

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

In the Matter of)
)
Inquiry Concerning the Deployment of) GN Docket No. 10-159
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)

**COMMENTS OF
THE UNITED STATES TELECOM ASSOCIATION**

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SUMMARY

Examination of the complete picture of broadband being deployed in the United States must lead to the conclusion that broadband is being deployed to all Americans in a reasonable and timely fashion. As a matter of fact, broadband is being deployed at a rate that far exceeds the “reasonable and timely” standard in Section 706.

Broadband companies are in the middle of ongoing efforts to deliver even faster and more robust networks to even more Americans. Evaluating such efforts would correct the fundamental methodological efforts of the Sixth Report: focusing on one fixed moment in time, and applying backward-looking deployment data to forward-looking performance standards.

The Commission should avail itself of additional data sources to get a more complete picture of broadband deployment to households. Use of additional data sources will decrease the reliance on any particular data source and serve as a sanity check on each data source used. For the first time, data from a comprehensive effort at direct observation will be available to the Commission from the NTIA mapping program. The Commission should also use the most up-to-date Form 477 data.

The Commission should also take into account the huge investment in broadband facility deployment resulting from the ARRA. The total amount of funding announced to date for infrastructure programs from RUS and NTIA is approximately \$7 billion which must be spent within two years from the issuance of the award for a project to be considered “substantially complete.” The project must be fully complete in 3 years.

Section 706 mandates that the Commission determine whether advanced telecommunications capability is *being deployed* to all Americans in a reasonable and timely fashion. This mandate must be examined in a broad context from the perspectives of time, providers and beneficiaries. The Commission should base its determination under Section 706 not on a backward-looking determination of broadband deployment but, per the statute, a forward-looking assessment of whether broadband is being deployed in a reasonable and timely manner. Furthermore, the Commission should be looking at more places than just households when determining broadband availability. Finally, the Commission’s data establish that broadband already has been deployed to 95% of American households. Remaining unserved households

should be addressed not with a negative Section 706 finding, but instead with new government support for broadband deployment that makes unserved and underserved areas economic to serve. As part of this evaluation, the Commission should examine new wireless and satellite technologies, deployment to elementary and secondary schools and classrooms, and availability at places other than households such as a place of business, library, community center or local WiFi hotspot.

While Section 706 only asks about broadband deployment, there can be no doubt that consumers have enthusiastically adopted broadband service. Not only has broadband been widely deployed and adopted, the United States is among the world leaders in usage as measured by bandwidth consumed per Internet user.

The Commission should move forward on key issues that would remove regulatory barriers to deployment and adoption. It is perfectly appropriate for the Commission to be concerned about the remaining small percentage of Americans who may not have access to broadband in the foreseeable future, because deployment in the areas in which they live, work and go to school are not currently economically viable. The Commission has many tools at its disposal to enable broadband access in rural areas as well as the ability to encourage and accelerate broadband adoption. These tools should be used surgically, not broadly, and should reduce the barriers in those areas in which broadband has not yet been deployed. In addition, the Commission should rationalize current regulatory mechanisms, provide more regulatory certainty and not impose new regulatory barriers. The Commission should take long overdue action to reform the intercarrier compensation and universal service regimes, address high pole attachment rates for ILEC attachments, and maintain the Title I framework for regulation of broadband service.

The lack of broadband availability in unserved areas does not warrant a negative Section 706 finding. The Commission, instead, should respond to high-cost conditions and address the goals of Section 706 by making targeted support available for new broadband deployment in unserved and underserved areas.

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**COMMENTS OF
THE UNITED STATES TELECOM ASSOCIATION**

USTelecom¹ submits these comments responding to the Federal Communications Commission’s (“Commission”) request for data and information in the Seventh Broadband Deployment Notice of Inquiry (“NOI”) that will help the Commission complete its annual task under Section 706 of the Telecommunications Act of 1996, as amended,² (“Section 706”) of determining whether broadband is being deployed to all Americans in a reasonable and timely fashion. Examination of the complete picture of broadband being deployed in the United States must lead to the conclusion that this question be strongly answered in the affirmative.

Broadband is being deployed to all Americans at a rate that far exceeds the

¹ USTelecom is the premier trade association representing service providers and suppliers for the telecommunications industry. USTelecom members provide a full array of services, including broadband, voice, data and video over wireline and wireless networks.

² 47 U.S.C. Section 1302(b). Section 706 of the Telecommunications Act of 1996, Pub. L. No. 104-104, Section 706, 110 Stat. 56, 153 (the Telecommunications Act), as amended in relevant part by the Broadband Data Improvement Act, Publ. L. No. 110-385, 122 Stat. 4096 (2008)(BDIA), is now codified in Title 47, Chapter 12 of the United States Code. *See* 47 U.S.C. Section 1301 et seq.

“reasonable and timely” standard in Section 706. The Commission’s own survey has demonstrated that massive private investment has connected more than 95% of the U.S. population via robust wired broadband infrastructure capable of supporting actual download speeds of at least 4Mbps.³ In fact, 82% of Americans have a choice of at least two wired broadband providers offering such speeds, nearly twice as high as in Europe.⁴ Deployment to business customers has been even greater, with 96% of all business locations having access to wireline broadband from the telephone company and 92% of businesses having access to cable broadband.⁵ And this figure includes only DSL and does not account for special access and other high capacity services.

This level of deployment has been accomplished despite significantly greater geographic hurdles than in many other countries. As the Commission performs its international comparisons, it should take into account that the United States has approximately one-quarter the population density of Europe; one tenth that of Japan; and one-fifteenth the density of South Korea.⁶

Perhaps most importantly for purposes of the Section 706 Report, broadband companies are in the middle of massive ongoing efforts to deliver even faster and more robust networks to even more Americans and the Commission must look at current and planned investment to assess deployment. Cumulatively over time, broadband providers—wireline, wireless, and cable companies—invested at least \$1 trillion dollars

³ See National Broadband Plan (NBP) at 20.

⁴ See NBP at 20; compare, iDate, *Broadband Coverage in Europe: Final Report, 2009 Survey* (December 2009) at page 18.

⁵ See NBP at 20.

⁶ See, Wikipedia website, List of sovereign states and dependent territories by population density, (available at: http://en.wikipedia.org/wiki/List_of_countries_and_dependencies_by_population_density) (visited September 2, 2010).

from 1996, when the Telecom Act was passed, through 2009; at least \$730 billion over the last decade from 2000-2009; and \$320 billion in the five years from 2005-2009.⁷

Among broadband network operators, the wireline segment has been the leader in capital investment. In 2009 wireline contributed 42% of capital expenditures among broadband providers, with wireless contributing 35% and cable MSOs 23%.⁸ The wireline segment contributed an annual average of 43%-44% of broadband capex from 2003 through 2009.⁹ Wireline will continue to be a key contributor, if not the industry investment leader, for the foreseeable future. This investment will deliver more and faster broadband, and should be part of the Commission's 706 analysis.

There can be no doubt that reasonable and timely progress is being made towards meeting the broadband needs of the vast majority of Americans. Overall, the next report must correct for the fundamental methodological errors of the Sixth Report: those being evaluating one fixed moment in time, and applying backward-looking deployment data to forward-looking performance standards. Instead, the test established by Congress calls for more data-driven, analytically sound evaluation that recognizes that broadband deployment is an ongoing and vibrant process.

I. The Commission should avail itself of additional data sources to get a more complete picture of broadband deployment to households

⁷ USTelecom analyzed several market research sources covering the period from 1996 through 2009. For cable operators, we used NCTA, *Id.*, for all years. For wireless, we used Skyline, *Id.*, from 2005-2009 and the FCC 10th CMRS Competition Report, *Id.*, from 1996-2004. For wireline, we used Skyline, *Id.*, from 2005-2009, TIA, *Id.*, from 2002-2004, and Eisenach, J. and Lenard, T., Progress and Freedom Foundation, *Telecom Deregulation and the Economy: The Impact of UNE-P on Jobs, Investment, and Growth*, Progress on Point, Release 10.3 (January 2003) at p. 16 (incumbent and competitive local exchange carriers plus interexchange carriers).

⁸ USTelecom analysis of Skyline, *Id.*, adjusted with NCTA, *Id.*, cable investment data.

⁹ *Id.*

Analysis of the various elements of America’s broadband ecosystem demonstrates extraordinary progress towards widespread deployment, clearly exceeding the “reasonable and timely” standard of Section 706. However, examination of a broader set of data than the Commission has traditionally employed reveals an even more optimistic picture of how broadband is being deployed in America today.

Use of additional data sources will decrease the reliance on any particular data source and serve as a sanity check on each data source used. The Commission has several potential options for determining broadband availability: direct observation, modeling based on observed samples, and deduction based on subscription data. The Commission itself in the Sixth Broadband Deployment Report notes that the NTIA report will be available in February 2011 and that expects “that future broadband deployment reports will benefit from the continued progress being made to better understand broadband availability, which in turn should help the nation reach its goal of universal broadband deployment.”¹⁰ The Seventh Broadband Deployment Report should utilize the additional data related to measuring broadband availability.

A. The Commission should utilize the NTIA mapping data

For the first time, data from a comprehensive effort at direct observation will be available to the Commission from the NTIA mapping program authorized under the BDIA¹¹ and funded through ARRA.¹² This provides the Commission with an extraordinary new source of data gathered in an entirely different way than the other data

¹⁰ See Sixth Broadband Deployment Report, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 25 FCC Rcd. 1681, FCC 10-129, pp. 12 – 13 (2010) (*Sixth Broadband Report*).

¹¹ See, Broadband Data Improvement Act, Public Law 110 – 385, 47 U.S.C. §1306(g) (*BDIA*).

¹² See, American Recovery and Reinvestment Act of 2009, Public Law 111-5, §6001(l) (*ARRA*).

sources used by the Commission. The NTIA broadband deployment maps are, by law, to be available on February 17, 2011.¹³ This effort has been funded through hundreds of millions of dollars in grants and performed by well-respected organizations.¹⁴ The Commission should take this information into account in reaching its conclusion about whether broadband is being deployed in a reasonable and timely manner. It would be unfortunate if the Commission hastily issued its Section 706 Report without accessing this new and potentially valuable data source.

B. The Commission should use updated Form 477 data

The Commission should use the most up-to-date Form 477 data available. As noted by NCTA in its Petition for Reconsideration of the *Sixth 706 Report*, the Commission relied primarily on Form 477 data reflecting deployment at the end of 2008.¹⁵ The Commission did not avail itself of the more recent Form 477 data available, reflecting deployment as of June 2009 and December 2009. Presumably the data from June 2010 will be available to the Commission. If so, it should be evaluated in the Seventh 706 Report.

The Form 477 data for 2008 were not deemed sufficiently accurate to be used at the more granular Census Tract level. The subscription data were aggregated at the county level in 2008 due to Commission concerns about the accuracy of the more granular data, but since that time the Commission has had sufficient opportunity to verify the accuracy of the current data at the more granular census tract level. The Commission

¹³ See, ARRA, §6001(I).

¹⁴ See, NTIA website, *State Broadband Data and Development Program* (available at: <http://www2.ntia.doc.gov/SBDD>) (visited September 2, 2010).

¹⁵ See Petition for Reconsideration, filed by the National Cable & Telecommunications Association, *Sixth Broadband Report*, August 19, 2010.

should use the updated granular data.

Given further increases in broadband deployment and adoption since 2008, it is impossible to know what portion of counties deemed “unserved” may actually be served under the new 4/1 Mbps standard. For example, a county may have a sufficient portion of subscribers that were receiving service close to the new threshold benchmark in 2008 such that the counties would be counted as “served” if subscribers upgraded (or were automatically upgraded by the carrier) to a higher speed service in 2009. Or a carrier may have deployed an upgraded service meeting the new threshold, but not in time for subscription rates to reach the *de minimis* threshold to be counted in the statistics.

C. The Commission should make optimal use of available data

Although each of the data sources – Form 477 and NTIA maps – may be imperfect, the more data points the Commission can utilize in determining whether broadband is being deployed in a timely and reasonable manner the more accurate will be the Commission’s conclusion. The Commission should strive to use the most recent data possible and use all the potential options available to it. Direct observation through use of the NTIA maps, modeling based on observed samples and deduction based on subscription data (the Form 477 information) likely would provide a better overall picture of broadband availability and should also potentially indicate weaknesses in each of the data sources that could be addressed prior to future broadband deployment reports.

II. The Commission should take into account deployment associated with stimulus funding

The Commission should take into account the huge investment in broadband facility deployment resulting from the ARRA. The broadband stimulus portions of the

statute will result in billions of dollars being directed towards increasing the availability of broadband service.

The Rural Utilities Service (RUS) and the National Telecommunications and Information Administration (NTIA) will have obligated almost \$5 billion dollars in grants and loans to increase broadband availability and adoption by the end of the current federal fiscal year, September 30, 2010. The RUS Broadband Initiatives Program (BIP) and the infrastructure portion of NTIA's Broadband Technology Opportunity Program (BTOP) were designed to use government funds to spur enhancements in broadband availability and speeds in areas in which the business case for such investment, absent such support, is weak. Ninety percent of those funds will be allocated to grants and loans for broadband infrastructure under a variety of programs, funding last mile and middle mile projects as well as public computer centers.¹⁶

The total amount of funding announced to date for infrastructure programs from the two agencies is approximately \$7 billion when the over \$1 billion in RUS loans and the over \$1 billion in recipients' matching funds are added to the grant amounts.¹⁷ The broadband stimulus programs require the funds to be spent promptly, with a two-year deadline from issuance of the award for a project to be "substantially complete" and a three-year deadline for a project to be "fully complete."¹⁸

RUS and NTIA have released information on the beneficiaries of each award, indicating that vast numbers of Americans will benefit from the programs that increase deployment and enhance speeds. However, since the agencies have not announced the

¹⁶ The remaining funds are allocated to broadband adoption projects and the NTIA mapping initiative authorized by the BDIA.

¹⁷ This data is drawn from RUS and NTIA project announcements as of August 25, 2010.

¹⁸ See RUS Second Notice of Funds Availability, p. 25; *see also*, NTIA second Notice of Funds Availability, p. 30. *See also*, *ARRA*, §6001(d)(3).

number of beneficiaries of their programs in a uniform way, it is difficult to provide conclusory data. Based on the NTIA and RUS announcements to date, funding is projected by the agencies to impact (1) over 64 million individuals; (2) over 8 million households; (3) almost 3 million businesses, and (4) almost 160,000 anchor institutions. It appears from the announcements that in most cases these numbers are mutually exclusive; that is, the 64 million individuals standing to benefit generally are not residents of the 8 million households. And of course these are not the final statistics from the agencies.

The ARRA made available to RUS for funding billions of dollars of grants, loans and/or loan guarantees for broadband infrastructure. Congress established several priorities for the allocation of the funds. Expenditures were directed to rural areas without sufficient access to high speed broadband service to facilitate rural economic development and to projects that provided service to the highest proportion of rural residents that did not have access to broadband service.¹⁹ The same legislation established a multi-billion dollar national broadband service development and expansion program at NTIA. The purposes of the NTIA program include providing access to broadband service to consumers residing in unserved areas and providing improved access to broadband service to consumers residing in underserved areas.²⁰ The Commission must take into account the billions of dollars in investment in the deployment of broadband infrastructure due to the RUS and NTIA broadband infrastructure programs when determining whether broadband is being deployed in a timely and reasonable manner.

¹⁹ ARRA, H.R. 1-4, 1-5.

²⁰ ARRA, §6001.

The 2008 Farm Bill reauthorized the RUS broadband loan program, which has been in hiatus while RUS implemented the broadband stimulus program. With the ending of disbursements of broadband stimulus funds on September 30, 2011, RUS will resume funding loans for providing and upgrading broadband service in rural areas. The Commission should include projects funded under this program as well when determining whether broadband is being deployed in a timely and reasonable manner.

III. The Commission should examine broadband deployment in a broader context

Section 706 mandates that the Commission determine whether advanced telecommunications capability is *being deployed* [emphasis added] to all Americans in a reasonable and timely fashion.²¹ This mandate must be examined in a broad context from the perspectives of time, providers and beneficiaries. The Commission should base its determination under Section 706 not on a backward-looking determination of broadband deployment but, per the statute, a forward-looking assessment of whether broadband is *being deployed* in a reasonable and timely manner. Furthermore, the Commission should be looking at more places than just households when determining broadband availability. Finally, the Commission's data establish that broadband already has been deployed to 95% of American households. Remaining unserved households should be addressed not with a negative Section 706 finding, but instead with new government support for broadband deployment that makes unserved and underserved areas economic to serve.

²¹ See 47, U.S.C.A §1302(b)

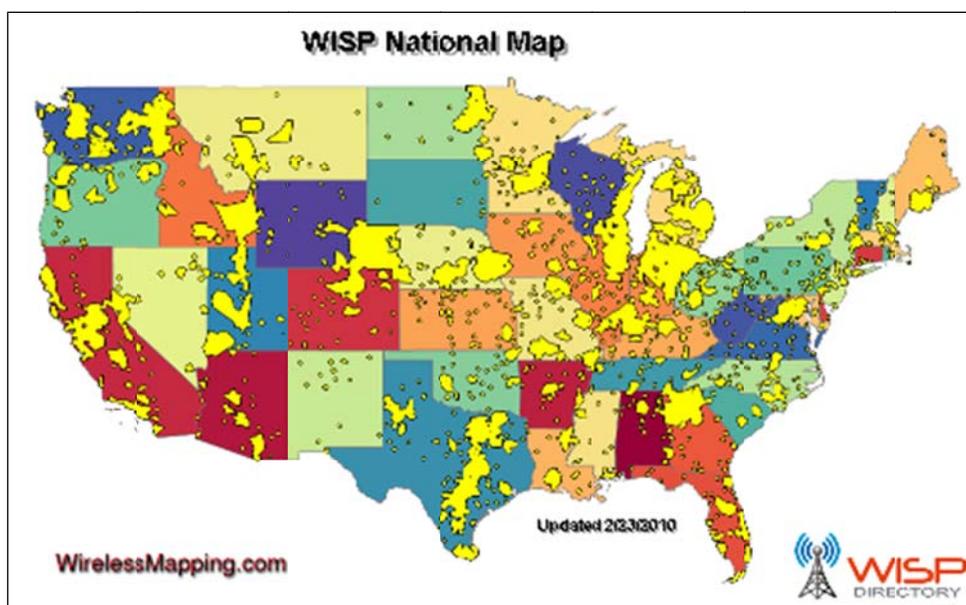
A. Both wireless and satellite are deploying newer technologies

In the Sixth Report, the Commission discounted technologies other than wired broadband by which households and others can obtain broadband service. However, these providers are deploying newer and updated services that may provide service that meets technologically neutral standards that the Commission uses in its next report. Although these technologies may not have the robustness of fiber-based broadband, they may have other advantages and are certainly part of the overall competitive dynamic of the broadband industry. To obtain a more complete picture of how broadband is being and will be deployed, the Commission should evaluate deployment of WISPs (Wireless Internet Service Providers), Clearwire's WiMax service, LTE by other wireless providers, and upcoming launches of next generation broadband satellites.

WISPs (Wireless Internet Service Providers) are a small but growing presence in the broadband space, particularly in rural areas. There are almost 1900 WISPs in the United States, no state has less than two, and several states have dozens of WISPs.²² The following map demonstrates the coverage area of WISPs.²³

²² See WISP Directory website (available at: <http://www.wispdirectory.com/>) (visited September 3, 2010) (The coverage area shown is an approximation based mostly upon zip code data for the home office of record and/or zip codes reported on the FCC form 477. According to the website, many WISPs have contributed their actual network footprint data, and a large part of this information is compiled from records on the WISP Directory web site. The data used to produce this map has not been provided by the FCC.).

²³ *Id.*



The Commission cannot obtain a complete picture of the broadband being deployed in the U.S., particularly in rural areas, without including data about WISPs.

In addition, major wireless carriers are upgrading their 3G networks to 4G with the use of LTE and Wi-Max technologies. Verizon recently stated that it plans to “blanket 100 million Americans in 25 to 30 metro areas with LTE by the end of this year,” and by early 2012, it plans to “double that coverage,” and “have its entire network covered with LTE by 2013.”²⁴ Claimed speeds for LTE service range from 5 to 12 MBs per second for downloads, to around 2 to 5 MBs per second for uploads. Peak downloads may be able to hit speeds of 40 to 50 megabits per second.²⁵ Similarly, AT&T has LTE rollout plans “AT&T currently plans to begin trials of LTE technology this year, and to begin LTE deployment in 2011, matching industry time lines for widespread availability

²⁴ Sascha Segan, *Verizon's LTE Rollout: There's a Big Map for That*, PCMag.com, March 25, 2010 (available at: <http://www.pcmag.com/article2/0,2817,2361799,00.asp>) (visited August 26, 2010) (*Verizon LTE Article*).

²⁵ *Id.*

of compelling devices and supporting network equipment.”²⁶ Clearwire is rolling out WiMax service across the nation with a plan to provide broadband availability to over 100 million customers.²⁷

Next generation broadband satellite service will be available in the near term. ViaSat, Inc. and WildBlue Communications, Inc. plan the launch of higher speed broadband satellites in the near future.²⁸ According to ViaSat and WildBlue, within the next six years the satellite broadband industry has the capability to launch and deploy enough satellite broadband capacity to serve all of the Commission’s estimated number of unserved households at 4Mbps download speeds or higher. In early 2012, Hughes Network Systems is planning to launch the 100+ Gbps Jupiter satellite, a next-generation high-throughput satellite which may support speeds up to 25 Mbps. Hughes claims that Jupiter could support approximately 1.5 million subscribers at the National Broadband Plan’s target broadband speeds.²⁹ Moreover, with the launch of the Hughes Jupiter satellite in 2010, and the launch of Via Sat’s Viasat-1, Hughes claims that with this new capacity, broadband satellite service providers could serve approximately three million unserved households at the targeted speeds, over 40% of the 7 million unserved households that today do not have service at the target levels.³⁰

²⁶ AT&T Press Release, *AT&T Upgrades 3G Technology at Cell Sites Across Nation*, January 5, 2010 (available at: <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30358>) (visited August 26, 2010).

²⁷ See ex parte presentation of Clearwire, WT Docket No. 06-150, PS Docket No. 06-229, and GN Docket No. 09-51, June 1, 2010.

²⁸ See Comments of ViaSat, Inc. and WildBlue Communications, Inc., WC Docket 10-90, GN Docket No. 09-51, WC Docket No. 05-337, p. 1, July 12, 2010 (*ViaSat/WildBlue Comments*).

²⁹ See Comments of Hughes Network Systems, LLC, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337, pp. 6-7, July 12, 2010.

³⁰ *Id.*, p. 8.

B. The Commission, by law, must include in its analysis broadband being deployed to elementary and secondary schools and classrooms

Section 706(b) states that “The Commission shall, within 30 months after February 8, 1996, and annually thereafter, initiate a notice of inquiry concerning the availability of advanced telecommunications capability to all Americans (*including, in particular, elementary and secondary schools and classrooms*).”³¹ [Emphasis added] Yet the Commission has not heeded this mandate and shows no interest in the NOI in obtaining data relating to whether Americans without broadband access at home, nonetheless have access through neighborhood schools, libraries or other community institutions. Not only would including data on deployment to elementary and secondary schools and classrooms provide a more complete picture of the broadband being deployed in the United States, it would comply with the specific statutory mandate in Section 706. The National Center for Educational Statistics determined that “In fall 2005, nearly 100 percent of public schools in the United States had access to the Internet...In 2005, 97 percent of public schools with Internet access used broadband connections to access the Internet.”³² The Commission itself just adopted an Order enhancing the contribution made by schools in providing availability to broadband by expanding the hours that schools may offer their broadband capability to the community.³³

C. Availability to all Americans includes more than just households

Americans, whether or not they have broadband available at their household, may

³¹ See 47 U.S.C.A. §1302(b).

³² See National Center for Education Statistics, Fast Facts website (available at: <http://nces.ed.gov/fastfacts/display.asp?id=46>) (visited September 3, 2010).

³³ Order and Notice of Proposed Rulemaking, *Schools and Libraries Universal Service Support Mechanism*, 25 FCC Rcd. 124, ¶7 (2010).

find broadband access available at their place of business, library or community center, or local WiFi hotspot. The availability of broadband to businesses, schools, libraries and health care facilities is a significant measure of broadband availability in the United States and the Commission's single-minded focus on households in prior reports should be replaced by a more comprehensive view of broadband availability. The Commission already collects sufficient data on the availability of broadband to businesses so no further data collections are needed. According to the National Broadband Plan ("NBP"), an even higher percentage of businesses have broadband available than do households.³⁴ Ninety-six percent of business locations in the country have access to broadband over DSL,³⁵ and 99 percent of health care locations with physicians have broadband at 4 Mbps or faster.³⁶

Public policy makers have recognized the importance of making broadband available at schools, libraries and community centers. The E-rate program is designed to enhance availability of broadband service to schools and libraries, and the Commission is now engaged in a process to expand the availability of broadband to health care facilities.³⁷ The ARRA's Broadband Technology Opportunities Program ("BTOP")³⁸ also directed billions of dollars in funding to "anchor institutions"³⁹ which include elementary and secondary schools, community colleges and universities, health care

³⁴ See NBP, p. 20 (noting that "Ninety-six percent of all business locations have access to Digital Subscriber Line (DSL) service, and 92% have access to cable broadband service.").

³⁵ Some businesses access broadband over special access and other high capacity services, so this figure understates the level of business access to broadband service.

³⁶ See NBP, p. 20.

³⁷ See Notice of Proposed Rulemaking, *Rural Health Care Support Mechanism*, 25 FCC Rcd. 9371 (2010).

³⁸ Not all of the BTOP infrastructure funding added to broadband availability since there were multiple documented cases of overbuilding facilities in areas already benefitting from robust broadband service.

³⁹ Much of NTIA's funding under the second NoFA went for middle-mile facilities connecting anchor institutions to facilities accessing the Internet backbone.

providers and government entities.⁴⁰ NTIA also had a separate category of awards specifically for public computer centers.⁴¹

According to the Yankee Group, Wi-Fi hotspots have an opportunity to contribute to the pervasiveness of broadband availability by providing focused, high-bandwidth network support in fixed locations in response to the needs of business travelers and mobile consumers.⁴² The proliferation of hotspots, their migration to 4G technology, and the explosive growth of connected devices such as the I-Pad, I-Touch, Palm Pre Plus, the Sierra Wireless Overdrive, the HTC EVO, as well as netbooks, cameras, MP3 players, mediate players, portable gaming systems or other Wi-Fi enabled devices will make Wi-Fi hotspots an important part of the broadband availability picture in the U.S.

IV. Growth in broadband usage provides further confirmation of significant advances in U.S. broadband deployment

While Section 706 only asks about broadband deployment, there can be no doubt that consumers have enthusiastically adopted broadband services. Residential broadband subscribership has grown from only 1 million in 1999 to approximately 80 million in a single decade.⁴³ The United States has achieved 50% broadband household penetration in less than nine years, more rapidly than any other network technology and many critical information technologies.⁴⁴ The telephone did not achieve 50% household penetration

⁴⁰ See e.g., *ARRA*, §6001(g).

⁴¹ NTIA Second Notice of Funds Availability, p. 17.

⁴² Yankee Group, “Mobile Hotspots’ Moment in the Spotlight,” by Christopher Collins, Senior Analyst, April 2010.

⁴³ See NBP, p.167; See also, Federal Communications Commission, High Speed Services for Internet Access (January 2008), at Table 4.

⁴⁴ See John Horrigan, Home Broadband Adoption 2008, PEW Internet & American Life Project, Home Broadband Adoption 2008, p. 3 (July 2008) (According to PEW, broadband achieved 50% penetration sometime between March of 2007 and May of 2008).

until sometime between 1940 and 1950 – about a half a century after the patent expiration. Cable television service took over 35 years to achieve 50% household penetration in the United States,⁴⁵ personal computers took 20 years; color televisions took 20 years; and wireless telephones took 16 years.⁴⁶

Not only has broadband been widely deployed and enthusiastically adopted, the National Broadband Plan correctly identifies another important benchmark for assessing American broadband deployment when it states “we should lead the world where it counts – in the use of the Internet and in the development of new applications that provide tools that each person needs to make the most of his or her own life.”⁴⁷ The United States is among the world leaders in usage as measured by bandwidth consumed per Internet user. In 2009 the United States consumed more bandwidth per Internet user (19.2GB per month) than the largest countries in Western Europe – France 16.0, Germany 12.1, United Kingdom 11.5 and Italy 7.9 (Japan consumed 10.8).⁴⁸ Data from Cisco and the ITU show greater growth in United States usage than projected one year earlier and how that the U.S. performs even better relative to other countries than previously projected.⁴⁹

⁴⁵ U.S. Dept. Of Commerce, Census Bureau, Statistical Abstracts of the United States (2008, 2000, 1994, 1985, 1980, 1976) (available at http://www.census.gov/compendia/statab/past_years.html) (visited August 27, 2010).

⁴⁶ Consumer Electronics Association, Household Product Penetration, 2008-9.

⁴⁷ NBP at page 4.

⁴⁸ Canada was slightly higher but on par with the United States at 19.3 GB per user per month.

⁴⁹ See *Cisco VNI Forecast Widget, Id.* We divided Internet traffic data from Cisco’s VNI by Internet users from the International Telecommunications Union (ITU) to get a rough measure of the amount of IP traffic per Internet user by country. Country data for IP traffic may be obtained by downloading the VNI Forecast Widget and using the advanced editor to query by country. The International Telecommunications Unions (ITU) publishes Internet user data by country at <http://www.itu.int/ITU-D/ICTEYE/Indicators/Indicators.aspx#> (visited September 3, 2010). The most recent Cisco VNI estimates show greater growth in 2009 than previously projected for the United States and they show that the United States performs even better relative to other countries than previously projected. See, e.g., *Ex parte letter* from Walter McCormick to Federal Communications Commission

V. The statutory charge for the Commission addresses whether broadband capability is being deployed, not whether it is being adopted

Paragraphs 9 and 35 of the NOI stray into the realm of exploring broadband adoption instead of broadband deployment. While broadband adoption, particularly among low-income populations, is certainly an important topic, and USTelecom recognizes the importance of developing an efficient and effective program to encourage broadband adoption by low-income consumers,⁵⁰ Section 706 exclusively addresses whether broadband is being deployed, not the uptake of broadband service.

Adoption issues should only be included in the report in the context of Commission movement on key issues that would remove regulatory barriers to broadband deployment. Many of the unserved areas are predominantly rural, and rural areas tend to have lower incomes, so increasing the opportunity for adoption among low-income households would facilitate the business case for deployment of broadband facilities in rural areas. Adoption issues should be addressed within the context of reform of the Universal Service Fund low-income mechanisms and have no place in the Commission's evaluation of whether broadband is being deployed in a reasonable and timely manner for purposes of the 706 Report.

VI. The Commission should move forward on key issues that would remove regulatory barriers to deployment and adoption

It is perfectly appropriate for the Commission to be concerned about the remaining small percentage of Americans who may not have access to broadband in the foreseeable future, because deployment in the areas in which they live, work and go to

Chairman and Commissioners in GN Docket 09-51 (December 22, 2009).

⁵⁰ See Letter of Jonathan Banks to Marlene H. Dortch, January 25, 2010, GN Docket Nos. 09-47 and 09-137.

school are not currently economically viable. Indeed, Section 254 of the Act gives the Commission both the responsibility and the authority to ensure “access to advanced telecommunications and information services...in all regions of the Nation.”⁵¹ The Commission has many tools at its disposal to enable broadband access in rural areas as well as the ability to encourage and accelerate broadband adoption. Those tools should be used surgically, not broadly, and should reduce the barriers in those areas in which broadband has not yet been deployed.

In addition, the Commission should rationalize current regulatory mechanisms, provide more regulatory certainty and not impose new regulatory barriers. The overall health of the broadband ecosystem would certainly benefit from the above actions, and a more robust ecosystem would certainly enhance the opportunity for deployment and adoption of broadband services and promote competition.

First and foremost, the Commission could eliminate barriers to broadband deployment by taking long overdue action to reform the intercarrier compensation and universal service regimes. This would include immediate action on issues such as phantom traffic, application of the intercarrier compensation regime to VoIP, and traffic pumping, which are arbitrage schemes that distort the market, increase costs unnecessarily and discourage economic competition. The records on these issues are current and robust and more than sufficient for the Commission to address immediately in orders.

The reform plans in the NBP, properly implemented, can help close the Digital Divide because the NBP’s proposals recognize the importance of stabilizing the financial fundamentals by reforming universal service and intercarrier compensation, correctly

⁵¹ 47 U.S.C. §254(b).

targeting support at a more granular level, and focusing support on broadband deployment in addition to voice. And perhaps most importantly, the Plan recognizes the need for continued private investment. Such investment is supported by ensuring that the regulatory environment allows carriers to structure a business case that provides the opportunity for a reasonable return and thus attracts the capital required to build out and operate broadband facilities.

Similarly, as the NBP recognized, high pole attachment rates for ILEC attachments are another barrier to broadband deployment that should be addressed promptly. This disparity in pole attachment rates is particularly acute in rural areas, where, as the Commission has recognized, there are fewer homes per mile of plant.⁵²

High pole attachment rates impede the delivery of broadband in sparsely populated rural areas. As the Commission noted in its 2000 Pole Attachment Order, “small systems serve areas that are far less densely populated areas than the areas served by large operators. A small rural operator might serve half of the homes along a road with only 20 homes per mile, but might need 30 poles to reach those 10 subscribers.”⁵³ Moreover, these challenges are particularly acute for ILECs, since they are *both* paying the highest pole attachment rates, and are also the mostly likely to deploy broadband in rural areas of the country.

Not only should the Commission reduce current regulatory barriers, it should

⁵² See, e.g., Report and Order, *In the Matter of Amendment of Rules and Policies Governing Pole Attachments*, 15 FCC Rcd. 6453, ¶ 118 (2000) (“The Commission has recognized that small systems serve areas that are far less densely populated areas than the areas served by large operators. A small rural operator might serve half of the homes along a road with only 20 homes per mile, but might need 30 poles to reach those 10 subscribers.”); Memorandum Opinion and Order, *In the Matter of Caribbean Communications Corp., Petition for Special Relief*, 17 FCC Rcd. 7092, ¶ 14 (2002) (noting that systems with more than 15,000 subscribers average 68.7 subscribers per mile, while small systems service on average only 35.3 subscribers per mile).

⁵³ Report and Order, *Amendment of the Commission’s Rules and Policies Governing Pole Attachments*, WC Docket No. 07-245, 15 FCC Rcd 6453, 6507–08, ¶ 118 (2000).

think long and hard about erecting any new ones. Under the existing Title I framework for internet access services, broadband providers invested more than \$730 billion dollars in building networks between 2000 and 2009. Cumulatively over time, broadband providers—wireline, wireless, and cable companies—invested at least \$1 trillion dollars from 1996, when the Telecom Act was passed, through 2009; at least \$730 billion over the last decade from 2000-2009; and \$320 billion in the five years from 2005-2009.⁵⁴

Using detailed and granular economic analysis, private investment in broadband infrastructure continues at massive levels today. In 2009, broadband provider capital expenditures fell somewhere between -5% to -10% as a result of the challenging macroeconomic environment.⁵⁵ But this decline was significantly smaller than the economy-wide decline of -18% for non-residential investment.⁵⁶ Moreover, broadband provider investment is projected to return to growth in 2010, sustaining an average of almost \$64 billion per year from 2010 through 2013.⁵⁷

The United States compares favorably in terms of investment to other developed countries. Significant barriers to investment already exist in areas lacking viable business

⁵⁴ USTelecom analyzed several market research sources covering the period from 1996 through 2009. For cable operators, we used NCTA, *Id.*, for all years. For wireless, we used Skyline, *Id.*, from 2005-2009 and the FCC 10th CMRS Competition Report, *Id.*, from 1996-2004. For wireline, we used Skyline, *Id.*, from 2005-2009, TIA, *Id.*, from 2002-2004, and Eisenach, J. and Lenard, T., Progress and Freedom Foundation, *Telecom Deregulation and the Economy: The Impact of UNE-P on Jobs, Investment, and Growth*, Progress on Point, Release 10.3 (January 2003) at p. 16 (incumbent and competitive local exchange carriers plus interexchange carriers).

⁵⁵ Yankee Group indicates a decline from \$64.2 billion to \$61.2 billion, or -4.6%. Skyline indicates a decline from \$63.6 billion to \$57.5 billion, or -9.7%. Adjusted with NCTA cable investment data, Skyline indicates a decline from \$66.7 billion to \$61.4 billion, or -7.9%.

⁵⁶ See BEA, *Table 5.3.5. Private Fixed Investment by Type* at <http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=N> (visited July 2, 2010). Total annual non-residential investment fell from \$1.694 trillion in 2008 to \$1.389 trillion in 2009, or -18.0%.

⁵⁷ Yankee Group, *Id.*, projects an increase from \$61.2 billion in 2009 to \$62.1 billion in 2010. Skyline Marketing, *Id.*, projects an increase from \$57.4 billion to \$60.0 billion in 2010 (without adjustments for cable spending). See also Communications Daily, Vol. 30, No. 6 (January 11, 2010) at p. 14 (citing Catharine Trebnick of Avian Securities projecting a 1.5% increase in capital spending for traditional telecom companies and cable operators in 2010). Average capital spending for 2010 through 2013 is based on Yankee Group projections.

cases for private investment. Erecting more barriers, instead of tearing down the current ones, will surely retard the progress being made today towards ubiquitous broadband deployment.

VII. Conclusion

The Commission's conclusion in the Sixth Report that broadband is not being deployed in a reasonable and timely manner to *all* Americans is somewhat misleading and should not be carried forward into the Seventh Report. According to the Commission's own calculations, broadband has *already* been deployed to 95% of American households. As demonstrated above, there are many efforts underway in which broadband is being deployed to Americans currently unserved and/or underserved. Based on the Commission's 4/1 Mbps broadband standard, deployment is unquestionably reasonable and timely for those 95% of households as well as those likely to be served in the near future, a number which the Commission is obliged by law to calculate.

The lack of broadband availability in unserved areas does not warrant a negative Section 706 finding. The Commission, instead, should respond to high-cost conditions and address the goals of Section 706 by making targeted support available for new broadband deployment in unserved and underserved areas.

A thorough, comprehensive and data-driven examination of the complete picture of broadband being deployed in the United States must lead to the conclusion that broadband is being deployed in a reasonable and timely manner, consistent with the standard set in Section 706. The Commission's examination should be forward looking, determining whether broadband is "being deployed" in a timely manner. The Commission should avail itself of additional data sources, including NTIA mapping data

and updated Form 477 data. It should take into account facilities being deployed due to billions of dollars in broadband stimulus funding. Finally, it should examine whether broadband is being deployed in a broader context and examine not only technologies other than wired broadband but deployment to places other than households in which Americans can access broadband service. Regardless of the Commission's conclusion, it should reduce current regulatory barriers by reforming the outdated intercarrier compensation and universal service systems, establishing equitable pole attachment rates and it should refrain from imposing new regulatory barriers such as changing the framework for broadband classification under the Act.

Respectfully submitted,
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