

**Before the
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
Washington, DC**

In the Matter of)
)
Public Wireless Supply Chain Innovation Fund) Docket No. NTIA-2022-0003
Implementation)
)

COMMENTS OF THE RURAL WIRELESS ASSOCIATION, INC.

The Rural Wireless Association, Inc. (“RWA”)¹ submits these comments in response to the Notice and Request for Comments (“Notice”) published on December 13, 2022 by the National Telecommunications and Information Administration (“NTIA”) in the above referenced docket.² The Notice seeks comment on how NTIA should implement the Public Wireless Supply Chain Innovation Fund (“Innovation Fund”), a grant program tasked with accelerating the adoption and deployment of open and interoperable, standards-based RAN. Specifically, NTIA seeks comment on the practical solutions to some of the key challenges to Open RAN adoption and deployment, recommendations for the types of projects that the Innovation Fund should support, and how it should devise its grant award criteria.

This grant program, appropriated funds by the *CHIPS and Science Act of 2022*³ and authorized under section 9202(a)(1) of the *William M. (Mac) Thornberry National Defense*

¹ 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 but most members serve fewer than 10,000 subscribers.

² “Public Wireless Supply Chain Innovation Fund Implementation,” National Telecommunications and Information Administration, Notice (Dec. 13, 2022), <https://www.federalregister.gov/documents/2022/12/13/2022-26938/public-wireless-supply-chain-innovation-fund-implementation> (“Notice”).

³ Pub. L. 117-167, Div. A, Sect. 106, 136 Stat. 1392 (“*CHIPS and Science Act*”).

Authorization Act for Fiscal Year 2021,⁴ presents a special opportunity for the U.S. to take hold of technological leadership in the open and interoperable RAN technology sector. To best achieve this goal, the Innovation Fund should encourage network operators to participate in this program as they are in the best position to ensure adoption and deployment of this critical technology. Specifically, rural fixed and mobile wireless providers are uniquely positioned to drive the next decade of innovation across rural America.

These comments explain: (1) why funding rural carriers is the best way to accelerate Open RAN deployments; (2) how rural fixed and mobile wireless providers are well-positioned to deploy these networks; (3) how participation of these providers would increase competition in the equipment marketplace; and (4) how Open RAN deployment can provide other public interest benefits.

I. DISCUSSION

a. NTIA Should Encourage Rural Fixed and Mobile Wireless Providers to Participate in this Program

In Question 22 of the Notice, NTIA seeks comment on how it can ensure that a diverse array of stakeholders can compete for funding and whether there are types of stakeholders that NTIA should ensure are represented.⁵ To ensure that a diverse array of stakeholders not only compete but participate in this grant program, NTIA should both permit and encourage rural fixed and mobile wireless providers to participate in this grant program.

i. The Best Way to Accelerate Open RAN Deployment is to Fund Carriers Who Actually Deploy Open RAN Networks

The *2021 NDAA* stated that the Innovation Fund would support numerous activities, by, among other things, “[a]ccelerating commercial deployments of open interface, standards-based,

⁴ Pub. L. 116-288; 47 U.S.C. 906(a)(1) (“*2021 NDAA*”).

⁵ Notice, Question 22.

interoperable equipment...”⁶ The Biden administration has echoed its support for Open RAN and its critical role in the transition to 5G.⁷ The best and most efficient way to accelerate the deployment of Open RAN is to directly fund the carriers who are in a position to actually deploy Open RAN networks. Nothing in the authorizing legislation or the appropriations legislation bars participation of rural wireless providers and, as noted above, many of the activities that are to be supported by the Innovation Fund contemplate *commercial deployment* of Open RAN.

Directly funding providers so that they can deploy Open RAN networks will serve the public interest and is a more efficient use of taxpayer dollars. By funding providers directly, NTIA will more easily be able to monitor how funds are used to deploy Open RAN equipment as opposed to funding a vendor to “deploy” Open RAN equipment, via a contract with a provider. This direct participation will also allow NTIA to more easily conduct oversight activities to ensure that Open RAN equipment is actually being deployed and utilized in U.S. communications networks.

Rural carriers are just getting started on their 5G networks and most have not deployed 5G to a significant extent. Unlike large nationwide carriers, rural carriers are in a position to lead with 5G Open RAN given their lag in deploying 5G. On the other hand, barring rural wireless provider participation in the Innovation Fund will significantly slow deployment of Open RAN networks in the U.S., especially in rural America, and will diminish rural providers’ ability to easily transition their networks to 5G capabilities.

⁶ 47 U.S.C. § 906(a)(1)(C).

⁷ “Open RAN for a Secure Digital Transformation to 5G,” *Open RAN Policy Coalition*, Webinar Event (keynote speaker Amit Mital) (Jan. 26, 2022), available at <https://www.openranpolicy.org/events/> (Amit Mital, Special Assistant to the President and Senior Director at the National Security Council, noted in a Open RAN Policy Coalition webinar event that the Biden administration supports the push towards open radio access networks and considers it critical in the transition to 5G.).

ii. Rural Fixed and Mobile Wireless Providers are Well-Positioned to Deploy These Networks

Open RAN solutions are readily available in the marketplace and can be deployed today by providers. One shining example is DISH Network Corporation’s (“DISH”) deployment of a “first-of-its-kind, cloud native, virtualized O-RAN 5G network in several major metropolitan areas of the country.”⁸ DISH’s greenfield deployment, where there was no previous network infrastructure, demonstrates that an Open RAN deployment is capable in even the most rural and remote areas of the country. Many rural wireless providers are well-positioned to adopt and deploy Open RAN networks in unserved areas of the country.

iii. Participation of Rural Wireless Providers Will Increase Competition in the Equipment Marketplace

By permitting rural wireless providers to participate in the Innovation Fund, NTIA would also be promoting one of the *CHIPS and Science Act’s* main goals: to support a more competitive and diverse telecommunications supply chain.⁹ As mentioned in the Notice, the market for 5G infrastructure is highly consolidated, dominated by a small group of vendors.¹⁰ Rural wireless providers lack the market power to negotiate with the dominant vendors. With Innovation Fund monies, these providers would be able to deploy Open RAN networks, thereby availing them the opportunity to access a variety of equipment vendors for their network component needs and not locking them into one vendor’s proprietary equipment solutions. This will drive competition in the vendor marketplace and reduce costs for rural network components. This will drive further innovation in precision agriculture and other rural applications that can be

⁸ Letter from Jeffrey H. Blum, Executive Vice President of DISH, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 21-63 at p. 1 (filed Mar. 16, 2022), <https://ecfsapi.fcc.gov/file/103161155918353/2022-03-16%20DISH%20Ex%20Parte%20ORAN%20GN%20Docket%20No.%2021-63.pdf> (*DISH Ex Parte*)

⁹ Notice, Section I.

¹⁰ *Id.*

supported on rural networks instead of forcing rural carriers to purchase expensive upgrades that are not needed for their operations.

iv. Rural Deployment of Open RAN Provides Other Public Interest Benefits

Critical to the transition to 5G is the expansion of rural broadband. The Innovation Fund could offer rural wireless providers the assistance they need to expand broadband service and upgrade their networks to 5G with Open RAN solutions. Deploying Open RAN equipment in these rural areas will heighten network security¹¹ and improve network adaptability.¹² The presence of Open RAN networks will also accelerate technological advancement for rural 5G applications, including precision agriculture, gas and oil production, and transportation of goods across the U.S.¹³

Furthermore, some rural wireless providers have been slowed in their 5G transition as they undergo the mandated replacement, removal, and disposal of unsecure communications equipment in their networks, as required by the Secure and Trusted Communications Networks Reimbursement Program (“Reimbursement Program”).¹⁴ Providers participating in this program are currently barred from using Reimbursement Program funds to deploy 5G and are only allowed to use reimbursement funds on 4G LTE or “5G-ready” equipment.¹⁵ Additionally, other rural wireless providers are still operating 3G and 4G LTE networks, without the necessary

¹¹ *DISH Ex Parte*, at 2.

¹² “O-RAN Use Cases and Deployment Scenarios”, *O-RAN Alliance*, White Paper, p. 7 (Feb. 2020), available at <https://www.o-ran.org/s/O-RAN-Use-Cases-and-Deployment-Scenarios-Whitepaper-February-2020.pdf>.

¹³ *Report on Task Force for Reviewing the Connectivity and Technology Needs of Precision Agriculture in the United States*, at p. 84 (“Farms and farm service contractors are small businesses located across rural America. Access to such infrastructure is both vital to their operations and critical to their long-term economic sustainability. Today, they stand on the edge of the digital divide.”).

¹⁴ *See generally Secure and Trusted Communications Networks Act of 2019*, Pub. L. No. 116-124, 134 Stat. 158 (2020) (codified as amended at 47 U.S.C. §§ 1601–1609).

¹⁵ *See Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Second Report and Order, 35 FCC Rcd 14284, para. 122 (2020).

resources to invest in a 5G network at this time. These circumstances have put many rural wireless providers in the position where they have been unable to upgrade their networks to 5G. With the assistance of the Innovation Fund, rural wireless providers would have the necessary resources to not only upgrade their networks to 5G but install such 5G networks using Open RAN equipment.

II. CONCLUSION

NTIA's development of the rules and guidance for the Innovation Fund will have a dramatic impact on U.S. technological innovation and communications networks for years to come. To ensure a positive impact, NTIA should provide rural fixed and mobile wireless providers an opportunity to participate in the Innovation Fund so that rural America can share in the benefits of Open RAN deployment. Funding those that actually deploy networks and are well-positioned to do so will help accelerate the adoption and deployment of Open RAN and promote needed competition in the communications equipment marketplace.

RWA appreciates the opportunity to submit these comments and looks forward to working with NTIA to implement this vital grant program.

Respectfully submitted,

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