service, enabling competitors to reach end users over Verizon’s broadband facilities, at commercially reasonable terms and conditions.¹⁸⁴

4. The Commission Must Consider non-UNE Alternatives Within the ILECs’ Networks.

Section 251(d)(2) imposes a clear obligation on the Commission: to determine whether requesting carriers are impaired without access to particular UNEs. In rejecting the Commission’s overbroad interpretation of that standard – which essentially ordered unbundling of any network element requested by a CLEC – the Supreme Court warned that the Commission could not ignore alternatives available outside the ILEC’s network. For the same reason, the Commission cannot ignore non-UNE alternatives within the ILECs’ network. If CLECs can and

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and potential customers. Given the need to compete with DSL and other comparable offerings, AT&T Broadband and Comcast have significant incentives to offer their customer a choice of ISPs.” *Id.* at 93.

¹⁸³ Christopher Stern, “Comcast to Open High-Speed Internet Network to Rival ISP,” *Wash. Post*, Feb. 26, 2002, at E4. Comcast’s President, Brian Roberts, explained that “[t]his is a business opportunity and we want to get the maximum penetration of broadband in our company” “Comcast ISP Deal Meets with Charges About Open Access Strategy,” *Communications Daily*, Feb. 27, 2002, at 4-5.

¹⁸⁴ See Tauke/Glover letter at 2-3 (“we believe that there can be significant value in maintaining a wholesale business that allows other providers to reach customers over our network We have suggested, for example, that we could deliver a service to other carriers at our central offices so that they can reach their customers over our network in return for receiving a commercially reasonable rate – a result we believe is fair and helps preserve incentives to invest.”). Given the level of competition, commercially reasonable rates by definition will be determined by the marketplace. There is no need for regulation of the rates for a broadband transport service (assuming the Commission had jurisdiction to do so, which it does not because broadband services should be subject to Title I, not Title II). See NPRM, ¶ 73.

do compete using an ILEC's service instead of a UNE, there can be no impairment under the statute.¹⁸⁵

For this reason (among many others), requesting carriers should not be permitted to convert special access services to UNEs or combinations of UNEs.¹⁸⁶ In the conversion context, a competitor already is competing successfully using a special access circuit – it has won the customer's business. Consequently, it could not possibly be impaired in its *ability* to provide those services if it is unable to convert its special access circuits to UNEs. The conversion issue is one of price, not impairment – and disregarding the fact that an IXC or CMRS provider already is using the very special access circuit it seeks to convert cannot be reconciled with the Court's holding that a simple increase in profit margin does not amount to impairment.¹⁸⁷ The same holds true in any other instance where a CLEC is using an ILEC's tariffed offering to serve a customer.¹⁸⁸

¹⁸⁵ In the UNE Remand Order, the Commission rejected arguments that it should consider the availability of ILEC tariffed services as part of the impairment analysis, contending that basing a non-impairment finding on the existence of tariffed services would permit ILECs to avoid unbundling obligations by tariffing services that are equivalent to UNEs. UNE Remand Order, ¶¶ 67-70, 354. The Commission also argued that, even if tariffed services theoretically were relevant, competitors would not have any assurance that the ILEC would not change the tariff so that the competitor no longer could rely on it. *Id.*, ¶ 69. Prudently, the NPRM seeks fresh comment on this holding. NPRM, ¶ 44. As discussed in the text, the restrictive approach in the UNE Remand Order cannot be reconciled with the requirements of the Act.

¹⁸⁶ See NPRM, ¶ 71 (inquiring about the current safe harbor provisions regarding the conversion of special access circuits to EELs). As discussed in the text and in section VI.A, *infra*, CLECs should have no right to convert special access service to UNEs, and therefore the safe harbors should be eliminated. See also 2002 Fact Report, V-18-20.

¹⁸⁷ *Iowa Util. Bd.*, 525 U.S. at 390. See also the Joint Reply Comments of SBC and Verizon, CC Docket No. 96-98, filed April 30, 2001, at section III.A. Verizon hereby incorporates by reference those reply comments, as well as the Joint Comments of SBC and Verizon, CC Docket No. 96-98, filed April 5, 2001.

¹⁸⁸ See Shelanski Decl., ¶ 19 (“The same arguments that counsel against unbundling where competitive facilities can exist also apply to extending unbundling to cases where regulated or tariffed arrangements between ILECs and other carriers eliminate impairment. Interexchange

Second, the availability of an ILEC tariffed offering that is subject to substantial competition – for example, special access – should preclude an impairment finding with respect to the UNEs used to provide that service (in the case of special access, high-capacity loops and dedicated transport). Special access is vigorously competitive throughout the country, with non-ILECs having captured at least one-third of the market.¹⁸⁹ The extent of competition is confirmed by the fact that 80 percent of BOC special access revenue qualifies for Phase I pricing flexibility and nearly two-thirds qualifies for Phase II relief.¹⁹⁰

The pricing flexibility evidence is highly relevant because the Commission’s pricing flexibility rules “reasonably serve as a measure of competition in a given market and predictor of competitive constraints on future LEC behavior.”¹⁹¹ The rules make pricing flexibility available only where *facilities-based* competitors have collocated either in a large number of wire centers or in wire centers accounting for a very substantial portion of the ILEC’s special access revenue in an MSA.¹⁹² Given this emphasis on facilities-based competition, “if there is sufficient competition to protect consumers from anticompetitive pricing, then it necessarily follows that

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carriers and CMRS providers, for example, have had no difficulty obtaining special access from the ILECs through non-UNE agreements. Indeed, IXC’s and others have been successfully providing competitive access for a decade. There is thus no case for extending unbundling obligations to special access or indeed any case in which other arrangements have proven sufficient to defeat competitive impairment.”).

¹⁸⁹ See 2002 Fact Report, Appendix L.

¹⁹⁰ Special Access Fact Report at 5-7.

¹⁹¹ *WorldCom v. FCC*, 238 F.3d 449, 459 (D.C. Cir. 2001).

¹⁹² See 47 C.F.R. §§ 69.709(c), 69.711. For Phase II relief, for example, a facilities-based competitor must be collocated either in 50 percent of wire centers or wire centers accounting for 65 percent of non-channel termination special access revenues (for transport services) or in 65 percent of wire centers or wire centers accounting for 85 percent of channel termination revenues (for channel terminations).

competitors could not be impaired in their *ability* to offer a competing service.”¹⁹³ There is also no reason for concern that ILECs could disadvantage requesting carriers by altering their special access tariffs. The competitive marketplace will assure that the ILECs’ rates, terms, and conditions for special access service remain just and reasonable. Accordingly, there should be no obligation to provide unbundled access to elements used to provide special access or any other tariffed ILEC service that is subject to sufficient facilities-based competition to warrant relaxed price regulation.

Third, and more broadly, the availability for resale of an ILEC’s retail services is highly relevant to the impairment analysis. This is particularly true, for example, with respect to resold basic local exchange service as an alternative to the UNE platform; numerous CLECs are reselling ILEC local exchange service to serve the same market segment targeted by UNE-P based competitors. We explain later in these comments that CLECs are not impaired without access to the UNE-P because of the plethora of alternatives to unbundled switching. Even setting aside these non-ILEC alternatives, however, basic local exchange service is the functional equivalent of UNE-P in all respects. In each case, the CLEC uses the ILEC’s network to provide service without any incremental facilities investment of its own. In resale, as in UNE-P, the CLEC merely markets the service, enters the order in the ILEC’s system, and provides billing. And UNE-P, like resale, has resulted in little or no service differentiation.¹⁹⁴

The only real difference between UNE-P and resale is the cost to the CLEC; the UNE-P, for many customers, is less expensive. However, the Commission cannot properly rely on cost

¹⁹³ Declaration of Robert W. Crandall, attached to the Reply Comments of USTA, CC Docket No. 96-98, filed April 30, 2001, at ¶ 23.

¹⁹⁴ See 2002 Fact Report, V-14.

differences alone to find impairment; it must determine whether those cost differences are so great as to prevent requesting carriers from competing effectively.¹⁹⁵ In this case, no such finding is possible because the cost difference reveals nothing about the CLECs' ability to compete. CLECs generally do not compete solely with respect to basic local exchange service; they seek to provide any number of additional offerings as well in order to maximize the revenue from each subscriber. Even if a CLEC might not choose to enter using resale to provide just basic local exchange service standing alone, there can be no impairment without access to the UNE-P if CLECs nonetheless can enter given all the revenues that they can earn from serving the end user (including long distance, interLATA toll, and enhanced services, for example). Accordingly, the Commission must consider tariffed services and other alternatives to UNEs within the ILECs' networks, not just third-party alternatives, as part of the Section 251(d)(2) analysis.

5. The Factors Previously Utilized by the Commission Cannot Serve as the Basis for the Section 251(d)(2) Analysis.

In the UNE Remand Order, the Commission interpreted "impair" to mean that lack of access to an element "materially diminishes" a requesting carrier's ability to provide service, after considering cost, timeliness, quality, ubiquity, and operational issues. The NPRM now seeks comment on whether some of these factors should receive less weight than others.¹⁹⁶ As detailed below, none of these factors is entitled to significant weight. Because they are infinitely

¹⁹⁵ *Iowa Util. Bd.*, 525 U.S. at 389-90.

¹⁹⁶ NPRM, ¶ 19.

malleable and impose no real limit on the unbundling obligation,¹⁹⁷ these factors are incompatible with the requirements of Section 251(d)(2).

Moreover, the analytical framework set forth in the UNE Remand Order improperly establishes a “least efficient competitor” standard, under which a UNE must be unbundled for all CLECs in all locations and for all customers as long as the least efficient CLEC needs the UNE in the least competitive location to serve the most undesirable customers. That approach cannot be squared with the Supreme Court’s direction to impose meaningful limits on the availability of UNEs, since it basically assures that UNEs will remain widely available long past the time when facilities-based entry is viable. Furthermore, this lowest common denominator approach is ultimately destructive of competition. Encouraging hundreds of companies to enter using the ILECs’ networks creates an environment where no entrant (or the incumbent) can make a sufficient return to justify investment. This is particularly true in a capital-intensive network industry, where – based on experience in similar industries – one would expect to see a handful of facilities-based competitors going head-to-head. For example, in the capital-intensive transportation industry, railroads, barges, and trucks vie with one another to transport goods – much as wireline telephone companies today increasingly face competition from wireless carriers and cable companies to transport information. Such industries are not characterized by dozens of carbon-copy firms. Unconstrained unbundling, in short, pushes the marketplace in exactly the opposite direction from where it should be going, with a correspondingly negative impact on consumers.

¹⁹⁷ For example, the UNE Remand Order both rejected and accepted theoretical studies (*compare* ¶ 66 (finding models unhelpful) *with* ¶¶ 82, 257, 263 (crediting CLECs’ models)); and both dismissed and used density zones in determining unbundling obligations (*compare* ¶ 185 (rejecting use of density zones for determining transport relief) *with* ¶ 286 (employing such zones to limit the exception from the general obligation to unbundle circuit-switching)).

Against this background, we turn to a factor-by-factor explanation of why the approach in the UNE Remand Order is inconsistent with the statute. Instead of reusing that untenable analytical framework here, the Commission should rely on objective evidence of market entry to determine impairment.

Cost. That a CLEC may be able to earn a greater profit using an ILEC's network element instead of its own or a third-party's facilities was specifically rejected by the Supreme Court as a legitimate basis for an impairment analysis.¹⁹⁸ All that matters is that a CLEC can compete without using an ILEC's network element. Similarly, if a CLEC incurs certain costs in using alternative elements, but an ILEC incurs the same types of costs in providing its own services – for example, the costs of digging up streets to lay fiber or obtaining municipal franchises – then there is no competitively cognizable impairment; the CLEC and the ILEC are in the same competitive posture.

As noted above, moreover, the impairment analysis must take into account all the revenues that a CLEC can realize from serving the customer, not just those derived from providing the service it “seeks to offer” using the UNE. For example, if a CLEC cannot compete in providing residential telephone service without access to a UNE (or a UNE combination), but can compete successfully after taking into account revenues from long distance service, Internet access, and other services it may choose to provide to the customer, then there is no impairment. Similarly, any inquiry into cost must consider an appropriate time frame. Start-up operations routinely lose money for an initial period, but that does not mean that the new entrant is

¹⁹⁸ *Iowa Util. Bd.*, 525 U.S. at 390; see also *GTE v. FCC*, 205 F.3d 416, 424 (D.C. Cir. 2000) (a rationale for unbundling “based on presumed cost savings” was “flatly rejected” by the Supreme Court).

“impaired.” Likewise, the analysis must take into account the CLECs’ overall cost advantages rather than focusing on prices for specific inputs, as discussed above.

In particular, the Commission cannot take into account differences between the cost of using alternatives to UNEs and the TELRIC-based cost of using UNEs. TELRIC is an artificial cost standard that bears no relation to the actual forward-looking costs of providing an element. The Commission’s pricing standard for UNEs is intended to produce the forward-looking cost of a hypothetical network using the most efficient technology available, based on the theoretical economies of scale and scope associated with instantaneously purchasing a ubiquitous network.¹⁹⁹ The pricing rules thus effectively guarantee that network element access will be less costly than deploying facilities. If impairment is found whenever the cost of provisioning alternatives is higher than the artificially low costs of operating a fictionally ideal network, there is no real “limit” on the unbundling obligation, contrary to the Court’s instructions. Indeed, the fact that differences exist between TELRIC-based rates and the rates for alternatives provided in a competitive marketplace merely confirms that the TELRIC-based rates are uneconomically low; it does not demonstrate impairment.

Timeliness. In the UNE Remand Order, the Commission concluded that “delays caused by the unavailability of unbundled network elements that exceed six months to one year may, taken together with other factors, materially diminish the ability of competitive LECs to provide the services that they seek to offer.”²⁰⁰ It has now been more than six years since the Act was adopted, and CLECs have deployed their own switches, transport facilities, and high-capacity

¹⁹⁹ 47 C.F.R. § 51.505.

²⁰⁰ UNE Remand Order, ¶ 89.

loops in areas accounting for the vast majority of demand for local communications services. Timeliness therefore should no longer be a relevant factor in the impairment analysis. To the extent a CLEC or third-party supplier does not yet have loop facilities to a particular end user's location (particularly for business customers), there is no reason such alternative facilities could not be deployed within six to twelve months.

Moreover, to the extent CLECs want to expand the scope of their current operations, they obviously can plan in advance to have their facilities in place in a timely manner, just as other businesses must do. Even if the CLEC did anticipate a delay, it could begin serving the customer almost immediately using a tariffed service offering from the ILEC and then cut over to its own facilities once they are ready.²⁰¹ Finally, many delays faced by CLECs (such as those associated with the permitting or construction process) are identical to those faced by ILECs, once again precluding any finding of competitive impairment.

Quality. There is no basis for concluding that network elements from non-ILEC sources are of lower quality than ILEC UNEs.²⁰² To the contrary, CLECs frequently can use more modern switching and transport technologies than the ILECs, enabling them to provide high quality service.²⁰³ In any event, the Court has warned that mere differences in quality do not amount to impairment.²⁰⁴

²⁰¹ See section III.B.4, *supra*.

²⁰² See UNE Remand Order, ¶ 96.

²⁰³ See, e.g., 2002 Fact Report, II-24-25 (use of Gigabit Ethernet), II-34 (use of softswitches).

²⁰⁴ *Iowa Util. Bd.*, 525 U.S. at 389.

Ubiquity. In the past, the Commission has overemphasized the importance of ubiquitous alternative elements by failing to consider two critical points. First, as explained in section III.A.1 above, the availability of alternatives must be judged with respect to the type of service a CLEC seeks to offer. As Dr. Shelanski points out, “[t]he relevant question is not whether CLECs are entering local markets everywhere, but whether CLECs can enter without impairment the markets that they have demonstrated a realistic intent to enter.”²⁰⁵ Most CLECs are interested in serving medium and large businesses, and thus do not need non-ILEC facilities to every home or small business in order to provide service. The Commission cannot assume that impairment exists unless a particular element is available throughout a specific service area. Indeed, the notion that CLECs are impaired and cannot compete with their own facilities unless they serve a network as large and ubiquitous as an incumbent’s would frustrate the purpose and intent of the Act.

Second, the fact that alternative facilities do not currently exist in particular locations does not, standing alone, demonstrate impairment.²⁰⁶ That CLECs focus their competitive efforts on some markets and some customers reflects the reality that some markets and customers are more lucrative than others. As Chairman Powell has noted, “CLECs are profit maximizers and thus it is unremarkable that they first deploy [facilities] in denser areas where they can reach more customers at lower cost.”²⁰⁷ Similarly, as Dr. Shelanski explains, “an absence of competitive facilities or continued use of UNEs may be the product of many factors that have

²⁰⁵ Shelanski Decl., ¶ 4.

²⁰⁶ Indeed, “the mere fact that new entrants cannot feasibly construct ubiquitous networks does not make the case for unbundled access. Even if new entrants cannot offer full networks from the outset, they may be able to build out incrementally and to obtain interconnection with other carriers such that viable entry does not depend on unbundling.” Shelanski Decl., ¶ 13.

²⁰⁷ Powell UNE Remand Partial Dissent, at 3.

nothing to do with the ability of CLECs economically to supply their own facilities,” including “[r]egulation of end-user rates” and “[p]redictions about changes in technology or in the services that customers demand,”²⁰⁸ as well as their own decision to focus first on the highest-margin customers and services. Accordingly, the Commission cannot, consistent with the statute, presume that CLECs are impaired just because alternative facilities have not yet been deployed in a particular market; nor can it mandate global access to a UNE even if it finds impairment in particular markets or market segments.²⁰⁹

Network Operations. Given the great success that CLECs have had using both their own network elements and alternative facilities from a wide variety of non-ILEC suppliers, the use of non-ILEC facilities does not compromise a CLEC’s network operations. Furthermore, the CLECs’ networks are built to nationally known standards, and vendors and carriers recognize the need to comply with these industry-developed standards in order to compete. Accordingly, any claim that self-provisioning or obtaining elements from a third party places CLECs at an operational disadvantage – let alone impairs their ability to provide competing services – must be viewed with great skepticism.

²⁰⁸ Shelanski Decl., ¶ 73.

²⁰⁹ See Shelanski Decl., ¶ 41 (“Even if lack of entry in some regions is the result of impairment (instead of because the market has unattractive profit potential), that localized impairment should not suffice to maintain unbundling obligations in markets where such impairment does not exist.”).

6. The Act Provides for Access only to the ILECs' Existing Networks.

As the NPRM recognizes, the Commission does not require ILECs to build new interoffice transport facilities or SONET capabilities for requesting carriers.²¹⁰ The Commission now asks whether this policy “should be limited to interoffice transmission facilities” or is “equally applicable to loops and other network elements.”²¹¹ Because the Act provides an access right only with respect to the ILECs' existing networks, the Commission lacks authority to compel ILECs to build new facilities or deploy new equipment to meet the demands of a requesting carrier.

Section 251(c)(3) requires an ILEC to provide access to UNEs on a nondiscriminatory basis. As the Eighth Circuit has held, this provision does not permit the Commission to direct ILECs to add facilities at a CLEC's request:

subsection 251(c)(3) implicitly requires unbundled access only to an incumbent LEC's *existing* network – not to a yet unbuilt superior one. ... The fact that interconnection and unbundled access must be provided on rates, terms, and conditions that are nondiscriminatory ... does not mandate that incumbent LECs cater to every desire of every requesting carrier.²¹²

ILECs can be required to “include modifications” to their facilities “to the extent necessary to accommodate interconnection or access to network elements,”²¹³ but they cannot be required “to

²¹⁰ NPRM, ¶ 63. *See also id.*, ¶ 74 (asking whether “any specific quality or variation of a ‘network element’ provided by an incumbent LEC to itself, to its customers or other carriers should be considered ‘superior’ under the now invalidated Rule 51.311(c)”).

²¹¹ NPRM, ¶ 63.

²¹² *Iowa Util. Bd. v. FCC*, 109 F.3d 753, 813 (8th Cir. 1997) (emphasis in original), *aff'd in part and remanded in part*, *AT&T v. Iowa Util. Bd.*, 525 U.S. 366 (1999). The Eighth Circuit re-affirmed this holding on remand from the Supreme Court. *Iowa Util. Bd. v. FCC*, 219 F.3d 744 (8th Cir. 2000), *cert. granted*, *Verizon v. FCC*, 121 S. Ct. 877 (2001).

²¹³ *Iowa Util. Bd.*, 109 F.3d at 813 n.33.

alter substantially their networks in order to provide superior quality interconnection and unbundled access.”²¹⁴

Building a new loop, adding capacity to a switch, and placing new line cards or electronics on a circuit are all examples of substantial alterations to an ILEC’s existing network.²¹⁵ Similarly, loop conditioning plainly is an unlawful requirement to provide a superior quality network, as the Commission recognized in the Local Competition Order.²¹⁶ That determination was correct, notwithstanding the Commission’s subsequent holding that loop conditioning merely enables a requesting carrier “to use the basic loop.”²¹⁷ Requiring an ILEC to employ its engineers and technicians to upgrade its loops by eliminating load coils and bridge taps results in the creation of a loop that is capable of providing new services that it previously was incapable of supporting.

Even if some of these actions might not require substantial resources to implement, they are not “modifications” necessary to provide *access to* existing UNEs; they are the creation of

²¹⁴ *Id.*

²¹⁵ The Commission’s existing rules already confirm that an ILEC need not deploy additional electronics on a loop. In particular, the definition of “local loop” encompasses “all features, functions and capabilities of such transmission facility,” including “attached electronics [except DSLAMs] and line conditioning.” 47 C.F.R. § 51.319(a)(1). Unattached electronics – that is, new electronics not already on the loop – are not encompassed within this definition. Nor does the Commission’s line conditioning obligation (which is being considered by the D.C. Circuit on review of the UNE Remand Order) include the attachment of electronics; to the contrary, “[l]ine conditioning is defined as the *removal* from the loop” of various devices. *Id.* § 51.319(a)(3)(i) (emphasis added).

²¹⁶ See *Implementation of the Local Competition Provision of the Telecommunications Act of 1996*, 11 FCC Rcd 15499, 15659 (1996) (“Local Competition Order”).

²¹⁷ UNE Remand Order, ¶ 173.

new or improved UNEs. Compelling an ILEC to engage in these activities on behalf of a CLEC would unlawfully force it to provide superior quality access.²¹⁸

7. The States Cannot Mandate Access to Additional UNEs.

Given the Act's focus on promoting facilities-based competition, the Commission must make clear that the states are not free to mandate unbundling beyond that ordered by the Commission. Such a ruling is critically necessary, because some CLECs already are asking state regulators to view the Commission's unbundling rules as a minimum that they are free to supplement.²¹⁹ Permitting the states to do so cannot be reconciled with the Act. As explained above, the availability of UNEs must be limited to those instances where CLECs cannot enter without them. Making UNEs more broadly available would frustrate achievement of the Act's core goal of promoting facilities-based competition. Moreover, as the Commission has emphasized, its "policy and regulatory framework" should "foster investment and innovation ... by limiting regulatory uncertainty and unnecessary or unduly burdensome regulatory costs."²²⁰ A second tier of state unbundling regulation cannot be reconciled with these critical objectives.

²¹⁸ Despite having no legal compulsion to do so, Verizon's current policy is to add certain electronics to available wire or fiber facilities to fill a CLEC's order for an unbundled DS1 loop. When Verizon receives an order for an unbundled DS1 loop, it checks whether the required common equipment is installed in the central office and has available ports or slots. If there is capacity, Verizon will install the necessary line cards. Verizon also will cross-connect the common equipment to the wire or fiber facility running to the end user. At the end user's premises, Verizon terminates the DS1 loop in the appropriate NID. This practice goes well beyond Verizon's legal obligations under the Act.

²¹⁹ See "State Actions," *Communications Daily*, Feb. 27, 2002, at 9. Indeed, the Vermont Supreme Court just upheld a Vermont PSC decision requiring Verizon to combine previously uncombined UNEs for requesting carriers, even though the Eighth Circuit has ruled that the Commission cannot impose such an obligation. See *Petition of Verizon New England, Inc., d/b/a Verizon Vermont*, Case 2000-118 (Vt. S. Ct. Feb. 22, 2002).

²²⁰ Broadband NPRM, ¶ 5.

Section 251(d)(2) is the beginning and end of the inquiry as to the states' authority to add or retain UNEs: "[i]n determining what network elements should be made available ... *the Commission shall*" engage in the impairment analysis.²²¹ This is not merely an advisory role. In contrast to other parts of Sections 251 and 252,²²² where Congress gave the states a role in implementing the Act, Congress conferred upon the Commission the authority to determine what elements must be unbundled. The states cannot "reverse preempt" the Commission's determinations by requiring unbundled access to elements that the Commission has found do not meet the Section 251(d)(2) standard. Moreover, allowing the states to determine whether additional elements should be unbundled would ignore the Supreme Court's mandate that the Commission impose "limits" on access to UNEs. A federal limit that can be superseded by the states is no limit at all.

Section 251(d)(3) reinforces this analysis.²²³ That provision actually restricts the states' authority by prohibiting them from establishing access and interconnection regulations unless such regulations would be "consistent with the requirements of [Section 251]" and would not "substantially prevent implementation of [Section 251] and the purposes of this part."²²⁴ Where the Commission cannot make the determination required by the statutory unbundling standard,

²²¹ 47 U.S.C. § 251(d)(2) (emphasis added).

²²² See 47 U.S.C. §§ 251(f) (states determine whether and ILEC's rural exemption should be terminated), 252(b) (states arbitrate interconnection agreements), 252(d) (states determine rates for interconnection, UNEs). The Commission asks whether it should adopt national unbundling standards that the states would apply, as it did for pricing of UNEs. NPRM, ¶ 76. It cannot do so here as a means of enabling the states to order additional unbundling. Unlike the pricing context, Congress gave the states no role in determining whether particular UNEs should be unbundled.

²²³ See PACE Petition, CC Docket No. 01-338, filed Feb. 6, 2002, at 9-12 (arguing that states have authority under Section 251(d)(3) to establish additional unbundling obligations).

²²⁴ 47 U.S.C. § 251(d)(3).

any state unbundling mandate is inherently inconsistent with Section 251. As an initial matter, this is true because the Commission has sole authority to determine what elements are to be unbundled. Moreover, even if the Commission's authority were not exclusive, if it has made a non-impairment finding with respect to a particular UNE (or has found impairment but has declined to mandate unbundling under the Act due to other considerations), then any state action to mandate access to that UNE would likewise be inconsistent with Section 251. Finally, allowing states to unbundle elements when there is no impairment deters facilities-based competition and therefore is inconsistent with the Act and its core underlying policy. The Commission therefore should hold that states may not mandate access to elements that are not required under the Commission's own rules.

8. Where an Element no Longer Need Be Unbundled, the Corresponding Section 271 Checklist Item Is Automatically Satisfied.

The Commission seeks comment on "how to evaluate a checklist item where there is no unbundling requirement for the network element that corresponds to that checklist item" ²²⁵ If a network element does not meet the Section 251(d)(2) standard for mandatory unbundling, the corresponding checklist item must be deemed satisfied. ²²⁶

To date, the Commission has considered checklist items four, five, six, and ten (which require access to loops, transport, switching, and signaling and databases, respectively) to establish obligations to provide these facilities separate and apart from the general obligation to

²²⁵ NPRM, ¶ 72.

²²⁶ Contrary to what some CLECs undoubtedly will argue, there is no basis for mandating continued unbundling of a network element just because that element is identified in the competitive checklist. Doing so would override Congress's direction that access to unbundled elements should be subject to limits, would ignore the fact that the lack of access to the element does not impair CLECs' ability to compete, and would affirmatively disserve the Act's fundamental goal of promoting facilities-based competition.

provide access to UNEs contained in checklist item two. Thus, in areas where the circuit switching UNE need not be provided, the Commission has properly declined to require TELRIC pricing of that element for purposes of item six,²²⁷ but has still required that it be unbundled.

In contrast to the Commission's practice to date, the most reasonable reading of the statute is that checklist items four through six and ten items are satisfied once the corresponding facility is no longer considered a UNE.²²⁸ After all, the purpose of the checklist is to demonstrate that the ILEC's local network is open.²²⁹ If, as demonstrated below, the lack of access to switching, transport, high-capacity loops, and databases would not impair CLECs' ability to compete, then the local market must be considered open without mandatory access to those facilities. This interpretation also advances Congress's intent to promote facilities-based competition and treat UNEs as transitional devices. Perpetuating the availability of these facilities after they no longer satisfy the Section 251(d)(2) test would preclude achievement of Congress's primary goals. And, it is black letter law that the various provisions of a statute must be read as a whole, in a coherent fashion, to promote the stated objective of the statutory scheme.²³⁰

²²⁷ UNE Remand Order, ¶ 473.

²²⁸ If Section 271 is nonetheless construed to require that a given element be unbundled even where unbundling is not required by Section 251, that element need not be priced based on TELRIC and, by the plain language of the checklist, need only be provided "unbundled from" other elements – not combined with them.

²²⁹ See, e.g., Rhode Island 271 Order, ¶ 103 (the "competitive checklist ... embodies the critical elements of market entry under the Act").

²³⁰ See *Conroy v. Aniskoff*, 507 U.S. 511, 515 (1993) (explaining that the "cardinal rule" is "that a statute is to be read as a whole") (citing *Massachusetts v. Morash*, 490 U.S. 107, 115 (1989)); see also *United States v. Morton*, 467 U.S. 822, 828 (1984) (noting that the Supreme Court does not "construe statutory phrases in isolation; we read statutes as a whole."); *Stafford v. Briggs*, 444 U.S. 517, 535 (1980); *Philbrook v. Glodgett*, 412 U.S. 707, 713 (1975); *Chemical Workers v. Pittsburgh Plate Glass Co.*, 404 U.S. 157, 185 (1971).

Alternatively, the Commission should forbear from applying these checklist items altogether once the related facilities no longer satisfy the Section 251(d)(2) standard.²³¹ Under Section 10, the Commission “shall forbear” from enforcing a statutory requirement if enforcement of the provision is not needed to assure just and reasonable charges and practices or to protect consumers, and if forbearance is in the public interest.²³² Section 10 permits the Commission to forbear from enforcing Section 271 as long as the provision at issue has been “fully implemented.”²³³

Where an element no longer meets the Section 251(d)(2) standard for unbundling, forbearance from enforcing the parallel checklist item satisfies the forbearance test. As the Commission repeatedly has recognized, competition will assure that rates and practices are just and reasonable.²³⁴ When potential competitors are not impaired by lack of access to an element, there is sufficient competition to discipline the ILEC. For the same reason, enforcement of these checklist items is not needed to protect consumers.²³⁵ And, forbearance is in the public interest, since overbroad unbundling is antithetical to Congress’s intent to establish a deregulatory environment that fosters investment and facilities-based competition.²³⁶ Finally, whatever else

²³¹ If the Commission decides that it cannot grant the relief sought other than through forbearance, Verizon intends this portion of its comments to be treated as a Petition for Forbearance under Section 10 of the Act.

²³² 47 U.S.C. § 160(a).

²³³ *Id.* § 160(d).

²³⁴ See, e.g., *Petition of U S WEST Communications, Inc. for a Declaratory Ruling Regarding the Provision of National Directory Assistance*, 14 FCC Rcd 16252, 16270 (1999) (“competition is the most effective means of ensuring that the charges, practices, classifications, and regulations with respect to [a service] are just and reasonable, and not unjustly or unreasonably discriminatory.”). See also 47 U.S.C. § 160(a).

²³⁵ 47 U.S.C. § 160(a)(2).

²³⁶ 47 U.S.C. § 160(a)(3).

the “fully implemented” language means, it certainly applies once a BOC has proven that it satisfies the checklist, including the requirement to provide loops, switching, transport, and signaling and databases. Consequently, Section 10(d) is not a barrier to forbearing from enforcement of checklist items four through six and ten once the relevant facilities are excluded from unbundling.

9. Once the Commission Determines Which UNEs Still Need To Be Provided, It Must Assure that its Pricing Standard Preserves CLECs’ Incentives To Invest in Their Own Facilities.

As discussed above, TELRIC pricing exacerbates the investment disincentives of mandatory unbundling by, among other things, creating an artificial, low-cost alternative that deters CLECs from investing in their own facilities and devalues the investment of CLECs that already have deployed their own plant. Consequently, once the Commission determines – without reference to TELRIC pricing – that certain elements should continue to be unbundled in specific situations, it also must ensure that its pricing standard for those elements does not undermine investment incentives. Otherwise, as Dr. Shelanski points out, “those prices will further exacerbate the deterrent effect that unbundling has on investment in competing facilities.”²³⁷

Accordingly, regardless of the outcome of the pending Supreme Court litigation concerning the TELRIC model, the Commission also must revise its current pricing rules in order to bolster – rather than blunt – continued investment in the facilities at issue. By this point, it should be abundantly clear that TELRIC does not produce prices or levels of investment that would apply in a competitive market. Yet, as Dr. Kahn explains:

²³⁷ Shelanski Decl., ¶ 26.

competitive markets set prices on the basis (roughly speaking) of the costs of incumbents. Those prices give challengers the proper target at which to shoot – the proper standard to meet or beat and the proper reward if they succeed.²³⁸

Because TELRIC-based rates do not send the appropriate investment signals to competitors – a conclusion that is affirmed by the facilities-based CLECs that have warned the Commission that making UNEs too attractive undermines investment in alternative facilities²³⁹ – the Commission cannot create efficient investment incentives unless it re-examines and reforms its UNE pricing rules.

10. Any Remaining Unbundling Obligations Should Sunset Within Three Years.

Any remaining unbundling obligations should sunset no later than three years from the effective date of the Commission’s order in this proceeding.²⁴⁰ Establishing a firm sunset date now, rather than taking a “wait and see” approach, is necessary to ensure that CLECs face the proper investment incentives going forward. If the Commission holds out the prospect that unbundling obligations will extend beyond the cut-off date, CLECs are much less likely to invest even where doing so is economically justifiable. The same holds true for ILECs, which will be loath to invest in new facilities in the face of an indefinite network sharing obligation.

A three-year sunset date also is critical because it is highly likely, given the substantial deployment of CLEC facilities to date and the rapid rise of inter-modal competition, that any existing impairment will be eliminated in the near future – at least as long as the Commission’s

²³⁸ Alfred E. Khan, *Whom the Gods Would Destroy, or How not To Deregulate*, at 6 (AEI-Brookings Joint Center for Regulatory Studies 2001).

²³⁹ *See, e.g.*, Cox UNE Remand Comments, *supra*; Comments of Time Warner, CC Docket No. 96-98, filed Jan. 19, 2000, at 19 (pricing special access at TELRIC “would substantially reduce [Time Warner’s] incentive to expand its entry in the 21 markets it has already entered or to invest in network facilities in new geographic areas”).

²⁴⁰ *See* NPRM, ¶ 45.

rules invite rather than discourage investment. Cable companies already reach ten percent of all homes (and a far higher percentage in many areas), and in the next few years are expected to increase that number several-fold. Wireless providers, in turn, are expected to displace 20 million wireline lines by 2005.²⁴¹ Once sufficient competition has developed, retaining unbundling obligations any longer than necessary will impair competition and harm consumers.

As Dr. Shelanski warns:

[u]nbundling should not ... be viewed as a harmless policy for fostering competition or as a mere back-up to more conventional means of competitive entry. The back-up can become the primary path and in so doing cause important social benefits to be lost. Unbundling thus needs to be understood for what it is: a risky policy that, if not carefully and selectively implemented, could deter innovation and displace superior improvements to market performance.²⁴²

Accordingly, “the Commission should not find that market entry continues to be impaired once competing facilities do, or feasibly could, become available.”²⁴³

* * *

Having established the proper legal and policy framework for the Commission’s unbundling analysis, we now turn to applying that analysis to specific elements, dealing first with broadband elements and then with traditional narrowband elements.

IV. UNBUNDLING REQUIREMENTS SHOULD NOT BE EXTENDED TO FACILITIES USED TO PROVIDE BROADBAND SERVICES.

Although the NPRM raises several questions relating to the unbundling of broadband facilities, the Commission must recognize that any such obligations could even theoretically

²⁴¹ See section II.A, *supra*.

²⁴² Shelanski Decl., ¶ 5

²⁴³ *Id.*, ¶ 1.

apply only to the extent wireline broadband services and facilities are classified under Title II.²⁴⁴

In a separate proceeding, the Commission properly has proposed to find that wireline broadband Internet access and underlying transport are subject to Title I, rather than Title II regulation.²⁴⁵

In our comments in that proceeding, we will explain why the Commission's tentative conclusion is consistent with Commission and judicial precedent as well as sound public policy. Moreover, the Commission recently concluded as much in the context of cable modem service,²⁴⁶ and the same conclusion applies to the ILECs' functionally equivalent broadband services and facilities. For purposes of this docket, however, we explain that unbundling obligations should not extend to facilities used to provide broadband services even if some of those services are regulated under Title II.

A. Prompt Action Is Needed To Reverse the Application of Traditional Telephone Regulation to Broadband Facilities.

To its credit, the Commission has stated that broadband should exist in a "minimal regulatory environment that promotes investment and innovation in a competitive market."²⁴⁷ Likewise, Chairman Powell has said that, in developing a regulatory framework for broadband services, the Commission must start with "the cleanest white board possible."²⁴⁸ And most recently, in the Cable Modem Declaratory Ruling, the Commission stated that it is "mindful of the need to minimize both regulation of broadband services and regulatory uncertainty in order to

²⁴⁴ Under 47 U.S.C. § 153(29), network elements include only those facilities that are used to provide telecommunications services.

²⁴⁵ See generally Broadband NPRM.

²⁴⁶ See Internet over Cable Declaratory Ruling.

²⁴⁷ Broadband NPRM, ¶ 5.

²⁴⁸ "Emergency Preparedness, Broadband Deployment Grab Limelight from Jurisdictional Spats at NARUC Event," *Telecommunications Reports*, Nov. 19, 2001, at 5.

promote investment and innovation in a competitive market,” that it “seek[s] to encourage facilities-based broadband competition,” and that, “[b]y promoting development and deployment of multiple platforms, we will best ensure that public demands and needs for broadband services can be met.”²⁴⁹

Assuring that these goals are realized is not only consistent with, but is required by, the 1996 Act. Congress did not expect that traditional narrowband telephone regulation, such as the unbundling requirements of Section 251(c), would apply to the provision of broadband services. Rather, as explained above, the animating vision of the 1996 Act was to create a transition from monopoly to competitive markets. Where the market already is workably competitive, as is true for broadband services, imposing wholesale regulation is inconsistent with Congress’s core goals.

This is particularly so where such regulations are applied asymmetrically to the insurgents rather than the market leaders – in the case of broadband, the cable MSOs (for mass market customers) and the Big 3 IXC’s (for large business customers). As described in section II, above, the ILECs are new competitors in all broadband submarkets. In the mass market, the ILECs’ DSL services account for less than 30 percent of all broadband subscribers, compared to the cable MSO’s 70 percent market share. In addition, there are several other established and up-and-coming broadband providers, including the two-way satellite services that recently were rolled out, terrestrial fixed wireless, powerline communications, and third-generation mobile wireless. All of the leading platforms have significantly greater market coverage than the ILECs, whose DSL services currently reach less than half of the homes in the country. In the business

²⁴⁹ Internet over Cable Declaratory Ruling, ¶ 73.

sub-market, ILEC market share is measured in the single digits; the market is dominated by the Big 3 IXC's.

Notwithstanding the Commission's intent and Congress's expectations, the ILECs' broadband services and facilities today are regulated as if they were monopoly offerings. Looking just at the wholesale side of the equation, ILECs must provide unbundled access to fiber loops and sub-loops as well as dark fiber, permit CLECs to collocate in remote terminals, unbundle the high-frequency portion of the copper loop, and provide unbundled packet switching in certain circumstances. Pending proposals, which have been incorporated into this proceeding, would compel ILECs to unbundle line cards that are used to provide broadband as well as narrowband services, permit CLECs to collocate their own broadband line cards, provide unbundled access to new packet transport elements, create a UNE data platform that would give CLECs access to the ILECs' broadband services at TELRIC rates, and maintain a redundant network of copper loop plant for CLECs even after the ILEC has deployed fiber.²⁵⁰ This is not just "regulatory creep."²⁵¹ It is a full-scale invasion of traditional telephone regulation into the broadband arena.

We have already shown that mandatory unbundling of broadband facilities undermines investment by ILECs, CLECs, and other broadband platform providers.²⁵² The detrimental impact on consumers is aggravated because subjecting the ILECs' broadband facilities to legacy regulation pushes the market in an unnatural direction. Broadband is developing as a market

²⁵⁰ See NPRM, ¶14.

²⁵¹ See Speech by FCC Chairman Michael K. Powell, "Digital Broadband Migration, Part II," Oct. 23, 2001, at 2 ("Digital Broadband Migration, Part II").

²⁵² See section III.A, *supra*.

characterized by robust inter-modal competition. Adopting an industrial policy that favors intra-modal competition – and then applying that policy to only one of the competing platforms – is counter-productive and anti-consumer, as the National Research Council has warned:

To the extent that neutrality is not achieved, regulatory actions would favor or disfavor options in ways that could decrease investment incentives or otherwise distort natural market forces in ways unfavorable to consumers. Decreased choice would reduce the likelihood that facilities-based competition emerges or would deprive consumers of particular cost and performance options.²⁵³

Similarly, Assistant Secretary of Commerce Nancy J. Victory has pointed out that “it is important to try to regulate comparable services in a manner that does not interfere with marketplace outcomes.”²⁵⁴ The concern about marketplace distortion is well-founded. As Professor Kahn and Dr. Tardiff have explained, extending unbundling or other Title II obligations to ILECs, but not to other broadband competitors, raises serious concerns that: (1) certain ILEC services will not be brought to market; (2) the lower-cost supplier may be precluded from taking the share of the market it otherwise would obtain; (3) the resulting advantage to cable companies could distort competition in the supply of related services such as video; and (4) both the ILECs and their competitors will suffer decreased incentives to invest and innovate.²⁵⁵

Disparate regulatory treatment of ILEC broadband facilities also cannot be squared with the Commission’s correct understanding that the Act is “technology neutral” and that regulations

²⁵³ Bringing Home the Bits at 5-8. The NRC further pointed out that favoring facilities-based competition over mandatory unbundling “permits the natural (*i.e.* competition-shaped) character of broadband service and industry structure to be discerned.” *Id.* at S-14.

²⁵⁴ Nancy J. Victory, National Telecommunications and Information Administration, speech to the Competitive Policy Institute, as reported in *Telecommunications Report Daily* (Dec. 6, 2001).

²⁵⁵ See Kahn/Tardiff Decl., ¶ 18.

should not discriminate against or burden particular technologies.²⁵⁶ Finally, continued disparate regulation of broadband service providers cannot be reconciled with the reality that the principal broadband platforms – cable and telephony – are becoming almost indistinguishable from a technological standpoint.²⁵⁷ Accordingly, all broadband facilities, including the high-frequency portion of the copper loop, packet switching, and fiber-based loops, must exist in a regulation-free zone. Relatedly, ILECs should not have to permit collocation of DSLAMs or line cards at the remote terminal.

B. First Amendment Considerations Likewise Compel the Commission To Exclude the ILECs' Broadband Services and Facilities from Unbundling Obligations.

The added burdens that the current unbundling regime places on ILECs' broadband services and facilities – but not on the broadband services and facilities of cable companies or other providers – also raise serious First Amendment issues. The ILEC's broadband platform is itself a medium of expression through which telephone companies are able to deliver a form of speech – the companies' own Internet and other information content services – to their customers. It is no different in that regard from the pages of a newspaper, the screen at a movie theatre, or the bandwidth used by a cable operator to deliver video programming or other information services to its customers. As discussed above, like the cable operator or the movie

²⁵⁶ *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 15 FCC Rcd 386, 386 (1999); see also Broadband NPRM, ¶ 4 (“the Commission should avoid policies that have the unintended consequence of embracing too quickly any one technology or service”), ¶ 6 (the Commission will “strive to develop an analytical framework that is consistent, to the extent possible, across multiple platforms”). Notably, Congress has required, in Section 706(c) of the 1996 Act, that the related concept of “advanced telecommunications capability” be understood “without regard to any transmission media or technology.”

²⁵⁷ See Broadband NPRM, ¶ 7 (“as fiber is deployed closer to the home, the nature and character of different platforms may well become less distinguishable”); Bringing Home the Bits at S-3 (“access networks will likely converge on similar architectures in which fiber reaches close to premises, and high-speed coax, upgraded DSL, or wireless links connect to the premises themselves”).

theatre owner, the ILEC must make a substantial capital investment to create, maintain, and expand the infrastructure necessary to disseminate protected speech and seeks to recover that investment with an adequate return.

One-sided regulatory burdens inflate the costs and risks of deploying broadband services and facilities and infringe on the ability of telephone companies to deliver their broadband content to customers. Consequently, these regulatory burdens implicate the First Amendment. Indeed, precedent makes abundantly clear that the First Amendment protects not only the content of speech, but also the physical and commercial means by which it is delivered to the public. As the Supreme Court explained more than a century ago, “[l]iberty of circulating is as essential to [freedom of the press] as liberty of publishing; indeed, without the circulation, the publication would be of little value.”²⁵⁸ Thus, the Supreme court has extended First Amendment protection not only to the selection and formation of content, but to the means of its dissemination.²⁵⁹ There is no doubt that this First Amendment protection extends to telephone companies as well when they use their own facilities to engage in expressive activity.²⁶⁰

²⁵⁸ *Ex Parte Jackson*, 96 U.S. 727, 733 (1887).

²⁵⁹ The Supreme Court has extended First Amendment protection to numerous “speech distribution” facilities or activities, including newsrack placement, *see City of Lakewood v. Plain Dealer Publ’g Co.*, 486 U.S. 750, 768 (1988), the public distribution of pamphlets, *see Lovell v. City of Griffin*, 303 U.S. 444, 452 (1938), control over the participants in a parade, *see Hurley v. Irish-American Group*, 515 U.S. 557, 570 (1995), and a cable operator’s control over the expressive capacity of its cable system. *See Turner Broad. Sys. v. FCC*, 512 U.S. 622, 629 (1994) (“*Turner I*”).

²⁶⁰ Every court to consider the issue found that prohibiting local exchange carriers from providing traditional cable service over their facilities within their service territories violates the First Amendment. *See* 47 U.S.C. § 533(b) (1985), *repealed by* Telecommunications Act of 1996 § 302(b)(1), Pub. L. No. 104-104, 110 Stat. 124 (1996). *See Southern New Eng. Tel. Co. v. United States*, 886 F. Supp. 211 (2nd Cir. 1995); *Chesapeake & Potomac Tel. Co. v. United States*, 42 F.3d 181 (4th Cir. 1994), *vacated on other grounds*, 516 U.S. 415 (1996); *US West v. United States*, 48 F.3d 1092 (9th Cir. 1994), *vacated on other grounds*, 516 U.S. 1155 (1996); *NYNEX Corp. v. United States*, No. 93-323-P-C (D. Me. Dec. 8, 1994); *United States Tel. Ass’n v. United States*, No. 1:94CV01961 (D.D.C. Feb. 13, 1995); *Southwestern Bell Corp. v. United*

The Supreme Court's First Amendment precedent generally requires the government to demonstrate that any burdens or restrictions it places on the distribution of protected speech serve a substantial governmental interest and do not burden more speech than is necessary to protect that interest. Circumstances justifying government regulation typically involve some kind of "market failure," such as the combination of "bottleneck" control and incentives to discriminate against broadcast content that a narrow majority of the Supreme Court found sufficient to uphold the cable must-carry rules.²⁶¹ None of these market-based rationales for unbundling rules is present here. As noted above, the Commission has repeatedly concluded that the broadband market is highly competitive and will remain so, and ILECs are at best a secondary player in that market.

Nor is there any real argument that the regulatory burdens are properly tailored to accomplish any substantial government interest. Indeed, any plausible First Amendment justification for unbundling rules disappears when they are imposed *only upon the non-dominant platform in the relevant market*. And this is all the more true now that the Commission has decided that the functionally identical services offered by the dominant players in the broadband market – the cable companies – should not be subject to the same requirements. Indeed, the D.C. Circuit recently found in *Fox Television Stations* that an attempt to limit the expressive activities and audience reach of broadcasters where there was no evidence "that broadcasters have market power, such as to dampen competition, in any relevant market" was "irrational" and therefore

(Continued . . .)

States, No. 3:94-CV-0193-D (N.D. Tex. Mar. 27, 1995); *Ameritech Corp. v. United States*, 867 F Supp 721 (N.D. Ill. 1994); *Bell South Corp v. United States*, 868 F. Supp. 1335 (N.D. Ala. 1994).

²⁶¹ See *Turner Broad. Sys., Inc. v. FCC*, 520 U.S. 180, 196-97 (1977) ("*Turner II*").

arbitrary and capricious.²⁶² *A fortiori*, the restrictions placed on the broadband offerings of local telephone companies – the smaller players in a market the Commission has recognized is competitive – cannot withstand First Amendment scrutiny.

There is the additional problem that the disparate treatment of similarly situated expressive media itself violates the First Amendment. In *Turner I*, the Supreme Court warned that “[r]egulations that discriminate among media, or among different speakers within a single medium, often present serious First Amendment concerns.”²⁶³ Indeed the majority and the dissent agreed on this point.²⁶⁴ Accordingly, even aside from the fact that there is no substantial government interest justifying the application of unbundling rules in a competitive market, the singling out of one market participant for unique regulatory burdens is itself unconstitutional.

It is well-settled that if a regulation “affecting speech appears underinclusive, *i.e.*, where it singles out some conduct for adverse treatment, and leaves untouched conduct that seems indistinguishable in terms” of the regulation’s “ostensible purpose, the omission” itself is subject to heightened judicial scrutiny.²⁶⁵ For example, in *City of Ladue v. Gilleo*, the Supreme Court invalidated a local government’s prohibition against all residential signs except those falling into certain exempted categories.²⁶⁶ Even accepting the City’s assertion that the exemptions were not

²⁶² *Fox Television Stations v. FCC*, 2002 WL 233650, at * 11.

²⁶³ *Turner I*, 512 U.S. at 659.

²⁶⁴ *Id.* at 676 (O’Connor, J., concurring in part and dissenting in part) (“Laws that single out particular speakers are substantially more dangerous, even when they do not draw explicit content distinctions.”).

²⁶⁵ *News America Publ’g, Inc. v. FCC*, 844 F.2d 800, 804-05 (D.C. Cir. 1988); *Cf. Nollan v. California Coastal Comm’n*, 483 U.S. 825, 837 (1987) (explaining that a selective or conditional regulation may be more constitutionally problematic than an across-the-board regulation because the government’s failure to fully promote its asserted interest undermines its justification for any regulation).

²⁶⁶ *City of Ladue v. Gilleo*, 512 US. 43, 51 (1994).

content-based, the Court nevertheless affirmed the “basic First Amendment principle[]” that a restriction on speech may be unconstitutional if it is “impermissibly underinclusive.”²⁶⁷ And the Supreme Court also has held that regulations that impose a differential economic burden are just as problematic. For example, the Court has explained that a law that results in [d]ifferential taxation of the press ... places such a burden on interests protected by the First Amendment that we cannot countenance such treatment unless the state asserts a counterbalancing interest of compelling importance that it cannot achieve without differential taxation.”²⁶⁸ Like a tax, the unbundling requirements at issue here impose a significant cost that applies only to telephone companies and hinders their ability to use their own network for expressive purposes.

The Commission has a duty to interpret both the Act and its own regulations consistent with the First Amendment.²⁶⁹ Indeed the Commission itself has, on numerous occasions, recognized its “obligation under Supreme Court precedent to construe a statute ‘where fairly possible to avoid substantial constitutional questions.’”²⁷⁰ Here, there is no doubt that the Act

²⁶⁷ *Id.*; see also *City of Cincinnati v. Discovery Network, Inc.*, 507 U.S. 410, 424 (1993) (holding that different treatment of news racks containing handbills and news racks containing newspapers violated the First Amendment even assuming that the government had the power to prohibit all news racks).

²⁶⁸ *Minneapolis Star and Tribune Co. v. Minnesota Commissioner of Revenue*, 460 U.S. 575, 585 (1983).

²⁶⁹ See, e.g., *Gomez v. United States*, 490 U.S. 858, 864 (1989) (“It is the Court’s settled policy ... to avoid an interpretation of a federal statute that engenders constitutional issues if a reasonable alternative interpretation poses no constitutional questions.”). The Commission is bound by this principle as well, and is required to avoid interpretations or applications of the Act or its own rules that present constitutional questions. See *Alma Motor Co. v. Timken Co.*, 329 U.S. 129, 136-37 (1946).

²⁷⁰ *Implementation of the Telecommunications Act of 1996: Telemessaging, Electronic Publishing, and Alarm Monitoring Services*, Second Report and Order, 12 FCC Rcd 3824, ¶ 24 (rel. Mar. 25, 1997); see also *Telephone Company-Cable Television Cross-Ownership Rule*, Third Report and Order, 10 FCC Rcd 7887, ¶ 4 (rel. May 16, 1995) (noting that, “as the agency charged with implementing the Communications Act,” the Commission is required to “construe [the Act] in a manner that renders it constitutional”).

itself admits of consistent regulatory treatment of competing broadband providers – indeed, as explained above, there is a powerful argument that the Act compels such treatment.

C. Competing Providers Are Not Impaired Without Access to the ILEC's Broadband Facilities.

As we explained in our comments in the Dominance/Non-Dominance proceeding, the broadband market is distinct from the narrowband market, and the relevant geographic market for analysis of broadband services is nationwide.²⁷¹ While we will not repeat that analysis here, it bears noting that the Commission quite correctly has reached the same conclusion.²⁷²

In examining this market, the widespread presence of inter-modal competition precludes a finding of impairment with respect to mass market broadband services, as demonstrated in section II.A.3, above. Likewise, the dominance of the large IXCs in the business broadband market eliminates any basis for finding that CLECs lacking access to the ILECs' broadband elements would be impaired in providing service to such customers. The Commission need not and should not inquire any further. Regardless, we discuss below previously identified broadband-related elements²⁷³ – the high-frequency portion of the loop, packet switching, and

²⁷¹ Comments of Verizon, CC Docket No. 01-337, sections II.A, II.D, filed March 1, 2002.

²⁷² See *AOL/Time Warner Merger Order*, 16 FCC Rcd 6547, 6571-72 (¶ 63) (2001).

²⁷³ Verizon incorporates by reference its pleadings opposing additional unbundling of broadband facilities, such as line cards, as well as related requirements such as collocation of CLECs' line cards in remote terminals. See Comments of Verizon, CC Docket No. 98-147, filed Oct. 12, 2000; Reply Comments of Verizon, CC Docket No. 98-147, filed Nov. 14, 2000; Comments of Verizon, CC Docket No. 98-147, filed Feb. 27, 2001; Reply Comments of Verizon, CC Docket No. 98-147, filed March 13, 2001.

fiber-based loops²⁷⁴ – and confirm that there is no basis for finding impairment. Nor is there any justification for requiring collocation of line cards or DSLAMs at the ILECs' remote terminals.

Of course, the fact that the statutory unbundling requirements do not apply to broadband services or facilities does not mean that Verizon intends to adopt a closed network model such as the cable companies historically have employed. On the contrary, there can be significant value in maintaining a wholesale business that allows other providers to reach their customers over our network. The widespread deployment of broadband services and facilities will require enormous investments and result in huge fixed costs. Obviously, the more traffic on the network, the easier it is to recover those costs. For example, we have suggested that we would be willing to deliver a service to other providers at our central offices so that they can reach their customers over our network, provided that we can do so on commercially reasonable, negotiated terms. But is it critical in a competitive market such as broadband that any such arrangements be at rates, terms, and conditions that are determined by the marketplace rather than regulatory fiat.

1. High-frequency portion of the loop

Line-sharing must be eliminated. As an initial and dispositive matter, the Commission is wrong in characterizing the high-frequency portion of the loop as a network element. The statute defines a “network element” in terms of a physical “facility” or piece of “equipment,” and then states that the term “*also* includes features, functions, and capabilities that are provided by means of such facility or equipment.”²⁷⁵ Congress therefore intended that the use of an incumbent’s dedicated facility would involve access to the functions of that facility – not that a requesting

²⁷⁴ Verizon discusses high-capacity loops (DS-1 and above), which are used primarily by business customers, in section V.C, *infra*. The instant discussion of fiber in the loop relates to residential loops.

²⁷⁵ 47 U.S.C. § 153(29) (emphasis added).

carrier could obtain those functions or capabilities without leasing the facility itself. Consistent with this intent, the Commission, in the Local Competition Order, “decline[d] to define a loop element in functional terms, rather than in terms of the facility itself.” It rejected characterizing the loop “as merely a functional piece of a shared facility,” explaining that “[g]iving competing providers exclusive control over network facilities dedicated to particular end users provides such carriers the maximum flexibility to offer new services to such end users.”²⁷⁶

While the Line Sharing Order departed from this (correct) interpretation, it did so without explanation and without squarely confronting the statutory terms. Nonetheless, even apart from the definitional issue, line sharing still fails to meet the statutory unbundling standards.

First, competing providers generally are not impaired in their ability to provide the services at issue without access to the unbundled high-frequency portion of the loop. As explained above, the statute speaks broadly of a competitor’s ability to provide a “service” without regard to the technology used to provide it. Indeed, the Commission has repeatedly recognized that the market for advanced services encompasses not only DSL, but also cable modem, satellite, and fixed wireless offerings that provide the same functionality to consumers. Of course, the multitude of broadband platforms also constitute precisely the type of facilities available “outside the incumbent’s network” that the Supreme Court directed the Commission to consider in making the impairment determination.²⁷⁷ Given the vibrantly competitive nature of the broadband market, the Commission cannot properly compel access to the high-frequency

²⁷⁶ See Local Competition Order, 11 FCC Rcd at 15631, 15693.

²⁷⁷ *Iowa Util. Bd.*, 525 U.S. at 389.

portion of the ILECs' loops, particularly since the ILECs are new entrants and relatively minor players in this market.

Second, the terms of the Act require the Commission to consider impairment "at a minimum." Whatever else the Commission may consider under this provision, it surely *must* consider the fact that the advanced services market *already* is subject to extensive facilities-based competition. The whole point of the 1996 Act was to facilitate competition, and the transition to facilities-based competition in particular. But the Commission has repeatedly, and correctly, held that the advanced services market already is subject to significant facilities-based competition. And imposing an unbundling obligation under these circumstances would jeopardize the continued viability of that competition – snatching defeat from the jaws of victory.

The Commission, however, did not even mention the existence of these "multiple paths for high-speed service in the last mile"²⁷⁸ in the Line Sharing Order, having limited its analysis to the wireline telephone network.²⁷⁹ Broadening the focus to include cable, satellite, and wireless alternatives necessitates a finding that the high-frequency portion of the loop is not even potentially subject to unbundling.

Third, even aside from the fact that the impairment analysis cannot be limited to the wireline network, the Commission's justifications for line sharing must be revisited in light of

²⁷⁸ Third Advanced Services Report, ¶ 42.

²⁷⁹ See Line Sharing Order, ¶ 36 ("When we look to alternatives in the marketplace, we consider whether the competitive LEC can provide voice compatible forms of xDSL by self provisioning its own loop, by purchasing a second loop from the incumbent, by purchasing the first loop as an unbundled network element, or by obtaining the higher frequency portion of the loop from third party sources.").

both their legal infirmity and changed circumstances.²⁸⁰ In the Line Sharing Order, the Commission concluded that CLECs were impaired without access to only the high-frequency portion of the loop because (1) it would be too costly to require a requesting carrier that wished to offer only data service to purchase an entire second loop,²⁸¹ and (2) it should not force such carriers to take on the “cost and operational issues associated with providing circuit-switched voice services,” including “large investments in circuit switching network architectures” and “the need to develop marketing, billing, and customer care infrastructure designed to serve the needs of its voice customers.”²⁸² These conclusions disregard both the impairment standard and the Act’s fundamental goals.

As an initial matter, the lack of line sharing would not impair CLECs *competitively*; rather, it places them in precisely the same position as the ILECs. In particular, both the ILEC and the CLEC would be able to line share only if they provide both voice and data over the same line. Mandatory line sharing therefore confers upon CLECs a benefit that ILECs never receive: the ability to obtain access only to the high-frequency portion of the loop (at below-cost rates) without providing voice service. The withholding of a unique benefit, however, certainly cannot be considered impairment, when without the benefit the CLEC and the ILEC are in a competitively neutral position.

For this reason, the fact that CLECs would have to make the investment necessary to provide voice service in order to provide data service over a loop would not impair CLECs in

²⁸⁰ See NPRM, ¶ 53 (“We seek comment on whether, in light of changed circumstances, we should retain this [line-sharing] unbundling requirement”).

²⁸¹ Line Sharing Order, ¶¶ 38-43.

²⁸² *Id.*, ¶¶ 44, 45, 48.

any competitively meaningful sense. In addition, a separate infrastructure is not required for marketing, billing, and customer care of voice customers. These functions overlay all services provided by a carrier and represent the basic functions of running a business. If such back-office expenses created impairment, then the Commission would be ignoring the Court's direction to apply a "limiting standard" in interpreting Section 251(d)(2).

Finally, the line-sharing requirement ignores the Court's mandate in another respect: it is inconsistent with the Act's goal of promoting facilities-based competition. Line sharing unquestionably discourages CLECs from investing both in their own advanced services facilities and in facilities used to provide competitive telephony services. Line sharing also constrains the availability of more advanced network technologies, in violation of Section 706, because it can degrade "the ultimate performance and reach of the physical links"²⁸³ and constrain "improvements in DSL performance."²⁸⁴ And, as Professor Kahn warns, line sharing indisputably reduces the ILECs' incentives to upgrade their networks:

To compete in this [broadband] market, the ILECs are indeed making very large risky investments ... to incorporate DSL capabilities into their lines. The obligation to offer competitive access providers use of the high-frequency portion of those lines – thereby excluding their own use of the lines for that purpose – clearly biases the economics of that decisions It particularly skews the economics of their competition with the cable companies, which have likewise inherited from their previous monopolies the capability of using their coaxial cable for broadband access, without being subject to any such sharing obligation, and have a much larger portion of the market than the ILECs.²⁸⁵

Line sharing also deters the deployment of substantial new fiber in the network, because this "obligation in effect requires the incumbents to maintain two networks [in order to continue

²⁸³ Bringing Home the Bits, at 5-16.

²⁸⁴ *Id.*, at 4-11.

²⁸⁵ Kahn/Tardiff Decl., ¶ 38.

accommodating CLECs] – or to unbundle the fiber as well – precisely the kind of extremely expensive risky new investment to which the logic of mandatory network element sharing is least applicable and most inhibiting of dynamic competition.”²⁸⁶ Notably, line sharing over fiber does not satisfy the impairment standard because CLECs are just as capable of deploying fiber feeder as ILECs are. Although there are costs involved for CLECs in doing so, there is no competitive impairment because ILECs face the same burdens. In addition, line sharing over fiber raises a host of difficult technical issues that inevitably increase the cost of fiber deployment and decrease investment in additional loop fiber.

Consequently, not only does the statute require the elimination of line sharing given the plethora of competitive broadband platforms, but doing so also is critical to help restore proper investment incentives and promote both narrowband and broadband competition.

2. Packet switching

In the UNE Remand Order, the Commission generally declined to require ILECs to unbundle packet switching, subject to an exception applicable where the ILEC employs a digital loop carrier (DLC) architecture and certain other conditions are present.²⁸⁷ It explained that “the presence of multiple requesting carriers providing service with their own packet switches is probative of whether they are impaired without access to unbundled packet switching,” that packet switches “are available on the open market at comparable prices to incumbents and requesting carriers alike,” and that “[i]t ... does not appear that incumbent LECs possess significant economies of scale in their packet switches compared to the requesting carriers.”²⁸⁸

²⁸⁶ *Id.*

²⁸⁷ UNE Remand Order, ¶¶ 306-317.

²⁸⁸ *Id.*, ¶¶ 306, 308.

Market developments since the UNE Remand record was compiled confirm that CLECs are not impaired without access to unbundled packet switching.²⁸⁹

In the past three years, the installed base of CLEC packet switches has almost doubled, from 860 to at least 1700.²⁹⁰ More than 55 CLECs have deployed their own packet switches in virtually every region of the country,²⁹¹ and the market leaders in providing packet-based services (principally ATM and Frame Relay) are AT&T, WorldCom, and Sprint, not the ILECs. In fact, those carriers account for roughly 70 percent of nationwide ATM and Frame Relay revenues.²⁹² Competitive carriers also lead in the deployment of the latest metropolitan area packet-switching technology, Gigabit Ethernet switches; Gigabit Ethernet transport is expected to grow to a four billion dollar market by 2005.²⁹³ Because the lack of access to unbundled packet switching does not impair CLECs, the Commission should re-affirm its holding that ILECs need not offer a packet-switching UNE.²⁹⁴

²⁸⁹ The UNE Remand Order found that requesting carriers “may be impaired” in offering advanced services to mass market customers without access to ILEC facilities because of the cost and delay of collocating in numerous central offices. *Id.*, ¶ 306. Whatever the merits of that finding, subsequent developments – principally, the nearly pervasive collocation of companies such as Covad, the availability of cageless and shared collocation, and the adoption of strict intervals for establishing collocation arrangements – demonstrate that any impairment no longer exists.

²⁹⁰ 2002 Fact Report, I-1, Table 1, II-2 and Appendix G.

²⁹¹ *Id.*, II-24 and Appendix E. CLECs have deployed packet switches in more than 200 different cities, and in the top 100 MSAs, the average number of packet switches per MSA has increased by nearly 150 percent in the past three years. *Id.*, II-24, Table 11 and Appendix E.

²⁹² *Id.*, II-24-26 and Figure 5.

²⁹³ *Id.*, II-25.

²⁹⁴ Because CLECs are not impaired, the statute compels the Commission to find that packet switching not be subject to unbundling. The Supreme Court’s decision in *Iowa Utilities Board* made clear that the Commission could not mandate unbundling if the statutorily defined impairment test is not satisfied. The “at a minimum” proviso is implicated only upon a Commission finding of impairment and, further, only to determine whether such elements should

In addition, the Commission must eliminate the exception to that holding, under which ILECs nonetheless must unbundle packet switching when they have deployed DLCs, no spare copper is available, and the ILEC has placed a DSLAM at the remote terminal and has declined to permit competitors to do so.²⁹⁵ The existence of strong, inter-modal competition precludes a finding of impairment without access to any ILEC broadband facilities, including packet switches, regardless of the loop architecture.²⁹⁶ Any remaining access obligation would perpetuate a significant disincentive to deployment of additional fiber in the loop by exposing ILECs to significant additional costs and uncertainty. Such a result cannot be squared with the Act's fundamental goal of promoting facilities-based competition and deployment of advanced capabilities and services.

3. Fiber in the loop

Increasingly, ILECs are compelled to deploy more fiber in the local loop in order to bring faster and more innovative advanced services to customers and to reach customers who live far from the central office. Moreover, to provide next-generation services – measured in multiple megabits rather than kilobits – ILECs will have to deploy much more fiber between the central office and a curbside pedestal or even the home itself. None of these fiber-based loops should be subject to unbundling.

(Continued . . .)

nonetheless not be subject to unbundling. Thus, the Commission's finding of no impairment for packet switching terminates its statutory analysis. As a result, the Commission must find that packet switching is not subject to unbundling.

²⁹⁵ See UNE Remand Order, ¶ 313; 47 C.F.R. § 51.319(c)(5).

²⁹⁶ CLECs easily could strike access arrangements with other platform providers or could deploy their own fixed wireless links or copper or fiber facilities from a remote electronics location to the end user. CLECs also could deploy their own electronics near the remote terminal and access copper sub-loops at the feeder distribution interface.

First, there is no basis for requiring unbundled access to fiber feeder.²⁹⁷ Such fiber is not a legacy facility; rather it is being deployed by ILECs to upgrade their networks in order to offer advanced, fully competitive services. CLECs are equally capable of deploying fiber in the loop. ILECs and CLECs have equal access to rights of way,²⁹⁸ and ILECs have no unique economies of scale or scope in the deployment of fiber.²⁹⁹ Rather, fiber is available to both ILECs and CLECs from a multitude of manufacturers at competitive rates. Moreover, even if ILECs had any such economies, they would almost certainly be outweighed by the CLECs' lower labor costs³⁰⁰; labor constitutes approximately 50 percent of the cost of deploying fiber.³⁰¹ There is therefore no competitive impairment, and mandating access to the ILECs' fiber feeder would diminish investment incentives for ILECs and CLECs alike, depriving consumers of new broadband services and capabilities.

Deep fiber loops. Nor, for the reasons discussed above, are CLECs competitively impaired without access to ILEC fiber in a deep fiber architecture, whether that fiber leads to a network node, a pedestal, or a subscriber's home. ILECs are just beginning to deploy such deep fiber loops, which undoubtedly number fewer than ten thousand around the country – in fact, the Commission estimates that there are fewer than three thousand residential fiber loops in the

²⁹⁷ As discussed above in connection with line sharing, a line-sharing-over-fiber requirement is inconsistent with the statute.

²⁹⁸ See 47 U.S.C. §§ 251(b)(4), 224.

²⁹⁹ See Letter from Matthew Flanigan, TIA, to the Honorable William E. Kennard, Chairman, FCC, CC Docket No. 96-98, dated Aug. 2, 1999, at 17 and Exh. 1 (Declaration of Mark Cannata, Vice President – Marketing, Marconi Communications), at ¶ 11 (“Cannata Declaration”).

³⁰⁰ As one analyst has noted, “[t]he [BOCs] have always struggled compared to the CLECs ... in terms of expenses due to using union labor.” Matthew Benjamin, “Strike Resolved,” *Investor's Business Daily*, Aug. 22, 2000, at A6.

³⁰¹ Cannata Declaration, ¶ 11.

country.³⁰² That CLECs are not impaired without access to ILEC fiber is confirmed by the fact that RCN and other CLECs routinely overbuild ILEC networks today using fiber and other broadband loops.³⁰³ While RCN typically focuses on metropolitan areas, other CLECs are deploying fiber overbuilds even in rural locations.³⁰⁴ In addition, CLECs often build their own fiber loops when serving new developments, where the ILEC does not have existing fiber. One such competitor, OpenBand of Virginia, recently informed the Commission that it provides “residential communities customer designed communications infrastructure, including among other things, community-wide fiber-optic backbones, fiber-to-the-home connectivity, and a community-dedicated central office housing voice, video and data equipment.”³⁰⁵ According to OpenBand, “community-based and community-targeted developments by competitive providers are flourishing, making competitive, innovative, and otherwise unavailable broadband facilities, services, and platforms of services available to thousands of residential consumers.”³⁰⁶ OpenBand states that it “has found that in the current market, competitive providers, developers, and builders are ready and able to extend broadband capability to residential consumers through

³⁰² Third Advanced Services Report, ¶ 54 (stating that there are approximately 460,000 high-speed lines over optical fiber systems, but only 0.6 percent of these serve residential subscribers).

³⁰³ See 2002 Fact Report, IV-15-18, Table 5.

³⁰⁴ See “Optical Solutions Inc. Drives Fiber-to-the-Home Boom in Iowa with Newest Customer, Guthrie Telecommunications Network, Inc.,” <http://biz.yahoo.com/prnews/010330/hsf006.html>. According to this article, Guthrie, “a competitive local exchange carrier owned by Panora Cooperative Telephone Association, Inc., has selected the FiberPath™ fiber-to-the-home platform from Optical Solutions to overbuild the community of Guthrie Center in West Central Iowa.”

³⁰⁵ Comments of OpenBand of Virginia, WT Docket No. 99-217, filed March 8, 2002, at 2.

³⁰⁶ *Id.* at 3-4. OpenBand notes that, “[t]hrough community-based arrangements, competitive providers are better able to justify an otherwise prohibitive initial investment in broadband facilities and equipment by obtaining some assurance of a steady revenue stream from an established and localized customer base.” *Id.* at 4.

sophisticated and dynamic wired community arrangements.”³⁰⁷ This shows that CLECs are fully capable of deploying their own fiber, and that the only thing impeding some CLECs from doing so in other settings is the fact that they can gain access to the ILECs’ fiber at uneconomically low, TELRIC-based rates.

4. CLECs Have No Right To Collocate DSLAMs or Line Cards in the ILECs’ Remote Terminals.

In addition to finding that mandatory unbundling of the ILECs’ broadband facilities is inconsistent with the Act, the Commission should clarify once and for all the CLECs have no right to collocate their own DSLAMs or line cards in the ILECs’ remote terminals. Imposing such a requirement would significantly increase the costs of deploying additional broadband facilities, as ILECs would have to make accommodations (and establish back-office support) for demand that is unpredictable and may never materialize.³⁰⁸ Such a requirement also would create significant technical problems, as the National Research Council has warned.³⁰⁹

Looking first at DSLAMs, where unbundled access to an unbundled copper loop is still required under Section 251(d)(2),³¹⁰ there are more efficient and feasible alternatives for collocation than remote terminals. Remote terminals are space-constrained and are not designed to permit collocation of third-party equipment, and collocation at the remote terminal is not “necessary” within the meaning of Section 251(c)(6). Instead, CLECs have the option of

³⁰⁷ *Id.* at 5.

³⁰⁸ *See* Shelanski Decl., ¶ 36.

³⁰⁹ Bringing Home the Bits at 4-20; *see also* section III.A.3, *supra* (citing comments of Alcatel).

³¹⁰ *See* section V.D, below, for a discussion of unbundled access to copper loops.

erecting a cabinet adjacent to the Feeder Distribution Interface (FDI) or installing their own remote terminals. In either case, CLECs face the same cost burdens as ILECs.

Furthermore, under the Commission's collocation rules, the appropriate cross-connect point to the incumbent's distribution plant is at the accessible terminal (the FDI), which is "any point of the loop where technicians can access the wire or fiber within the cable *without removing a splice case to reach the wire or fiber within.*"³¹¹ Verizon's remote terminals do not provide an accessible terminal in the overwhelming majority of situations. Rather, interconnection would be at a FDI.

Turning to line cards, as a threshold matter no collocation can be mandated because these cards are not "equipment" for purposes of Section 251(c)(6); rather, they are merely components.³¹² In addition, even if line cards could be considered "equipment," there still is no basis for requiring ILECs to allow their collocation in the remote terminal. Line card manufacturers have emphasized that they have no ability to produce line cards meeting various carriers' requirements for insertion into equipment at incumbents' remote terminals. One such manufacturer has referred to the concept of a "universal backplane" that would accommodate multiple types of line cards as "laughable."³¹³ Another commented that development of a universal backplane would not only be extremely time consuming, but would require a redesign

³¹¹ 47 C.F.R. § 51.319(a)(2) (emphasis added).

³¹² See Comments of Verizon, CC Docket No. 98-147, filed Oct. 12, 2000, at 8-12.

³¹³ Public Forum: Competitive Access to Next-Generation Remote Terminals (May 10, 2000), transcript at 108 (Alcatel). See <http://www.fcc.gov/ccb/nsd/documents/NEXTGEN.HTML>. The backplane corresponds to the fourth function identified in the Commission's definition of a DSLAM: the "ability to combine data units from multiple loops onto one or more trunks that connect to a packet switch or packet switches."

of “the whole system management and integration.”³¹⁴ A third concurred, calling the required modifications “ludicrous.”³¹⁵

Finally, requiring collocation of line cards would make highly inefficient use of the ILECs’ equipment and increase costs for both competitors and Verizon’s own customers. This is because each individual line card in a remote terminal gives access to multiple circuits for both voice and data functions. If each carrier supplied its own cards, dedicated to its use, multiple voice and data circuits in each remote terminal would need to be dedicated to that carrier and would be unavailable for any other customer. Yet, many, if not most, carriers would have no use for all of those circuits in every remote terminal. By making inefficient use of the ILECs’ equipment, such an arrangement would raise costs and allow fewer customers to be served. Consequently, collocation of line cards should not be mandated even if the Commission had authority to do so.

V. THE COMMISSION MUST EMPLOY A MARKET-CALIBRATED ANALYSIS OF NARROWBAND UNES.

A. Circuit Switching

1. Alternatives to Unbundled Circuit Switching Abound.

In dissenting from the Commission’s decision to require access to unbundled switching in the UNE Remand Order, then-Commissioner Powell noted that “CLECs have deployed switches in many markets” and that this evidence “means that CLECs, as a general matter, are not significantly impaired from competing if the incumbent is not forced to unbundle switching.”³¹⁶

³¹⁴ *Id.* at 110 (Lucent).

³¹⁵ *Id.* at 111 (Copper Mountain).

³¹⁶ Powell UNE Remand Partial Dissent, at 3.

He likewise explained that “evidence of CLEC switch deployment strongly suggests that CLECs are not significantly impaired without access to unbundled switching, both in areas in which CLECs have deployed switches and areas in which they have not done so.”³¹⁷ Market developments in the intervening three years validate the wisdom of these statements; CLECs are not impaired without access to unbundled switching, and the requirement to provide this element should be eliminated.

CLECs have deployed their own circuit switches throughout the nation, serving both residential and business customers in both rural and urban areas. In addition, while that evidence alone is sufficient to justify a presumption that CLECs would not be impaired without access to circuit switching in any geographic location and for any service, alternatives such as packet switches, PBXs, and mobile switches compete with ILEC circuit switching, providing further proof that unbundled switching no longer should be required.³¹⁸ Consequently, absent a compelling demonstration by the CLECs of impairment in specific circumstances, circuit switching should be eliminated as a UNE.³¹⁹

In the three years since the UNE Remand record was compiled, the number of CLEC voice switches has increased almost 90 percent, to approximately 1300.³²⁰ In late 1998, CLECs served approximately six million lines using their own switches; as of late 2001, CLECs served

³¹⁷ *Id.*

³¹⁸ *See* Shelanski Decl., ¶ 45.

³¹⁹ Because circuit switching should not be a UNE, shared transport should be removed from the list as well. ILECs are required to provide access to shared transport only to CLECs that purchase unbundled switching. UNE Remand Order, ¶ 369. As the Commission explained, “the only carrier that would need shared transport facilities would be one that was using an unbundled local switch.” *Id.*, fn. 731

³²⁰ 2002 Fact Report, II-1.

between 16 and 23 million lines using their own switches, including approximately three million residential lines.³²¹ CLEC circuit switches are so geographically pervasive that they are being used to serve customers in wire centers that contain approximately 86 percent of the BOCs' access lines (including 84 percent of all residential lines).³²² Indeed, in the top 100 MSAs, CLECs are using their switches to serve local customers in wire centers that contain approximately 96 percent of BOC access lines in those MSAs.³²³ This is a highly conservative estimate, since it excludes lines served by packet switches and PBXs (discussed below), and ignores the fact that CLEC switches readily may be extended to serve additional geographic areas.³²⁴ In addition, the CLEC deployment figures do not count circuit-switched telephony services provided by cable companies, which already are available to more than 10 million homes in 20 states³²⁵ and are growing at an annual rate of 100 percent.

More than 200 CLECs have deployed local voice switches in the Bell companies' regions.³²⁶ The number of CLECs operating 10 or more switches has increased from 15 to 27 since the time of the last UNE review, and the number operating 20 or more has increased from 6 to 16.³²⁷ Importantly, the 15 largest CLECs after AT&T and WorldCom make virtually no use

³²¹ *Id.*, I-5 and Table 3; II-4-5; Tables 2 and 3; II-11. These figures are conservative, because they are drawn either from public sources or from the necessarily limited data available to the BOCs. In addition, the number of actual circuits served is far higher, because CLECs provide a large number of high-capacity lines. *Id.*, I-3, I-9.

³²² *Id.*, II-6.

³²³ *Id.*, II-1.

³²⁴ *Id.*, II-8-12.

³²⁵ *Id.*, II-11 and II-14 Table 9.

³²⁶ *See id.*, II-1.

³²⁷ *See id.*, II-1.

of unbundled switching, either on a stand-alone basis or as part of the UNE-P.³²⁸ This fact, on its own, dispels any notion that CLECs require unbundled circuit switching in order to compete.

The deployment of voice switches is not the end of the story. Not only do CLECs serve many times the number of customers they served at the time of the UNE Remand Order over their own local voice switches, but they have also invested heavily in data switches. In the past three years, the installed base of CLECs' known data switches jumped from 860 to 1700.³²⁹ As Dr. Shelanski explains, "packet switching should be included in the relevant product market for purposes of analyzing the need for unbundled switching," because it competes directly for both voice and data traffic and often is used by entities that entirely bypass the ILECs' networks.³³⁰

These switches substitute for circuit switching in two ways. First, packet switched networks handle voice as well as data traffic that otherwise would traverse circuit-switched networks. Among the examples of packet-switched voice are businesses that use IP-based PBXs that route traffic over packet switches rather than circuit switches,³³¹ and the IP telephony services that cable companies are beginning to deploy, which are expected to gain between five and seven million subscribers in the next four years.³³² Second, various competitors are now

³²⁸ See *id.*, II-1 and Figure 2. CLEC size in this case refers to the number of switch-based lines served). *Id.*

³²⁹ See 2002 Fact Report, II-2.

³³⁰ Shelanski Decl., ¶¶ 56-58.

³³¹ These machines cost less to purchase and operate than circuit-switched PBXs and are more flexible in terms of adding new services. 2002 Fact Report, II-22-23. Seventeen percent of U.S. businesses began implementing IP local area network telephony in 2000, more than 40 percent of U.S. companies with 500 employees or more had begun converting their phone systems to IP telephony by the end of 2001, and within the next four years, more than 80 percent of U.S. businesses are expected to adopt some form of voice over IP. *Id.*, II-23.

³³² *Id.*, II-31-32 and Table 15.

using packet switches to offer messaging services that divert traffic away from the ILECs' circuit switches.³³³ Notably, manufacturers, CLECs, and industry analysts all agree that the next generation of packet switches (softswitches), which are already being widely deployed, can serve as complete replacements for traditional Class 5 circuit switches.³³⁴

In addition, wireless services increasingly bypass the ILECs' circuit switches. By the end of 2001, wireless calls accounted for an estimated 12 percent of all U.S. phone calls.³³⁵ All of this traffic is switched; wireless carriers unaffiliated with the BOCs have deployed at least 950 end-office switches,³³⁶ many of which are the same type of circuit switches used by CLECs.³³⁷ Importantly, at least twenty million wireless subscribers (a number that is rapidly growing) have service plans that do not charge extra for long distance, and these customers frequently use their wireless phone rather than their wireline phone to make long distance calls.³³⁸ Finally, as wireless prices continue to decline and wireless service quality continues to improve, wireless increasingly is functioning as an alternative to primary line wireline telephone service, for both residential and business customers, as further discussed in section V.D, below.³³⁹

The only reasonable inference from this evidence is that, as Chairman Powell suggested three years ago, CLECs are not impaired without access to ILEC circuit switching. CLECs have

³³³ *Id.*, II-26-28. Although estimates vary, consumer surveys find that the actual rate of voice substitution is considerably higher. *Id.*, II-27, Table 13.

³³⁴ *Id.*, II-34 and Appendix J.

³³⁵ *See id.*, II-35.

³³⁶ *Id.*, II-35 and Appendix F.

³³⁷ *Id.*, II-35.

³³⁸ *Id.*, II-36-37.

³³⁹ *Id.*, II-37-38.

deployed and are continuing to deploy their own switches to provide every conceivable type of service to every class of customer in virtually every geographic location. While some CLECs may prefer to continue using a circuit-switching UNE in some circumstances, that is simply a business decision, not evidence of impairment. As explained in detail in section III, where CLECs are making widespread use of alternatives to an ILEC's UNE, the Commission must presume that there is no generalized impairment with respect to that UNE. And the evidence of alternative switch deployment is so overwhelming that the Commission must dismiss any claims that CLECs need access to unbundled switching as a general matter and place an extremely heavy burden on any parties that endeavor to make a particularized showing of impairment in specific circumstances.

2. Arguments in Favor of Continued Access to a Circuit-Switched UNE Lack any Merit.

In the UNE Remand Order, the majority of the Commission ordered access to unbundled circuit switching because (1) competitive switches "represent only a small fraction of the number of switches deployed by the incumbent LECs,"³⁴⁰ and (2) it expressed concerns about the timing and cost of collocation and the ILECs' hot cut performance.³⁴¹ As then-Commissioner Powell explained, these concerns could be addressed directly and did not form a basis for a generalized impairment finding under the statute. Experience proves he was right.

Extent of deployment. The marketplace evidence cited above demonstrates that CLECs have widely deployed competing switches and are using those switches to serve all segments of the local market. Although some parties may argue that CLECs still have fewer switches than

³⁴⁰ See UNE Remand Order, ¶ 254.

³⁴¹ See *id.*, ¶ 271.

ILECs, that fact is meaningless. Typically, an ILEC's switch serves only a single rate exchange area, whereas CLECs can and do use their switches to serve multiple rate exchange areas.³⁴²

Thus, CLECs extend their services through a single switch to a great number of customers, well beyond the rate exchange areas with which their switches have been identified. As one CLEC explains, "[t]he advent of fiber optic technologies and multi-function switching platforms have, in many cases, allowed carriers . . . to serve an entire statewide or LATA-wide customer base from a single switch platform. Likewise, the ability to aggregate unbundled loops from collocations within a number of ILEC central offices while transporting that traffic to a single location allows these carriers to originate, switch and terminate traffic between callers located many miles apart with a single switch."³⁴³ Thus, far from suffering impairment, CLECs have an advantage over ILECs in deploying circuit switching because they can do so much more efficiently.

Collocation. The collocation-related concerns also have been directly addressed and resolved. A tremendous number of collocation arrangements have been completed since the time of the order. At the end of 1998, CLECs had obtained approximately 4300 collocation arrangements in the BOCs' regions, including 1100 in Verizon's territory (excluding GTE). By the end of 2001, there were almost 25,000 collocation arrangements in place, including 7,000 in Verizon's territory. CLECs are now collocated in central offices that serve approximately 81

³⁴² See, e.g., Press Release, "US LEC Completes Network Software Upgrade; Carrier Continues to Invest in Markets," March 20, 2002, http://biz.yahoo.com/prnews/020320/chw013_1.html ("Some features of US LEC's network upgrade include ... access to additional rate centers allowing US LEC to serve wider geographic areas." This press release notes that US LEC owns 26 Lucent 5ESS® switches throughout the Southeast and Middle Atlantic states.).

³⁴³ Prefiled Direct Testimony of Michael Starkey, ICG, NC Docket No. P-582, Sub. 6 at 21 (dated May 27, 1999).

percent of the BOCs' total access lines, including 79 percent of their residential access lines.³⁴⁴

Not only do ILECs provide broad access to their networks through collocation arrangements, but they do so in a timely manner. In fact, the Commission repeatedly has found that Verizon's "overall level of on-time performance for completion of physical collocation arrangements satisfies Verizon's Section 271 obligations and allows an efficient competitor a meaningful opportunity to compete."³⁴⁵ The Commission also has adopted new collocation rules since the UNE Remand Order that provide a variety of less expensive alternatives for CLECs, and has instituted strict intervals within which collocation requests must be implemented.³⁴⁶ Finally, in addition to ILEC-provided collocation, independent collocation providers offer alternative collocation facilities to CLECs close to ILECs' central offices.³⁴⁷ These collocation "hotels," which exist throughout the country, allow carriers to bypass much of the ILECs' networks.³⁴⁸

Hot cuts. As with collocation, the Commission consistently has found that Verizon performs hot cuts in a manner that allows CLECs to compete. Specifically, the Commission has

³⁴⁴ 2002 Fact Report, II-16, Table 10.

³⁴⁵ *Application of Verizon New England, Inc., et al. for Authorization to Provide In-Region, InterLATA Services in Massachusetts*, 16 FCC Rcd 8988 (2001), ¶ 195 ("Massachusetts 271 Order"); *see also Application by Bell Atlantic New York for Authorization Under Section 271 of the Communications Act*, 15 FCC Rcd 3953, ¶ 75 ("New York 271 Order"); *Application of Verizon New York Inc., et al. for Authorization to Provide In-Region, InterLATA Services in Connecticut*, 16 FCC Rcd 14147, ¶¶ 45-50 ("Connecticut 271 Order"); *Application of Verizon Pennsylvania Inc., et al., for Authorization To Provide In-Region, InterLATA Services in Pennsylvania*, 16 FCC Rcd 17419 (2001), ¶ 99 ("Pennsylvania 271 Order"); *Rhode Island 271 Order*, ¶ 74.

³⁴⁶ *See Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 15 FCC Rcd 17806 (2000); *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Fourth Report and Order, CC Docket No. 98-147 (rel. Aug. 8, 2001).

³⁴⁷ 2002 Fact Report, II-16.

³⁴⁸ *Id.*, II-16 and Appendix G.

stated that Verizon routinely meets 95 percent or more of its installation appointments on time.³⁴⁹

As a result, whatever concerns there may have been about hot cuts have been directly addressed.³⁵⁰ Indeed, as Dr. Shelanski points out, the best evidence that collocation and hot-cut performance are not barriers to deployment of alternative circuit switching is that CLECs are in fact purchasing and deploying their own switches on such an impressive scale.³⁵¹ Moreover, the fact that CLECs have to incur the cost of a hot cut does not impair them competitively; ILECs and other network providers likewise must incur the cost of connecting loops to our switches.

EELs. Finally, there is no legal basis or need to require ILECs to offer enhanced extended links (“EELs”) in order to justify elimination of the circuit switching UNE. The EEL requirement is unlawful because the Commission does not have authority to mandate that ILECs assemble network elements for the benefit of CLECs, when those elements are not already combined in an incumbent’s network, as the Eighth Circuit has held twice.³⁵² The Commission cannot do indirectly – conditioning relief from unbundling on agreement to exceed the ILECs’ statutory obligations – that which it cannot do directly. In any event, CLECs no longer need

³⁴⁹ *Massachusetts 271 Order*, ¶¶ 158-60; *Connecticut 271 Order*, ¶ 13; *Pennsylvania 271 Order*, ¶ 86; *Rhode Island 271 Order*, ¶ 83. Additionally, Verizon’s hot cut process has been quality certified (ISO 9000). See also 2002 Fact Report, Appendix H (reviewing the ILECs’ hot cut performance).

³⁵⁰ Because CLECs and ILECs are able to execute hot cuts in a timely fashion, there is no need for either mechanized loop cutovers, which would require routing of all loops through digital cross-connects (DACs) and would therefore be prohibitively expensive. See NPRM, ¶ 46. Furthermore, such a requirement would be tantamount to an unlawful mandate to deploy a “superior, yet un-built network.” See section III.B.6, *supra*.

³⁵¹ Shelanski Decl., ¶¶ 49, 51.

³⁵² *Iowa Util. Bd.*, 219 F.3d at 758-59; *Iowa Util. Bd.*, 120 F.3d at 813. Although this new combinations issue is pending before the Supreme Court (and the EEL condition is pending in the D.C. Circuit on review of the UNE Remand Order), the Eighth Circuit’s holdings remain the law of the land. Moreover, the Commission has never conducted an impairment analysis for the EEL, and a finding of impairment is precluded by the availability of competitively disciplined ILEC special access services.

EELs in order to compete using their own switches, if they ever did. In fact, in a debate sponsored by the Common Carrier Bureau, the representatives of CLECs essentially admitted as much.³⁵³ This is not surprising, since the expressed reason for requiring access to EELs was to avoid the delays and expense associated with collocation – and those concerns have been ameliorated.

3. CLECs Are Not Impaired Without Access to the UNE Platform.

AT&T recently informed the Commission that CLECs remain dependent on the UNE-P (which includes unbundled circuit switching) to serve the mass market because they “cannot rationally invest in switches ... until they have used UNE-P to build up a customer base.”³⁵⁴ Such an assertion is irreconcilable with the record of massive deployment of switches by CLECs – including approximately 200 from AT&T itself – that can be and often are used to serve both residential and business customers. It is also irreconcilable with the use of UNE-P by AT&T and WorldCom, which have built up huge customer bases – more than one million residential customers served by UNE-P in New York alone – apparently without transferring even one of these customers to their own switches.³⁵⁵

UNE-P, in short, is viewed by CLECs as an end in itself, not a stepping stone to facilities-based competition.³⁵⁶ This use of UNE-P is antithetical to the fundamental goals of the

³⁵³ See *Transcript of Switch UNE Debate*, CC Dkt. No. 96-98 (Nov. 17, 2000), at 10.

³⁵⁴ *Ex parte* letter from Robert W. Quinn, AT&T, to William F. Caton, Secretary, Federal Communications Commission, CC Docket No. 01-347 (March 1, 2002).

³⁵⁵ See 2002 Fact Report, II-17-18.

³⁵⁶ It has been Verizon’s experience that CLEC claims about building a customer base through UNE-P and then migrating those customers to UNE loops are not grounded in fact. We have been unable to find any evidence of such conversions, which would generally be accomplished on a project basis (and therefore be readily observed). In contrast, CLECs can and

Act,³⁵⁷ particularly when it is so evident that CLECs can serve residential customers using their own switches. Most CLECs that have deployed switches and serve mass market customers make scant use of unbundled BOC switching: At least nine CLECs in BOC regions provide facilities-based service to 25,000 or more residential lines. Seven of these buy *no* UNE-P service. The remaining two represent only three percent of all facilities-based residential lines. And for one of these two, UNE-P represents only five percent of the residential lines that this carrier serves.³⁵⁸

Accordingly, there is no basis for retaining unbundled circuit switching under any circumstances, including as part of the UNE-P. The UNE-P deters rather than promotes facilities-based competition, and CLECs do not need the UNE-P in order to serve mass market customers. As Dr. Shelanski points out, “[t]he fact that some CLECs might prefer to continue obtaining switching on an unbundled basis is thus likely a result of their private business strategies and calculations rather than because foreclosure of that option would impair their

(Continued . . .)

do use resale for an initial period and then migrate customers to UNE loops served by the CLECs’ switches. This demonstrates that the only difference between resale and UNE-P is price and, more importantly, that it is feasible for a CLEC to enter the market using resale rather than UNE-P.

³⁵⁷ The UNE-P creates a “disincentive for non-UNE-based competition that directly contradicts the intention that UNEs serve as a transitional mechanism *towards* facilities-based entry.” Shelanski Decl., ¶ 33 (emphasis in original).

³⁵⁸ 2002 Fact Report, II-18. The only other justification that CLECs have given for failing to convert mass market customers to their own switches relates to the cost of migration, not the cost of deploying or operating the switch itself. This does not establish that UNE-P is necessary for competition; rather, it confirms that competition will develop faster if CLECs do not build their customer base using UNE-P at all. Moreover, the transaction costs do not demonstrate any competitively meaningful impairment because ILECs must incur similar costs in connecting customer lines to switches. In any event, the costs associated with migrating customers from an ILEC switch to a CLEC switch have fallen sharply since the UNE Remand Order, and such costs are irrelevant for the substantial number of customers that are first-time subscribers at the location at which they are requesting service. *Id.*, II-19.

further entry into local switching.”³⁵⁹ Put another way, while the UNE-P enhances CLECs’ margins, that is not something the Commission may take into account in discharging its obligations under Section 251(d)(2).

B. Dedicated Interoffice Transport and Dark Fiber

1. The Marketplace Evidence Shows That CLECs Are Not Impaired Without Access to Unbundled Dedicated Transport and Dark Fiber.

The existence and expansion of multiple competing fiber networks in virtually every MSA, the emergence of a wide range of wholesale suppliers (including utilities and long distance carriers with excess local fiber), and the proliferation of collocation hotels at which CLECs can gain ready access to competitive fiber all demonstrate that dedicated transport no longer meets the Section 251(d)(2) standard.³⁶⁰ Confirming this fact, CLECs using their own transport facilities have captured at least one-third of the special access market – and even more in major urban areas such as New York City and Boston – and offer their own facilities-based special access and private line services in MSAs accounting for the vast majority of potential demand.

Over the past three years, CLECs have deployed competitive fiber networks in large numbers across the country. At the time of the UNE Remand Order, CLECs had significantly fewer than 100,000 local fiber route miles; today the CLECs’ fiber networks cover at least

³⁵⁹ Shelanski Decl., ¶ 54.

³⁶⁰ Last April, Verizon, SBC, and BellSouth filed a Joint Petition demonstrating that requesting carriers are not impaired without unbundled access to ILEC dedicated transport (including dark fiber transport) and high-capacity loops. Joint Petition of BellSouth, SBC, and Verizon for Elimination of Mandatory Unbundling of High-Capacity Loops and Dedicated Transport, CC Docket No. 96-98, filed April 5, 2001 (“Joint Petition”). Verizon incorporates the Joint Petition by reference. Although various parties sought to discredit our data and analysis, their attempts to do so were unpersuasive, as demonstrated in the Joint Reply and accompanying Rebuttal Fact Report. See Joint Reply of BellSouth, SBC, and Verizon, CC Docket No. 96-98, filed June 25, 2001 (“Joint Reply”) and Attachment A thereto (Rebuttal Report Regarding Competition for Special Access Service, High-Capacity Loops, and Interoffice Transport) (“Rebuttal Fact Report”). Verizon incorporates these documents by reference.

184,000 route miles (both local and long haul).³⁶¹ Since the last UNE review, the number of CLEC local fiber networks in the top 150 MSAs (which contain 70 percent of the U.S. population) has almost doubled, from 1100 to nearly 1800.³⁶² Today, 91 of the top 100 MSAs are served by at least three CLEC networks, 77 are served by at least seven, and 59 are served by at least ten.³⁶³ In MSAs 101-125, there are an average of 4.1 CLEC fiber networks per MSA, compared to only 2.8 in 1998.³⁶⁴ Moreover, CLEC fiber is not limited to major urban areas; CLECs have deployed fiber well outside such areas in order to reach large business customers.³⁶⁵

In addition, as of year-end 2001, one or more CLECs had obtained fiber-based collocation in BOC central offices accounting for 54 percent of business lines and 44 percent of all access lines. In the 100 largest MSAs, one or more fiber-based collocators are presented in wire centers accounting for an average of 61 percent of all access lines within those MSAs.³⁶⁶ And, it is economical for competitors to deploy fiber to an even larger number of wire centers than they currently serve. Thirty percent of all central offices contain 5,000 or more business lines, and those central offices contain 84 percent of all business lines – levels that analysts agree are sufficient to justify the deployment of competitive transport.³⁶⁷

³⁶¹ 2002 Fact Report, III-6.

³⁶² *Id.*, III-7 and Appendix K.

³⁶³ *Id.*, III-7.

³⁶⁴ *Id.*, III-7, Table 4.

³⁶⁵ *Id.*, III-7.

³⁶⁶ *Id.*, III-3 and Table 2.

³⁶⁷ *Id.*, III-3.

The fiber collocation evidence, while compelling proof of non-impairment, is too conservative because it does not account for the large amount of traffic that bypasses ILEC wire centers. ILEC wire centers are no longer the only, or even the principal, point of traffic concentration; it is economical for CLECs to run competitive fiber to collocation hotels, large business customers, ISPs, wireless carriers, cable head ends, and other points of concentration.³⁶⁸ Nor does the fiber collocation evidence consider the proliferation of collocation hotels, which “provide network economies of scale to many smaller competitors” by enabling them to obtain competitive transport – and to the interconnected networks of all major fiber providers in the area – simply by collocating in one of these buildings.³⁶⁹ Notably, collocation hotels often are situated next to (and interconnected with) existing ILEC wire centers, minimizing transport distances.³⁷⁰

Further confirming that CLECs are not impaired without access to unbundled dedicated transport and dark fiber, a new wholesale market for local fiber has developed in a wide range of geographic areas,³⁷¹ with suppliers leasing or selling lit and dark fiber to carriers on a “carrier-

³⁶⁸ 2002 Fact Report, III-4; *see also Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Interexchange Carrier Purchasers of Switched Access Services Offered by Competitive Local Exchange Carriers; Petition of U S West Communications, Inc., for Forbearance from Regulation as a Dominant Carrier*, 14 FCC Rcd 14221 (1999), ¶ 95 (“Pricing Flexibility Order”) (noting that a fiber-based collocation metric “fails to account for the presence of competitors that ... have wholly bypassed incumbent LEC facilities”).

³⁶⁹ *Id.*, III-5.

³⁷⁰ *Id.*, III-4.

³⁷¹ For example, one such wholesaler, Fibertech Networks, attributes its success – it is cash positive from operations and debt-free – to its focus on Tier II and Tier III markets. It additionally states that its “diverse route ‘open-access’ networks allow for numerous communications and Internet companies to offer facilities-based services. Its networks connect strategic data routes in each market, passing key corporate centers, major switching centers and other data aggregation points.” Fibertech’s customers include Allegiance Telecom, Choice One Communications, Connecticut Telephone, Conversent Communications, CTC Communications, and large corporations, educational institutions, and government agencies. *See* Press Release,

agnostic” basis; in fact, the ILECs themselves have begun obtaining fiber from these entities.³⁷²

A Web-based trading site includes over 35 fiber wholesalers listing over 10,000 local route miles of fiber in more than 60 cities in 23 states.³⁷³ For many CLECs, the fiber obtained from wholesalers satisfies a large part of their demand for both interoffice transport and last-mile connectivity.³⁷⁴ Indeed, several CLECs have admitted that they use alternative fiber providers for the majority (or even all) of their interoffice transport needs.³⁷⁵ Utility companies, which control some 35 percent of the nation’s fiber infrastructure, are an additional, substantial source of interoffice transport and dark fiber (accounting for roughly half of all new metropolitan fiber networks),³⁷⁶ and long distance carriers are leasing dark fiber on their local fiber networks to CLECs.³⁷⁷

(Continued . . .)

“Fibertech Networks Significantly Expands Network Footprint – Completed Network Rings in Indianapolis and Hartford, Conn.,” March 20, 2002, http://biz.yahoo.com/bw/020320/202194_1.html.

³⁷² 2002 Fact Report, III-9-10, 12 Table 5.

³⁷³ *Id.*, V-9.

³⁷⁴ *Id.*, III-10.

³⁷⁵ *See id.*, III-10 n.51 (citing statements by Allegiance and CTC; CTC boasts that it has obtained local fiber that will “eliminate the need for leased inter-office Verizon facilities.”).

³⁷⁶ *Id.* at III-10, 13 and Table 6. Industry analysts recently agreed that the business of wholesale utility fiber networks would generate a 20-30 percent compound annual revenue growth rate, that metro transport on those networks would generate 35-40 percent gross margins, and that metro access on those networks would generate margins of at least 45-50 percent. One utility, Sempra Communications, has said that it can run fiber conduit through pipelines and that, because little street digging is required, “almost all revenue drops to the bottom line.” “Utilities Still See Big Metro Telecom Opportunities Post-Crash,” *Communications Daily*, Jan. 23, 2002, at 5.

³⁷⁷ 2002 Fact Report, III-10-11, 14 and Table 7.

This marketplace evidence makes clear that alternative dedicated transport facilities and dark fiber are available on far more than “limited point-to-point routes.”³⁷⁸ There has been such widespread deployment of competitive facilities, and such continual extension and expansion of those facilities, that the Commission should presume that CLECs are not impaired without access to unbundled dedicated transport and dark fiber anywhere in the country. As noted with respect to unbundled switching, CLECs claiming otherwise must bear a heavy burden to demonstrate that there are in fact circumstances under which unbundled dedicated transport and dark fiber satisfies Section 251(d)(2). In particular, parties supporting continued unbundling of dedicated transport must be required to identify all routes where they believe there is no non-ILEC alternative and explain why they (a) require dedicated transport on that route and (b) could not either self-supply transport on those routes or persuade a fiber wholesaler to build the capacity and lease it to them. Unsupported statements that CLECs “rely on” ILEC transport, and that self-supplying such transport or procuring it from other sources is too costly or impractical, are entitled to no weight and must be viewed as implicit concessions that there is no impairment.

2. Past CLEC Claims of Impairment Are Unpersuasive.

The sheer extent of competitive deployment of lit and dark fiber belies claims that CLECs generally are impaired without access to unbundled dedicated transport. Past assertions to the contrary by CLECs can no longer be credited, if they ever could.

Alternative transport is not needed to every central office. The Commission should not be swayed by arguments that competitors need alternative dedicated transport connecting every central office to every other central office. That is not the way the ILECs’ networks are

³⁷⁸ UNE Remand Order, ¶ 313.

constructed. Every wire center is not connected directly to every IXC's POP; nor is every ILEC wire center directly connected to every other ILEC wire center. Rather, ILECs predominantly use hub-and-spoke arrangements, as well as some direct connections, and CLECs do as well. Furthermore, the ILECs' dedicated transport revenues are highly concentrated in relatively few offices – more than 80 percent of Verizon's special access revenues are generated by 20 percent of wire centers.³⁷⁹ Consequently, there is no merit to claims that competitors require alternative dedicated transport to each and every ILEC central office in order to compete. They can and do succeed with far fewer facilities.

The costs of deploying competitive fiber are not prohibitive. There is no basis for concluding that the CLECs are competitively impaired compared to ILECs by virtue of the costs of deploying alternative transport facilities. The cost of obtaining fiber and paying whatever franchise fees may apply are the same for ILECs and CLECs,³⁸⁰ and new technologies hold the promise of dramatically reducing the expense of deployment.³⁸¹ Contrary to past claims by CLECs, collocation costs are not a barrier to competition; such fees are closely regulated by state commissions and have declined with the availability of cageless and shared collocation arrangements.³⁸² Moreover, the fact that CLECs may incur costs to collocate does not

³⁷⁹ Special Access Fact Report, at 2.

³⁸⁰ Indeed, as noted above, CLECs may face lower labor costs – a major proportion of overall deployment costs – given the fact that their labor forces generally are not unionized.

³⁸¹ See 2002 Fact Report at III-8 (discussing CityNet's process for deploying fiber through sewer pipes). Notwithstanding the tight capital market, CityNet obtained an additional \$275 million in private financing in April 2001, on top of an initial round of \$100 million in financing in 2000. Yuki Noguchi, "CityNet Ready to Expand to Dallas and Pittsburgh," *Wash. Post*, Oct. 2, 2001, at E5.

³⁸² The tens of thousands of existing CLEC collocation arrangements provide actual marketplace evidence that collocation is not a barrier to transport competition.

demonstrate competitively meaningful impairment, because ILECs incur similar costs in using their own central office space. Likewise, notwithstanding CLECs' previous arguments, the existence of a cost difference between the ILECs' access transport service rates and their UNE rates for dedicated transport is immaterial. That difference merely confirms that the TELRIC-based UNE rates are arbitrarily low, given that special access rates are competitively disciplined. Finally, the fact that it may be more expensive to deploy or use alternative facilities than to purchase UNEs is irrelevant: if a CLEC is capable of competing without using UNEs, it does not matter whether it is "impaired" in its ability to amass earnings."³⁸³

There are no competitively significant delays. Contrary to past CLEC claims, there is no indication that delays attendant to using alternative transport facilities, to the extent such delays even exist, impair CLECs' ability to compete. Obtaining a municipal franchise generally takes only a few months,³⁸⁴ and once a CLEC has a franchise in a municipality, it need only obtain construction permits (an even shorter process) to expand its network.³⁸⁵ Alternatively, a CLEC can use an ILEC's rights-of-way, substantially streamlining the deployment interval. Nor are there significant delays associated with establishing collocation arrangements. ILECs must implement such arrangements within strict deadlines, which Verizon does, or face severe penalties. And, as noted above with respect to cost, the number of collocation arrangements suggests that the time required to collocate is not a competitive barrier. And, CLECs can and do

³⁸³ *Iowa Util. Bd.*, 525 U.S. at 390; see also *GTE Service Corp. v. FCC*, 205 F.3d at 424.

³⁸⁴ Although some municipalities have onerous franchise approval processes, those requirements generally apply equally to ILECs and CLECs. There is no competitive impairment, and in any event, the proper response to these situations is for the Commission to step in and preempt if necessary, not to compel access to the ILECs' transport facilities.

³⁸⁵ TDS Telecom, a CLEC affiliate of a rural ILEC, has stated that the permitting process takes two weeks to 90 days. Comments of TDS Telecom, CC Docket No. 96-98, filed June 11, 2001, at 6.

utilize ILEC special access service while deploying their own facilities, precluding any possible claim of impairment due to timeliness.³⁸⁶

CMRS carriers are not impaired. As a final matter, there is no need to accord CMRS carriers special treatment. CMRS carriers are entitled to obtain unbundled dedicated transport to the same extent as other requesting carriers, and if dedicated transport is eliminated as a UNE, then CMRS providers, like all other requesting carriers, will no longer have access to this facility. CMRS providers are not entitled, however, to a re-defined dedicated transport element that includes links between cell sites and mobile switching centers.³⁸⁷ Under the Commission's Rules, ILECs must provide unbundled dedicated transport only "between ILEC central offices or between such offices and those of competing carriers."³⁸⁸ The links between cell sites and MSCs simply do not meet this definition; nor can they be considered unbundled local loops. And, the cell sites (base stations) cannot be considered switches in any event.³⁸⁹

Changing the definition to accommodate CMRS carriers would be both futile and contrary to the Act. It would be futile because the vast majority of cell site-to-mobile switch links must be constructed, but ILECs have no obligation to build transport facilities for requesting carriers.³⁹⁰ And, more fundamentally, it would be contrary to the Act because there is no conceivable basis for finding that CMRS carriers are impaired without access to a newly

³⁸⁶ See section III.B.4, *supra*.

³⁸⁷ See NPRM, ¶ 62.

³⁸⁸ Local Competition Order, ¶ 440; 47 C.F.R. § 51.319(d)(1).

³⁸⁹ See 2002 Fact Report at V-20-22.

³⁹⁰ See Local Competition Order, ¶¶ 443, 451 ("we expressly limit the provision of unbundled interoffice facilities to *existing* incumbent LEC facilities"); see also section III.B.6, *supra* (explaining why ILECs cannot be compelled to build new UNE facilities for CLECs).

defined dedicated transport UNE. Whether or not they enjoy fewer sources of alternative transport,³⁹¹ CMRS carriers, using either ILEC special access services or similar offerings from CLECs, are thriving.³⁹² They had amassed 130 million subscribers as of February 2002,³⁹³ and, as described in section II.A above, they have become a competitive force to be reckoned with in the local telephony mass market.

For these reasons, the Commission should presume that CLECs are not impaired without unbundled access to ILEC dedicated transport and dark fiber, regardless of the capacity of the network element, the geographic location, and the service the CLEC seeks to provide.³⁹⁴ Unless CLECs can make a compelling demonstration of impairment in specific, narrowly limited circumstances, the dedicated transport and dark fiber UNEs should be eliminated.³⁹⁵

³⁹¹ See NPRM, ¶ 63.

³⁹² For a comprehensive review of the vitality of the CMRS industry, see *Sixth Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, FCC 01-192 (rel. July 17, 2001).

³⁹³ 2002 Fact Report, II-34.

³⁹⁴ Cf. NPRM, ¶ 62 (asking whether it is necessary to apply a more “granular” unbundling analysis to dedicated transport).

³⁹⁵ The Commission must continue to prohibit the conversion of entrance facilities to UNE pricing. See UNE Remand Order, ¶ 485; NPRM, ¶ 63. Entrance facilities are the “dedicated transport links between the incumbent LEC’s serving wire center and an interexchange carrier’s switch or point of presence.” UNE Remand Order, ¶ 489. The overwhelming amount of facilities-based collocation precludes any finding of impairment stemming from an inability to convert entrance facilities to UNEs. Some of this collocation dates back to the expanded interconnection proceeding, under which competitive access providers began providing entrance facilities over a decade ago. Now, IXCs routinely provide their own transport to their POPs, or obtain such transport from third parties. Verizon’s experience is that IXCs have ongoing projects to roll their DS1 and DS3 circuits off of ILEC entrance facilities on to their own or a third party’s transport via a collocation arrangement. These rollovers began for some IXCs roughly six years ago and, today, Verizon has rolled over thousands of DS1 equivalents to collocation arrangements to be transported over competitors’ fiber facilities.

C. High-Capacity Loops

Unbundled high-capacity loops³⁹⁶ and dark fiber³⁹⁷ are used overwhelmingly to serve large business customers, so that demand for these facilities is highly concentrated in a relatively small number of commercial office buildings and campuses around the country. The CLECs' fiber networks already reach the buildings that generate the greatest demand for high-capacity local loops, and CLECs routinely extend their networks to additional buildings. Thus, while the Commission found in the UNE Remand Order that "some competitive LECs, in certain instances, have found it economical to serve certain customers using their own loops,"³⁹⁸ there are now alternatives to ILEC high-capacity loops available wherever there is demand for such services – in urban areas, suburban office parks, and even in rural areas where there happens to be a concentration of demand.

1. CLECs Serve the Majority of their Business Customers Using their Own Loops, Routinely Expand their Networks to Additional Buildings, and Make Little Use of Unbundled High-Capacity Loops.

CLECs serve between 13 and 20 million business lines using their own switches, but have obtained only around 1.5 million stand-alone loops to serve business customers.³⁹⁹ As a result, CLECs provide between 11 and 19 million business lines over their own loop facilities,

³⁹⁶ The Commission defines a "high-capacity loop" as a loop from a customer to an ILEC central office that is capable of supporting a service at DS-1 speeds (i.e., 1.544 Mbps) or higher. Notwithstanding this definition, the Commission has adopted rules and policies that actually require ILECs to provide DS1 *service* rather than loops capable of supporting DS1 speeds. In essence, regulatory creep has resulted in little difference, other than price, between the DS1s CLECs receive as a UNE and the DS1s purchased under the tariff.

³⁹⁷ This section of our comments deals with high-capacity loops provided to business customers. Residential fiber loops are discussed in the broadband section of our comments (specifically, in section IV.C.3).

³⁹⁸ UNE Remand Order, ¶ 184.

³⁹⁹ 2002 Fact Report, IV-1-2 and Table 1.

which are predominantly high-capacity.⁴⁰⁰ This represents between 20 and 28 percent of all business lines nationwide, although the percentage undoubtedly is much higher in major metropolitan areas where the largest business customers are concentrated.⁴⁰¹ In addition, the line figures alone understate the CLECs' presence in this market, because the CLECs now serve at least 156 million voice-grade equivalent circuits.⁴⁰² This demonstrates that CLECs focus – quite successfully – on serving the largest and most lucrative customers.

Notably, CLECs can serve a large number of high-volume customers with a targeted deployment of loop facilities. In a typical Tier 1 MSA, 200 to 300 commercial office buildings (out of an average of 15,000 such buildings per MSA) generate 80 percent of the data revenue, and the top 15 MSAs account for almost 80 percent of the nation's data traffic.⁴⁰³ CLECs do not report the number of commercial office buildings or business customers they serve over their own fiber networks.⁴⁰⁴ Accordingly, it is difficult to determine exactly how many commercial office buildings connect to alternative high-capacity loops facilities. It is clear, though, that the significant majority of buildings with sufficient demand to justify high-capacity service are or readily could be reached without employing unbundled ILEC loops.⁴⁰⁵

⁴⁰⁰ Because high-capacity lines represent more market share than low-capacity lines, and CLECs focus on providing high-capacity lines, the number of voice-grade equivalent circuits served by CLECs is at least 156 million. 2002 Fact Report, IV-2.

⁴⁰¹ 2002 Fact Report, IV-2.

⁴⁰² *Id.*, I-5, Table 4.

⁴⁰³ *Id.*, IV-3.

⁴⁰⁴ *Id.*

⁴⁰⁵ We incorporate by reference the Joint Petition and accompanying exhibits, which demonstrated the feasibility of extending CLEC networks to commercial office buildings representing the vast majority of special access demand.

As of late 2000, CLECs already served at least 175,000 commercial office buildings.⁴⁰⁶ The Smart Buildings Policy Project, a coalition that includes AT&T, WorldCom, CompTel, ALTS, and other CLECs, has stated that CLECs serve buildings housing one-third of the 60 million business access lines in the country,⁴⁰⁷ and the proportion of buildings with high-capacity demand served by CLEC facilities is undoubtedly a great deal higher. WorldCom has conceded that, in wire centers with fiber-based collocation, 13 percent of buildings – again, almost certainly the buildings most likely to have high-capacity demand – can be reached using CLEC facilities,⁴⁰⁸ and WorldCom itself has fiber to some 50,000 office buildings and campuses nationwide.⁴⁰⁹

Moreover, CLECs' fiber networks are now so pervasive that they readily can be – and routinely are – extended to new buildings as needed.⁴¹⁰ Indeed, CLEC and wholesale fiber suppliers widely tout their willingness to extend their networks to new customers.⁴¹¹ While WorldCom elsewhere has suggested that it is “almost never economically viable” to deploy fiber to additional buildings,⁴¹² its Chief Technical Officer has belied this self-serving statement, boasting that “[a] lot of what we do today is simply extend the capability we may already have in

⁴⁰⁶ Special Access Fact Report at 11.

⁴⁰⁷ Rebuttal Special Access Fact Report at 11

⁴⁰⁸ WorldCom 01-321 Comments at 35.

⁴⁰⁹ Eric Krapf, “Fiber Access: The Slog Continues; Industry Tent or Event,” *Business Communications Review*, Aug. 1, 2001, at 38 (quoting Fred Briggs, WorldCom’s Chief Technical Officer) (“Fiber Access”).

⁴¹⁰ 2002 Fact Report, IV-4-5.

⁴¹¹ *See id.*, IV-5 for a sample of statements by CLECs that they are willing to extend their networks to new buildings.

⁴¹² WorldCom 01-321 Comments at 11-12.

an existing metro market.”⁴¹³ Similarly, Time Warner Telecom has advised the Securities and Exchange Commission that it “continues to expand its footprint within its existing markets by expanding its network into new buildings,”⁴¹⁴ and XO Communications has revealed that, in the preceding 12 months, the company added almost 14,000 route miles (a 155 percent increase) and expanded from 1761 to 2346 on-net buildings (a 33 percent increase).⁴¹⁵ In fact, in September 2001 (long after the capital markets tightened), XO launched service in its sixty-third market, Minneapolis, stating that:

XO has invested millions in Minnesota to build a robust, 120-route mile fiber network serving key business centers in the Minneapolis/St. Paul area that will enable XO to offer a wide range of broadband communications services. The Twin City network is capable of servicing nearly 260,000 commercial end-users with broadband solutions. ... XO will use multiple access technologies to directly connect customers’ premises to the company’s next generation metro broadband communications network via fiber, fixed wireless technology or copper.⁴¹⁶

Consequently, there can be no doubt that CLECs continue to find it economical to expand their networks to additional buildings – and that each time they do so, it becomes economical to extend those networks even farther, to buildings that previously might have been considered out of reach. In fact, rapidly rising traffic volumes make the economies of deploying additional competitive fiber even more attractive. For example, traffic from “large enterprises” – which

⁴¹³ Fiber Access, *supra*.

⁴¹⁴ SEC Form 10-Q, Time Warner Telecom, Inc., at 16 (filed Nov. 13, 2001).

⁴¹⁵ SEC Form 10-Q, XO Communications, Inc., at 24-26 (filed Nov. 14, 2001).

⁴¹⁶ “XO Communications Launches Broadband Services in Minneapolis,” available at http://biz.yahoo.com/bs/010925/250688_1.html.

generate half of the demand in metropolitan markets – is growing at 40 percent per year,⁴¹⁷ and data traffic from small and mid-size enterprises is growing at 60 to 70 percent per year.⁴¹⁸

Moreover, CLECs often extend their fiber networks through fixed wireless connections, which can be deployed more quickly and cheaply than fiber.⁴¹⁹ In fact, Winstar, which is exiting the wireline business, has announced that it will “increase the size of its fixed wireless network by adding about 600 buildings in the 22 cities in which it is maintaining its wireless operations,” resulting in a total of roughly 4,000 on-net buildings.⁴²⁰ Relatedly, free space optics – laser-guided high-bandwidth connections to a fiber backbone – is now a viable technology, available from several manufacturers,⁴²¹ and is being used by numerous CLECs to provide high-capacity links at anywhere from 622 Mbps to 1.25 Gbps. One typical application is to “extend[] high-bandwidth services from ‘on-net’ buildings (directly connected to a fiber optical network) to ‘near-net’ buildings (not connected to fiber).”⁴²² Because free space optics does not require trenching, permits, or spectrum licenses, it can be installed virtually immediately after obtaining the right to access a customer’s building.⁴²³ Moreover, if demand from a building served by free

⁴¹⁷ 2002 Fact Report, IV-4.

⁴¹⁸ *Id.*

⁴¹⁹ 2002 Fact Report, IV-5.

⁴²⁰ “Winstar to Exit from Some Markets, Trim Work Force,” *Wall St. J.*, March 11, 2002, at B5. The General Services Administration has awarded Metropolitan Area Acquisition contracts (for local access services) to a fixed wireless provider in 14 cities. Comments of GSA, WT Docket No. 99-217, filed March 8, 2002, at 3-4.

⁴²¹ See, e.g., www.airfiber.com; www.terabeam.com; www.lightpointe.com; www.opticalaccess.com.

⁴²² www.airfiber.com/products/index.htm.

⁴²³ For example, one leading manufacturer of free space optics equipment, Optical Access, states that its systems “can be deployed, on a rooftop or indoors behind a window, in one day, without requiring right-of-way or government permits to install.” www.opticalaccess.com/products-ts.shtml.

space optical equipment justifies a fiber build, the equipment can be redeployed to another building; this “lowers the first cost of entry (vs. fiber) to the new building, and the carrier can use the revenues generated from the first building to finance the fiber build-out.”⁴²⁴ Finally, free space optics now offers “carrier-class” reliability; earlier concerns about attenuation due to heavy fog – rain and snow do not appreciably affect the signal strength – have been largely addressed through advances in technology and loop length adjustments.⁴²⁵

Confirming the fact that CLECs generally are not impaired without access to unbundled high-capacity loops, there has been extremely limited demand for this UNE. While CLECs have purchased some three million POTS loops from RBOCs, they have purchased only 72,000 high capacity loops – a mere two percent of total unbundled loop purchases.⁴²⁶ More importantly, the 72,000 unbundled loops represent a minuscule portion of the 11 to 19 million business lines the CLECs serve using their own loop facilities.⁴²⁷ And, in the relatively rare instances when CLECs do purchase unbundled high-capacity loops, the vast majority are DS-1 loops – CLECs have purchased only 140 DS-3 loops and not a single loop above the DS-3 level,⁴²⁸ even more strongly showing a lack of impairment with respect to these higher-capacity circuits.

Finally, the Commission must recognize that the availability of special access channel terminations, in and of itself, precludes a generalized claim of impairment regarding high-capacity loops. Certainly, there can be no impairment where a carrier already is using a special

⁴²⁴ White Paper, “Metro Networking Now!”, at 2 (available at AirFiber’s web site, www.airfiber.com).

⁴²⁵ See www.airfiber.com/products/faq_optimesh.htm.

⁴²⁶ 2002 Fact Report IV-6-7; Table 2, Figure 2.

⁴²⁷ *Id.*, IV-2, Table 1.

⁴²⁸ *Id.*, IV-6, Table 2.

access channel termination to serve a customer; the carrier in such circumstances already has won the customer's business. Moreover, as explained in section III.B.4, the special access market is vigorously competitive, and the ILECs' pricing of channel terminations is disciplined by the market. Given the extent of deployment of competitive facilities and the ease of extending those facilities, this holds true both in areas where ILECs have received pricing flexibility and in areas where they have not yet done so. Accordingly, special access channel terminations must be considered a substitute for unbundled high-capacity loops.

In sum, the marketplace evidence presents a compelling case that CLECs are not impaired without access to unbundled high-capacity loops. The Commission therefore must presume this is so throughout the country, unless CLECs are able to demonstrate that competitive impairment still exists in specific circumstances. Even if they succeed in doing so, however, the Commission must take care to tailor an unbundling rule for high-capacity loops that is tailored to cases of impairment. An overbroad rule would undermine facilities-based competition and therefore be unsustainable under the Act.

2. The CLECs' Past Claims of Impairment With Respect to Unbundled High-Capacity Loops Are Not Credible.

In the past, CLECs have claimed, without support, that they are unable to justify extending their networks to many commercial office buildings and that various other obstacles (such as construction delays) render them reliant on the ILECs' unbundled high-capacity loop facilities in many instances. The rapid expansion of CLEC fiber networks to new buildings demonstrates that this is not so.

Certainly, the CLECs have adduced no evidence that they face any greater deployment costs than the ILECs in deploying high-capacity loops, and there is no reason to believe this is so, since the inputs, such as fiber, are available to all carriers on an equal basis. Consequently,

there can be no competitive impairment because the ILECs and CLECs are in essentially the same position. In fact, the CLECs apparently enjoy significant cost advantages over the ILECs. The CLECs' fiber networks are not just competitive, but extremely efficient, minimizing ongoing maintenance and operational expenses. They typically utilize such next-generation technologies as SONET-lite, Metro DWDM, and Gigabit Ethernet, which are considered 30 to 70 percent more cost-efficient than ILEC legacy networks.⁴²⁹ In addition, CLECs almost certainly have lower labor rates than ILECs.⁴³⁰

Nor is there any other evidence of competitive impairment. Whatever time it takes to deploy high-capacity loops is the same for CLECs and ILECs, and the marketplace evidence, which shows that CLECs continue to extend their networks to new buildings and capture new customers, confirms that the time required is competitively insignificant. Nor is the time required to negotiate building access arrangements significant. The Real Access Alliance recently reported to the Commission that, on average, it takes approximately three months to negotiate a building access agreement, down from five months in 1999.⁴³¹ Furthermore, as explained with respect to interoffice transport, CLECs can mitigate any timeliness issues by using ILEC special access service to serve customers while deploying their own facilities.⁴³²

⁴²⁹ 2002 Fact Report IV-5.

⁴³⁰ As one analyst explained “[t]he [BOCs] have always struggled compared to the CLECs (their start-up competitors – competitive local exchange carriers) in terms of expenses due to using union labor.” Matthew Benjamin, *Strike Resolved*, Investor’s Business Daily, A6, Aug 22, 2000.

⁴³¹ Comments of the Real Access Alliance, WT Docket No. 99-217, filed March 8, 2002, at 6-7. The Real Access Alliance further reported that, according to survey responses from companies owning or managing approximately 2900 office buildings, the average building had 3.7 telecommunications providers (compared to three in 2000), and approximately 28 percent of the building owners reported owning a building served by more than five providers. *Id.* at 6.

⁴³² See section V.B.2, *supra*.

And, as noted above, CLECs can and do use wireless loops, which may be rapidly deployed, as both interim measures and permanent means of providing high-capacity service to business customers.

In short, although some CLECs undoubtedly will argue that they continue to rely on ILEC high-capacity loops, the Commission should not mistake a preference to use this UNE for an actual lack of choice. As long as unbundled high-capacity loops are available at artificially low TELRIC rates, CLECs will *choose* to purchase such facilities rather than deploying their own in certain circumstances. That is, the continued availability of this UNE will have the perverse effect of depressing economic investment. Consequently, absent a compelling demonstration of impairment in specific circumstances, the Commission should decline to mandate continued unbundling of high-capacity loops in order to avoid compromising the Act's key goals of promoting facilities-based competition and the deployment of advanced services and capabilities.

D. Other Loops

As we have demonstrated elsewhere in these comments, broadband and other high-capacity loop facilities should not be subject to unbundling, absent a concrete demonstration by CLECs that there are some specific segments of the market in which they would be impaired without access to those facilities. We now turn to non-high-capacity loops, such as analog voice grade loops and ISDN loops.⁴³³ Since the UNE Remand record was compiled, there has been substantial new intra- and inter-modal competition for both mass market and business services

⁴³³ The Commission should not require unbundling of the NID separate from the loop. We have identified no request for unbundled access to the NID on a standalone basis, and there is no evidence that any standalone NID UNEs are in service. More importantly, a NID is a piece of equipment that is readily available and inexpensive. No requesting carrier can reasonably claim that it is impaired without access to an ILEC's unbundled NID.

provided over these loops. Accordingly, the Commission must carefully examine the evidence in order to determine under what conditions (geographic area, customer type, and service) competitive impairment exists. The Commission must narrowly limit any unbundling obligation in order to remain faithful to the requirements of Section 251(d)(2) and Congress's intent.

Competitive overview. Facilities-based competition for non-high-capacity loops is emerging from both inter-modal and intra-modal sources. The inter-modal competition comes from two principal sources: cable telephony (both circuit-switched and, in the near future, IP-based) and wireless services. Today, ILECs are losing about as many lines to these inter-modal competitors as they are to wireline CLECs, and overall, the number of lines served by ILECs has declined for three straight years, which has never happened before.⁴³⁴

Cable companies, as Congress anticipated in 1996, have emerged as potent competitive forces in the provision of basic telephone service to residential consumers, and they are beginning to extend their networks to small and medium-sized business customers.⁴³⁵ Although cable offered two-way capabilities to only 20 percent of homes at year-end 1998, today such capability is available to approximately 77 percent of homes, and it will reach 85 percent of homes by 2004.⁴³⁶ These upgrades support both cable modem service and cable telephony.⁴³⁷ Today, cable companies offer circuit-switched telephony services to roughly 10 million homes in 20 states, and in some places, cable telephony is far more widely available.⁴³⁸ For example,

⁴³⁴ 2002 Fact Report, IV-8.

⁴³⁵ *Id.*, IV-22.

⁴³⁶ *Id.*, IV-9.

⁴³⁷ *Id.*

⁴³⁸ *Id.*, IV-10.

AT&T offers cable telephony throughout eastern Massachusetts and western Pennsylvania,⁴³⁹ and the Commission recently found that Cox Cable can provide telephony service to between 75 and 95 percent of customers in Rhode Island.⁴⁴⁰ Indeed, in some parts of Massachusetts, Verizon faces competition from two cable telephony providers, AT&T and RCN. Moreover, as discussed in section II.A above, cable companies have had great success selling cable telephony service where it is available, garnering subscription rates of 15 to 30 percent. More than a million and a half homes already subscribe to cable telephony, and 70,000 new subscribers are added each month.⁴⁴¹ And the imminent deployment of IP cable telephony will accelerate the availability of cable networks as a substitute for the ILECs' voice loops. Commercial introduction of cable IP telephony is expected within the next twelve months, and analysts anticipate between 5 and 7 million subscribers to this service by 2006.⁴⁴² Finally, cable telephony is a potent substitute for second phone lines used for broadband Internet access, with cable modem service now available to almost 70 percent of all homes and subscribed to by 7.5 million customers.⁴⁴³

⁴³⁹ AT&T offers its cable telephony product in a variety of bundles with video programming, digital video, and cable Internet access, which can save customers anywhere from four dollars to twenty dollars per month over the cost of purchasing these services individually. Eighth Video Competition Report ¶ 181. According to AT&T, it "has in place centralized systems to support the design, installation, maintenance, and operation of the complex, two-way hybrid fiber-coaxial systems that support digital voice and data applications and that interconnect with both copper twisted-pair and fiber optic technologies used by incumbent LECs." It also "has already developed operational performance metrics to ensure quality cable telephony services, effective training of technicians and field fulfillment personnel, and cost-effective investigation and resolution of field performance issues." AT&T/Comcast Application at 39. AT&T also touts its cable telephony back-office systems and "substantial marketing expertise." *Id.* at 40-41.

⁴⁴⁰ Rhode Island 271 Order, ¶ 105.

⁴⁴¹ 2002 Fact Report, IV-10.

⁴⁴² *Id.*, IV-11.

⁴⁴³ *Id.*, IV-11-12.

Wireless services also are an alternative to ILEC loops – for both residential and business customers – as wireless carriers themselves have touted: “CMRS providers offer true facilities-based competitive alternatives to the incumbent LECs.”⁴⁴⁴ In fact, VoiceStream has built an entire advertising campaign on the premise that its subscribers find their wireline phones dispensable, using them for tenderizing meat or playing fetch with their dogs. Importantly, wireless is not just a single alternative to wireline phone service; there are six nationwide CMRS providers and numerous regional players, all of whom vie to replace wireline customers’ phone lines and minutes.⁴⁴⁵

The concerns expressed in the UNE Remand Order regarding the viability of wireless service as an alternative for wireline telephone service have dissipated. In the past three years, wireless coverage has become far more widespread, the quality of wireless services has increased dramatically with the deployment of digital service, and the cost of using wireless service have plummeted.⁴⁴⁶ As a result, one industry analyst estimates that wireless service already has replaced 10 million second phone lines and that, by 2005, wireless phones will replace roughly one-third of all second and additional lines.⁴⁴⁷ Wireless also is becoming increasingly competitive with primary line wireline service. Between three and five percent of wireless

⁴⁴⁴ AT&T Wireless and VoiceStream Wireless Petition for Declaratory Ruling at 3, *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98 (FCC filed Nov. 19, 2001).

⁴⁴⁵ More than 90 percent of the U.S. population now lives in counties served by three or more CMRS providers and more than 75 percent lives in counties served by five or more CMRS providers. 2002 Fact Report, I-4.

⁴⁴⁶ In almost all major markets, wireless carriers offer digital calls of comparable quality to wireline service; nearly 80 percent of wireless customers now subscribe to digital service. *Id.*, IV-15. With respect to price, the typical wireless service bundle of basic local service, long distance, and features such as voice mail, Caller ID, and call waiting, is clearly value-competitive with wireline service, and wireless prices continue to decline by 10 to 20 percent per year. *Id.*, IV-14.

⁴⁴⁷ *Id.*, IV-12.

subscribers have abandoned wireline service, 18 percent of wireless phone subscribers use their wireless phone as their primary phone,⁴⁴⁸ and, as noted in section II.A, the wireless industry expects that wireless phones will replace wireline service for a far greater portion of all subscribers in the near future. Moreover, as explained with respect to circuit-switching, wireless services are taking billions of minutes of use away from wireline phone networks, as both business and residential customers frequently use their wireless phones even where wireline phones are readily available. This is not surprising, as wireless carriers are marketing their services as direct alternatives for wireline service,⁴⁴⁹ offering attractive bundles of local and long distance service, along with value added features, to entice subscribers to use their wireless rather than their wireline phones.

Traditional wireline CLECs also are deploying their own loops in many settings. For example, in the residential market, several smaller ILECs have established CLEC affiliates that overbuild loops in neighboring RBOC markets.⁴⁵⁰ CLECs also deploy broadband pipes to neighborhoods or MDUs, over which they provide a bundle of services including basic voice.⁴⁵¹ MDUs are a particularly attractive market because they provide a concentrated source of demand. In fact, MDUs house between 30 and 35 percent of all residential customers.⁴⁵² In addition, MDUs often are located close to existing CLEC networks serving urban demand centers. Both CLEC affiliates of ILECs, such as PennTel and Hickory Tech, and pure CLECs,

⁴⁴⁸ *Id.*, IV-13.

⁴⁴⁹ *Id.*, IV-13.

⁴⁵⁰ *Id.*, IV-15-18 and Table 4.

⁴⁵¹ *Id.*, IV-15-16 and IV-18, Table 5.

⁴⁵² *Id.*, IV-15.

such as RCN, have had significant success attacking the MDU market.⁴⁵³ For example, RCN has built out its network to pass more than 1.5 million homes, it added nearly 47,000 new subscriber connections to its network in the fourth quarter of 2001,⁴⁵⁴ and it expects to increase the number of connections to its network by 20-24 percent in 2002.⁴⁵⁵ Importantly, RCN is not alone in its success in the MDU market.⁴⁵⁶

New subdivisions present a special case. In this setting, developers routinely seek competitive bids from prospective service providers. ILECs have no legacy advantages in responding to such bids, and indeed face powerful competition from companies that are able to offer a full package of voice, video, and data services on an integrated basis, often with a lower cost structure than the ILEC has.⁴⁵⁷ In these situations, CLECs by definition are not competitively impaired. Moreover, if the ILEC were subject to unbundling when it wins a bid to serve a new development, then a CLEC likewise would have to be should be subject to unbundling in such circumstances as a “comparable carrier” pursuant to Section 251(h)(2) of the Act. There is no rational basis for treating ILECs and CLECs differently in this situation.

Finally, there has been significant alternative deployment of non-high capacity loops in the business market. CLECs already provide between 11 and 19 million business loops over their own facilities.⁴⁵⁸ Although many of these loops are likely to be high capacity, a substantial

⁴⁵³ *Id.*; *see also id.*, IV-19, Table 5.

⁴⁵⁴ *Id.*, IV-15-16.

⁴⁵⁵ “RCN Strikes New Bank Deal to Gain New Flexibility,” http://biz.yahoo.com/prnews/020326/nytu043_1.html.

⁴⁵⁶ 2002 Fact Report, IV-18, Table 5.

⁴⁵⁷ A prime example is OpenBand of Virginia; *see* section IV.B.3, *supra*.

⁴⁵⁸ 2002 Fact Report, IV-2, Table 1.

number must be non-high capacity loops. We do not have access to information detailing the types of customers and locations to which CLECs have deployed their own non-high capacity loops or obtained such facilities from third parties. To discharge its obligations under the Act, however, the Commission must require CLECs to provide such data so that it may make an informed, and properly limited, impairment analysis.

Impairment analysis. Against this background, it is evident that a narrowing of the obligation to provide unbundled non-high capacity loops is warranted. In particular, the Commission should:

- Eliminate the unbundling obligation where both cable telephony and digital CMRS service is available. Under these circumstances, the presence of intermodal competition precludes a finding of impairment because, as explained above, Congress did not intend UNEs to remain available once the market becomes competitive. In addition, continuing unbundling obligations in these circumstances would diminish investment incentives for ILECs, CLECs, and cable companies alike. For example, if a cable company knew that CLECs would be able to compete in providing telephony services through cheap access to the ILEC's network, it may curtail deployment of its own telephony operations, particularly in areas where demand is not likely to be robust or deployment costs are likely to be higher.
- Presume that CLECs are not impaired in their ability to provision loops to MDUs without access to unbundled loops, in the absence of a compelling showing to the contrary in particular circumstances. The extensive record of deployment in the MDU context demonstrates that competition using self-supplied loop facilities is not only feasible, but attractive. Once again, perpetuating unbundling obligations in this setting would deter additional facilities-based investment by increasing the potential risks for would-be facilities-based providers and devaluing the existing investment of these companies.
- Decline to mandate unbundling of loops used to serve new developments. There can be no competitively cognizable impairment in the context of new developments because the ILECs have no existing facilities. Rather, all competitors – CLECs, ILECs, cable companies, and developer-owned telecommunications providers face equal costs and opportunities.
- Require CLECs to produce concrete evidence demonstrating the circumstances, if any in which they are impaired in their ability to serve business customers without access to ILEC loops

In addition, the Commission should carefully examine the record of deployment of non high-capacity loops in other settings in order to determine, after considering the types and locations of customers served by non-ILEC loops and the practicality of additional deployment of loop alternatives, whether there are additional circumstances under which the unbundling obligation should be eliminated today. To this end, the Commission should compel the CLECs to provide data regarding their deployment of such loops (broken down by type of customer, type of location, and type of service), so that it can craft an appropriately tailored unbundling rule.

Finally, the remaining unbundling requirement for these loops should expire no later than three years after the effective date of the Commission's order in this proceeding. Given the strong existing competition from wireless and cable telephony and the tremendous expected growth of these alternatives over the next several years, the Commission can confidently project that any impairment with respect to non-high-capacity loops will have been alleviated by the sunset date. If there is no sunset date, then potential facilities-based competitors will face a powerful disincentive to investment, delaying the innovation and competitive choice that Congress sought to achieve in imposing express limits on the ILECs' unbundling obligation.

E. Signaling and Call-Related Databases

1. Signaling

Alternative Signaling System 7 (SS7) services are available both from a wide variety of wholesale sources across the country and through self-supply. Accordingly, there is no basis for crediting arguments that access to unbundled signaling is consistent with Section 251(d)(2),

either as a general matter or with respect to particular geographic areas, services, or classes of customers.⁴⁵⁹ Indeed, Verizon can not identify a single carrier that obtains SS7 as a UNE.

Wholesale suppliers of this service include Illuminet,⁴⁶⁰ ICG Communications,⁴⁶¹ and TSI,⁴⁶² among others:

- Illuminet offers SS7 network connectivity over the “largest independently-owned SS7 network in the U.S.”⁴⁶³ It provides “end-to-end engineering, installation and maintenance, 24-hour surveillance and maximum route diversity to ensure system-wide integrity.”⁴⁶⁴ According to Illuminet, it “has helped hundreds of carriers establish SS7 connectivity” and has “direct access to all the [LATAs] of the [RBOCs] and major [independent LECs].”⁴⁶⁵ Illuminet “monitors network performance around the clock to protect against outages and maintain network integrity,” and proclaims that its “state-of-the-art, network-wide troubleshooting and monitoring system provides advanced warning in case of potential problems.”⁴⁶⁶ In addition,

⁴⁵⁹ The Commission should not mistake the need to *interconnect* the signaling network of a switch-based CLEC or alternative signaling vendor with Verizon’s signaling network with the desire of some CLECs to *use* an ILEC’s signaling as a UNE. Interconnection of signaling networks should be and is governed by tariffs and interconnection agreements, at prices that need not be based on TELRIC. Verizon interconnects its signaling network with numerous alternative providers, including Illuminet, SNET, AT&T, WorldCom, and TSI.

⁴⁶⁰ See www.illuminet.com.

⁴⁶¹ See www.icgcom.com.

⁴⁶² See www.tsiconnections.com.

⁴⁶³ www.illuminet.com/products/lec/.

⁴⁶⁴ *Id.*

⁴⁶⁵ www.illuminet.com/products/lec/network.shtml.

⁴⁶⁶ *Id.*

Illuminet offers a full suite of other signaling-related services, including ISUP Trunk Signaling and TCAP CLASS Services.⁴⁶⁷

- TSI's ISUP Signaling Transport Service "provides LECs, CLECs, IXC, wireless, and [VoIP] carriers with reliable ISUP signaling to IXC and LEC end offices. This single connection offers [SS7] access to and from nearly all LATAs to numerous STPs nationwide without many of the costs associated with establishing multiple links."⁴⁶⁸ TSI states that it is "the SS7 transport provider to many of the world's largest carriers" and "has a proven track record for providing quality, customer service and reliability."⁴⁶⁹ TSI "uses the resources of an advanced network operations center (NOC) to monitor its network of SS7 links and mated-pairs of STPs and continues to upgrade its network and monitoring capabilities to better ensure continued network reliability."⁴⁷⁰ Its network operations are ISO 9002-certified.⁴⁷¹

- ICG "provides SS7 signaling over Feature Group D message trunks to LEC access tandems and end offices as well as connectivity to other carriers subscribing to the SS7 Network Service."⁴⁷² Its SS7 Network Service "offers ... the ability to enjoy nationwide SS7 connectivity without having to connect links from network nodes to each IXC, LATA, and/or

⁴⁶⁷ Illuminet explains that ISUP Trunk Signaling "reduces call set-up time and enables inter-office CLASS and Advanced Intelligent Network (AIN) services," and that "Illuminet has access agreements with other SS7 network providers already in place, so you won't have to establish multiple links." TCAP CLASS Service "provides the global title translations and gateway screening that enable switch-to-switch transfer of SS7 Transaction Capabilities Applications part (TCAP) messages – essential for many CLASS features." www.illuminet.com/products/lec/.

⁴⁶⁸ www.tsiconnections.com/print_email/print/display.cfm?ID=25&MarketID=2.

⁴⁶⁹ *Id.*

⁴⁷⁰ *Id.*

⁴⁷¹ *Id.*

⁴⁷² www.icgcom.com/products/carriers/ss7.asp.

LEC.” The service can be accessed from STPs located in 28 cities throughout the East Coast, Southeast, Midwest, and West. In addition to connectivity, ICG offers customers “A” Link Facility Design,⁴⁷³ “A” Link Capacity Management, and 24x7 network surveillance.⁴⁷⁴

In addition, numerous CLECs have deployed their own signaling networks, further confirming that requesting carriers are not impaired without access to unbundled signaling. Time Warner Telecom, for example, “ordered multiple pairs of Tekelec’s EAGLE signal transfer points (STPs) with local number portability (LNP) on March 12, 2001. The EAGLE STPs will allow the Company to establish a national SS7 signaling network with LNP capability, with service to 44 U.S. markets by the end of 2001. The EAGLE STPs are being deployed in network hub locations throughout the United States, beginning in the first quarter 2001.”⁴⁷⁵ Likewise, in March 2001, NewSouth announced that it had “completed the buildout and implementation of its Signaling System 7 (SS7) network. The SS7 system enables network elements to verify the availability of a path to a specific number allowing the network to confirm telephone connections before the circuits are allocated and telephone trunks are dedicated. This process reduces the demand for telephone circuits and allows the NewSouth networks to carry more calls.”⁴⁷⁶

This marketplace evidence establishes beyond reasonable dispute that signaling does not meet the Section 251(d)(2) standard. In the UNE Remand Order, the Commission came close to

⁴⁷³ The “A Links” provide interconnection between a signal switching point (SSP) and a signal transfer point (STP).

⁴⁷⁴ www.icgcom.com/products/carriers/ss7.asp.

⁴⁷⁵ “Tekelec Provides EAGLE STP Paris and LNP Capability To Time Warner Telecom,” www.twtelecom.com/jsp/upload/news1032001-03-15a.PDF.

⁴⁷⁶ “NewSouth Communications Completes SS7 Network Buildout,” www.newsouth.com/news/press_releases/a349.asp.

reaching a similar conclusion, finding that self-providing signaling or obtaining this capability from third parties “would not involve substantial and material costs or delay competition”⁴⁷⁷ and that “cost-effective SS7 signaling networks are generally available on a national basis.”⁴⁷⁸ Nonetheless, the Commission based its impairment determination on quality considerations, suggesting that, “because alternative vendors of signaling networks only have a few geographically dispersed STPs, they cannot provide requesting carriers with signaling that is of comparable quality” to ILECs.⁴⁷⁹ This is no longer true, if it ever was. The substantial use of third-party and self-deployed signaling, as well as the sharp focus on network integrity and reliability exhibited by the most prominent third-party signaling suppliers, confirm that requesting carriers are not competitively impaired without access to unbundled signaling.⁴⁸⁰

2. Call-Related Databases

As with signaling, alternative access to call-related databases is available throughout the country, precluding any finding of impairment. The vendors of third-party signaling services, such as Illuminet, also provide access to call-related databases, as do other vendors, including TARGUSinfo. Illuminet, for example, enables customers to store their subscribers’ names in Illuminet’s calling name database; provides “high-speed access to all LIDBs in the country for seamless, nationwide call verification” as well as LIDB storage; “offers a full-featured interface

⁴⁷⁷ UNE Remand Order, ¶ 391.

⁴⁷⁸ *Id.*, ¶ 392.

⁴⁷⁹ *Id.*, ¶ 394.

⁴⁸⁰ In the UNE Remand Order, the Commission also noted that unbundled signaling is required when a requesting carrier purchases unbundled switching. *Id.*, ¶ 356. Because unbundled switching does not meet the Section 251(d)(2) standard, there is no independent basis for retaining signaling as a UNE.

with all the NPACs”⁴⁸¹ as well as “service provider order entry and provisioning of ported numbers from any and all [MSAs] with the appropriate regional NPAC”; and provides “high-speed access to all 800, 888, 877, 866 and 855 numbers in the country for toll-free routing.”⁴⁸² Illuminet’s Signaling service also enables customers “to deploy a full range of Intelligent Network services.”⁴⁸³ Similarly, TSI provides a host of database-related services, including toll-free database access,⁴⁸⁴ LIDB access,⁴⁸⁵ calling name service,⁴⁸⁶ and local number portability query service.⁴⁸⁷ Similarly, TARGUSinfo offers toll-free database access, LIDB access, a nationwide calling name delivery service known as CallerName Express™, and an LNP database service.⁴⁸⁸

In addition, numerous manufacturers have developed switches, peripherals, and related equipment targeted at CLECs that wish to deploy their own database and AIN capabilities. Tekelek’s EAGLE platform, for example, provides “scaleable signaling and application deployment” for local number portability, global title translation, CNAM, 800 service, and other applications.⁴⁸⁹ Tekelek also provides an AIN service center, which includes a service creation environment that “provides complete local visibility and control over network services, allowing

481 “NPAC” stands for the Number Portability Administration Center.

482 www.illuminet.com/products/lec/.

483 www.illuminet.com/products/lec/isup.shtml.

484 www.tsiconnections.com/display.cfm?ID=48&MarketID=2.

485 www.tsiconnections.com/display.cfm?ID=29&MarketID=2.

486 www.tsiconnections.com/display.cfm?ID=6&MarketID=2.

487 www.tsiconnections.com/display.cfm?ID=66&MarketID=2.

488 www.targusinfo.com.

489 www.tekelec.com/productportfolio/NetworkSignaling.asp.

telecommunications providers to rapidly bring new services to market.”⁴⁹⁰ New switches and other devices aimed at CLECs routinely include AIN, CNAM, TCAP, 800, and local number portability capabilities.⁴⁹¹ AIN new service design has received particular emphasis; for example, a company called Innovative Systems, LLC has developed an Application Peripheral that enables the company to “design services quickly and deliver them to you via the Internet. Never before has the telecommunications industry been able to purchase a service at 10:05 AM and start providing customers with the service at 10:15 AM, without leaving your business office.”⁴⁹²

This marketplace evidence demonstrates a substantial change in circumstances since the UNE Remand record was compiled. In that decision, the Commission, as with signaling, found that the cost of self-deploying databases or using alternative database access arrangements was “not an issue.”⁴⁹³ It stated, however, that such alternatives were not of “comparable quality and ubiquity” to unbundled access,⁴⁹⁴ that the decision to unbundle signaling required access to unbundled call-related databases as well,⁴⁹⁵ that access to the ILECs’ CNAM databases was

⁴⁹⁰ www.tekelec.com/productportfolio/ain_service_center/.

⁴⁹¹ See, e.g., “Broadband Class 5 with Cohesion™ ServiceWorks™”, www.convergentnet.com/app_broadband.html; “Premiere Network Services Selects Taqua Systems’ Open Compact Exchange (OCX) for Advanced Services Delivery, and Platform for New Services Lab,” www.taqua.com/press_releases/2001/news101501.asp; “Primal Technologies, Inc. Unveils Next Generation PSN2000 Service Node,” www.primaltech.com/news_0010.html.

⁴⁹² www.innovsys.com/nonregistered/aboutus.asp.

⁴⁹³ UNE Remand Order, ¶ 415.

⁴⁹⁴ *Id.*, ¶ 410.

⁴⁹⁵ *Id.*, ¶ 412.

sometimes necessary to ensure proper call flow,⁴⁹⁶ and that CLECs need access to the ILECs' AIN platforms in order to devise their own AIN services.⁴⁹⁷

If any of these rationales was valid at the time of the UNE Remand Order, none remains so today. First, the substantial use of alternative means of accessing both ILEC and non-ILEC databases undermines any argument that high-quality, alternative database access is not widely available. Second, the availability of unbundled signaling no longer should be relied on as a justification for mandating unbundled access to call-related databases because, as explained above, there is no basis for requiring continued access to unbundled signaling. Third, access to the ILECs' CNAM databases may be obtained through third parties rather than as a UNE.⁴⁹⁸ And fourth, third-party service providers and equipment providers enable CLECs to design their own AIN services without accessing the ILECs' AIN platforms. Accordingly continued unbundled access to call-related databases cannot be reconciled with the requirements of Section 251(d)(2).

VI. OTHER LEGAL ISSUES

The NPRM raises several additional legal issues related to the unbundling inquiry. In this section, we explain that: (1) requesting carriers should not be permitted to convert special access arrangements into UNEs or combinations of UNEs; (2) commingling should not be

⁴⁹⁶ *Id.*, ¶ 416 (stating that this is true when the ILEC customer is using call forwarding because the ILECs are the only providers of CNAM database information, and that switch-based CLECs need access to the CNAM in order to provide Caller ID on ILEC-originating calls).

⁴⁹⁷ *Id.*, ¶ 417.

⁴⁹⁸ Verizon also offers several parties CNAM database capabilities under commercial contracts.

permitted; and (3) the Commission should not allow requesting carriers to combine UNEs and resold services.

A. Requesting Carriers Should Not Be Permitted To Convert Special Access Arrangements into UNEs or Combinations of UNEs.

Last year, we explained at length that requesting carriers are not impaired without the ability to convert existing special access arrangements into UNEs or unbundled loop/transport combinations.⁴⁹⁹ For purposes of this proceeding, the ability to convert special access arrangements should not be an issue because, as demonstrated above, there is no basis for requiring continued access to unbundled dedicated transport and high-capacity loops. Nonetheless, we will briefly reiterate the other reasons for not permitting conversion of special access services to UNEs:

First, special access services are distinct from other local exchange services, and the special access market is competitive. Special access customers are sophisticated and highly concentrated. Roughly 80 percent of ILEC special access revenues are generated from fewer than 25 percent of the wire centers. Accordingly, competing carriers can address virtually the entire market with a targeted investment; they need not replicate the ILECs' entire local exchange networks. Not surprisingly, competitors have enjoyed great success in the special access market; facilities-based alternative providers have captured at least a third of the market and probably even more.⁵⁰⁰ And, just as predictably, the vast majority of ILEC special access revenues are generated in MSAs that qualify for price deregulation under the Commission's Pricing Flexibility Order: 80 percent of BOC special access revenues qualifies for Phase I

⁴⁹⁹ See Comments of SBC and Verizon, CC Docket No. 96-98, filed April 5, 2001; Reply Comments of SBC and Verizon, CC Docket No. 96-98, filed April 30, 2001.

⁵⁰⁰ 2002 Fact Report, Appendix L.

pricing flexibility and nearly two-thirds qualifies for Phase II relief.⁵⁰¹ There are no significant barriers to facilities-based competition in the provision of special access services, and the extent of existing competition ensures that the ILECs' own special access offerings are priced and provided on a just and reasonable basis.

Second, aside from the tremendous facilities-based special access competition, numerous entities – including IXCs, CMRS providers, and CAPs – are successfully offering a wide variety of services using the ILECs' special access services as an input. Under such circumstances, there can be no argument that these entities are “impaired” in providing the services they seek to offer. Where a carrier seeks to convert an existing special access arrangement, it already has won the customer and therefore cannot possibly be impaired. And when a carrier has built a customer base using ILEC special access services, it cannot be impaired without the ability to use UNEs instead of special access in order to gain additional customers.

Third, permitting requesting carriers to substitute UNEs for special access would undermine the prime statutory directive of promoting facilities-based competition. By effectively slashing prices in the special access market, UNE-based special access would “undercut the market position of many facilities-based competitive access providers,”⁵⁰² as several facilities-based CLECs have warned the Commission.⁵⁰³ Where competitors already

⁵⁰¹ Special Access Fact Report, 6-7 & Tables 4-5.

⁵⁰² Supplemental Order Clarification, ¶ 18.

⁵⁰³ See Comments of Time Warner, CC Docket No. 96-98, filed Jan. 19, 2000, at 19 (pricing special access at TELRIC “would substantially reduce [Time Warner’s] incentive to expand its entry in the 21 markets it has already entered or to invest in network facilities in new geographic areas”); Joint ex parte of Allegiance, Intermedia, Time Warner, and Bell Atlantic, CC Docket No. 96-98, filed Sept. 2, 1999.

have deployed their own special access facilities, and continue to do so, forced access to UNEs would be regressive, punishing rather than promoting additional facilities-based competition.

Fourth, the availability of UNE combinations to replace special access would diminish the ILECs' ability to continue offering high-quality, innovative services by placing several billion dollars in ILEC revenues at risk nationwide. While loss of revenues is a constant threat in competitive markets, this shortfall would not result from aggressive competition by new entrants. Rather, it would stem from a regulatory decision, divorced from marketplace realities, to impose a new and arbitrary pricing scheme on a market where rates are already competitively determined. Faced with such a revenue drain, ILECs could not maintain their current pace of investing in broadband facilities, upgrading service quality and availability, and developing new services – particularly in rural areas where prospective returns already are more speculative. The Commission therefore should declare that requesting carriers cannot convert special access arrangements into UNEs or UNE combinations.

B. The Commission Should Not Permit Commingling.

There is no basis for eliminating the prohibition on commingling⁵⁰⁴ – that is, combining UNEs and access services on the same transport facility. Some IXCs have gone even farther, asking the Commission to order “ratcheting” – that is, re-pricing the individual “UNE channels” on a DS3 at TELRIC rates, while the rest of the channels are priced at access rates. The debate over ratcheting should be moot because unbundled dedicated transport does not meet the Section 251(d)(2) standard.) Commingling would require the Commission to mandate access to a previously unidentified UNE – the individual-channels-on-a-DS1-or-DS3-element. The

⁵⁰⁴ See NPRM, ¶ 70 (seeking comment on the commingling restriction).

Commission has never considered establishing any such UNE, and it would be impossible to make the requisite impairment finding in any event, given the competitiveness of the special access market.

In addition, commingling would impermissibly eradicate the statutory distinctions between UNEs and resale. The resulting “UNE” would not enable the requesting carrier to “distinguish” its services from the ILEC’s or “package and market services in ways that differ from the incumbent’s existing service offerings” and would not cause the requesting carrier to incur “greater risks.”⁵⁰⁵ It would be a simple re-pricing of the ILEC’s tariffed DS3 access rate – in other words, discounted resale of an access service, which violates Sections 251(c)(4) and 251(g) of the Act.⁵⁰⁶

Permitting commingling also would create tremendous implementation difficulties. A UNE purchaser is responsible for testing and performing other network-related functions, while the ILECs perform such functions for their special access services. Any service issue on a commingled circuit would therefore raise a serious problem of determining which carrier bore responsibility. Moreover, Verizon has separate organizations for servicing and maintaining special access services and UNEs. Accordingly, even within Verizon, service on a commingled circuit would require coordination between separate service organizations, producing delay and confusion.

⁵⁰⁵ Local Competition Order, ¶¶ 332-34.

⁵⁰⁶ *Id.*, ¶ 333.

Finally, the “duplicate network” argument raised by the IXC’s as a justification for commingling is a red herring.⁵⁰⁷ Verizon does not combine UNEs and access services in its own network; rather, it uses the same interoffice facilities to carry both local and access traffic. Any CLEC is free to do the same – for example, a CLEC can multiplex DS1 circuits onto a DS3, where both circuits are obtained from Verizon’s access tariff. A CLEC also may combine an unbundled loop (if and where this UNE continues to be required) with its own interoffice circuits. A CLEC may not, however, engage in arbitrage of special access by paying UNE rather than access rates for the DS1 and selected channels on the DS3. Such a combination does not correspond to anything an ILEC does on its own network; rather, it creates a hybrid UNE/service that does not exist under the Act. Consequently, the Commission must continue to prohibit commingling.⁵⁰⁸

C. The Commission Should Not Permit Requesting Carriers To Combine UNEs and Resold Services.

Similar to the commingling issue, the Commission should not require ILECs to combine UNEs and resold services on a CLEC’s behalf.⁵⁰⁹ By way of example, the Commission notes that some CLECs have sought to serve a customer through both UNE-P and a resold ILEC

⁵⁰⁷ See NPRM, ¶ 70.

⁵⁰⁸ If the Commission nonetheless decides to permit commingling in certain circumstances, which it should not, it must affirmatively state that commingling does not apply to switched access facilities. Such facilities are used for interexchange, not local, service.

⁵⁰⁹ See NPRM, ¶ 69 (seeking comment “on the rights and obligations of all carriers in regards to the use and provision of services and network elements, particularly when combined over the same facilities or when used in combination to serve a specific customer or class of customers.”).

advanced service.⁵¹⁰ This issue should be moot because access to the UNE-P does not satisfy the Section 251(d)(2) impairment standard and thus can no longer be mandated.⁵¹¹

Moreover, an ILEC would not be able to provide advanced services for resale to the customer because the CLEC would have “exclusive control over” the customer’s loop.⁵¹² (This holds true for any situation where a CLEC seeks to resell an ILEC service that would be provided over a facility that the CLEC has purchased as a UNE.) Certainly, the CLEC cannot force the ILEC to lease back the high-frequency portion of the loop in order to provide an advanced service to the CLEC, any more than an ILEC may be forced to provide advanced services directly to a customer who has selected a CLEC as her voice carrier.⁵¹³ Imposing such a requirement would effectively undermine the decision not to require packet switch unbundling and would deter facilities-based competition.

Nor can there be any finding that a CLEC is competitively impaired without access to resold ILEC DSL services to be commingled with UNEs. The fact that the CLEC already is serving the customer demonstrates that it has a viable business without access to resold ILEC DSL service. And, in any event, there is no conceivable need for the relief sought because the CLEC readily can provide its own advanced services to the customer by collocating a DSLAM

⁵¹⁰ *Id.*

⁵¹¹ *See* section V.A.3, *supra*.

⁵¹² Local Competition Order, 11 FCC Rcd at 15693.

⁵¹³ In the Line Sharing Reconsideration Order, the Commission expressly held that an ILEC does not have to provide xDSL service when it is no longer the voice provider. *Line Sharing Reconsideration Order*, 397-398; *see also Application by SBC Communications, Inc., et al. pursuant to Section 271 of the Communications Act of 1996*, 15 FCC Rcd 18354, 18517-18 (2000) (“Texas 271 Order”); Pennsylvania 271 Order, App. C, ¶¶ 50-52.

in the central office and connecting the customer's loop and the unbundled switching element in its collocation cage.⁵¹⁴

In addition, there is no basis for compelling an ILEC to combine a service with a UNE, where the service would be provided over a separate facility from the UNE. CLECs do so all the time by connecting the UNE to the ILEC's network at a collocation cage. Given the thousands of collocation cages in existence and the ease of establishing new collocation arrangements, CLECs face no disadvantage by combining UNEs and services themselves rather than having the ILEC perform this function. Moreover, there is no statutory basis for forcing ILECs to combine services and UNEs on behalf of a CLEC. ILECs do not combine services and UNEs in their own networks, so there is no discrimination. Nor does Section 251(c)(3) create such an obligation; that provision does not even require ILECs to combine UNEs on behalf of CLECs,⁵¹⁵ let alone combine UNEs with services.

⁵¹⁴ In such circumstances, the underlying UNEs would be priced separately rather than as part of a UNE-P arrangement. The Commission has held that "if a competing carrier is providing voice service using the UNE-P, it can order an unbundled xDSL-capable loop terminated to a collocated splitter and DSLAM equipment and unbundled switching combined with shared transport, to *replace its existing UNE-platform arrangement with a configuration that allows provisioning of both data and voice services.*" Local Competition, Third FNPRM, 2111 (emphasis added); Connecticut 271 Order, ¶ 3 (2001); *Join Application by SBC Communications Inc., et al. for Provision of In-Region, InterLATA Services in Kansas and Oklahoma*, 16 FCC Rcd 6237, ¶ 225 ("Kansas/Oklahoma 271 Order"). Thus, once the loop and port are used to provide line splitting, as opposed to a simple voice arrangement, the "UNE-P" no longer exists. The arrangements are fundamentally different.

⁵¹⁵ Section 251(c)(3) states that "[a]n incumbent local exchange carrier shall provide such unbundled network elements in a manner that *allows requesting carrier to combine such elements*" As the Eighth Circuit has held, this obligation cannot be read to impose an affirmative duty on ILECs to combine such elements for CLECs where they are not already combined. *Iowa Util. Bd.*, 219 F.3d at 758-59.

VII. CONCLUSION

For all the foregoing reasons, the Commission should comprehensively re-examine its unbundling rules and modify them as described above in order best to promote both necessary investment and long-lasting competition.

Respectfully submitted,

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