

**Before the  
DEPARTMENT OF COMMERCE  
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION  
Washington, D.C. 20230**

In the Matter of )  
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 )  
National Broadband Research Agenda ) Docket No. 160831803-6803-01  
 )

**COMMENTS OF COMPETITIVE CARRIERS ASSOCIATION**

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Competitive Carriers Association (“CCA”)<sup>1</sup> submits these comments in response to the above-referenced Notice and Request for Comment (“Notice”) released by the National Telecommunications and Information Administration (“NTIA”) and the National Science Foundation (“NSF”).<sup>2</sup> The Notice solicits comment to inform the development of the National Broadband Research Agenda (“Agenda”) which will highlight significant opportunities for data collection and analysis regarding massive digital changes and a tectonic shift in telecommunications technology permeating our society.<sup>3</sup> CCA applauds NTIA and NSF’s effort to analyze and expand opportunities for all Americans to access broadband services. CCA focuses its comments on questions three, four, nine, fifteen, sixteen, and eighteen. In responding to NTIA’s inquiries, CCA offers recommendations for more efficient data collection techniques and policy suggestions to better enable competitive carriers to deploy universal broadband services in support of the Agenda.

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<sup>1</sup> CCA is the nation’s leading association for competitive wireless providers and stakeholders across the United States. CCA’s membership includes nearly 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.

<sup>2</sup> *National Broadband Research Agenda*, Docket No. 160831803-6803-01, Notice and Request for Comment, 81 FR 62479 (Sept. 9, 2016) (“Notice”).

<sup>3</sup> *Id.*

I. **QUESTION 3: What specific technology research proposals can support federal efforts to foster the access and adoption of broadband technology across rural areas, and other unserved and underserved segments, such as population groups that have traditionally under-utilized broadband technology?**

CCA's members tirelessly work to deploy mobile wireless and advanced broadband services across the nation, including unserved and underserved areas. Despite this, as of December 2015, only 56 percent of the rural population was covered by at least four LTE service providers, while 96 percent of the non-rural American population had LTE coverage by four or more service providers.<sup>4</sup> For mobile broadband specifically, the market remains highly concentrated, detracting from progressive network deployment by rural and regional providers as AT&T and Verizon together command nearly three-quarters of the market by service revenue.<sup>5</sup>

To inspire greater adoption of broadband technology in rural and underserved areas, CCA encourages NTIA and NSF to explore multiple data sources that more accurately reflect real-world conditions impacting the availability of broadband service. Policymakers cannot continue to rely on non-standardized, incomplete and inaccurate data collection methods that overstate the extent of mobile broadband deployment, especially in rural areas. Instead, NTIA, the Federal Communications Commission ("FCC" or "Commission"), and other relevant agencies should improve data collection efforts by requiring standardized data to get a clear and accurate picture of broadband deployment. In addition, these agencies should employ commercially available databases as well as data gathered from drive-testing tools conducted by the federal government, third parties, or through crowd-sourcing. To further encourage broadband access and

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<sup>4</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*, Nineteenth Report, DA 16-1061 ¶ 43 (2016) ("*Nineteenth Mobile Competition Report*").

<sup>5</sup> *Id.* ¶ 19.

deployment, it is imperative that policymakers are armed with comprehensive data that reflects real-world service availability and performance.

Government agencies also should enact specific policies that promote investment in broadband facilities. Specifically, NTIA and NSF should work alongside Congress and the FCC to inspire tailored reforms. For example, the Commission should reform its Universal Service Fund (“USF”) distribution rules to provide equitable and sufficient support for mobile broadband. It is likewise imperative for all relevant agencies to work with Congress to enact clear infrastructure policies that streamline and speed deployment. Together, these steps will ensure carriers have adequate information and tools necessary to deploy broadband networks where they are needed most.

**II. QUESTION 4: What are the critical data and research needs in the areas of broadband deployment and access?**

CCA applauds continued efforts to measure and analyze the telecommunications ecosystem through a variety of data sources, all of which support action by policymakers to encourage competition. For example, according to the FCC’s *Nineteenth Mobile Competition Report* the two largest wireless carriers, AT&T and Verizon, accounted for 71% of the total industry revenue in 2015.<sup>6</sup> Further, LTE coverage by four or more providers reaches 96 percent of the population living in urban areas, with nearly half - or 56 percent - of the rural population lacking adequate coverage,<sup>7</sup> proving that rural Americans often are not receiving comparable service. Further, according to the Herfindahl-Hirschman Index (“HHI”), the market remained highly concentrated by year-end 2015.<sup>8</sup>

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<sup>6</sup> *Id.* ¶ 20.

<sup>7</sup> *Id.* ¶ 43.

<sup>8</sup> *Id.* ¶ 21.

Despite these metrics, the FCC’s *2016 Broadband Progress Report*, acknowledges that the Commission consistently lacks sufficient data necessary to draw specific conclusions about the wireless ecosystem, including the ability to set specific speed and consistency benchmarks for mobile broadband.<sup>9</sup> As a result, while current data sources paint one picture of the telecommunications ecosystem, more specific and standardized figures are needed to fully understand how to improve and facilitate competitive opportunities for advanced network deployment in this current landscape. To ameliorate this chasm, CCA encourages NTIA to expand widely-used data sources for evaluating broadband deployment and access.

First, NTIA should work with the Commission to improve Form 477 data. The December 2015 Form 477 data shows that more than 90 percent of the population is covered by at least four mobile wireless service providers. However, these census blocks accounted for only approximately 34 percent of the total land area of the United States, and approximately 58 percent of total U.S. road miles.<sup>10</sup> Moreover, the Commission has repeatedly recognized that this data set can “understate[] or overstate[]” the availability of service.<sup>11</sup> Similarly, current methodologies for determining the availability of service in a given census block based on the reported availability of service in the geographic center of the block may exaggerate the deployment of services throughout an area.<sup>12</sup> This contrast is especially evident in rural areas, where census blocks are much larger than those in urban areas. The FCC should work to

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<sup>9</sup> *See 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*, 2016 Broadband Progress Report, 31 FCC Rcd 699, 710 ¶¶ 58, 66, 70 (2016) (“*2016 Broadband Progress Report*”).

<sup>10</sup> *Nineteenth Mobile Competition Report* ¶ 37.

<sup>11</sup> *2016 Broadband Progress Report* ¶ 75 n. 234.

<sup>12</sup> *Id.*

standardize the Form 477 reporting process by accounting for certain factors including signal strength, dB, and loss factors. Creating a uniform methodology for Form 477 reporting will present a more accurate and comprehensive understanding of areas with adequate coverage, versus those that remain underserved.

Likewise, policymakers should be skeptical of exaggerated claims of ubiquitous 4G LTE coverage, which are based on calculations that are unsupported by the realities of actual service availability.<sup>13</sup> CCA applauds the FCC’s recent shift toward use of actual area coverage as a measurement for broadband service throughout the United States. Indeed, the Commission recognizes that “actual area coverage methodology is more precise exactly because it provides us with the actual geographic area covered by a given technology.”<sup>14</sup> Because actual area coverage measures the exact land area covered by a given technology, CCA recommends NTIA and NSF work with other agencies to encourage use of drive testing in tandem with actual area analysis, to corroborate and verify service availability. Indeed, while the *Nineteenth Mobile Competition Report*, and recent FCC Staff Report on “Working Toward Mobility Fund II: Mobile Broadband Coverage Data and Analysis” has moved away from flawed methodologies that focus on coverage at the centroid of a census block, the data remains non-standardized and incomplete.<sup>15</sup> Facilitating research to understand the gap between areas that are adequately served, versus those that remain unserved or underserved, is a critical step to encouraging targeted broadband deployment for all Americans.

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<sup>13</sup> See Reply Comments of Competitive Carriers Association at 5-6, WT Docket No. 16-137 (filed June 15, 2016) (“CCA Mobile Competition Reply Comments”).

<sup>14</sup> *Nineteenth Mobile Competition Report* ¶ 39.

<sup>15</sup> See *id.* ¶ 105.

**III. QUESTION 9: What specific research and data are needed to understand how rural residents and other population groups that have traditionally under-utilized broadband technology (e.g., seniors, low-income families, persons with disabilities) can better adopt and use broadband?**

Today, wireless is king. Mobile broadband service is widely used by consumers and businesses not just to exchange messages, but also for fixed and mobile access to opportunities in employment, education, healthcare, agriculture, and banking, to name a few.<sup>16</sup> At the same time, recent data show that a third of American adults do not have high-speed Internet in their homes, while a higher number of Americans were without broadband in 2015 than 2013.<sup>17</sup> As a result, the FCC’s *2016 Broadband Progress Report* concludes that “there is still more work to do,” including work necessary to close the gap between urban and rural communities in the availability of advanced telecommunications capability.<sup>18</sup> Additional sources highlight the reality that more than 42% of the United States geography can contain as few as 1% of the population, further demonstrating how previous reports that 99% of the population may have some coverage by one or more wireless carrier at their residence does not mean that the nation is

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<sup>16</sup> See Comments of Competitive Carriers Association, at 5-6 & nn.16-24, GN Docket No. 15-191 (filed Sept. 15, 2015) (“CCA Eleventh NOI Comments”). The Pew Foundation recently found that the number of adults that rely exclusively on smartphones has increased to 13 percent of the population in 2015, up from only 8 percent in 2013. See John B. Horrigan & Maeve Duggan, *Home Broadband 2015*, PEW RESEARCH CENTER, (Dec. 21, 2015), <http://www.pewinternet.org/2015/12/21/home-broadband-2015/>. Further, the proportion of “mobile-only” Americans are even higher among lower income households, with 23 percent of families with below median incomes and 33 percent of those below the poverty line relying exclusively on mobile-only access. See Victoria Rideout and Vikki S. Katz, *Opportunity for all? Technology and learning in lower-income families*, THE JOAN GANZ COONEY CENTER AT SESAME WORKSHOP, at 5 (2016), [http://digitalequityforlearning.org/wp-content/uploads/2015/12/jgcc\\_opportunityforall.pdf](http://digitalequityforlearning.org/wp-content/uploads/2015/12/jgcc_opportunityforall.pdf).

<sup>17</sup> PEW RESEARCH CENTER, “Smartphones help those without broadband get online, but don’t necessarily bridge the digital divide” (rel. Oct. 3, 2016), *available at* <http://www.pewresearch.org/fact-tank/2016/10/03/smartphones-help-those-without-broadband-get-online-but-dont-necessarily-bridge-the-digital-divide/>.

<sup>18</sup> *2016 Broadband Progress Report* ¶ 4 (observing that “more than 39 percent of Americans living in rural areas lack[] access to advanced telecommunications capability, as compared to 4 percent of Americans living in urban areas”).



adequately served with mobile coverage.<sup>19</sup> In fact, these disparities continue to grow among low-income consumers and residents in rural areas.<sup>20</sup>

To encourage use of broadband for all consumers and make determinations based on the best available information, CCA encourages NTIA and the FCC to explore alternative research mechanisms other than information reported in FCC Form 477. Policymakers should leverage existing commercial resources where feasible,<sup>21</sup> while applying other sources of data to measure and compare actual availability of broadband service. Using a variety of sources, including commercial means like Mosaik, Nielsen, and Ookla, will illuminate data comparisons and detect biases. For example, the Commission employed a variety of sources in the *Nineteenth Mobile Competition Report*, including Mosaik, HHI, Ookla, and RootMetrics. The FCC agrees that together, certain comparisons provide a more accurate picture of the mobile landscape.<sup>22</sup> Thus, using data from multiple sources is essential because no single source is likely to provide all data

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<sup>19</sup> See Christopher Ingraham, The Washington Post, “Look at the Jaw-Dropping Emptiness of America” (Jan. 20, 2016), *available at* <https://www.washingtonpost.com/news/wonk/wp/2016/01/20/americas-emptiest-places-42-of-the-land-1-of-the-people/>.

<sup>20</sup> For example, NTIA recently released a report on “*The State of the Urban/Rural Digital Divide*.” According to this data, Americans with incomes between \$75,000 and \$99,999 per year adopted the Internet at an 83 percent rate, compared to 80 percent of those reporting income between \$50,000 and \$74,999, and 70 percent of those in the \$25,000 to \$49,999 range. See NTIA, *The State of the Urban/Rural Digital Divide* (Aug. 10, 2016), *available at* <http://www.ntia.doc.gov/blog/2016/state-urbanrural-digital-divide>.

<sup>21</sup> Specifically, industry should continue to utilize Mosaik Solutions’ mobile coverage datasets of the wireless industry to provide stakeholders information that spans network coverage, infrastructure and performance.

<sup>22</sup> *Nineteenth Mobile Competition Report* ¶¶ 43, 105. The FCC likewise has acknowledged inconsistencies with using only commercial data sets. For example, Mosaik’s data shows advertised coverage as reported by service providers, which could result in an “[in]consistent methodology across geographic areas and service providers... [l]ikely overstate the coverage actually experienced by consumers.” See *id.* ¶ 33, fn 73.

necessary for policymakers to make accurate determinations of broadband service throughout the United States.<sup>23</sup>

Because of the necessity for efficient data collection, NTIA also should continue consultation with Congress and the FCC to explore alternative research proposals. For example, Senators Roger Wicker (R-MS) and Joe Manchin (D-WV) recently launched a bipartisan effort urging the FCC to rely on “realistic measurements of network experience” to determine areas where broadband deployment is needed most.<sup>24</sup> Policymakers should measure road miles as a metric for evaluating network coverage, in addition to commercially available data sets. Data also should be gathered through drive-testing and crowd-sourcing, which can be used to corroborate and verify supplemental data sources.<sup>25</sup> NTIA and NSF should continue conversations with all policymakers to ensure a comprehensive research regime is enacted.

**IV. QUESTION 15: Given limited federal budgets and existing research efforts led by industry, academia, and other external groups, what specific role should the federal government play in the area of broadband research (e.g., funding, data gathering, coordination)?**

As NTIA, the FCC, and other government agencies build the groundwork for ubiquitous broadband deployment and next generation networks, these agencies should employ research

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<sup>23</sup> See, e.g., *Special Access for Price Cap Local Exchange Carriers; AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, Order and Further Notice of Proposed Rulemaking, WC Docket No. 05-25, RM-10593, 27 FCC Rcd 16318, 16360, App. A. (2012) (“Data Collection Order or Data Collection FNPRM”).

<sup>24</sup> See Letter from Sens. Wicker (R-MS), Manchin (D-WV), Baldwin (D-WY), Blunt (R-MO), Burr (R-NC), Capito (R-WV) Daines (R-MT), Ernst (R-IA), Fischer (R-NE), Gardner (R-CO), Heitkamp (D-ND), Johnson (R-WI), King (I-ME), Klobuchar, (D-MN), McCaskill (D-MO), Moran (R-KS), Peters (D-MI), Roberts (R-KS), Rubio (R-FL), Tillis (R-FL), Vitter (R-LA), Warner (D-VA), Wyden (D-OR), Cochran (R-MS), Boozman (R-AR), Kirk (R-IL), U.S. Senate, to The Hon. Tom Wheeler, Chairman, Federal Communications Commission (July 11, 2016), available at <http://www.wicker.senate.gov/public/index.cfm/press-releases?ID=31B66AB0-57A7-4937-90BE-A5A31B6CF516> (“Senate Mobility Fund II Letter”).

<sup>25</sup> *Id.*

tactics that illuminate flexible policies designed to withstand a changing technological environment. To determine where to spend public funds, policymakers must first focus efforts on where Americans have mobile broadband service and mobile choice. Competitive carriers are more important than ever, as the trend of consolidation has strengthened the duopoly of AT&T and Verizon. As the FCC’s *Eighteenth Mobile Competition Report* recognizes, “non-nationwide service providers are important sources of competition in rural areas, enhancing competitive choices for consumers in the mobile wireless marketplace, and helping to promote deployment.”<sup>26</sup> It is therefore critical for policymakers to coordinate and account for the practical and financial needs of competitive mobile carriers when analyzing broadband research.

Further, the Department should continue engaging with the Administration to encourage policies that streamline broadband deployment, including supporting ideas contained in recent legislation. Recently, a bipartisan group of Senators urged the FCC to partner with stakeholders to solve problems regarding accuracy of mobile broadband statistics and affirmed that federal funds must support fixed and mobile broadband services.<sup>27</sup> As another example, S. 2555, the MOBILE NOW Act, is a bipartisan effort that targets the buildout of 5G mobile broadband and addresses multiple barriers to network deployment, from “dig once” policies to pre-auction funding to making 500 MHz of spectrum available to licensees for both fixed and mobile broadband use by 2020.<sup>28</sup> The MOBILE NOW Act also adds certainty to deploying facilities

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<sup>26</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*, Eighteenth Report, 30 FCC Rcd 14515 ¶ 10 (2015) (“*Eighteenth Mobile Competition Report*”).

<sup>27</sup> Letter from Sens. Manchin, Gardner, Ayotte, Fischer, Peters, Klobuchar, Moran, Schatz, and Daines to Tom Wheeler, Chairman, Fed. Comm’ns Comm’n (Mar. 1, 2016), *available at* <https://prodnet.www.neca.org/publicationsdocs/wwpdf/41816manchin.pdf>.

<sup>28</sup> Making Opportunities for Broadband Investment and Limiting Excessive and Needless Obstacles to Wireless Act (Feb. 11, 2016) *available at*

through use of shot clocks. Legislation to streamline barriers to deployment and advance next generation networks exemplify the proactive, forward-looking role government should play as industry attempts to deploy ubiquitous broadband service. CCA applauds this ongoing coordination, and urges NTIA to work with Congress to initiate long-overdue reforms, and implement policies that encourage investment, innovation, and competition in fixed and mobile broadband.

V. **QUESTION 16: Are there opportunities to collect new broadband-related data or expand current data sets within federal programs that fund and/or produce research?**

As NTIA and NSF recognize, implementing the Agenda will require resources and leadership across a multitude of stakeholders, including federal government actors and industry representatives.<sup>29</sup> Data collection policies adopted through this initiative, therefore, have the potential to influence other agency programs, like the FCC’s USF program. Moving forward, it is critical to ensure that Mobility Fund Phase II, or another ongoing support program, is implemented for wireless carriers. However, the government must first accurately identify which areas of the United States should be eligible for support to preserve and expand mobile broadband. As noted above, CCA continues to recommend new policies for accurate data collection to create a new methodology to determine which portions of the country qualify as “served,” versus those that remain unserved or underserved.<sup>30</sup>

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[http://www.commerce.senate.gov/public/\\_cache/files/8805bde8-408f-4b5e-a5fa-d867eed9d84f/146C427A5D018C04CE7E9C925D398163.mobile-now-act.pdf](http://www.commerce.senate.gov/public/_cache/files/8805bde8-408f-4b5e-a5fa-d867eed9d84f/146C427A5D018C04CE7E9C925D398163.mobile-now-act.pdf) (the “MOBILE NOW Act”).

<sup>29</sup> Notice at 62480.

<sup>30</sup> *See Ex Parte* Letter from Rebecca Murphy Thompson, General Counsel, CCA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 (filed Nov. 16, 2015); *see also Ensuring Intermodal USF Support for Rural America Before the S. Comm. on Commerce, Sci., and Transp. Subcomm. on Commc’ns, Tech., Innovation, and the Internet*, 114th Cong. (2016) (statement of Steven K. Berry, CEO & President of Competitive Carriers Association).

The Commission also has taken steps to address infrastructure-related impediments to broadband and Internet of Things (“IoT”) deployment by suggesting a streamlined permit approval process for small cell technologies widely accepted as 5G conduits.<sup>31</sup> Indeed, IoT and 5G deployment is expected to “handle about 1000 times more mobile data than today’s cellular systems.”<sup>32</sup> Data sets established through the Agenda will help carriers identify the most auspicious areas to deploy small cells and other network facilities, to facilitate next generation networks, improve service, and meet consumers’ insatiable expectations.

**VI. QUESTION 18: What are possible changes to federal policies and programs that would enhance broadband research?**

Agency efforts will help to determine next steps for ubiquitous broadband deployment as industry moves toward 5G, and will have a direct impact on competitive carriers’ role in ensuring buildout to rural populations and underserved areas. Moving forward, NTIA and NSF must work with all government players to ensure consumers in all geographic areas are able to benefit from broadband deployment, including access to mhealth applications, precision agriculture, and industrial IoT. Often the FCC is the first entity to address substantive network deployment and spectrum use specifications, building upon legislative direction and authority granted by Congress. CCA therefore encourages NTIA to actively engage in the FCC’s rulemaking proceedings.

Spectrum. NTIA should continue its work with the Commission to ensure adequate access to spectrum resources. The Commission recently initiated a number of proceedings designed to free up new 5G-capable spectrum, either through innovative sharing arrangements or

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<sup>31</sup> *Wireless Telecommunications Bureau Seeks Comment on Proposed Amended Nationwide Programmatic Agreement for the Collocation of Wireless Antennas*, Public Notice, WT Docket No. 15-180, DA 16-519 (rel. June 13, 2016).

<sup>32</sup> *See Alexander Helleman*, IEEE Spectrum, “Why IoT Needs 5G” (May 20, 2015), *available at* <http://spectrum.ieee.org/tech-talk/computing/networks/5g-taking-stock>.

altering rules to allow more productive spectrum utilization.<sup>33</sup> CCA encourages NTIA to engage in these proceedings, and to account for past successes with respect to mobile carriers coordinating with federal users in the AWS-1 spectrum and current successful efforts to coordinate use of AWS-3 spectrum. CCA applauds NTIA's ongoing outreach to CCA and its members to facilitate these spectrum sharing opportunities. Likewise, it is important for NTIA to continue coordination efforts to make 500 MHz of federal and non-federal spectrum available for commercial wireless broadband by 2020, as outlined in the 2010 Presidential Memorandum *Unleashing the Wireless Broadband Revolution*.<sup>34</sup> CCA applauds this ongoing conversation, which to date has made good progress meeting this goal.<sup>35</sup>

USF. Policymakers must continue to make resources available for broadband providers to support infrastructure throughout the United States. Section 706 charges the Commission with the duty to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to *all* Americans.”<sup>36</sup> In striving to meet this statutory directive, support is critical both to promoting IoT deployment in rural areas, and to broadening service

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<sup>33</sup> See, e.g., *Comment Sought on Ligado's Modification Applications*, Public Notice, IB Docket Nos. 11-109 & 12-340, DA 16-442 (rel. Apr. 22, 2016); see also *Comment Sought to Update the Record on Ligado's Request that the Commission Initiate a Rulemaking to Allocate the 1675-1680 MHz Band for Terrestrial Mobile Use Shared with Federal Use*, Public Notice, RM-11681, DA 16-443 (rel. April 22, 2016); see also *Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, GN Docket No. 12-354, Order on Reconsideration and Second Report and Order, FCC 16-55 (rel. May 2, 2016); see also *Consumer & Governmental Affairs Bureau Reference Information Center Petition for Rulemakings Filed*, Public Notice, Report No. 3042 (rel. May 9, 2013) (Petition for Rulemaking to Permit MVDDS Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service).

<sup>34</sup> Presidential Memorandum, *Unleashing the Wireless Broadband Revolution*, (rel. June 28, 2010), available at <https://www.whitehouse.gov/the-press-office/presidential-memorandum-unleashing-wireless-broadband-revolution>.

<sup>35</sup> See NTIA, “Nearly Halfway to Meeting Spectrum Target,” (rel. July 8, 2015), available at <http://www.ntia.doc.gov/blog/2015/nearly-halfway-meeting-spectrum-target>.

<sup>36</sup> 47 U.S.C. § 1302(a) (emphasis added).

offerings and maintaining networks, especially in rural and high-cost areas where consumers are already benefitting from USF-supported deployments.<sup>37</sup> Unfortunately, these areas are expensive to deploy and maintain service. NTIA should continue to engage with the Commission to ensure that Mobility Fund Phase II is implemented in a manner that reflects the full extent to which large portions of the country still lack access to such services or would face reductions in service absent support.<sup>38</sup>

BDS. Further, it is imperative that government create a fair Business Data Services (“BDS”) market that facilitates wide-scale network deployment, with cost-effective delivery of greater swaths of data across dense small-cell-based infrastructure. As Chairman Wheeler has observed, more backhaul is needed to handle the massive increase in data traffic and “seize the opportunities to increase the deployment of mobile networks and to move towards 5G connectivity. Lack of competition doesn't just hurt the deployment of wireless networks today, it also threatens to delay the buildout of 5G networks.”<sup>39</sup> To further the goal of widespread deployment and facilitate next generation technology, the Commission’s recent *BDS* rulemaking seeks to comprehensively reform the broken BDS market.<sup>40</sup> This proceeding is a ripe

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<sup>37</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).

<sup>38</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) (stating “[w]e 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>39</sup> See *Oversight of the Federal Communications Commission Before the S. Comm. on Commerce, Sci., and Transp.*, 114th Cong. (Sept. 15, 2016) (statement of Tom Wheeler, Chairman, Federal Communications Commission).

<sup>40</sup> See *Business Data Services in an Internet Protocol Environment, et al.*, Tariff Investigation Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 4723, 4725-26 ¶ 5 (2016) (“*BDS FNPRM*”).

opportunity for policymakers to provide competitive carriers a reasonably priced, competitive market for backhaul needed for broadband deployment.<sup>41</sup>

Infrastructure. CCA supports the Commission's and the Administration's efforts to reduce barriers to infrastructure deployment. Policymakers should continue to focus on efforts to diminish uncertainties and issues related to infrastructure policy, including a specific focus on federal lands and facilities, such as shot clocks, "dig once" policies, single points of contact, and supporting legislation that helps materialize these initiatives. In addition, streamlined tower siting policies could lead to a safer, more efficient climbing environment.<sup>42</sup> To that end, CCA applauds the Commission's First Amendment to the Collocation Agreement, and broader efforts to engage with federal partners to ensure bedrock infrastructure, associated equipment, and small cell facility deployment policies are conducive to next generation network buildout.<sup>43</sup> Nevertheless, CCA encourages policymakers to further reduce barriers to deployment by enacting clear infrastructure siting policies.

## **VII. CONCLUSION.**

CCA applauds NTIA's and NSF's desires to consider other means to collect and analyze data that accurately depicts the state of broadband deployment in the telecommunications ecosystem. In adopting forward-looking research models and policies, CCA encourages NTIA and NSF to work alongside government agencies to foster an environment that provides

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<sup>41</sup> See *Ex Parte* Letter of Competitive Carriers Association, INCOMPAS, Sprint, T-Mobile, and U.S. Cellular, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25, RM 105-93, (filed Apr. 21, 2016) ("CCA BDS *Ex Parte*").

<sup>42</sup> See Press Release, Competitive Carriers Association, "CCA Supports OSHA's National Safety Stand-Down" (May 2, 2016) available at <http://ccamobile.org/press/rca-press-releases/cca-supports-oshas-national-safety-stand-down/9121352>.

<sup>43</sup> See *Wireless Telecommunications Bureau Announces Execution of First Amendment to the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas*, Public Notice, WT Docket No. 15-180 (rel. Aug. 8, 2016).



competitive carriers the flexibility to preserve and expand broadband networks, without creating unnecessary burdens and disincentives that could stifle competition, innovation and investment. When spearheading the Agenda, it is essential that policymakers inspire use of a broad range of data collection methods that help to formulate smart policies to allow carriers to deploy universal broadband services as industry moves toward next generation networks.

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