Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Wireless Telecommunications Bureau Seeks Comment on the State of Mobile Wireless Competition	)	WT Docket No. 17-69
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	)	
	)	

REPLY COMMENTS OF COMPETITIVE CARRIERS ASSOCIATION

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REPLY COMMENTS OF COMPETITIVE CARRIERS ASSOCIATION

Competitive Carriers Association ("CCA")[1] hereby submits the following reply comments in response to the record and the Federal Communications Commission's ("FCC" or "Commission") Public Notice seeking comment on the state of competition in the mobile wireless marketplace.[2]

I. INTRODUCTION AND SUMMARY

CCA agrees that industry is continuing to evolve at a rapid rate;[3] however, to broadly claim that competition for mobile wireless service is present nationwide[4] is factually inaccurate, contradicts the Chairman's own Digital Empowerment Agenda, and is dismissive of rural and

[1] 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 customers to regional and national providers serving millions of customers. CCA also represents approximately 200 associate members including vendors and suppliers that provide products and services throughout the mobile communications ecosystem.

[2] *Wireless Telecommunications Bureau Seeks Comment on the State of Mobile Wireless Competition*, Public Notice, WT Docket No. 17-69, DA 17-267 (rel. Mar. 23, 2017) ("Public Notice").

[3] *See, e.g.*, Comments of Competitive Carriers Association, WT Docket No. 17-69 (filed May 8, 2017) ("CCA Comments"); Comments of AT&T Inc., WT Docket No. 17-69 (filed May 8, 2017) ("AT&T Comments"); Comments of CTIA, WT Docket No. 17-69 (filed May 8, 2017) ("CTIA Comments"); Comments of The Free State Foundation, WT Docket No. 17-69 (filed May 8, 2017) ("Free State Foundation Comments"); Comments of Mobile Future, WT Docket No. 17-69 (filed May 8, 2017) ("Mobile Future Comments"); Comments of NTCA – The Rural Broadband Association, WT Docket No. 17-69 (filed May 8, 2017) ("NTCA Comments" or "NTCA 2016 Wireless Survey Report"); Comments of Verizon, WT Docket No. 17-69 (filed May 8, 2017) ("Verizon Comments").

[4] *See, e.g.*, AT&T Comments; Mobile Future Comments; Free State Foundation Comments.

remote consumers' experiences. Indeed, Section 254(b) of the Communications Act provides that the FCC shall base policies on "statutory principles established by Congress," including the provision of "advanced telecommunications and information services" to consumers "in all regions of the Nation," at "just, reasonable, and affordable rates," and of services in "rural, insular, and high cost areas" that are "reasonably comparable" to those provided in urban areas.[5] The Commission must apply informed, accurate data to most efficiently address its statutory duties, while incurring the least amount of cost. Fortunately, the record in this proceeding reflects industry's enthusiasm in meeting this shared goal through sound economic review of the market and implementation of targeted policy reforms where needed. Specifically, the Commission should take a fact-based, economic approach to determining which areas of the country are effectively competitive, and which require FCC oversight and, if necessary, intervention to encourage investment and deployment of advanced mobile broadband services.

II. THE RECORD SUPPORTS USE OF SOUND ECONOMIC ANALYSIS AND DATA, WHICH WILL DEMONSTRATE THAT NATIONWIDE MARKET COMPETITION IS A MYTH

A. A Rigorous Market-By-Market Analysis Will Reveal Areas Where Competition is Lacking

Upon review of the record, the mobile wireless market continues to evolve and CCA applauds providers' work to advance innovative services to meet consumers' growing demands.[6] Indeed, studies show that Americans consume more mobile data than users in any other country

[5] 47 U.S.C. § 254(b).

[6] *See* Sara Fischer, Cord-cutting explodes, Axios (May 25, 2017), *available at* https://www.axios.com/cord-cutting-2404802585.html ("Cord Cutters"). *See also* Mobile Future Comments at 1-2l; AT&T Comments at 31; CTIA Comments at 6.

of the world.[7] And, "the United States is the third-largest market for mobile data worldwide in terms of gigabytes consumed per user per month, behind only South Korea and Finland."[8] However, to say that the current structure of the United States wireless market "*guarantees* intense competition"[9] is naïve and factually inaccurate. The Commission should apply an economic analysis using sound data to determine that competition is not present nationwide.[10]

Specifically, the Commission must base its competitive analysis on the economics of each market, especially in terms of concentration, supply, and cost concerns in rural and remote areas. Unlike assertions in the record that competition is evidenced by providers' active "choice" to compete, competitive carriers' *ability* to compete continues to be hamstrung by the power of the duopoly.[11] Chairman Pai recently noted that "we obviously have to take a case-by-case look as to the competitive landscape, and so it really *depends on the geographic market*, the product and service market that we are talking about. [For example,] if it is a transaction that is involved, what are the competitive implications of the confirmation of that transaction?"[12] The FCC should heed the Chairman's advice and take an informed look at each "geographic market;" doing so will change the competitive equation each time, and recognize that competition in rural and regional markets is lacking.

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[7] *See* Colin Gibbs, Mobile revenues flatten even as data consumption ramps up in U.S., FierceWireless (May 16, 2017).

[8] *See id*.

[9] *See* AT&T Comments at 10 (emphasis added).

[10] *See* CTIA Comments at 66; AT&T Comments at 9 (asking the FCC to "give proper emphasis to the factors that economic theory and standard antitrust practice deem most salient").

[11] *See* AT&T Comments at 15; Verizon Comments at 4.

[12] *See* Ted Johnson, FCC Chairman Ajit Pai Interview, Variety (Mar. 14, 2017), *available at* http://variety.com/2017/biz/news/fcc-ajit-pai-media-ownership-1202008630/ (emphasis added) ("Variety Interview with Chairman Pai").

What's more, while the urban market may be seen as effectively competitive, Chairman Pai likewise has acknowledged the lack of Internet connectivity in rural and remote areas: "from Alaska native villages above the Arctic circle, to small towns in West Virginia, where I have seen the consequences of people not having digital connectivity."[13] Commissioner O'Rielly also has acknowledged that "consumers in some areas of America do not have sufficient broadband."[14] Indeed, targeted policies must be applied by the FCC to ameliorate the stark digital divide across the United States and improve the experience of consumers in rural and remote areas.[15] Without FCC action, adequate federal funding where needed, and access to critical network inputs, consumers in these markets are in jeopardy of service interruption or disconnection.

Applying recent data, it is clear that rural areas remain less likely to have access to, or choices for, broadband, smartphones, and other devices.[16] Pew Research reports that "[d]espite recent gains in digital technology adoption, rural adults remain less likely than urban and suburban adults to have and use these technologies. For example, rural Americans are 7 to 12 percentage points less likely than those in urban and suburban areas to say they have a smartphone, traditional computer or tablet computer."[17] As a result, "[e]ven though rural areas are more wired today than in the past, substantial segments of rural America still lack the

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[13] *Id*.

[14] Commissioner Michael O'Rielly, "Federal Broadband Infrastructure Spending: Potential Pitfalls," FCC Blog (rel. Feb. 1, 2017), *available at* https://www.fcc.gov/news-events/blog/2017/02/01/federal-broadband-infrastructure-spending-potential-pitfalls ("Commissioner O'Rielly Infrastructure Blog").

[15] *See, e.g.,* CCA Comments; NTCA Comments at 3.

[16] *See* Andrew Perrin, Digital gap between rural and nonrural America persists (May 19, 2017), *available at* http://www.pewresearch.org/fact-tank/2017/05/19/digital-gap-between-rural-and-nonrural-america-persists/ ("Digital Gap Persists").

[17] *Id*.

infrastructure needed for high-speed Internet, and… [the service provided in] these areas… tends to be slower than that of nonrural areas."[18] CCA therefore praises recent Commission action to close the digital divide, such as the Chairman's introduction of its Broadband Deployment Advisory Committee ("BDAC") to facilitate infrastructure buildout,[19] and creation of the Rural Broadband Auctions Task Force to facilitate federal funding to serve unconnected areas. CCA also encourages the Commission to continue making available mid- and high- band spectrum resources for mobile use,[20] and applauds its work toward adopting a robust Mobility Fund II program. The Commission must move forward with these common-sense endeavors to ensure all Americans have access to the most advanced services.

B. The Duopoly's Dominance Forecloses Abundant Competition in Portions of the Mobile Wireless Ecosystem, Particularly in Rural and Remote Areas

As a result of the current market structure, AT&T and Verizon's dominance over competitive carriers' ability to compete is stifling and results in discrepancies in competition across urban and rural markets. While AT&T argues that the "facts… make plain that no provider in this marketplace comes close to having 'market power' – i.e., the ability to sustain restrictions in output and increases in price," AT&T blatantly dilutes the breadth of its own supremacy.[21] The duopoly continues to dominate the market by any metric, as evidenced in the record,[22] and recent earnings reports. In the first quarter of 2017, Verizon's wireless service

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[18] *See id*.

[19] *See* FCC News Release, *FCC Chairman Ajit Pai Announces Broadband Deployment Advisory Committee Members, Working Groups, and Leadership* (rel. Apr. 6, 2017).

[20] *See* CTIA Comments at 53.

[21] AT&T Comments at 6.

[22] *See* CCA Comments; NTCA 2016 Wireless Survey Report.

revenue topped the charts at nearly $16 billion, with AT&T collecting nearly $15 billion.[23] Combined, the duopoly's service revenue nearly *quadrupled* that of the other top carriers. Verizon also continued to add subscribers, rounding out the quarter with nearly 150 million.[24] AT&T was not far behind, ending the quarter with nearly 135 million subscribers.[25] Together, these numbers dwarf any other carrier.

While there are positive consumer trends in the retail mobile market, the ever-expanding market power of AT&T and Verizon continues to dilute the competitive landscape of the input market, making it harder to sustain new innovative offerings. AT&T and Verizon benefit from mammoth customer bases, as noted above, and therefore are better able to fund the cost of investment, spreading the cost over a larger base. Generally, the same asset is more difficult for competitive carriers to purchase, who have more limited resources, fewer customers, and ultimately less capital to invest. Specifically, NTCA's 2016 Wireless Survey Report indicates that costs increased for wireless providers in three areas: 1) investment in the latest services; 2) the ability to obtain spectrum; and 3) backhaul capacity and costs.[26] In addition to setting prices for both consumer plans and secondary market transactions,[27] the duopoly also have a competitive advantage over other providers due to their affiliates and parent companies. For example, AT&T and Verizon are among the largest providers of wireline and business data

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[23] Mike Dano, How Verizon, AT&T, T-Mobile, Sprint and more stacked up in Q1 2017: The top 7 carriers, FierceWireless (May 8, 2017).

[24] *See id*.

[25] *See id*.

[26] NTCA 2016 Wireless Survey Report at 12, 15.

[27] *See, e.g.*, Thomas Gryta and Drew FitzGerald, *Verizon Wins Bidding War for Straight Path Communications*, Wall Street Journal (May 11, 2017), *available at* https://www.wsj.com/articles/verizon-wins-bidding-war-for-straight-path-communications-sources-say-1494470230.

services.[28] Specifically, in the first quarter of 2017, AT&T topped the charts with nearly $40 billion in total wireline revenue, with Verizon close behind at nearly $30 billion.[29] This provides AT&T and Verizon with the ability to exert their dominance for these resources, and as a result, competitive carriers are forced to pay their largest competitors excessive rates for wireline services, or secondary market transactions to acquire the spectrum that other networks run over. Conversely, AT&T and Verizon can purchase these same services from their affiliated companies or from each other. The Commission must therefore implement targeted policies to diffuse industry consolidation and anticompetitive business practices in the acquisition of critical network assets. Poor policy decisions, such as an inaccurate finding that market competition is present nationwide, will relegate rural America to second class status for mobile wireless services.

Every new entrant and carrier deserves the opportunity to get access to critical network elements to provide mobile service in the market, and AT&T and Verizon's saturation impedes competitive carriers' abilities to deploy to urban and rural consumers. Competitive carriers cannot withstand the current market without targeted FCC intervention, as evidenced by calculated secondary market transactions and targeted buildout initiated by the duopoly. For example, AT&T recently touted its buildout efforts in portions of California, yet merely focused on the urban affluent areas where the environment bred a financial case for buildout.[30] At its

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[28] *See Business Data Services in an Internet Protocol Environment*, Tariff Investigation Order and Further Notice of Proposed Rulemaking, WC Docket Nos. 16-143, et al. ¶ 5 (2015) ("*Tariff Investigation Order and BDS FNPRM"*) (attaching the Rysman Report at 221 (noting that "[t]he biggest four [largest providers of BDS] are ILECs, followed by a set of cable companies and CLECs")).

[29] *See* Sean Buckley, How AT&T, Verizon, CenturyLink, Windstream and other top wireline carriers stacked up in Q1 2017, FierceWireless (May 16, 2017).

[30] *See* Michael Hiltzik, "AT&T's rollout of broadband serves the rich, shunts the mid- and low-income families to the slow lane," Los Angeles Times (Apr. 25, 2017), *available at* http://www.latimes.com/business/hiltzik/la-fi-hiltzik-att-fiber-20170425-story.html.

heart, this is a strategy where urban, densely populated areas continue to receive additional services—effectively widening, not narrowing, the digital divide.

Indeed, Chairman Pai recently acknowledged the critical differences in urban versus rural areas and their consumers. At the FCC's May Open Meeting, Chairman Pai noted that certain "antiquated polic[ies]" were "an especially hard hit on the consumers who can least afford it. That's because rural Americans make less money than their urban counterparts."[31] The FCC must be weary that anticompetitive practices do not strand rural consumers and thwart network investment. Instead, the Commission should continue to take a targeted look at the differences in these markets when evaluating wireless competition, and implement appropriate policies moving forward.

The Commission also should consider deployment costs in certain markets when evaluating market competition. For example, the FCC could employ density economics as another method to explain increases in costs for consumers and providers, and clarify the strained business case to enter and competitively serve a market where substantial resources are expended to overcome geographic challenges, particularly in rural and remote areas of the United States.[32] Generally, denser populations attract more supply, leading to better services and lower costs for consumers.[33] It could be argued that urban areas benefit from concentrated

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[31] Statement of Chairman Ajit Pai, Connect America Fund, WC Docket No. 10-90 (rel. May 25, 2017), *available at* http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0522/FCC-17-61A2.pdf.

[32] *See* Antonio Ciccone & Robert E. Hall, "Productivity and the Density of Economic Activity," National Bureau of Economic Research, Working Paper No. 4313 (Apr. 1993) ("Density of Economic Activity").

[33] The costs of deploying in rural and remote areas can be further evidenced by the theory of "economies of density," or "density economics," which finds that costs are a result of spatial proximity of suppliers and providers. *See* Leonardo Basso, *et al*., "From Economies of Density and Network Scale to Multioutput Economies of Scale and Scope: A Synthesis," Association for European Transport and Contributors (2006) (citing, Ken Hendricks, *et al*., "The Economics of Hubs: The Case of Monopoly," The Review of Economics Studies (Vol. 62, Issue 1) (Jan. 1995) ("Case of Monopoly")). Essentially, the theory posits that the ratio of output to input will rise with greater density in a particular area. In this context, "density" can be determined by the intensity of human presence, labor, and "physical capital

supplies, meaning prices are lower for consumers in highly populated areas. Conversely, consumers in rural and remote areas of the United States have fewer choices and are thus forced to pay more for these services than their urban counterparts, in contradiction of Congressional mandate. The FCC must employ practical solutions to overcome these economic challenges. To achieve this, targeted competitive policies, as described in greater detail below, could encourage providers to buildout to rural and remote parts of the country, to ensure comparable services are available to all Americans at reasonable costs.

III. CCA SUPPORTS RECOMMENDATIONS THAT THE FCC IMPLEMENT TARGETED POLICIES TO PROMOTE NETWORK INVESTMENT AND INSPIRE INNOVATIVE SERVICES FOR ALL CONSUMERS

Industry agrees that the wireless ecosystem is on the brink of a significant technological shift. As CCA has noted, once the FCC understands where competition is lacking, it can better determine what regulations are necessary to promote growth.[34] CCA therefore supports targeted reform recommendations in the record to ensure that ubiquitous broadband deployment and innovative services are deployed throughout all areas of the United States.

A. Spectrum is Critical to Deploying Next-Generation Services

There is consensus across industry participants that carriers must have access to low-, mid-, and high-band spectrum to deploy next-generation mobile broadband and, eventually, 5G

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relative to physical space." *See* Density of Economic Activity at 54. Density is high when an area is populated, resulting in increased demand and increased capital. If products have a constant return, but the cost of creating these products increases with distance, then targeting production in the densely populated area will provide increased returns on investment at a lesser cost. *See* Density of Economic Activity at 54. For example, as applied to aeronautics, the cost per airline passenger decreases when there is a greater number of passengers travelling a particular route, or "hub." As a result, airline expansion bred an increased presence of "airline hubs" across popular cities, to detract from the cost of operating in these areas and to increase returns on buildout investment. *See* Case of Monopoly at 84.

[34] *See, e.g.*, CCA Comments.

networks as consumer demand for data steadily increases.[35] Yet, NTCA's 2016 Wireless Survey Report shows that in 2016 alone, 45% of industry respondents flagged the ability to obtain spectrum as a primary concern.[36] Additionally, 41% of respondents sold spectrum in the last year, while only 30% acquired spectrum.[37] Indeed, a varied spectrum portfolio will assuage carriers' abilities to meet consumers' increasing demands, and the birth of unlimited plans and data services on a variety networks.[38]

Despite the limited availability of this finite resource, and in a blatant mischaracterization of the market, AT&T asserts that there is "enough spectrum to support multiple carriers."[39] Ironically, AT&T is ideally situated, and has recently acknowledged their mammoth presence in the spectrum market: "if you want to move to a capability or competitive environment that's based on capacity, we feel very, very good about our position. We are like no other."[40] This brazen assertion is amplified when looking at competition across urban and rural markets, particularly with the duopoly's continued attempts to acquire scarce spectrum resources on the secondary market. For example, CCA continues to recommend that the Commission reject AT&T's request to obtain FiberTower's terminated licenses and instead seize this opportunity to recover and re-auction the unconstructed spectrum in the 39 GHz band, and potentially the 24

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[35] *See id.*; CTIA Comments; NTCA Comments.

[36] NTCA 2016 Wireless Survey Report at 3.

[37] *See id.*

[38] *See, e.g.*, CTIA Comments; AT&T Comments; Verizon Comments.

[39] AT&T Comments at 10.

[40] Seeking Alpha, Transcript: AT&T's Management Presents at 4th Annual MoffetNathanson Media & Communications Summit (May 17, 2017), *available at* https://seekingalpha.com/article/4074190-ts-t-management-presents-4th-annual-moffettnathanson-media-and-communications-summit-results?part=single.

GHz band, to the benefit of wireless providers and consumers alike.[41] Indeed, Verizon's recent announcement that it will acquire 28 GHz and 39 GHz licenses held by Straight Path Communications ("Straight Path") for $3.1 billion, underscores this spectrum's value and its importance for deploying innovative next-generation services.[42] The high price that Verizon is paying to acquire Straight Path's licenses, along with the intense bidding war that led to that sale, helps quantify the taxpayer value that would be squandered if FiberTower's expired licenses are gifted to AT&T rather than returned to the Commission for reauction.[43] The FCC must prevent anticompetitive practices by the two largest carriers, who are positioned to be among the first to develop the technologies for these higher frequency bands, and should instead allow all carriers to access the critical spectrum resources necessary to advance 5G services.[44] Failing to do so will undermine competition, stifle innovation, and lead to inefficient spectrum use.[45]

Further, as evidenced by these transactions and others, the record is replete with recognition of the importance of mid- and high- band spectrum to advancing next-generation services.[46] As CCA has noted, with regard to the *Spectrum Frontiers* proceeding, the

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[41] *See* Comments of Competitive Carriers Association, *AT&T Mobility Spectrum LLC and FiberTower Corporation Seek FCC Consent to the Transfer of Control of 24 GHz and 39 GHz Licenses,* ULS File Nos. 0007652635, 0007652637 at 2 (filed Mar. 30, 2017) ("CCA AT&T/FiberTower Comments").

[42] *See, e.g.*, Thomas Gryta and Drew FitzGerald, *Verizon Wins Bidding War for Straight Path Communications*, Wall Street Journal (May 11, 2017), *available at* https://www.wsj.com/articles/verizon-wins-bidding-war-for-straight-path-communications-sources-say-1494470230.

[43] *See ex parte* letter from Rebecca Murphy Thompson, EVP & General Counsel, CCA, to Marlene H. Dortch, Secretary, FCC, ULS File Nos. 0007652635, 0007652637 (filed May 31, 2017) ("CCA AT&T/FiberTower Ex Parte").

[44] *See* CTIA Comments at 53; 60-63.

[45] *See* Reply Comments of Competitive Carriers Association, *AT&T Mobility Spectrum LLC and FiberTower Corporation Seek FCC Consent to the Transfer of Control of 24 GHz and 39 GHz Licenses,* ULS File Nos. 0007652635, 0007652637 (filed Apr. 13, 2017) ("CCA AT&T/FiberTower Reply Comments").

[46] *See, e.g.*, CTIA Comments; Verizon Comments at 31; NTCA 2016 Wireless Survey Report at 15.

Commission should address CCA's Petition for Reconsideration in a manner that will free up more spectrum for exclusively licensed mobile use, while also protecting rural incumbents' rights in the local multipoint distribution service ("LMDS") band.[47] Indeed, as industry moves toward 5G, carriers continue to employ a variety of spectrum resources, including mid- and high-band spectrum, to satiate increasing consumer demands and further innovative applications and devices.[48] As such, the Commission also should deny satellite operators' attempts to encroach on mobile carrier operational rights throughout the mmW spectrum. Satellite advocates continue to claim that 28 GHz spectrum is "least likely to be used for high-capacity 5G services," especially in rural and remote areas, but this assertion is simply inaccurate.[49] Instead, recent studies find that satellite connections typically max out at about 15 Mbps, and are not enough to solely sustain mobile wireless services.[50] On the other hand, competitive carriers already are using their LMDS licenses for point-to-point service across rural and urban communities, enabling broadband connectivity for local municipalities, schools and businesses in these areas.[51]

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[47] CCA Comments at 26; *See also Use of Spectrum Bands Above 24 GHz For Mobile Radio Services et al.*, *GN Docket No. 14-177 et al.*, Report and Order and Further Notice of Proposed Rulemaking, FCC 16-89 (WTB 2016).

[48] Indeed, the FCC's 2018 Budget Estimate proposes to require the auction of additional spectrum by 2027, and further extend the FCC's auction authority. Due to a surge in demand for this resource, auction proceeds are expected to exceed $6 billion in 2027. *See* Fed. Commc'n Comm., Fiscal Year 2018 Budget Estimate to Congress, *available at* https://apps.fcc.gov/edocs_public/attachmatch/DOC-344998A1.pdf ("FCC 2018 Budget Estimate").

[49] *Ex parte* letter from Audrey Allison, Senior Director, Frequency Management Services, The Boeing Company *et al*., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177 (filed May 9, 2017) ("Satellite Broadband Companies' Letter").

[50] Technology is improving – why is rural broadband access still a problem?, TheConversation (June 8, 2016), *available at* http://theconversation.com/technology-is-improving-why-is-rural-broadband-access-still-a-problem-60423 ("Rural Broadband Access Still a Problem").

[51] *See ex parte* Letter from Rebecca Murphy Thompson, EVP & General Counsel, CCA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177, *et al*. (filed May 2, 2017).

The Commission should continue to facilitate carriers' use of this spectrum to provide all consumers with the most advanced services.

While mid- and high-band spectrum will be imperative to fostering next-generation technologies, these transmissions have a much shorter range than low-band spectrum, which will likewise be critical to advancing widespread mobile broadband service. Indeed, while engaging in a series of transactions that devour swaths of finite spectrum,[52] AT&T acknowledges that the

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[52] *See, e.g.*, *Wireless Telecommunications Bureau Assignment of License Authorization Applications, Transfer of Control of Licensee Applications, De Facto Transfer Lease Applications and Spectrum Manager Lease Notifications, Designated Entity Reportable Eligibility Event Applications, and Designated Entity Annual Reports Action*, Public Notice, Report No. 12246 (May 3, 2017) (consenting to AT&T's application to enter into a spectrum transaction with Lackawaxen Long Distance Company); *New Cingular Wireless PCS LLC, Dycom Holding Inc., and Wilkes Cellular, Inc., Seek FCC Consent to the Assignment of a Lower 700 MHz C Block License and a Cellular License in Georgia*, Public Notice WT Docket No. 17-82 (Apr. 6, 2017); *Wireless Telecommunications Bureau Assignment of License Authorization Applications, Transfer of Control of Licensee Applications, De Facto Transfer Lease Applications and Spectrum Manager Lease Notifications, Designated Entity Reportable Eligibility*, Public Notice, Report No. 12192 (Apr. 5, 2017) (accepting AT&T and Gigsky Mobile's request to enter into a long-term spectrum lease); *Wireless Telecommunications Bureau Assignment of License Authorization Applications, Transfer of Control of Licensee Applications, De Facto Transfer Lease Applications and Spectrum Manager Lease Notifications, Designated Entity Reportable Eligibility*, Public Notice, Report No. 12173 (Mar. 29, 2017) (consenting to AT&T and Manti Telephone Company's request to assign to AT&T a Lower 700 MHz B Block license); *Wireless Telecommunications Bureau Assignment of License Authorization Applications, Transfer of Control of Licensee Applications, De Facto Transfer Lease Applications and Spectrum Manager Lease Notifications, Designated Entity Reportable Eligibility*, Public Notice, Report No. 12107 (Mar. 1, 2017) (consenting to AT&T's applications to enter into spectrum transactions with Grand River Communications and Green Hills Area Cellular Telephone); *Wireless Telecommunications Bureau Assignment of License Authorization Applications, Transfer of Control of Licensee Applications, De Facto Transfer Lease Applications and Spectrum Manager Lease Notifications, Designated Entity Reportable Eligibility*, Public Notice, Report No. 12058 (Feb. 8, 2017) (accepting AT&T and Arctic Slope Telephone Assn. Cooperative *de facto* transfer leasing arrangement); *Application of AT&T Mobility Spectrum LLC and North Dakota Network Company*, Memorandum Opinion and Order, 32 FCC Rcd 163 (2017); *Applications of AT&T Inc. and United States Cellular Corporation*, Memorandum Opinion and Order, 32 FCC Rcd 52 (2017); *Application of AT&T Mobility Spectrum LLC and Fuego Wireless, LLC*, Memorandum Opinion and Order, 31 FCC Rcd 13389 (2016); *Application of New Cingular Wireless PCS, LLC and Qualcomm Incorporated*, Memorandum Opinion and Order, 31 FCC Rcd 13336 (2016); *Application of AT&T Mobility Spectrum LLC and Data-Max Wireless, LLC*, Memorandum Opinion and Order, 31 FCC Rcd 12662 (2016); *Application of AT&T Mobility Spectrum LLC and West Carolina Communications, LLC*, Memorandum Opinion and Order, 31 FCC Rcd 8664 (2016); *Applications of AT&T Mobility Spectrum LLC, Tampnet Inc., Tampnet Licensee LLC, Broadpoint License Co., LLC, and Broadpoint Wireless License Co., LLC, for Consent To Assign Licenses and Approval of Long-Term De Facto Transfer Spectrum Leasing Arrangements*, Memorandum Opinion and Order and Declaratory Ruling, 31 FCC Rcd 7890 (2016); *Application of New Cingular Wireless, PCS LLC and Farmers Telecommunications Corporation*, Memorandum Opinion and Order, 31

"key input is limited."[53] Carriers will therefore need a robust spectrum portfolio of low-band spectrum resources to achieve 5G success. To facilitate expeditious access to low-band spectrum, the Commission must conclude the 600 MHz incentive auction broadcaster relocation transition in accordance with its adopted 39-month timeline.[54] Indeed, carriers already are looking forward to deploying spectrum acquired in the 600 MHz incentive auction, and are identifying creative ways to use the resource to advance next-generation services. For example, T-Mobile recently outlined its plan to launch a nationwide 5G network beginning in 2019, using 600 MHz spectrum resources acquired in the incentive auction.[55] Carriers also put forth significant upfront payments to acquire spectrum at auction, which could place smaller providers

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FCC Rcd 2207 (2016); *Applications of New Cingular Wireless PCS, LLC, Bluegrass Cellular, Inc. and Bluegrass Wireless LLC*, Memorandum Opinion and Order, 31 FCC Rcd 378 (2016); *Applications of AT&T Mobility Spectrum LLC and East Kentucky Network, LLC*, Memorandum Opinion and Order, 31 FCC Rcd 361 (2016); *Applications of AT&T Inc. and Cellular Properties, Inc.*, Memorandum Opinion and Order, 31 FCC Rcd 318 (2016); *Application of AT&T Mobility Spectrum LLC and Texas RSA 7B3, L.P., d/b/a People's Wireless Services*, Memorandum Opinion and Order, 31 FCC Rcd 169 (2016); *Application of New Cingular Wireless PCS, LLC and NEP Cellcorp, Inc.*, Memorandum Opinion and Order, 30 FCC Rcd 15702 (2015); *Application of AT&T Mobility Spectrum LLC and Agri-Valley Communications, Inc.*, Memorandum Opinion and Order, 30 FCC Rcd 15691 (2015); *Applications of AT&T Inc. and Pine Cellular Phones, Inc.*, Memorandum Opinion and Order, 30 FCC Rcd 14450 (2015); *Application of AT&T Mobility Spectrum LLC and Club 42CM Limited Partnership*, Memorandum Opinion and Order, 30 FCC Rcd 13055 (2015); *Application of AT&T Mobility Spectrum LLC and Consolidated Telephone Co.*, Memorandum Opinion and Order, 30 FCC Rcd 9797 (2015); *Applications of AT&T Mobility Puerto Rico Inc. and Worldcall Inc.*, Memorandum Opinion and Order, 30 FCC Rcd 9763 (2015); *Application of AT&T Mobility Spectrum LLC and Kaplan Telephone Company, Inc.*, Memorandum Opinion and Order, 30 FCC Rcd 8502 (2015); *Applications of AT&T Inc., Plateau Telecommunications, Inc., et al.*, Memorandum Opinion and Order, 30 FCC Rcd 5107 (2015).

[53] AT&T Comments at 10-11.

[54] *See* CCA Comments at 17-18. *See also Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Report & Order, 29 FCC Rcd 6567, 6796-802 ¶¶ 559-73 (2014) ("Incentive Auction Order") (establishing a 39-month post-auction transition period for broadcasters that are assigned new channels in the repacking process, which includes a three-month period during which broadcasters will complete and file their construction permit applications followed by a 36-month period consisting of varied construction deadlines)). *See also Nat'l Ass'n of Broadcasters v. Fed. Commc'ns Comm'n*, 789 F.3d 165 (D.C. Cir. 2015) (upholding the FCC's 39-month transition period).

[55] *See* Colin Gibbs, T-Mobile to roll out 5G over 600 MHz and other spectrum, FierceWireless (May 2, 2017).

with finite resources at a competitive disadvantage if they are unable to meet these demands or must wait longer than the 39-month period to employ the spectrum. CCA therefore echoes recommendations that the FCC continue to ignore frivolous requests to extend the 600 MHz incentive auction repacking timeframe.[56] Any delay would be a detriment to competition, the public interest, and the economy.

B. Infrastructure Siting Policies Must Be Reformed to Promote and Reward Network Investment

There is industry consensus that broadband services are more difficult to deploy in rural and remote communities, often because of topographical barriers and the challenges associated with covering large geographic distances.[57] Recently, Gary Cohn, Chief Economic Advisor to President Trump stated that, with regard to infrastructure deployment, "[i]n many areas we're falling behind, and falling behind is affecting economic growth in the United States."[58] To ameliorate this chasm, the Free State Foundation correctly recognizes that "[t]o facilitate continued investment and innovation in wireless broadband services, the Commission should focus on its efforts on streamlining cell tower, antennae, and small cell infrastructure deployment processes"[59] across all topographies of the United States.

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[56] *See* Opposition to Petition for Reconsideration, Competitive Carriers Association, MB Docket No. 16-306, GN Docket No. 12-268 (filed Mar. 29, 2017) ("CCA Opposition"). *See also* CTIA Comments at 42.

[57] *See e.g.*, NTCA 2016 Wireless Survey Report; CTIA Comments at 54, 63-65.

[58] *See* John Wagner, Trump plans week-long focus on infrastructure, starting with privatizing air traffic control, The Washington Post (June 3, 2017), *available at* https://www.washingtonpost.com/politics/trump-plans-week-long-focus-on-infrastructure-starting-with-privatizing-air-traffic-control/2017/06/03/12aacb04-47c5-11e7-a196-a1bb629f64cb_story.html?utm_term=.c2a8dbf50aa8 ("Trump Focus on Infrastructure").

[59] Free State Foundation Comments at 14.

While the record notes expansive investment in spectrum and infrastructure in the last year,[60] this investment yet again is disproportionately focused on the duopoly's mammoth wireline assets and financial resources.[61] The FCC must be mindful that small rural and regional providers have limited resources, and continue to face challenges securing adequate financing for wireless siting projects.[62] As an example, NTCA's 2016 Wireless Survey Report indicates that 63% of respondents' greatest concern was the ability to make necessary investments to compete to offer the latest services.[63] CCA therefore agrees that Commission intervention to ease siting policies will reduce costs and remove unnecessary barriers to infrastructure deployment, thereby facilitating widespread network buildout and innovative consumer services.[64]

As CTIA correctly notes, "moderniz[ing] siting processes to enable the rapid and efficient deployment of… infrastructure [is] necessary to support improved 4G LTE and 5G networks."[65] Working in concert with Congress and the Administration, the Commission should work to streamline procedures for siting as raised in the recent *Streamlining Public Notice* and both Wireless and Wireline items adopted at the 2017 April Open Meeting.[66] Specifically, CCA has reiterated that imposing reasonable restraints on state and local infrastructure-related fees,

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[60] *See* CTIA Comments at 4, 29; NTCA 2016 Wireless Survey Report at 9.

[61] *See* CTIA Comments at 29-30; Verizon Comments at 14-15.

[62] *See* NTCA 2016 Wireless Survey Report at 10.

[63] *Id*. at 3.

[64] *See* CTIA Comments at 63-65; Verizon Comments at 29; Mobile Future Comments at 5; Free State Foundation Comments at 1, 12.

[65] CTIA Comments at 4.

[66] *See Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Notice of Proposed Rulemaking and Notice of Inquiry, WT Docket 17-79 (rel. Apr. 21, 2017) ("Wireless Infrastructure NPRM"); *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment, WC Docket No. 17-84 (rel. Apr. 21, 2017) ("Wireline Infrastructure NPRM").

and adopting a "deemed granted" remedy for Section 332(c)(7) shot clocks, will allow competitive carriers to make a better business case for deployment and reduce incidents of exorbitant fees.[67]

The Commission also should address procedures surrounding incidents when Tribal Nations or State Historic Preservation Officers ("SHPOs") refuse to communicate with carriers, or withhold project approval barring fee payment. Indeed, the Administration recently stressed its focus on streamlining the government permitting process for infrastructure projects, and reminded that "time is money, [and] the cost of infrastructure goes up dramatically as time goes on in the approval process."[68] Commissioner O'Rielly has likewise affirmed that "[t]he surest way to continue the current trajectory of progress is to remove barriers to entry for new technologies or deployment. As I have testified… localities and Tribal governments are making it more difficult to deploy broadband throughout our nation. I am hopeful the Commission will continue its work to strike these down."[69] The pace of 5G and next generation services calls for these common-sense reforms to infrastructure siting policies, to ensure that rural Americans have access to the same innovative services as their urban counterparts.[70]

C. Universal Service Funding is Necessary to Ameliorate Economic Challenges of Network Buildout in Rural and Remote Areas

CTIA correctly notes that "[a]lthough mobile wireless providers continue to invest and deploy to rural areas, comprehensive universal service support remains necessary to meet the

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[67] CCA Comments at 32.

[68] *See* Trump Focus on Infrastructure.

[69] Commissioner O'Rielly Infrastructure Blog. Commissioner O'Rielly also recently tweeted: "Save me hysterics re small cell ascetics. Compared to surrounding energy apparatus, [this] is nothing. Plus, many are disguised well." *See* Tweet of Commissioner O'Rielly, Twitter (May 31, 2017 at 1:11 PM ET).

[70] NTCA Comments at 3.

shared goal of closing the digital divide in rural areas."[71] In addition to spectrum and infrastructure access, Mobility Fund II support is necessary for carriers to deploy, maintain, and upgrade mobile broadband networks in underserved and hard-to-reach areas. According to NTCA's 2016 Wireless Survey Report, nearly 20% of carriers, and primarily those serving rural and remote consumers, currently use USF support to buildout their networks.[72] And the Administration's FY 2018 Budget asserts: "the Administration's goal is to seek long-term reforms on how infrastructure projects are regulated, funded, delivered, and maintained. Simply providing more [f]ederal funding for infrastructure is not the solution. Rather, we will work to fix underlying incentives, procedures, and policies to spur better, and more efficient, infrastructure decisions and outcomes, across a range of sectors, including … broadband and key [f]ederal facilities."[73]

The digital divide persists in remote areas of the United States, largely due to a lack of funding to deploy in these areas. Pew Research Center recently found that only two-thirds of rural Americans, or 63%, say they have a broadband Internet connection in their home.[74] What's more, although there is ongoing discussion as to the appropriate broadband speed thresholds,[75] of that 63%, only 55% have access to the speeds that currently qualify as broadband according to the Pew study, while 94% of the urban population enjoys these service benefits.[76] Further, only 75% of rural Americans have access to fixed connections of at least 10 Mbps download speeds,

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[71] CTIA Comments at 42.

[72] NTCA 2016 Wireless Survey Report at 10.

[73] U.S. Fed. Gov't, The Budget for Fiscal Year 2018 at 19 (rel. May 23, 2017), *available at* https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/budget.pdf ("FY 2018 Budget").

[74] *See* Digital Gap Persists.

[75] *See* Commissioner O'Rielly Infrastructure Blog.

[76] *See* Rural Broadband Access Still a Problem.

compared to 98% of urban residents. And only 61% of rural residents meet the current 25 Mbps threshold for any type of technology, compared to 94% of their urban counterparts.[77]

To ameliorate this divide, CCA joins commenters who urge the Commission to move forward with Mobility Fund II reform, and adopt a challenge process that is efficient, eases burdens on smaller entities, and generates accurate determinations of where qualifying coverage exists and where Mobility Fund II must target support.[78] As CTIA explains, "a robust and efficient federal Mobility Fund is necessary to support deployment of mobile wireless broadband services in unserved rural areas."[79]

CCA also applauds Congressional efforts, like Senator Shelley Moore Capito for the Gigabit Opportunity Act,[80] which seeks to create tax incentives for wireless providers, especially credits that are rural-focused, to spur investment. There also is legislation before the House of Representatives, H.R. 1546 The Rural Wireless Act of 2017, introduced by Dave Loebsack (D-IA) which would direct the FCC to establish a methodology for mobile wireless coverage data that reflects actual consumer connectivity experience. And in May, Senators Wicker (R-MS), Manchin (D-WV), Schatz (D-HI), Fischer (R-NE), Klobuchar (D-MN), Peters (D-MI), and Moran (R-KS) introduced a Senate bill, The Rural Wireless Act of 2017, to ultimately increase the efficiency of coverage data collection and analysis. As Senator Moran aptly stated,

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[77] *Id*.

[78] Comments of Competitive Carriers Association, WT Docket No. 10-208 et al. at 2 (filed Apr. 26, 2017) ("CCA Mobility Fund II Comments").

[79] CTIA Comments at 40.

[80] Press Release, *Capito Introduces Legislation to Accelerate Broadband Access in Rural America* (May 3, 2017), *available at* https://www.capito.senate.gov/news/press-releases/capito-introduces-legislation-to-accelerate-broadband-access-in-rural-america. https://www.klobuchar.senate.gov/public/index.cfm/2017/3/klobuchar-capito-introduce-bipartisan-legislation-to-measure-the-economic-impact-of-broadband-on-the-u-s-economy.

"[m]illions of rural Americans in Kansas and many other states depend on the promise of mobile broadband buildout efforts, and this critical expansion depends on the accuracy of current coverage data and uniformity in how it is collected."[81]

D. The Transition to 5G and Next-Generation Services Will Require Access to Content and Devices

In addition to the increasing spectrum crunch and limited federal funding, the Commission should consider the potentially harmful effects of vertical integration involving the two largest wireless carriers in the larger context, as AT&T and Verizon continue to acquire not only spectrum and other critical wireline assets, but also media resources on the secondary market. The record demonstrates significant growth in mobile video consumption, and likewise shows that consumers are increasingly viewing content on their mobile devices.[82] The Free State Foundation broadly asserts that "[i]ncreasingly, consumers use or have access to high-capacity wireless broadband services capable of streaming HD and other video content."[83] However, this is untrue in rural and remote areas. Pew Research Center recently found that rural Americans are 7 to 12 percentage points less likely than those in urban and suburban areas to say they have a smartphone, traditional computer, or tablet computer.[84] Additionally, rural residents also go online less frequently than their urban and suburban counterparts, arguably due in large part to their discrepancies in service.

Despite this, Mobile Future claims that the "saturated market [is] forcing wireless companies to constantly search for ways to respond to consumer needs and differentiate their

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[81] *See* U.S. Senate Press Release, *Senators Introduce Bipartisan Bill to Expand Broadband Deployment Using Accurate Coverage Maps* (rel. May 11, 2017).

[82] CTIA Comments at 22. *See also* Cord Cutters.

[83] Free State Foundation Comments at 7.

[84] *See* Digital Gap Persists.

services to attract new consumers."[85] Yet as NTCA's 2016 Wireless Survey Report shows, 63% of respondents agreed that competition was their greatest concern,[86] and 67% found it difficult to compete with varying promotions.[87] Highlighting these concerns, AT&T CEO Randall Stephenson recently acknowledged that the "easiest" and "quickest benefits" will come from consuming entities that have a "massive inventory of advertising."[88] Putting its CEO's comments into practice, "[i]n January 2016, AT&T introduced an unlimited plan for customers who also subscribed to AT&T's DIRECTV service. The plan was available for $100 per month for the first line (the second and third lines were $40 per month, and the fourth line was free)."[89]

Likewise, Verizon also "has a lot to digest. It's $4.48 billion acquisition of Yahoo is set to close this month, followed by the $3.1 billion Straight Path purchase. In February, Verizon closed on the $1.8 billion purchase of XO Communications' fiber network business."[90] Together, these transactions aptly illustrate the duopoly's ability to purchase large entities with swaths of spectrum, content, and device resources, to ultimately offer services that no other provider can. As the Commission reviews these secondary market transactions, therefore, it is vital that channels to content remain open, accessible, and affordable.

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[85] Mobile Future Comments at 5.

[86] NTCA 2016 Wireless Survey Report at 3.

[87] *Id*. at 4.

[88] AT&T's CEO Randall Stephenson Presets at the 45th Annual J.P. Morgan Technology, Media, and Telecom Conference Transcript, Seeking Alpha (May 23, 2017), *available at* https://seekingalpha.com/article/4075660-ts-t-ceo-randall-stephenson-presents-45th-annual-j-p-morgan-technology-media-telecom?part=single.

[89] AT&T Comments at 23.

[90] *See* Martha DeGrasse, Why Verizon isn't buying Charter, RCRWirelessNews (June 2, 2017), *available at* http://www.rcrwireless.com/20170602/carriers/verizon-isnt-buying-charter.

E. FCC Policies Should Continue to Facilitate Innovative Public Safety Services

CCA agrees that "[t]he development of 5G will further expand the use of wireless and Internet of Things ("IoT") devices to support a multitude of diverse industries, including energy, health, public safety, and transportation."[91] Indeed, research shows that "a 60-second improvement in emergency response time translates to a reduction of eight percent in mortality."[92] To that end, wireless entities continue to work with the public safety community to build and upgrade wireless networks capable of delivering enhanced emergency services.[93] Specifically, NTCA's 2016 Wireless Survey Report shows that more than one third of respondents in 2016 are offering text-to-911 service, compared with just over 10% in 2015.[94]

Further, partnerships with FirstNet will open up additional sources of spectrum to facilitate carriers' ability to deploy advanced 911 services. To that end, the Commission should ensure that FirstNet's corresponding network buildout does not stifle competition, and that competitive carriers are included to the maximum extent possible in developing the National Public Safety Broadband Network, pursuant to statutory requirements.[95] What's more, the FCC should be mindful when reviewing secondary market transactions initiated by AT&T, as FirstNet's contract with the company awarded them 20 MHz of low-band spectrum and $6.5 billion over the next five years. As recently summarized "[recent secondary market] transactions, along with [AT&T's] FirstNet 700 MHz award, their yet-to-be-deployed AWS-3

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[91] CTIA Comment at 35.

[92] *Id*. at 49.

[93] *See id.* at 58; NTCA 2016 Wireless Survey Report at 15; Mobile Future Comments at 8.

[94] NTCA 2016 Wireless Survey Report at 15.

[95] 47 U.S.C. § 6206 (b)(3). Pursuant to Section 6202(b)(3)'s requirement that deployment phases include "substantial rural coverage milestones," FirstNet should prioritize allowing smaller, competitive carriers to propel buildout in rural and hard-to-reach areas, and ensure this buildout occurs in each service deployment phase.

spectrum holdings, and their still largely fallow WCS spectrum bands, have vaulted AT&T from the one-time ranks of spectrum-constrained to spectrum rich."[96]

Innovations like text-to-911 and next-generation location accuracy services are significant, life-saving solutions, particularly for consumers in rural and remote areas who may not have immediate access to emergency authorities. The Commission should continue to foster next generation 911 innovations through targeted pro-competitive policies.

[96] *See* MoffettNathanson, "AT&T: The Long and Winding Road…To Straight Path" (Apr. 10, 2017) ("MoffettNathanson Blog").

IV. CONCLUSION

As the record reflects, and as required by statute, the Commission's upcoming *Report* is an ideal vehicle to take a comprehensive review of the state of the market, and implement specific policy reforms to facilitate mobile broadband deployment and mobile wireless competition in certain areas. As explained herein, when assessing market characteristics, the Commission should rely on the experience of competitive carriers, such as CCA members, who continuously work to provide service throughout the ecosystem. The FCC also must continue to monitor developments in the wireless ecosystem to identify and remove structural barriers to competition in rural and remote areas of the United States. CCA looks forward to continued work with the Commission to ensure rules and policies inspire ubiquitous mobile wireless service and innovation for all consumers.

Respectfully submitted,

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