
**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)
)
Cbeyond, Inc. Petition for Expedited)
Rulemaking to Require Unbundling of Hybrid,) WC Docket No. 09-223
FTTH, and FTTC Loops Pursuant to 47 U.S.C.)
§ 251(c)(3) of the Act)

To: The Commission

**COMMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION
AND THE FTTH COUNCIL NORTH AMERICA**

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SUMMARY

The Telecommunications Industry Association (“TIA”) and the Fiber-to-the-Home Council (“FTTH Council”) respectfully file these comments to urge that the Cbeyond Petition (“Petition”) be denied. The Petition would reverse course on long-standing and successful Commission policies concerning unbundling; fails to address the statutory impairment standard that governs unbundling decisions; and places undue reliance on the flawed *Berkman Study*.

Time and again, the Commission has carefully considered unbundling issues in the context of constructing its broadband regulatory regime. The Commission has weighed the appropriate incentive structures and opted for a regime guided by standards that promote broadband investment and deployment. Contrary to the Petition’s claims, investment in fiber networks has skyrocketed as a result. Broadband providers spend tens of billions of dollars in capital expenditures each year to deploy and upgrade their networks. Dramatic gains in broadband connectivity and adoption have followed. Our nation’s employment and economy are now impacted in no small part by the tremendous levels of broadband investment, availability and connectivity. Yet the Petition ignores these facts and instead seeks to turn established and successful Commission precedent on its head.

Strikingly, the Petition completely fails to address the statutory unbundling standard, as interpreted and applied by the Commission and the courts. The decision whether to mandate unbundling under section 251(c) of the Act must be grounded in section 251(d)(2)’s “impairment” standard. Yet the Petition does almost nothing to address section 251(d)(2)’s requirements. Instead it relies on bald assertions that providers are impaired without access to the packetized capabilities of fiber and hybrid loops, and makes easily refuted assertions regarding the state of fiber deployment over recent years. In fact, the Petition simply cannot be squared with the Commission’s previous factual determinations concerning the obstacles to

deployment faced by both incumbents and competitors. Further, the Petition is impermissibly based on a specific business plan contemplated by Cbeyond itself. Moreover, Cbeyond relies on the claim that its need for unbundled facilities arises from the heightened capacity demands imposed by its services. Yet, this argument contravenes the impairment standard's central tenet – namely, that increased capacity needs will give rise to increased revenues and thus render competitive deployment of facilities *more* feasible, not *less*.

Finally, the Petition places undue reliance on the *Berkman Study*, which has previously been called into question by TIA and others. Among its flaws, the *Berkman Study* overlooks the fact that the United States enjoys a multi-platform broadband marketplace that is relatively unique in the world. Accordingly, broadband service in the United States cannot be easily compared to broadband service in countries operating on a single-platform paradigm. Significantly, the *Berkman Study* also understates the role that public investment has played in other nations while, at the same time, overstating the relationship between unbundling requirements and adoption. At bottom, the *Berkman Study* can hardly be used as credible evidence to justify the imposition of unbundling mandates.

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INTRODUCTION

The Telecommunications Industry Association (“TIA”), the leading trade association for the information and communications technology industry, and the FTTH Council North America, hereby submits their comments on the Petition for Expedited Rulemaking filed by Cbeyond, Inc. (“Cbeyond”).¹ The Fiber-to-the-Home Council is a non-profit association consisting of 200 providers of FTTH services and other companies involved in planning and building FTTH networks. TIA’s 600 member companies manufacture or supply the products and services used in the provision of broadband and broadband-enabled applications. The issues involved in this proceeding are of great importance to these organization’s member companies, as they impact investment in and deployment of next-generation broadband networks across the United States, and ultimately throughout the rest of the world. Just like the Commission, TIA

¹ Cbeyond, Inc. Petition for Expedited Rulemaking to Require Unbundling of Hybrid, FTTH, and FTTC Loops Pursuant to 47 U.S.C. § 251(c)(3) of the Act, WC Dkt. No. 09-223 (filed Nov. 16, 2009) (“Petition”).

and the FTTH Council want to see broadband deployed everywhere and used by everyone, and the organizations look forward to continuing its partnership with the Commission in furtherance of this important objective.

For the reasons discussed herein, the Commission should deny Cbeyond's Petition. Cbeyond asks the Commission to reverse course on its long-standing policies governing the unbundling of fiber-optic facilities. These policies, however, have been exceedingly successful, prompting an explosion in next-generation facilities investment and deployment and a concomitant rise in broadband adoption. Moreover, the Petition simply fails to address the statutory impairment standard, which must govern the Commission's unbundling decisions. Finally, the Petition's reliance on the study recently prepared by Harvard University's Berkman Center for Internet & Society is misplaced; as TIA and others have explained, that Study is badly flawed, and does not demonstrate any conclusion with regard to fiber unbundling.

BACKGROUND

Over the course of the past decade, the Commission has created a broadband regulatory regime focused on the need to ensure accelerated deployment of high-speed facilities. The decisions effectuating this policy reflect the understanding – shared by the courts – that forced-access rules undermine investment incentives for incumbent providers and new entrants alike. Before addressing Cbeyond's arguments directly, it is worth reviewing these decisions and their reasoning – reasoning that applies with equal force today.

In 2003's *Triennial Review Order*, the Commission recognized “the difficulties and limitations inherent in competition based on the shared use of infrastructure through network unbundling.”² In particular, the *TRO* articulated an “aware[ness] that excessive network

² *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment*

unbundling requirements tend to undermine the incentives of both incumbent LECs and new entrants to invest in new facilities and deploy new technology.”³ The Commission determined that the barriers to entry faced by competitive and incumbent carriers with respect to the provision of broadband services over FTTH loops were identical.⁴ It further found that “competitive LECs are currently leading the overall deployment of FTTH loops after having constructed some two-thirds or more of the FTTH loops throughout the nation.”⁵ Noting evidence that “carriers will be able to earn a substantially greater return on their FTTH investment by offering voice, data, video, and other services,” the Commission found that “the substantial revenue opportunities posed by FTTH deployment help ameliorate many of the entry barriers presented by the costs and scale economies.”⁶ In addition, the Commission recognized that its rules would promote broadband deployment, in fulfillment of its section 706 obligations.⁷ Thus, the *TRO* removed section 251(c) unbundling obligations with respect to fiber-to-the-home (“FTTH”) loops.⁸

of Wireline Services Offering Advanced Telecommunications Capability, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, 16984 ¶ 3 (2003) (subsequent history omitted) (“*TRO*”).

³ *Id.*

⁴ *Id.* at 17143-45 ¶¶ 275-77.

⁵ *Id.* at 17143 ¶ 275.

⁶ *Id.* at 17142-43 ¶ 274.

⁷ *See id.* at 17145 ¶ 278.

⁸ The Commission recognized that in the case of fiber overbuilds (i.e., in “brownfield” locations), competitors would be impaired if they sought *only* to provide “narrowband” services. In that case, the revenue opportunities associated with FTTH would be absent, and the same impediments that prevented CLECs from constructing their own copper loops would remain in place. *Id.* at 17144-45 ¶ 277. Therefore, the Commission required that in overbuild situations, the incumbent must either (1) “keep the existing copper loop connected to a particular customer after deploying FTTH,” or (2) “provide unbundled access to a 64 kbps transmission path over its FTTH loop. *Id.* The Commission made clear that this was “a very limited requirement intended only to ensure continued access to a local loop suitable for providing narrowband services to the mass market in situations where an incumbent LEC has deployed overbuild FTTH and elected to retire the pre-existing copper loops.” *Id.* This exception to the unbundling rules is therefore not pertinent to the instant petition, which concerns only Cbeyond’s ability to offer broadband data services. *See* Petition at 18.

The *TRO* reached a similar result, for similar reasons, for hybrid copper-fiber loops. The Commission declined to require ILECs to unbundle any packetized capabilities of hybrid loops, or any equipment used to transmit packetized information over such loops.⁹ As Cbeyond notes, however, competitors were afforded continued unbundled access to narrowband transmission paths over the incumbent’s TDM facilities.¹⁰ As with FTTH facilities, the Commission determined that its refusal to require unbundling of packetized hybrid loop offerings would promote deployment of next-generation facilities by incumbents and competitors alike.¹¹

In 2004,¹² the U.S. Court of Appeals for the District of Columbia Circuit (“D.C. Circuit”) upheld the *TRO*’s decisions with regard to FTTH and hybrid loops. In particular, the court endorsed the Commission’s reasoning with regard to deployment incentives: “An unbundling requirement under these circumstances seems likely to delay infrastructure investment, with CLECs tempted to wait for ILECs to deploy FTTH and ILECs fearful that CLEC access would undermine the investments’ potential return. Absence of unbundling, by contrast, will give all parties an incentive to take a shot at this potentially lucrative market.”¹³ Indeed, given Congress’s preference for facilities deployment, the court found that limits on unbundling would be appropriate even if they “entail[ed] increasing consumer costs today in order to stimulate technological innovations” to satisfy demand in the future.¹⁴

Since the *TRO*, the Commission has consistently emphasized the importance of promoting investment, and has recognized the ways in which network sharing obligations of

⁹ *Id.* at 17149 ¶ 288.

¹⁰ *Id.* at 17153-54 ¶ 296.

¹¹ *Id.* at 17150 ¶ 290.

¹² *United States Telecom Ass’n v. FCC*, 359 F.3d 554 (D.C. Cir. 2004) (“*USTA II*”).

¹³ *Id.* at 584.

¹⁴ *Id.* at 581.

various sorts can undermine such investment. In the 2004 *MDU Reconsideration Order*,¹⁵ it determined that the *TRO*'s FTTH rules should apply to fiber links serving residential “multiple dwelling units,” noting that the “principles of section 706 of the Act for residential customers living in MDUs outweigh whatever impairment findings may be present for fiber loops serving such customers.”¹⁶ Also in 2004, the *FTTC Reconsideration Order* held that the *TRO*'s FTTH rules should apply to links passing within 500 feet of the end-user location.¹⁷

Likewise, the *Broadband 271 Forbearance Order*¹⁸ relieved the Bell Operating Companies (“BOCs”) of section 271 access obligations with regard to broadband elements they no longer were required to offer as UNEs under section 251. The Commission there found that even section 271's more limited access requirement – which permits BOCs to charge “just and reasonable” rates rather than TELRIC rates¹⁹ – exerts “disincentive effects ... on BOC investment,” and concluded “that the beneficial effect of [section 271] unbundling is small given the particular characteristics of [the broadband Internet access] retail market.”²⁰ In its 2005 *Wireline Broadband Order*, the Commission lifted network-sharing obligations arising from its

¹⁵ *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Order on Reconsideration, 19 FCC Rcd 15856 (2004) (“*MDU Reconsideration Order*”).

¹⁶ *Id.* at 15858 ¶ 4.

¹⁷ *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Memorandum Opinion and Order, 19 FCC Rcd 20293 (2004) (subsequent history omitted) (“*FTTC Reconsideration Order*”).

¹⁸ *Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c); SBC Communications Inc.'s Petition for Forbearance Under 47 U.S.C. § 160(c); Qwest Communications International Inc. Petition for Forbearance Under 47 U.S.C. § 160(c); BellSouth Telecommunications, Inc. Petition for Forbearance Under 47 U.S.C. § 160(c)*, 19 FCC Rcd 21496 (2004) (“*Broadband 271 Forbearance Order*”).

¹⁹ *TRO*, 18 FCC Rcd at 17386 ¶ 656.

²⁰ *Broadband 271 Forbearance Order*, 19 FCC Rcd at 21505 ¶ 21.

Computer Inquiry decisions from providers of wireline broadband Internet access services.²¹ These obligations too, the Commission recognized, “constrain technological advances and deter broadband infrastructure investment by creating disincentives to the deployment of facilities capable of providing innovative broadband Internet access services.”²²

More recently, in a series of orders oddly ignored by the Petition, the Commission has expressly addressed incumbents’ wholesale obligations with respect to packet-switched broadband telecommunications services and optical transmission services.²³ In those orders, the Commission granted, in part, petitions filed by AT&T, Qwest, Embarq, Frontier, and Citizens seeking forbearance from various obligations in connection with these offerings. Of particular relevance, the orders granted forbearance from certain dominant-carrier and tariffing requirements. These orders found that “[t]here are a myriad of providers prepared to make competitive offers to enterprise customers demanding packet-switched data services located both within and outside any given incumbent LEC’s service territory,”²⁴ and highlighted the sophistication of business users.²⁵ The Commission found that “[e]ven in situations where competitors do not have the option of self-deploying their own facilities or purchasing inputs

²¹ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities et al.*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) (subsequent history omitted) (“*Wireline Broadband Order*”).

²² *Id.* at 14865 ¶ 19.

²³ See *Petition of the Embarq Local Operating Companies for Forbearance Under 47 U.S.C. § 160(c) from Application of Computer Inquiry and Certain Title II Common-Carriage Requirements et al.*, Memorandum Opinion and Order, 22 FCC Rcd 19478 (2007) (“*Embarq/Frontier Forbearance Order*”); *Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Its Broadband Services et al.*, Memorandum Opinion and Order, 22 FCC Rcd 18705 (2007) (“*AT&T Forbearance Order*”); *Qwest Petition for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Broadband Services*, Memorandum Opinion and Order, 23 FCC Rcd 12260 (2008) (“*Qwest Forbearance Order*”).

²⁴ *Embarq/Frontier Forbearance Order*, 22 FCC Rcd at 19491 ¶ 21; *AT&T Forbearance Order*, 22 FCC Rcd at 18718-19 ¶ 22; *Qwest Forbearance Order*, 23 FCC Rcd 12274-75 ¶ 25.

²⁵ *Embarq/Frontier Forbearance Order*, 22 FCC Rcd 19492 ¶ 23; *AT&T Forbearance Order*, 22 FCC Rcd at 18720 ¶ 24; *Qwest Forbearance Order*, 23 FCC Rcd 12276 ¶ 27.

from carriers other than the incumbent LEC, potential providers may rely on special access services purchased from the incumbent LEC at rates subject to price regulation.”²⁶ Finally, the Commission expressly *rejected* the argument “that TDM-based loops cannot in many instances be used to provide packetized broadband services to enterprise customers.”²⁷

DISCUSSION

I. CONTRARY TO CBeyond’S CLAIMS, INVESTMENT IN FIBER NETWORKS HAS SKYROCKETED FOLLOWING FCC DECISIONS TO REMOVE UNBUNDLING REQUIREMENTS.

Cbeyond’s Petition is premised almost entirely on its contention that the line of Commission decisions addressed above were based on faulty predictions that the elimination of unbundling requirements would promote investment in and deployment of next-generation networks. Specifically, Cbeyond states that “[t]he premise underlying the Commission’s decision to eliminate unbundling of these elements-that doing so would remove disincentives to invest in next-generation broadband facilities and spur broadband deployment-has proven to be false.”²⁸ Accordingly, Cbeyond urges, “the Commission should end its misguided experiment in premature deregulation....”²⁹

Cbeyond’s foundational presumption, however, is simply erroneous. Indeed, the facts are clear: since the adoption of the Commission’s *Triennial Review Order*, there has been an unprecedented level of investment in broadband and next generation deployments generally and fiber-optic facilities in particular. Amidst one of the country’s most challenging economic times, broadband providers continue to annually invest tens of billions of dollars in broadband. This

²⁶ Embarq/Frontier Forbearance Order, 22 FCC Rcd at 19493 ¶ 24; AT&T Forbearance Order, 22 FCC Rcd at 18720-21 ¶ 25; Qwest Forbearance Order, 23 FCC Rcd at 12277 ¶ 28.

²⁷ Embarq/Frontier Forbearance Order, 22 FCC Rcd at 19494 ¶ 25.

²⁸ Petition at 5.

²⁹ *Id.*

investment, which includes massive fiber deployments, has driven the availability of broadband across the country and at the same time, created valuable new economic opportunities. Just as significantly, this investment has enabled broadband *adoption* to surge, with corresponding consumer benefits. In fact, today, most American consumers can choose from amongst multiple broadband platform providers.

Over the past few years, there has been tremendous network expansion and investment by broadband providers. In fact, broadband providers have invested more than \$166.5 billion in capital expenditures between 2007 and the end of the third quarter 2009.³⁰ In 2008, broadband providers invested at least \$64 billion to deploy and upgrade their networks.³¹ In the first three quarters of 2009 alone, broadband providers made \$39.4 billion in capital expenditures.³² To illustrate the scope of these expenditures, when adjusted for inflation, the current level of current private sector annual broadband investment “is more than twice the U.S. government’s prior average annual investment in building the interstate highway system and putting a man on the moon – combined.”³³ Just as significantly, looking forward, carrier capital expenditures are expected to remain within a range (\$55-66 billion) of their already impressive levels over the next few years.³⁴

³⁰ See Comments of the Communications Workers of America, GN Docket No. 09-191, WC Docket No. 07-52, at 6 (filed Jan. 14, 2010) (“CWA Comments”). More broadly, the ICT sector has seen steady growth in investment since 2003 – with 2008 investment levels of \$455 billion or 22 percent of the country’s capital investment. See Bret Swanson, *Preparing to Pounce: D.C. angles for another industry*, The Technology Liberation Front (Oct. 19, 2009), available at <http://techliberation.com/2009/10/19/preparing-to-pounce-d-c-angles-for-another-industry/> (last visited Dec. 21, 2009) (sourced from U.S. Bureau of Economic Analysis).

³¹ See US Telecom Comments at 3; see also Patrick Brogan, *The Economic Benefits of Broadband and Information Technology*, 18 Media L. & Pol’y 74 (2009) (“Brogan”).

³² See *id.*

³³ See Comments of US Telecom, GN Docket 09-51, at 12 (filed June 8, 2009) (“US Telecom Comments”).

³⁴ Brogan at 74.

Capital expenditures on a platform- or provider-specific basis confirm that providers are investing heavily in the broadband future. AT&T invested \$38 billion between 2007 and 2008, and planned to invest between \$17-18 billion in 2009, with approximately two-thirds of its new investment dedicated to supporting broadband.³⁵ Meanwhile, “Verizon has invested more in capital expenditures over the last several years – more than \$80 billion from 2004 through 2008 – than any other company in the United States in any industry.”³⁶ The cable industry has also invested heavily in network enhancements, with over \$145 billion in capital expenditures since the mid-1990s.³⁷ These capital expenditures among competing providers have helped to drive enormous gains in broadband availability across the country.

The rise in broadband deployment generally is led by heavy investment in fiber-to-the-home (“FTTH”) facilities. In September 2003, the total number of FTTH homes passed equaled less than 200,000, with only 64,700 homes connected. As of September 2009, there were over *17.2 million* FTTH homes passed, with over *5.3 million homes connected*.³⁸ Today, more than 90% of US households have access to either a wireline or cable broadband service, with the vast majority having access to both.³⁹

The meteoric rise in connectivity tracks similar gains in broadband subscribership. TIA estimates that broadband subscribership will have grown from just 22.7 million in 2003 to over

³⁵ Comments of AT&T, GN Docket No. 09-51, at vii (filed June 8, 2009).

³⁶ Comments of Verizon, GN Docket No. 09-51, at 18 (filed June 8, 2009).

³⁷ Comments of Comcast, GN Docket No. 09-51, at 2 (filed June 8, 2009).

³⁸ See Michael C. Render, Presentation: Fiber-to-the-Home Council North America, North American FTTH/FTTP Status (Sept. 2009).

³⁹ See National Cable and Telecommunications Association, Availability, <http://www.ncta.com/StatsGroup/Availability.aspx> (last visited Jan. 19, 2010) (stating that 92% of households have high speed cable Internet availability); Federal Communications Commission, Industry Analysis and Technology Division, Wireline Competition Bureau, High-Speed Services for Internet Access: Status as of June 30, 2008, at Table 14 (July 2009) (showing that 83% of residential end user premises have DSL availability where ILECs offer local telephone service and 96% of households have cable modem availability where cable systems offer cable TV service).

79 million in 2009. This figure will continue to grow to 103 million in 2012.⁴⁰ Meanwhile, the United States achieved 50% broadband household penetration in just nine years – faster than the 40+ years it took the telephone or the 35 years it took cable television to reach the same level of penetration.⁴¹ Indeed, as of April 2009, home broadband adoption stood at 63% of adult Americans, a gain of 8% from just a year before.⁴²

Network investment and broadband availability have a direct effect on employment and other indicators of national economic health. Although estimates vary, no one disputes that broadband has a multi-billion dollar impact on the U.S. Gross Domestic Product.⁴³ Additionally, broadband and next-generation broadband technologies play an important part in today's employment environment. Taken together, AT&T, Verizon, Comcast, and Time Warner have over 670,000 employees.⁴⁴ Meanwhile, according to one study, a single percentage point increase in broadband deployment would lead to the creation of as many as 300,000 new jobs.⁴⁵ The Commission itself has acknowledged that more than 600,000 Americans earn part of their living by operating small businesses on eBay®.⁴⁶ Above all, as policy makers consider

⁴⁰ TIA's 2009 ICT Market Review & Forecast, Figure I-1.9 "Broadband Subscribers in the United States," ("TIA 2009 ICT Market Review & Forecast") available at <http://www.tiaonline.org/business/research/mrf/>.

⁴¹ US Telecom Comments at 4-5.

⁴² See John Horrigan, Pew Internet and American Life Project, Home Broadband Adoption 2009, at 3 (June 2009), available at <http://www.pewinternet.org/Reports/2009/10-Home-Broadband-Adoption-2009.aspx>.

⁴³ See e.g., Shane Greenstein and Ryan McDevitt, *The Broadband Bonus: Accounting for Broadband Internet's Impact on U.S. GDP*, National Bureau of Economic Research Working Paper 14758 (Feb. 2009); Robert W. Crandall et al., Criterion Economics, *The Effect of Ubiquitous Broadband Adoption on Investment, Jobs and the US Economy* (Sept. 2003).

⁴⁴ CWA Comments at attachment, "The U.S. Broadband Industry Investment and Employment."

⁴⁵ Robert Crandall et al., *The Effects of Broadband Deployment on Output and Employment: A Cross-Sectional Analysis of US Data*, Issues in Economic Policy, The Brookings Institution (July 2007) available at <http://www.brookings.edu/views/papers/crandall/200706litan.pdf>.

⁴⁶ *Preserving the Open Internet*, Notice of Proposed Rulemaking, 24 FCC Rcd 13064 ¶ 20 (2009).

proposals like Cbeyond's, they must exercise caution so as not to undermine these important social impacts.

In sum, notwithstanding Cbeyond's claims to the contrary, the Commission's deployment-oriented approach to fiber unbundling has been a massive success, promoting extensive investment and build-out. Moreover, this deployment is promoting economic growth and creating jobs. Under these conditions, there is simply no merit to Cbeyond's claim that the Commission's current policy has failed – and there is no basis for the result advocated in its Petition.

II. THE PETITION COMPLETELY IGNORES THE STATUTORY STANDARD FOR UNBUNDLING.

In addition to its central failure to account for the huge increase in fiber-based broadband deployment in the past several years, the Petition completely fails to address the statutory unbundling standard, as interpreted and applied by the Commission and the courts. In fact, its argument runs directly contrary to well-settled principles regarding that standard's application.

As the Commission knows very well, the decision whether to mandate unbundling under section 251(c) of the Act must be grounded in section 251(d)(2)'s "impairment" standard. That section provides that in determining whether a network element must be made available under section 251(c)(3), "the Commission shall consider, at a minimum, whether ... the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer."⁴⁷ The Commission has expended a great deal of time and effort in determining how to interpret the impairment standard itself, and in identifying the specific network elements that qualify for unbundling under this

⁴⁷ 47 U.S.C. § 251(d)(2).

test.⁴⁸ In the course of this effort, the courts have regularly emphasized the limits that the statutory impairment threshold places on the Commission’s discretion. For example, the Supreme Court has made clear that section 251(d)(2) requires the FCC to apply a “limiting standard,” and precludes blanket unbundling.⁴⁹ And the D.C. Circuit has expressly rejected the exercise of “open-ended [FCC] judgment” regarding the merits of unbundling in a particular case, reiterating that Congress “made ‘impairment’ the touchstone.”⁵⁰

The “impairment” requirement is critical, the D.C. Circuit has recognized, because “[e]ach unbundling of an element imposes costs of its own, spreading the disincentive to invest in innovation and creating complex issues of managing shared facilities.”⁵¹ As the court explained: “Some innovations pan out, others do not. If parties who have not shared the risks are able to come in as equal partners on the successes, and avoid payment for the losers, the incentive to invest plainly declines.”⁵² As the court subsequently put it, “[a]n unbundling requirement ... seems likely to delay infrastructure investment, with CLECs tempted to wait for ILECs to deploy [facilities] and ILECs fearful that CLEC access would undermine the investments’ potential return.” In contrast, the “[a]bsence of unbundling” will “give all parties an incentive to take a shot at [a] potentially lucrative market.”⁵³

⁴⁸ See, e.g., *TRO*, 18 FCC Rcd 16978; Unbundled Access to Network Elements; Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Order on Remand, 20 FCC Rcd 2533 (2005) (“*TRRO*”); *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696 (1999) (subsequent history omitted); *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499 (subsequent history omitted).

⁴⁹ See *AT&T v. FCC*, 525 U.S. 366, 388-92 (1999).

⁵⁰ *United States Telecom Ass’n v. FCC*, 290 F.3d 415, 425 (D.C. Cir. 2002) (“*USTA I*”).

⁵¹ *Id.* at 427, citing *AT&T v. Iowa Utils. Bd.*, 525 U.S. at 428-29 (Breyer, J., concurring in part and dissenting in part) (noting that “compulsory sharing can have significant administrative and social costs inconsistent with the Act’s purposes”).

⁵² *USTA I*, 290 F.3d at 424.

⁵³ *USTA II*, 359 F.3d at 584.

Given the centrality of the impairment test to the unbundling analysis, it is puzzling that Cbeyond does almost nothing to address section 251(d)(2)'s clear requirements. Indeed, the Petition's "analysis" of the impairment standard as applied to the facilities at issue is limited to two conclusory sentences: "It is clear that competitors seeking to provide broadband at capacities between those delivered by T-1 loops (1.5 Mbps) and DS3 loops (45 Mbps) are impaired without access to the loop capacity resident in fiber and hybrid loops. That is, a reasonably efficient competitor cannot recover the costs associated with fiber loop deployment where the service to be provided yields revenues associated with even a single DS3 loop facility, let alone a DS1 loop facility."⁵⁴ This claim, never *addresses*, much less *refutes*, the *TRO*'s 28-paragraph-long discussion of fiber loop unbundling,⁵⁵ or the *TRRO*'s 52-paragraph discussion of DS1- and DS3-capacity loop unbundling.⁵⁶ Rather, Cbeyond relies on the irrelevant and erroneous claim that "[t]he benefits of unbundling fiber and hybrid loops serving small and medium businesses would outweigh the costs."⁵⁷ In short, other than stating baldly that providers are impaired without access to the packetized capabilities of fiber and hybrid loops and making easily refuted assertions regarding the state of fiber deployment over recent years, the Petition does nothing to rebut the Commission's extensive analyses of these issues.

Of course, there is no mystery why Cbeyond virtually ignores the impairment standard: Its arguments cannot survive that standard's scrutiny. **First**, the Commission's previous factual

⁵⁴ Petition at 14. *See also id.* at 20 ("There is no question that competitors are impaired without access to unbundled fiber and hybrid loops and that the policies of Section 706 have been undermined by the elimination of such UNEs.").

⁵⁵ *See TRO*, 18 FCC Rcd at 17141-54 ¶¶ 272-97.

⁵⁶ *See TRRO*, 20 FCC Rcd at 2614-41 ¶¶ 146-198. Tellingly, while the Petition highlights *TRRO* language stating that it would "rarely if ever [be] economic" for a reasonably efficient competitor to deploy DS1 loops in many wire centers, Petition at 14 n.44, it ignores the fact that the *TRRO preserved DS1 loop unbundling* in those wire centers where it believed such deployment to be uneconomic. Only in those wire centers where such facilities could economically be self-provisioned or obtained at wholesale did the *TRRO* eliminate unbundling. *See TRRO*, 20 FCC Rcd at 2614-41 ¶¶ 146-98.

⁵⁷ Petition at 20.

findings continue to stand. It is still the case that incumbents and competitors face identical obstacles in deploying next-generation facilities. It is still the case that incumbents and competitors face identical barriers to the deployment of fiber facilities, and that competitors have made substantial fiber deployments. It is still the case that “carriers will be able to earn a substantially greater return on their FTTH investment by offering voice, data, video, and other services,” and that these returns permit self-deployment. Congress still favors deployment. There are still many providers willing to service enterprise customers desiring packet-switched data services. And TDM-based facilities may still be used to provide services of the sort at issue here. In short, nothing has changed that might warrant revisitation of the Commission’s precedents in this area.

Second, the Petition is based entirely – and impermissibly – on the specific business plan contemplated by Cbeyond itself. Specifically:

Cbeyond is ready today to develop a series of applications for small businesses that are utilized almost exclusively by large businesses. These applications include virtualized desktops, remote desktop management, high-resolution video conferencing, broadcast/live video streaming, robust data protection, sophisticated video security systems, cloud computing and software as a service. These are proven applications that yield unquestioned efficiencies. Small businesses could rely on them to lower their costs and increase productivity. But Cbeyond cannot offer these applications via T-1 loops because the applications require much more bandwidth than 1.5 Mbps.... *Cbeyond needs the increased capacity that fiber and hybrid loops can provide in order to deliver the applications at issue.*⁵⁸

In the *TRO*, however, the Commission expressly rejected arguments that it should evaluate a requesting carrier’s impairment with reference to that carrier’s particular business strategy. It explained that such an approach “could reward those carriers that are less efficient or whose

⁵⁸ Petition at 18 (emphasis added).

business plans simply call for greater reliance on UNEs.”⁵⁹ As the Commission later explained in the *TRRO*:

The [*TRO*] also noted that a business-plan specific analysis would potentially “disregard the availability of scale and scope economies gained by providing multiple services to large groups of customers,” and specified that the impairment standard was “based on an entrant providing the full range of services and to all customers supported by the marketplace.”⁶⁰

In the *TRRO*, the Commission reaffirmed this approach, clarifying that the hypothetical provider on which it based impairment decisions was a “reasonably efficient” competitor. “In analyzing entry from the perspective of the reasonably efficient competitor, *we do not attach weight to the individualized circumstances of the actual requesting carrier.*”⁶¹ The D.C. Circuit upheld this standard.⁶² Cbeyond’s argument – that the Commission should require unbundling of fiber facilities to permit it to offer specific applications that it claims require access to fiber loops – is blatantly inconsistent with the Commission’s settled approach to impairment.

Third, Cbeyond relies on the claim that its need for unbundled facilities arises from the *heightened* capacity demands imposed by its services. As noted above, Cbeyond admits that it intends to use the unbundled facilities at issue to offer high-bandwidth, high-revenue services requiring more bandwidth than is available using a TDM DS1 facility. Elsewhere, the Petition explains that the TRO regime has failed because “competitors now require access to increased bandwidth in order to provide innovative applications that will yield substantial public interest benefits.”⁶³ This argument, however, contravenes the impairment standard’s central observation that increased capacity needs will give rise to increased revenues and thus render self-

⁵⁹ *TRO*, 18 FCC Rcd at 17056 ¶ 115.

⁶⁰ *TRRO*, 20 FCC Rcd at 2547-48 ¶ 25, *citing TRO*, 18 FCC Rcd at 17056 ¶ 115 n.396.

⁶¹ *TRRO*, 20 FCC Rcd at 2548 ¶ 26 (emphasis added).

⁶² *See Covad Commc’ns Co. v. FCC*, 450 F.3d 528 (D.C. Cir. 2006).

⁶³ Petition.at 11.

deployment (or procurement from third parties) *more* feasible, not *less*. In the TRO, the Commission emphasized that the impairment analysis must consider “the full range of revenues available ... in determining whether entry is possible.”⁶⁴ Thus, potential revenues fell at the heart of the analysis:

We find a requesting carrier to be impaired when lack of access to an incumbent LEC network element poses a barrier or barriers to entry, including operational and economic barriers, that are likely to make entry into a market uneconomic. That is, we ask whether all potential revenues from entering a market exceed the costs of entry, taking into consideration any countervailing advantages that a new entrant may have.⁶⁵

A corollary to this point has been the long-standing recognition that higher-capacity facilities are less likely to be subject to impairment than lower-capacity facilities, because providers can use them to offer more services and, accordingly, to collect higher revenues. The Commission summarized its reasoning with respect to loop facilities as follows: “For copper loops, we find on a national basis that requesting carriers are impaired without access to these loops, including copper subloops, because their absence is likely to make entry uneconomic. For other types of loops (i.e., FTTH loops and hybrid fiber/copper loops used in packet-based transmissions), however, we recognize that *additional revenue opportunities associated with increased bandwidth capabilities* may alleviate, in direct proportion to the level of fiber deployment, at least some of these entry barriers.”⁶⁶ The *TRRO* extended this logic to the

⁶⁴ *TRO*, 18 FCC Rcd at 17032 ¶ 77.

⁶⁵ *Id.* at 17035 ¶ 84. *See also TRRO*, 20 FCC Rcd at 2547 ¶ 24 (“We consider *all* the revenue opportunities that such a competitor can reasonably expect to gain over the facilities, from providing all possible services that an entrant could reasonably expect to sell, taking into account limitations on entrants’ ability to provide multiple services, such as diseconomies of scope in production, management, and advertising.”).

⁶⁶ *TRO*, 18 FCC Rcd at 17122 ¶ 236 (emphasis added).

analysis of high-capacity loops and transport links.⁶⁷ Cbeyond, however, attempts to turn this logic on its head, arguing that its desire to provide services requiring high-capacity facilities warrants an *expansion* of unbundling requirements. In fact, to the extent Cbeyond's sophisticated offerings are desired by end users, they will command revenues sufficient to permit Cbeyond to deploy its own high-capacity facilities, or to secure such facilities from third parties.

III. THE PETITION'S RELIANCE ON THE *BERKMAN STUDY* IS MISPLACED.

Cbeyond argues that the recent study prepared by Harvard University's Berkman Center for Internet & Society ("*Berkman Study*") demonstrates that mandatory unbundling of fiber loops contribute to broadband penetration, capacity, and affordability.⁶⁸ TIA has previously explained the numerous flaws inherent in the *Berkman Study*, and provides only a summary of that discussion here.⁶⁹ TIA shares concerns raised by some that the *Berkman Study* "isn't a reliable straightforward comparison of deployment, adoption, speeds and prices of broadband technology among different countries...,"⁷⁰ that it is "incomplete and not objective," and that it "does not accomplish its intended purpose."⁷¹ For example, the *Berkman Study* ignores readily available data that would at least provide a counterweight to the regulatory policies it seeks to advance.

⁶⁷ See, e.g., *TRRO*, 20 FCC Rcd at 2578 ¶ 71 ("[R]evenues generated increase with the amount of traffic that is carried on a particular transport route."); *id.* at 2585 ¶ 86 ("Just as the Commission found in the Triennial Review Order, there are significant differences between the potential revenues available from circuits of different capacities. For example, a competing carrier is able to sell services at the DS1 level that only return a fraction of the revenues that are available from a service offered at DS3 or OCn capacity levels.").

⁶⁸ Petition at 22-27.

⁶⁹ For more detail, see Comments of the Telecommunications Industry Association, GN Dkt. Nos. 09-47, 09-51, 09-137 (filed Nov. 16, 2009).

⁷⁰ Seth L. Cooper, *The Faulty Berkman Report: The Fallacy of Overlooking Secondary Consequences*, The Free State Foundation, at 2 (Nov. 3, 2009) ("Cooper").

⁷¹ Comments of Thomas M. Lenard, Ph.D., GN Dkt. Nos. 09-47, 09-51, 09-137, at 1 (filed Nov. 9, 2009).

Indeed, when considered in conjunction with other available evidence, the *Berkman Study* actually *supports* the notion that open access policies reduce the consumption of broadband.⁷²

Of particular note, the *Berkman Study* overlooks the fact that the U.S. enjoys a multi-platform broadband marketplace that is relatively unique.⁷³ Unlike most other nations, providers in the U.S. compete aggressively in terms of price, service and technology to provide the best broadband experience to consumers.⁷⁴ Bret Swanson well summarizes the differences between the U.S. broadband market and the rest of the world as follows:

Another important market distinction: The U.S. has by far [sic] largest cable TV presence of any nation reviewed. Cable has a larger broadband share than DSL+fiber, and has since the late 1990s. No nation has nearly the divided market between two very substantial technology/service platforms. This unique environment makes many of the [*Berkman Study*] comparisons less relevant and

⁷² George S. Ford, Ph.D., *Whoops! Berkman Study Shows “Open Access” Reduces Broadband Consumption*, Phoenix Center Perspectives 09-05, at 1 (Nov. 12, 2009) (“Ford”) (“[T]he *Berkman Study* first improperly estimates its econometric model and then incorrectly interprets the results from it. The error in the interpretation is significant. While the study’s authors verbally conclude that open access policies stimulate increased consumption of broadband, the econometric model they rely upon shows the opposite—open access *reduces* the consumption of broadband.”).

⁷³ See The Berkman Center for Internet & Society at Harvard University, *Next Generation Connectivity: A review of broadband Internet Transitions and policy from around the world*, at 29, Figure 3.1 (Oct. 2009 Draft), available at http://www.fcc.gov/stage/pdf/Berkman_Center_Broadband_Study_13Oct09.pdf (“*Berkman Study*”) (detailing broadband penetration by technology).

⁷⁴ See Comments of the National Cable and Telecommunications Association, GN Docket No. 09-51, at 10 (filed June 8, 2009) (“NCTA Broadband Plan Comments”) (“In 2000, only 46 percent of households had access to high-speed Internet access provided by a cable operator. Ten years later, that figure has doubled as cable operators now offer high-speed Internet service to more than 92 percent of American households.”); Comments of the United States Telecom Association, GN Docket No. 09-51, at i (filed June 8, 2009) (“By some estimates, cumulative capital expenditures by broadband providers from 2000-2008 were over half a trillion dollars, and private investment in broadband infrastructure has grown consistently since 2003. As a result of this massive private investment in infrastructure, . . . [o]ver 90% of U.S. households can choose from either a wireline or a cable broadband service and approximately four-fifths of U.S. households have access to both. In addition, mobile wireless broadband, from at least one of several providers, is available to more than 95% of U.S. households.”); Comments of CTIA-The Wireless Association®, GN Docket No. 09-157 *et al.*, at 66 (filed Sept. 30, 2009) (citing Sarah Keefe, *U.S. tops worldwide charts for mobile web browsing and spending*, Bango (Mar. 12, 2009), available at <http://news.bango.com/2009/03/12/us-tops-mobile-web-browsing-and-spending-charts/>) (Wireless web use in the U.S. ranks first in the world, accounting for 29.3 percent of all mobile web surfing worldwide according to Bango, a firm that tracks statistics for surfing of web sites optimized for mobile users.).

the policy points far less salient.⁷⁵

In short, broadband service in the U.S. is provided through multiple platforms and cannot reasonably be compared to broadband service in countries operating on a single platform paradigm. The suggestion found in the *Berkman Study* that “[f]acilities-based competition usually complements, rather than substitutes for, access-based competition” simply does not hold true for the U.S.⁷⁶ Investment incentives are much different for a country with a single technological platform, particularly one that is significantly funded by the government and thus by taxpayers, than in a multi-platform economy featuring numerous facilities-based competitors. The *Berkman Study*, however, “dismissed facilities-based competition and instead emphasizes government-managed competition.”⁷⁷

The *Berkman Study* also understates the role that public investment in broadband has played in other nations, and therefore vividly overstates the relationship between unbundling requirements and adoption. Indeed, as the Study elsewhere acknowledges, while “the relative share of direct government investment is harder to gauge outside of Sweden, it does appear that the leaders in fiber deployment—South Korea, Japan, and Sweden—are also the leading examples of large, long term capital investments through expenditures, tax breaks, and low cost loans that helped deployment in those countries. These countries have *spent substantially more*, in public spending on a per capita basis, than the U.S. has appropriated for stimulus funding.”⁷⁸

⁷⁵ Bret Swanson, *Preparing to Pounce: D.C. angles for another industry*, The Technology Liberation Front (Oct. 19, 2009), available at <http://techliberation.com/2009/10/19/preparing-to-pounce-d-c-angles-for-another-industry/> (last visited Nov. 11, 2009) (“Swanson”).

⁷⁶ *Berkman Study* at 76, Table 4.1. See also *Berkman Study* PN Questions 2, 4.

⁷⁷ Cooper at 3. See generally *Berkman Study* at 83.

⁷⁸ *Berkman Study* at 13 (emphasis added). The study also adds that France is an example of a high performing country that invested almost nothing directly into the underlying network and instead relied almost exclusively on fostering a competitive environment. *Id.* at 14. But with 95 percent of broadband customers served by DSL, the *Berkman Study* notes that the French government has announced its

The *Berkman Study* also fails to acknowledge the regulatory and industry events that preceded the current state of U.S. broadband deployment. For example, the Study fails to mention such major events as the U.S. telecom crash of 2001/2002⁷⁹ and the U.S. unbundling experience.⁸⁰ Swanson rightly provides a compelling chart that details the level of U.S. information communications and technology (“ICT”) investment over the past two decades.⁸¹ What is clear is that ICT investment waned from 2000 to 2003 and since that time has steadily increased to levels exceeding previous peaks. The relationship to the period of regulatory certainty that began in 2003 is noteworthy. Equally noteworthy is the 2008 U.S. investment of \$455 billion or 22 percent of the country’s capital investment.⁸² As Swanson notes, \$65 billion alone was invested by communications services providers.⁸³

The Commission should pay particular attention to the comments filed by Nippon Telegraph and Telephone Corporation (“NTT”) in response to the *Berkman Study*.⁸⁴ NTT challenges the Study’s conclusions, particularly with regard to Japan. NTT explains that “facilities based competition, not unbundling, has been the key spur to broadband growth in

intention to help finance the deployment of fiber networks. *Id.* at 181. This is not surprising given the lack of incentive for providers to develop next generation networks.

⁷⁹ Press Release, Yankee Group, Global Telecommunications Capital Spending to Decline 4 Percent, Despite Revenue Growth (Apr. 1, 2009), *available at* <http://www.yankeegroup.com/pressReleaseDetail.do?actionType=getDetailPressRelease&ID=2453> (comparing the 2009 economic crisis to the 2002 telecom nuclear winter – “Unlike during the telecom ‘nuclear winter’ of 2002, which saw capex spending fall off of the proverbial cliff, the current economic crisis is driving measured capex reductions.”) (emphasis added).

⁸⁰ See, e.g., Robert W. Crandall, *Competition and Chaos, U.S. Telecommunications Since the 1996 Telecom Act*, Brookings Institution Press (2005); Scott Wallsten and Stephanie Hausladen, *Net Neutrality, Unbundling, and their Effects on International Investment in Next-Generation Networks: Review of Network Economics*, vol. 8, issue 1, Technology Policy Institute, at 90-112 (Mar. 2009), *available at* http://www.techpolicyinstitute.org/files/wallsten_unbundling_march_2009.pdf.

⁸¹ See Swanson, “U.S. ICT Investment (billions of US\$)” chart. See also NCTA Broadband Plan Comments at 9 (table on cable industry infrastructure expenditures).

⁸² See Swanson.

⁸³ *Id.*

⁸⁴ Comments of Nippon Telegraph and Telephone Corporation, GN Dkt. Nos. 09-47, 09-51, 09-137 (filed Nov. 16, 2009).

Japan.”⁸⁵ In particular, NTT emphasizes that fiber unbundling played no role in promoting broadband deployment in Japan, because only copper (DSL) facilities were unbundled there. This unbundling, NTT observes, likely had little impact on the *16 million* Japanese FTTH subscribers in mid-2009.⁸⁶ NTT concludes that the *Berkman Study* is “both factually incorrect and internally inconsistent.”⁸⁷

CONCLUSION

For the foregoing reasons, the Commission should deny the Petition.

Respectfully submitted,

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⁸⁵ *Id.* at 4.

⁸⁶ *See id.* at 4-6.

⁸⁷ *Id.* at 10.

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