

**Disconnected: Rural Broadband and the Business Case for Small Carriers**

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Before the

United States House of Representatives Committee on Small Business  
Subcommittee on Health and Technology  
And  
Subcommittee on Agriculture, Energy, and Trade

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Chairman Radewagen, Ranking Member Lawson, Chairman Blum, Ranking Member Schneider, and Members of the Subcommittees, thank you for the opportunity to testify about the challenges competitive carriers face as they work to preserve and expand mobile broadband service in rural and remote areas throughout the United States.

I am testifying on behalf of Competitive Carriers Association (“CCA”), the nation’s leading association of competitive wireless providers. CCA is made up of nearly 100 carrier members ranging from small, rural providers serving fewer than 5,000 customers to regional and national providers serving millions of customers. CCA also represents nearly 150 associate members – small businesses, vendors, and suppliers that serve carriers of all sizes. The vast majority of CCA’s members are small businesses or work closely with small businesses.

As this Committee knows well, small businesses play vital roles in the communities they serve. Small and rural carriers are critical to closing the digital divide through continued investment in their hometowns. The majority of CCA’s members live and work in the communities they serve, and therefore share in the potential success of ubiquitous mobile broadband service and the deployment of next-generation technologies. CCA members invest in their hometowns, not only through providing wireless service, but by employing their neighbors, sponsoring local events and hometown teams, and hosting community service events.

There is no question that access to mobile broadband is a fundamental part of participation in the 21<sup>st</sup> century, and a key economic driver for all. Earlier this year, the President’s newly created Interagency Task Force on Agriculture and Rural Prosperity presented a report focused on e-Connectivity for Rural America, finding that access to broadband “is not simply an amenity – it has become essential.”

This concept was further underscored in the Presidential Executive Order on Streamlining and Expediting Requests to Locate Broadband Facilities in Rural America, finding that “Americans need access to reliable, affordable broadband Internet service to succeed in today’s information-driven, global economy.” CCA is pleased to see that closing digital divide plaguing rural America is a top priority for Congress, the Federal Communications Commission (“FCC”), and the Administration, and now is the time to capitalize on that priority.

Consumer demand for mobile broadband data is undeniable and growing at an exponential rate. In 2016, Americans consumed 1.8 exabytes of data on their smartphones, tablets, and other devices connected to wireless networks. That is 1.8 billion gigabytes, or put another way, more than *7,000 times* the total of all information stored in the Library of Congress.

This data riding over mobile broadband services is being used in incredible ways, with limitless potential for innovations. For example, mobile broadband networks and next generation services are transforming healthcare through remote monitoring and new health treatments. These networks also power drones and autonomous vehicles, both of which will become commonplace in a 5G world. Access to mobile broadband offers distance learning capabilities and sparks educational opportunities to teach students from hundreds of miles away from traditional educational environments. And, as this Committee explored last month, mobile broadband networks enable precision agriculture technologies that reduce economic resources and increase productivity on our nation’s farmlands and ranchlands. The wireless “consumer” is no longer limited to individual people, and competitive carriers serving rural America have led the way to new and innovative mobile broadband uses.

CCA is proud of the work our members do to provide mobile broadband services in rural and remote areas. And while they have invested millions of dollars into their communities, the job is not yet done. We look forward to continued work with policymakers to achieve Congress’s mandate to deploy

reasonably comparable services in urban and rural areas alike. To close the digital divide, competitive carriers must have sufficient funding, streamlined deployment processes, and access to spectrum and equipment to provide service.

***Congress Must Provide Sufficient and Predictable Funding for Mobile Broadband in High Cost Areas Based on Reliable Data***

Congressional action to close the digital divide must include funding for areas where private capital alone does not support a business plan for mobile broadband deployment. This can be achieved through adequate appropriated funding and a reliable Universal Service Fund (“USF”) program. To start, the Bipartisan Budget Act, enacted in February 2018, included \$20 billion over the next two fiscal years for rural infrastructure. CCA urges Congress to make significant amounts of that funding available for mobile broadband. Further, the Administration has proposed allocating an additional \$50 billion for rural infrastructure in the President’s recent infrastructure proposal. While the proposal provides funds as block grants to governors and allows funding to be used for broadband projects, we strongly urge you to dedicate significant amounts specifically for mobile broadband as an economic multiplier throughout local communities.

Any funding provided through an infrastructure package does not replace the need for ongoing support through USF. Regardless of whether funding comes through USF or another program, policymakers must first make sure that funding decisions are based on reliable coverage data that reflects consumers’ experiences and demands.

Congress created the USF high-cost program to provide Americans in rural areas with “reasonably comparable” service as those in urban areas through support that is sufficient and predictable. In establishing the Mobility Fund Phase II (“MF II”), providing ongoing USF program to preserve and expand mobile broadband service, the FCC rightly recognized that reliable data was

needed to make accurate funding decisions for \$4.5 billion that the program would make available over 10 years. This decision reflected bipartisan outreach from Congress attesting to the unfortunate reality of insufficient and inaccessible wireless coverage throughout the United States. To solve this problem, the FCC directed a new, one-time data collection by carriers to produce a more reliable map, and established a challenge process to fine tune areas eligible for MF II support. This updated data should have reduced the areas where coverage is overstated and allow carriers to target those areas in dispute.

Last week, the FCC released its MF II initial eligible areas map, and it is unfortunately clear that the technological parameters selected by the FCC were not sufficient to produce a map that would reflect the presumptive coverage you experience as you travel throughout your districts. This presents a particular problem for small carriers, as it may be difficult or impossible for any challenge process to appropriately update the eligible areas to make sure places that need and deserve USF support through MF II are eligible for the MF II auction. CCA has long championed an efficient challenge process that strikes a reasonable balance of being robust and targeted without overly burdening small carriers. Unfortunately, the initial eligible areas map defies this objective, as carriers lack the time and resources to drive test vast geographic areas. Inevitably, the FCC's current approach risks stranding consumers in areas that remain ineligible for support.

The Commission applied unrealistic time and resource estimates to this undertaking and assumed carriers would incur no cost in acquiring, assembling, and providing the data, without reasonable justification. In reality, many competitive carriers, especially rural and regional providers have had to invest in new data systems, provide for processing and maintenance of these systems, and expend their personnel resources, all with a limited number of staff and resources to dedicate for compliance purposes. Many carriers rely on contract engineers or third-party vendors to prepare and submit such deeply technical information, adding costs and fees the FCC once again did not take into consideration. Yet carriers serving areas with overstated coverage depend on USF support to operate,

and will have to participate in the challenge Process to ensure an accurate coverage picture in their service territories. The sheer undertaking of participating in the FCC's challenge process will give many rural and regional carriers pause, will affect their ability to improve their networks, and in some cases, maintain current service areas. These unreasonable burdens placed on smaller carriers will negatively affect not only their business operations, but consumer's livelihoods as well.

***Streamlined Infrastructure Siting Policies are Paramount to Advancing Ubiquitous Mobile Broadband Service***

While consumers have come to rely on wireless connectivity, the network itself depends on physical infrastructure – towers, small cells, wires, and fiber, to connect. Competitive carriers must timely and efficiently deploy this infrastructure. Currently, however, providers must navigate a regulatory maze to gain approval to serve their communities, facing significant application review delays and burdensome, unforeseen fees while working through the federal, state, and local siting processes. This inertia increases uncertainty and costs as carriers seek to deploy service in already high cost areas. For example, under current siting policies, certain regulations apply to tall towers and macro deployments, in addition to boutique equipment like small cells and antennas that are used to densify and upgrade service to meeting increasing consumer demand. These policies affect all providers, large and small; just last week twenty-four non-nationwide CEOs and senior executives from CCA member companies joined together to urge the FCC to streamline infrastructure policies by providing regulatory certainty around siting processes, timelines, and fees to deploy and upgrade mobile broadband services. A copy of that letter has been attached to this testimony.

Adding another barrier to infrastructure deployment, fees and administrative burdens attached to historic and environmental review processes have escalated sharply in recent years, and these costs and permitting delays will continue to rise as CCA members deploy to meet consumers' increasing data

demands. Without Congressional and FCC intervention, deployment fees will become an increasingly exorbitant cost barrier to ubiquitous broadband deployment. For example, one CCA member operating in portions of Kansas, Colorado, and Nebraska paid over \$107,000 to 36 Tribes for the deployment of just seven towers, in a seven-month period. This is an average of over \$15,000 per tower, solely for Tribal review fees. One CCA associate member was assessed nearly \$3 million in Tribal fees to deploy just under 3,000 nodes across the United States in a one-year period, from 2017-2018. Expending these enormous funds is not sustainable, especially considering future networks will require denser deployment scenarios.

Fortunately, help is on the way. CCA applauds Congress's focus on the issue, and recent steps taken by the Administration and FCC to reduce regulatory burdens, increase certainty, and eliminate needless costs. Members of Congress, including members of this Committee, have introduced dozens of bills addressing these issues, several with bipartisan support. The President has issued Executive Orders and Presidential Memorandums directing the federal government to streamline and prioritize broadband deployment. And last month, the White House released its proposal regarding a "Legislative Outline for Rebuilding Infrastructure in America." CCA agrees with the Administration's report that small cells, in particular, are materially different than their predecessors, regarding both size, and visual or actual impact on historic or environmental property. Current law should therefore be amended to expedite small cell deployment and "eliminate unnecessary reviews" related to historic and environmental compliance. And to be clear, small cells are not only being deployed in downtown urban areas. In recent conversations with CCA members serving the most rural portions of our country, I have heard stories of using small cells to enhance coverage in county seats, schools and meeting centers, and even a popular boat ramp in a recreation area.

Later this month, the FCC plans to vote on an Order that will streamline infrastructure siting policies for mobile broadband. As proposed, this Order will exclude small wireless facilities from the

environmental and historic review procedures that were designed for large macrocell deployments, update the Section 106 Tribal consultation process, and adopt a shot clock for the FCC's own processing of Environmental Assessments. CCA urges Congress to support these efforts, and stands ready to help ensure these policies are enacted.

It is important to underscore that infrastructure reform need not pit wireless carriers against the municipalities and states they serve. Instead, streamlined processes will save resources for both carriers and government agencies by eliminating redundant and unnecessary reviews and spurring investment in local communities. Enhancing access to rights-of-way, reducing and eliminating fees, and streamlining siting processes will allow rural communities to connect exciting and innovative new technologies, including precision agriculture, telehealth, and the Internet of Things. Your constituents deserve nothing less.

#### ***A Myriad of Spectrum Resources is Necessary for Mobile Broadband***

In addition to physical infrastructure, wireless carriers must have access to a variety of spectrum bands which provide the invisible infrastructure connecting users to towers and base stations. Spectrum is a finite resource, and only available for use through a license or lease granted by the FCC. As demand for mobile service explodes, all carriers must have access to low-, mid-, and high-spectrum to deploy next-generation mobile broadband and, eventually, 5G networks. With consumers' insatiable demand for data, competitive carriers in particular must deploy spectrum that is interoperable within bands to support an equipment ecosystem driven by the scaled economies of the largest carriers. Likewise, it is equally important that spectrum is auctioned in sufficiently small geographic license sizes that balance local access to spectrum and the laws of physics with regard to power levels and interference. CCA recommends the following to ensure Congress encourages access to spectrum for carriers to serve rural America:



Auction Deposits. Absent Congressional action to allow depositing auction upfront payments in the U.S. Treasury, FCC Chairman Pai has indicated that the FCC will be hamstrung from auctioning spectrum in the near-term. Auctions are particularly important for competitive carriers that may not have the size, resources, or access to purchase spectrum licenses on the secondary market. While other nations are moving forward with spectrum auctions, it is critical that the United States does not fall behind. Congress must authorize this change in the auction process and encourage the FCC to auction additional bands for mobile broadband use as soon as possible.

600 MHz. The first-of-its-kind 600 MHz incentive auction closed on March 30, 2017, with total bids nearing \$20 billion, with most of the winning bids coming from CCA members. This spectrum was voluntarily relinquished by broadcasters, following well-thought out Congressional direction. Now that the auction has closed, both the wireless and broadcast industries are in the midst of a Congressionally based 39-month “repack” process to clear broadcasters out of the 600 MHz band and allow winning bidders carriers to put this spectrum to use as safely and efficiently as possible. The propagation characteristics of the 600MHz band make this spectrum particularly important for serving rural America. For this reason, completing the transition within the timeline or sooner is critical for economic stimulation and job opportunities across rural areas. Any delay would be detrimental to competition, the public interest, and the economy.

mmW. As carriers seek to densify their networks, and as standards are developed for tomorrow’s 5G technologies, unique spectrum bands that have been newly allocated for mobile broadband use are in high demand. To ensure that competitive carriers are not left behind, policymakers must rapidly auction several high frequency millimeter-wave (“mmW”) bands, including the 24 GHz, 28 GHz, 37 GHz, 39 GHz, and 47 GHz bands. The nation’s two largest carriers have established a foothold in these several of these bands through secondary market transactions. Ensuring that these bands are available as soon as practical to all carriers through auction, therefore, will mitigate

risks that AT&T and Verizon exploit a first mover advantage, frustrate competition, and equipment availability in the industry. This action is essential to supporting a healthy, competitive mobile wireless ecosystem.

As demand for mobile broadband shows no signs of slowing down, policymakers must remain focused on promoting efficient use of finite spectrum resources and reallocating frequencies to ensure this finite resource is available for carriers of all sizes to access for mobile broadband use.

***A Healthy Mobile Ecosystem Must Support Reasonable Access to Equipment***

Consumers may best recognize the wireless industry by its latest handsets and devices, making access to equipment a critical component to offering modern mobile broadband service. While popular devices such as the iPhone may seem ubiquitously available to some, many small carriers serving rural America continue to struggle to get access the latest devices, and often are 12 to 24 months delayed as compared to the largest providers. This not only harms competition, it is an arbitrary denial of modern technology for certain consumers.

As equally frustrating for consumers as it is for competitive carriers, lack of access to devices and other equipment also can make it harder or nearly impossible to comply with regulatory mandates that are premised on the latest technology, including Next Generation 9-1-1 services and Wireless Emergency Alerts. Even where rural and regional carriers have access to devices or network equipment, they may face increased costs based on reduced economies and purchase order size. While smaller carriers have taken steps to help themselves through consortium efforts, including the CCA Device Hub, policymakers should ensure that Americans in rural areas are not blocked from participation in the mobile world because of inaccessible equipment.

Today's hearing on rural broadband and the business case for small carriers provides a timely examination into an issue critical to ensuring prosperity in rural America. CCA's members are key to connecting these communities. During this time of transition from legacy voice wireless networks to 5G and IoT applications, policymakers must guarantee that rural America is not left behind. With the right policies in place, including sufficient funding based on real-world experiences, streamlined deployment processes, and access to spectrum and equipment, CCA members will continue to connect communities for the next-generation of mobile broadband services. CCA looks forward to continued collaboration with Congress, the Administration, and the FCC to ensure legislation and policies support ubiquitous mobile broadband service for all consumers.

Thank you for your attention to these issues and for holding today's important hearing. I welcome any questions you may have.



February 27, 2018

**BY ELECTRONIC FILING**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

Re: **NOTICE OF EX PARTE**  
**WT Docket No. 17-79:** *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment;*  
**WT Docket No. 15-180:** *Revising the Historic Preservation Review Process for Wireless Facility Deployment;*  
**WC Docket No. 17-84:** *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*

Dear Ms. Dortch:

We are CEOs and senior-ranking officers representing wireless carriers serving customers in cities, small towns, and rural areas throughout the United States. Streamlined infrastructure reform is critical to serving consumers in low density, hard-to-reach areas, and we support the Federal Communications

Commission's ("FCC" or "Commission") work to address barriers to mobile broadband deployment. To bridge the digital divide in rural America, we urge immediate action by the Commission to spur investment and increase certainty as we work to preserve and expand service in the most challenging locales in the United States.

Non-nationwide carriers serving rural and regional consumers are actively engaged in the communities they serve. We connect critical services such as telehealth to patients for monitoring and cutting-edge cures, and enable students to access the same educational resources as their peers in urban centers. On farmlands and ranchlands, our networks often cover more cattle than people, and mobile broadband helps farmers leverage modern farm equipment in today's thriving agriculture community to conserve resources and increase yields. And in times of emergency or disaster, we are the critical link to public safety networks and services.

With the move towards next-generation technologies, the time is ripe to adopt streamlined infrastructure policies that promote investment, expedite processes, and remove red tape. Specifically, streamlined regulations should reflect advancement in technology, and regulations for tall towers should not apply to small cells and Distributed Antenna System ("DAS"). The FCC should take immediate steps to declare that small cells and DAS technology do not require duplicate and redundant review actions which slow or cease mobile infrastructure deployments. Likewise, the Commission should adopt targeted policy reforms that streamline historic and environmental application review processes, and encourage collaboration between Tribal entities and state and local governments, to reduce or eliminate burdensome deployment procedures for all stakeholders.

The Commission's commitment to reforming mobile broadband infrastructure deployment processes is shared by nationwide, rural, and regional carriers alike. We commend the work done thus far and remain eager for continued collaboration with the Commission, Congress, Tribes, and states to streamline and update infrastructure siting policies and help close the digital divide in rural America.

This letter is being filed electronically with your office pursuant to Section 1.1206 of the Commission's rules.

Respectfully submitted,



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