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

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

To: The Commission

**COMMENTS OF CTIA – THE WIRELESS ASSOCIATION®**

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## TABLE OF CONTENTS

SUMMARY .....	ii
I. INTRODUCTION .....	2
II. THE COMMISSION SHOULD DEFINE BROADBAND IN A REALISTIC AND FLEXIBLE WAY AS IT IS NOT A BINARY QUESTION.....	3
III. MOBILE WIRELESS BROADBAND DEPLOYMENT IS ROBUST, FAR EXCEEDING THE “REASONABLE AND TIMELY” STANDARD .....	7
IV. BROADBAND “AVAILABILITY” SHOULD REMAIN FOCUSED ON DEPLOYMENT .....	17
V. COMMISSION ACTION TO LOWER BARRIERS TO WIRELESS BROADBAND INFRASTRUCTURE CAN SPEED DEPLOYMENT .....	18
A. Timely Deployment of Wireless Tower Facilities is Critical to Ensuring Consumers’ Access to Wireless Broadband Services.....	19
B. The Commission Should Include Access to Additional Spectrum in its National Broadband Plan and Immediately Begin by Pairing and Bringing to Auction Spectrum in the 1.7 GHz and 2.1 GHz Bands. ....	20
C. The Commission Should Facilitate More Efficient Clearing of Spectrum Already Allocated and Auctioned for CMRS.....	21
D. Access to Existing Electric Utility Poles For Wireless Attachments Benefits Wireless Broadband Deployment in Unique Coverage Situations or Where New Tower Construction is Infeasible .....	22
E. The Commission Should Move Quickly to Modernize the Universal Service and Intercarrier Compensation Systems to Reflect the Mobile Broadband Reality .....	23
VI. THE COMMISSION SHOULD UNIFY AND CONSOLIDATE BROADBAND DATA COLLECTION EFFORTS .....	27
CONCLUSION.....	29

## SUMMARY

The deployment of mobile wireless broadband services to all Americans has been and continues to be robust – well in excess of Section 706’s “reasonable and timely” standard. Indeed, mobile wireless broadband subscribership is growing exponentially faster than any other category of broadband service. This popularity is not surprising – mobile wireless providers do not just deliver broadband to the premises, they deliver broadband to the *person*.

In assessing the deployment of mobile wireless broadband, the Commission must define “broadband” or “advanced communications capability” in a way that accounts for the unique value and characteristics of wireless networks. In the context of wireless networks, the definition should be based on currently deployed wireless data technologies rather than any arbitrary set of applications. Specifically, for purposes of wireless networks, the Commission should define broadband to include *all* of the wireless data technologies that are currently widely deployed and in use by consumers. This includes GPRS, EDGE, EV-DO, WCDMA/HSDPA, LTE, and WiMAX. Consumer demand for these technologies demonstrates their performance in the broadband marketplace to deliver the applications that consumers need and want. Thus, defining broadband in terms of the technologies used to provide it makes the most sense in the wireless context. At the same time, the definition should evolve over time to reflect both the availability of new wireless broadband technologies, as they become available, as well as the eventual obsolescence of older technologies over time.

In addition, CTIA believes that broadband “availability” should remain focused on deployment. While adoption indicates availability, a lack of adoption may not indicate a lack of availability. Consumers benefit enormously from wireless broadband networks in areas where there are no permanent residents, such as on highways and in recreation areas. The difference between availability and adoption, however, could evidence a need for low-income support for broadband. CTIA supports targeted changes to the Commission’s low-income universal service programs – as part of comprehensive reform – to address those circumstances where adoption lags behind deployment.

While mobile wireless broadband deployment has generally been reasonable and timely, there remain important regulatory steps that the Commission can take to accelerate deployment and improve competition. These include imposing a “shot clock” on tower siting applications; allocating additional spectrum for wireless broadband services; facilitating more efficient clearing of spectrum already allocated and auctioned for wireless services; ensuring wireless carriers’ access to utility poles, including pole tops; and reforming and modernizing the universal service and intercarrier compensation systems to recognize the importance of wireless technologies to consumers.

In this proceeding, the Commission also should unify and streamline broadband data collection efforts. This proceeding is the perfect opportunity for the Commission to craft a more unified, less burdensome approach, which also should address and resolve in a single forum the questions about provider data confidentiality that are common to all of these efforts. Part of this unified approach to broadband data collection would involve a single definitional structure for terms like “broadband” and “advanced telecommunications capability.”

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To: The Commission

**COMMENTS OF CTIA–THE WIRELESS ASSOCIATION®**

CTIA–The Wireless Association® (“CTIA”)<sup>1</sup> submits the following comments in response to the Commission’s above-captioned Notice of Inquiry into whether broadband is being deployed to all Americans in a reasonable and timely fashion.<sup>2</sup> As discussed in more detail below, the Commission should conclude that mobile wireless broadband is being deployed in a reasonable and timely fashion, but it should also take specific actions to lower barriers to further deployment. In the process, it should define broadband (or advanced telecommunications

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<sup>1</sup> CTIA–The Wireless Association® is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization covers Commercial Mobile Radio Service (“CMRS”) providers and manufacturers, including cellular, Advanced Wireless Service, broadband PCS, ESMR and 700 MHz licensees, as well as providers and manufacturers of wireless data services and products.

<sup>2</sup> *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act; A National Broadband Plan for Our Future*; GN Docket Nos. 09-137 and 09-51, Notice of Inquiry, FCC 09-65 (rel. Aug. 7, 2009) (the “NOI”).

capability) in a pragmatic and flexible way that recognizes the rapidly increasing value that consumers place on mobile wireless broadband.

## I. INTRODUCTION

The story of mobile wireless broadband deployment is still in its early chapters, but it is already a story filled with enormous successes. Combining the resources of the Internet with the utility and convenience of mobility has transformed the “five-pound brick” mobile phone of the 1990s into the device that today serves as our phone, broadband access, camera, video camera, calendar, music player, game console, health monitor and more. This revolution has created enormous value for consumers, as the stunning popularity of wireless demonstrates. And this revolution extends to all sectors of the economy. Whether through the increased productivity that mobility brings to employers and employees, or the intersection of wireless with the energy sector (through smart grids), the transportation sector (through traffic management and fleet control), the health care sector (through telemedicine and mHealth), the homeland security sector (through mobile detection systems), or the farming sector (through crop and irrigation management), the mobile revolution is transforming twenty-first century life.

The enormous potential of these new opportunities is inspiring breathtaking consumer demand. The Commission’s own data demonstrates that wireless broadband additions from June 2007 to June 2008 outpaced, by nearly *four to one*, the broadband additions for cable companies and wireline telephone companies *combined*.<sup>3</sup> A virtuous cycle has already begun in which this demand is driving deployment – wireless carriers are investing tens of billions of dollars annually to deploy ever-faster mobile broadband networks to ever-larger geographic areas.

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<sup>3</sup> See *infra* Section III.

There is no question that the story of mobile wireless broadband is a central (and positive) element in the overall story of broadband deployment. It is against this backdrop that the Commission undertakes its current Section 706 inquiry.

## **II. THE COMMISSION SHOULD DEFINE BROADBAND IN A REALISTIC AND FLEXIBLE WAY AS IT IS NOT A BINARY QUESTION**

As CTIA recently detailed in its comments in response to NBP Public Notice #1,<sup>4</sup> the definition of broadband<sup>5</sup> should account for the unique challenges and benefits of mobile wireless broadband services, and appropriately account for all the ways that consumers value and use broadband.

The Commission must recognize that broadband must be defined in a realistic and flexible way. Broadband comes in many speeds, technologies, and implementations suited to meet different consumer needs. Certain applications require very high bandwidth and throughput, and these (at least today) will probably perform best on fixed connections. But other applications can only be provided in the mobile context. And consumers' desire to use these mobile applications is clear – as demonstrated by their decision to add *four times* as many new mobile wireless broadband connections as fixed cable or wireline broadband connections during recent reporting periods.<sup>6</sup> Wireless is not a third pipe into the *home*, but rather a connection to the *person*, wherever he or she is, whenever he or she wants access to information.

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<sup>4</sup> *Comment Sought on Defining “Broadband” – NBP Public Notice #1*, GN Docket Nos. 09-47, 09-51, 09-137, Public Notice, DA 09-1842 (rel. Aug. 20, 2009) (“NBP Public Notice #1”). Comments of CTIA, GN Docket Nos. 09-47, 09-51, 09-137 (filed Aug 31, 2009) (“CTIA NBP Public Notice #1 Comments”).

<sup>5</sup> See *infra* Section VI. (arguing for unification of the definitions of “broadband,” “advanced communications capability,” and similar terms).

<sup>6</sup> See *infra* notes 18-21 and associated text.

It would therefore be a mistake to treat the definition of broadband as a simple, binary question.<sup>7</sup> It would be just as incorrect to exclude mobile wireless broadband from the definition because it cannot currently provide the highest speeds as it would be to categorically exclude fixed broadband from the definition because it can never provide the crucial consumer benefits of mobility. Neither decision would “fit the goal of tailoring broadband definitions to the utility of the service.”<sup>8</sup> And either decision would “place a thumb on the scale of competition” in favor of one type of utility over another.<sup>9</sup>

Thus, broadband must be defined along all of the axes of functionality, with consumers making the ultimate adoption decisions. As discussed in detail in CTIA’s comments in response to NBP Public Notice #1, the Commission should define broadband for purposes of wireless networks as *all* of the wireless data technologies that are currently widely deployed and in use by consumers. This includes GPRS, EDGE, EV-DO, WCDMA/HSDPA, LTE, and WiMAX. This is consistent with the acknowledgement by NTIA and RUS for purposes of American Recovery and Reinvestment Act of 2009 (“Recovery Act”) funding that the definition of broadband should “encompass[] all major ... wireless technologies.”<sup>10</sup> This approach to defining wireless broadband is analogous to the Commission’s mandate to define universal service as an “evolving level” of services that “have, through the operation of market choices by customers, been

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<sup>7</sup> *Cf.* Comments of Free Press on NBP Public Notice #1, GN Docket Nos. 09-47, 09-51, and 09-137 (filed Aug. 31, 2009) at 8 (“[I]f a service is capable of facilitating the origination and receipt of high-quality video content, then the Section 706 test is met. This binary question is answered without regard to whether or not the service also offers this capability while an end-user is in motion”).

<sup>8</sup> *Id.*

<sup>9</sup> *Id.* at 9.

<sup>10</sup> Rural Utilities Service (RUS), Department of Agriculture, and National Telecommunications and Information Administration (NTIA), Department of Commerce, Notice of Funds Availability (NOFA) and Solicitation of Applications, 74 Fed. Reg. 33104, 33130 (July 9, 2009).

subscribed to by a substantial majority of residential customers,” and “are being deployed in public telecommunications networks by telecommunications carriers.”<sup>11</sup> In the same way, wireless broadband should be defined in terms of the actual services that real-world consumers value. This is best done with reference to the specific, actual technologies available in the highly competitive wireless marketplace.

The current FCC Form 477 reporting framework uses a tiered approach that accounts for advances in broadband technology while acknowledging the continuing value of earlier generation data services. Specifically, carriers report broadband subscribers in categories that include “first generation data,” “basic broadband tier 1,” and various subsequent tiers.<sup>12</sup> The Commission’s definition of wireless broadband should work in a similar way, identifying more advanced categories of mobile broadband, such as LTE and WiMAX, but also recognizing earlier-generation technologies such as GPRS.

While the definition of course should include the most advanced wireless technologies, it should not dismiss the consumer benefits that are derived from “first generation data” as the Commission has defined it in the FCC Form 477 context. Wireless broadband users’ needs run the gamut of uses, from routine email delivery to bandwidth intensive streaming video.<sup>13</sup> If the

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<sup>11</sup> 47 U.S.C. § 254(c)(1).

<sup>12</sup> *Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscriberhip Data, and Development of Data on Interconnected VoIP Subscriberhip*, WC Docket No. 07-38, Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 9691, 9701 n.66 (2008).

<sup>13</sup> The “Pareto Principle” applies to wireless broadband, just as it does to the overwhelming number of consumers who prefer the MP3 format over CDs with higher fidelity. See, *The Good Enough Revolution: When Cheap and Simple Is Just Fine*, Wired Magazine (Aug. 24, 2009), [http://www.wired.com/gadgets/miscellaneous/magazine/17-09/ff\\_goodenough?currentPage=1](http://www.wired.com/gadgets/miscellaneous/magazine/17-09/ff_goodenough?currentPage=1) (last visited August 31, 2009).

definition of wireless broadband is keyed to commercially deployed wireless technologies, neither of these customers' broadband usage will be excluded arbitrarily from the metric.

At the same time, the definition should evolve over time to reflect both the availability of new wireless broadband technologies, as they are deployed, as well as the eventual obsolescence of older technologies over time. By tracking the evolution of the wireless network and devices that utilize the network through a tiered reporting mechanism that reflects the evolving wireless technologies employed,<sup>14</sup> the Commission can ensure that wireless broadband consumers are enjoying wireless broadband innovation in a timely manner.

A distinct definition of “broadband” for the mobile wireless context also is consistent with the language in Section 706(c)(1) that advanced telecommunications capability is defined “without regard to any transmission media or technology” and includes the provision of services “using any technology.”<sup>15</sup> As discussed above, mobile broadband offers unique value to consumers and businesses that fixed broadband services cannot.<sup>16</sup> These services should not be excluded by a restrictive, one-size-fits-all definition. Because of the inclusive intent of this language, it certainly interposes no impediment to the Commission’s adopting multiple definitions in order to appropriately recognize technological differences.

In sum, the Commission should adopt a distinct definition for mobile wireless broadband, and that definition should reference existing mobile wireless data technologies. In the event the Commission chooses not to adopt a definitional structure consistent with this recommendation, the Commission should retain the definitional structure recently adopted in the FCC Form 477

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<sup>14</sup> See *infra* Section VI (recommending a unified broadband reporting mechanism).

<sup>15</sup> See NOI at ¶ 38, quoting 47 U.S.C. § 1302(d)(1).

<sup>16</sup> See *supra* Section I. and *infra* Section III.

context, and allow that effort to bear fruit before undertaking a new definitional effort. As noted above, this structure provides for a graduated system that recognizes both the newest and most advanced types of broadband access while continuing to acknowledge the value consumers place on “first generation” high-speed services.

### **III. MOBILE WIRELESS BROADBAND DEPLOYMENT IS ROBUST, FAR EXCEEDING THE “REASONABLE AND TIMELY” STANDARD**

The rapid expansion in the deployment of mobile wireless broadband is an enormous success story. Mobility is clearly consumers’ preference where it is available. In a National Consumer Study conducted last year, MyWireless.Org® found that, if forced to choose, a majority of consumers would keep their wireless phone service instead of their landline phone service.<sup>17</sup> As this section details, consumers are demonstrating a similarly strong interest in mobile broadband.

Indeed, mobile broadband additions are driving the growth of high-speed lines overall, and mobile broadband usage rates are accelerating at breakneck speed. According to the FCC’s most recent High-Speed Internet Access Services Report, the number of Americans with access to high-speed mobile broadband more than nearly doubled from June 2007 to June 2008, and the number of mobile broadband users with “advanced services lines” more than doubled in that same time period.<sup>18</sup> The report further demonstrates that wireless broadband additions from June

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<sup>17</sup> MyWireless.org® National Consumer Survey (conducted March 17-19, 2008).

<sup>18</sup> Industry Analysis and Technology Division, Federal Communications Commission, *High-Speed Services for Internet Access: Status as of June 30, 2008* tbls. 1 & 2 (July 2009), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-292191A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-292191A1.pdf).

2007 to June 2008 outpaced, by nearly four to one, the additions for cable companies and wireline telephone companies combined.<sup>19</sup>

Moreover, mobile broadband usage is skyrocketing. As Nielsen Mobile reported, “[i]n the U.S., Mobile Internet has become a mass medium.”<sup>20</sup> One study recently estimated that data traffic will grow at a rate about one hundred times greater than voice traffic over the next ten years.<sup>21</sup> In light of this significant and pervasive evidence of the value that consumers place on mobile broadband, the Commission must conclude that mobile wireless broadband is being deployed to all Americans in a reasonable and timely fashion.

To accommodate this growing area of wireless use, wireless providers are actively upgrading their existing networks and building out spectrum acquired at recent major auctions, including the 700 MHz and AWS-1 auctions.<sup>22</sup> Licensees are eager to deploy the next

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<sup>19</sup> *Id.*

<sup>20</sup> Nielsen Mobile, “Critical Mass: The Worldwide State of the Mobile Web,” at 3 (July 2008).

<sup>21</sup> Peter Rysavy, “Mobile Broadband Spectrum Demand,” at 11 (Dec. 2008).

<sup>22</sup> *See, e.g.*, “AT&T Plans Major Expansion of 3G Wireless Broadband Service in 2008,” Press Release, Feb. 6, 2008, available at <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=25146> (noting AT&T’s move to HSPA+ and LTE for 4G broadband services); *see also* “T-Mobile USA Begins Commercial 3G Rollout,” Press Release, May 5, 2008, available at [http://www.t-mobile.com/company/PressReleases\\_Article.aspx?assetName=Prs\\_Prs\\_20080505&title=T-Mobile%20USA%20Begins%20Commercial%203G%20Network%20Rollout](http://www.t-mobile.com/company/PressReleases_Article.aspx?assetName=Prs_Prs_20080505&title=T-Mobile%20USA%20Begins%20Commercial%203G%20Network%20Rollout) (announcing T-Mobile’s launch of 3G service in New York City and plans to rollout nationwide); *see also* “T-Mobile USA Further Expands Commercial 3G Network Availability in 2008; Washington, D.C., and Surrounding Areas to Launch in November; More than 120 Major Cities with T-Mobile 3G Coverage by End of Year,” Press Release, Oct 17, 2008, available at [http://www.t-mobile.com/company/PressReleases\\_Article.aspx?assetName=Prs\\_Prs\\_20081017&title=T-Mobile%20USA%20Further%20Expands%20Commercial%203G%20Network%20Availability%20in%202008](http://www.t-mobile.com/company/PressReleases_Article.aspx?assetName=Prs_Prs_20081017&title=T-Mobile%20USA%20Further%20Expands%20Commercial%203G%20Network%20Availability%20in%202008); *see also* Leap Wireless 2Q08 Earnings Conference Call, Aug. 5, 2008 at [http://library.corporate-ir.net/library/95/955/95536/items/303211/LEAP2Q0%20EarningsPresentation\\_FINAL\\_080508.pdf](http://library.corporate-ir.net/library/95/955/95536/items/303211/LEAP2Q0%20EarningsPresentation_FINAL_080508.pdf) (presentation notes markets with ~8 million “Advanced Wireless Service” Pops have been launched as of 2Q 2008); *and see* “U.S. Cellular Launches Mobile Broadband,” Press Release, (continued on next page)

generation of broadband-capable technologies that can support the latest applications and swiftly transmit large music, image and video files.

As Nex-Tech Wireless, a provider of wireless solutions in 33 counties in central and western Kansas (as well as in eastern Colorado) declared last year: “The Alcatel-Lucent Rev. A platform has enabled Nex-Tech Wireless to provide customers with faster uploads and downloads when connecting to the Internet, as well as enable the introduction of mobile high-speed data services including mobile video telephony, high-quality music and other multimedia applications.”<sup>23</sup> As Nex-Tech CEO and General Manager Johnie Johnson observed: “The demand for wireless broadband services continues to grow as users become more techno savvy and mobile. . . . The product has been a huge success in allowing us to differentiate ourselves in a fiercely competitive marketplace.”<sup>24</sup>

Carriers across the country are deploying mobile data services and broadband technologies outside of major metropolitan areas, including rural markets, to bring new technologies and faster speeds to consumers.<sup>25</sup> Companies like Alaska Communications

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Oct. 28, 2008, *available at*

[http://www.uscc.com/uscellular/SilverStream/Pages/x\\_page.html?p=a\\_press081028](http://www.uscc.com/uscellular/SilverStream/Pages/x_page.html?p=a_press081028) (EVDO service “launched in Chicago, Rockford, Ill., northwestern Indiana, Tulsa, Okla., Des Moines, Iowa and southern Wisconsin” with more markets to follow in 2009).

<sup>23</sup> “Nex-Tech Wireless Broadband Services Continue to Exceed Customer Expectations,” Press Release, Sept. 2008 (noting impact of deploying EVDO in central and western Kansas and eastern Colorado), *available at* <http://www.nex-techwireless.com/news.aspx> (last accessed June 1, 2009).

<sup>24</sup> *Id.*

<sup>25</sup> *See e.g.*, “Stelera Wireless Launches Inaugural Wireless Network,” Press Release, rel. Feb. 8, 2008, *at* <http://www.stelera.com/Portals/0/docs/2.08.08%20Stelera%20Wireless%20Launches%20Inaugural%20Wireless%20Network,%20Providing%20High%20Speed%20Internet%20in%20Rural%20America.pdf> (announcing rural wireless broadband service on AWS-1 spectrum).

Systems,<sup>26</sup> Bluegrass Cellular,<sup>27</sup> Cellular South,<sup>28</sup> General Communication Inc. (through its Alaska DigiTel and Alaska Wireless brands),<sup>29</sup> Nex-Tech Wireless,<sup>30</sup> nTelos,<sup>31</sup> and Stelera

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<sup>26</sup> See “ACS Launches Rev A Technology: Provides Fastest Mobile Data Speeds Available in the Nation,” Press release, July 31, 2008, *available at* <http://www.acsalaska.com/assets/releases/2008-07-31.pdf> (“Rev A is the latest evolution in Mobile Internet. It will enable ACS wireless customers to move data--everything from pictures and spreadsheets to movies and music--at the fastest mobile speeds available in the United States. Rev A is the next step in ACS’ commitment to provide customers with the fastest relative speeds and most reliable wireless broadband service they have come to expect,” said Connie Dorman, ACS Director of Marketing.”).

<sup>27</sup> See e.g., “Bluegrass Cellular Announces New 3G Coverage In Cumberland County,” Press Release, Apr. 22 2009, *available at* [http://www.bluegrasscellular.com/about/news/bluegrass\\_cellular\\_announces\\_enhanced\\_voice\\_and\\_3g\\_coverage\\_in\\_grayson\\_coun](http://www.bluegrasscellular.com/about/news/bluegrass_cellular_announces_enhanced_voice_and_3g_coverage_in_grayson_coun) (“Bluegrass Cellular recently added 3G high speed data service coverage to Burkesville, KY in Cumberland County. The new site will improve 3G data service in the Burkesville area. The site adds high speed wireless data access to the existing 3G, EV-DO high speed data network that Bluegrass Cellular has in place across its 38 county coverage area.” and “3G high speed data access allows faster transmissions of pictures, web browsing, email access and other types of data using handheld devices and wireless air cards.”); *see also* Multiple releases announcing the deployment of 3G high-speed facilities across Bluegrass Cellular’s coverage area, *available at* <http://www.bluegrasscellular.com/about/news> (last accessed June 2, 2009).

<sup>28</sup> See “Cellular South to Expand Availability of Advanced 3G Mobile Broadband Services Throughout Much of Mississippi; Next Generation Wireless Gives Customers Faster Internet Connections, New High-Speed Data Services and Multimedia Applications,” Cellular South Press Release, March 10, 2009, *available at* <https://www.cellularsouth.com/news/2009/20090310.html> (noting plan to introduce 3G service in 78 cities in the second and third quarters of 2009).

<sup>29</sup> See “GCI Achieves Wireless Milestone with 100,000 Customers,” Press Release, Feb. 3, 2009, *available at* <http://www.gci.com/investors/wirelessmilestoneannouncement.pdf> (noting launch of EVDO Rev. A cards in the fourth quarter of 2008 growing their high speed data customer base).

<sup>30</sup> See “With iConnect data services from Nex-Tech Wireless, you can use your wireless phone for more than just phone calls,” Nex-Tech Wireless brochure, *available at* <http://www.nex-techwireless.com/applicationdata/1/Documents/iconnect.pdf> (“Nex-Tech Wireless utilizes a cutting-edge high-speed broadband network for data applications. With this network, customers can send and receive data via high-speed connection from their wireless device.”).

<sup>31</sup> See “nTelos Holdings Corp. Reports Third Quarter 2008 Operating Results,” Press Release, Nov. 4, 2008, *available at* <http://ir.ntelos.com/releasedetail.cfm?ReleaseID=345339> (nTelos has upgraded 46 % of its network to EVDO Rev. A, projects upgrading 70 % of cell sites by year-end 2008); *see also* “NTELOS Holdings Corp. Reports First Quarter 2009 Operating Results,” Press Release, April 30, 2009, *available at* <http://www.ir-site.com/images/library/ntelos/04-30->

(continued on next page)

Wireless<sup>32</sup> have been deploying high-speed wireless broadband networks and solutions for customers in markets across the country. The following bulleted items provide details of some of CTIA's members' current high-speed wireless data service offerings and some recently-announced plans for investment in next-generation wireless infrastructure.

### **Selected Current High-Speed Offerings:**

- **AT&T Mobility:** *BroadbandConnect Network:* Available in most major metropolitan areas, the latest 3G devices provide typical download throughput of:
  - 700kbps to 1.7 Mbps for downloads
  - 500 kbps to 1.2 Mbps for upload*Edge Network:* AT&T's EDGE Network spans more than 17,000 cities and almost 40,000 miles of U.S. highways. EDGE provides typical download speeds of 70-135 kbps.<sup>33</sup>
- **Bluegrass Cellular:** Provides high-speed Evolution-Data Optimized ("EV-DO") Rev. A broadband service in select markets in its rural Kentucky coverage area.
- **Carolina West Wireless:** Currently provides 3G EV-DO service to 85% of its customers in cellular markets and plans deploy 3G EV-DO service in its PCS markets this summer.
- **Leap Wireless:** Via its Cricket operations, is "positioning itself to compete with home Internet providers by offering prepaid broadband over 3G networks. The \$40 monthly

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09.html ("EV-DO Upgrade Progress: The Company upgraded an additional 48 cell sites to the EV-DO Rev. A platform during the first quarter, adding service to the Harrisonburg, Virginia market. In total, 881 sites have been upgraded to EV-DO. The Company has approximately 160 sites in the Richmond/Norfolk, Virginia markets scheduled for upgrade in second quarter 2009, which would complete the final phase of the planned EV-DO upgrade.").

<sup>32</sup> See "Stelera Wireless Launches Wireless Broadband Network; Cutting Edge Internet Services Launched In South Texas," Press Release, Mar. 23, 2009, available at <http://dev.stelerawireless.com/Portals/0/docs/National%20STX%20Press%20Release.docx> ("Stelera is the first company in the nation to introduce its 3.5-generation cellular technology called HSPA (High Speed Packet Access)," said Ed Evans, CEO of Stelera Wireless. "We are unique in that we are deploying a wireless network that is purely focused on broadband services. Plenty of carriers are offering voice services and some data services, but we have built a network optimized for the broadband experience.").

<sup>33</sup> See AT&T Wireless Broadband Coverage & Speeds, available at <http://www.wireless.att.com/businesscenter/solutions/wireless-laptop/connections-coverage.jsp> (last accessed May 28, 2009).

plan lets Windows PCs surf over the carrier's EV-DO Rev. A with a 5GB per month cap.”<sup>34</sup>

- **Nex-Tech Wireless:** Has deployed 3G service to 82% of its service area, providing broadband access on wireless devices and on computers through an aircard.
- **Sprint:** EV-DO Rev 0 Sprint Mobile Broadband devices operate at average download speed ranges from 400-700 Kbps with peak rates up to 2.4 Mbps, and at average upload speeds of 40-70 Kbps with peak rates up to 144 Kbps in Mobile Broadband (“EV-DO Rev 0”) coverage areas.  
Sprint Mobile Broadband devices that are EV-DO Rev A-capable will operate at average download speed ranges from 600 Kbps - 1.4 Mbps with peak rates up to 3.1 Mbps, and at average upload speeds of 350-500 Kbps with peak rates up to 1.8 Mbps in Mobile Broadband (“EV-DO Rev A”) coverage areas.<sup>35</sup>
- **T-Mobile USA:** T-Mobile traditionally offered mobile Internet access through General Packet Radio Service (“GPRS”), Enhanced Data for GSM Evolution (“EDGE”), and Wi-Fi Internet connectivity,<sup>36</sup> but has been deploying an HSPA network that was available to consumers in more than 130 cities by year-end 2008.<sup>37</sup>
- **Verizon Wireless:** Growing high-speed wireless network covers 259 major metropolitan areas and 250 primary airports in the United States. Mobile Broadband EV-DO network from Verizon Wireless has been enhanced with EV-DO Rev. A to deliver download

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<sup>34</sup> See “Leap Wireless Reveals Ambitious Plans: The regional carrier is seeking to double its coverage by 2010 and is pushing new features like prepaid wireless broadband,” by Marin Perez, InformationWeek, Sept. 15, 2008, *available at* <http://www.informationweek.com/news/mobility/business/showArticle.jhtml?articleID=210601722> (last accessed June 3, 2009); *see also* “Leap targets broadband market,” Telegeography’s CommsUpdate, Sept. 16, 2008, *available at* [http://www.telegeography.com/cu/article.php?article\\_id=25090&email=html](http://www.telegeography.com/cu/article.php?article_id=25090&email=html) (last accessed June 2, 2009)(“The service, which will use Leap’s EV-DO Rev A high speed data network, will allow Windows-based PCs and portable devices to connect via a USB modem. It is being marketed as an alternative to wired broadband systems such as DSL and cable.”).

<sup>35</sup> See *Sprint Mobile Broadband Network*, *available at* [www.nextel.com/en/coverage/support/mobile\\_broadband\\_network\\_popup.shtml](http://www.nextel.com/en/coverage/support/mobile_broadband_network_popup.shtml) (last accessed May 28, 2009).

<sup>36</sup> See T-Mobile Internet (GPRS/EDGE/Wi-Fi), *available at* [http://www.t-mobile.com/Business/Information.aspx?tp=Bus\\_Tab\\_DataSolutions&tsp=Bus\\_Sub\\_MobileInternet](http://www.t-mobile.com/Business/Information.aspx?tp=Bus_Tab_DataSolutions&tsp=Bus_Sub_MobileInternet) (last accessed May 29, 2009).

<sup>37</sup> See “T-Mobile USA Launches 3G webConnect USB Laptop Stick,” Press Release, rel. Mar. 25, 2009, *available at* [http://www.t-mobile.com/company/PressReleases\\_Article.aspx?assetName=Prs\\_Prs\\_20090325&title=T-Mobile%20USA%20Launches%203G%20webConnect%20USB%20Laptop%20Stick](http://www.t-mobile.com/company/PressReleases_Article.aspx?assetName=Prs_Prs_20090325&title=T-Mobile%20USA%20Launches%203G%20webConnect%20USB%20Laptop%20Stick) (last accessed June 1, 2009).

speed of 600 Kbps to 1.4 Mbps and upload speed of 500-800 Kbps. Outside of mobile broadband coverage area, speeds of 60-80 Kbps.<sup>38</sup>

Over the past few months, a number of wireless companies have provided more information on their plans for expanding and upgrading their networks with innovative technologies and increasing capabilities. For example, national, regional, and local providers have discussed their plans for expanding their high-speed network coverage, including AT&T's 3G High Speed Packet Access ("HSPA") and Long-Term Evolution ("LTE") plans, Verizon's LTE deployment plans, Sprint's 4G deployment plans, and T-Mobile's 3G coverage target of 200 million people by year-end 2009.

#### **Next Generation Network Plans:**

- **AT&T Mobility** has announced over the past several months its plans to upgrade its 3G network, including "nearly doubling the wireless spectrum dedicated to 3G in most metropolitan areas to deliver stronger in-building reception and more overall network capacity," the deployment of HSPA 7.2 to boost speeds prior to trialing LTE in 2010 and beginning LTE deployment in 2011.<sup>39</sup>
- **Sprint** announced earlier this year its plans for deployment of its new high-speed wireless service in Atlanta, Charlotte, Chicago, Dallas, Ft. Worth, Honolulu, Las Vegas, Philadelphia, Portland and Seattle in 2009 and Boston, Houston, New York, San Francisco and Washington, D.C. in 2010.<sup>40</sup>

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<sup>38</sup> See Verizon Wireless Broadband Coverage & Speeds, *available at* <http://b2b.vzw.com/broadband/coveragearea.html> (last accessed May 28, 2009).

<sup>39</sup> See "AT&T to Deliver 3G Mobile Broadband Speed Boost; Initiatives will Deliver Faster Speeds, Enhancements to Mobile Broadband Performance, Availability," Press Release, rel. May 27, 2009, *available at* <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26835> (last accessed May 29, 2009). See also "AT&T 3G network going 850Mhz nationwide by 2010," by Will Park, *Into Mobile News*, Feb. 24, 2009, *available at* <http://www.intomobile.com/2009/02/24/att-3g-network-going-850mhz-nationwide-by-2010.html>.

<sup>40</sup> See "Sprint Extends 4G Leadership by Announcing Next U.S. Markets to Experience Sprint 4G; Atlanta, Charlotte, Chicago, Dallas, Ft. Worth, Honolulu, Las Vegas, Philadelphia, Portland and Seattle among Cities to Experience Turbo-Charged Mobile Broadband in 2009," Press Release, Mar. 25, 2009, *available at*

(continued on next page)

- **Stelera Wireless** recently selected a wireless backhaul solution provider to enable it to move forward with its plan to bring “advanced high-speed internet access services to rural America using HSPA (high-speed packet access) technology. The company holds licenses for spectrum covering a population of 6 million people, in ten states and over 300 cities. Stelera plans to offer service to 55 of these cities by the end of 2009, bridging the digital divide to the benefit of businesses and homes throughout rural America, with additional build out of its network in 2010.”<sup>41</sup>
- **T-Mobile** announced earlier this year its plans to double its high-speed wireless network coverage to reach a potential 200 million wireless users by the end of 2009 as it looks to match rival services. The 3G network expansion will cover another 100 cities.<sup>42</sup>
- **U.S. Cellular** announced that its EV-DO upgrade will reach 60% of its cell sites by the end of 2009, covering about 75% of their post-paid subscribers. U.S. Cellular has expanded its 3G coverage “into parts of Chicago, Iowa, Oklahoma and Wisconsin, and plans to continue the expansion into the rest of Iowa, Tennessee and North Carolina in 2009.”<sup>43</sup>
- **Verizon Wireless** has, over the past few months, provided details of its LTE plans, including pre-commercial LTE network tests in 2009 and commercial launch in up to 30 markets in 2010, covering 100 million people, with nationwide coverage in 2013.<sup>44</sup>

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[http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle\\_newsroom&ID=1269807&highlight=](http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1269807&highlight=).

<sup>41</sup> See “Stelera Selects Ceragon IP Solutions to Backhaul Wireless Broadband in Rural America,” PR Newswire, May 4, 2009, available at

[http://www.breitbart.com/article.php?id=prnw.20090504.UKSU004B&show\\_article=1](http://www.breitbart.com/article.php?id=prnw.20090504.UKSU004B&show_article=1).

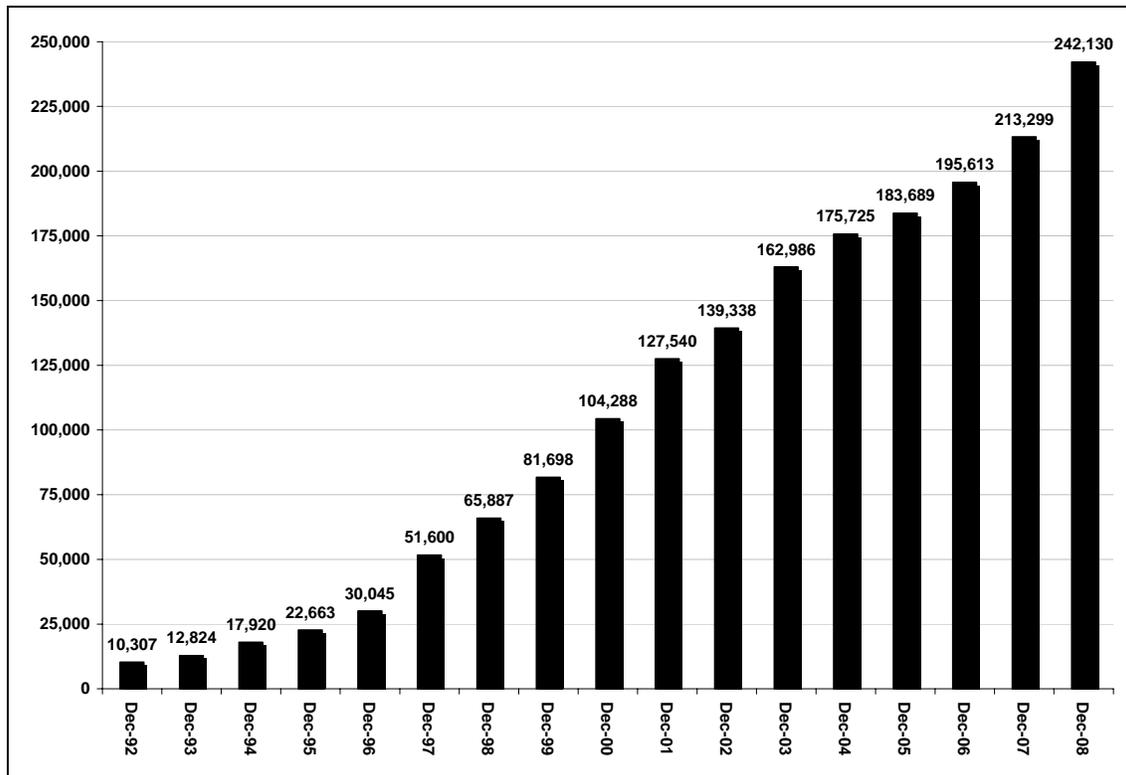
<sup>42</sup> See “T-Mobile USA unveils high-speed plans, new device,” *Reuters*, March 25, 2009, available at <http://www.reuters.com/article/ousivMolt/idUSTRE52O0WV20090325>.

<sup>43</sup> See “US Cellular accelerates EV-DO push, weighing LTE trial,” by Sarah Reedy, *Telephony Online*, May 6, 2009, available at <http://telephonyonline.com/wireless/news/us-cellular-evdo-upgrade-0506/> (noting the doubling of EVDO cell sites from 23% to 60% from year-end 2008 to year-end 2009 will make possible the delivery of enhanced data services to its subscribers, with review of its LTE options following that deployment).

<sup>44</sup> See [See](#) “Verizon Wireless Completes Successful LTE 4G Data Calls In Boston And Seattle,” Press Release, Aug. 14, 2009, available at <http://news.vzw.com/news/2009/08/pr2009-08-14f.html>; see also “[Verizon promises 4G wireless for rural America](#),” by Marguerite Reardon, CNET, Apr. 1, 2009, available at <http://news.cnet.com/wireless/?keyword=rural> (quoting Tony Melone, Verizon Wireless, Chief Technology Officer, to the effect that, using the 700 MHz spectrum, “we plan to roll out LTE throughout the entire country, including places where we don't offer our CDMA cell phone service today.”).

In the process of seeking to upgrade their networks while minimizing the impact on the environment, wireless providers are increasingly sharing facilities, deploying stealth towers and seeking alternative siting options, such as pole attachments, buildings, and rooftops.<sup>45</sup> As of December 2008, there were more than 242,000 cell sites in the United States. That averages one cell site for every 1,116 estimated wireless subscribers in the United States. Consider the following graph, which shows the growth in cell sites actively serving wireless subscribers:

**Operational Cell Sites Exceed 242,000 at Year-End 2008**



Source: CTIA Semi-Annual Survey

<sup>45</sup> See generally, *In re* Implementation of Section 224 of the Act; Amendment of the Commission’s Rules and Policies Governing Pole Attachments, Comments of CTIA – The Wireless Association®, WC Docket No. 07-245, RM-11293, RM-11303 (Mar. 7, 2008).

These considerable on-going investments will allow carriers to expand and enhance the scope and reliability of their networks, enabling new and better services for American consumers.

Moreover, recent Congressional and Commission efforts to examine and provide incentive for rural broadband deployment have spurred renewed interest and investment in rural wireless broadband development. Indeed, there is broad recognition that wireless solutions may be the most economical alternatives in many areas where broadband has not yet been deployed.<sup>46</sup> Pursuant to the 2008 Farm Bill, Acting Chairman Copps released a *Rural Broadband Report* that concluded, “[m]any of the technologies and resources needed for rural broadband already exist and, with American ingenuity, will become faster and more powerful in the years to come.... Wireless technologies are extending broadband into areas unreachable by cables and wires, and enabling consumers to be connected while on the move.”<sup>47</sup> In addition, the Recovery Act provided for \$7.2 billion in stimulus funding for broadband deployment projects,<sup>48</sup> and wireless providers were among the nearly 2,200 applicants for the first round of this funding.<sup>49</sup>

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<sup>46</sup> For example, this point was explored in the Commission’s Broadband Workshop on wireless issues on August 12. *See generally* National Broadband Plan Workshop, Wireless Broadband Deployment – General, *available at* [https://portal.neca.org/portal/server.pt/gateway/PTARGS\\_0\\_0\\_307\\_206\\_0\\_43/http%3B/prodnet.www.neca.org/wawatch/wwpdf/transcript11.pdf](https://portal.neca.org/portal/server.pt/gateway/PTARGS_0_0_307_206_0_43/http%3B/prodnet.www.neca.org/wawatch/wwpdf/transcript11.pdf).

<sup>47</sup> *Bringing Broadband to Rural America: Report on a Rural Broadband Strategy*, Michael J. Copps, Acting Chairman, FCC (May 22, 2009) at 3 ¶ 10 (available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-291012A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-291012A1.pdf)).

<sup>48</sup> American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) (“Recovery Act”).

<sup>49</sup> “Nearly 2,200 Diverse Applications Submitted for Share of \$4 Billion in Funding to Expand Broadband Access and Adoption,” Press Release, NTIA (rel. Aug. 27, 2009), *available at* [http://www.ntia.doc.gov/press/2009/BTOP\\_BIP\\_090827.html](http://www.ntia.doc.gov/press/2009/BTOP_BIP_090827.html).

All available data on mobile wireless broadband deployment reveal it to be one of the brightest spots on the broadband deployment landscape. There is no question that mobile wireless broadband is being deployed to all Americans in a reasonable and timely fashion.

#### **IV. BROADBAND “AVAILABILITY” SHOULD REMAIN FOCUSED ON DEPLOYMENT**

In prior Section 706 reports, the Commission has concluded that broadband “availability” “refers to a consumer’s ability to purchase a capability that has been deployed.”<sup>50</sup> This definition properly distinguishes between availability, on the one hand, and uptake or adoption, on the other, and should be maintained. As the NOI notes, adoption is a clear indicator of availability in a given area,<sup>51</sup> but the converse is not necessarily true. In the mobile wireless context, broadband providers often deploy substantial facilities to serve highways or recreation areas that have no permanent residents. In such areas, adoption only tells part of the story. Yet the availability of mobile wireless broadband in such areas is crucially important.

In addition, differentiating between availability and subscribership, as the NOI suggests, may “highlight gaps between availability and demand that should be investigated.”<sup>52</sup> This may inform the ongoing discussion of broadband affordability and the potential need to expand the Commission’s low-income universal service programs.<sup>53</sup> Indeed, even with all of the data demonstrating the rapid and growing availability of wireless broadband, certain gaps may remain, particularly among low-income consumers. To the extent that Commission data on low-income broadband adoption indicates a need for programmatic changes to the universal

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<sup>50</sup> NOI at ¶ 42.

<sup>51</sup> NOI at ¶ 43.

<sup>52</sup> NOI at ¶ 45.

<sup>53</sup> See *infra* Section VI.E. (discussing CTIA’s support for expanding the Lifeline program to support broadband).

service Lifeline program, CTIA supports such a change consistent with its past advocacy and as part of a complete overhaul of the program to reflect modern communications systems and needs.<sup>54</sup> CTIA believes that the Commission should expand the Lifeline and Link-Up programs to help ensure low-income consumers' access to broadband services. Clear and reliable data that distinguishes between availability and adoption will bolster such policy decisions.

## **V. COMMISSION ACTION TO LOWER BARRIERS TO WIRELESS BROADBAND INFRASTRUCTURE CAN SPEED DEPLOYMENT**

Section 706 directs the Commission to take regulatory action to encourage the deployment on a reasonable and timely basis of advanced telecommunications capabilities to all Americans.<sup>55</sup> The statute specifically contemplates that such action will include regulatory changes that remove barriers to deployment and increase competition.<sup>56</sup> There are certain areas where Commission action could lower the cost of key inputs or promote the adoption of wireless broadband. Key among these is the need for additional spectrum – both new spectrum to meet burgeoning demand and the clearing of already allocated (and auctioned) spectrum so it can be utilized. The Commission also can facilitate wireless broadband infrastructure deployment by using existing powers under federal law to accelerate the tower siting process and clarify

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<sup>54</sup> Broad universal service reform should account for the crucial importance of wireless networks by providing a specific and predictable support mechanism for the deployment of advanced wireless networks in rural and high-cost areas. Both the successor support system for advanced wireless networks and any other support mechanisms that may be provided for other services should encourage and reward efficient investment in next generation technologies. The successor mechanism must set aside sufficient levels of funding to ensure that a ubiquitous advanced mobile wireless network can be maintained and operated once it is deployed, particularly in areas where operation would be otherwise uneconomic. *See generally* Comments of CTIA, WC Docket No. 05-337 (filed Nov. 26, 2008).

<sup>55</sup> NOI at ¶ 64, *quoting* 47 U.S.C. § 1302(a).

<sup>56</sup> *Id.*

wireless carriers' access to utility poles, including pole tops, and by modernizing the outdated and burdensome universal service and intercarrier compensation regimes.

**A. Timely Deployment of Wireless Tower Facilities is Critical to Ensuring Consumers' Access to Wireless Broadband Services**

The Commission should remove a significant barrier to infrastructure investment by granting CTIA's Petition for Declaratory Ruling<sup>57</sup> to ensure that wireless broadband service is not stymied by an inability to site new wireless towers. In many areas, local zoning policies are frustrating the goals of the Act and delaying the provision of wireless broadband services to millions of Americans.

CTIA compiled data on siting from multiple members in advance of drafting its Petition.

- Collectively, those members have more than 3,300 wireless siting applications pending before local jurisdictions.
- Of those, approximately 760 have been pending final action for more than one year.
- More than 180 such applications have been awaiting final action for *more than 3 years*.
- Even where the wireless siting application merely seeks to collocate on an existing site, delay may be substantial. Nearly 350 of the 760 applications pending for more than one year are collocation requests, with approximately 135 of these pending for more than 3 years.

These figures likely understate the true impact of the delays as CTIA compiled this information prior to carriers commencing build-out of AWS-1 and 700 MHz licenses. These delays, slowing the deployment of towers designed to provide 3G services and beyond, will negatively impact broadband service.

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<sup>57</sup> *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*, Petition for Declaratory Ruling, WT Docket No. 08-165 (filed July 11, 2008) (“CTIA Petition for Declaratory Ruling”).

Given the clear intent to facilitate expeditious wireless broadband build-out and Section 332(c)(7)(B)'s limits on the zoning review process,<sup>58</sup> CTIA reiterates its request for a declaratory ruling that: (i) clarifies the time period in which a state or local zoning authority must take action on a wireless facility siting request under Section 332(c)(7)(B); (ii) declares that a zoning authority's failure to act within the relevant time frame will give rise to a "deemed grant" of the application, or alternatively will warrant a court-ordered injunction granting the application unless the zoning authority can justify the delay; (iii) clarifies that Section 332(c)(7)(B)(i) bars zoning decisions that have the effect of prohibiting a particular provider from offering service in a given area; and (iv) declares that zoning ordinances requiring variances for all wireless siting requests – without regard to a facility's location or scope – are unlawful and will be struck down if challenged in the context of a Section 253 preemption action.

**B. The Commission Should Include Access to Additional Spectrum in its National Broadband Plan and Immediately Begin by Pairing and Bringing to Auction Spectrum in the 1.7 GHz and 2.1 GHz Bands.**

In order for wireless broadband deployment to continue apace and meet burgeoning consumer demand, it is critical for the Commission to identify additional spectrum for reallocation to licensed CMRS use. As CTIA has shown in filings with the Commission, U.S. wireless carriers are among the most efficient users of spectrum around the world, however, where the U.S. lags behind other developed countries is in the spectrum that is "in the pipeline" for allocation to licensed, commercial services. Allocation of more licensed spectrum is a necessary step in order to accommodate wireless broadband demand that is rapidly outstripping capacity available on wireless broadband networks. As a first step toward bringing much needed

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<sup>58</sup> See Comments of CTIA, WT Docket No. 08-165, at 15-19; see also CTIA Petition for Declaratory Ruling at 14-16; see also CTIA Reply Comments, WT Docket No. 08-165, at 4-8.

spectrum resources to U.S. wireless broadband providers, the Commission should begin by pairing and bringing to auction 50 MHz in the 1.7 GHz and 2.1 GHz spectrum bands. This rational step will lead to increased capacity for U.S. wireless broadband consumers. This must be simply the beginning, however, of a much greater effort to identify and reallocate significantly more spectrum for licensed wireless broadband use.

Wireless carriers are unique among broadband providers in that they alone cannot simply “build their way out” of capacity problems – because of the limited amount of spectrum available to them. Increasing U.S. mobile data use is placing a strain on wireless providers’ existing network infrastructure. In order to continue to meet the needs of U.S. wireless broadband consumers and to accelerate broadband deployment, CTIA urges the Commission to identify additional spectrum resources for wireless broadband providers and immediately begin the lengthy process of allocation, auction and clearing of new spectrum bands.<sup>59</sup>

**C. The Commission Should Facilitate More Efficient Clearing of Spectrum Already Allocated and Auctioned for CMRS.**

In addition to identifying and allocating additional spectrum for wireless broadband providers, Commission action to speed access to existing allocated spectrum will encourage broadband deployment by providing short-term relief for congested wireless networks and wireless providers attempting to expand or offer service in underserved areas. Existing AWS-1 and 700 MHz licensees face a myriad of impediments to their use of the bands to provide service.

In the AWS-1 band, for example, companies like T-Mobile, Leap Wireless, and MetroPCS acquired significant spectrum in the AWS-1 auction to improve broadband service in

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<sup>59</sup> See generally Comments of CTIA – The Wireless Association®, WT Dkt. No. 09-66 (filed June 15, 2009).

areas that they already serve and to expand high-speed wireless offerings into new areas.<sup>60</sup> These same licensees, however, must clear incumbent licensees and government agencies, some of whom continue to delay their coordination and relocation obligations. Every delay, whether it be for months or days, impacts broadband deployment.

Finally, the specter of interference in the 700 MHz bands – heralded as “beachfront property” for wireless broadband provision – from unauthorized wireless microphone users has held back the potential of this important allocation. Swift Commission action in these existing bands as well as the inclusion of efficient spectrum clearing in the National Broadband Plan will continue to provide wireless providers with the access to spectrum needed to meet consumer demand for wireless broadband services.

**D. Access to Existing Electric Utility Poles For Wireless Attachments Benefits Wireless Broadband Deployment in Unique Coverage Situations or Where New Tower Construction is Infeasible**

While timely build-out of wireless tower facilities remains critical to wireless broadband deployment,<sup>61</sup> there may be unique circumstances affecting coverage, spectrum-related propagation challenges, or situations where new tower construction is simply infeasible. In these instances, placement of wireless communications equipment on existing electric utility distribution poles – a right affirmed by Congress, the Commission and the courts – is playing an increasingly important role in achieving reliable “last mile” wireless broadband service. Yet, despite existing federal and state regulations that provide for rights of attachment and non-discrimination, wireless carriers around the country have had difficulty negotiating and obtaining fair pole attachment agreements, both for mid-pole and pole-top wireless attachments.

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<sup>60</sup> *See id.* at 6.

<sup>61</sup> *See supra* Section V.A.

The Commission has previously recognized the important benefits of pole access that ultimately inure to consumers:

Providing wireless carriers with access to existing utility poles facilitates the deployment of cell sites to improve coverage and reliability of their wireless networks in a cost-effective and environmentally friendly manner. Such deployment[s] ...promote public safety, enable wireless carriers to better provide telecommunications and broadband services, and increase competition and consumer welfare in these markets.<sup>62</sup>

Accordingly, CTIA urges the FCC to clarify and affirm its rules regarding nondiscriminatory and reasonable rates for wireless pole and conduit access. Specifically, the Commission should:

- Affirm its tentative conclusion to set a unified rate for all providers capable of providing broadband service, which rate should be as low as possible for the electric utilities to receive just compensation.
- Establish a presumption for space used by a wireless attachment and specify that “Usable Space” includes the pole top.
- Address electric utilities’ unsubstantiated objections to wireless attachments based on RF emissions and safety issues.<sup>63</sup>

**E. The Commission Should Move Quickly to Modernize the Universal Service and Intercarrier Compensation Systems to Reflect the Mobile Broadband Reality**

*Universal Service.* The goals of Section 706 and of universal service<sup>64</sup> are fundamentally the same: ensuring that all Americans have access to the communications and information technologies that they need to succeed. To achieve those aims, federal universal service

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<sup>62</sup> *Wireless Telecommunications Bureau Reminds Utility Pole Owners of their Obligations to Provide Wireless Telecommunications Providers with Access to Utility Poles at Reasonable Rates*, Public Notice, 19 FCC Rcd. 24930 (2004) (“*Wireless Attachments Notice*”) (emphasis added).

<sup>63</sup> See, e.g., CTIA Comments *In re Implementation of Section 224 of the Act; Amendment of the Commission’s Rules and Policies Governing Pole Attachments*, Notice of Proposed Rulemaking, WC Docket No. 07-245, RM-11293, RM-11303 (filed Mar. 7, 2008).

<sup>64</sup> See 47 U.S.C. § 254.

programs should be repurposed to focus on consumers and reflect consumers' demand for mobile broadband services.

There is wide agreement that reform of the high cost universal service support mechanisms is necessary, and that the existing program is becoming a drag on broadband deployment.<sup>65</sup> The unfortunate reality is that the universal service system remains a vestige of the last century monopoly environment, designed to support fixed wireline voice networks, despite fundamental changes in technology and the competitive marketplace. The current outdated policies create incentives for inefficiency, inhibit broadband deployment by reducing providers' incentives to adopt innovative technologies, and are no longer sustainable in today's technological and marketplace conditions. The Commission invests an enormous amount of consumers' money into the universal service fund – roughly the same amount *each year* as the *total* sum available for broadband grants through the Recovery Act. It is imperative that these funds advance the goals of Section 706; at minimum, their current drag on broadband deployment must be halted.

Repurposing the high cost universal service fund – away from legacy services and toward mobile broadband services, which are so highly valued by consumers – is one of the most direct ways that the Commission can ensure rapid deployment of broadband not merely to the home but

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<sup>65</sup> See, e.g., the following initial comments in GN Docket No. 09-51, filed on or about June 8, 2009: Comments of AT&T at 86 (“The high-cost universal service funding system is also hopelessly out of touch with the forward movement in the industry, and is likewise in need of fundamental reform.”); see also Comments of T-Mobile USA, Inc. at 23-24 (“The National Broadband Plan also cannot adequately promote build out of rural mobile broadband service without addressing the current USF regime, which distorts incentives for investment and is woefully outdated in light of today’s technologies.”); see also Comments of Verizon and Verizon Wireless at 112 (“Absent an overhaul, the antiquated federal universal service program will weigh down many of the exciting opportunities promised by innovations in the broadband space.”).

to the person. Dedicated support for mobile broadband should encompass both infrastructure deployment and ongoing maintenance and operations costs, and should measure all providers' costs in an objective and efficient manner. Indeed, federal universal service policies should make the most efficient use of scarce public resources and incent the deployment of the most efficient technologies, in order to minimize the burden on consumers who ultimately pay for universal service.

Fundamental reform of the high-cost support mechanism is important, but the Commission should also consider changes to its low-income support programs. A technology neutral low-income program can be used to support low-income consumers' access to mobile broadband services. To meet the requirements of the Act, any such program must be open to all eligible providers, regardless of technology. The Commission should strongly consider a program that provides low-income consumers a subscription discount that would permit the consumer, not the government, to choose the broadband service that best suits his or her needs.

The Commission also must reform its USF contribution methodology to better reflect the ways U.S. consumers consume telecommunications and information services. As the Commission recognized in the *National Broadband Plan NOI*,<sup>66</sup> universal service contribution requirements affect the economics of service deployment. The existing revenues-based system is increasingly incompatible with the multi-dimensional telecommunication market. CTIA and others have encouraged the Commission to adopt a numbers- and capacity-based approach,

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<sup>66</sup> *A National Broadband Plan for Our Future*, GN Docket No. 09-51, Notice of Inquiry, 24 FCC Rcd 4342, 4354 ¶ 41 (2009).

which would more fairly distribute the responsibility for the program and more effectively sustain the base that supports the program.<sup>67</sup>

Such an approach must be carefully tailored to ensure that low-income, wireless family plan, and wireless prepaid customers do not bear an unreasonable share of the contribution obligations.

*Intercarrier Compensation.* It is also critical for the Commission to fix the broken intercarrier compensation system, which is ill-equipped to meet the key goals of a National Broadband Plan, namely, promoting ubiquitous broadband deployment, advancing universal broadband adoption, and facilitating the transition to an all-IP world. There is wide agreement that the current intercarrier compensation system severely distorts the competitive marketplace and undermines the efficient deployment of next generation voice, data, and video services delivered over broadband capable facilities.

The road to intercarrier compensation reform has been long, but the Commission's renewed commitment to its obligations under Section 706 present a fresh opportunity for forward-looking reform of this byzantine set of rules. CTIA and others have laid out a clear path for the Commission's reform efforts.<sup>68</sup> By embracing a unified, cost-based rate for the termination of all telecommunications traffic as a transition to a bill-and-keep system, the Commission can relieve consumers of the burdens of the current systems and empower them, rather than regulators or service providers, to determine the development of communications

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<sup>67</sup> See Comments of CTIA at 47-49, WC Docket No. 09-51 (filed June 8, 2009).

<sup>68</sup> CTIA has developed a Mutually Efficient Traffic Exchange ("METE") proposal as a holistic approach to the reform of the intercarrier compensation regime. See Comments of CTIA, CC Docket No. 01-92 (filed May 23, 2005); see also Comments of CTIA at 21-33, CC Docket No. 01-92, (filed Nov. 26, 2008); see also Comments of AT&T at 84-85.

services. CTIA strongly urges the Commission to affirm the link between intercarrier compensation and broadband and commit to expeditious reform.

In sum, there are a number of critical regulatory reforms that the Commission can make consistent with its obligation to encourage the reasonable and timely deployment of advanced telecommunications capability.

## **VI. THE COMMISSION SHOULD UNIFY AND CONSOLIDATE BROADBAND DATA COLLECTION EFFORTS**

This Section 706 review also presents the Commission with an opportunity to “improve its regular broadband data collections”<sup>69</sup> by unifying and consolidating the myriad broadband data collection efforts that exist today. As the NOI catalogs, in addition to the instant Section 706 inquiry, the Commission collects (or will collect) broadband data pursuant to FCC Form 477,<sup>70</sup> special mechanisms for assessing wireless broadband deployment,<sup>71</sup> special mechanisms for assessing cable broadband deployment,<sup>72</sup> the new consumer registry for broadband,<sup>73</sup> and the FCC’s consumer survey.<sup>74</sup> Providers also must provide such data to the Government Accountability Office (“GAO”) for its own study under the BDIA<sup>75</sup> and potentially NTIA for its mapping effort.<sup>76</sup> Other broadband data collection or mapping efforts, such as state-specific efforts, may exist in addition to federal efforts.

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<sup>69</sup> NOI at ¶ 67.

<sup>70</sup> NOI at ¶ 19.

<sup>71</sup> NOI at ¶ 22.

<sup>72</sup> NOI at ¶ 23.

<sup>73</sup> NOI at ¶ 24.

<sup>74</sup> NOI at ¶ 28.

<sup>75</sup> NOI at ¶ 29.

<sup>76</sup> NOI at ¶ 25.

While no one disputes that policy-makers need good data, given the common goals of these efforts, this multifarious effort is tremendously disjointed and burdensome. Specifically, many of the above efforts will entail substantial effort and disclosure by providers, related risks to confidentiality, and duplication of efforts by the Commission and other federal and state agencies. This proceeding is the perfect opportunity for the Commission to craft a more unified, less burdensome approach. That approach also could resolve and address in a single forum the questions about provider data confidentiality that are common to all of these efforts.

Part of this unified approach to broadband data collection would involve a single definitional structure for terms like “broadband” and “advanced telecommunications capability.”<sup>77</sup> These terms refer to the same capabilities, and Congress appears to use the two terms interchangeably.<sup>78</sup> Thus, the Commission should adopt a unified definitional structure for all of these terms, and use that definitional structure for its streamlined data-collection process. As discussed above, the unified definitional structure should recognize the unique value of mobility by incorporating a specific definition for wireless broadband tied to actual wireless broadband technologies.<sup>79</sup>

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<sup>77</sup> NOI at ¶ 34.

<sup>78</sup> Compare 47 U.S.C. § 1301 (Congressional findings about the benefits of “broadband”) with 47 U.S.C. § 1302(b) (mandating FCC inquiry into “availability of advanced telecommunications capability”).

<sup>79</sup> See *supra* Section II. (describing CTIA’s proposed definitional structure for mobile wireless broadband).

## CONCLUSION

CTIA urges the Commission to incorporate the proposals in these comments into its new approach to carrying out its responsibilities under Section 706.

Respectfully submitted,

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