



May 18, 2021

via ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street, NE
Washington, DC 20510

RE: NOTICE OF EX PARTE
WC Docket No. 18-89 – *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*

Dear Ms. Dortch:

The Rural Wireless Association, Inc. (“RWA”) is concerned with two factors that could have a significant impact on the timing associated with the ability of its members to timely replace their Huawei and ZTE networks as mandated by the Secure Networks Act. Of specific concern are (1) the ability to obtain equipment due to global semiconductor chip shortages impacting the communications sector’s supply chain components;¹ and (2) the ability to hire the trained-workforce² needed to build new secure networks and then migrate customers from the insecure networks to the new secure networks due to shortages in highly skilled labor needed for this work. RWA is concerned that the equipment component and workforce shortages will cause significant delay in carrying out the mandates established by the Federal Communications Commission’s (“FCC” or “Commission”) in its Supply Chain Reimbursement Program.³ RWA members anticipate that these shortages will immensely hinder their ability to meet the one-year deadline to complete their transition process. As such, RWA is in agreement with the ex parte filed by Nokia,⁴ that the standalone one-year deadline to complete the

¹ Swanson, Ana. “Global Chip Shortage Challenges Biden’s Hope for Manufacturing Revival,” *New York Times* (Feb. 18, 2021). <https://www.nytimes.com/2021/02/18/business/economy/chip-shortage-semiconductors-manufacturing-biden.html>. See also *WTB Seeks Comment on the Impact of the Global Semiconductor Shortage on the U.S. Communications Sector*, Public Notice, WT Docket No. 21-195, DA 21-550 (May 2021).

² Sabin, Sam, “5G Worker Shortages Could Provide Many Americans With Chance to Return to Work,” *Morning Consult* (May 6, 2020). <https://morningconsult.com/2020/05/06/5g-wireless-workforce-shortage-coronavirus/>.

³ *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, Second Report and Order, WC Docket No. 18-89, FCC 21-26 (2020) (Second Report and Order).

⁴ *Notice of Ex Parte from Brian Hendricks, Vice President, Policy and Government Relations, Nokia, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-89* (filed Feb. 5, 2021) (Nokia ex parte) (Urged the Commission to “grant a blanket extension of time from the start so that program participants know in advance they have time to build a network based on prudent business and engineering determinations, rather than have those decisions overtaken by a 12-month time constraint.”).

replacement, removal, and disposal of unsecure equipment and services is an insufficient amount of time to complete the entire process given potential delays associated with these shortages that are beyond carriers' control. In support of Nokia's ex parte, RWA urges the Commission to grant a 6-month blanket extension from the start of the program and more freely grant individual extensions so that Reimbursement Program participants can more efficiently plan the transition of their networks. Knowing ahead of time that these extensions are in place will avoid mismanagement of scarce resources and overpaying for limited resources.

Component Shortage

Carriers are currently struggling to quickly receive the equipment they need as there are semiconductor chip shortages across the market. Widelity noted in Section 13.4 "Chipset Availability" of its draft Report to the Commission that there is a scarcity of semiconductor chips and other electronic components that make up radio and computer equipment.⁵ Widelity concluded that "[c]hipsets are foundational to all deployments and any interruption to the equipment supply chain could negatively impact the timing of the deployments."⁶ Congress has also recognized this shortfall and the delays that will be caused across several technology sectors.⁷

The semiconductor shortage has been especially problematic for small rural providers who are now experiencing lead times on equipment and services of 8-12 months, when they are typically 6-8 weeks. Specifically, one RWA member has been told to expect lead times to extend at least 8 months for radio access network equipment. The RWA associate member also expects that certain semiconductor components used in networks may be in short supply in the coming months, limiting overall availability. Ultimately, the long lead time is in direct conflict with the current one-year mandated deadline and rural carriers cannot wait an extended period of time to begin receiving their reimbursements, which starts the one-year clock, given their limited resources.

Furthermore, many small rural providers are competing with the large nationwide carriers, who are building out their 5G networks, for these parts. The telecommunications industry is also competing with the automotive industry for these same basic component parts as well. This puts small rural carriers at the back of the line for these short in supply, high in demand chips and related electronic components.

The COVID-19 pandemic has shutdown many of the plants that manufacture the sought after semiconductor chips. Additionally, after being banned from manufacturing components,

⁵ Widelity, Report: Supply Chain Reimbursement Program Study (2021) ("Report").

⁶ *Id.*, at 33.

⁷ *William M. Thornberry National Defense Authorization Act for Fiscal Year 2021*, Pub. L. 116-283, 134 Stat. 3388, Sec. 9901-9908 (Jan. 1, 2021) (The CHIPS Act authorizes federal incentives to promote semiconductor manufacturing and research initiatives over the next decade).

Huawei bought large quantities of components in the market.⁸ As a result of all of this, vendors are having issues meeting demand, creating a simple supply vs. demand issue. To this end, the Commission should be prepared to grant extensions of time to complete the build out of new networks to replace Huawei and ZTE networks given the semiconductor chip shortage facing the U.S. technology sectors.

Workforce Shortage

There are significant shortages in available trained workers due to the pandemic and a lack of training programs. Carriers, especially small rural carriers, are having difficulty finding available tower crews to install their equipment although tower crews are just one aspect of the work that goes into building a new network. The installation of radio antennas and base units at the tower location requires specific skill sets and the installation of the core requires different skill sets. Migration from one network to another requires yet another skill set as does network optimization and commissioning the network from test phase to commercial operation.

Especially in rural areas, the work force is not readily available⁹ and rural operators will be competing with potentially thirty or more other rural operators to engage with the available labor pool. This same labor pool is also being heavily utilized by the three nationwide carriers and DISH who are in a race to build out their respective 5G networks with priority being given to them.

Congress has recognized the need for job training programs to provide skilled labor to take on these jobs in recently introduced legislation.¹⁰ Even with these programs to assist the growth of the workforce, their effects will not be felt for years to come and with the introduction of President Biden's American Jobs Plan, which could fund \$100 billion for broadband infrastructure build out, there is expected to be even more pressure on the limited workforce.¹¹ Rural providers need a solution now. It is time for the Commission to step forward,

⁸ "Huawei Outhustles Trump by Hoarding Chips Vital for China 5G," Bloomberg (Oct. 22, 2020). <https://www.bloomberg.com/news/articles/2020-10-22/huawei-outhustles-trump-by-stockpiling-chips-needed-for-china-5g>.

⁹ Casselman, Ben. "Rural Areas Are Looking for Workers. They Need Broadband to Get Them," *New York Times* (May 17, 2021). <https://www.nytimes.com/2021/05/17/business/infrastructure-rural-broadband.html?referringSource=articleShare>.

¹⁰ See generally, *Telecommunications Skilled Workforce Act*, S. 163, 117th Cong. (Feb. 2, 2021) and H.R. 1032, 117th Cong. (Feb. 11, 2021) (Requires FCC to establish interagency working group to develop recommendations on telecommunications workforce needs); *Improving Minority Participation And Careers in Telecommunications Act ("IMPACT Act")*, S. 996, 117th Cong. (Mar. 25, 2021) (Grants would be awarded to certain institutions of higher education to train students for telecommunications workforce).

¹¹ See *American Jobs Plan* (Mar. 31, 2021) (Allocates \$100 billion to broadband deployment nationwide); See also, *Leading Infrastructure for Tomorrow's America Act ("LIFT America Act")*, H.R. 1848, 117th Cong. (Mar. 11, 2021) (Directs \$312 billion for infrastructure projects, including \$80 billion for high-speed broadband deployment); *Accessible, Affordable Internet for All Act*, S. 745 and H.R. 1788, 117th Cong. (Mar. 11, 2021) (Invests over \$94 billion to build high-speed broadband infrastructure in underserved and unserved communities).

acknowledge this issue, and address workforce concerns by granting extensions of the one-year replacement, removal, and disposal deadline.

Plan of Action

Once reimbursement participants are determined, the FCC should issue a blanket 6-month extension of the 1-year mandated deadline and also plan on granting individual 6-month extensions submitted by providers given the market conditions when warranted and supported.¹² The FCC should also consider requiring supply chain vendors to prioritize small carriers replacing Huawei and ZTE equipment over large carriers.¹³ This is a national security issue which has been in the making for more than three years. There needs to be a higher level of urgency to replace the unsecure equipment and services in these small carriers' networks and prioritizing these carriers' needs over those of large carriers will assist in a more timely replacement process that will serve the public interest.

Pursuant to Section 1.1206 of the Commission's Rules,¹⁴ this ex parte is being filed electronically with the Office of the Secretary.

Respectfully submitted,

/s/ Carri Bennet

Carri Bennet, General Counsel
5185 MacArthur Blvd., NW, Suite 729
Washington, DC 20016
(202) 857-4519
legal@ruralwireless.org

¹² See 47 U.S.C. § 1603 (d)(6)(B)(i) (allowing for general extensions for 6 months to all reimbursement recipients if the Commission "finds that the *supply* of replacement communications equipment or services needed by the recipients to achieve the purposes of the Program is inadequate to meet the needs of the recipients." (emphasis added)). See also *Id.*, § 1603 (d)(6)(B)(ii) (The Commission must provide Congress notice and a "detailed justification" for the general extension); *Id.*, § 1603 (d)(6)(C)(ii) (allowing for individual petitions and 6-month extensions if the Commission finds that "due to no fault of such recipient, such recipient is unable to complete the permanent removal, replacement, and disposal described in subparagraph (A).").

¹³ To prioritize small and rural carriers with lesser ability to obtain components and workforce at scale, the Commission could, for example, use its authority under Section 4(i) of the Act (47 U.S.C. § 154(i)) as "necessary in the execution of its functions" to carry out the Secure Networks Act's intent to replace Covered List equipment and services by encouraging vendors to supply small and rural carriers ahead of large carriers. As the Commission is aware, most of the Covered List equipment in the US supply chain was deployed by small and rural carriers. Accordingly, it is "necessary" to prioritize the very carriers most directly affected by component and workforce shortages in order for the Commission to carry out its duties to ensure the security of U.S. networks through its implementation of the Secure Networks Act.

¹⁴ 47 C.F.R. § 1.1206.