

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

In the Matter of	)	
	)	
Inquiry Concerning the Deployment of	)	GN Docket No. 15-191
Advanced Telecommunications Capability to	)	
All Americans in a Reasonable and Timely	)	
Fashion, and Possible Steps to Accelerate Such	)	
Deployment Pursuant to Section 706 of the	)	
Telecommunications Act of 1996, as Amended	)	
by the Broadband Data Improvement Act	)	

**COMMENTS OF COMPETITIVE CARRIERS ASSOCIATION**

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**COMMENTS OF COMPETITIVE CARRIERS ASSOCIATION**

Competitive Carriers Association (“CCA”) submits these comments in response to the *Eleventh Broadband Progress Notice of Inquiry* (“*Notice*”)<sup>1</sup> in the above-captioned proceeding, in which the Federal Communications Commission (“FCC” or the “Commission”) seeks to determine whether “advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”<sup>2</sup> In the *Notice*, the Commission seeks comment on whether advanced telecommunications capability should be defined to include consumer access to both fixed and mobile broadband service, and if so, what the appropriate benchmarks and thresholds should be. CCA supports inclusion of access to mobile services in the definition of “advanced telecommunications capability,” and submits that advanced telecommunications capability is not being deployed to all Americans in a reasonable and timely fashion. In response, the

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<sup>1</sup> *In the Matter of 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. 15-191, Eleventh Broadband Progress Notice of Inquiry, FCC 15-101 (rel. Aug. 7, 2015) (“*Notice*”).

<sup>2</sup> *Id.* ¶ 1 (quoting 47 U.S.C. § 1302(b)).

Commission should take affirmative steps to facilitate increased broadband deployment, particularly in rural areas.

## **I. INTRODUCTION AND SUMMARY**

CCA is the nation's leading association for competitive wireless providers and stakeholders across the United States. CCA's membership includes more than 100 competitive wireless providers ranging from small, rural carriers serving fewer than 5,000 subscribers to regional and national providers serving millions of customers. CCA also represents approximately 200 associate members consisting of small businesses, vendors, and suppliers that serve carriers of all sizes. CCA's members work tirelessly to deploy mobile wireless services, including advanced mobile broadband service all across the nation, including in unserved and underserved areas. CCA and its members support the Commission's goal of expanding to all Americans access to advanced telecommunications capability, including both fixed and mobile broadband services.

Although the Commission has previously acknowledged that "mobile wireless [is] one of the most important sectors in the national economy,"<sup>3</sup> it has yet to include it in its annual analysis pursuant to Section 706. In the *Notice*, the Commission asks whether mobile broadband should be included in the definition of "advanced telecommunications capability," and the answer is a resounding "yes." American consumers continue to express their overwhelming preference for mobile broadband service, in many cases making it their exclusive choice. Accordingly, the FCC should account for mobile service when determining whether "advanced telecommunications capability" is available to a consumer.

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<sup>3</sup> *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 13-135, Seventeenth Report, 29 FCC Rcd 15311, 15314 ¶ 1 (WTB 2014) ("*Seventeenth Report*").

In making this determination and when reviewing the mobile broadband component of its Section 706 analysis, the Commission should take into account the divergent uses, capabilities and architectures of mobile broadband versus fixed broadband networks. While both should be considered “broadband,” fixed and mobile services provide consumers with unique broadband experiences. In addition, mobile broadband providers face a number of constraints that are not applicable to fixed broadband providers. Accordingly, appropriate and realistic benchmarks should be adopted for mobile broadband in light of on these variations.

Based on all available evidence, the Commission should determine that advanced telecommunications capability is *not* being deployed to all Americans in a reasonable and timely manner. And thus, the FCC should take targeted actions to facilitate further mobile broadband deployment, including: increasing access to USF funding for mobile broadband providers; promoting fair spectrum access, commercially reasonable roaming, and competitive backhaul arrangements; and continuing to remove barriers to facility and infrastructure deployment.

## **II. THE COMMISSION SHOULD DEFINE “ADVANCED TELECOMMUNICATIONS CAPABILITY” TO INCLUDE MOBILE BROADBAND—WHICH PLAYS AN INCREASINGLY IMPORTANT ROLE IN THE LIVES OF AMERICANS**

CCA applauds the Commission’s recognition of the important role that mobile broadband increasingly plays in Americans’ lives, and the enhanced benefits that mobile broadband provides over fixed. Specifically, the Commission recognizes in the *Notice* that:

Mobile broadband has become increasingly important for accessing websites, navigating during travel, connecting on social media, communicating with family and friends, receiving timely news updates, and obtaining entertainment while away from a fixed broadband connection . . . . Thus, fixed and mobile broadband appear to meet different consumer needs.<sup>4</sup>

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<sup>4</sup> *Notice* ¶ 8.

While fixed and mobile broadband can serve unique needs, mobile broadband has the benefits of mobility and freedom – which that fixed wireless cannot currently provide nor will ever attain. Consumers today are voting with their wallets for mobility, as wireless mobile broadband subscriptions have grown at several times the rate of fixed broadband subscriptions.<sup>5</sup> Today there are more mobile connections in the US than there are people.<sup>6</sup> Smartphone adoption has also risen dramatically in the U.S., increasing from 18% penetration in 2009 to 64% penetration in 2014.<sup>7</sup> Relatedly, while 64% of new mobile phones purchased in 2012 were smartphones, 85% of such purchases were smartphones in 2014.<sup>8</sup>

Americans adopting this technology are not just Millennials, although young Americans do make up a significant portion of smartphone users.<sup>9</sup> Other generations, including Generation X, baby boomers and seniors, are increasingly relying on smartphones and mobile services for activities and communications,<sup>10</sup> as are many “traditionally disenfranchised communities

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<sup>5</sup> See OECD Data for United States for Q2-2014, <https://data.oecd.org/broadband/wireless-mobile-broadband-subscriptions.htm> (last visited Sept. 14, 2015) (showing 101.4 wireless mobile broadband subscriptions per 100 U.S. inhabitants as of Q2 2014, compared with 30.22 fixed broadband subscriptions per 100 U.S. inhabitants during the same period).

<sup>6</sup> Lauren Walker, *There are Now More Mobile Connections than People in the World*, NEWSWEEK, Oct. 9, 2014, available at: <http://www.newsweek.com/there-are-now-more-mobile-connections-people-world-276383>.

<sup>7</sup> Mary Meeker, Kleiner Perkins Caufield Byers, *Internet Trends 2015 – Code Conference 117* (May 27, 2015), <http://www.kpcb.com/internet-trends>.

<sup>8</sup> *Seventeenth Report*, 29 FCC Rcd at 15350, Chart III.C.3.

<sup>9</sup> For instance, young adults (18-29) rely on smartphones for online access at elevated levels, and are less likely to own another type of computing device. AARON SMITH, U.S. SMARTPHONE USE IN 2015, PEWRESEARCHCENTER, 3 (Apr. 1, 2015) [http://www.pewinternet.org/files/2015/03/PI\\_Smartphones\\_0401151.pdf](http://www.pewinternet.org/files/2015/03/PI_Smartphones_0401151.pdf) (“PEWRESEARCH REPORT”). Lower-income smartphone owners are similarly more likely to rely on mobile broadband for critical uses. *Id.*

<sup>10</sup> BANK OF AMERICA, TRENDS IN CONSUMER MOBILITY REPORT, 1 (2015) [http://newsroom.bankofamerica.com/files/doc\\_library/additional/2015\\_BAC\\_Trends\\_in\\_Consumer\\_Mobility\\_Report.pdf](http://newsroom.bankofamerica.com/files/doc_library/additional/2015_BAC_Trends_in_Consumer_Mobility_Report.pdf) (hereinafter “BANK OF AMERICA 2015 REPORT”).

including rural, tribal and minorities . . . .”<sup>11</sup> As the Commission has recognized, “[i]n recent years, mobile wireless services have gone from a luxury to a convenience to an absolutely central part of Americans’ daily lives.”<sup>12</sup> Congresswoman Eshoo has similarly noted that mobile broadband, just as much as wireline broadband, “provide[s] a critical gateway to the Internet and should be viewed as such when examining the state of broadband deployment.”<sup>13</sup> Indeed, mobile devices are the first thing on Americans’ minds in the morning and the last thing on Americans’ minds at night,<sup>14</sup> with a recent survey by the Bank of America reporting that nearly half of respondents indicated that they could not last more than one day without access to their smartphones.<sup>15</sup>

In 2015, American consumers’ communications needs extend beyond voice calls, text messages and social media, and now include remote access to opportunities in employment,<sup>16</sup> education,<sup>17</sup> medicine,<sup>18</sup> farming,<sup>19</sup> commerce,<sup>20</sup> and banking.<sup>21</sup> In many of these instances,

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<sup>11</sup> Letter from The Hon. Anna G. Eshoo, Ranking Member, Subcomm. on Commc’ns & Tech. of the H. Comm. on Energy & Commerce to The Hon. Tom Wheeler, Chairman, FCC at 2 (Sept. 8, 2015) (“Eshoo Letter”).

<sup>12</sup> *Seventeenth Report* ¶ 1.

<sup>13</sup> Eshoo Letter at 2.

<sup>14</sup> In response to a survey by Bank of America, “more than one-third (35%) of respondents reach for their mobile device first thing, ahead of coffee (17%), their toothbrush (13%) and even their significant other (10%),” while “nearly one-quarter of respondents (23%) have fallen asleep with their smartphone in their hand.” BANK OF AMERICA 2015 REPORT.

<sup>15</sup> *Id.*

<sup>16</sup> For example, both lower-income and younger smartphone owners rely disproportionately on their phones to get information about a job and submit a job applications. PEWRESEARCH REPORT at 21-22.

<sup>17</sup> An estimated 750 million educational apps for mobile devices were installed worldwide in 2014—with 70% of teenagers age 13-17 using smartphones. John Doerr, Opinion, *Smart Phones of Smart Kids*, WALL ST. J., Aug. 21, 2014, available at <http://online.wsj.com/articles/john-doerr-smart-phones-for-smart-kids-1408664277>.

mobile services have replaced traditional classrooms,<sup>22</sup> physicians' offices,<sup>23</sup> and stores.<sup>24</sup>

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<sup>18</sup> Mobile health applications are being deployed to improve disease-related outcomes, and the U.S. Department of Health and Human Services has acknowledged that harnessing the power of a smartphone “is an important step toward the goal of providing better patient engagement and more mobile healthcare in the U.S.” Pedro Hernandez, *Microsoft, TracFone Team on Mobile Health Services*, EWEEK (Aug. 21, 2014), available at <http://www.eweek.com/mobile/microsoft-tracfone-team-on-mobile-health-services.html> (quoting Lee Stevens, Program Manager, U.S. Dept. of Health & Human Servs.).

<sup>19</sup> According to recent figures from the USDA, farmers have been increasing their reliance on wireless connections from previous years to access the Internet in order to further expand their “Smart Farming” capability. See USDA, FARM COMPUTER USAGE AND OWNERSHIP 5 (Aug. 2015), <http://www.usda.gov/nass/PUBS/TODAYRPT/fmpc0815.pdf>. As Deere & Company previously explained, Smart Farming is improving the lives of farmers and ranchers and increasing productivity in food production, but heavily relies on mobile wireless, as this technology is the only way of deploying these innovative farming techniques in the field. Deere & Company Comments, WC Docket No. 10-90 *et al.* at 7 (filed Aug. 8, 2014); see also *id.* at 6 (recognizing that “[f]or many rural areas, including farm-intensive areas with significant tracts of cropland, wireless service will be the superior technology choice to achieve cost-effective coverage.”) (emphasis supplied).

<sup>20</sup> Tobias Lutke, Mobile Now Accounts for 50.3% of All Ecommerce Traffic, SHOPIFY BLOG (Aug. 26, 2014) <https://www.shopify.com/blog/15206517-mobile-now-accounts-for-50-3-of-all-ecommerce-traffic> (finding that, based on data from over 100,000 ecommerce stores, 50.3% of traffic comes from mobile devices and 49.7% from computers).

<sup>21</sup> Over the past year, Bank of America has “surpassed 17 million active mobile banking customers – a number that is growing by more than 5,000 customers per day.” BANK OF AMERICA 2015 REPORT.

<sup>22</sup> For instance, many schools now rely on their students having access to a reliable mobile wireless network to further expand learning both inside and outside the classroom. Last year, CCA member C Spire teamed up with Hattiesburg Middle School in Mississippi to launch a program that provides students and teachers with laptop computers in the classroom and wireless high-speed Internet connections to support e-learning. This capability was made possible by C Spire’s installed wireless solution which features 81 devices, 78 access points and three switches, providing super-fast and secure wireless Internet coverage in every corner of the middle school campus. See Hattiesburg Middle School Pilots C Spire WiFi and Fiber Internet, <http://cspire.tumblr.com/post/95316134748/hattiesburg-middle-school-pilots-c-spire-wifi-and-fiber> (Aug. 20, 2014).

<sup>23</sup> A recent PEW study found that 62% of smartphone owners have used their phone in the last year to look up information about a health condition. PEWRESEARCH REPORT at 5.

<sup>24</sup> “About 25 million more consumers shopped with smartphones in the most recent holiday period than did in 2013, the research firm says. And an additional 20.6 million smartphone shoppers will join their ranks in 2015.” Mike Cassidy, *Mobile Shopping Trends Will Only*

As Americans' lives are becoming more mobile, so is the way that we gather news and important information. In 2014, Americans consumed a majority of their digital media *via* mobile devices as opposed to desktops and laptops.<sup>25</sup> According to a recent study, 84% of American smartphone owners have used their devices to follow along with breaking news events, while 79% of Americans report using their device to learn about events or activities in their community, and 52% have reported using their device to get help in an emergency situation.<sup>26</sup> In a recent survey, 44% of smartphone owners have also admitted to experiencing a problem accomplishing a task because they did not have their mobile device with them, and 25% of those that experienced this situation reported that they had trouble getting somewhere because they did not have their device to look up an address or otherwise obtain directions.<sup>27</sup>

More fundamentally, many mobile users consist of Americans that have chosen to “cut the cord” and live wireless-only lives. As a recent CDC Report concluded, two out of five American homes (39.4%) were “wireless-only” households as of the first half of 2013, which translates to 38% of U.S. adults (or 90 million) and 45.4% of U.S. children (or 33 million).<sup>28</sup>

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*Accelerate*, BLOOMREACH BLOG (Mar. 10, 2015) <http://bloomreach.com/2015/03/mobile-shopping-trends-will-only-accelerate/>.

<sup>25</sup> Mary Meeker, Kleiner Perkins Caufield Byers, Internet Trends 2015 – Code Conference 14 (May 27, 2015), <http://www.kpcb.com/internet-trends>.

<sup>26</sup> *Id.* at 73.

<sup>27</sup> PEWRESEARCH REPORT at 26.

<sup>28</sup> STEPHEN J. BLUMBERG, PH.D., ET AL., NAT'L CTR FOR HEALTH STATISTICS, WIRELESS SUBSTITUTION: EARLY RELEASE OF ESTIMATES FROM THE NATIONAL HEALTH INTERVIEW SURVEY, JANUARY –JUNE 2013, 2 (Dec. 2013) *available at* <http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201312.pdf>; *see also* Drew Desilver, *For Most Wireless-Only Households, Look South and West*, PEWRESEARCHCENTER (Dec. 23, 2013), *available at* <http://www.pewresearch.org/fact-tank/2013/12/23/for-most-wireless-only-households-look-south-and-west/>.

Therefore, according to this survey, a total of approximately 123 million Americans rely on wireless devices as their sole instrument for voice services.

There should no longer be a question of whether mobile services impact American lives—available research and data clearly demonstrate that they do. Consumers’ gravitation towards mobile broadband services continues because of the unique capabilities of mobile services identified in the *Notice*.<sup>29</sup> Studies demonstrate that Americans want and need mobility, and the need for mobility overcomes traits traditionally associated with mobile broadband, such as reduced speeds or data caps.<sup>30</sup> Based on consumers’ growing and varied reliance on mobile broadband, the Commission should treat access to both mobile and fixed broadband as necessary components of advanced telecommunications capability.<sup>31</sup>

### **III. THE COMMISSION SHOULD BE MINDFUL OF THE COMPETING USES AND NETWORK CONFIGURATIONS OF FIXED AND MOBILE BROADBAND SERVICES WHEN ESTABLISHING BENCHMARKS FOR ASSESSING THE AVAILABILITY OF MOBILE BROADBAND**

As the Commission recognizes, “commercial mobile network providers need to make various tradeoffs as they engineer their networks, so as to ensure that the costs of providing certain speeds, coverage, capacity and quality of service are covered by what consumers are

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<sup>29</sup> See *Notice* ¶ 10.

<sup>30</sup> As an aside, the *Notice* questions whether higher mobile broadband prices deter consumers from adopting such services, and provides examples of pricing from the top nationwide providers. See *id.* ¶ 14. However, this analysis ignores competitive offerings from smaller providers. For example, with respect to data usage caps, while the Commission states that it would cost a consumer \$375 to purchase 50 GB of data from AT&T, rural provider Carolina West Wireless offers a comparable 40 GB data plan to subscribers for *less than half the price* (\$150). Compare *id.*, with *Choose The Best In Wireless With Ultra Freedom Plans*, CAROLINA WEST WIRELESS, <http://www.carolinawest.com/ultra-freedom/> (last visited Sept. 14, 2015).

<sup>31</sup> See *Notice* ¶ 18.

willing to pay.”<sup>32</sup> When establishing benchmarks for assessing the availability of mobile broadband, the Commission should take these “tradeoffs” into account.

**A. The Speed Benchmark for Mobile Broadband Should Be Lower Than The Speed Benchmark Adopted for Fixed Broadband**

CCA agrees with the Commission that it should use a realistic speed benchmark for mobile broadband service. The Commission should recognize laws of engineering and physics when establishing its speed thresholds, being mindful of the types of technologies and services that consumers demand from their mobile broadband connections. But, mobile technology is evolving at a breakneck pace, and the FCC should future-proof any established benchmarks.

Specifically, the proposed speed benchmark of 10 Mbps downstream/1 Mbps upstream would not be an appropriate benchmark for mobile services at this time considering many rural and regional carriers are still attempting to deploy 4G LTE.<sup>33</sup> The Commission itself in the *Notice* concedes that “typical 4G speeds are usually 4 Mbps to 13 Mbps download and 2 Mbps to 6 Mbps upload,”<sup>34</sup> therefore, establishing a benchmark today on the higher end of this range (*i.e.*, 10 Mbps down) may exclude available and satisfactory mobile offerings and paint an inaccurate picture of the mobile landscape. For example, many rural mobile broadband providers are the only broadband choice for consumers in their area, and buildout at this time may only allow for download speeds less than 10 Mbps. Furthermore, the Commission set 4 Mbps/1 Mbps at the higher end of its speed benchmark for awarding funding through its Universal Service Fund

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<sup>32</sup> *Id.* ¶ 13.

<sup>33</sup> *Id.* ¶ 30.

<sup>34</sup> *Id.* ¶ 13, n. 33.

(“USF”).<sup>35</sup> Using the same metric here would have the added benefit of providing regulatory parity.

Consistent with typical 4G performance expectations and previous regulatory prescriptions, the Commission in this year’s report should adopt an initial speed benchmark of 4 Mbps downstream/1 Mbps upstream for mobile broadband for purposes of determining whether “advanced telecommunications capability” is being deployed in a reasonable and timely manner pursuant to Section 706. A higher benchmark at this time would exclude key areas where broadband is actually being deployed. The Commission should, however, regularly evaluate mobile broadband speed expectations (from both a technical and consumer perspective) to ensure that advanced telecommunications capabilities are being delivered to all Americans in a reasonable and timely manner both today and into the future—and to take appropriate steps should this not be the case. In light of carriers moving to 4G LTE, and other rapidly advancing mobile technologies, perhaps the FCC should consider a two-tier benchmark adopting a higher speed like 10/1 in the second half of the year, after completing its evaluation and finding that carriers are deploying 4G LTE at a faster pace. Either way, the FCC should be mindful of carriers’ deployments, and at the very least, consider a higher speed the following year.

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<sup>35</sup> See e.g., *In the Matter of Connect America Fund; Connect America Phase II Challenge Process*, WC Docket Nos. 10-90, 14-93; Order, 30 FCC Rcd 2718, ¶ 7, n.17 (2015) (explaining the offer of model-based CAF Phase II support is targeted to census blocks lacking unsubsidized competitors offering service at speeds of less than 4 Mbps downstream/1 Mbps upstream.); see also 47 C.F.R. § 54.1006 (dictating that winning bidders authorized to receive Mobility Fund Phase I support shall provide: (a) for 3G service, outdoor minimum transmission rates of 50 kbps uplink and 200 kbps downlink and (b) for 4G service, outdoor minimum transmission rates of 200 kbps uplink and 768 kbps downlink).

## **B. Latency and Consistency of Service Thresholds for Measuring Mobile Broadband Services Should not be Adopted at This Time**

The Commission should not incorporate mobile broadband latency or consistency of service metrics as part of determining whether “advanced telecommunications capability” is available. In the first instance, latency does not effectively measure the quality of mobile broadband as it does with fixed broadband. As the Commission recognizes, “mobile latency can vary significantly based on technology, with LTE generally experiencing lower latency.”<sup>36</sup> With varying mobile technologies being deployed throughout the country, a benchmark that differs among service providers would not be helpful for the Commission’s analysis, nor would it provide an accurate depiction of the mobile landscape. Moreover, there is not enough data yet to accurately determine latency. While the Commission seeks comment on whether it should rely on the Mobile Measuring Broadband America (“Mobile MBA”) program data (among other sources) for determining latency,<sup>37</sup> such reliance would be premature at this time. The first report from the Mobile MBA program has yet to be publicly released, and all interested parties have not yet had an opportunity to fully evaluate the data collected through that program. At an absolute minimum, if the Commission does adopt a latency benchmark it should create one separate from that which is used for fixed broadband services, acknowledging the differences in technology and the added benefits of mobility.

The Commission should similarly not adopt a “consistency of service” metric as part of determining whether mobility-based advanced telecommunications capability is available. There are many factors impacting consistency of service that are wholly outside of a network operator’s

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<sup>36</sup> *Notice* ¶ 40.

<sup>37</sup> *Id.*

control.<sup>38</sup> The *Notice* identifies several factors that impact consumers’ mobile experience, including physical interference and network congestion.<sup>39</sup> As to the latter, CCA has consistently advocated for its members and other mobile service providers to be provided adequate flexibility to manage their networks to address reasonable network congestion issues.<sup>40</sup> Wireless network operators provide broadband services over scarce spectrum resources, which are inherently limited and are unequally distributed.<sup>41</sup> And while “the evaluation of network management practices will take into account the additional challenges involved in the management of mobile networks, including the dynamic conditions under which they operate,”<sup>42</sup> it remains unclear at this time the amount of flexibility carriers will have to address this growing concern.

Adopting a consistency of service metric would unfairly prejudice mobile broadband Internet access service providers and do nothing more than confuse consumers and send unreliable signals regarding the availability of mobile broadband services. The Commission should therefore refrain from adopting latency or consistency metrics as part of its evaluation under Section 706.

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<sup>38</sup> *Cf. id.* ¶ 45.

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

<sup>40</sup> See Letter from Steven K. Berry, President & CEO, CCA to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 *et al.* at 2 (filed Feb. 5, 2015); Letter from Rebecca Murphy Thompson, General Counsel, CCA to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 1 (filed Nov. 14, 2014).

<sup>41</sup> CCA members, in particular, face significant competitive challenges, including but not limited to, a lack of low-band spectrum, an inability to execute commercially reasonable data roaming arrangements, and uncertainty regarding available universal service support for operating and upgrading wireless networks in rural areas. See Section IV, *infra*.

<sup>42</sup> *In the Matter of Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Report and Order on Remand, Declaratory Ruling and Order, 30 FCC Rcd 5601, 5611 ¶ 34 (2015) (“Open Internet Report and Order”).

### **C. The Commission Should Consider Additional Factors that Are Important to Evaluating the Availability of Mobile Broadband Services**

One additional factor beyond physical deployment that should be considered by the Commission in making its determination, however, is the extent to which consumers have access to multiple service providers.<sup>43</sup> Competition is critical to the future of the mobile industry, as it “will improve the coverage, speed, and affordability of broadband networks.”<sup>44</sup> As noted by the Commission in prior Mobile Competition reports, a far smaller number of rural Americans are covered by the same number of mobile broadband networks as non-rural Americans, a fact that bears directly on the FCC’s analysis of mobile competition.<sup>45</sup> The Communications Act requires and consumers in rural America deserve access to “reasonably comparable” services as those Americans in non-rural parts of the country.<sup>46</sup> Therefore, this aspect of mobile deployment should be considered in the Commission’s analysis of whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.

### **IV. THE COMMISSION SHOULD FIND THAT ADVANCED TELECOMMUNICATIONS CAPABILITY IS NOT BEING DEPLOYED TO ALL AMERICANS ON A REASONABLE AND TIMELY BASIS, AND TAKE AFFIRMATIVE STEPS TO FACILITATE INCREASED DEPLOYMENT**

Pursuant to Section 706 of the Telecommunications Act, the Commission should find that advanced telecommunications capability is not being deployed to all Americans in a reasonable and timely manner.<sup>47</sup> As CCA has previously demonstrated, significant gaps in population

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<sup>43</sup> See Notice ¶ 51.

<sup>44</sup> Jack Karsten & Darrell M. West, *FCC Chairman Tom Wheeler Promises “Pedal to the Metal” on Broadband Access and Competition*, Brookings (June 26, 2015), <http://www.brookings.edu/blogs/techtank/posts/2015/06/26-fcc-chairman-wheeler-broadband-competition>.

<sup>45</sup> See e.g., *Seventeenth Report* ¶ 52.

<sup>46</sup> 47 C.F.R. § 254(b)(3).

<sup>47</sup> See Notice ¶ 88.

coverage exist today—particularly in rural areas.<sup>48</sup> In light of this fact, and based on its statutory directive, the Commission should take several affirmative steps to remove barriers to deployment of mobile broadband networks.

**A. Increasing Access to USF Funding for Mobile Broadband Providers Will Promote Competition and Expand Broadband Networks To High-Cost, Rural Areas**

The Commission must make sufficient USF resources available to mobile broadband providers. USF support is critical to promoting mobile broadband competition, broadening service offerings and maintaining networks that were built with legacy USF support, especially in rural and high-cost areas.<sup>49</sup> Unfortunately, the Commission’s restructuring of its USF programs in 2011 has stymied competition and risked stranding previously deployed facilities. As noted above, consumer demand for wireless service has exploded even since adoption of the *USF/ICC Transformation Order* in 2011, and the FCC should seize on opportunities to change course.

Specifically, as the Commission continues to implement USF reforms, it should first ensure that wireless CETCs who deployed mobile broadband networks with legacy support mechanisms continue to have access to that support in the future. Additionally, Phase II of the Mobility Fund should be implemented in a manner that reflects the full extent to which large

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<sup>48</sup> See Comments of Competitive Carriers Association (CCA), WC Docket No. 10-90, *et al.* at 8 (filed Aug. 8, 2014) (noting several examples where wireless coverage with download speeds of 3 Mbps or more in rural areas of states is well below 90 percent).

<sup>49</sup> *In the Matter of Connect America Fund et al.*, WC Docket No. 10-90 *et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, ¶ 295 (2011) (recognizing that “[m]obile voice and mobile broadband services are increasingly important to consumers and to our nation’s economy” and that “[g]iven the important benefits of and the strong consumer demand for mobile services, ubiquitous mobile coverage must be a national priority.”).

portions of the country still lack access to such services.<sup>50</sup> This means that the Commission should not reduce the amount of funding made available based on inflated claims by AT&T and Verizon of their alleged mobile broadband deployments throughout the United States. In addition, the Commission should allow providers that receive Mobility Fund support to use any technologies and protocols that satisfy the Commission’s broadband performance requirements, which will afford mobile providers the flexibility to implement their networks in the most efficient and effective manner.

### **B. Promoting Fair Access to Spectrum Opportunities Will Support Competition and Spur Deployment**

Freeing up additional spectrum for mobile broadband services and ensuring competitive carriers are afforded an opportunity to access this spectrum will further encourage the development of mobile broadband networks throughout the country. CCA commends the Commission for establishing the spectrum reserve and cap for the 600 MHz auction, which will provide all carriers an opportunity to access critical low-band spectrum. However, more can and should be done. As the Commission has recognized, “[s]pectrum, in particular, is the single most important input that wireless providers need for the provision of service and is a finite and scarce resource.”<sup>51</sup> Therefore, the Commission should continue to promote opportunities to most efficiently utilize spectrum and ensure that any available spectrum, whether it be *via* auction or

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<sup>50</sup> The Hon. Mignon Clyburn, Commissioner, FCC, Prepared Remarks at the Rural Wireless Association Summit at 4 (Sept. 10, 2015), [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2015/db0915/DOC-335266A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2015/db0915/DOC-335266A1.pdf) (“We need to create a dedicated mobility fund, and ensure that all areas of our nation, have service. It is time to ensure that funding directly to mobile providers, extracts the most value for each dollar of universal service spent, and it is time for consumers in unserved areas, to have service that most of us take for granted.”).

<sup>51</sup> *Seventeenth Report* ¶ 8.

the secondary market, is provided to carriers that have demonstrated a need for it, will effectively utilize it and will not warehouse it to foreclose competition.

For instance, developing technologies such as LTE-U and LAA show great promise for effective sharing in unlicensed bands. In order to allow these bands to meet their full potential, the Commission should continue to maintain technologically-neutral rules in the unlicensed bands and permit standards-setting groups to foster successful coexistence between unlicensed technologies such as LTE-U, LAA and Wi-Fi.<sup>52</sup>

As CCA has advocated in other proceedings, access to low-band spectrum is critical for competitive carriers, especially smaller carriers serving rural and hard-to-reach areas.<sup>53</sup> CCA encourages the Commission to continue to apply its “enhanced factor” heightened standards of review adopted in the *Mobile Spectrum Holdings Report and Order* in a manner that meaningfully preserves competitive opportunities and protects consumers.<sup>54</sup> As CCA has highlighted, “AT&T has entered into at least ten transactions involving over 40 low-band spectrum licenses covering 328 MHz of low-band spectrum *subsequent to the Mobile Spectrum Holdings Report and Order*, which trigger either or both of the enhanced factor standards in

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<sup>52</sup> Reply Comments of CCA, ET Docket No. 15-105 (filed June 26, 2015).

<sup>53</sup> See e.g., Letter from Rebecca Murphy Thompson, General Counsel, CCA, to Marlene H. Dortch, WT Docket No. 05-265 (filed Aug. 17, 2015); Letter from Rebecca Murphy Thompson, General Counsel, CCA, to Marlene H. Dortch, GN Docket No. 12-268, AU Docket No. 14-252 (filed July 31, 2015); Letter from Rebecca Murphy Thompson, General Counsel, CCA, to Marlene H. Dortch, GN Docket No. 12-268, WT Docket No. 12-269, AU Docket No. 14-252 (filed July 10, 2015).

<sup>54</sup> See e.g., Letter from Rebecca Murphy Thompson, General Counsel, CCA and Kathleen Ham, Senior Vice President, Government Affairs, T-Mobile US, Inc. to Marlene H. Dortch, Secretary, FCC, WT Docket Nos. 14-145, 12-269 (filed Sept. 2, 2015) (“CCA-T-Mobile Joint *Ex Parte*”); Letter from James H. Barker and Elizabeth R. Park, Counsel to CCA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 14-145 (filed Mar. 25, 2015).

whole or in part.”<sup>55</sup> To effectively ensure that consumers have a competitive choice, the Commission should apply its heightened standards of review in a meaningful way, distinguishable from transactions not involving significant aggregation of below-1-GHz spectrum.

CCA also appreciates efforts the Commission has made to make available spectrum for future mobile broadband use. Specifically, CCA supports steps the Commission has taken to expand use of the 3.5 GHz band and explore 5G capability with the 24 GHz band thus far, but believes that more can be done.<sup>56</sup> Planning for additional spectrum opportunities by beginning the process now, rather than in several years when the problem will be much more pressing, may spur additional innovation and alleviate future congestion.

### **C. Promoting Access to Commercially Reasonable Roaming Arrangements Will Accelerate Broadband Deployment**

Today, competitive carriers need effective data roaming partnerships more than ever amidst exploding demand for mobile data services and further consolidation of wireless carriers and spectrum resources by the two largest providers. Indeed, as the Commission has reaffirmed, “[t]he availability of roaming capabilities is and will continue to be a critical component of enabling consumers to have a competitive choice of facilities-based providers offering nationwide access to mobile data services.”<sup>57</sup> Without access to commercially-

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<sup>55</sup> CCA-T-Mobile Joint *Ex Parte* at 2.

<sup>56</sup> See e.g., *In the Matter of Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, GN Docket No. 12-354, Report and Order and Second Further Notice of Proposed Rulemaking, 30 FCC Rcd 3959 (2015); *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, GN Docket No. 14-177, et al., Notice of Inquiry, 29 FCC Rcd 13020 (2014).

<sup>57</sup> *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Service*, WT Docket No. 05-265, Declaratory Ruling, 29 FCC Rcd 15423, 15487-88 ¶ 13 (2014) (“*Declaratory Ruling*”).

reasonable roaming arrangements, rural carriers who build and deploy wireless networks in unserved and underserved areas may be forced to exit the market due to an inability to provide nationwide roaming, thus decreasing competition and broadband availability.<sup>58</sup>

CCA applauds the Wireless Telecommunications Bureau for providing the necessary additional guidance on the meaning of “commercially reasonable” in its recent grant of T-Mobile’s Request for Declaratory Ruling.<sup>59</sup> Nevertheless, CCA members unfortunately are still encountering difficulties in obtaining commercially reasonable roaming rates despite this guidance and the existing Data Roaming Order. To further ameliorate the roaming challenges faced by competitive carriers, CCA encourages the Commission to promptly commence its proceeding to “revisit the data roaming obligations of [mobile broadband Internet access service] providers in light of [the] reclassification decisions” adopted in the Open Internet Report and Order.<sup>60</sup>

#### **D. Competitive Arrangements for Critical Backhaul Inputs Will Help Promote Broadband Deployment**

Special access is crucial to wireless networks, but is usually made available only at supra-competitive rates because of a dearth of competition among wireline backhaul providers. This effectively allows the dominant parties to control the backhaul networks that provide the pathways from wireless towers to wired networks. The Commission’s recent efforts on special

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<sup>58</sup> As previously noted, numerous small or regional carriers have been forced to exit the market over the past decade, including Leap, ALLTEL, Dobson, Centennial, Rural Cellular Corporation, Aloha Wireless, Edge Wireless, Cal North Wireless, Mohave Wireless, and SureWest Wireless. *See e.g.*, CCA, Petition to Condition, WT Docket No. 13-193, 10 (filed Sept. 27, 2013); *see also* Letter from Rebecca Murphy Thompson, General Counsel, CCA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 05-265 (filed Aug. 17, 2015) (recognizing that commercially reasonable data roaming arrangements promote competition and the provision of ubiquitous mobile broadband services for consumers).

<sup>59</sup> *See id.*

<sup>60</sup> Open Internet Report and Order, 30 FCC Rcd at 5858 ¶ 526.

access issues<sup>61</sup> are a step in the right direction. CCA urges the FCC to promptly continue its work to review the market data that has been collected with an eye toward enacting meaningful special access reform.<sup>62</sup>

CCA is further encouraged by the Commission's recent decision on the Verizon/Frontier transaction, in which the Commission explicitly outlined the commitments made by the applicants to provide competitive agreements and pricing for critical wholesale inputs and interconnection agreements, and confirmed its expectation that such commitments would be fulfilled.<sup>63</sup> CCA supports the Commission's previous recognition of the important roles that interconnection and wholesale access play in a competitive marketplace, and urges the Commission to continue to protect competitive carriers' continued access to wholesale inputs.<sup>64</sup>

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<sup>61</sup> See e.g., *Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 05-25, RM-10593, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 16318 (2012).

<sup>62</sup> For instance, the Commission adopted a requirement (on an interim basis) that incumbent LECs that discontinue a TDM-based service provide competitive carriers reasonably comparable wholesale access on reasonably comparable rates, terms and conditions during the pendency of the special access proceeding in recognition of the important impact wholesale inputs have on competitive carriers' service offerings. See *In the Matter of Technology Transitions et al.*, GN Docket No. 13-5 et al., Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, FCC 15-97, ¶ 101 (rel. Aug. 7, 2015).

<sup>63</sup> See *In the Matter of Applications Filed by Frontier Communications Corporation and Verizon Communications Inc. for the Partial Assignment or Transfer of Control of Certain Assets in California, Florida and Texas*, WC Docket No. 15-44, Memorandum Opinion and Order, DA 15-987 (rel. Sept. 2, 2015).

<sup>64</sup> For example, the FCC has imposed conditions on the IP transition trial proposals to maintain wholesale access and the status quo in interconnection. See *In the Matter of Technology Transitions; AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition; Connect America Fund; Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Numbering Policies for Modern Communications*, GN Docket Nos. 13-5, 12-353; WC Docket Nos. 10-90, 13-97; CG Docket Nos. 10-51, 03-123; Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice

### **E. Removing Barriers to Deploying Facilities and Infrastructure Will Help Meet The Increasing Demand for Mobile Wireless Services**

CCA commends the Commission's recent actions to promote the deployment of wireless infrastructure as "it is the physical foundation that supports all wireless communications."<sup>65</sup> More recently, the Commission announced a proposed new program alternative to facilitate the review process for deployments of small wireless communications facilities, including those for small cells and distributed antenna systems ("DAS"), under Section 106 of the National Historic Preservation Act ("NHPA").<sup>66</sup> As CCA has previously explained, "NHPA reviews can be time consuming, costly, and burdensome, yet, in the context of DAS and small cell deployment, provide no meaningful benefit."<sup>67</sup> This action by the Commission recognizes the need to revise regulations to keep up with evolving technology and the increasing demand for wireless services. CCA encourages the Commission to continue to seek opportunities to revise its facility processes to maximize efficiencies and eliminate unnecessary procedures.

### **V. CONCLUSION**

The Commission's 2015 Broadband Progress Report found that advanced telecommunications capability was not being deployed to all Americans in a reasonable and timely fashion. Specifically, the Report concluded that approximately 55 million Americans still lack access to broadband service, with a significant amount of these Americans living in rural

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of Proposed Rulemaking, Proposal for Ongoing Data Initiative, 29 FCC Rcd 1433 ¶¶ 59-62 (2014).

<sup>65</sup> See *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, WT Docket Nos. 13-238, 13-32, WC Docket No. 11-59, Report and Order, 29 FCC Rcd 12865, ¶ 1 (2014); *Erratum*, 30 FCC Rcd 31 (2015).

<sup>66</sup> See *Wireless Telecommunications Bureau Seeks Comment on Revising the Historic Preservation Review Process for Small Facility Deployments*, Public Notice, WT Docket No. 15-180, DA 15-865 (rel. July 28, 2015).

<sup>67</sup> Comments of Competitive Carriers Association, WT Docket No. 13-238, at 11 (filed March 5, 2014).

areas.<sup>68</sup> CCA urges the Commission to consider the demands and desires of the American people and incorporate mobile broadband into its analysis, and further promote increased deployment of mobile broadband services in accordance with the recommendations contained herein.

Respectfully submitted,

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<sup>68</sup> 2015 Broadband Progress Report ¶¶ 133-35.