



June 25, 2020

Mr. Travis Hall
Office of Policy Analysis and Development
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue NW, Room 4752
Attn: Secure 5G RFC
Washington, DC 20230

Re: Input on the Implementation Plan for the National Strategy to Secure 5G
(Docket No. 200521-0144)

Dear Mr. Hall:

Competitive Carriers Association¹ (“CCA”) respectfully submits the following comments in response to the National Telecommunications and Information Administration (“NTIA”) Request for Comments to inform the development of an Implementation Plan for the National Strategy to Secure 5G (Docket No. 200521-0144).² CCA and its members support the administration’s efforts and look forward to working with NTIA as it develops an Implementation Plan for nationwide access to secure advanced wireless service.

In 2020, the United States experienced the spread of COVID-19 and the ensuing closure of schools, businesses, stores, and public transportation. This pandemic put broadband access to its greatest test as stay-at-home orders were imposed virtually overnight. The public health crisis further magnified what many have known for years—broadband access is critical to today’s economy. But today we face harsh realities: many areas of the country remain unserved by broadband and the digital divide persists, both in terms of areas of the country without access to broadband and in individual consumers’ ability to afford broadband.

The country’s growing reliance on remote health services further emphasizes that more must be done to ensure that advanced wireless services are available everywhere, particularly for remote monitoring technologies that can only function with mobile connectivity. Many of those who would benefit most from telehealth solutions, such as

¹ CCA is the nation’s leading association for competitive wireless providers and stakeholders across the United States. Members range from small, rural carriers serving fewer than 5,000 customers, to regional and national providers serving millions of customers, as well as vendors and suppliers that provide products and services throughout the wireless supply chain.

² *National Telecommunications and Information Administration, U.S. Department of Commerce, Public Notice, DA No. 20-199, GN Docket No. 20-60 (rel. Feb. 27, 2020) (“Public Notice”).*

Americans in rural areas, do not currently have access to broadband. In 2019, estimates suggested that as many as 21.3 million Americans lacked access to broadband services.³ And even when broadband is available, more cannot afford to pay for access. This lack of access disproportionately affects low-income and rural communities.⁴

It is an urgent concern that parts of the country currently have no access to mobile broadband, much less any competitive choice for such services. As the industry builds to widespread deployment of 5G nationwide, this is an opportune moment to address the infrastructure deployment barriers intimately tied to the rollout of a competitive 5G future. In addition, carriers of all stripes—from large, nationwide carriers to small, local carriers that serve rural and remote regions of the country—must have access to spectrum to serve consumers hungry for next-generation capabilities. At the same time, it is an important time to develop policies that will ensure customer safety and network security as advanced wireless services become more widely available. In support of these needs, CCA submits the following comments on several lines of efforts in the Request for Comments for NTIA to consider as it develops its Implementation Plan.

LINE OF EFFORT 1: FACILITATE DOMESTIC 5G ROLLOUT

Both government and industry have taken important steps to promote access to mobile wireless services and to bridge the digital divide. But two critical inputs for wireless broadband service are infrastructure and spectrum, and additional reform of infrastructure siting policies and access to additional spectrum are critical to the rollout of 5G services nationwide. CCA has worked cooperatively with industry and the Federal Communications Commission (“FCC”), including by supporting the FCC’s strategy to Facilitate America’s Superiority in 5G Technology (the “5G Fast Plan”),⁵ and has supported a series of important FCC decisions to reduce infrastructure barriers that unnecessarily slow wireless deployment and increase costs. In addition, CCA has supported the FCC’s actions to open up spectrum that can be used for 5G which have resulted in making available large swaths of high-band spectrum, for example, with plans to auction critical mid-band spectrum for 5G in 2020.

CCA urges NTIA to include additional steps in the Implementation Plan to reduce the deployment-inhibiting barriers that still exist, as well as streamline all processes to allow the industry to increase the speed of deployment.

³ See *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 2019 Broadband Deployment Report, FCC No. 19-44, GN Docket No. 18-238 (rel. May 29, 2019); see also Nicol Turner Lee, *What the Coronavirus Reveals about the Digital Divide Between School and Communities*, Brookings (Mar. 17, 2020), <https://www.brookings.edu/blog/techtank/2020/03/17/what-the-coronavirus-reveals-about-the-digital-divide-between-schools-and-communities/>.

⁴ A March 2020 report commissioned by Microsoft and the National 4-H Council, for example, found that 1 in 6 teenagers in rural areas did not have broadband internet access at all. See 4-H Tech Changemakers, *Impact of Digital Skills Among Teens: Poll Report* (Mar. 2020), https://4-h.org/wp-content/uploads/2020/03/4-H_Microsoft-Youth-Voice-Digital-Skills-Survey-Final.pdf.

⁵ See *The FCC’s 5G Fast Plan*, <https://www.fcc.gov/5G> (last accessed June 13, 2020).

Streamline and Expedited Infrastructure Deployment. One critical area that NTIA should include in the Implementation Plan is streamlined and expedited siting on federal lands and buildings. Roughly one third of land in the United States is owned by the federal government. The deployment of critical wireless infrastructure—including towers, macro and micro cells, and backhaul—on federal lands, thus, is critical to nationwide deployment of advanced wireless service.

Access to Federal Lands for wireless siting is imperative if the goal is to bring modern services nationwide. The delays and costs of access too frequently caused by the federal land siting process are ultimately borne by the Americans living, working, and traveling in these areas. In 2012, Congress attempted to spur wireless broadband deployment on federal lands through the Spectrum Act of 2012, directing the Administrator of the General Services Administration to establish master contracts and forms for wireless siting Legislation.⁶ Then, in 2017, the Federal Lands Working Group, created by Executive Order 13616, produced a draft Program Comment to facilitate faster deployment.⁷ Unfortunately, carriers have not felt the benefit of these steps.

NTIA should include in the Implementation Plan specific steps to address these barriers, such as streamlined application processes across Federal Lands, reasonable shot clocks for reviewing applications and negotiating leases to build on federal lands and reduced and standardized fees for permits and leasing rights-of-way. In addition, long-term leases and easements on Federal Lands should be available to the industry participants deploying across such lands. The Implementation Plan also should include steps to reduce barriers to erecting the enormous number of cells—both macro and micro—needed for nationwide 5G deployment.

Infrastructure-related barriers significantly slow the deployment of 5G technology, particularly in rural areas. State and local siting regulations, for example, sometimes present unnecessary obstacles for deployment. In Section 6409(a) Spectrum Act of 2012, Congress sought to relieve these barriers by requiring state and local agencies to approve “eligible facilities requests” to modifications to existing infrastructure. Many of these barriers remain, however, as some jurisdictions have ignored the mandates of Section 6409(a) or misinterpret the Commission’s rules in a way that further slows deployment. The Commission’s recent approval of a Declaratory Ruling and Notice of Proposed Rulemaking pertaining to its rules implementing 6409(a) highlights the scope of these barriers and the challenges they pose to 5G deployment throughout the country.

Another infrastructure-related barrier that wireless providers encounter in rural areas is construction restrictions for “Twilight Towers.” There are towers constructed between March 16, 2001 and March 7, 2005 that lack documentation showing that the Section 106 of the National Historic Preservation Act review process was completed. Opening up these towers for collocation would enable faster and less costly deployment by making infrastructure available and reducing the need to construct new towers. In 2018, the Commission proposed a Draft

⁶ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6409(b)-(c) 126 Stat. 156 (2012).

⁷ *Draft Program Comment for Telecommunications Projects on Federal Property* (Jan. 13, 2017), <http://www.achp.gov/docs/Telecommunications%20Projects.pdf>.

Comment to the Advisory Council on Historic Preservation that would exclude Twilight Towers from Section 106 review, provided that certain conditions are met.⁸ While building restrictions to Twilight Towers are not directly under NTIA's auspices, it is a problem that has stalled within the federal government and needs resolution. NTIA should do what it can to resolve this issue.

Access to Additional Spectrum. Spectrum is the lifeblood of the wireless industry. Nationwide wireless broadband and 5G deployment is contingent on the ability of all carriers to access a robust portfolio of spectrum resources. Competitive carriers must have access to a variety of low-, mid-, and high-band spectrum to meet consumers' insatiable demand for data. NTIA can enable advanced networks by including in its Implementation Plan steps to freeing up additional spectrum for wireless use in low-, mid-, and high-band frequencies.

NTIA should identify spectrum in use by the Federal government that can be freed up and repurposed for 5G technologies. NTIA should aim to identify spectrum in the lower bands most capable of reaching remote areas, the higher bands that travel less distance but can carry enormous amounts of information, and the critical mid-bands that balance the benefits of both. The ability to increase spectrum availability, particularly mid-band spectrum, is critical for companies that are making 5G-related investment and capital expenditure decisions.

LINE OF EFFORT 2: ASSESS RISKS TO & IDENTIFY CORE SECURITY PRINCIPLES OF 5G INFRASTRUCTURE

Increased Information Sharing. CCA and its members are deeply committed to ensuring the security of the country's communications infrastructure, but this security cannot be easily achieved without clear direction from the government regarding security risks of network equipment. While CCA appreciates NTIA's recent Request for Comment regarding the information sharing program mandated by the Secure and Trusted Communications Networks Act, small and rural wireless carriers have long sought this kind of government guidance as they built and expanded their networks.

In this vein, it is important for NTIA to keep in mind why providers opt for particular equipment in their networks. The FCC allocates Universal Service Fund (USF) funds through reverse auctions, whereby carriers are driven to elect the lowest-cost equipment options. In the Mobility Fund I proceeding, this drive to the lowest cost led some carriers to seek lower-cost Chinese equipment. Going forward, government agencies should ensure there are established security standards so that providers are investing wisely in equipment. CCA's members want their networks to be secure and to avoid the costly "replace and rip" process in the future. This can only be done, however, with clear direction from the government regarding trusted suppliers and equipment.

⁸ See *Comments Sought on Draft Program Comment for the Federal Communications Commission's Review of Collocations on Certain Towers Constructed Without Documentation of Section 106 Review*, 32 FCC Rcd. 10,715 (2017).

LINE OF EFFORT 3: ADDRESS RISKS TO U.S. ECONOMIC AND NATIONAL SECURITY DURING DEVELOPMENT AND DEPLOYMENT OF 5G INFRASTRUCTURE WORLDWIDE

CCA has engaged with key decisionmakers to help craft and support policies to secure our nation's telecommunications networks, such as CCA's support of the Secure and Trusted Communications Networks Act of 2019. The Secured Networks Act is the primary vehicle by which the U.S. should address the removal and replacement of covered equipment. Importantly, funding will be necessary to cover this expense. In addition, additional steps should be included in the Implementation Plan to ensure that the security pitfalls of legacy technologies are not replicated in 5G networks.

Funding for Secure & Trusted Networks. Securing the nation's 5G networks is of the utmost importance, but this worthy goal can only be achieved fully if sufficient funding is made timely available to those entities that must remove and replace equipment. The changes to the network can only be made if sufficient funding is available for this expansive process. Importantly, funding must be available to *any* provider of advanced communications services that qualifies under the Secured Networks Act. NTIA's Implementation Plan should include an action item to support all avenues to make such funding available for distribution as quickly as possible.

Increase Security Through All-IP Networks. In addition to replacing equipment in the supply chain to increase the security of the networks, the Implementation Plan should include steps to a comprehensive transition to all-IP networks. Legacy technologies, such as TDM, are susceptible to security issues that could pose a threat to 5G networks. For some CCA members, TDM technology is still used in fundamental parts of the 5G network, often the only available option for backhaul services. CCA's members are actively seeking feasible paths to all-IP networks, because in addition to potential security concerns, some consumer technologies require it. For example, solutions directed to reducing robocalls can be achieved on all-IP networks, but the legacy of TDM in the network means the solution is not available end-to-end. Similarly, the use of TDM presents challenges to the development of nationwide number portability. A comprehensive path to IP will enhance network security but as many CCA members struggle against, a comprehensive path to IP does not currently exist.

Security on 5G networks will inevitably be increased by moving to all-IP networks, and while this issue has been teed-up at the FCC for years, the process has stalled. The path to all-IP must be staged and structured to ensure minimal disruption. Accordingly, CCA recommends that NTIA include in its Implementation Plan a path forward to all-IP networks and the sunset of TDM.

LINE OF EFFORT 4: RESPONSIBLE GLOBAL DEVELOPMENT AND DEPLOYMENT OF 5G

U.S. Representation on all Standard-Setting Bodies. International standards setting bodies play an important role in 5G rollout by addressing core elements of the 5G architecture and network. Importantly, international standards can introduce both helpful technologies *and* potential risks to our networks. Thus, it is imperative that the U.S. is adequately represented on

all standards setting bodies. The U.S. must have leadership representation within such bodies, as well as a close public/private partnership with the industry, to ensure appropriate standards that address potential risks are developed.

Research and Development Throughout the Ecosystem. The U.S. has been a leader in technology development since the advent of the Internet. However, extensive research and development are needed to ensure the U.S. is able to maintain its leadership position in the rollout of 5G, particularly given the country's shift to domestic supply chains in order to achieve robust security. In the first instance, research and development are needed to see how *all* parts of the U.S. 5G ecosystem are working, and CCA urges the administration to include steps in the Implementation Plan to promote research and development. Importantly, it is critical that substantial research and development efforts are directed to STEM education and domestic manufacturing for all aspects of the network supply chain.

The Implementation Plan should also direct research and development to Open Radio Access Networks (ORAN) and Virtual RAN (VRAN). ORAN is promising technology, and more research and development would be welcome in this area. NTIA also should assess how Open RAN, with interoperable and open interfaces, can facilitate 5G deployment in the U.S. Importantly, at this time, it is not necessary to implement any mandates for or against any particular technology, particularly where such mandates could limit vendor diversity.

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CCA is pleased to provide these comments to NTIA in support its Implementation Plan to promote the rollout of 5G and competitive wireless markets. The Implementation Plan should include additional steps for reducing barriers to infrastructure deployment, making key spectrum available for 5G, and targeting additional support to unserved and underserved areas after collecting updated data. CCA also looks forward to continued work on the important agenda to promote the security of our nation's wireless ecosystem.

Respectfully submitted,

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