

Before the
DEPARTMENT OF COMMERCE
National Telecommunications and Information Administration
Washington, DC 20230

In the Matter of)
)
Public Wireless Supply Chain Innovation Fund) Docket No. 221202-0260
Implementation) RIN 0693-XC05
)

COMMENTS OF CASA SYSTEMS

Casa Systems appreciates the opportunity to respond to the National Telecommunication and Information Agency’s (“NTIA’s”) request for comment (“RFC”) on implementing the Public Wireless Supply Chain Innovation Fund (“Wireless Innovation Fund” or “WIF”).¹ As a member of the Open RAN Policy Coalition (“ORPC”), Casa Systems concurs with ORPC’s comments, with the following additional perspectives.

Casa Systems is a leading provider of physical and cloud-native infrastructure technology solutions for mobile, cable, and fixed wireless networks. A trusted partner to premier telecommunications service providers, Casa Systems is headquartered in Andover, Massachusetts, and boasts commercial deployments with over 475 customers in 70 countries. Casa Systems has been at the forefront of virtually every telecommunications technology inflection point over the last 20 years, with major breakthroughs in virtualization and disaggregation of network functions, cloud native network design, convergence of fixed and mobile networks, and development of small cells for millimeter wave spectrum bands. We offer an end-to-end cloud native 5G network solution, with products spanning the 5G Core and Radio Access Network.

We fully support the key Wireless Innovation Fund objectives of promoting advanced wireless technology based on open and interoperable interfaces, in order to enhance vendor diversity and competitiveness in the wireless industry, foster U.S. technological leadership, and strengthen supply chain resilience. As a leader in advanced wireless technology with over 60% of its employees solely dedicated to research and development, Casa Systems is investing the lion’s share of its own resources toward these objectives, and as such is extremely well positioned to support NTIA in its efforts.

In the consideration of how best to allocate resources between the goals of supporting deployment and fostering innovation, we recommend a strong emphasis on innovation. This emphasis will accelerate U.S. competitiveness, a primary concern for U.S. government, military, and industry alike, in a field where our past technological advantages have been significantly

¹ NTIA, *Public Wireless Supply Chain Innovation Fund Implementation*, Request for Comment (Dec. 13, 2022), Docket No. 221202-0260, <https://www.federalregister.gov/documents/2022/12/13/2022-26938/public-wireless-supply-chain-innovation-fund-implementation>.

threatened. Federal government support for basic scientific research and development has led directly to U.S. technology leadership in the past, and WIF represents an unprecedented opportunity for our industry to fast-track efforts to build on the current state of the art and develop new “leap-ahead” wireless technologies here. While expanding access to broadband is important, there are other current federal funding opportunities more appropriately focused on this priority.

Furthermore, as NTIA recognizes in the RFC, a key goal for WIF is to “help unlock opportunities for U.S. companies, particularly small and medium enterprises, to compete in a market historically dominated by a few foreign suppliers.” Accordingly, U.S.-based companies with substantial U.S.-based operations seeking to participate should receive priority. This measure will further help promote U.S. technological leadership and competitiveness in the 5G marketplace, while also directly and substantially supporting U.S. high-tech workforce development, a top objective of the CHIPS Act, and of the Administration’s broader economic agenda as well.

NTIA correctly highlights the challenges to commercialization, adoption and deployment of open and interoperable network equipment that are presented by the high costs of testing and certification. Testing resources are scarce and not widely accessible, and regulatory certification processes add significant incremental cost to any vendor’s effort to expand into an additional country’s market, or to add capability for wireless equipment to operate in an additional spectrum band. Support for widely accessible testing resources, and strong multilateral efforts to align regulatory certification requirements for 5G equipment, could help alleviate some of this cost, leaving more resources available for fundamental research and development.

Interoperability is the ultimate goal of current industry standards setting efforts, however, some equipment may be technically standards compliant but not necessarily interoperable with other Open RAN equipment, and efforts to define or to certify interoperability have not yet reached critical mass in terms of consensus and adoption. While support for a consensus certification program would be an appropriate use of some WIF funding, to the extent NTIA seeks to invest more immediately in deployment projects, specifically prioritizing multi-vendor network deployments would, by definition, ensure more interoperable equipment.

Finally, as implied by Question 6 of the RFC, open and interoperable, standards-based network elements include both RAN and core 5G network elements, and as such, core-related R&D proposals should be considered and supported on equivalent footing with RAN-related projects. Although the process of disaggregation and virtualization started out in the wireless network core and more recently is being implemented in the RAN, there is still significant work to be done in virtualizing additional core functions, in order to best enable edge compute capabilities in 5G networks. For example, Casa Systems is currently partnering with a large U.S. carrier in a major initiative driving new developments and applications in this area to enhance 5G network performance.²

² See <https://investors.casa-systems.com/news-releases/news-release-details/casa-systems-awarded-multi-year-contract-verizon>.

Casa Systems appreciates the opportunity to respond to NTIA's RFC on implementing the Wireless Innovation Fund, and we urge NTIA to begin funding key projects as soon as possible this year.

Respectfully submitted,

CASA SYSTEMS

A handwritten signature in black ink, appearing to read "Timothy C. Rodenberger", written over a horizontal line.

Timothy Rodenberger

January 27, 2023