

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Inquiry Concerning the Deployment of)
Advanced Telecommunications Capability to)
All Americans in a Reasonable and Timely) GN Docket No. 12-228
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)

**COMMENTS OF VERIZON AND VERIZON WIRELESS ON THE
NINTH BROADBAND PROGRESS NOTICE OF INQUIRY**

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I. INTRODUCTION AND SUMMARY

Broadband providers have invested hundreds of billions of dollars in deploying next-generation broadband networks. As confirmed by the most recent data underlying the National Broadband Map, these networks already reach more than 96 percent of the population of the United States.¹ With substantial upgrades to wireline infrastructure and the extensive rollout of competing 3G and 4G wireless broadband services, these networks are continuing to expand to cover even more Americans and to offer more robust services. Under the circumstances, the Commission should find that broadband has been and is continuing to be deployed across the United States in a reasonable and timely fashion.

In completing its ninth annual broadband progress report, the Commission should correct certain analytical mistakes from the past three reports. First, the Commission should include wireless services in analyzing broadband availability. Consumers have fully embraced mobile broadband services, and there is no reasonable basis for excluding mobile broadband services from the Commission's analysis, particularly with the deployment of 4G networks. In addition to providing the valued benefit of mobility, these networks provide broadband speeds comparable to and, in some cases, greater than wireline broadband networks and the Commission's current broadband benchmark. As evidenced by the rapid rate of adoption, consumers recognize the capabilities and significant benefits of wireless broadband services, and the Commission should as well. Second, consistent with language of Section 706, the Commission should distinguish broadband availability from broadband adoption in determining whether broadband is being deployed consistent with statutory objectives. That a small

¹ See NTIA, *Broadband Statistics Report: Access to Broadband Technology by Speed*, at 3, <http://www.broadbandmap.gov/download/Technology%20by%20Speed.pdf> ("*Broadband Statistics Report: Access to Broadband Technology by Speed*") (data as of Dec. 2011; report published June 2012).

percentage of the country's population currently does not have access to broadband today at home is not a basis for a nationwide finding that broadband is not in fact being deployed in a reasonable and timely manner.

Furthermore, the Commission should avoid adopting new criteria that would unnecessarily complicate the Commission's analysis and hinder the proper assessment of broadband deployment. Section 706 clearly states that "[t]he term 'advanced telecommunications capability' is defined, without regard to any transmission media or technology," "using any technology," and there is no reason to evaluate mobile broadband and satellite broadband separately from fixed terrestrial broadband service offerings.² There is likewise no basis in the statute or otherwise to require the universal availability of *both* fixed and mobile broadband before the Commission may find that broadband is being deployed in a timely fashion to all Americans. Nor should the Commission avoid consideration of certain broadband services based on other attributes of these services, including that particular services may be billed based on usage. The Commission itself has previously recognized that usage-based services benefit consumers by allowing them to pay only for what they need, and this mechanism also allows for more efficient use of scarce spectrum resources.

Finally, the Commission should pursue policies that promote continued broadband investment and innovation, including the removal of impediments that slow the deployment of broadband infrastructure. Specifically, the Commission should: (i) reaffirm that all IP services are interstate information services that are subject to the Commission's exclusive jurisdiction; (ii) increase available spectrum for wireless broadband services; (iii) forego unnecessary and intrusive regulation of broadband; and (iv) improve government policies for access to rights of

² 47 U.S.C. § 1302(d)(1).

way and wireless tower siting. Adherence to these policies would allow the Commission to address the limited gaps that exist in broadband availability and ensure that Americans continue to enjoy the benefits of next-generation wireline and wireless broadband networks.

II. BROADBAND IS BEING DEPLOYED IN A REASONABLE AND TIMELY FASHION

The broadband marketplace in the United States is thriving, as intermodal competition and consumer choices continue to expand. Traditional telephone companies, cable operators, wireless providers, and satellite providers continue to invest substantial sums in deploying new broadband technologies, such as fiber-to-the-premises, DOCSIS 3.0, 4G LTE wireless services, and next-generation satellite broadband. Consumers increasingly have a multitude of options for broadband service, particularly with the rollout of wireless 4G services that provide greater cross-platform competition by virtue of higher speeds and expanded capabilities combined with the significant benefit of mobility. In short, broadband deployment and competition are flourishing.

The data underlying the National Broadband Map,³ which the Commission has described as “the most comprehensive and geographically granular deployment data publicly available,”⁴

³ NTIA, *National Broadband Map*, <http://www.broadbandmap.gov/>.

⁴ *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*, Eighth Broadband Progress Report ¶ 28, GN Docket No. 11-121, FCC 12-90 (rel. Aug. 21, 2012) (“*Eighth Broadband Progress Report*”); *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Ninth Broadband Progress Notice of Inquiry ¶ 31, GN Docket No. 12-228, FCC 12-91 (rel. Aug. 21, 2012) (“*Notice of Inquiry*”).

confirm the success of broadband deployment.⁵ Armed with the information supplied by state-level entities and in consultation with the Commission, in June 2012 NTIA released its most recent iteration of the Broadband Statistics Report (with data as of December of 2011), and in July 2012 issued a revised nationwide map of broadband availability.⁶ These data show that 96.07 percent of household units and 96.65 percent of the population in the United States have access to broadband service with download speeds in excess of 3 Mbps and upload speeds in excess of 768 kbps.⁷ In addition, nearly three-quarters of U.S. household units and population already have access to broadband service with download speeds in excess of 25 Mbps, and over two-thirds of U.S. households units and population already have access to broadband service with download speeds in excess of 50 Mbps.⁸ Thus, although this map is a work in progress⁹ and parties have identified imperfections both in the map and the data that comprise it, this evidence

⁵ The Broadband Data Improvement Act requires the National Telecommunications and Information Administration (NTIA), in coordination with the Commission, to oversee the state-level process of collecting and processing detailed information about broadband services, including availability, speed, and technology. This effort is funded as part of the American Recovery and Reinvestment Act. See Broadband Data Improvement Act of 2008, Pub. L. No. 110-385, 122 Stat. 4097 (codified at 47 U.S.C. §§ 1301-04); NTIA, *State Broadband Data and Development Grant Program*, Notice of Funds Availability and Solicitation of Applications, 74 FR 32545 (2009).

⁶ See NTIA, *National Broadband Map*, <http://broadbandmap.gov/>; Lynn Chadwick, *The National Broadband Map Is Updated*, National Broadband Map Blog (July 25, 2012), <http://www.broadbandmap.gov/blog/>.

⁷ See *Broadband Statistics Report: Access to Broadband Technology by Speed* at 3 (data as of Dec. 2011; report published June 2012).

⁸ *Broadband Statistics Report: Access to Broadband Technology by Speed* at 4.

⁹ See NTIA, *About National Broadband Map*, <http://www.broadbandmap.gov/about> (“The SBI data is an ongoing, collaborative data collection, review and revision process. . . . [B]roadband deployment in the United States is continually changing and developing.”).

confirms that broadband has been deployed on a reasonable and timely basis throughout the United States.

Moreover, the availability of broadband is continuing to expand at a rapid pace, particularly with the widespread rollout of the next generation of wireless broadband services. Verizon Wireless introduced its 4G LTE network in December 2010 in 39 markets that covered more than 110 million Americans.¹⁰ Today, Verizon Wireless's 4G LTE service is available to more than 75 percent of the U.S. population – more than 230 million people in 371 markets.¹¹ Verizon Wireless plans to cover 260 million people in more than 400 markets by the end of 2012, and have a nationwide footprint similar to its 3G footprint, covering approximately 95 percent of the U.S. population, by mid-2013.¹²

Verizon Wireless's deployment of its 4G LTE network is not limited to major cities, but instead is widespread. For example, on August 16, 2012, Verizon Wireless expanded its network in the Bitterroot Valley of Montana, including the towns of Lolo, Stevensville, Florence, and

¹⁰ See Verizon Wireless News Release, *Happy 1st Anniversary, Verizon Wireless 4G LTE!* (Dec. 5, 2011), <http://news.verizonwireless.com/news/2011/12/pr2011-12-05a.html>.

¹¹ Verizon Wireless, *News Center: LTE Information Center*, <http://news.verizonwireless.com/LTE/Overview.html> (LTE deployment as of August 16, 2012); Verizon Communications, *Investor Quarterly: Second Quarter 2012*, at 5 (July 19, 2012), http://www22.verizon.com/idc/groups/public/documents/adacct/2012_q2_quarterly_bulletin.pdf.

¹² Verizon Wireless, *News Center: LTE Information Center*, <http://news.verizonwireless.com/LTE/Overview.html>; *Q2 2012 Verizon Earnings Conference Call – Final*, FD (Fair Disclosure) Wire, Transcript 071912a4844123.723 (July 19, 2012) (statement by Verizon Communications EVP & CFO Fran Shammo); Bill Stone, Executive Director-Technology, Verizon, *Verizon Wireless: Meeting Customers' Broadband Needs*, at 2 (May 30, 2012), attached to Letter from Tamara Preiss, Verizon, to Marlene H. Dortch, FCC, WT Docket No. 12-4 (June 1, 2012).

Hamilton,¹³ which combined have a total population of less than 11,000.¹⁴ In addition, Verizon Wireless is working with rural communications companies to collaboratively build and operate a 4G LTE network in rural areas using the tower and backhaul assets of the rural company and Verizon Wireless's core 4G LTE equipment and 700 MHz spectrum. Thus far, there are 17 participants in the Verizon LTE in Rural America program, covering 2.7 million people in rural communities in 14 states. Through this program, Cellcom and Pioneer Cellular launched 4G LTE service in northern Wisconsin and northwestern Oklahoma, respectively; four additional carriers in the LTE in Rural America program are expected to launch their networks later this year, followed by most of the remaining participants in 2013.¹⁵ Verizon Wireless is in active negotiations with several additional carriers to extend the program.

Of course, Verizon is not alone in investing heavily in broadband networks, and its investments in next-generation broadband prompt other providers to respond. Numerous competitors – including established carriers such as AT&T and Sprint as well as newer entrants such as Clearwire¹⁶ and MetroPCS¹⁷ – are rolling out their own 4G networks.¹⁸ In addition, the

¹³ Verizon Wireless News Release, *Verizon Wireless 4G LTE Network Expands to Bitterroot Valley, Montana on Aug. 16* (Aug. 15, 2012), <http://news.verizonwireless.com/news/2012/08/pr2012-08-15aq.html>.

¹⁴ U.S. Census Bureau, American Factfinder, *DP05: ACS Demographic and Housing Estimates*, <http://factfinder2.census.gov/> (Florence CDP, Hamilton city, Lolo CDP, Stevensville town).

¹⁵ See Sharon Oddy, *LTE in Rural America 2nd Annual Conference* (Sept. 18, 2012), <http://news.verizonwireless.com/news/2012/09/4G-LTE-rural-america-conference.html>.

¹⁶ See *Clearwire's CEO Discusses Q1 2012 Results – Earnings Call Transcript*, SeekingAlpha (Apr. 26, 2012), <http://seekingalpha.com/article/534061-clearwire-s-ceo-discusses-q1-2012-results-earnings-call-transcript> (Clearwire Corporation CFO & SVP Hope Cochran: “We remain on track with our original goal of placing the initial 5,000 LTE sites on-air by the end of June 2013.”); *Q2 2012 Clearwire Corporation Earnings Conference Call – Final*, FD (Fair Disclosure) Wire, Transcript 072612a4861755.755 (July 26, 2012) (Clearwire Corporation CFO & SVP Hope Cochran: “We continue to expect the total cost for the larger LTE build of up to 8,000 sites to be approximately \$600 million, which will be spent in 2012 and 2013.”).

Commission has a pending rulemaking that would provide greater flexibility to deploy mobile broadband under the existing band plan and allow additional spectrum to be used to provide 4G broadband services.¹⁹

One report estimated that 4G network investments between 2012 and 2016 could reach \$53 billion.²⁰ In its recent International Broadband Data Report, the International Bureau noted that “American consumers have been quick to adopt 4G LTE technology, securing the United States’ position as the world leader in LTE adoption.”²¹ The International Bureau remarked that “[a]ggressive LTE network build-out by U.S. providers has been a driving force in customer take-up and we anticipate that this trend will continue.”²²

¹⁷ As of August 2012, MetroPCS had built out its 4G LTE network to cover roughly 90 percent of its CDMA footprint. MetroPCS Press Release, *MetroPCS Launches World’s First Commercially Available Voice Over LTE Service and VoLTE-Capable 4G LTE Smartphone* (Aug. 7, 2012), <http://investor.metropcs.com/phoenix.zhtml?c=177745&p=irol-newsArticle&ID=1723513&highlight=>.

¹⁸ See John Byrne et al., IDC, *U.S. LTE Subscriber 2012-2016 Forecast*, IDC #236502, at 2 (Aug. 2012) (“In total, all of the top 8 mobile operators have either launched or are committed to deploying LTE.”).

¹⁹ See *Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands*, Notice of Proposed Rulemaking and Notice of Inquiry, WT Docket No. 12-70 et al., FCC 12-32 (rel. Mar. 21, 2012).

²⁰ See *Eighth Broadband Progress Report* ¶ 33; Deloitte, *The Impact of 4G Technology on Commercial Interactions, Economic Growth, and U.S. Competitiveness*, at 7 (Aug. 2011) http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/TMT_us_tmt/us_tmt_impactof4g_081911.pdf (estimating that 4G network investments could contribute up to \$151 billion in gross domestic product growth and create up to 771,000 jobs).

²¹ *International Comparison Requirements Pursuant to the Broadband Data Improvement Act*, Third Report ¶ 3, IB Docket No. 10-171, GN Docket No. 11-121 (rel. Aug. 21, 2012) (“*Third International Broadband Data Report*”).

²² *Third International Broadband Data Report* ¶ 3.

In addition to the billions that have been and are expected to be invested in 4G wireless broadband networks, upgrades and deployment of next-generation wireline broadband networks continue as well. For example, Verizon continues to invest and deploy its all-fiber FiOS network that will pass more than 18 million premises.²³ By mid-year 2012, Verizon's FiOS network already passed more than 17 million premises, and FiOS Internet penetration was 36.6 percent at the end of second-quarter 2012, as compared with 33.9 percent at the end of second-quarter 2011.²⁴

Here too, Verizon is not alone. Cable companies have invested billions of dollars to upgrade their broadband infrastructure to deploy DOCSIS 3.0.²⁵ Investment analysts have noted that “with the roll-out of DOCSIS 3.0, broadband speeds of >20 Mbps are now available to 80% of US households versus only 12% in 2009.”²⁶

²³ See Verizon News Release, *Verizon Ushers in New Era of Consumer Broadband; New FiOS Portfolio Features Speeds of 75, 150 and 300 Mbps* (May 30, 2012), <http://newscenter.verizon.com/press-releases/verizon/2012/verizon-ushers-in-new-era-of.html>.

²⁴ Verizon Communications, *Investor Quarterly: Second Quarter 2012*, at 6 (July 19, 2012), http://www22.verizon.com/idc/groups/public/documents/adacct/2012_q2_quarterly_bulletin.pdf.

²⁵ Analysts estimate that as of the first quarter of 2012, Comcast and Cablevision had upgraded 100 percent of their networks to DOCSIS 3.0, while Charter had upgraded 94 percent and Time Warner Cable had upgraded 85 percent. See Thomas Seitz et al., Jefferies, *Cable & Satellite; Initiating Coverage: Pounding the Table on Cable*, at 11, Exhibit 23 (July 31, 2012). In August 2012, a Time Warner Cable executive stated that Time Warner Cable “now ha[s] DOCSIS 3.0 deployed across nearly [its] entire footprint.” *Q2 2012 Time Warner Cable Inc. Earnings Conference Call – Final*, FD (Fair Disclosure) Wire, Transcript 080212a4856603.703 (Aug. 2, 2012) (statement by Time Warner Cable Inc. President & COO Rob Marcus). See also *Q4 2011 Time Warner Cable Earnings Conference Call – Final*, FD (Fair Disclosure) Wire, Transcript 012612a4695798.798 (Jan. 26, 2012) (Time Warner Cable President & COO Rob Marcus: Time Warner Cable is “planning to complete [its] deployment of DOCSIS 3.0 this year”).

²⁶ Jaison T. Blair et al., Telsey Advisory Group, *NCTA's Cable Show*, at 1 (May 29, 2012). See also Jessica Reif Cohen, Bank of America/Merrill Lynch, *Battle for the Bundle: Easier Data, Tougher Voice for Cable*, at 7 (Nov. 21, 2011) (DOCSIS 3.0 will be available to 89 percent of cable homes by the end of 2012).

Satellite companies also continue to invest hundreds of millions of dollars to upgrade their broadband services and appear poised for a major breakthrough. In January 2012, following the successful, October 2011 launch of its ViaSat-1 satellite, ViaSat began providing its Exede high-speed Internet service, which is available in all 50 states and “offers speeds up to 12 Mbps downstream and up to 3 Mbps upstream beginning at \$50 per month,” “via the highest capacity satellite in the world.”²⁷ According to ViaSat, the Exede services were “designed to offer a high-quality broadband internet service choice to the millions of unserved and under-served consumers in the United States and to significantly expand the quality, capability and availability of high-speed broadband satellite services for U.S. consumers and enterprises.”²⁸ EchoStar, which recently acquired Hughes Network Systems, similarly reported that the successful, July 2012 launch of the EchoStar XVII satellite “will provide additional capacity for the HughesNet consumer broadband Internet service in North America.”²⁹ The new HughesGen4 satellite Internet service using EchoStar XVII is expected to begin commercial operations in the fall of 2012, with download speeds of 10 Mbps to 15 Mbps, and upload speeds of 1 Mbps to 2 Mbps.³⁰ According to HughesNet, the service “will deliver customers a media-

²⁷ ViaSat Press Release, *Exede High-Speed Internet To Be Offered by DIRECTV in New Video/Broadband Bundle* (May 17, 2012), <http://www.viasat.com/news/exede-high-speed-internet-be-offered-directv-new-videobroadband-bundle>.

²⁸ ViaSat, Inc., Form 10-K, at 4 (SEC filed May 25, 2012), <http://www.sec.gov/Archives/edgar/data/797721/000119312512249227/d260942d10k.htm>.

²⁹ EchoStar Corp., Form 10-Q, at 11 (SEC filed Aug. 8, 2012), http://www.sec.gov/Archives/edgar/data/1415404/000110465912055473/a12-13753_110q.htm.

³⁰ Hughes Network Systems Press Release, *EchoStar XVII Satellite with JUPITER High-Throughput Technology Successfully Positioned in Orbital Slot* (July 23, 2012), http://www.hughes.com/HNS%20Library%20Press%20Release/07-23-12_EchoStar_XVII_Reaches_Final_Orbit.pdf (“*HughesNet July 23, 2012 Press Release*”); HughesNet, *Plans and Pricing*, <http://gen4.hughesnet.com/explore-plans>.

rich Internet experience” and “will dramatically improve Internet browsing performance and high-bandwidth video and music applications.”³¹

The Commission’s own recent data further confirm the reasonableness and timeliness of broadband deployment. The July 2012 *Measuring Broadband America* report found, for example, that consumers are now receiving actual broadband speeds close to, and in some cases greater than, advertised speeds (contrary to previous suggestions by the Commission).³² The Commission noted that data collected in April 2012 showed “striking across-the-board improvements on key metrics underlying user performance” compared to data collected in March 2011, and noted that these improvements were “largely driven by improvements in network performance, not downward adjustments to the speed tiers offered.”³³ The Commission retained SamKnows to evaluate the service offerings of 13 of the largest wireline Internet service providers using three technologies – Digital Subscriber Line (DSL), cable, and fiber-to-the-home.³⁴ Among other things, the study found that, during peak periods, fiber-to-the-home services (such as Verizon’s FiOS Internet service) averaged 117 percent of advertised download speeds and 106 percent of advertised upload speeds.³⁵ Moreover, a consumer satisfaction survey

³¹ *HughesNet July 23, 2012 Press Release* (including statement by Hughes Network System Executive Vice President and General Manager, North America Division Paul Gaske).

³² See Office of Engineering & Technology and Consumer & Governmental Affairs Bureau, FCC, *Measuring Broadband America: A Report on Consumer Wireline Broadband Performance in the U.S.*, at 4-5 (July 2012), <http://transition.fcc.gov/cgb/measuringbroadbandreport/2012/Measuring-Broadband-America.pdf> (“2012 *Measuring Broadband America Report*”). The FCC’s 2012 analysis found that “ISPs [] did a better job. . . of meeting or exceeding their advertised speeds . . . an almost 38% improvement over the one year period.” *2012 Measuring Broadband America Report* at 6.

³³ *2012 Measuring Broadband America Report* at 4-5.

³⁴ *2012 Measuring Broadband America Report* at 8.

³⁵ *2012 Measuring Broadband America Report* at 10-11.

conducted by the Commission found that 92 percent of consumers were either very or somewhat satisfied with the reliability of their services, that 91 percent were very or somewhat satisfied with the speed of their services, that 82 percent were very or somewhat satisfied with their providers' customer service, and that 93 percent were very or somewhat satisfied with their services overall.³⁶ That consumers are generally satisfied with their broadband services and that advertised speeds and actual speeds are comparable confirm the reasonable and timely deployment of broadband services in the United States.

Finally, other sources confirm that broadband is being deployed in a reasonable and timely fashion, and that other factors account for the lack of even more widespread adoption. A November 2011 report on computer and Internet usage by the Economics and Statistics Administration and NTIA found that “more than two-thirds (68 percent) of all American households utilized broadband Internet access services” in 2010, while “[a] significant segment of the population, almost one-fourth (23 percent) of all American households, did not own or use a computer at home in 2010.”³⁷ The Economics and Statistics Administration and NTIA's report confirmed that lack of access to broadband facilities is far down the list of factors preventing more widespread adoption of broadband. Their report found that as of October 2010, the main reason cited by those not having broadband service (or Internet access at all) as “[n]ot available

³⁶ *Broadband Satisfaction: What Consumers Report About Their Broadband Internet Provider*, FCC Working Paper, at 2 (Dec. 2010), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-303263A1.pdf.

³⁷ Economics and Statistics Administration & NTIA, U.S. Dep't of Commerce, *Exploring the Digital Nation: Computer and Internet Use at Home*, at 5, 3 (Nov. 2011), http://www.ntia.doc.gov/files/ntia/publications/exploring_the_digital_nation_computer_and_internet_use_at_home_11092011.pdf (“*Exploring the Digital Nation Report*”).

in area” was only about 1 percent of all households.³⁸ A recent survey by the Leichtman Research Group similarly found that “[o]verall, 1.3% of all households are interested in getting broadband, but say that it is not available in their area.”³⁹

III. THE COMMISSION SHOULD ENSURE THAT ITS ASSESSMENT OF BROADBAND DEPLOYMENT FULLY REFLECTS THE EXPANDING RANGE OF CHOICES NOW AVAILABLE TO CONSUMERS

Following enactment of the 1996 Act, the Commission repeatedly found that broadband services were being deployed in a reasonable and timely manner, even where deployment had not yet reached isolated pockets of the country where the economics of deployment are extremely challenging.⁴⁰ Nonetheless, in its last three broadband progress reports, the

³⁸ See *Exploring the Digital Nation Report* at 35, Figure 19, 36, Figure 20, 44, Table B2. An earlier survey by the Pew organization found similar results: 17 percent of the 7 percent of American adults who used dial-up in 2009, or approximately 1 percent of American adults at the time, cited lack of availability as the reason for not having broadband at home. See Kathryn Zickuhr & Aaron Smith, Pew Internet & American Life Project, *Digital Differences*, at 9 (Apr. 13, 2012), http://pewinternet.org/~media/Files/Reports/2012/PIP_Digital_differences_041312.pdf (citing April 2009 data).

³⁹ *Nearly 90% of U.S. Computer Households Subscribe to Broadband*, Leichtman Research Group (Sept. 4, 2012), <http://www.leichtmanresearch.com/press/090412release.html>. Leichtman Research Group noted that “2% of all online households say that broadband is not available in their area – compared to 6% in 2008.” *Id.*

⁴⁰ See, e.g., *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, ¶ 44 (2005); *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, ¶ 272 (2003); *Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c)*, Memorandum Opinion and Order, 19 FCC Rcd 21496, ¶ 19 (2004); see also *Connecting America: The National Broadband Plan*, at 20 (2010) <http://download.broadband.gov/plan/national-broadband-plan.pdf> (“*National Broadband Plan*”) (finding that “[t]oday, 290 million Americans – 95% of the U.S. population – live in housing units with access to terrestrial, fixed broadband infrastructure capable of supporting actual download speeds of at least 4 Mbps”) (citations omitted); *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*; A

Commission reversed course and found that broadband was not being deployed to all Americans in a reasonable and timely fashion.⁴¹ This finding was premised upon several analytical mistakes that the Commission should now correct.

First, the Commission must include mobile wireless Internet access services in analyzing broadband availability. The Commission thus far has declined to consider this popular form of Internet access due to concerns about the accuracy of data regarding mobile broadband speeds and coverage.⁴² This concern did not justify the exclusion of 3G service – which is now available to the overwhelming majority of Americans and has been rapidly adopted by consumers who have found that it is capable of meeting their broadband demands.⁴³ But regardless of whether 3G is included, there is no reasonable basis not to consider the next-generation 4G services that now are being rapidly deployed and generally far exceed the Commission’s broadband speed benchmark.

The significance of excluding wireless broadband is evident from the Commission’s determination in its last broadband progress report that “approximately 19 million Americans

National Broadband Plan for Our Future, Sixth Broadband Progress Report, 25 FCC Rcd 9556, ¶ 1 (2010) (“*Sixth Broadband Progress Report*”) (finding based on 2008 data that 14 to 24 million Americans, out of a total population of approximately 310 million did not have access to broadband).

⁴¹ *Eighth Broadband Progress Report* ¶ 1; *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*, Seventh Broadband Progress Report and Order on Reconsideration, 26 FCC Rcd 8008, ¶ 1 (2011) (“*Seventh Broadband Progress Report*”); *Sixth Broadband Progress Report* ¶ 2.

⁴² *Eighth Broadband Progress Report* ¶¶ 31-40.

⁴³ See *Remarks of Chairman Genachowski on the Office of Engineering and Technology and the Wireless Telecommunications Bureau Presentation on White Spaces for Wireless Broadband* (July 19, 2012), http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0719/DOC-315292A1.pdf (“The U.S. leads the world in 3G subscribers by a wide margin.”).

live in areas still unserved by terrestrial-fixed broadband.”⁴⁴ The Commission can arrive at this figure only by excluding wireless broadband services. Indeed, with a population of 316.7 million in the United States with 96.65 percent of the U.S. population having access to high-speed broadband, including wireless broadband, NTIA’s most recent data reflect that fewer than four percent of residents lack access to broadband service with download speeds in excess of the Commission’s benchmark.⁴⁵

Moreover, contrary to the Commission’s suggestion in its last two reports, concerns about speeds cannot justify excluding wireless broadband services from the Commission’s analysis. As an initial matter, there should be no question that 4G services, which now have been widely deployed and continue to spread quickly, must count for purposes of the Commission’s analysis. With its commercial launch in December 2010 to more than 110 million customers, Verizon Wireless 4G LTE broadband customers – working in real-world, fully-loaded network environments – have experienced typical download speeds of 5 to 12 Mbps and typical upload speeds of 2 to 5 Mbps.⁴⁶ Indeed, recent independent testing of Verizon Wireless’s 4G service in

⁴⁴ *Eighth Broadband Progress Report* ¶ 1. See also *Notice of Inquiry* ¶ 31 (“approximately 19 million Americans lived in areas unserved by broadband capable of ‘originat[ing] and receiv[ing] high-quality voice, data, graphics, and video telecommunications.’”).

⁴⁵ See NTIA, *Broadband Statistics Report: Broadband Availability in Urban vs. Rural Areas*, at 7, <http://www.broadbandmap.gov/download/Broadband%20Availability%20in%20Rural%20vs%20Urban%20Areas.pdf> (total population data as of Dec. 2011); *Broadband Statistics Report: Access to Broadband Technology by Speed*, at 3 (broadband availability data as of Dec. 2011). Although the Commission’s benchmark for determining whether broadband is available is a threshold service offering actual speeds of 4 Mbps/1 Mbps, the Commission has “use[d] the 3 Mbps/768 kbps tier as a proxy for the 4 Mbps/1 Mbps speed benchmark in making [its] statutory assessment of deployment.” *Eighth Broadband Progress Report* ¶ 29 (citing *Seventh Broadband Progress Report* ¶ 25).

⁴⁶ See Verizon Wireless News Release, *Verizon Wireless Introducing High-Speed 4G LTE Data Network in Redding, California* (Aug. 16, 2012), <http://news.verizonwireless.com/news/2012/08/pr2012-08-16k.html>.

15 cities nationwide confirmed average download speeds as high as 15.2 Mbps and upload speeds of 7.97 Mbps.⁴⁷

Other competitors offering 4G service likewise report download speeds in excess of the Commission's threshold. For example, both Sprint and Clearwire trumpet average download speeds on their 4G networks ranging from 3 to 6 Mbps.⁴⁸

While lacking some of the capabilities of these 4G services, 3G services also continue to be an integral part of consumers' broadband experience and should not be ignored by the Commission. Almost all of the national and regional wireless providers now offer some form of 3G (or 3G+) service,⁴⁹ and consumers' embrace of these services demonstrates that these services are capable of meeting many consumers' broadband needs.

⁴⁷ Bill Moore, *Solving the LTE Puzzle: Comparing LTE Performance*, Gigaom (Apr. 14, 2012), <http://gigaom.com/2012/04/14/solving-the-lte-puzzle-comparing-lte-performance/>. Other recent tests likewise showed average download speeds in excess of the Commission's threshold, and within the average range cited by Verizon Wireless. See, e.g., Sascha Segan, *Fastest Mobile Networks 2012*, PCMag (June 18, 2012), <http://www.pcmag.com/article2/0,2817,2405597,00.asp> ("Verizon's LTE swept the board" in 30 test cities, with an average download speed of 8.89 Mbps and an average upload speed of 6.46 Mbps); Mark Sullivan, *3G and 4G Wireless Speed Showdown: Which Networks Are Fastest?*, PCWorld (Apr. 17, 2012), http://www.pcworld.com/article/253808-5/3g_and_4g_wireless_speed_showdown_which_networks_are_fastest.html (Verizon LTE averaged 7.35 Mbps for downloads and 5.86 Mbps for uploads in 13 test cities).

⁴⁸ See Sprint, *4G Coverage/4G Speeds*, http://shop2.sprint.com/en/stores/popups/4G_coverage_popup.shtml (claiming "4G speeds are up to 10x faster than 3G. That's like swapping out DSL for a high-speed cable modem," and noting average 4G download speeds of 3-6 Mbps, with peak download speeds of "[m]ore than 10 Mbps"); Clear, *CLEAR Internet Plans*, <http://www.clear.com/plans> (describing its 4G Internet Plan with "Avg 3-6 Mbps Download" as "the best option for users who enjoy watching movies and videos, play or game frequently, and email with large attachments or files").

⁴⁹ See *Eighth Broadband Progress Report* ¶ 6, n.27 ("Best available estimates of mobile broadband coverage by 3G or better technologies (including CDMA EV-DO), EV-DO Rev. A, WCDMA/HSPA, HSPA+, mobile WiMAX, and LTE) indicate growth from 98.1% of the U.S. population in November 2009 to 99.4% in January 2012.").

With the deployment of these wireless broadband networks, consumers increasingly rely upon a host of mobile devices, such as smartphones and tablets, to meet their broadband needs.⁵⁰ These devices allow consumers to send and receive email, engage in social networking, share photographs and music, and store and retrieve data, including books, newspapers, magazines, and videos.⁵¹

Consumers have found mobile broadband devices particularly appealing in light of the large variety of data plans that are available at attractive prices to meet their different needs and budgets, and mobile broadband providers continue to improve the capabilities of these services as reflected in large increases in the usage allowances of mobile data plans over time. In June 2012, Verizon Wireless introduced “Share Everything” plans, which offer a single data

⁵⁰ See, e.g., Carrie MacGillivray et al., IDC, *U.S. Mobile Consumer Services 2012-2016 Forecast*, IDC #234972, at 13, Table 3 (June 2012) (forecasting U.S. consumer wireless subscribers will grow from 189.4 million at the end of 2010 and 193.7 million at the end of 2011, to 197.7 million at the end of 2012, and 213.8 million at the end of 2016); Kulbinder Garha et al., Credit Suisse, *Smartphones*, at 10, Figure 5 (May 11, 2012) (projecting U.S. smartphones will grow from 66.6 million in 2010 and 99.6 million in 2011 to 110.3 million at the end of 2012 and 121.9 million at the end of 2013); Strategy Analytics, *Global Smartphone Installed Base Forecast for 88 Countries: 2007 to 2017* (Aug. 2012) (projecting the installed base of U.S. smartphones will grow from 91.4 million in 2010 and 132.0 million in 2011, to 169.1 million in 2012, and 258.9 million in 2017); Katie Lewis, Yankee Group, *The Runaway Smartphone Landscape*, at 2 (Jan. 2012) (“[m]ore than 47 percent of U.S. consumers currently own at least one smartphone and 58 percent of survey respondents intend to buy one as their next mobile phone;” “Yankee Group predicts consumer smartphones in use in the U.S. will climb from 97 million this year to more than 175 million in 2015.”); Tom Mainelli, IDC, *Worldwide and U.S. Media Tablet 2011-2015 Forecast Update: December 2011*, IDC #232805, at 23, Table 10 (Feb. 2012) (projecting U.S. consumer media tablet shipments to grow from 9.6 million in 2010 and 25.7 million in 2011, to 35.3 million in 2012, 44.3 million in 2013, and 50.1 million in 2015); Cisco Visual Networking Index: *Forecast and Methodology, 2011-2016*, at 16, Table 16 (May 30, 2012), http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-481360.pdf (projecting growth of monthly mobile data and Internet traffic in North America, from 119 PB in 2011 to 259 PB in 2012, 493 PB in 2013, and 1,964 PB in 2016).

⁵¹ See, e.g., *Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Fifteenth Report, 26 FCC Rcd 9664, ¶ 353, Table 39 (2011) (categories of applications used by applications downloaders with smartphones).

allowance to be shared with up to 10 Verizon Wireless devices. Monthly data allowances begin at 1 GB for \$50.⁵² AT&T announced similar “Mobile Share” plans in July 2012, starting at \$40 for 1 GB.⁵³ Analysts have noted that “[d]ata sharing plans introduce a new pricing paradigm,” and that “more affordable activations for tablets and smartphones, as well as more gradual pricing tiers should help drive increased data usage.”⁵⁴

With declining prices for mobile broadband service and with mobile broadband-enabled devices being more affordable than desktops and laptops, it is no surprise that penetration of desktop computers is declining while penetration of smartphones, tablet computers, e-readers, and netbooks continues to grow.⁵⁵ Indeed, many consumers increasingly rely primarily on

⁵² These plans also include unlimited voice minutes, unlimited text, video, and picture messaging. Customers pay a monthly access charge per device – for example, \$40 for smartphones, \$20 for USB devices and netbooks, and \$10 for tablets. Verizon Wireless News Release, *Verizon Wireless Unveils New Share Everything Plans for Basic Phones, Smartphones, Tablets and More* (June 12, 2012), <http://news.verizonwireless.com/news/2012/06/pr2012-06-11e.html>. Verizon Wireless also offers separate “Share Everything Data Only” plans for devices such as tablets, notebooks, and netbooks, and standalone data packages for smartphones. Verizon Wireless, *Share EverythingSM Plan*, http://support.verizonwireless.com/clc/faqs/Calling%20Plans/share_everything.html.

⁵³ AT&T News Release, *AT&T Gives Customers More Choice with New Shared Wireless Data Plans* (July 18, 2012), <http://www.att.com/gen/press-room?pid=23084&cdvn=news&newsarticleid=34855&mapcode=consumer|financial>.

⁵⁴ Simon Flannery et al., Morgan Stanley, *Telecom Services: Adjusting Estimates for 3Q12 iPhone Launch*, at 6 (Sept. 4, 2012); Simon Flannery et al., *Verizon Comm.: Quick Comment: New Data Sharing Plans Should Drive Tablet Activation*, at 2 (June 13, 2012). See also Jonathan Chaplin et al., *AT&T: New Plans Drive Long-Term Revenue Growth*, at 1 (July 18, 2012) (“the simplified pricing model should encourage device adoption, which should in turn drive up aggregate usage”); John Weber et al., IDC, *U.S. 2Q12 Mobile Operator Roundup: Shared Data Plans Emerge, and Sprint Activates LTE*, at 1, 15 (Sept. 2012) (“Shared data plans. . . introduce a new pricing model that will provide value to a variety of data consumers.” “IDC believes shared data plans will encourage users to connect tablets to a cellular network.”).

⁵⁵ See, e.g., Consumer Electronics Association, *14th Annual CE Ownership and Market Potential Study*, at 24, Figure 18 & 26, Figure 22 (Apr. 2012) (penetration of desktop computers has declined from a peak of 75 percent of U.S. households in 2010, to 68 percent in 2012; during the same period, penetration of smartphones grew from 33 percent to 46 percent, penetration of e-

mobile services for broadband access, and this trend is particularly pronounced among certain demographics. A recent survey by the Pew Internet & American Life Project found that 17 percent of all adult cell phone owners “mostly go online using their cell phone, and not some other device such as a desktop or laptop computer.”⁵⁶ The survey found that “certain groups are especially likely to say that they conduct most of their online browsing using a mobile phone,” including 45 percent of cell Internet users ages 18-29, 51 percent of black cell Internet users, 42 percent of Latino cell Internet users, and 43 percent of cell Internet users with a household income below \$30,000.⁵⁷ Under these circumstances, the Commission simply cannot turn a blind eye to wireless broadband services in determining whether broadband is being deployed in a reasonable and timely fashion.⁵⁸

Second, the Commission should not conflate broadband adoption with broadband availability, giving the United States a nationwide failing grade for broadband deployment until everyone in the country has access *and* has decided to subscribe to the service. This approach cannot be reconciled with the language of Section 706, which requires an assessment of whether

readers grew from 6 percent to 19 percent, and penetration of netbooks grew from 12 percent to 17 percent, and penetration of tablet computers grew from 8 percent in 2011 to 22 percent in 2012). *See also Remarks of the Honorable Robert M. McDowell, Commissioner, Federal Communications Commission, Before TIA 2012: Inside the Network* (Dallas, TX) (June 7, 2012), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-314505A1.pdf (“Last year, only six percent of consumer Internet traffic originated with non-PC devices; by 2016, this number will grow to 19 percent.”).

⁵⁶ Aaron Smith, Pew Internet & American Life Project, *17% of Cell Phone Owners Do Most of Their Online Browsing on Their Phone, Rather Than a Computer or Other Device*, at 2 (June 26, 2012), http://pewinternet.org/~media/Files/Reports/2012/PIP_Cell_Phone_Internet_Access.pdf (“*Pew Cell Phone Internet Access Report*”).

⁵⁷ *Pew Cell Phone Internet Access Report* at 7-8.

⁵⁸ *Notice of Inquiry* ¶ 24.

broadband “is being deployed to all Americans in a reasonable and timely fashion.”⁵⁹ By speaking in terms of “deploy[ment]” and incorporating a progressive tense formulation that plainly contemplates a forward-looking, ongoing effort, Congress directed the Commission to conduct a reasoned analysis of broadband deployment in light of relevant circumstances. The Commission ignored this directive by focusing solely on whether the ultimate goal of universal availability had already been satisfied.⁶⁰ That some customer *somewhere* in the country does not have access to broadband is not a basis for finding that broadband is not in fact being deployed in a reasonable and timely manner anywhere.

The Commission should adjust course and provide the more realistic, reasoned analysis required by Section 706. As evidenced by the plain language of Section 706, the deployment and upgrade of America’s broadband infrastructure will be an ongoing – likely never-ending – process. At a minimum, the Commission should more expressly limit any negative findings under Section 706 to those few areas (which, according to NTIA’s most recent data, cover less than four percent of the population) that remain truly unserved today and are unlikely to be reached by private investment in the near future.

Indeed, given that approximately 96 percent of households already have access to broadband, and that the availability gap will continue to shrink over the coming years, there is no need for an ongoing, nationwide reporting process to gauge broadband availability beyond that required in connection with the National Broadband Map. Instead, more tailored efforts – such as reporting requirements focused on any continuing gaps in availability or targeted to providers receiving funding to address those gaps – would be more appropriate than broad, industry-wide

⁵⁹ 47 U.S.C. § 1302(b).

⁶⁰ See *Eighth Broadband Progress Report* ¶ 135 & n.347, ¶ 138; *Seventh Broadband Progress Report* ¶ 48; *Sixth Broadband Progress Report* ¶ 28 & n.119.

and nationwide reporting obligations. For example, if universal service funding, NTIA or RUS loans or grants, or any other federal funding is used for broadband deployment, then those providers receiving funding could report to the Commission on the ongoing process of expanding broadband availability.

IV. THE COMMISSION SHOULD NOT ADOPT NEW CRITERIA THAT WILL UNDERMINE A PROPER ASSESSMENT OF BROADBAND DEPLOYMENT

The Commission’s notice seeks comment on several issues that, if adopted, would unnecessarily complicate the Commission’s analysis and hinder the proper assessment of broadband deployment required by Congress.

First, the Commission’s inquiry seeks comment on whether mobile services should be evaluated separately from fixed services, using a separate benchmark, and whether a household or geographic area should be considered served by “advanced telecommunications capability” only if it has access to *both* fixed and mobile broadband services meeting the Commission’s benchmarks.⁶¹ There is no basis in the statute that requires these analyses, or that justifies separate treatment based on technology. Section 706 clearly states that “[t]he term ‘advanced telecommunications capability’ is defined, *without regard to any transmission media or technology*, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications *using any technology*.”⁶² As Congress recognized, there could be many different types of broadband services, each with their own characteristics that could include various advantages and disadvantages relative to other technologies. For example, while fiber offers very high speeds at

⁶¹ *Notice of Inquiry* ¶¶ 23, 25.

⁶² Telecommunications Act of 1996, Pub. L. No. 104-104, § 706, 110 Stat. 56, 153 (1996); 47 U.S.C. § 1302(d)(1) (emphasis added).

a fixed location, LTE offers somewhat lower speeds with the advantage of mobility. It therefore makes no sense to conclude that broadband is not being deployed on a timely basis until every conceivable type of service is available to every consumer.

Second, the Commission’s inquiry seeks comment on whether to incorporate latency and data capacity as core characteristics for determining whether advanced telecommunications capability is being deployed to all Americans.⁶³ The addition of these characteristics to the Commission’s analysis is unnecessary. With respect to latency, there is no substantial variation among terrestrial broadband and 4G mobile broadband offerings that would make latency a significant, core characteristic.⁶⁴ The Commission’s own analysis concedes that latency remains “largely unchanged” from year to year, “as it primarily depends upon factors intrinsic to a specific architecture and is largely outside the scope of improvement if networks are appropriately engineered.”⁶⁵ Thus, there is no reason to include a 100 millisecond latency threshold as a benchmark for broadband services. Moreover, with the rollout of 4G services, latency should become even less of an issue, and provides a further basis to include mobile broadband services in the 706 inquiry.⁶⁶

⁶³ *Notice of Inquiry* ¶¶ 15, 18.

⁶⁴ In its recent *Measuring Broadband America* report on wireline broadband performance, the Commission found that “all of the latencies measured . . . should be adequate for common latency-sensitive Internet applications, such as VoIP.” *2012 Measuring Broadband America Report* at 29.

⁶⁵ *2012 Measuring Broadband America Report* at 11.

⁶⁶ See, e.g., Verizon Wireless, *Verizon 4G LTE: The Next-Generation Network*, 4G LTE Tech Brief (2011), http://business.verizonwireless.com/content/dam/b2b/resources/VWR60881_LTE_TechBrief_V1o_chi.pdf (“Verizon Wireless 4G LTE [] features reduced network-to-device (one-way) latency, down from 120 ms in 1xEV-DO Rev. A to below 50 ms with Verizon Wireless 4G LTE.”).

With respect to a proposed data capacity threshold, capacity- or usage- based terms for various broadband plans – and in particular, the existence of terms where prices (rather than availability) is based on the level of usage – should not affect the Commission’s determination of broadband availability. The Commission has previously recognized the potential benefits of usage-based billing approaches, noting that “prohibiting tiered or usage-based pricing and requiring all subscribers to pay the same amount for broadband service, regardless of the performance or usage of the service, would force lighter end users of the network to subsidize heavier end users. . . . [and] would also foreclose practices that may appropriately align incentives to encourage efficient use of networks.”⁶⁷ In short, these limits enable broader availability by allowing consumers who use less broadband to pay less, and ensure that all users are able to “originate and receive high-quality voice, data, graphics, and video telecommunications using any technology” by curbing the effects of abuse by high-volume users. The Commission also asks how it should “treat a provider that offers two tiers of service, one that offers unlimited use but is very costly and one that is 5 GB for \$5 a month less.”⁶⁸ The Commission should not discriminate against carriers that offer consumers a range of service plans. The existence of plan-specific capacity and usage terms does not mean broadband is not available, and therefore the Commission should not adopt minimum service standards.

Third, the Commission’s inquiry seeks comment on whether to identify multiple speed tiers in broadband progress reports to assess the country’s progress toward the goal of 100 million U.S. homes having affordable access to actual download speeds of at least 100 Mbps,

⁶⁷ *Preserving the Open Internet*, Report and Order, 25 FCC Rcd 17905, ¶ 72 (2010).

⁶⁸ *Notice of Inquiry* ¶ 19.

and actual upload speeds of at least 50 Mbps, by 2020.⁶⁹ There is no need for the Commission to collect such data at this time. This is not a requirement of Section 706, and the thresholds the Commission has identified are well beyond what the vast majority of consumers today deem sufficient for their broadband needs. Thus, this would add additional burdens on carriers with marginal benefits in return. Moreover, the NTIA already collects data on higher tiers, from 6 Mbps to 1 Gbps.⁷⁰

Fourth, the Commission's inquiry seeks comment on whether to adopt a new speed benchmark.⁷¹ There is no reason to increase the 4 Mbps/1 Mbps threshold, as such speeds are still meaningful to consumers. The FCC's own analysis shows that the adoption rate of services at or above the benchmark level (even where faster services are available) is 40.4 percent, and where higher speeds (*i.e.*, at least 6 Mbps/1.5 Mbps) are available is 27.6 percent for those services.⁷² This reflects that consumers continue to find that services at the existing 4 Mbps/1 Mbps threshold continue to meet their needs for broadband services, and a higher benchmark would serve no purpose in accurately assessing the availability of broadband.⁷³ Moreover, for

⁶⁹ *Notice of Inquiry* ¶ 11.

⁷⁰ See NTIA, *Broadband Statistics Report: Broadband Availability in Urban vs. Rural Areas*, at 7-8, <http://www.broadbandmap.gov/download/Broadband%20Availability%20in%20Rural%20vs%20Urban%20Areas.pdf> (urban vs. rural data, by state, by download and upload speeds).

⁷¹ *Notice of Inquiry* ¶ 27.

⁷² *Eighth Broadband Progress Report* ¶ 97, Table 17.

⁷³ See FCC, *Broadband Speed Guide*, <http://www.fcc.gov/guides/broadband-speed-guide> (noting that among popular online activities, only “HD-quality streaming movie or university lecture,” “HD video conference and telelearning,” and “[t]wo-way online gaming in HD” require a minimum download speed of 4 Mbps).

the sake of consistency and to ensure meaningful comparisons over time, the Commission should maintain a relatively stable benchmark until there is a demonstrated need to change it.

Finally, the Commission seeks comment on how to factor satellite broadband deployment into its next report, recognizing that “satellite services soon may cover most of the contiguous United States with a service that meets the broadband speed threshold.”⁷⁴ As described in Section II, *supra*, ViaSat and HughesNet have invested hundreds of millions of dollars to upgrade their services, and are now able to offer services with downstream and upstream speeds that far exceed the Commission’s speed benchmark. There is no reason for the Commission to apply latency or usage thresholds to its broadband benchmark for satellite services, or to consider satellite technology separately, contrary to the requirements of Section 706.

V. THE COMMISSION SHOULD ADOPT APPROPRIATELY TAILORED POLICIES THAT WOULD ACCELERATE DEPLOYMENT AND FURTHER THE GOAL OF UNIVERSAL AVAILABILITY OF BROADBAND

Even though the broadband marketplace is subject to intense and growing competition and approximately 96 percent of Americans have access to broadband today, the Commission must pursue policies that promote continued broadband investment and innovation. These appropriately tailored policies would help address the gaps that exist in broadband availability and ensure that Americans continue to enjoy the benefits of next-generation wireline and wireless broadband networks.

First, the Commission should reaffirm that all IP-based services – regardless of provider or technology – are interstate information services and are subject to the Commission’s exclusive jurisdiction.⁷⁵ Doing so would eliminate the regulatory uncertainty regarding the IP-based

⁷⁴ *Notice of Inquiry* ¶¶ 36, 43.

⁷⁵ *See, e.g.,* Comments of Verizon and Verizon Wireless, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely*

services that ride over those broadband networks the Commission seeks to expand – uncertainty that presents an obstacle to additional deployment. Broadband platforms and the IP-based services that ride over those platforms are being rolled out over wide geographic areas without regard to state boundaries. Uniform, federal rules that govern broadband and IP networks and services would allow these networks and services to be deployed with common systems, platforms, and processes, and result in efficiencies that provide significant cost savings. In contrast, a piecemeal, localized approach of state or local regulation would eliminate those efficiencies and increase costs and would undermine widespread deployment and adoption of broadband.

Second, consistent with its recognition that “[w]ireless broadband is poised to become a key platform for innovation in the United States over the next decade,”⁷⁶ the Commission should continue to increase available spectrum for wireless broadband services.⁷⁷ As the National Broadband Plan found, “[t]he growth of wireless broadband will be constrained if government does not make spectrum available to enable network expansion and technology upgrades . . . [resulting in] higher prices, poor service quality, an inability for the U.S. to compete internationally, depressed demand and, ultimately, a drag on innovation.”⁷⁸ The Commission

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, GN Docket No. 10-159, at 32-35 (Sept. 7, 2010) (“*Verizon Seventh NOI Comments*”); Comments of Verizon and Verizon Wireless, *High-Cost Universal Service Support et al.*, WC Docket No. 05-337 et al., at 5-21 (Nov. 26, 2008); Comments of Verizon, *IP-Enabled Services*, WC Docket No. 04-36 et al., at 31-42 (May 28, 2004).

⁷⁶ *National Broadband Plan* at 75.

⁷⁷ See, e.g., *Verizon Seventh NOI Comments* at 35-36.

⁷⁸ *National Broadband Plan* at 77; see also The White House, *Presidential Memorandum: Unleashing the Wireless Broadband Revolution* (June 28, 2010), <http://www.whitehouse.gov/the-press-office/presidentialmemorandum-unleashing-wireless->

should move quickly and aggressively to identify and reallocate additional spectrum for mobile broadband use. For example, the Commission has a pending proposal to allocate 40 MHz of spectrum in the 2 GHz band for the provision of terrestrial mobile broadband service.⁷⁹ The Commission has also taken “preliminary steps” toward repurposing a portion of UHF and VHF frequency bands currently used by broadcast television service to “promote ongoing innovation and investment in mobile communications,” as required by the 2012 Spectrum Act.⁸⁰ Only with the reallocation of this and other substantial blocks of spectrum for future mobile broadband use will the mobile broadband market realize its full potential. Moreover, to ensure that spectrum is used most efficiently and in the best interests of consumers, the Commission should not impose restrictions on who is eligible to bid for this spectrum, or otherwise attach strings that would affect how this spectrum may be used beyond current rules.

Third, the Commission should forego unnecessary and intrusive regulation of broadband that deters network investment or hinders the migration to next-generation networks.⁸¹ The

broadband-revolution (“America’s future competitiveness and global technology leadership depend, in part, upon the availability of additional spectrum. . . . Expanded wireless broadband access will trigger the creation of innovative new businesses, provide cost-effective connections in rural areas, increase productivity, improve public safety, and allow for the development of mobile telemedicine, telework, distance learning, and other new applications that will transform Americans’ lives.”).

⁷⁹ *Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands*, Notice of Proposed Rulemaking and Notice of Inquiry, 27 FCC Rcd 3561 (2012).

⁸⁰ *Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, Report and Order, 27 FCC Rcd 4616, ¶ 1 (2012).

⁸¹ *See, e.g., Verizon Seventh NOI Comments* at 41-46; *Comments of Verizon and Verizon Wireless, Framework for Broadband Internet Service*, GN Docket No. 10-127, at 1-20, 72-78 (July 15, 2010).

Commission's *Open Internet Order* and *Data Roaming Order* are two examples.⁸² However, the Commission should not impose further regulatory burdens on broadband services, such as by subjecting broadband to substantial new outage reporting. The Commission likewise should not take steps that would deter or inhibit the move to next-generation networks, such as by limiting providers' flexibility to retire outdated facilities that they no longer need to serve their customers after they have deployed newer platforms. As Commissioner McDowell recently noted, "[h]istory teaches us that profitability and investment tend to *increase* once the weight of regulation is lifted from the collective chest of industry."⁸³ The increased regulation and uncertainty resulting from heavy-handed new regulation of broadband services directly undermine the key policy goals embodied in Section 706 and in the National Broadband Plan and strike a blow to the already shaky economy by reducing the ability and incentives for network providers to take risks and make the investments leading to such economic growth and job creation.

Finally, the Commission should take immediate action to remove impediments that slow the deployment of broadband infrastructure. For example, the Commission is evaluating the

⁸² *Preserving the Open Internet; Broadband Industry Practices*, Report and Order, 25 FCC Rcd 17905 (2010); *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, Second Report and Order, 26 FCC Rcd 5411 (2011).

⁸³ *Remarks of the Honorable Robert M. McDowell, Commissioner, FCC, Before the Associazione EGO and PuntoIT Italian Parliament, Aula dei Gruppi Parlamentari* (Rome, Italy) (June 28, 2012), http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0628/DOC-314884A1.pdf. Among the examples Commissioner McDowell cited was the enactment of deregulatory laws in 1976 and 1980, after which "the rail and trucking industries respectively began to grow and prosper. Consumers were immediate beneficiaries of deregulation with rates falling by 30 percent and transit time reduced by at least 20 percent by 1988. . . . [I]nvestment was stoked by deregulation – railroads invested U.S. \$480 billion into network upgrades, or 40 percent of revenue, between 1980 and 2010." *Id.*

improvement of government policies for access to rights of way and wireless tower siting.⁸⁴ As Verizon and Verizon Wireless have explained,⁸⁵ local ordinances often impose a number of hoops that providers must jump through before they can upgrade service, even where a tower or other such facility has previously been approved. In these instances, providers typically need only to add or change antennas to deploy upgraded broadband services (such as LTE) and do not need to expand or otherwise materially modify the underlying facility that supports the antennas. These types of activities simply do not implicate the core “zoning” interests that Congress preserved for localities to address.⁸⁶

Moreover, Congress recently enacted legislation that expands the strong federal interest in expediting deployment of wireless facilities – an interest that it had first incorporated in the Telecommunications Act of 1996 – in two ways. First, Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012 further limits zoning reviews of wireless facilities changes (such as installing new antennas or other equipment) that do not involve new tower construction. It provides: “Notwithstanding section 704 of the Telecommunications Act of 1996 (Public Law 104-104) or any other provision of law, a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base

⁸⁴ See *Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting*, Notice of Inquiry, 26 FCC Rcd 5384 (2011).

⁸⁵ See, e.g., Comments of Verizon and Verizon Wireless, *Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting*, WC Docket No. 11-59 (FCC filed July 18, 2011).

⁸⁶ See 47 U.S.C. § 332(c)(7).

station.”⁸⁷ The Commission can and should give force to Congress’s policy goal by providing guidance to wireless providers and localities on the scope of Section 6409 for the provision of wireless broadband services.

Second, Section 6409(b) of the Act establishes a process for federal agencies to grant easements and rights of way to locate wireless antennas and equipment on the property managed by that agency, and directs the General Services Administration to “develop a common form for applications for easements and rights of way,” again with the goal of streamlining and expediting expanded wireless services.⁸⁸ The Commission should explore how it can assist federal agencies in implementing these provisions as rapidly as possible so as to promote further broadband deployment. Commission involvement here is particularly important for the expansion of broadband in rural areas, because in large parts of the nation that include such rural areas, the federal government owns and controls access to buildings and rights of way.

VI. CONCLUSION

The Commission should confirm that broadband services are being deployed in a reasonable and timely fashion in the overwhelming majority of the country, and the Commission should continue to pursue policies that encourage broadband investment and innovation.

⁸⁷ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6409(a), 126 Stat. 156, 232 (2012); 47 U.S.C. § 1455(a).

⁸⁸ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6409(b), 126 Stat. 156, 233 (2012); 47 U.S.C. § 1455(b).

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