

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, DC 20554

In the Matter of )  
)  
Inquiry Concerning the Deployment of ) GN Docket No. 11-121  
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 TELECOMMUNICATIONS INDUSTRY ASSOCIATION**

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## EXECUTIVE SUMMARY

Any determination of the level of “advanced telecommunications capability” deployment in 2011 for purposes of the Eighth Section 706 Report must include mobile offerings. Mobile broadband offers functionality generally comparable to fixed broadband—including the capability for speeds already consistent with baseline broadband speed goals—while also offering the additional benefit of mobility. Importantly, the American consumers whom Section 706 is intended to protect clearly include mobile in their own assessments of the broadband marketplace. Many now regard mobile as a substitute for wireline voice service, and data trends are not far behind.

Similarly, consumers consider many functional characteristics beyond speed in determining which broadband service to purchase. In defining broadband service, the Commission must similarly encompass such characteristics, rather than focusing exclusively on speed. Marketplace behavior demonstrates what consumers consider to be a satisfactory broadband experience, and it makes no sense for the Commission to report on broadband as it has been deployed to consumers without taking consumers’ own choices into account. Once the Commission appropriately considers mobile broadband service and accounts for the diverse range of service characteristics of importance to consumers, it should find that “advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”

Concluding that broadband is being deployed in a reasonable and timely fashion should not, however, preclude the Commission from undertaking policy initiatives that might further promote broadband deployment. Specifically, the Commission could promote additional deployment by adopting a number of policies that promote private investment and make the best

use of public resources. For example, the Commission should redirect high-cost USF funds to broadband; make additional spectrum available for commercial wireless broadband services; and ensure that the Open Internet Rules are applied flexibly to permit robust network management practices. Although TIA believes that broadband is being deployed to all Americans in a reasonable and timely fashion, and that the Commission should so find, TIA urges the Commission to take the actions discussed herein to expand even further the benefits that broadband and related technologies are conferring on the American people.

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**COMMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION**

The Telecommunications Industry Association’s (“TIA’s”) goals with respect to broadband match those of the Federal Communications Commission (“FCC” or “Commission”): TIA aims to facilitate the spread of information and communications technology (“ICT”)—principally broadband service—and , in so doing, to improve American lives. TIA is the leading trade association for the ICT industry. Its 600 member companies manufacture or supply the products and services used in the provision of broadband and broadband-enabled applications. With roots dating back to 1924, TIA works to promote the deployment of broadband, mobile wireless, information technology, networks, cable, satellite and unified communications systems. TIA members’ products and services empower communications in every industry and market, including healthcare, education, security, public safety, transportation, government, the military, the environment and entertainment.

TIA supports the goals of Section 706 of the Telecommunications Act of 1996 (the “1996 Act”) and the role the statute has created for the Commission in evaluating the reasonable and

timely deployment of “advanced telecommunications capability” throughout the United States.<sup>1</sup> Broadband creates and facilitates a vast number of benefits for Americans and the American economy. The ubiquitous deployment and adoption of broadband are therefore, critical national priorities.<sup>2</sup> Congress recognized that, as the nation’s expert agency regarding telecommunications, the Commission is particularly well suited to conduct regular inquiries into the status of broadband deployment. TIA is pleased to assist the Commission by responding to the NOI.

**I. THE *EIGHTH REPORT* SHOULD NOT DISCOUNT WIRELESS MOBILE BROADBAND SERVICE.**

Wireless mobile broadband service is highly desired by a significant number of consumers who seek the freedom of mobility, often without any sacrifice with respect to other characteristics. The *NOI* specifically asks whether the Commission should include wireless in the *Eighth Report*’s analysis.<sup>3</sup> The short answer is: Yes. The Commission simply cannot

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<sup>1</sup> Section 706 of the Telecommunications Act of 1996, Pub. L. No. 104-104, § 706(a), 110 Stat. 56, 153, as amended by the Broadband Data Improvement Act,

Pub. L. No. 110-385, 122 Stat. 4096 (2008), and codified in 47 U.S.C. § 1301 *et seq.* The statute directs the Commission and the states to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans.” *Id.* § 1302(a). It also requires the Commission to initiate an annual inquiry “concerning the availability of advanced telecommunications capability to all Americans,” and to evaluate “whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.” *Id.* § 1302(b); *see also Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, GN Docket No. 11-121, Notice of Inquiry, FCC 11-124 ¶ 10 (rel. Aug. 5, 2011)(“*NOI*”) (seeking comment for the Eighth Report issued pursuant to Section 706 (the “*Eighth Report*”).

<sup>2</sup> *See* Federal Communications Commission, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN, released Mar. 16, 2010 (“National Broadband Plan” or “NBP”), *available at* <http://www.broadband.gov/plan/>; Paul Barbagallo, “FCC Chair Announces New Task Force to Hasten Adoption of Broadband in U.S.,” BNA – Telecommunications Law Resource Center, June 16, 2011, <http://www.bna.com/fcc-chair-announces-n12884902157/>.

<sup>3</sup> *NOI* ¶ 10.

develop an accurate report on the state of the deployment of “advanced telecommunications capability” unless it includes wireless mobile broadband in its analysis.

The Commission’s most recent Section 706 report (the “*Seventh Report*”) did not include wireless mobile broadband coverage in assessing the availability of broadband in the United States. At that time, the Commission expressed concern that the wireless mobile broadband coverage data reflected by the National Broadband Map developed by the National Telecommunications and Information Administration (“NTIA”) “do not accurately reflect where mobile wireless subscribers actually are able to obtain service that meets the [4 Mbps/1 Mbps] broadband performance threshold.”<sup>4</sup> Commenters requested that the Commission either 1) count wireless mobile broadband as broadband, notwithstanding any concerns about speed or reliability, or 2) analyze and discuss wireless broadband separately.<sup>5</sup> The Commission rejected this request, and instead the *Seventh Report* sought suggestions as to how the FCC could obtain mobile wireless broadband data that “reliably shows the extent to which subscribers are able to obtain the 4 Mbps/1 Mbps speed threshold.”<sup>6</sup>

The *NOI* notes that at the time of the *Seventh Report*, the dominant mobile broadband technologies were unlikely to meet the 4 Mbps/1 Mbps threshold.<sup>7</sup> The *NOI* asks whether the recent and ongoing deployment of advanced wireless broadband technologies (such as HSPA+, LTE, and mobile WiMAX) warrant the inclusion of wireless in the *Eighth Report*’s analysis.<sup>8</sup>

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<sup>4</sup> *Id.* The Commission also excluded Form 477 data on mobile wireless broadband deployment due to the fact that it is reported at a state-wide level. *Id.* ¶ 33.

<sup>5</sup> See Comments of United States Cellular Corp., GN Docket No. 10-159, at 26 (filed Sept. 7, 2010).

<sup>6</sup> *Id.* ¶ 16, n.87 (rejecting U.S. Cellular’s request); *Id.* ¶ 27.

<sup>7</sup> *NOI* ¶ 10.

<sup>8</sup> *Id.* ¶ 10.

As discussed below, for purposes of the Section 706 analysis the 4 Mbps/1 Mbps threshold is too narrow and does not accurately reflect the factors that contribute to consumers' choices in purchasing broadband services. Thus, TIA believes that the Commission should have included wireless in the *Seventh Report's* analysis. However, even if the Commission were to continue to apply the 4 Mbps /1 Mbps threshold, circumstances have changed to an extent that mandates inclusion of wireless mobile broadband in the *Eighth Report's* analysis.

A. *WIRELESS MOBILE BROADBAND OFFERS FUNCTIONALITY GENERALLY COMPARABLE TO FIXED BROADBAND*

Consumers already are using wireless mobile broadband both to complement and to substitute for fixed services, and the trend is becoming more pronounced. Because of innovations in network equipment, mobile speeds for newly-deployed 4G networks already compare well with baseline broadband speed goals: All four major national wireless providers now offer 3G or 4G services that have advertised speeds very near or above the 4 Mbps/1 Mbps threshold.<sup>9</sup> Sprint explicitly advertises its 4G service as a substitute for wireline broadband, encouraging subscribers to “cut the cord.”<sup>10</sup> Even more important than speed is the functionality of such services. In many ways, consumers today are using wireless connections to perform the same personal and business tasks for which they previously would have used wireline broadband. The

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<sup>9</sup> See Verizon 4G LTE, <http://network4g.verizonwireless.com/#/whatis4g> (last visited Aug. 25, 2011)(claiming download speeds between 5-12 Mbps and upload speeds between 2-5 Mbps); AT&T, Just How Fast is AT&T 4G?, <http://www.att.com/esupport/article.jsp?sid=KB115947#fbid=LnqCrufNtsd> (last visited Aug. 25, 2011) (claiming network speeds of up to approximately 6 Mbps on the HSPA+ network with enhanced backhaul); Sprint, Do More of What You Love, Faster, <http://ria.sprint.com/ria/pages/index.jsp?ms=4G#!/advantage/unlimited-data> (last visited Aug. 25, 2011)(claiming average speeds of 3-6 Mbps); T-Mobile, T-Mobile Network Technology, <http://t-mobile-coverage.t-mobile.com/4g-wireless-technology> (last visited Aug. 25, 2011)(claiming average download speeds of 10 Mbps with peak speeds of 21 Mbps).

<sup>10</sup> Sprint, Do More of What You Love, Faster, <http://ria.sprint.com/ria/pages/index.jsp?ms=4G#!/advantage/unlimited-data> (last visited Aug. 25, 2011)(“Cut The Cord – Speed and connection to share so you can cut your home’s wired connection.”).

Commission's own data backs this up: it noted in early 2010 that consumers with laptops containing wireless data cards use data in similar amounts to average users of fixed broadband.<sup>11</sup> These consumer uses are due in large part to advances in network equipment technology developed in the United States. Equipment providers are innovating on a daily basis to develop the technologies that service providers need to meet consumer demand for mobile broadband. For instance, new routing and switching technologies help direct broadband network traffic with greater efficiency and away from legacy systems that cannot handle it. In addition, video optimization technology helps service providers make the most of costly spectrum while meeting consumer demand.

Wireless mobile broadband also continues to improve, due to substantial investments in 4G service. The Commission's most recent CMRS competition report demonstrates the heavy investment and rapid pace of deployment, citing CTIA's estimate of \$20.4 billion dollars of infrastructure investment in 2009.<sup>12</sup> These investments have continued through 2010 and 2011, and further significant investments are expected. For example, Verizon Wireless, which already offers 4G services to over half of the U.S. population, has just announced that it will add 25 more localities to its 4G network this month, resulting in 4G coverage for 142 localities.<sup>13</sup> AT&T intends to increase its deployment of 4G LTE to cover an additional million square miles of mostly rural and smaller communities and 55 million people, bringing its coverage from 80 to

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<sup>11</sup> Federal Communications Commission, BROADBAND PERFORMANCE, OBI TECHNICAL PAPER NO. 4, at 20, available at [http://download.broadband.gov/plan/fcc-omnibus-broadband-initiative-\(obi\)-technical-paper-broadband-performance.pdf](http://download.broadband.gov/plan/fcc-omnibus-broadband-initiative-(obi)-technical-paper-broadband-performance.pdf).

<sup>12</sup> *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 10-133, Fifteenth Report, FCC 11-103 ¶ 237 (rel. Jun. 27, 2011).

<sup>13</sup> Matt Hamblen, Verizon Wireless Adds 25 Cities Receiving LTE on Sept. 15, ComputerWorld, Aug. 22, 2011, [http://www.computerworld.com/s/article/9219368/Verizon\\_Wireless\\_adds\\_25\\_cities\\_receiving\\_LTE\\_on\\_Sept.\\_15](http://www.computerworld.com/s/article/9219368/Verizon_Wireless_adds_25_cities_receiving_LTE_on_Sept._15).

more than 97 percent of the U.S. population.<sup>14</sup> Industry analysts anticipate the U.S. wireless industry as a whole will invest between \$23 billion to \$53 billion in 4G network deployment between 2012 and 2016.<sup>15</sup>

Many consumers now regard commercial mobile radio service as a full substitute for wireline voice service: as of December 2010 approximately 27% of Americans have “cut the cord” and rely entirely on a wireless subscription for voice telephone.<sup>16</sup> As the service quality and coverage of wireless mobile broadband continue to increase, the trend for data is not far behind voice. Mobile wireless broadband is already the fastest growing form of broadband, with subscriptions increasing by 27% from 56 million to 71 million in the first half of 2010, and mobile wireless broadband connections with download speeds more than 3 Mbps / 768 Kbps grew by more than 89% in those same six months.<sup>17</sup> Some consumers may opt to drop wireline broadband and use mobile services exclusively. Even more critically, some consumer segments, such as low-income and minorities, who previously did not adopt broadband services may choose to connect via wireless.<sup>18</sup>

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<sup>14</sup> *AT&T Inc., Acquisition of T-Mobile USA, Inc. by AT&T Inc., Description of Transaction, Public Interest Showing and Related Demonstrations*, WT Docket No. 11-65, at 54-55 (filed Apr. 21, 2011).

<sup>15</sup> Deloitte, *The Impact of 4G Technology on Commercial Interactions, Economic Growth, and U.S. Competitiveness*, Aug. 2011, available at <http://www.deloitte.com/us/impactof4g>.

<sup>16</sup> CTIA – The Wireless Association, *Wireless Quick Facts*, <http://www.ctia.org/advocacy/research/index.cfm/aid/10323> (showing that 26.6% of U.S. households are wireless only).

<sup>17</sup> *Internet Access Services: Status as of June 30, 2010, Wireline Competition Bureau, FCC, March 2011*, at 1, 15 tbl.2, available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-305296A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-305296A1.pdf).

<sup>18</sup> See *Remarks of FCC Commissioner Mignon L. Clyburn, National Conference for Media Reform, Boston, MA* (Apr. 8, 2011), [http://www.fcc.gov/Daily\\_Releases/Daily\\_Business/2011/db0408/DOC-305663A1.pdf](http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0408/DOC-305663A1.pdf); The Hispanic Institute & Mobile Future, *Hispanic Broadband Access: Making the Most of the Mobile, Connected Future*, at 4 (Sept. 15, 2009), [http://www.thehispanicinstitute.net/files/u2/Hispanics\\_and\\_Broadband\\_Access\\_0.pdf](http://www.thehispanicinstitute.net/files/u2/Hispanics_and_Broadband_Access_0.pdf).

*B. WIRELESS BROADBAND OFFERS THE ADDITIONAL CONSUMER-FRIENDLY BENEFIT OF MOBILITY*

Wireless mobile broadband delivers service to subscribers wherever they are within the coverage area, a benefit beyond those offered by the fixed broadband platforms on which the Commission has focused in previous Section 706 reports. Consumers value this functionality immensely because of the many benefits mobility brings. Mobile broadband often makes it possible to run applications while on the go—such as email or web browsing—that otherwise would require a landline to operate. It has made portable nearly the entire suite of Internet and network-based applications on which Americans have come to rely, from business-oriented services to social-networking sites, to content development and consumption. Beyond these types of applications, mobile broadband also makes possible a whole new set of applications that would make little or no sense on a fixed broadband connection. Some examples include mapping applications that provide turn-by-turn directions; comparative shopping applications that tell the user what an item is selling for online or in other nearby stores; services offering the user coupons to nearby restaurants; and nearly every location-based application.

For these reasons, the Commission was correct to ask in the *NOI* whether wireless should be included in its analysis. For the fullest picture of “advanced telecommunications capability” deployment and usage, it should review wireless mobile broadband service data in the *Eighth Report*.

## II. THE *EIGHTH REPORT* SHOULD NOT FOCUS EXCLUSIVELY ON SPEED IN DEFINING BROADBAND SERVICE

The *NOI* appears to apply a speed threshold as the sole criterion for defining broadband services to be included in the *Eighth Report*.<sup>19</sup> Noting that most wireless services available as of the *Seventh Report* were “unlikely to reach” the 4 Mbps/1 Mbps threshold, the *NOI* seeks comment on the reliability of today’s wireless speed data.<sup>20</sup> However, the *Eighth Report* should not repeat the mistake of recent broadband reports by focusing exclusively on speed as the defining characteristic of “advanced telecommunications capability.”<sup>21</sup>

The broadband ecosystem is wonderfully complex, marked by diverse overlapping networks, with different capabilities, serving wildly different users with broadly ranging demands that are themselves in constant evolution. As the Commission has recognized previously, users consider many characteristics when evaluating the purchase of broadband services, including download/upload speed, mobility, and the “always on” nature of broadband connections.<sup>22</sup> Users also care about other important characteristics of broadband, such as latency, reliability, and security. Different users place differing weights on these and other characteristics, and, as with other goods, will “trad[e] off on price and features.”<sup>23</sup> Even a

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<sup>19</sup> *NOI* ¶ 10.

<sup>20</sup> *Id.*

<sup>21</sup> In the *Seventh Report*, the Commission determined broadband coverage based entirely upon the presence or absence of “4 Mbs down / 1 Mbs up” broadband service(s), declining to consider other factors even as it recognized that “mobility provides tremendous benefits to consumers.” *Seventh Report* at n.87. This “4/1” threshold was established in the *Sixth Report*, and the Commission applied it in both the *Sixth* and *Seventh Reports* to largely exclude mobile broadband services from consideration. *Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, GN Docket Nos. 10-159 & 09-51, *Sixth Broadband Deployment Report* ¶ 77 (2010) (dissenting statement of Meredith Baker, noting that the report “limits its findings to terrestrial solutions”); *Seventh Report* ¶ 26.

<sup>22</sup> National Broadband Plan at 40-41.

<sup>23</sup> *Id.* at 41.

single user's needs will vary, depending on where the user is located and what applications are necessary or desired. For example, a user's network needs at work may differ from her needs at home, and both will differ from her needs when "on the go"; many heavy email users today gladly accept lower speeds on wireless plans in exchange for mobile access to their inboxes. Frequently such users have access to wireline broadband at work or through public library access, and supplement this with a personal mobile data plan which gives them broadband connectivity on the go.

In short, efforts to track and promote the use of high-speed networks must account for the heterogeneity of the American broadband experience. Evaluating broadband coverage on only one dimension—speed—unjustifiably limits the measurement to technologies that excel along that dimension, but may be comparatively weak along other measures of performance. A one-dimensional evaluation also considers only the needs of users of the technologies that are strong along that dimension, ignoring the needs of users of other technologies. For example, gamers may prioritize a low-latency network; streaming video users may prefer a network with low-jitter; and as mentioned above, email users may prefer portability and access over raw speed. Other characteristics that may be more important to some users than raw speed are security, access to particular content, and reliability.

Basing a judgment of the nation's "advanced telecommunications capability" coverage and availability on a one-dimensional measure can only undermine the Commission's broadband deployment and adoption goals. Instead, the *Eighth Report* must evaluate broadband as consumers experience it -- functionally. And the Commission should consider the major features of broadband services that users care about, including mobility.

### III. TO PROMOTE DEPLOYMENT, THE COMMISSION SHOULD PURSUE POLICIES THAT MAXIMIZE PRIVATE INVESTMENT INCENTIVES WHILE LEVERAGING PUBLIC RESOURCES

The *NOI* seeks comment on policy initiatives that might further promote broadband deployment.<sup>24</sup> Although broadband deployment is on the rise, the Commission must continue its efforts to remove barriers to, and provide incentives for, facilities-based entry into the broadband market. It can pursue these goals by adopting policies that encourage investment in intelligent network infrastructure, foster competition in the broadband industry, promote consumer access to information and connectivity of devices, and allow the market, instead of government, to choose winners and losers. TIA has detailed in various Commission dockets the ways in which the Commission could promote additional broadband deployment by adopting policies that promote private investment and make the best use of public resources. Although TIA believes that “advanced telecommunication capability” is being deployed to all Americans in a reasonable and timely fashion, and that the Commission should so find, TIA urges the Commission to take the following actions irrespective of its Section 706 finding:<sup>25</sup>

***Redirect High-Cost USF Support to Broadband.*** TIA continues to urge the Commission to transition high-cost USF support toward next-generation broadband networks, to ensure that

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<sup>24</sup> *NOI* ¶¶ 29-30.

<sup>25</sup> As a general matter, TIA encourages the Commission to ensure that any regulation is targeted, simple, and designed to meet clear and well-defined goals. A balanced and thoughtful approach to broadband policy must combine appropriate government action with the power of the free market. Notably, market participants are reluctant to invest in new or upgraded infrastructure when their return on their investment is uncertain. In the face of such uncertainty, investors are likely to take their capital to other sectors offering better opportunities for gain. TIA thus urges the Commission to resist the impulse to impose detailed prescriptive regulation on the ways in which competing platform providers operate their next-generation networks. Comments of TIA, GN Docket No. 09-51, at 6 (filed Jun. 5, 2009).

the benefits of such networks reach all Americans regardless of where they live and work.<sup>26</sup> Sections 254 of the Communications Act of 1934, as amended, in conjunction with Section 706, provides all the authority needed for the Commission to transition high-cost universal service funds to support broadband services, whether provided as telecommunications services or as information services.<sup>27</sup>

***Make Additional Spectrum Available for Commercial Wireless Broadband Services.***

As the Commission has recognized, without the quick reallocation of spectrum for wireless broadband, consumers could begin to experience wireless data gridlock.<sup>28</sup> The demands for access to the information superhighway will exceed the capacity of the wireless “access road,” which will result in the inability of consumers to send and receive information in the manner in which they are accustomed.<sup>29</sup> Conversely, repurposing spectrum for wireless broadband use will

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<sup>26</sup> See generally, Comments of TIA, WC Docket No. 10-90 *et al.* (filed Apr. 18, 2011) (“TIA April USF Comments”); Comments of TIA, Comments of TIA, GN Docket No. 09-51 (filed Jun. 5, 2009).

<sup>27</sup> Section 254 establishes the principle that all consumers should have access to reasonably comparable telecommunications and information services, and explicitly authorizes the Commission to take “into account advances in telecommunications and *information technologies and services*” in determining which services should be supported by the universal service fund. Section 254 also authorizes the Federal-State Joint Board to “recommend changes to . . . the definition of the *services* that are supported by Federal universal service support mechanisms,” without limitation to “telecommunications services.” To the extent, if any, that there is tension in the text of Section 254 with respect to the funding of information services, the Commission is free to interpret this ambiguity as permitting universal service support for information services. The Commission’s ability to fund broadband Internet service through the universal service mechanism is particularly strengthened if Section 254 is read in conjunction with Section 706 of the Telecommunications Act of 1996. In Section 706 – first adopted at the same time as Section 254 – Congress directed the Commission to encourage the deployment of advanced telecommunications capability, including broadband, to all Americans on a reasonable and timely basis. The simultaneous adoption of these provisions indicates that Congress intended to permit the Commission to afford universal support for broadband. See TIA April USF Comments at 6-7.

<sup>28</sup> *Mobile Broadband: The Benefits of Additional Spectrum*, OBI Technical Paper Series, Federal Communications Commission (Oct. 2010) at 18, available at <http://download.broadband.gov/plan/fcc-staff-technical-paper-mobile-broadband-benefits-of-additional-spectrum.pdf>; Julius Genachowski, Chairman, Federal Communications Commission, Remarks at CTIA Wireless IT & Entertainment: America’s Mobile Broadband Future, 1-2 (Oct. 7, 2009) (Chairman Genachowski CTIA Remarks). See also, TIA, BROADBAND SPECTRUM: THE ENGINE FOR INNOVATION, JOB GROWTH, AND ADVANCEMENT OF SOCIAL PRIORITIES, March 2011, at 1-3 (“TIA Spectrum Whitepaper”).

<sup>29</sup> TIA Spectrum Whitepaper at 1-3.

bring economic benefits such as increased jobs and gross domestic product, productivity gains relating to an accelerated deployment of wireless broadband technologies and applications,<sup>30</sup> and societal benefits in areas such as public safety and personal security, healthcare, and education.<sup>31</sup> Therefore, it is critical that the government move promptly to free 300 MHz by 2015 and 500 MHz by 2020 for additional wireless broadband deployment. Accordingly, TIA supports the creation of mechanisms such as incentive auctions and flexible use licensing that will facilitate the fast, flexible repurposing of spectrum for wireless broadband use.<sup>32</sup>

***Promote Broadband Adoption.*** TIA applauds the creation of a new FCC Adoption Task Force. Demand-side stimulus efforts should include, at a minimum, universal service support subsidizing adoption by low-income users and subsidies for laptops and other broadband-capable equipment. The opening of low-income support for broadband service can play a key role in stimulating demand, remediating the factors cited by Pew and others as most significant in a consumer's decision not to adopt broadband service. Specifically, TIA supports the extension of the existing Lifeline and Link-Up programs to subsidize broadband Internet access services for low-income Americans, who are among the most likely to lack access to high-speed communications services.

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<sup>30</sup> *Id.* at ii, 3-7 (noting that a 1% increase in broadband deployment could generate as many as 300,000 new jobs; \$17.4 billion in wireless broadband investment would increase GDP by \$126 billion or more and create 4.5 to 6.3 million new jobs; and accelerated deployment of wireless broadband technologies and applications would generate productivity gains of almost \$860 billion by 2016).

<sup>31</sup> *Id.* at 4-7. For example, increased access to spectrum for wireless broadband would enable the expansion of medical technology into remote areas, enable individuals to monitor and report on their own health, and make it possible to disseminate critical epidemic information and monitor for chemical or biological agents.

<sup>32</sup> *Id.* at 7-8.

***Expand Access to Rural Health Care Funds.*** The Commission’s Rural Health Care Pilot Program (“Pilot Program”) is promoting deployment of broadband infrastructure to rural health providers, bringing critical health care opportunities to long-underserved communities and helping the long-underused rural health care mechanism to finally reach its potential. But substantial sums are still left unused. The Commission should (1) immediately raise the current cap on available funding, (2) expand the Pilot Program to include remote health care monitoring that extends services to chronic disease, elderly, disabled, and homebound patients, and (3) adopt the Pilot Program, expanded as described above, on a permanent basis.

***Apply the Open Internet Rules in a Way that Affords Providers Flexibility to Manage Their Networks.*** TIA consistently has supported an approach to nondiscrimination and interconnection that is competitive and encourages efficient use of broadband networks. By managing traffic, Internet access providers can ensure that jitter- and latency-sensitive traffic, as well as traffic designed to enhance public health safety, is assured passage through the network in a manner consistent with user needs and expectations. Moreover, the tools used to effectuate such management are always evolving, because the relationship between capacity and demand is always fluctuating.<sup>33</sup> Although the Commission now has moved beyond the *Internet Policy Statement* to adopt rules regarding reasonable network management,<sup>34</sup> there is still room for flexibility. Assuming the rules become effective, the Commission can and should apply them in a manner that accounts for (a) the necessity of robust yet reasonable management in the face of

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<sup>33</sup> Increased network demand is not the only legitimate justification for reasonable network management. Subscribers also expect network operators to block an assortment of harmful or otherwise undesirable content, including spam, spyware, viruses, and (in the case of ISP-managed parental controls) indecent or violent materials.

<sup>34</sup> *Preserving the Open Internet; Broadband Industry Practices, GN Docket No. 09-191; WC Docket No. 07-52, Report and Order, 25 FCC Rcd 17905 (2010).* These rules have not yet become effective.

growing demand on the network, and (b) the expanding use of applications sensitive to packet delay and loss.<sup>35</sup>

***Assert Exclusive Federal Jurisdiction.*** The Commission can help stimulate investment, innovation, and deployment of next-generation networks by ensuring that providers of broadband offerings and IP-enabled services are subjected to an exclusively federal regulatory regime. As the Commission has recognized on numerous occasions, broadband Internet access offerings are inherently interstate in nature.<sup>36</sup> So too are IP-based offerings such as interconnected voice over Internet protocol, which cannot feasibly be partitioned into intra- and interstate traffic streams.<sup>37</sup> Consequently, the Commission is lawfully entitled to bring these services within an exclusively federal regulatory framework. The Commission should exercise this authority to avoid hampering investment in and deployment of next-generation offerings. By employing its authority to foreclose patchwork state regulation, the Commission can ensure that providers are subject to a single, consistent regime that will protect American consumers while fostering certainty and promoting deployment.

***Promote Additional Federal Subsidies.*** Government policies in a wide array of areas should be directed toward promoting broadband deployment and adoption. TIA has long called

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<sup>35</sup> In recent years, consumer demand for bandwidth-intensive applications such as VoIP, audio and video streaming, and peer-to-peer (“P2P”) file-sharing has revolutionized Internet usage patterns. Moreover, while demands on the network are increasing, usage is also shifting toward applications that are far less tolerant of “latency” and “jitter.”

<sup>36</sup> *Vonage Holdings Corp. Petition for Declaratory Ruling Concerning an Order of the Minn. Pub. Utils. Comm’n*, Memorandum Opinion and Order, 19 FCC Rcd 22404, (2004), *aff’d Minn. Pub. Utils. Comm’n v. FCC*, 483 F.3d 570 (8th Cir. 2007).

<sup>37</sup> *See Universal Service Contribution Methodology*, 21 FCC Rcd 7518, 7545 (2006) (extending 47 U.S.C. § 254(d) permissive authority to require interconnected VoIP providers to contribute to the USF), *petition for review denied, and vacated in part on other grounds, Vonage Holdings Corp. v. FCC*, 489 F.3d 1232 (D.C. Cir. 2007); *Vonage Holdings Corp. v. Neb. PSC*, 564 F.3d 900 (8<sup>th</sup> Cir. 2009).

for the allocation of federal funds to drive broadband deployment and to promote the development of pro-competitive communications network technologies. The broadband grant programs included in the American Recovery and Reinvestment Act (“ARRA”) have been a major step in advancing these two important goals. TIA urges the Commission to push for the government to continue to play a substantial role in funding initiatives that will drive innovation and investment in the communications marketplace where economics make private investment alone unlikely.

***Rely on Generally Applicable Laws and Competition, not Prophylactic Regulation.***

Finally, the Commission should approach the adoption of special broadband “consumer protection” mandates—such as truth-in-billing, privacy, discontinuance, and others—with great care. Broadband Internet access networks are already subject to a broad array of generally applicable consumer-protection laws that likely obviate the need for Commission-administered regulation. Because the Commission has classified broadband Internet access services as “information services” rather than “telecommunications services,” broadband providers are not “common carriers,” and therefore *are* subject to the jurisdiction of the Federal Trade Commission (“FTC”).<sup>38</sup> Federal law directs the FTC to prevent “unfair or deceptive acts or practices in or affecting commerce.”<sup>39</sup> Moreover, while federal law generally preempts state regulation of broadband, broadband consumers are also protected by state laws of general applicability prohibiting unfair or deceptive trade practices. These federal and state laws, in concert with the pressures of competition in an increasingly crowded broadband market, have ably safeguarded consumer interests, and will likely continue to do so.

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<sup>38</sup> See 15 U.S.C. § 45(a) (describing extent of FTC jurisdiction).

<sup>39</sup> *Id.*

#### IV. CONCLUSION

For the reasons set forth above, TIA urges the Commission to include mobile broadband service in its analysis of broadband deployment and availability for purposes of the *Eighth Report*. Having done so, the Commission should find that “advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.” Yet the Commission should continue its efforts to remove barriers to, and provide incentives for, facilities-based entry into the broadband market by adopting the policies described above.

Respectfully submitted,

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