

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

In the Matter of	)	WT Docket No. 21-195
	)	
WTB Seeks Comment on the Impact of the Global Semiconductor Shortage on the U.S. Communications Sector	)	WC Docket No. 18-89
	)	GN Docket No. 20-32

**COMMENTS OF THE RURAL WIRELESS ASSOCIATION, INC.**

The Rural Wireless Association (“RWA”)<sup>1</sup> submits these comments in response to the Federal Communications Commission’s (“Commission”) semiconductor shortage Public Notice.<sup>2</sup> RWA commends the Wireless Telecommunications Bureau’s (“WTB” or “Bureau”) outreach on this wide reaching issue. The Commission asks whether the semiconductor shortage has spread to the communications sector, and how the shortage may impact lead times.<sup>3</sup> RWA members independently report that equipment lead times have increased by 9 to 12 months. As it previously commented in its ex parte on the semiconductor shortage before the Commission opened the instant docket,<sup>4</sup> RWA is very concerned that both the current semiconductor and

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<sup>1</sup> RWA is a 501(c)(6) trade association dedicated to promoting wireless opportunities for rural telecommunications companies who serve consumers who, reside, work, or travel in rural America. RWA’s members are small businesses serving or seeking to serve secondary, tertiary, and rural markets. Each of RWA’s member companies serves fewer than 100,000 subscribers.

<sup>2</sup> *Wireless Telecommunications Bureau Seeks Comment on the Impact of the Global Semiconductor Shortage on the U.S. Communications Sector*, WT Docket No. 21-195, Public Notice, DA 21-550 (WTB May 11, 2021) (Semiconductor Shortage PN).

<sup>3</sup> Semiconductor Shortage PN at 2. The Commission’s Public Notice explains that “lead times” are “the duration between when an order for a semiconductor is placed and when it is actually filled.” *Id.*

<sup>4</sup> Letter from Carri Bennet, General Counsel, Rural Wireless Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-89 (filed May 18, 2021),

[https://ecfsapi.fcc.gov/file/10518425020096/RWA%20Ex%20Parte%20-%20Supply%20Chain%20Component-Workforce%20Shortage\\_FINAL.pdf](https://ecfsapi.fcc.gov/file/10518425020096/RWA%20Ex%20Parte%20-%20Supply%20Chain%20Component-Workforce%20Shortage_FINAL.pdf).

labor shortage<sup>5</sup> will cause significant delay in fulfilling Commission mandates in the timeframes required, specifically, for the 5G Rural Fund, and the Supply Chain Replacement Program.

**I. The Semiconductor Shortage Will Delay Small and Rural Carrier 5G Rural Fund Compliance with the 5G Fund Legacy Support Spending Requirement.**

The semiconductor shortage has and will continue to impede small and rural carriers in particular from using their legacy support universal service funds to deploy 5G networks in the timeframe specified by the FCC in the Rural 5G Fund Order.<sup>6</sup> Fewer semiconductors mean manufacturers cannot produce quickly enough the communications equipment needed to meet consumer wireless broadband and 5G needs. To date, large carriers have been insulated from the adverse effects of supply shortages due to their bargaining power and longer 5G lead times.<sup>7</sup> In contrast, RWA's small rural carriers, who are just beginning to focus on 5G purchases, are learning that 5G equipment is decreasingly available on customary purchase and delivery timelines. This is primarily due to semiconductor shortages. Intel has recently reported that semiconductor shortages "could last *several years*."<sup>8</sup> These delays will impact the ability of RWA members who receive legacy support from being able to spend the legacy support on 5G as required by the Commission.

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<sup>5</sup> While RWA remains concerned about the current shortage of labor, and its effect on RWA members' ability to fulfill Commission mandates, RWA limits the scope of the instant comments to the effects of the semiconductor shortage.

<sup>6</sup> *Establishing a 5G Fund for Rural America*, Report and Order, 35 FCC Rcd 12174, 12286, Appx A. (2020) (new section 47 CFR § 54.322 (c)(1)-(3)).

<sup>7</sup> See, e.g., Mike Dano, *Counting the cost: How chip shortages are affecting telecom companies*, Light Reading (May 5, 2021), <https://www.lightreading.com/opticalip/counting-cost-how-chip-shortages-are-affecting-telecom-companies/d/d-id/769289>

<sup>8</sup> *Intel reiterates chip supply shortages could last several years*, Reuters.com (May 31, 2021, 12:47 AM), <https://www.reuters.com/technology/intel-reiterates-chip-supply-shortages-could-last-several-years-2021-05-31/> (emphasis added).

The Commission’s October 2020 5G Rural Fund Order requires Eligible Telecommunications Carriers (“ETCs”) to use one-third of received monthly support by December 31, 2021; two-thirds by December 31, 2022; and all received monthly support “in 2023 and thereafter.”<sup>9</sup> While the 5G Rural Fund does provide for “support usage flexibility” in the event an ETC is unable to meet its year one support usage requirement,<sup>10</sup> the ability to proportionally shift 2021 funds to 2022 is not particularly helpful given the semiconductor shortage or its projected length.

The 5G Rural Fund usage rules did not contemplate that a semiconductor shortage would arise, preventing use of legacy support funds late in the first award year and thereafter. As such, the Commission must extend the 5G Rural Fund support use deadlines accordingly. As the semiconductor shortage is projected to last multiple years, possibly spanning most or all of the 5G Rural Fund’s 2021-2023 timeframe, ETCs may be prevented from spending funds in the interim and have to shift spending such funding later and over multiple years. Moreover, a sudden end to the semiconductor shortage could itself result in supply chain shortages due to a multitude of legacy support ETCs attempting to spend funds before the new deadline. To accommodate the lengthy—and unpredictable—nature of the semiconductor shortage, the Commission should modify its rules to allow ETCs to shift the three-year 5G spending timeframe to match the length of the semiconductor shortage duration. In other words, if the semiconductor shortage lasts two years, the legacy support 5G funding use date would begin in 2023 and end in 2025.

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<sup>9</sup> *Establishing a 5G Fund for Rural America*, Report and Order, 35 FCC Rcd 12174, 12286, Appx A. (2020) (new section 47 CFR § 54.322 (c)(1)-(3)).

<sup>10</sup> *Id.* at 12286, Appx. A (new section 47 CFR § 54.322 (c)(4)).

## II. The Semiconductor Shortage Will Affect Compliance with the Secure Networks Act.

The semiconductor shortage will also affect small and rural carrier compliance with the Commission’s Secure and Trusted Communications Networks Reimbursement Program (“Reimbursement Program”). The Secure and Trusted Communications Networks Act (“Secure Networks Act”) imposes a one-year deadline for Reimbursement Program recipients to expend funds,<sup>11</sup> but allows the Commission to grant six-month blanket extensions to all 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.”<sup>12</sup> RWA believes that *one* six-month blanket extension will be insufficient for recipients to meet their deadlines, given the semiconductor shortage and any related supply chain issues that occur upon the shortage’s end, and urges the Commission to grant successive six-month blanket extensions up until at least a year after the shortage ends.

The Secure Networks Act does not limit the Commission to issuing a *single* six-month extension. Had Congress intended to limit the Commission to a single or one-time extension, it would have done so *explicitly*, by saying, for example, that the Commission may grant a “*one-time* extension of the deadline” or “*one* extension of the deadline.” On the contrary, the Secure Networks Act states the Commission may grant “*an* extension”;<sup>13</sup> by its plain meaning, the

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<sup>11</sup> 47 U.S.C. § 1603 (d)(6)(A).

<sup>12</sup> *Id.* § 1603 (d)(6)(B).

<sup>13</sup> *Id.* § 1603 (d)(6)(B) (“The Commission may grant an extension of the deadline described in subparagraph (A) for 6 months to all recipients of reimbursements under the Program if the Commission—(i) 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; and (ii) provides notice and a detailed justification for granting the extension to—(I) the Committee on Energy and Commerce of the House of Representatives; and (II) the Committee on Commerce, Science, and Transportation of the Senate.”)

indefinite article “an” does not mean a single, *definite*, one-time transaction.<sup>14</sup> It is by definition *indefinite*—“nonspecific” and thus repeatable—“uncountable”.<sup>15</sup> As such, the Secure Networks Act may be interpreted as allowing the Commission to determine when such extensions are necessary, and to issue sequential blanket extensions in periods no greater than six-months each, or in six-month blocks. Although the semiconductor shortage is likely lengthy, but arguably indefinite, the Commission should provide carriers with certainty by clarifying that it has the discretion to issue successive blanket extensions. Small and rural ETCs should be afforded the ability to plan budgets and equipment purchases more than six months at a time; successive extensions are needed. Accordingly, because the semiconductor shortage will very likely last longer than six months, and meet the Secure Networks Act criteria by rendering the supply of communications equipment “inadequate,” the Commission should issue successive, and sequential, six-month blanket extensions that extend at least a year past the end the semiconductor shortage.

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<sup>14</sup> As explained by the Chicago Manual of Style, “An article is a limiting adjective that precedes a noun or noun phrase and determines the noun or phrase’s use to indicate something definite (*the*) or indefinite (*a* or *an*).” *The Chicago Manual of Style* 222 (16th ed. 2010). Furthermore, “An indefinite article points to *nonspecific objects*, things, or persons that *are not distinguished from the other members of a class*. The thing may be . . . uncountable {a multitude}, or generalized {an idea inspired by Milton’s *Paradise Lost*}.” *Id.* at 223 (emphases added).

<sup>15</sup> *The Chicago Manual of Style* 223 (16th ed. 2010).

### III. CONCLUSION

RWA thanks and commends the Commission for its foresight in ascertaining the extent to which the semiconductor shortage will affect the communications sector. RWA also hopes that the Commission uses the comments and data gathered in the instant proceeding to allow small and rural carriers to take full advantage of participating in the 5G Rural Fund and the Reimbursement Program. The Commission has the opportunity, and the obligation, to set-up small and rural carriers for success—by acknowledging that the semiconductor shortage will affect those two programs, and providing carriers with additional time to spend funds in order to maximize participation in the 5G Rural Fund and Reimbursement Program.

Respectfully submitted,

**RURAL WIRELESS ASSOCIATION, INC.**

By: /s/ Carri Bennet  
Carri Bennet, General Counsel  
E. Alex Espinoza, Regulatory Counsel  
5185 MacArthur Blvd., NW, Suite 729  
Washington, DC 20016  
(202) 551-0010  
[legal@ruralwireless.org](mailto:legal@ruralwireless.org)

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