
**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)

To: The Commission

COMMENTS OF CTIA–THE WIRELESS ASSOCIATION®

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EXECUTIVE SUMMARY

The Commission should account for mobility when defining broadband. In addition, the Commission's approach to measuring broadband "availability" must accurately reflect how Americans use and access broadband today and recognize the comprehensive coverage of wireless services – including along highways, airports, and public transit routes; in parks and other recreational areas; along waterways; in business districts and entertainment complexes; and over other "zero population" areas.

Wireless service providers are racing to meet staggering consumer demand for mobile broadband services and remain relevant in today's highly competitive marketplace. They have moved quickly beyond the planning stage for Fourth Generation, or "4G," networks and are currently deploying 4G services across the country, including in rural areas where wireless is often the most cost-effective and technologically feasible broadband solution. Other providers are upgrading 3G networks to handle increased traffic and speeds, while expanding network footprints to previously unserved areas. In sum, broadband mobile wireless deployments are far exceeding the "reasonable and timely" standard for broadband deployment under Section 706 of the Telecommunications Act of 1996, as amended by the Broadband Data Improvement Act.

Today's mobile broadband services provide exceptional benefits to consumers in various segments of the population – especially to low-income individuals, minority users, and residents in rural areas. In return, consumers are embracing these innovative mobile broadband services at an unprecedented pace. According to the Commission, during the first half of 2010, subscribers with mobile wireless data plans for full Internet access increased by 27%, while fixed-location Internet access connections increased by only 1%. And with the meteoric rise of smartphones (which now account for more than half of all wireless devices sold in the U.S.) and data-only devices, mobile broadband traffic continues to surge – traffic levels are expected to increase 35-

fold by 2014, compared to 2009 levels. Smartphones in particular provide enormous value to consumers, as they include a host of applications in one device that previously were separated into dozens of separate – and costly – consumer electronics devices and other products.

New mobile broadband services also are fortifying the U.S.’s leadership in mobile wireless broadband deployment. As of June 2011, almost 93% of LTE subscribers and 67% of WiMax subscribers worldwide were in the U.S., even though the U.S. accounts for less than 6% of the total world wireless subscribers. And more LTE networks are on the way.

Unfortunately, the Commission’s current singular focus in this proceeding on throughput speeds is out of touch with how consumers actually use broadband and ignores the enormous benefits that wireless broadband services provide, potentially undermining the goals of the National Broadband Plan and the Administration. Even though new 4G build-outs in urban and rural areas are providing speeds faster than the Commission’s current benchmark, consumers often are willing to trade some throughput speed for the freedom and unique benefits of a ubiquitous connection that still allows them to engage in mobile broadband activities such as streaming video or audio, quickly downloading large files, Internet browsing, and using advanced gaming and social networking applications, among other features.

Finally, even though mobile wireless broadband deployment is far surpassing the Commission’s “reasonable and timely” benchmark, there are actions in addition to the significant *Wireless Facilities “Shot Clock” Ruling* and *Pole Attachments Order*, that the FCC could take to accelerate the deployment, availability, and adoption of mobile broadband. These include: (1) making more spectrum available for wireless broadband services; (2) acting on the Commission’s commitments to streamline regulation affecting wireless infrastructure build-out; and (3) reforming the universal service and intercarrier compensation mechanisms to reflect consumer demand for, and the benefits of, mobile wireless broadband.

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COMMENTS OF CTIA–THE WIRELESS ASSOCIATION®

I. INTRODUCTION

CTIA–The Wireless Association® (“CTIA”) submits these comments in response to the Commission’s Eighth Broadband Progress Notice of Inquiry in the above-captioned proceeding.¹ The Commission should account for mobility when defining broadband. In addition, the Commission’s approach to measuring broadband “availability” must accurately reflect how Americans use and access broadband today and recognize the comprehensive coverage of wireless services – including along highways, airports, and public transit routes; in parks and other recreational areas; along waterways; in business districts and entertainment complexes; and over other “zero population” areas.

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*, GN Docket No. 11-121, Eighth Broadband Deployment Notice of Inquiry, FCC 11-124 (rel. Aug. 5, 2011) (“*NOI*”).

As explained in detail below, 4G and 3G mobile wireless broadband deployments are far exceeding the Section 706 “reasonable and timely” standard. The Commission’s current approach of using throughput speeds as the sole element for defining broadband for purposes of Section 706, however, ignores the enormous benefits that wireless broadband services provide to consumers, potentially hindering further wireless deployment and undermining the goals of the National Broadband Plan and the Administration.

To improve its assessment of whether broadband is being deployed to all Americans in a reasonable and timely fashion, the Commission should account for mobility when defining broadband or advanced telecommunications capability. Mobility brings broadband *to the person*, and millions of Americans are increasingly relying on mobile service to meet their broadband needs rather than using a broadband service narrowly based on some pre-defined speed, as the Commission’s definition presumes.

In addition, the Commission’s approach to measuring broadband “availability” must accurately reflect how Americans use and access broadband today and recognize the comprehensive coverage of wireless services. The Commission’s current approach ignores many areas where coverage is critical but no individuals may live, such as along highways, airports, and public transit routes; in parks and other recreational areas; along waterways; and in business districts and entertainment complexes.

Finally, the Commission should take additional action to accelerate the deployment, availability, and adoption of mobile broadband, including: (1) making more spectrum available for wireless broadband services; (2) acting on its commitments to streamline regulation affecting wireless infrastructure build-out; and (3) reforming the universal service and intercarrier compensation mechanisms to reflect consumer demand for, and the benefits of, mobile wireless broadband.

II. MOBILE WIRELESS BROADBAND DEPLOYMENT FAR EXCEEDS THE SECTION 706 “REASONABLE AND TIMELY” STANDARD.

In the *NOI*, the Commission seeks comment on whether broadband is being deployed in a “reasonable and timely fashion.”² Wireless service providers are rapidly deploying and upgrading mobile wireless broadband networks across America to meet staggering consumer demand, far ahead of any “reasonable and timely” benchmark. Mobile broadband services, teeming with remarkable investment and innovation, provide exceptional benefits to consumers – especially residents in rural areas, low-income individuals, and minority users. They also ensure that the U.S. will remain the world leader in mobile wireless broadband deployment and usage for years to come.

A. Mobile Wireless is the Fastest-Growing Platform for Broadband.

1. Wireless Broadband Providers are Racing to Invest In and Deploy New Mobile Broadband Networks, Including in Rural Markets.

The extraordinary consumer demand for wireless broadband services has spurred numerous innovations in mobile broadband networks. It also has fostered a race to deploy the most advanced broadband technologies, and new mobile broadband deployment has been dramatic. According to the Commission’s two most recent *Mobile Competition Reports*, more than 98 percent of Americans live in census blocks covered by 4G and/or 3G service.³ As noted by the Commission in the *Fifteenth Mobile Competition Report*:

² *Id.* ¶¶ 20-22.

³ *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 ¶ 46 tbl. 7, ¶ 120 tbl. 13 (rel. June 27, 2011) (“*Fifteenth Wireless Competition Report*”); *Annual Report and Analysis of Competitive Market Conditions with Respect to* (continued on next page)

EV-DO coverage increased 0.4 percent from 279 million people, or 97.9 percent of the U.S. population, to 280 million people, or 98.3 percent of the U.S. population. Also, HSPA coverage grew five percent from 217 million POPs to 228 million POPs (76 percent to 80 percent of the U.S. population). In addition, mobile WiMAX networks, which covered approximately 28 million people in November 2009, had expanded to census blocks covering over 50 million POPs, or 18 percent of the population, as of August 2010.⁴

These coverage statistics reflect the significant investments made by the wireless industry to deploy new 4G networks and expand their 3G networks to remain relevant in today's highly competitive marketplace. Moreover, by the end of 2010, U.S. wireless carriers' cumulative capital investments totaled more than \$310 billion, an increase of almost \$25 billion from year-end 2009 and more than \$45 billion since year-end 2008.⁵ Wireless broadband providers are deploying extensive new 4G broadband networks, including in rural areas, and a recent report by Deloitte LLP forecasts that wireless telecommunications companies in the United States could invest between \$25 and \$53 billion on 4G networks between 2012 and 2016.⁶ The Deloitte report specifically highlights how the deployment of 4G mobile broadband will have important benefits in previously underserved communities, including rural areas.⁷

In the past year, several wireless providers have moved quickly beyond the planning

Commercial Mobile Services, Fourteenth Report, 25 FCC 11407 ¶ 120 tbl.13, ¶ 45 tbl. 7 (2010) (“*Fourteenth Wireless Competition Report*”).

⁴ *Fifteenth Wireless Competition Report* ¶ 120 tbl. 13 (internal citations omitted).

⁵ CTIA–The Wireless Association®, Semi-Annual Wireless Survey (Dec. 31, 2010 Installment) (“CTIA Semi-Annual Survey”), available at <http://www.ctia.org/advocacy/research/index.cfm/AID/10316> (last accessed Aug. 31, 2011). The CTIA semi-annual survey is a voluntary survey, but for the December 31, 2010 installment, CTIA received responses from companies serving 96% of all estimated wireless subscribers.

⁶ Deloitte, *The Impact of 4G Technology on Commercial Interactions, Economic Growth, and U.S. Competitiveness*, 7 (Aug. 2011), available at <http://www.deloitte.com/us/impactof4g> (last accessed Aug. 31, 2011) (“Deloitte 4G Report”).

⁷ *Id.* at 15-17.

stage for advanced wireless broadband networks and are currently deploying these services across the country.⁸ For example, AT&T will deploy its 4G LTE network in 2011.⁹ While not officially launched, AT&T's 4G LTE services recently went live in Chicago and Atlanta.¹⁰ Further, AT&T upgraded its existing HSPA network technology by deploying HSPA+ to virtually 100 percent of its broadband network.¹¹ Clearwire has deployed a wireless broadband network that reaches more than 130 million people in over 70 U.S. markets.¹² Clearwire currently has more than 4.4 million customers and expects to double its subscriber base during 2011.¹³ Clearwire also has indicated that, following testing in Phoenix earlier this year, it will deploy LTE over its existing infrastructure in high usage areas, including 35 of the top 40 MSAs

⁸ 4G services offer throughput speeds starting at approximately four times faster than 3G services, with the potential for much higher throughput speeds.

⁹ AT&T, 4G LTE Mobile Broadband, <http://www.wireless.att.com/learn/why/technology/4g-lte.jsp> (last accessed Aug. 31, 2011). The LTE network build-out should be completed by the end of 2013. See Press Release, AT&T, *AT&T Announces Plans to Deliver Nation's Most Advanced Mobile Broadband Experience* (Jan. 5, 2011), available at <http://www.att.com/gen/press-room?pid=18885&cdvn=news&newsarticleid=31477&mapcode=wireless-networks-general|consumer> (last accessed Aug. 31, 2011).

¹⁰ BGR, *AT&T's 4G LTE Network Goes Live in Chicago; Images Reveal Impressive Speeds* (Aug. 29, 2011), available at <http://www.bgr.com/2011/08/29/att-4g-lte-network-live-chicago-speed-tests/> (last accessed Aug. 31, 2011); BGR, *AT&T 4G LTE Network Alive and Kicking in Atlanta; Images Show 25Mbps Speeds* (Aug. 30, 2011) available at <http://www.bgr.com/2011/08/30/att-4g-lte-network-live-in-atlanta/> (last accessed Aug. 31, 2011).

¹¹ Press Release, AT&T, *AT&T Announces Plans to Deliver Nation's Most Advanced Mobile Broadband Experience* (Jan. 5, 2011), available at <http://www.att.com/gen/press-room?pid=18885&cdvn=news&newsarticleid=31477&mapcode=wireless-networks-general|consumer> (last accessed Aug. 31, 2011); see also *Fifteenth Mobile Competition Report* ¶ 110.

¹² Clearwire, <http://www.clearwire.com/company/our-company> (last accessed Aug. 31, 2011).

¹³ *Id.*

in the country.¹⁴ Clearwire estimates that the incremental cost of this overlay in the “high-tonnage areas of our 4G operating markets will be approximately \$600 million and that a typical market overlay can be completed within 12 months of initiating the build.”¹⁵ Leap Wireless is pursuing LTE deployment through its own network enhancements, supplemented by a roaming agreement with LightSquared.¹⁶ LightSquared itself is currently conducting tests on its nationwide 4G LTE wireless broadband network and plans to launch services in 2012.¹⁷ Sprint Nextel now offers 4G service in 71 markets in 28 states operated over the Clearwire 4G network.¹⁸ Sprint Nextel also recently began making 4G service available to wholesale customers.¹⁹ T-Mobile is deploying HSPA technology and HSPA+ technology across its entire

¹⁴ See *Clearwire’s CEO Discusses Q2 2011 Results – Earnings Call Transcript*, Seeking Alpha (Aug. 4, 2011), available at <http://seekingalpha.com/article/284461-clearwire-s-ceo-discusses-q2-2011-results-earnings-call-transcript> (last accessed Sept. 6, 2011).

¹⁵ *Id.*

¹⁶ See P. Goldstein, *Cricket to launch LTE in Tucson later this year*, Fierce Wireless (Jun. 22, 2011), available at <http://www.fiercewireless.com/story/cricket-launch-lte-tucson-later-year/2011-06-22> (last accessed Sept. 6, 2011); see also S. Marek, *Leap CEO: We plan LTE ‘hotspots’ next year*, Fierce Wireless (Dec. 8, 2010), available at <http://www.fiercewireless.com/story/leap-ceo-we-plan-lte-hotspots-next-year/2010-12-08> (last accessed Sept. 6, 2011); P. Goldstein, *LightSquared inks wholesale LTE deal with Leap Wireless*, Fierce Wireless (Mar. 22, 2011), available at <http://www.fiercewireless.com/ctialive/story/lightsquared-inks-wholesale-lte-deal-leap-wireless/2011-03-22> (last accessed Sept. 6, 2011).

¹⁷ LightSquared, *Nationwide LTE Broadband Network*, available at <http://www.lightsquared.com/what-we-do/network/> (last accessed Aug. 31, 2011).

¹⁸ Press Release, Sprint Nextel, *Another Industry First: Sprint Becomes First U.S. Wireless Carrier to Make 4G Available to Wholesale Customers* (Aug. 2, 2011) available at http://newsroom.sprint.com/article_display.cfm?article_id=1996 (last accessed Aug. 31, 2011).

¹⁹ *Id.*

mobile wireless network.²⁰ In fact, “T-Mobile has been aggressively deploying HSPA+ technology, and its faster HSPA+ 42 network is now available in 152 markets, covering 170 million POPs.”²¹ Earlier this year, it was reported that T-Mobile was moving forward with upgrading their network to HSPA+ 84 in the next year, and then to HSPA+ 168.²² U.S. Cellular announced in May that it plans to launch 4G LTE service across 24 markets serving more than 25 percent of their subscribers by November 2011, with further expansion in 2012.²³ The initial roll-out of U.S. Cellular’s LTE service will serve markets in Iowa, Wisconsin, Maine, North Carolina, Texas, and Oklahoma.²⁴ Verizon Wireless launched its 4G LTE network in December 2010, citing speeds 10 times faster than its 3G network.²⁵ Verizon 4G LTE is currently available in 117 markets and plans to be available in over 175 markets by the end of 2011, and the company has plans to cover its current 3G network by the end of 2013.²⁶ In addition, MetroPCS

²⁰ *Fifteenth Mobile Competition Report* ¶ 114.

²¹ See P. Goldstein, *Where does T-Mobile go from here for 4G?* Fierce Wireless (Sep. 1, 2011), available at <http://www.fiercewireless.com/story/where-does-t-mobile-go-here-4g/2011-09-01>.

²² See S. Segan, *T-Mobile Launches First HSPA+42 Modem*, PCMag.com (May 24, 2011), available at <http://www.pcmag.com/article2/0,2817,2385767,00.asp> (last accessed Sept. 1, 2011); see also S. Segan, *T-Mobile Shows LG Tablet, Charts Path to 672 Mbps*, PCMag.com (Jan. 6, 2011), available at <http://www.pcmag.com/article2/0,2817,2375348,00.asp> (last accessed Sept. 1, 2011).

²³ See U.S. Cellular News Release, *U.S. Cellular to Launch 4G LTE Services and Devices in Time for the Holidays* (May 6, 2011), available at <http://www.uscellular.com/about/press-room/2011/USCELLULAR-TO-LAUNCH-4G-LTE-SERVICE-AND-DEVICES-IN-TIME-FOR-THE-HOLIDAYS.html> (last accessed Sept. 6, 2011).

²⁴ *Id.*

²⁵ Verizon Wireless, *LTE Information Center*, available at <http://news.vzw.com/LTE/Overview.html> (last accessed Aug. 31, 2011).

²⁶ Verizon Wireless, *Verizon Wireless 4G LTE Network*, <http://network4g.verizonwireless.com/#/coverage> (last accessed Aug. 31, 2011).

successfully completed its initial LTE 4G network roll-out of 14 cities in April 2011.²⁷

Moreover, rural consumers are also experiencing the benefits from next-generation mobile wireless broadband deployment as carriers begin deploying 4G mobile broadband services in rural areas across the country. For instance, Commnet Wireless, LLC (a subsidiary of Atlantic Tele-Network) has partnered with the Navajo Tribal Utility Authority to create NTUA Wireless LLC, which will provide both the first 4G and 3G services to the residents of the Navajo Nation in parts of Arizona, New Mexico and Utah.²⁸ Verizon Wireless likewise is currently working with rural telecommunications carriers to build and operate 4G networks in rural areas by combining the tower and backhaul assets of the rural carrier and Verizon Wireless' core LTE equipment and 700 MHz spectrum.²⁹ Regional and rural carriers such as Cellcom (operating in “Northeast and Central Wisconsin and select areas of Michigan’s Upper Peninsula”), Bluegrass Cellular (located in Central Kentucky), Carolina West Wireless (operating in Northwestern North Carolina), Pioneer Cellular (serving western and southern Oklahoma), and Thumb Cellular (operating in the Northeast corner of Michigan), have agreed to

²⁷ Connected Planet, *MetroPCS Completes LTE Footprint* (Apr. 1, 2011) available at <http://connectedplanetonline.com/3g4g/news/metropcs-completes-lte-footprint-0401/> (last accessed Aug. 31, 2011); see also MetroPCS: Coverage Map, available at <http://www.metropcs.com/coverage/> (last accessed Aug. 31, 2011).

²⁸ Press Release, Atlantic Tele-Network, Inc., *Navajo Tribal Utility Authority and Atlantic Tele-Network Announce Partnership to Deliver Rural 4G Service* (Apr. 4, 2011), available at <http://www.atni.com/news.html> (last accessed Aug. 31, 2011); see also Press Release, Atlantic Tele-Network, Inc., *Stimulus Grant Will Allow Commnet Wireless to Advance Rural Broadband Wireless* (Apr. 5, 2010), available at <http://ir.atni.com/releasedetail.cfm?ReleaseID=456820> (last accessed Aug. 31, 2011).

²⁹ Verizon Wireless, *LTE in Rural America*, <http://aboutus.vzw.com/rural/Overview.html> (last accessed Aug. 30, 2011).

participate in Verizon's LTE in Rural America program, along with other rural carriers.³⁰

Wireless broadband providers also are continuing to expand their 3G broadband network footprints. Even though the United States already has the greatest number of 3G subscribers in the world, it experienced 27% 3G subscriber growth from 2009-2010.³¹ This growth is not accidental but is instead the byproduct of the remarkable investment and rapid expansion of 3G network availability across the nation. By expanding their existing 3G networks, wireless providers are creating immense benefits for all consumers, including residents in rural areas, low-income individuals and minority users.

2. Mobile Broadband Adoption and Use Are Skyrocketing to the Benefit of All American Consumers, Particularly Low-Income and Minority Consumers.

Consumers are embracing mobile broadband at an unprecedented pace, with no end in sight. Indeed, consumers are choosing mobile broadband at a much faster rate than any other

³⁰ D. Meyer, *Cellcom to partner with Verizon Wireless for LTE*, RCRWireless (Jan. 6, 2011), available at <http://www.rcrwireless.com/ARTICLE/20110106/CARRIERS/110109960/cellcom-to-partner-with-verizon-wireless-for-lte> (noting that Cellcom "expects to begin launching the LTE network during the first quarter of 2012") (last accessed Sept. 6, 2011); Press Release, Bluegrass Cellular, *Bluegrass Cellular to Participate in Verizon's Wireless' LTE in Rural America Program* (Nov. 8, 2010), available at http://bluegrasscellular.com/about/news/bluegrass_cellular_to_participate_in_verizon_wireless_lte_in_rural_america_ (last accessed Aug. 31, 2011); Press Release, Carolina West Wireless, *Carolina West Wireless and Verizon Wireless Partner in Rural America Initiative* (Apr. 21, 2011), available at <http://www.carolinawest.com/press-room/carolina-west-wireless-and-verizon-wireless-partner-in-rural-america-initiative/>; Press Release, Strata Networks, *Strata Networks to Launch LTE (3G) with Verizon's Rural America Program* (Feb. 11, 2011), available at https://www.stratanetworks.com/index.php?option=com_content&task=view&id=196&Itemid=81, (last accessed Aug. 31, 2011); Press Release, Thumb Cellular, *Thumb Cellular Partners with Verizon to Bring LTE to Michigan's Thumb Area* (Jan.7, 2011), available at <http://www.thumbcellular.com/news/thumb-cellular-partners-with-verizon-to-bring-lte-to-michiga.html> (last accessed Aug. 31, 2011).

³¹ Deloitte 4G Report, Exhibit 1 at 4.

technology. During the first half of 2010, the FCC reports that subscribers with mobile wireless data plans for full Internet access increased by 27% (from 56 to 71 million), while fixed-location Internet access connections increased by only 1% (from 81 to 82 million).³²

As of mid-year 2010, mobile wireless accounted for 38% of all existing connections offering download speeds of at least 768 kbps, representing the single largest technology in this category, outpacing cable modem service and accounting for more than aDSL, fiber-to-the-premises and satellite combined.³³ One year earlier, mobile wireless accounted for only 21% of total connections in this category, lagging behind cable modem service at 44% and aDSL at 29%.³⁴ By year-end 2010, comScore reported 119 million unique high-speed wireless subscribers in the U.S.³⁵ Again, these statistics demonstrate the rapid increase in consumer reliance on mobile broadband, especially as compared to other technologies. As Chairman Genachowski observed earlier this year, “[m]obile broadband is being adopted faster than any computing platform in history – creating a uniquely powerful platform for innovation.”³⁶

Even when considering the sub-category of higher speed connections of at least 3 Mbps for downloads and 768 kbps for uploads, net subscriber additions for mobile wireless were

³² Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, *Internet Access Services: Status as of June 30, 2010*, 1 (Mar. 2011) (“*FCC High-Speed Internet Access Report 2011*”) (representing connections over 200 kbps in at least one direction).

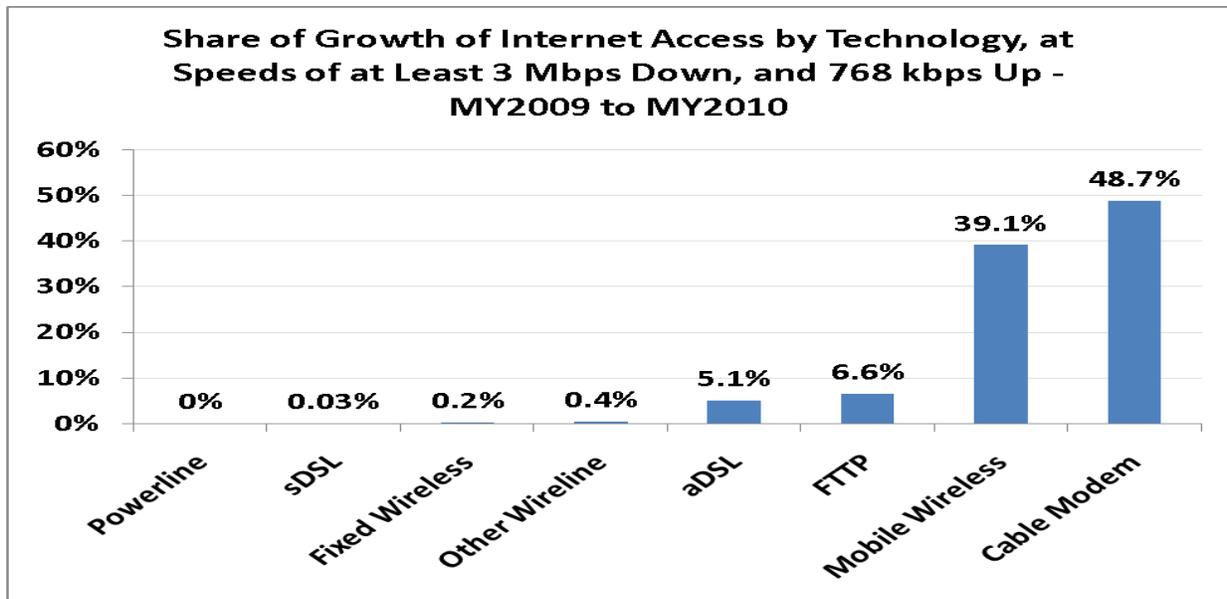
³³ See *FCC High-Speed Internet Access Report 2011*, 30, Table 12.

³⁴ See Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, *Internet Access Services: Status as of June 30, 2009*, 13, Table 6 (Sept. 2010).

³⁵ See Comments of CTIA–The Wireless Association®, WC Docket No. 11-42, 5-6 (filed Apr. 21, 2011) (citing comScore MobiLens).

³⁶ Julius Genachowski, Chairman, FCC, Prepared Remarks on Spectrum at the White House (Apr. 6, 2011).

impressive. At this speed threshold during the mid-year 2009 to mid-year 2010 time period, mobile wireless represented 39.1% of all new connections, as shown in the chart below.³⁷



Smartphones and Other Mobile Broadband Devices. The availability of an increasing variety of devices that can be used to access mobile broadband is driving the surge in mobile broadband connections. At the forefront is the meteoric rise of smartphones, which accounted for 55% of all wireless devices sold in Q2 2011.³⁸ According to comScore, 82.2 million people in the U.S. owned smartphones as of July 2011, up 10% over the prior 3-month period alone.³⁹ The FCC’s *Fifteenth Wireless Competition Report* indicates that smartphone penetration was at

³⁷ *FCC High-Speed Internet Access Report 2011* at Table 9. In gross numbers for this category, there were 5.111 million net mobile wireless connection additions.

³⁸ See Chetan Sharma, *U.S. Mobile Data Market Update Q2 2011*, Always On Real-time Access (Aug. 18, 2011), available at <http://www.chetansharma.com/blog/2011/08/18/us-wireless-market-update-q2-2011/> (last accessed Sept. 1, 2011) (“Chetan Sharma”).

³⁹ See *Android Smartphones Surge to 42% Share*, Computerworld (Aug. 30, 2011), available at http://www.computerworld.com/s/article/9219607/Android_smartphones_surge_to_42_share (last accessed Sept. 1, 2011) (citing comScore survey).

41% as of Q3 2010.⁴⁰ Consumers are taking advantage of the broadband capability of their smartphones in significant numbers, with 87% of smartphone owners using their phones to access the Internet or e-mail. Indeed, one-quarter of all smartphone owners do *the majority* of their online browsing on their device.⁴¹

After smartphones, mobile broadband growth is being driven by data-only devices such as tablets, netbooks, e-readers, wireless modems, and mobile Wi-Fi hotspots,⁴² with some 13.6 million of these devices reported to be active on carriers' networks at year-end 2010.⁴³ A study by the Institute for Communication Technology Management found that the number of tablet users doubled in the past year to 8%.⁴⁴ Moreover, 19% of consumers say they plan to buy a tablet in the next 12 months.⁴⁵ Mobile broadband-enabled laptops and laptop cards also are increasing rapidly. The FCC reports that these devices increased by a whopping 42% in 2009,⁴⁶ and that by 2010, Verizon, AT&T, Sprint and Clearwire were all offering laptop cards that could operate on high-speed LTE or WiMax networks.⁴⁷

⁴⁰ *Fifteenth Wireless Competition Report* at 20.

⁴¹ Pew Internet & American Life Project, *35% of American Adults Own a Smartphone*, 13-14 (July 11, 2011) available at <http://pewinternet.org/Reports/2011/Smartphones.aspx> (last accessed Sept. 1, 2011) ("*Pew Smartphone Report*").

⁴² *Fifteenth Wireless Competition Report* ¶¶ 145-46.

⁴³ See CTIA Semi-Annual Survey.

⁴⁴ Amy Blumenthal, *USC Marshall Study Shows Growth of Tablets in North American Market* (May 19, 2011), available at <http://www.marshall.usc.edu/news/releases/2011/study-shows-powerful-growth-tablets-north-america> (last accessed Sept. 1, 2011).

⁴⁵ *Id.*

⁴⁶ *Fifteenth Wireless Competition Report* ¶ 176.

⁴⁷ *Id.* ¶¶ 147-49.

The explosion of new broadband-capable devices is impacting mobile broadband data traffic. Data traffic from smartphone users alone is expected to jump from 58.5 billion MBs to 1.952 trillion MBs in 2015.⁴⁸ Some analysts expect that mobile broadband traffic will have increased 35-fold by 2014, compared to 2009 levels, and Cisco estimates a 60 times increase over the same period.⁴⁹ The FCC recently analyzed three independent mobile data traffic studies (from Cisco, Coda and the Yankee Group) and concluded that mobile data traffic will increase from 2009 levels by a factor of five by 2011, more than 20 times by 2013 and by 35 times by 2014.⁵⁰

Broad-Based Adoption and Usage. Not only is mobile broadband growing rapidly in aggregated national numbers, but recent data show that it is also reaching far and wide throughout various segments of the population. For example, smartphone ownership is at an impressive 44% among black and Latino adults, compared to just 30% for whites.⁵¹ Through

⁴⁸ Christopher Guttman-McCabe, *Global Spectrum Conspiracy ...Really!?!*, CTIA Blog (Feb. 3, 2011), available at <http://blog.ctia.org/2011/02/03/global-spectrum-conspiracy-really/> (last accessed Sept. 1, 2011) (citing data from Informa Telecoms & Media Group).

⁴⁹ See Julius Genachowski, Chairman, FCC, Prepared Remarks at the Minority Media & Telecom Council Broadband and Soc. Justice Summit, 3 (Jan. 20, 2011).

⁵⁰ See *Mobile Broadband: The Benefits of Additional Spectrum*, OBI Technical Paper, 9 (2010), available at <http://www.broadband.gov/plan/broadband-working-reports-technical-papers.html> (last accessed Sept. 1, 2011).

⁵¹ *Pew Smartphone Report* at 9 (“For several years, Pew Internet research has found that African-Americans and Latinos are more likely than whites to use their cell phones for non-voice applications such as using the Internet . . . These differences extend to smartphone ownership as well . . .”). Another study also reported higher percentages of minorities owning smartphones. See Lucy Hood, *Minorities are accessing the Internet through cheap, prepaid wireless data plans*, *Wall Street Journal* (Aug. 29, 2011), available at <http://online.wsj.com/article/SB10001424053111903327904576526732908837822.html> (last accessed Sept. 1, 2011) (“*Hood Op-ed*”) (citing an Institute for Communication Technology Management study showing smartphone ownership at 37% for African-Americans, 46% for Latinos, and 26% for whites).

smartphones, mobile broadband is helping to bridge the “digital divide” by offering affordable Internet access to those who cannot afford computers or home broadband connections. As the Pew Research Center explains, “usage of smartphones as a primary internet access device is highest among several groups with relatively low rates of traditional internet and broadband adoption – for example, those with no college experience as well as those with relatively low income levels.”⁵²

Even the youngest Americans are reaping the advantages of mobile broadband. Smartphones and other wireless devices are increasingly being used as educational tools in the classroom. For example, after St. Mary’s City Schools in Ohio partnered with Verizon Wireless to provide elementary school students with smartphones and mobile learning software, they found that participants had higher test scores while instances of late homework decreased substantially.⁵³ Sprint Nextel partnered with a middle school in Ypsilanti, Michigan for a similar program.⁵⁴ The FCC recently recognized the growing use of mobile devices in the classroom, noting that “states and school districts are blending

⁵² *Pew Smartphone Report* at 14; see also *Hood Op-ed* (“Officials who still cling to such statistics as fixed-broadband access, and regulators who make policy around them, overlook the emerging reality The smartphone revolution enables people to take matters into their own hands and find effective ways to narrow the digital divide.”).

⁵³ *St. Mary’s City Schools: Improved Test Scores, Engaged Students, Inspired Teachers, and Saved Money for the District, GoKnow! Case Study* (2009), available at <http://verizonwirelessgoknow.pbworks.com/f/Case+Study+of+St+Marys+by+VzW.pdf> (last accessed Sept. 1, 2011).

⁵⁴ Christine Laughren, *Smartphones join classroom instruction at Lincoln Middle School, Ypsilanti Citizen* (Mar. 19, 2010), available at <http://ypsiciti.com/section/Education/Smartphones+join+classroom+instruction+at+Lincoln+Middle+School-article-1712.html> (last accessed Sept. 1, 2011).

wireless infrastructure, capable devices and innovative content to enhance educational outcomes.”⁵⁵

Mobile broadband also is geographically widespread, as the FCC reports that it is available to 93.7% of consumers in rural areas.⁵⁶ Moreover, as 4G networks come online, consumers in many rural areas will see the same high-speed mobile broadband as their urban counterparts. As Bluegrass Cellular’s vice president of sales explained, “4G is coming so much quicker [than 3G], and the demand is there because of customer usage and devices.”⁵⁷ Many rural carriers are participating in Verizon’s rural LTE licensing program, whereby the carriers build and operate their own LTE networks using Verizon’s Upper 700 MHz C Block spectrum while taking advantage of Verizon’s infrastructure and device relationships.⁵⁸ Other rural operators have joined the NetAmerica Alliance, which is a consortium of independent 700 MHz and AWS spectrum licensees that agree to build out their region using LTE. As NetAmerica CEO Roger Hutton explains, consortium members will “be part of a national brand and gain huge buying power.”⁵⁹ Finally, the wireless industry is actively working with the FCC to develop policies that will ensure mobile broadband is available on Tribal Lands, which are among the hardest-to-serve rural areas.⁶⁰ Even there, progress is being made. As mentioned

⁵⁵ *Fifteenth Wireless Competition Report* at ¶ 234.

⁵⁶ *Id.* at 22 (representing availability from at least one provider).

⁵⁷ FierceBroadbandWireless, *Despite challenges, LTE catching fire among rural U.S. carriers* (Aug. 23, 2011), available at <http://www.fiercebroadbandwireless.com/special-reports/despite-challenges-lte-catching-fire-among-rural-us-carriers> (last accessed Sept. 1, 2011).

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *See, e.g.*, Comments of CTIA–The Wireless Association®, WT Docket No. 11-40 (filed May 19, 2011).

above, Commnet Wireless earlier this year finalized a joint partnership arrangement to provide the first 4G services to residents of the Navajo Nation in Arizona, New Mexico and Utah.⁶¹

B. The U.S. Leads the World in Mobile Wireless Broadband Deployment and Adoption.

Chairman Genachowski commented earlier this year that “U.S. companies are ahead on 4G, having been leaders in the development of the technology and having already invested many billions in next-generation networks.”⁶² Recent statistics bear out the Chairman’s comments. As of June 2011, the U.S. accounted for almost 93% of LTE subscribers worldwide and 67% of WiMax subscribers worldwide, even though the U.S. accounts for less than 6% of the world’s total wireless subscribers.⁶³ Meanwhile, for Japan and the five largest European countries (France, Germany, Italy, Spain and the UK, collectively, the “EU5”), zero 4G subscribers were reported as of mid-2011.⁶⁴ Even considering more mature mobile broadband technologies, comScore reports that the U.S. trumps the EU5, with 53% of unique U.S. subscribers being 3G subscribers, compared to 50% in the EU5.⁶⁵

⁶¹ Press Release, Atlantic Tele-Network, Inc., *Navajo Tribal Utility Authority and Atlantic Tele-network Announce Partnership to Deliver Rural 4G Service* (Apr. 4, 2011), available at <http://www.businesswire.com/news/home/20110404006988/en/Navajo-Tribal-Utility-Authority-Atlantic-Tele-Network-Announce> (last accessed Sept. 1, 2011).

⁶² Julius Genachowski, Chairman, FCC, Prepared Remarks for the 2011 International Consumer Electronics Show, 4-5 (Jan. 7, 2011).

⁶³ Based on the Subscriptions & KPIs and Networks & Suppliers data from Informa Telecoms & Media Group’s WCIS Plus database (last accessed August 29, 2011).

⁶⁴ Based on comScore’s MobiLens Audience Profile for the United States and the EU5 (last accessed August 29, 2011).

⁶⁵ *Id.*

Nationwide 99.2% of Americans live in census blocks with two or more competing mobile operators, 97.2% in census blocks with three or more mobile operators, and 94.3% in blocks with four or more mobile operators. In rural areas, 96.6% of Americans live in census blocks with two or more competing mobile operators, 88.4% in census blocks with three or more mobile operators, and 77.4% in blocks with four or more mobile operators.⁶⁶ Moreover, as the FCC has noted: “Approximately 281 million people, or 98.5 percent of the U.S. population, are covered by one or more mobile providers using 3G or 4G network technologies.”⁶⁷

III. THE COMMISSION MUST EVALUATE BROADBAND THE WAY CONSUMERS USE IT.

In the *NOI*, the Commission seeks comment on how it should define “advanced telecommunications capability” for purposes of its *Eighth Broadband Progress Report*.⁶⁸ It also seeks comment on how it should interpret and measure broadband deployment and whether broadband is “available” to all Americans.⁶⁹ As the previous section demonstrates, consumers are increasingly relying on a variety of cutting-edge mobile broadband services to meet their communications needs – wherever they may be. Unfortunately, the Commission’s current singular focus on throughput speeds ignores the enormous benefits that wireless broadband services provide to consumers, potentially hindering further wireless deployment and undermining the goals of the National Broadband Plan and the Administration. To improve its

⁶⁶ *Fifteenth Wireless Competition Report* at Table 5, ¶ 380 and Table 40.

⁶⁷ *Id.* at ¶ 46 (also highlighting that the tremendous growth in the percentage of the population covered by at least two mobile providers using 3G or 4G network technologies from 73 percent in May 2008 to almost 92 percent by July 2010).

⁶⁸ *NOI* ¶ 6.

⁶⁹ *Id.* ¶¶ 8, 22.

assessment of whether broadband is being deployed to all Americans in a reasonable and timely fashion, the Commission should account for mobility when defining broadband or advanced telecommunications capability. In addition, the Commission’s approach to measuring broadband “availability” must accurately reflect how Americans use and access broadband today and recognize the comprehensive coverage of wireless services.

A. Broadband Should be Defined Across Multiple Dimensions, Including Mobility.

In the *Sixth Broadband Deployment Report*, the Commission established a definition of broadband for purposes of Section 706 based solely on throughput speeds – 4 Mbps download / 1 Mbps upload.⁷⁰ The *Seventh Broadband Deployment Report* retained this definition,⁷¹ even though the Commission has recognized that “speed is only one measure of broadband performance.”⁷² This singular focus is outmoded and ignores the enormous benefits and importance of mobility to consumers. Importantly, it fails to consider what many consumers consider to be a critical feature influencing broadband adoption – mobility.

The Commission should revise its definition of broadband to account for mobility. As highlighted in the mobile adoption statistics above, the broadband world is changing.

Consumers often demand mobility. In fact, even though new 4G build-outs in urban and rural

⁷⁰ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, Sixth Broadband Deployment Report, 25 FCC Rcd 9556 ¶ 11 (2010) (“*Sixth Broadband Deployment Report*”).

⁷¹ *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 ¶ 15 (2011) (“*Seventh Broadband Deployment Report*”).

⁷² See *Connect America Fund*, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd 4554 ¶ 105 (2011).

areas are providing speeds faster than the Commission's benchmark, by focusing only on speed, the Commission is missing key elements of consumer broadband decisions. In reality, consumers often are willing to trade some throughput speed for the freedom and unique benefits of a ubiquitous connection that still allows them to engage in broadband activities such as streaming video or audio, quickly downloading large files, browsing the Internet, and using advanced gaming and social networking applications, among other features. There are many 3G (and even 2.5G) services that are hugely beneficial to large segments of the American populations, and these services fulfill substantial communications needs. Further, simply measuring speed does not necessarily correspond to the user's broadband experience. Wireless carriers, infrastructure suppliers, device manufacturers, operating system developers and applications providers work to ensure that devices and applications are optimized to provide the best broadband experience possible. The Commission's exclusive focus on throughput speeds of 4 Mbps download / 1 Mbps upload simply ignores these efforts and is increasingly out of touch with how consumers actually use broadband.

Mobile broadband connects an individual rather than a household, and it makes broadband more relevant to the individual. Wireless broadband is not a third pipe into the home, but rather it brings broadband *to the person*, wherever they are, whenever they want access to information. Such relevance to consumers' everyday lives continues to drive the rapid growth in wireless mobile broadband adoption and usage. Millions of Americans increasingly rely on mobile services to meet their broadband needs instead of using a broadband service narrowly based on some pre-defined speed (as the Commission's approach presumes). Today, almost

one-third of U.S. households only have a wireless phone.⁷³

Mobility adds an entirely new dimension to Internet access and opens the door to a number of innovative communications possibilities and other applications. For example, mobile broadband enables users to exchange e-mails anywhere, read news and public affairs articles and download books on-the-go, confirm that displaced friends and family are safe in the aftermath of disasters, share geotagged photos and videos, engage in expanded location-enhanced social networking and blogging, obtain dynamic mapping information, and compare prices and selection while shopping. In addition, mobile broadband also offers other unique educational, health, and safety benefits for consumers. Accordingly, given the importance wireless broadband users place on mobility, the Commission should revise its definition of broadband to take this factor into account.

B. The Commission’s Approach to Measuring “Availability” Must Accurately Reflect the Comprehensive Coverage of Wireless Services.

Wireless providers are making wireless broadband services available to all Americans in innovative ways. Importantly, they are providing wireless broadband services in a number of locations that are otherwise unserved by “wired” broadband providers. The Commission therefore should ensure that its analysis of where broadband is “available” focuses on *deployment* and incorporates the entire geographic area served by wireless broadband providers.

As discussed above, mobility is a critical feature of many wireless services, and the ability to remain connected while traveling *outside the home* was and continues to be a

⁷³ See, e.g., CDC Study: Wireless Substitution: Early Release of Estimates From The National Health Interview Survey, July-December 2010, *available at* <http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201106.htm> (last accessed Sept. 6, 2011).

significant driver of mobile broadband service deployment and adoption. Today, mobile broadband services are available in many areas where no individuals may live, such as along highways, airports, and public transit routes; in parks and other recreational areas; along waterways; and in business districts and entertainment complexes. Coverage in such areas is vital, but a wireline-oriented or adoption-based approach to Section 706 would mistakenly conclude that broadband is not available in those locations because they have “zero population” and therefore effectively a zero adoption rate. Because adoption numbers can be misleading, the Commission should primarily focus its efforts instead on broadband deployment.

Wi-Fi connections also are expanding further the coverage area of wireless broadband services, and the Commission should include Wi-Fi deployments when evaluating broadband availability. Specifically, the increasing availability of Wi-Fi connections – and mobile devices that include Wi-Fi connectivity – illustrate the way Americans are utilizing and accessing broadband services. Today, consumers can use their mobile devices to access Wi-Fi connections in many locations outside the home, including coffee shops, libraries, airports, hotels, fast food restaurants, schools and college campuses, even at gymnastics classes and other afterschool activities. And Wi-Fi connectivity may continue to grow in importance as wireless service providers seek ways to encourage subscribers to utilize both CMRS networks and Wi-Fi networks where available to accommodate the explosive growth in wireless data usage.

C. Ignoring Mobility Could Hinder the Deployment and Adoption of the Most Economical Technology for Reaching the Unserved.

The Commission should not revise its universal service fund policies with a focus solely on speed. As the Commission has recognized, in many rural and high-cost areas, wireless broadband is often the most cost-effective and technologically feasible way to deploy

broadband.⁷⁴ Moreover, the benefits of mobility are perhaps most pronounced in rural areas, where distance creates unique challenges for family life, economic development, safety, and public health.

Mobile wireless broadband also is well-suited to address cost-based adoption challenges. As discussed above, cell phone, smartphone, and mobile wireless broadband use is growing rapidly among lower-income households. Low-income individuals are disproportionately early adopters and heavy users of wireless services,⁷⁵ and the incremental cost of adding wireless broadband service to already existing voice services may be less expensive than adding fixed broadband service. Wireless providers also traditionally have offered heavily subsidized devices, further reducing costs, and some mobile wireless broadband providers also offer prepaid and pay-as-you-go plans to attract cost-conscious consumers.⁷⁶ In addition, netbooks and tablets can also be a cost-effective means to access the Internet.

Smartphones in particular provide enormous value to consumers, as demonstrated by the skyrocketing demand discussed above. Today's smartphones include a host of applications in one device that previously were separated into dozens of separate – and ultimately costly –

⁷⁴ See *The Broadband Availability Gap*, OBI Technical Paper No. 1, 13, 61, Exh. 1-J (2010); see also Acting Chairman Michael J. Copps, *Bringing Broadband to Rural America: Report on a Rural Broadband Strategy* ¶ 142 (May 22, 2009).

⁷⁵ See, e.g., *Pew Smartphone Report* at 14.

⁷⁶ See, e.g., Sprint Nextel, Sprint Community: Announcements: *Get Sprint 3G/4G access for a day, week or month with no long-term contract on HTC EVO View* (Aug. 22, 2011), available at <http://community.sprint.com/baw/community/sprintblogs/announcements/blog/2011/08/22/get-sprint-3g4g-access-for-a-day-week-or-month-with-no-long-term-contract-on-htc-evo-view> (last accessed Sept. 1, 2011); AT&T, Prepaid DataConnect Pass Plans, available at <http://www.wireless.att.com/cell-phone-service/specials/netbooks.jsp> (last accessed Sept. 1, 2011) (describing data plans available without a long-term contract).

consumer electronics devices and other products,⁷⁷ including:

Telephones	Address Books	Video Cameras	MP3 Players
Watches	Language Translators	Notepads	Alarm Clocks
Digital Cameras	Audio Recording and Dictation Devices	Remote Controls	Word Processors
Calendars	Handheld Video Games	Personal Digital Assistants	Personal Computers
E-mail Readers	Maps and Atlases	Photo Albums	Flashlight
Calculators	Personal Video/DVD Players	GPS Devices and Compasses	E-Readers

In addition to making these devices and products increasingly obsolete, smartphones and other mobile devices are continuing to increase the value and relevance of broadband to consumers, especially to those consumers with limited financial means.

The Commission must ensure that it does not inadvertently hinder the deployment and adoption of mobile broadband by serially undercounting existing mobile broadband services in this proceeding. For example, the Commission has proposed comprehensive reforms to its outdated universal service and intercarrier compensation regimes as part of its efforts to ensure the reasonable and timely deployment of broadband to all Americans.⁷⁸ The proposed reforms include, *inter alia*, the creation of a Mobility Fund and a Connect America Fund to accelerate

⁷⁷ See, e.g., New York Times, *Spoiled by the All-in-One Gadget* (Mar. 26, 2011), available at <http://www.nytimes.com/2011/03/27/weekinreview/27grobart.html> (last accessed Sept. 1, 2011); Yahoo! Finance, “The Ten Businesses the Smartphone Has Destroyed” (Nov. 12, 2010), available at <http://finance.yahoo.com/family-home/article/111299/the-ten-businesses-the-smartphone-has-destroyed> (last accessed Sept. 1, 2011).

⁷⁸ See NOI ¶ 4.

broadband deployment in areas where such deployment would otherwise be uneconomic.⁷⁹ To the extent the Commission relies at all on its Section 706 reports to guide eligibility for Universal Service funding, an outmoded focus on throughput speed could undermine the Commission’s own goals for broadband deployment and adoption by limiting wireless providers’ ability to be part of the broadband solution. It also could threaten the Commission’s long-standing universal service principle of technological neutrality. For the Section 706 report to be a useful tool that can help measure the success of any revised Universal Service programs, it must reflect the availability and use of mobile broadband in all parts of the country.

D. An Unnecessarily Narrow Definition of Broadband Undermines the National Broadband Plan Goal of U.S. Global Leadership in Mobile Wireless Broadband.

A limited, speed-based definition of broadband that fails to recognize the value of mobility, the practical reality of how consumers use broadband services, and the expansive geographic coverage of wireless services undermines the purpose of Section 706 to ensure the reasonable and timely deployment of broadband. An overly narrow definition also risks leaving mobile wireless broadband out of major broadband policy efforts, including universal service reform. In addition, it threatens the Commission’s and the Administration’s national policy goals for wireless services.⁸⁰ Earlier this year, President Obama announced a “National Wireless Initiative” to provide 98 percent of Americans with access to wireless broadband Internet services and “enable businesses to grow faster, students to learn more, and public safety officials

⁷⁹ See, e.g., *Connect America Fund*, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd 4554 (2011); *Universal Service Reform: Mobility Fund*, Notice of Proposed Rulemaking, 25 FCC Rcd 14716 (2010).

⁸⁰ See, e.g., *Connecting America: The National Broadband Plan* (Mar. 16, 2010) (“NBP”).

to access state-of-the-art, secure, nationwide, and interoperable mobile communications.”⁸¹ In addition, the overarching goals for the National Broadband Plan include, for example, having the United States lead the world in mobile innovation and ensuring that every American has affordable access to robust broadband service.⁸² The Commission therefore must broaden the definition of broadband for Section 706 purposes to include mobile broadband services that Americans increasingly demand.

IV. BROADBAND AVAILABILITY IS REASONABLE AND TIMELY, BUT THE COMMISSION CAN NONETHELESS TAKE CERTAIN ACTIONS THAT WILL REDUCE BARRIERS TO FURTHER DEPLOYMENT.

As demonstrated above, CTIA firmly believes that the deployment of advanced services, including mobile wireless broadband, surpasses – by a long margin – the Commission’s “reasonable and timely” benchmark.⁸³ Nonetheless, there are additional actions that the Commission can take to accelerate the deployment, availability, and adoption of mobile broadband.

A. The Commission Should Continue Its Focus on Making More Spectrum Available for Wireless Broadband.

It is beyond question that there exists an urgent need for additional spectrum for mobile broadband services. Indeed, as recent Commission proceedings have demonstrated and as Chairman Genachowski has observed, “the benefits [of broadband] are more compelling by the

⁸¹ See Fact Sheet, The State of the Union: President Obama’s Plan to Win the Future (Jan. 25, 2011), available at <http://www.whitehouse.gov/the-press-office/2011/01/25/fact-sheet-state-union-president-obamas-plan-win-future> (last accessed Sept. 1, 2011).

⁸² NBP at 9-10, Goals 2 and 3.

⁸³ See *NOI* ¶ 20-21.

day” and as such “unleashing more spectrum must be a national priority.”⁸⁴ CTIA applauds the Commission, the National Telecommunications and Information Administration (“NTIA”), and the Administration for making the identification and allocation of wireless broadband spectrum a key policy objective, and it encourages the Commission to work with stakeholders to rapidly free up the spectrum necessary to achieve its goal.

The Commission should move forward on spectrum already allocated for auction (or auctioned but not yet cleared) as expeditiously as possible. In addition, it should continue working with NTIA to reallocate federal spectrum for commercial mobile broadband use. In particular, it should prioritize the reallocation of the 1755-1780 MHz band for mobile broadband use and the pairing of that band with the 2155-2180 MHz band.⁸⁵ Finally, the Commission should continue to explore other possibilities for additional spectrum for wireless broadband.

B. The Commission Should Act on Its Commitments to Streamline Regulation Affecting Infrastructure Build-out.

CTIA applauds the Commission’s efforts to streamline the rights-of-way and wireless facilities siting process as part of a broad-based effort to expedite a nationwide roll-out of broadband facilities and infrastructure. For example, the Commission bolstered these efforts by adopting its *Shot Clock Declaratory Ruling*,⁸⁶ which provided a clear standard establishing when

⁸⁴ Julius Genachowski, Chairman, FCC, Prepared Remarks at CTIA Wireless 2011, 1 (Mar. 22, 2011).

⁸⁵ See, e.g., Reply Comments of CTIA–The Wireless Association®, ET Docket No. 10-142, WT Docket Nos. 04-356, 07-195, 5-7 (filed July 22, 2011); Comments of CTIA–The Wireless Association®, ET Docket No. 10-142, WT Docket Nos. 04-356, 07-195, 8-10 (filed July 8, 2011).

⁸⁶ *Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review and to Preempt under Section 253 State and Local Ordinances that Classify All Wireless Siting Proposals as Requiring a Variance*, Declaratory Ruling, 24 FCC Rcd 13994 (continued on next page)

an applicant can appeal a failure to act by a state or local zoning authority. And just this spring, the Commission completed a major reformation of its pole attachment regulations, which implemented two key goals of guaranteeing wireless carrier access to utility poles and expediting the pole attachment process.⁸⁷

Although these significant efforts by the Commission have improved the process for deploying wireless broadband infrastructure, wireless broadband deployment would benefit from additional FCC action. In particular, the Commission should adopt a Section 253 “shot clock” for local rights-of-way proceedings, as it did for zoning under Section 332, and examine the reasonableness of unique communications-specific burdens imposed by state and local authorities.⁸⁸ Further, the Commission should take steps to work more closely with local zoning authorities, such as: (1) urging localities to either employ a shortened shot clock for collocations or permit collocation by right; (2) sponsoring a municipal “race-to-the-top” program; and (3) initiating a dialog with state and local authorities to educate and further their understanding of technical matters and the FCC’s role in addressing them.⁸⁹ Finally, the Commission should clarify and speed its own NEPA and Section 106 processes and work with the Administration

(2009) (“*Shot Clock Declaratory Ruling*”), *recon. denied*, 25 FCC Rcd 11157 (2010), *pet. for rev. pending sub nom. City of Arlington v. FCC*, No. 10-60039 (5th Cir. filed Jan. 21, 2011).

⁸⁷ *Implementation of Section 224 of the Act*, Report and Order and Order on Reconsideration, 26 FCC Rcd 5240 (2011), *pets. for recon. pending, pets. for review pending sub nom. Electric Power Service Corp. v. FCC*, Case No. 11-1146 (D.C. Cir. filed May 18, 2011).

⁸⁸ *Id.* at 37-40.

⁸⁹ *See, e.g.*, Comments of CTIA–The Wireless Association®, WC Docket No. 11-59 (filed July 18, 2011).

and Congress to establish a clearly expressed right of access to federal lands, buildings, and rights-of-way.⁹⁰

C. The FCC Should Reform the Universal Service and Intercarrier Compensation Mechanisms to Reflect Consumer Demand for, and the Benefits of, Mobile Wireless Broadband.

CTIA urges the Commission to reform the legacy intercarrier compensation and universal service mechanisms to recognize the value of mobile services to consumers, make more efficient use of scarce government subsidy resources, eliminate marketplace-distorting regulatory arbitrage, and promote investment into innovative technologies by commercial providers.⁹¹ For example, it is critical for the Commission to develop a robust, ongoing Mobility Fund that will help facilitate the wireless broadband goals of the President, Congress, and the Commission.⁹² Consumers are rapidly migrating to mobile broadband, and a sufficient Mobility Fund will ensure that consumers in high-cost areas have access that is reasonably comparable to that enjoyed by consumers in urban areas.

CTIA also urges the Commission to reform the outdated intercarrier compensation system to provide for lower, more uniform intercarrier compensation rates.⁹³ Reform should facilitate the transition to broadband and IP networks by removing financial disincentives to deploying more efficient, feature-rich networks. Reform can also eliminate competitive

⁹⁰ *Id.* at 34-37, 41-42, 44-45.

⁹¹ *See, e.g.*, Reply Comments of CTIA–The Wireless Association®, WC Docket No. 10-90 *et al.* (filed May 23, 2011); Comments of CTIA–The Wireless Association®, WC Docket No. 10-90 *et al.* (filed Apr. 18, 2011) (“*CTIA Connect America Fund NPRM Comments*”).

⁹² *See, e.g.*, *CTIA Connect America Fund NPRM Comments* at 9-12.

⁹³ *See, e.g., id.* at 34-39.

disparities plaguing the current system, promote efficiency, and reduce opportunities for arbitrage.

V. CONCLUSION

For the above reasons, the Commission should eschew its outmoded focus on throughput speeds when considering broadband availability. Instead, it should account for mobility and ensure that its approach accurately reflects how Americans use and access broadband today, including by recognizing the comprehensive coverage of wireless services.

Respectfully submitted,

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