Rebuilding America: Small Business Perspective

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Chairwoman Velázquez, Ranking Member Chabot, and members of the Committee, thank you for the opportunity to testify about the importance of broadband connectivity as Congress continues its work to revitalize our nation's infrastructure.

I am testifying on behalf of Competitive Carriers Association ("CCA"), the nation's leading association for competitive wireless providers. CCA is composed of nearly 100 carrier members ranging from small, rural providers serving fewer than 5,000 customers to regional and nationwide providers serving millions of customers, as well as vendors and suppliers that provide products and services throughout the wireless communications ecosystem. The vast majority of CCA members are small businesses or work closely with small businesses. They invest in their hometowns, not only through providing wireless service, but also by employing their neighbors, sponsoring local events and hometown teams, and hosting community service events.

Robust broadband networks are vital infrastructure for the 21st century, particularly for small businesses and the consumers they serve. These businesses rely on connectivity to provide a digital storefront to reach customers in their communities and around the world. In addition to connecting with consumers, wireless services have revolutionized how entire industries operate. For example, farmers deploy precision agriculture technologies to increase yields while preserving finite resources. Telehealth services provide necessary medical treatments and patient monitoring capabilities directly to those who may live hours from the nearest major medical center, revolutionizing patient access and care and improving health and quality of life for many Americans. Distance learning allows students the opportunity to advance their education with remote lectures that may take place hundreds of miles away. These and other services are economic multipliers and job creators that depend on reliable broadband coverage. While critical for today's mobile economy, the potential benefits and capabilities of next-generation and 5G networks will supercharge existing services and enable new technologies. The possibility of a fully connected world is both groundbreaking and exciting.

Unfortunately, this generational leap of technology and the very existence of 5G is not inevitable, particularly in rural America. While 5G buzz grabs the headlines, rural and hard-to-serve areas are at a crossroads. While too many rural areas and small businesses remain on the wrong side of a persistent digital divide, decisions made by policymakers today can either launch new innovation and economic growth or exacerbate insufficient broadband access, leaving rural America behind. Small businesses depend on policies that preserve and expand wireless services today and must have access to the latest technologies to be competitive in the years ahead.

Infrastructure Policy Decisions Depend on Reliable Coverage Maps

Just as all businesses need reliable data to establish what services are available in a given location, Congress must have reliable coverage maps to determine where broadband coverage exists in order to advance policies that close the digital divide and support deployment of next-generation wireless services. Unfortunately, based on your own experiences, members of this Committee know that coverage is frequently overstated – and in some cases, substantially overstated, leaving consumers frustrated and communities lacking connectivity.

The Federal Communications Commission ("FCC") is currently investigating certain mapping data collected to guide the Mobility Fund Phase II program ("MF II"). After a preliminary review of more than 20 million speed tests conducted through the FCC's challenge process, the FCC expressed increased concerns that current data is fatally flawed. This data will determine where $4.53 billion in MF II support as part of the Universal Service Fund ("USF") will be disbursed to preserve and expand mobile broadband over the next ten years. CCA stands ready to work alongside the FCC and Congress to ensure that future data collections provide an accurate and reliable foundation to determine critical funding decisions.

Additional Funding Will Preserve and Expand Wireless Broadband Coverage

CCA commends the FCC for making $4.53 billion in support available to preserve and expand mobile broadband services through the MF II program. However, additional resources are necessary to ensure that rural areas have access to reasonably comparable telecommunications and information services, as those provided in urban areas. MFII is critically important to preserve and expand 4G services in high-cost areas, and 5G services will build upon a 4G foundation. In the wireless industry, a technology "generation" has historically found its peak in its tenth year. Announcements for 5G deployments promise services available this year, which means that additional resources to complement MF II is critical to ensure that rural America does not fall further behind the digital divide.

As Congress considers legislation to rebuild America's infrastructure, CCA strongly supports employing all policy options to advance wireless broadband deployment, including providing direct funding to deploy broadband infrastructure where private capital alone is not sufficient to support a business case for service. Services enabled by 5G networks will support business plans for ongoing rural service, but funding remains a hurdle for the initial capital expenses and other expenditures. Greater connectivity in a 5G world will not be limited to individual users, and the massive number of connections to power Internet of Things ("IoT") applications will create a river of pennies to support operational expenses. Yet absent support for initial deployment, rural areas will remain unconnected while other areas enjoy increased automation through connectivity.

Ubiquitous Wireless Broadband Demands More Spectrum

Wireless services are not possible without access to a variety of spectrum frequencies - a finite resource only available from the government. It is the invisible infrastructure for wireless services, and the lifeblood of our industry. All carriers must have access to spectrum at low-, mid-, and high-bands to

provide the services their customers depend on and the capacity necessary to support innovative applications. As small businesses increasingly rely on wireless broadband connections, the demand for additional spectrum resources grows exponentially.

Mid-band spectrum balances distance travelled with speed and capacity capabilities, making it particularly well suited for providing the latest generation wireless services in rural America. To gain access to additional mid-band spectrum frequencies as carriers contemplate 5G deployments, the 3.7 – 4.2 GHz portion of the C-band has emerged as a prime opportunity to reallocate spectrum to meet the nation's wireless needs. It is critically important that policymakers adopt policies that both reallocate as much of this spectrum band as possible to support 5G networks and also ensure that competitive carriers and those serving rural America have a meaningful opportunity to gain access to this spectrum. Apart from the C-Band, completion of work on the L-Band will provide competitive carriers with another source of prime mid-band frequencies to deploy next-generation networks.

High-band spectrum enables ultra-fast speeds, despite lower distance propagation. The FCC is currently auctioning multiple bands of high-band millimeter wave spectrum, including the recently concluded 28 GHz auction and the 24 GHz auction set to begin on March 14, 2019. These spectrum bands present opportunities to deploy large swaths of spectrum, a force multiplier for the capabilities of the wireless services that use these frequencies. As additional high-band spectrum allocations are considered for wireless use, policymakers should preserve the opportunity for licensed use and provide certainty on service rules, such as power levels, to spur research and development of this spectrum to serve consumers.

Low-band spectrum, or spectrum below 1 GHz, has propagation characteristics that carry signals across long distances and through impediments such as walls or trees. This spectrum is particularly important for coverage in rural areas with lower population densities and vast areas to connect. With

no additional low-band spectrum expected to be reallocated for wireless use in the near future, the FCC must ensure that the ongoing transition to repack television broadcasters in the 600 MHz band remains on schedule. This transition will allow the wireless carriers that bid over $19 billion to gain access to these frequencies to put this spectrum to use to serve consumers.

Infrastructure Deployment Policies Should Promote Wireless Services

Wireless broadband services depend on physical infrastructure, and smart policies to deploy, maintain, and upgrade this infrastructure are key components to both close the digital divide and complete the generational upgrade to 5G technologies. All carriers must have certainty regarding the costs and time necessary to deploy macro-towers, small cells, and the fiber required to backhaul tremendous amounts of data. Eliminating outdated or unnecessary review processes will reduce deployment costs, and assist carriers as they work to provide the robust services that their customers depend on and demand.

While Congress and the FCC have taken important steps to streamline siting approval and permitting processes, additional work remains to deploy ubiquitous service that will support next-generation technologies. 5G deployments, in particular, will require a myriad of cell towers and small cells, but that is not all. 5G networks also will exist on a high-fiber diet, and forward-thinking infrastructure deployment policies are necessary to ensure that backhaul does not become a choke point in modern wireless networks. These policies should include processes to enhance access to rights-of-way, rationalize fees, and increase certainty for review timeframes, including but not limited to deployments on Federal lands.

It is important to underscore that infrastructure reform need not pit wireless carriers against the municipalities and states they serve. Instead, smart policies can create a streamlined and effective win-win scenario that saves resources by eliminating redundant and unnecessary application review

processes for both carriers willing to invest in network deployments, as well as state and local government agencies seeking to upgrade services for their constituencies.

Additionally, as carriers work to deploy next-generation wireless services, policymakers should continue to provide guidance to all carriers regarding the risks and potential threats to ensure that networks are sufficiently protected and hardened from cybersecurity and other national security vulnerabilities. Government and industry must define a process to provide adequate resources to secure networks and sustain national security priorities so that all small businesses can embrace the connected future with confidence.

Modern wireless broadband services will revolutionize how small businesses connect with their customers, while creating new jobs and allowing anyone to work wherever there is a broadband connection. These services enable augmented and virtual reality, seamless streaming, autonomous vehicles, security video feeds, health care improvements and monitoring, connected homes and cities, industrial automation, precision agriculture, and additional technologies. While not long ago, these would be considered science fiction, the latest wireless services are making them a reality, improving opportunities for small businesses and reducing their costs. However, they all require a reliable broadband connection. 5G services promise an immediate and expansive impact on the lives of all Americans, particularly small businesses in rural areas, but absent smart and swift action from policymakers to close the digital divide, those in rural areas will be sidelined from a connected future. I appreciate this Committee's attention to ensuring that all small businesses have the national infrastructure in place to survive and thrive, and reliable broadband is an ever increasingly important component to achieving this goal.

Thank you for holding today's important hearing, and I welcome any questions you may have.