

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

In the Matters of)	
)	
Inquiry Concerning the Deployment of)	GN Docket No. 09-137
Advanced Telecommunications Capability)	
to All Americans in a Reasonable and)	
Timely Fashion, and Possible Steps To)	
Accelerate Such Deployment Pursuant to)	
Section 706 of the Telecommunications Act)	
of 1996, as Amended by the Broadband)	
Data Improvement Act)	
)	
A National Broadband Plan for Our Future)	GN Docket No. 09-51

REPLY COMMENTS OF VERIZON AND VERIZON WIRELESS

Michael Glover
Of Counsel

Edward Shakin
William H. Johnson
VERIZON
1320 North Courthouse Road
9th Floor
Arlington, Virginia 22201
(703) 351-3060

John T. Scott, III
William D. Wallace
VERIZON WIRELESS
1300 I Street N.W.
Suite 400 West
Washington, DC 20005

Evan T. Leo
Kellogg, Huber, Hansen, Todd,
Evans & Figel, P.L.L.C.
1615 M Street, NW
Suite 400
Washington, DC 20036
(202) 326-7930

October 2, 2009

TABLE OF CONTENTS

I.	SUMMARY	3
II.	BROADBAND AVAILABILITY AND DEPLOYMENT	4
III.	STEPS TO ACCELERATE BROADBAND AVAILABILITY AND ADOPTION	11
IV.	DEFINITION OF “ADVANCED TELECOMMUNICATIONS” OR “BROADBAND”	15
V.	BROADBAND DATA COLLECTION	19

I. SUMMARY

The comments reflect a broad consensus on the overarching issues in this proceeding. There is wide agreement that the U.S. broadband marketplace is characterized by intermodal competition, heavy investment, ongoing deployment of new facilities, and rapid consumer adoption. There is also agreement that, despite this progress, work remains to be done both in terms of extending broadband to areas lacking service and encouraging even greater adoption of broadband. With respect to the definition of broadband, most commenters agree that no single definition of broadband makes sense for all purposes, but that it may be useful for the Commission to recognize a threshold definition for purposes of broadband reporting and tracking and separately to define broader, long-term national objectives for higher speed fixed and mobile broadband services. For purposes of reporting and tracking, the Commission should adopt the same baseline that NTIA and RUS adopted for purposes of determining what facilities qualify as broadband for purposes of stimulus funding. Doing so will allow the Commission to track continued progress toward the goal of making at least a basic level of broadband service available nationwide, including any progress following the implementation of the stimulus program. There is also general agreement that, given the multiple government efforts underway to compile comprehensive broadband data, it is too soon to know whether it makes sense to adopt additional reporting requirements.

Although there is little dispute on the facts above, a few commenters seek to portray the glass as half empty in an effort to promote new regulation with respect to unbundling, copper retirement, special access, and other areas to further promote their own parochial interests. There is no reason for the Commission to broaden the scope of this proceeding to consider these claims, each of which is being specifically addressed in

separate proceedings. Moreover, as Verizon has explained in those other proceedings, the proposed regulations are not only unnecessary but also would be counterproductive to the goals of Section 706.

II. BROADBAND AVAILABILITY AND DEPLOYMENT

As Verizon demonstrated in its opening comments and elsewhere, broadband is widely available to American consumers, generally from a range of intermodal competitors, and broadband speeds are increasing. More than 90 percent of U.S. households and businesses have access to broadband services, and the vast majority of customers have access to at least two wireline broadband networks, three or more mobile wireless broadband networks, and at least two satellite broadband providers – a level of intermodal competition present in few if any other places in the world.¹ Rapid progress also has been made in deploying next-generation wireline and wireless technologies, including fiber, DOCSIS 3.0, and LTE. Verizon alone is investing over \$23 billion to pass 18 million homes with its next-generation, all-fiber FiOS network by the end of next year, and has already passed more than 13.2 million of those homes – approximately 40 percent of households in our current landline footprint. Verizon currently plans to offer LTE commercially in 25-30 markets (reaching approximately 100 million Americans) by the end of 2010 and to approximately 285 million consumers by the end of 2013.²

¹ See Comments of Verizon and Verizon Wireless at 2-3, GN Docket No. 09-137 (FCC filed Sept. 4, 2009) (“Verizon Cmts.”); Comments of Verizon and Verizon Wireless on a National Broadband Plan at 5, *A National Broadband Plan for Our Future*, GN Docket No. 09-51 (FCC filed June 8, 2009) (“Verizon NBP Cmts.”); Reply Comments of Verizon and Verizon Wireless on a National Broadband Plan at 1, 5, *A National Broadband Plan for Our Future*, GN Docket No. 09-51 (FCC filed July 21, 2009) (“Verizon NBP Reply Cmts.”).

² See Verizon NBP Reply Cmts. at 7.

The comments confirm that competitive broadband is widely available and that significant broadband investment is occurring. According to NCTA (at 2), for example, cable companies now provide cable modem service to 92 percent of American households. Comcast states (at 6) that it provides high-speed Internet service to “over 99.4 percent of the homes in its footprint,” while Time Warner Cable indicates (at 2) that it is a “leading provider of Internet access . . . across its footprint.” Moreover, cable companies are rapidly upgrading their networks to provide higher broadband speeds, including “downstream speeds faster than 100 Mbps and greater upstream speeds as well.” NCTA at 2. Comcast states (at 7) that, “[b]y the end of 2010, [it] expects to have near-ubiquitous DOCSIS 3.0 deployment throughout its footprint,” and will offer customers up to 50 Mbps downstream and 10 Mbps upstream.³

In addition to cable, Sprint states (at 5) that “through its \$7.4 billion investment in Clearwire Corp., [it] is proceeding aggressively with its deployment of 4G WiMax

³ Covad claims (at 12) that “cable providers have historically focused their network deployment in residential areas, leaving many businesses without access to cable-based broadband services.” But Covad cites only a *five-year-old* study to support this claim. In fact, over the past five years, cable companies have made enormous investment to extend their networks to serve business customers, and have already achieved considerable success in marketing their services to such customers. See, e.g., Comments of Dallas S. Clement, EVP and Chief Strategy and Product Officer, Cox Communications, Federal Communications Commission National Broadband Plan Workshop, *Deployment - Wired*, Transcript at 7-8, 107-109 (Aug. 12, 2009), http://www.broadband.gov/docs/ws_02_deploy_wired_transcript.pdf; Mike Robuck, *Comcast Closes in with 100 Mbps D3 Service*, CEDMagazine.com (Sept. 9, 2009), <http://www.cedmagazine.com/News-Comcast-100-Mbps-D3-service-090909.aspx> (“Comcast said its business services were up 51 percent in the second quarter compared with the previous quarter a year ago.”); Stacey Higginbotham, *Optimum Lightpath’s Broadband Is Taking Care of Business*, Businessweek.com (June 5, 2009), http://www.businessweek.com/technology/content/jun2009/tc2009065_379728.htm?chan=top+news_top+news+index+-+temp_technology; Cablevision, *Corporate Information*, <http://www.cablevision.com/cc/business.jsp> (“Cablevision’s comprehensive suite of business services is available to more than 600,000 companies in the New York metropolitan area”).

technology,” which will be available “to as many as 120 million people nationwide” in 2010. Both PCIA and CTIA also demonstrate that mobile wireless broadband services have been widely deployed, and that mobile wireless carriers are investing heavily in next-generation technologies such as LTE.⁴

The comments also demonstrate that broadband is widely available in rural areas, and that rural broadband providers are investing to increase broadband speeds. OPASTCO, which represents approximately 520 rural LECs, states (at iii, 7) that “[r]ural ILECs have overcome many obstacles to offer as much broadband capacity as possible to roughly 90 percent of the consumers in their service areas, on average,” and that one rural broadband providers “has launched a 100 Mbps offering.” NTCA, which represents 585 rural LECs, states (at 4, 6) that 100 percent of the respondents to its 2008 survey “offer broadband to some part of their customer base,” that nearly half of respondents offer speeds of between 3 Mbps to 6 Mbps, and that 93 percent of respondents face competition from at least one other broadband provider, including “national and local Internet service providers (ISPs), wireless Internet service providers (WISPs), satellite broadband providers, cable companies, and electric utilities.” WISPA, which represents more than 300 wireless ISPs, states (at 2) that its members “provide broadband fixed wireless services to more than 2,000,000 consumers and businesses,” concentrated mainly in rural areas. The Western Telecommunications Alliance, which represents more than 250 rural ILECs west of the Mississippi River, indicates (at 3) that “[t]he typical WTA member presently offers broadband service to 70 percent or more of its customers”

⁴ See Comments of PCIA – The Wireless Infrastructure Association and The DAS Forum (A Membership Section of PCIA) at 2, GN Docket No. 09-137 (FCC filed Sept 4, 2009); Comments of CTIA – The Wireless Association at 2, 7, 9, GN Docket No. 09-137 (FCC filed Sept. 4, 2009).

at speeds from 200-to-500 kbps up to 10 Mbps, and that many members are deploying fiber in the last-mile to increase these speeds. The Pennsylvania PUC states (at 3) that “Pennsylvania carriers provide broadband availability in the service territories of all but two Rural Local Exchange Companies (RLECs) in Pennsylvania as of December 31, 2008,” and that “[t]he remaining two RLECs, Embarq and Windstream, are on schedule to provide ubiquitous broadband availability by December 31, 2013.”

Despite this progress and the massive investment of Verizon and multiple other providers to increase broadband availability and speeds, Free Press proclaims (at 45) the broadband marketplace a “failure.” It claims (at 65) that “almost no American home has access to advanced telecommunications capability.” These cynical claims rest on a combination of mistaken facts and misguided word games.

By Free Press’s own admission (at 18-19), at least 93 to 94 percent of all U.S. households have at least one *wireline* broadband option (cable, DSL, or fiber), and the vast majority have at least two wireline options. In addition, there are numerous other broadband options widely available to U.S. consumers, including mobile wireless broadband, fixed wireless broadband, and satellite, as well as additional broadband technologies being rolled out or developed. Thus, even considering wireline broadband technologies alone, the U.S. broadband marketplace is more robust than most industrialized countries of the world, where there is only a single facilities-based network used to provide broadband to the vast majority of the population.⁵ And when taking into account wireless broadband (which is more widely deployed and used in the U.S. than

⁵ See Verizon Cmts. at 2; OECD, *OECD Broadband Statistics: 1d. OECD Broadband Subscribers per 100 Inhabitants, by Technology, December 2008*, <http://www.oecd.org/dataoecd/21/35/39574709.xls>.

elsewhere) and satellite (which is largely unique to the U.S.), the U.S. broadband marketplace compares even more favorably.⁶ Verizon has also demonstrated that it has already deployed more fiber-to-the-home than all of the countries of Europe *combined*, that it is continuing to deploy fiber at a rapid pace, and that cable operators (as their comments here confirm) are rapidly deploying DOCSIS 3.0.⁷ There is accordingly no basis for Free Press's claim (at 24) that deployment of these next-generation technologies is "limited in scope."⁸

Free Press's attempt to portray the deployment of broadband as inadequate ultimately boils down to its claim (at 5) that "very few Americans are able to purchase services that enable them to originate high-quality video content." But given that users have uploaded more than 150 million videos to YouTube alone, which is now the third

⁶ See Verizon Cmts. at 4-5; Comments of the United States Telecom Association at 7-8, GN Docket No. 09-137 (FCC filed Sept. 4, 2009) ("USTA Cmts.").

⁷ See Verizon Cmts. at 3, 4; Comments of Comcast Corporation at 7, GN Docket No. 09-137 (FCC filed Sept. 4, 2009); Comments of the National Cable & Telecommunications Association at 6, GN Docket No. 09-137 (FCC filed Sept. 4, 2009); see also Jessica Reif Cohen & David W. Barden, Bank of America – Merrill Lynch, *Battle for the Bundle: The Internet Goes Negative* at 6 & Table 5 (Aug. 19, 2009) ("Comcast announced it will increase the roll-out of its DOCSIS 3.0 service and the company now plans to offer the service to 80% (vs. 65% previously) of its footprint by YE2009. The nation's largest cable operator had passed 50% of the homes in its footprint by the end of 2Q09. Meanwhile, Cablevision has completed its roll out and now offers the product to 100% of its footprint, touting the nation's fastest speed at 101Mbps.").

⁸ Free Press argues (at 52-54) that U.S. cable companies were slow to deploy DOCSIS 3.0 technology as compared to some foreign countries. But CableLabs did not begin certifying equipment as DOCSIS 3.0-compliant until around May 2008, and since that time there has been rapid deployment of the technology. Although Free Press argues that other countries were able to "deploy pre-certified equipment" prior to that, the decision of U.S. cable companies to wait for certification hardly constitutes a "casual approach," as Free Press claims (at 52), but instead reflects the fact that certification can offer many benefits to both providers and consumers, such as lower costs and greater reliability.

most popular Internet site, it is hard to take this claim seriously on its face.⁹ In any case, and as discussed further below, it is a mistake to equate the availability of broadband with the ability to upload high-quality video. Although consumer demand for upstream capacity has increased over time and will likely continue to do so, most consumers still use much more capacity in the downstream direction (particularly when illegal uploading of copyrighted material is removed from the equation).¹⁰ The Commission's annual inquiry should focus on whether broadband is adequate to serve the needs of consumers *today*, not on whether these facilities (which are constantly being upgraded) can currently satisfy any yet-to-materialize future demand for any conceivable application a party might imagine.

⁹ Kurt Alfred Kluever & Richard Zanibbi, *Balancing Usability and Security in a Video CAPTCHA*, Symposium on Usable Privacy and Security (SOUPS) 2009 (July 15-17, 2009), <http://cups.cs.cmu.edu/soups/2009/slides/a14-kluever-post.pdf> (“> 150 million videos on YouTube”) (citing 2008 data); YouTube, *YouTube Fact Sheet*, http://www.youtube.com/t/fact_sheet (“People are . . . uploading hundreds of thousands of videos daily”); Phillip White, *How Many Videos Are on YouTube?*, Associated Content (July 9, 2009), http://www.associatedcontent.com/article/1927414/how_many_videos_are_on_youtube.html?cat=15 (“It’s safe to say that the total number is currently well into 100 million videos”); Most Popular Websites, *Today’s Most Popular Websites on the Internet*, <http://mostpopularwebsites.net/>.

¹⁰ See Comments of ADTRAN, Inc. at 7, *A National Broadband Plan for Our Future*, GN Docket No. 09-51 (estimating that the average household requirements for downstream capacity is 350% that of upstream capacity, and that this ratio will remain approximately the same through at least 2015) (FCC filed Aug. 31, 2009); Sandvine, *Sandvine Releases Global Internet Traffic Trends Report* (Oct. 21, 2008), http://www.sandvine.com/news/pr_detail.asp?ID=203 (data showing “peer-to-peer (P2P) traffic remains dominant in the upstream direction totaling 61 per cent of network traffic and is also responsible for more than 22 per cent of downstream bandwidth consumption worldwide”); Mike Robuck, *D3 Upstream: What’s the Hurry?*, CedMagazine.com (Sept. 1, 2009), <http://www.cedmagazine.com/Article-D3-Upstream-What-Hurry-090109.aspx> (“Not too long ago, the industry was planning to expand upstream capacity using DOCSIS 3.0 channel bonding right about now. Isn’t happening. Consumer demand for faster upstream just isn’t developing. Meanwhile, most major cable operators are still in the midst of deploying faster downstream connections.”).

Free Press and Covad also rehash their argument that the U.S. is falling behind the rest of the world in broadband.¹¹ But as Verizon has previously demonstrated, this is not true when a proper international comparison is made.¹² While work remains to increase both broadband availability and adoption in this country (and most others), the United States is excelling by most meaningful measures. Indeed, the World Economic Forum just ranked the United States second in the world in overall “global competitiveness” and “second to none” in terms of “the level of innovation.”¹³ Another recent study conducted by the University of Oxford Said Business School and Universidad de Oviedo found that broadband in the U.S. ensures that consumers are “comfortably enjoying today’s applications,” and that the U.S. is one of the world leaders in terms of improving its broadband quality between 2008 and 2009.¹⁴ The U.S. is also a world leader in wireless broadband provided over 3G technology, and wireless carriers are now deploying even more advanced 4G services such as LTE and WiMax. Moreover, given the many differences between different countries and variables on which to make comparisons,

¹¹ See Comments of Covad Communications Company at 11, GN Docket No. 09-137 (FCC filed Sept. 4, 2009) (“Covad Cmts.”); Comments of Free Press at 29-40, GN Docket No. 09-137 (FCC filed Sept. 4, 2009) (“Free Press Cmts.”).

¹² See Verizon NBP Reply Cmts. at 14. See also Thomas Hazlett, *The Broadband Numbers Racket*, FT.com (Sept. 17, 2009) (“Taking broadband subscriptions from international consultancy Point Topic for the first quarter of 2009 (the most recent reported), population from the CIA Factbook, and household size from United Nations statistics (all accessed via my US high-speed mobile data connection), the five wealthiest large economies rank as follows [in terms of broadband subscribers per 100 households]: USA (71.1 per cent), France (70.3 per cent), UK (69.3 per cent), Japan (67.4 per cent), and Germany (64.5 per cent).”).

¹³ World Economic Forum, *The Global Competitiveness Report 2009-2010* at 22 (2009).

¹⁴ Said Business School, University of Oxford & Universidad de Oviedo, *Broadband Quality Score: A Global Study of Broadband Quality*, a 10-11 (Sept. 2009) (Sponsored by Cisco).

“[r]ather than fixating on rankings as we prepare our National Broadband Plan, . . . a crucial part of our analysis [should] include an assessment of what America has done *right*” so that policymakers can build on the many successes of the U.S. broadband marketplace.¹⁵

III. STEPS TO ACCELERATE BROADBAND AVAILABILITY AND ADOPTION

Verizon explained in its comments that, although competitive broadband is widely available, challenges still remain to make broadband service available to *all* Americans, and that even more work remains to be done to increase broadband adoption. Verizon’s comments in response to the *National Broadband Plan NOI* set forth pragmatic suggestions to fill these gaps, including by addressing various barriers to adoption (such as lack of computer ownership and consumer concerns about cybersecurity and privacy), and by promoting investment for greater broadband availability through reforming the universal service fund, encouraging IP-based services, implementing effective stimulus programs, and adopting targeted federal tax policies and reforms.¹⁶ Among other things, for example, the Commission should ensure that any federal funding is targeted to include support for the deployment of backhaul and middle-mile facilities in rural or other areas where demand is less concentrated.

A few commenters – primarily Free Press and Covad – argue that in order to promote greater broadband adoption and availability the Commission should adopt burdensome new regulations. As Verizon explained, however, these arguments are being

¹⁵ Introductory Remarks by Commissioner Robert M. McDowell, *Phoenix Center Workshop: Understanding Broadband Metrics: The Broadband Adoption Index* at 6 (July 15, 2009), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-292023A1.pdf.

¹⁶ See Verizon NBP Cmts. at 7-10; Verizon NBP Reply Cmts. at 3-4.

addressed elsewhere and should not be permitted to interfere with the immediate task at hand in this proceeding. In any event, these claims are misguided. For example, a few commenters argue that the Commission should impose more extensive unbundling requirements, based principally on the claim that such policies have promoted (or at least not deterred) broadband abroad.¹⁷ But as Verizon has previously explained, the empirical data regarding broadband unbundling in the U.S. and foreign countries prove the opposite.¹⁸ Unbundling regulation deters broadband investment, and is therefore at cross purposes with the goals of Section 706.

There is likewise no merit to Covad's request (at 13) that Verizon be required to maintain redundant copper facilities that have been replaced by fiber. *See also* Adtran at 14-15. Such policies would only *discourage* deployment of next-generation broadband facilities and undermine the economics of existing fiber-based broadband investment. The Commission already recognized, in the *Triennial Review Order*, that requiring a provider to incur the expense of maintaining and operating redundant networks would

¹⁷ *See* Free Press Cmts. at 52; Covad Cmts. at 9-10; *see also* PA PUC Cmts. at 6-7.

¹⁸ *See* Comments of Verizon, *International Comparison and Consumer Survey Requirements in the Broadband Data Improvement Act*, GN Docket No. 09-47 (FCC filed Apr. 10, 2009); Thomas W. Hazlett & Anil Caliskan, *Natural Experiments in U.S. Broadband Regulation*, 7 *Review of Network Economics* 460 (Dec. 2008) (light-touch regulation of cable modem and DSL services in the U.S. has resulted in more broadband deployment and adoption, and in particular that broadband deployment and adoption increased following the removal of more intrusive regulation); Leonard Waverman et al., *Access Regulation and Infrastructure Investment in the Telecommunications Sector: An Empirical Investigation*, LECG (Sept. 2007) (more intrusive access obligations had a demonstrated effect of deterring investment in broadband infrastructure and undermining facilities-based competition). *See also* Jerry Hausman & J. Gregory Sidak, *Did Mandatory Unbundling Achieve Its Purpose? Empirical Evidence from Five Countries*, M.I.T. Department of Economics Working Paper Series (Nov. 2004), available at <http://ssrn.com/abstract=623221> (concluding that major rationales for mandatory unbundling are not supported by an empirical review of the unbundling experience in the U.S., U.K., New Zealand, Canada, and Germany).

lessen the incentive for all providers to invest in broadband infrastructure, including in particular next-generation fiber networks.¹⁹ The Commission's considered judgment on this particular issue has proven successful – as the competitive facts discussed above illustrate – and there is no reason for the Commission to backtrack on its settled policy.

The Commission should also reject the requests of Sprint (at 4) and Covad (at 15) to adopt more stringent special access regulation. As an initial matter, regulation of special access services is outside the scope of this proceeding. As Verizon has previously explained, whereas this proceeding is focused on mass market broadband Internet access services, special access services are generally provided to larger business customers or as a wholesale input to other communications services. In addition, traditional special access services such as DS1 and DS3 circuits rely on TDM-based technology, as distinct from the packetized facilities that are used for broadband services.²⁰ Verizon has also explained that there is significant and growing competition for special access services, and that a separate proceeding is underway to consider whether additional data is needed to evaluate the scope of that competition.²¹ For all these reasons, there is no basis to import special access issues into the already complex questions the Commission is addressing here on the very different issues surrounding a national plan to provide broadband to all Americans.

¹⁹ *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, ¶¶ 278-79 (2003) (“*Triennial Review Order*”).

²⁰ *See, e.g., Triennial Review 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*, Memorandum Opinion and Order, 22 FCC Rcd 18705, ¶¶ 18-20 (2007).

²¹ FCC Public Notice, *Parties Asked To Refresh Record in the Special Access Notice of Proposed Rulemaking*, WC Docket No. 05-25, RM-10593, FCC 07-123 (July 9, 2007).

Sprint claims (3) that “the excessively priced or onerously restrictive special access services which characterize today’s special access market” are barriers to entry for broadband investment. But Sprint’s own actions belie this claim. As Sprint notes (at 5), it is “proceeding aggressively with its deployment of 4G WiMax technology” through its “\$7.4 billion investment in Clearwire,” which “will use self-provisioned microwave backhaul to handle the high-bandwidth requirements associated with 4G applications to the maximum extent possible.” Moreover, Sprint’s own Chief Technology Officer has acknowledged DS-1 services are “relatively abundant and inexpensive” in the U.S. – so much so, that it makes little sense for Sprint to use competitive alternatives.²²

Finally, Free Press argues (at 19-23) that the “rural broadband problem may actual[ly] get worse before it gets better” because Verizon has decided to sell of many of its rural areas to purchasers who allegedly do not have the same investment commitment as Verizon. As an initial matter, Verizon itself is continuing to invest heavily to provide high-speed Internet services broadly throughout its footprint, including in many rural areas. For example, Verizon is spending billions to deploy LTE technology, and will make coverage available to approximately 100 million people in 20 to 30 markets in 2010 and projects that the network will be built out nationwide – necessarily including many rural areas – by 2013. Although Verizon has chosen to divest wireline lines in certain predominantly rural areas, this will benefit consumers by placing the lines in the hands of

²² Stephen Lawson, *Sprint Picks Wireless Backhaul for WiMAX*, Industry Standard (July 9, 2008), <http://www.thestandard.com/news/2008/07/09/sprint-picks-wireless-backhaul-wimax> (citing Sprint CTO Barry West).

companies whose business plans are more focused on investing in and serving such areas, including the provision of broadband.²³

IV. DEFINITION OF “ADVANCED TELECOMMUNICATIONS” OR “BROADBAND”

Verizon’s comments explained that no single definition of broadband will make sense for all purposes, and that the Commission should instead consider the particular policy uses or context in drawing any lines. In particular, Verizon explained that, in order to track progress towards long term goals such as promoting broadband availability and adoption under Section 706, the Commission should continue to use the speed tiers it has already established for reporting purposes, including the baseline definition that mirrors the definition adopted by NTIA and RUS to determine what facilities qualify as broadband for purposes of stimulus funding. This baseline will allow the Commission to track continued progress toward the goal of making at least a basic level of broadband service available nationwide, including any progress following the implementation of the stimulus program. Verizon has further explained that the Commission should keep any definition(s) fairly simple, as it would be both impractical and counterproductive to try to account for a wide range of performance indicators, which are typically difficult to measure and also in a constant state of flux due to a mix of factors inside and outside of a

²³ See Verizon News Release, *Verizon To Divest Wireline Business in 14 States* (May 13, 2009) (Ivan Seidenberg, CEO, Verizon: “We expect that this transaction will benefit customers, employees and shareholders. Customers can count on continued high levels of service and innovation from Frontier, which will bring its laser focus on the needs of rural customers to these operations.”); *id.* (Maggie Wilderotter, Frontier CEO: “This is a truly transformational transaction for Frontier. With more than 7 million access lines in 27 states, we will be the largest provider of voice, broadband and video services focused on rural to smaller city markets in the United States. Frontier is committed to providing our customers with state-of-art technology and innovative products. We are confident that we can dramatically accelerate the penetration of broadband in these new markets.”).

network providers' control.²⁴ Verizon's comments also indicated that, in the context of defining broad national goals towards which this country's broadband marketplace and policymakers should work, setting a target of 50 Mbps downstream for fixed services and 5 Mbps for mobile services would be an aggressive longer term goal, recognizing that as the marketplace continues to develop there will continue to be variability in the levels of service available in particular areas for the foreseeable future based on a range of technological, geographic, economic and other factors

The comments here provide broad support for the general approach that Verizon outlined.²⁵ Several commenters nonetheless argue that the Commission should raise the "thresholds" for its baseline definition in ways that ignore how consumers currently use broadband services. For example, Free Press suggests (at 16) that service must be symmetrical in order to be "broadband." As noted above and as Verizon has previously explained, however, while consumer demand for upstream capacity is increasing over time and providers are responding to that shift in demand by increasing upstream speeds, most consumers use far more downstream capacity, and that imbalance is poised to continue for the near future.²⁶ As a result, it makes no sense to include a symmetry

²⁴ Reply Comments of Verizon and Verizon Wireless on Defining Broadband Capabilities at 4-6, *A National Broadband Plan for Our Future*, GN Docket No. 09-51 (FCC filed Sept. 8, 2009).

²⁵ See, e.g., Comments of Time Warner Cable Inc. at 3-5, GN Docket No. 09-137 (FCC filed Sept. 4, 2009) ("Time Warner Cable Cmts."); Covad Cmts. at 3-4; Comments of The Broadband Opportunity Coalition, et al. at 1, GN Docket No. 09-137 (FCC filed Sept. 4, 2009) ("Broadband Opportunity Coalition et al. Cmts."); Comments of Telecommunications Industry Association at 3, GN Docket No. 09-137 (FCC filed Sept. 2, 2009) ("TIA Cmts."); Comments of the New Jersey Division of Rate Counsel at 5, GN Docket No. 09-137 (FCC filed Sept. 4, 2009); Comments of NARUC at 2-3, GN Docket No. 09-137 (FCC filed Sept. 4, 2009); WTA Cmts. at 4.

²⁶ See note 10, *supra*.

requirement in the threshold definition of broadband. Indeed, it could be counterproductive to the extent providers are encouraged to increase upstream capacity at the expense of downstream capacity solely to satisfy regulatory goals rather to respond to actual consumer demand.

The Commission should also reject Free Press's suggestion that "symmetry" is a legal requirement. Free Press argues (at 16) that, as a matter of law, "broadband" services must be symmetrical, given definitions in the 1996 Act and in last year's Farm Bill concerning the ability to "originate and receive high-quality voice, data, graphics, and video." While this language does suggest some level of two-way interactivity for "advanced telecommunications capability" – the term being defined in the 1996 Act – or "broadband services" as that term is used in the Farm Bill, Free Press stretches this language past the breaking point in suggesting that the ability to "originate and receive" requires symmetrical services. As noted above, consumers today typically make much more use of downstream capacity, and this statutory language cannot be read to ignore the nature of consumer demand. In fact, since 1996, the Commission has never found that this statutory language only considers symmetrical services to be broadband – much less symmetrical services that are capable of supporting upstream and downstream HD video (Free Press's other suggestion).²⁷ And, as noted above, such a requirement would turn a blind eye to the way in which most consumers actually use their broadband services today and the configuration of services that most benefits consumers.

²⁷ See Free Press Cmts. at 4-5; see also Covad Cmts. at I (Commission should aim for deployment of 100 Mbps to most us customers by 2015, with 20 Mbps guaranteed bandwidth for video and other QoS sensitive applications).

Next, several comments argue that the Commission should somehow incorporate various characteristics or performance indicators, such as latency, in any broadband definition(s).²⁸ As Verizon has previously explained, however, this approach is impractical given the wide variety of constantly shifting factors – both inside and outside of a particular provider’s network – that may affect performance and the end-user experience. In addition, attempting to incorporate every possible technical attribute into the definition of broadband would likely make any such definition more confusing and less meaningful for consumers and policymakers.

Finally, some commenters argue that the Commission should include “middle mile” transport facilities in its definition of broadband.²⁹ As Verizon explained, however, any definition the Commission adopts should focus on mass-market broadband services.³⁰ Although it is important to recognize that in order to increase broadband

²⁸ See, e.g., Comments of the National Association of Telecommunications Officers and Advisors at 6, *A National Broadband Plan for Our Future*, GN Docket No. 09-51 (FCC filed Sept. 2, 2009); Comments of OnLive Inc. at 8-9, GN Docket No. 09-137 (FCC filed Sept. 2, 2009); TIA Cmts. at 3; Comments of ADTRAN, Inc. at 10-14, GN Docket No. 09-137 (FCC filed Sept. 4, 2009); Comments of AT&T Inc. at 20, GN Docket No. 09-137 (FCC filed Sept. 4, 2009); Comments of Qwest Communications International, Inc. at 6, GN Docket No. 09-137 (FCC filed Sept. 4, 2009) (“Qwest Cmts.”).

²⁹ See Comments of the Organization for the Promotion and Advancement of Small Telecommunications Companies at 2, 8, GN Docket No. 09-137 (FCC filed Sept. 4, 2009); Comments of Sprint Nextel Corporation at 1-2, GN Docket No. 09-137 (FCC filed Sept. 4, 2009); Comments of TCA at 3-4, GN Docket No. 09-137 (FCC filed Sept. 4, 2009); DC PSC Cmts. at 5.

³⁰ See *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Notice of Inquiry, 24 FCC Rcd 10505 ¶ 3 (rel. Aug. 7, 2009) (Section 706 requires an inquiry “concerning the availability of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms).”); see also *A National*

deployment it is also necessary to increase the availability of inputs such as middle-mile facilities in certain areas, that does not provide a basis to include such inputs in the definition of broadband itself.

V. BROADBAND DATA COLLECTION

Verizon's comments explained that while it is important for policymakers to have access to more meaningful data regarding broadband, given the multiple efforts already underway to compile comprehensive broadband data -- at the Commission, other agencies, such as NTIA and GAO, and in the states -- it is premature to adopt additional reporting requirements. Once these data are collected and assembled, the Commission may evaluate whether it has sufficient data to meet its needs or whether it is necessary and appropriate to increase the data reporting requirements on providers. Numerous commenters agree with this wait-and-see approach.³¹

Free Press argues (at 83) that the Commission should expand the current reporting requirements to include so-called contention ratios, the ratio of the potential maximum demand to the actual bandwidth. But such ratios are likely to be of little value to the Commission and consumers, while at the same time adding to the already considerable burden that broadband providers face in reporting network information. On any given broadband connection, each of the two variables of a contention ratio may differ along segments, making it extremely complex (if not impossible) to compute a single ratio. For example, with respect to a DSL connection, there will be a certain number of users

Broadband Plan for Our Future, Notice of Inquiry, 24 FCC Rcd 4342 ¶ 59 n.91. (rel. Apr. 8, 2009).

³¹ See, e.g., Time Warner Cable Cmts. at 12-13; Qwest Cmts. at 16; USTA Cmts. at 18-19; WTA Cmts. at 10; Covad Cmts. at 2.

sharing a ports on a DSLAM; these users may have copper loops of different theoretical capacities (e.g., due to loop lengths); these users may share a fiber connection from the DSLAM to a backbone (or to a central office in the case of a remote DSLAM) with one or more additional groups of users; that fiber connection may not have a fixed amount of bandwidth allocated to serve these customers, but instead capacity can be allocated on an as-needed basis as spikes in demand warrant. In addition, the relevance of a contention ratio to any given user depends on that user's particular broadband usage. A low-bandwidth user may find a connection with a high contention ratio perfectly adequate, while a high-volume user may find even a relatively low contention ratio unacceptably slow. In any event, consumers already have the ability, to determine the "actual" broadband speed they are receiving at any point in time by logging on to one of countless sites offering broadband speed tests.³² Adding to the considerable reporting burdens of broadband providers to provide a "proxy" for such speeds is therefore unnecessary.

The Commission should also reject requests to expand reporting requirements to include pricing information.³³ It is extremely difficult to calculate broadband prices in light of the fact that broadband services are increasingly offered as part of a bundle together with other services (such as voice and/or video) or a varying mix of applications (including everything from e-mail to spam blockers) and equipment (including, e.g.,

³² See, e.g., Intel, *Broadband Speed Test*, <http://www.intel.com/consumer/game/broadband-speed-test.htm>; nTelos, <http://speedtest.ntelos.net/>; Sprint, *Sprint Mobile Broadband Network*, <http://www.sprint.com/landings/speedtest/?id8=vanity:speedtest>; ZDNET UK, *Broadband Speed Test*, <http://resources.zdnet.co.uk/speedtest/>; Audit My PC, *Broadband Speed Test*, <http://www.auditmypc.com/broadband-speed-test.asp>; Speakeasy, *Speakeasy - Speed Test*, <http://www.speakeasy.net/speedtest/>.

³³ See Free Press Cmts. at 85; Broadband Opportunity Coalition et al. Cmts. at 13.

wireless routers). Moreover, broadband prices change frequently as a result of the aggressive competition between providers using different broadband platforms. The prevalence of bundled offers, myriad discounts and variations in the quality of the underlying offer often render interpretation of even reputable pricing data unhelpful, given that these variants are not represented. Moreover, as explained above, contrary to the claims of Free Press, service price and speed are not the most significant issues deterring more widespread broadband adoption in the United States.³⁴

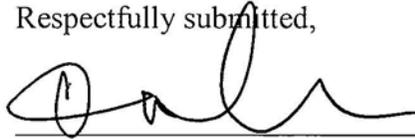
Finally, the Commission should reject Free Press's argument (at 88-101) that all Form 477 data should be made publicly available. Doing so would be inconsistent with years of Commission practice in which highly sensitive data about the specific locations of carrier network facilities and services has been accorded protection. Free Press itself concedes (at 96) that such information "would certainly be of interest to competitors." Indeed, making such information public would give competitors immediate access to the most intimate details of each other's operations.³⁵ Free Press nonetheless claims (at 96) that these concerns should be ignored because the data "would also be of interest to

³⁴ The Commission should also reject Free Press's request (at 86-87) to adopt ARMIS-like reporting requirements for broadband. Free Press claims that the Commission "needs to know where all the lines are," as well as the "historical and forward-looking cost of all infrastructure elements." But Free Press fails to explain "why" the Commission needs such information, and indeed there is no reason. ARMIS data were originally compiled for purposes of rate regulation, which do not apply to broadband services. There is accordingly no basis to resurrect these very burdensome requirements in the context of broadband.

³⁵ *Cf. Policy and Rules Concerning the Interstate, Interexchange Marketplace Implementation of Section 254(g) of the Communications Act of 1934, as amended*, Notice of Proposed Rulemaking, 11 FCC Rcd 7141, ¶ 21 (1996) (imposing tariff filing requirements on carriers in a competitive marketplace "could harm consumers by slowing the introduction of new services, dampening competitive responses and ultimately encouraging price collusion through the forced publication of charges.").

potential customers.” But if a consumer wants to know whether (s)he can obtain broadband service today, to obtain information about the range of available services all (s)he needs to do is click on a provider’s website or pick up the phone. It is the Commission’s role to encourage the deployment and adoption of broadband to all Americans, and it would be contrary to that mission to enable competitors to have access to confidential information about each other’s network and service offerings on a granular basis.

Respectfully submitted,



Michael Glover
Of Counsel

Edward Shakin
William H. Johnson
VERIZON
1320 North Courthouse Road
9th Floor
Arlington, Virginia 22201
(703) 351-3060

John T. Scott, III
William D. Wallace
VERIZON WIRELESS
1300 I Street N.W.
Suite 400 West
Washington, DC 20005

Evan T. Leo
Kellogg, Huber, Hansen, Todd,
Evans & Figel, P.L.L.C.
1615 M Street, NW
Suite 400
Washington, DC 20036
(202) 326-7930

October 2, 2009