

## **PUBLIC WIRELESS SUPPLY CHAIN INNOVATION FUND**

### **Frequently Asked Questions (FAQs)**

The Public Wireless Supply Chain Innovation Fund was authorized under Section 9202(a)(1) of the *William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021*, and Pub. L. No. 116-283, 134 Stat. 3388 (Jan. 1, 2021) (FY21 NDAA) appropriated under Div. A., Section 106 of the *CHIPS and Science Act of 2022*, Pub. L. No. 117-167, 136 Stat. 1392 (Aug. 9, 2022). This federal funding aims to foster competition, lower costs for consumers and network operators, support innovation across the global telecommunications ecosystem, and strengthen the 5G supply chain.

The following document contains the first in a series of Frequently Asked Questions (FAQs) intended to clarify and provide guidance on information set forth in the Notice of Funding Opportunity (NOFO) on April 12, 2023. Following the release of this document, further questions may be submitted to [InnovationFund@ntia.gov](mailto:InnovationFund@ntia.gov) for consideration to include in future FAQ documents.

*The below FAQs are for informational purposes only and are intended solely to assist potential applicants in better understanding the National Telecommunications and Information Administration (NTIA) Public Wireless Supply Chain Innovation Fund and the application requirements set forth in the Notice of Funding Opportunity (NOFO) for this program. The FAQs do not and are not intended to supersede, modify, or otherwise alter applicable statutory or regulatory requirements, or the specific application requirements set forth in the NOFO. In all cases, statutory and regulatory mandates, and the requirements set forth in the NOFO, shall prevail over any inconsistencies contained in the below FAQs.*

# Contents

<b>1 Overview</b>	<b>4</b>
1.1 What is Open RAN?	4
1.2 Why is the federal government funding Open RAN infrastructure?	4
1.3 What is the Public Wireless Supply Chain Innovation Fund?	4
1.4 What is the intent of this Notice of Funding Opportunity (NOFO) – Expanding Testing and Evaluation?	4
1.5 What are Testing and Evaluation (T&E) Activities?	5
1.6 What is Testing Methods Research and Development (R&D)?	5
<b>2 Eligibility and Program Details</b>	<b>5</b>
2.1 Who can apply for funding under the Innovation Fund Program?	5
2.2 Who is not eligible to apply for funding under the Innovation Fund Program?	5
2.3 What is the cost sharing or matching requirement for eligible entities, and what type of matching funds count towards the cost sharing or matching requirement?	6
<b>3 Funding &amp; Period of Performance</b>	<b>6</b>
3.1 How much funding is available under the Innovation Fund Grants Program, and how much funding will be awarded per grant?	6
3.2 Will awards received during this NOFO impact my ability to receive awards for future Innovation Fund NOFOs?	6
3.3 What are the eligible uses of funding for Innovation Fund grants?	7
3.4 What are the ineligible uses of funding for Innovation Fund grants?	7
3.5 What qualifies as “Equipment, Supplies, and Services from Untrusted Vendors?”	7
3.6 What is the program's period of performance?	7
3.7 How quickly does the project need to be completed, and what are the buildout milestones during implementation?	8
<b>4 Review and Scoring Process</b>	<b>8</b>
4.1 What are the steps in the Innovation Fund Grants Program review process?	8
4.2 What is the Administrative and Eligibility Review, and what eligibility criteria are assessed during this step?	8
4.3 What is the Merit Review, and what criteria are assessed during Merit Review?	8
4.4 What is the Programmatic Review, and what criteria are assessed during Programmatic Review?	10
4.5 How will award selections occur?	10
<b>5 Application Components and Process</b>	<b>10</b>

<b>5.1 When does the Innovation Fund grant application period open and when is the deadline to apply? .....</b>	<b>10</b>
<b>5.2 What are the components of the grant application, and how should eligible entities submit their applications? .....</b>	<b>11</b>
<b>5.3 What to know if applying for more than one specific research focus area? .....</b>	<b>12</b>
<b>5.4 What accounts and registration are needed to submit applications electronically? .....</b>	<b>12</b>
<b>5.5 How to register in SAM.GOV (System for Award Management)? .....</b>	<b>12</b>
<b>5.6 How to submit an Application for this NOFO via Grants.gov? .....</b>	<b>12</b>
<b>5.7 Who to contact for more information? .....</b>	<b>13</b>
<b>5.8 When will grants be awarded? .....</b>	<b>13</b>
<b>5.9 How to track if application was received? .....</b>	<b>13</b>
<b>5.10 What to expect for award notices? .....</b>	<b>14</b>
<b>6 Technical FAQs.....</b>	<b>14</b>
<b>6.1 Has a point of demarcation been defined for what components of Open RAN are in scope versus out of scope? .....</b>	<b>14</b>
<b>6.2 What is the governing standard(s) that applicants should use to define Open RAN? .....</b>	<b>14</b>
<b>6.3 Is new proposed functionality in scope or just compliance with existing standards? .....</b>	<b>14</b>

# **1 Overview**

## **1.1 What is Open RAN?**

Open Radio Access Network (Open RAN) is an approach to radio access network design that leverages open, interoperable, and standards-based RAN elements to form a virtualized and disaggregated RAN.

## **1.2 Why is the federal government funding Open RAN infrastructure?**

Open and interoperable wireless networks offer numerous benefits over traditional, closed networks that will help lower the barriers of entry for new and emerging companies. Using open and interoperable wireless networks allows operators to procure the best solutions for their specific needs by mixing and matching network components, rather than procuring proprietary end-to-end solutions from a single supplier. Open and interoperable networks may also reduce costs for consumers and network operators by increasing competition between 5G radio access network suppliers and/or potentially lowering capital expenditures and operating expenses. Thus, the shift to open networks enhances 5G supply chain security by increasing competition and resilience in the global telecommunications equipment market.

## **1.3 What is the Public Wireless Supply Chain Innovation Fund?**

The Public Wireless Supply Chain Innovation Fund is a 10-year competitive grant program authorized under the *FY 2021 National Defense Authorization Act* and funded through the *CHIPS and Science Act of 2022*. The fund will help drive wireless innovation, foster competition, and strengthen supply chain resilience. It will also help unlock opportunities for companies from the United States and its global allies, particularly small and medium enterprises, to compete in a market historically dominated by a few suppliers, including high-risk suppliers that raise security concerns.

The federal government intends to use the Innovation Fund to facilitate the adoption of open and interoperable wireless networks by:

- Accelerating commercial deployment of open, interoperable equipment.
- Promoting and deploying compatibility of new 5G equipment.
- Managing integration of multi-vendor network environments.
- Identifying criteria to define equipment as compliant with open standards; and
- Promoting and deploying security features and network function virtualization for multi-vendor, interoperable networks.

## **1.4 What is the intent of this Notice of Funding Opportunity (NOFO) – Expanding Testing and Evaluation?**

The first NOFO focuses on activities that will promote and improve the open and interoperable RAN testing and evaluation ecosystem, as well as research and development into test methods. NTIA's NOFO is responsive to feedback NTIA received during listening sessions and the Request for Comment period. These activities are foundational to the ultimate success of open and interoperable wireless networks and will help build confidence in the viability of Open RAN solutions and remove barriers to adoption.

NTIA will support two specific research focus areas under this first NOFO:

- (1) Expanding industry-accepted testing and evaluation (T&E) activities to assess and facilitate the interoperability, performance, and/or security of open and interoperable, standards-based 5G radio access networks; and
- (2) Developing new and/or improved testing methodologies to test, evaluate, and validate the interoperability, performance, and/or security of networks, including their component parts.

### **1.5 What are Testing and Evaluation (T&E) Activities?**

The first of two Specific Research Focus Areas covered in this NOFO. Testing and evaluating the degree to which different manufacturers and vendor equipment, components, and software can operate as an open, interoperable, and standards-based RAN, including in a virtualized and disaggregated environment RAN, using testing and evaluation methods currently accepted by industry. The T&E must address one or more of the following: interoperability of the components, the performance of the system, and/or the security of the system. (*See Section 3.3.1 for more information.*)

### **1.6 What is Testing Methods Research and Development (R&D)?**

The second of two research focus areas covered under this NOFO. The process to identify new methods or to materially improve existing methods of testing, evaluating, and validating the interoperability, performance, and/or security of open, interoperable, and standards-based RAN elements, addressing needs not currently met by existing, industry-accepted tests and best practices. (*See Section 3.3.2 of the NOFO for more information.*)

## **2 Eligibility and Program Details**

### **2.1 Who can apply for funding under the Innovation Fund Program?**

As defined in *Section 2.1* of the NOFO, eligible applicants and subgrantees include for-profit companies, non-profit companies, institutions of higher education, industry groups, and consortia including two or more such entities.

### **2.2 Who is not eligible to apply for funding under the Innovation Fund Program?**

As defined in *Section 2.2* of the NOFO, entities that are found on any of the lists below are ineligible for a grant or to participate in grant-funded activities. NTIA will review applications for involvement of such entities and will not approve any application that raises unacceptable concerns with respect to promoting a more secure, diverse, sustainable, and competitive wireless technology chain.

- 1) Foreign entities of concern as defined in 15 U.S.C. Section 4651(8)
- 2) Entities that appear on [the List of Equipment and Services covered by Section 2 of the Secure and Trusted Communications Networks Act of 2019](#), Pub. L. No. 116-124, 134 Stat. 158 (2020) (Secure Networks Act);
- 3) [The People's Republic of China \(PRC\) Military Companies List](#) established in accordance with Section 1260H of FY21 NDAA;
- 4) [Supplement No. 4 to Part 744 of the Export Administration Regulation](#), 15 C.F.R. § 744 (2002);
- 5) [Office of Foreign Asset Control \(OFAC\) Sanctions List](#); or
- 6) [System for Award Management \(SAM\) Exclusion List](#).

For more information, see *Section 2.2* of the NOFO.

### **2.3 What is the cost sharing or matching requirement for eligible entities, and what type of matching funds count towards the cost sharing or matching requirement?**

As defined in *Section 2.3* of the NOFO, cost sharing or matching for proposals under this first NOFO is voluntary. However, while not required, NTIA will give preference to applications that demonstrate cost sharing or matching in their project plan and project budget. The cost effectiveness of an application, including proposed cost share, will be used as a selection factor in making final award decisions, as outlined in *Section 4.1.4.* of the NOFO.

Both direct costs (such as cash, equipment, personnel, and facilities) and indirect costs (such as overhead and management and administrative costs) will be considered as a match. In order for a proposed cost share to be eligible, the cost must be allowable as a direct cost. (See *Section 3.8* for more details on eligible and ineligible uses of funds).

If an applicant wishes to provide a cost share, a full accounting of matching cost sources and the basis for the valuation must be included in project budget narrative and SF-424A. (See *Section 3.2*)

## **3 Funding & Period of Performance**

### **3.1 How much funding is available under the Innovation Fund Grants Program, and how much funding will be awarded per grant?**

NTIA will make up to \$140,500,000 available for federal assistance under this initial Innovation Fund NOFO. NTIA expects to make awards within the following funding range: \$250,000 to \$50,000,000. For this initial NOFO, two specific research focus areas have been identified and have the following estimated award sizes:

<b>Specific Research Focus Area</b>	<b>Expected Range of Individual Awards</b>
Testing and Evaluation (T&E) Activities	\$10,000,000 to \$50,000,000
Testing Methods Research and Development (R&D)	\$250,000 to \$2,000,000

If an entity receives both a grant for T&E Activities and a grant for Testing Methods R&D, a separate award will be issued for each to facilitate monitoring and reporting. This range does not reflect any mandatory minimum. However, by statute grants for a particular research focus area cannot be more than \$50,000,000.

### **3.2 Will awards received during this NOFO impact my ability to receive awards for future Innovation Fund NOFOs?**

Awards made under this NOFO will not impact a recipient's ability to apply for grants in future Innovation Fund NOFOs or to receive awards up to the statutory maximum for other future specific research focus areas.

### **3.3 What are the eligible uses of funding for Innovation Fund grants?**

As described in *Section 3.8* of the NOFO, grant recipients may only use federal award funds and any non-federal cost share committed by the recipient to pay for allowable costs under the Innovation Fund Program. Allowable costs are determined in accordance with the cost principles identified in 2 CFR Part 200, Subpart E. In addition, costs must be reasonable, necessary, allocable, and allowable for the proposed project, and must conform to generally accepted accounting principles as defined in 2 C.F.R. Part 200, Subpart E.

### **3.4 What are the ineligible uses of funding for Innovation Fund grants?**

Per *Section 3.8* of the NOFO, ineligible costs include those costs that are unallowable under the applicable federal cost principles. Please note that costs ineligible for the Innovation Fund grant program may not be paid for with non-federal cost share committed to the award.

In addition, the following costs are specifically identified as prohibited under the Innovation Fund Program:

- Construction
- Profit and fees
- Use of grant funds to support or oppose union organizing
- Equipment, supplies, and services from untrusted vendors
- Support of remote access for any personnel or entities located in a covered nation as defined by 10 U.S.C. § 4872(d)(2).
- Grant funds used as collateral for a loan made by any public or private lender.
- Pre-application expenses, including previously incurred administrative costs or previously purchased supplies or equipment.

### **3.5 What qualifies as “Equipment, Supplies, and Services from Untrusted Vendors?”**

Certain telecommunications and video surveillance services and equipment in accordance with 2 C.F.R. § 200.216. Additionally, equipment, supplies, and services that are manufactured, sold, or otherwise provided by vendors found on any of the following lists will be ineligible costs:

- 1) [The List of Equipment and Services covered by Section 2 of the Secure and Trusted communications Networks Act of 2019](#), Pub. L. No. 116-124, 134 Stat. 158 (2020) (Secure Networks Act); and
- 2) [The People’s Republic of China \(PRC\) Military Companies List](#) established in accordance with Section 1260H of FY21 NDAA.

### **3.6 What is the program's period of performance?**

As described in *Section 1.3* of the NOFO, the program's period of performance (POP) may be up to five (5) years in duration. Each applicant must include the estimated POP in the milestones section of their technical proposal, as described in *Section 3.3* of the NOFO.

For a project with a POP that is less than five (5) years, a grant recipient may submit a request for an extension. Requests for extensions will be granted at the sole discretion of the Assistant Secretary or their designee. See *Section 1.3.1* of the NOFO for more information.

### **3.7 How quickly does the project need to be completed, and what are the buildout milestones during implementation?**

As described in *Section 1.3* of the NOFO, the period of performance (POP) for grants awarded under this NOFO may be up to five (5) years in duration. Applicants must include the estimated POP in the milestone section of each of the technical proposals it is submitting, as described in *Section 3.3* of the NOFO.

As described in *Section 3.3.1.d* of the NOFO for T&E Activities, each applicant shall provide a quarterly milestone plan of its activities. The duration of the project is at the discretion of the applicant, but the period of performance may not exceed five years. The plan, at a minimum, should show when T&E events will be conducted, including major planning and after-action activities related to the events.

As described in *Section 3.3.2.f* of the NOFO for Testing Methods R&D, the Work Plan should indicate what research will be done, where it will be done, and how the research will be carried out. The method(s) planned to achieve each objective or task should be discussed in detail. This shall also include steps to be taken to promote industry adoption of a successfully developed test method.

## **4 Review and Scoring Process**

### **4.1 What are the steps in the Innovation Fund Grants Program review process?**

As described in *Section 4* of the NOFO, all applications will be evaluated on a competitive basis. The key steps in the Innovation Fund Grants Program review process include:

- Initial Screening for eligibility, completeness, and responsiveness to the NOFO.
- Merit Review
- Programmatic Review

### **4.2 What is the Administrative and Eligibility Review, and what eligibility criteria are assessed during this step?**

As described in *Section 4.1* of the NOFO, during the Administrative and Eligibility Review, NTIA will ensure applicants are eligible by assessing (1) application completeness and responsiveness to this NOFO, and (2) ensuring that the Eligible Entity meets eligibility criteria. This includes a review of the Project Narrative and Budget Justification.

Applications submitted by any entity other than an eligible applicant will be eliminated from further review, as will any applications that fail to meet any of the requirements of *Section 3* of this NOFO.

### **4.3 What is the Merit Review, and what criteria are assessed during Merit Review?**

Per *Section 4.1.1* of the NOFO, applicants that satisfy the Initial Administrative and Eligibility Review will enter Merit Review. Program staff will sort applications by like-focused project type. All T&E Activity proposals will be sorted into one list. Testing Methods R&D projects will be sorted into sub-categories according to test method focus area (interoperability, performance, and/or security) and/or specific project sub-topic, such as Xn interface operability, energy performance, data integrity, etc.



As described in **Section 4.1.2** of the NOFO, during the Merit Review, reviewers will evaluate applications against the criteria described below:

**For T&E Activities:**

- Project Purpose and Benefits (75 points)
  - The applicant clearly describes how their T&E activity will increase the availability and accessibility of testing and evaluation in the United States and how that will accelerate the development, deployment, and adoption of open, interoperable radio access networks. (20 pts)
  - The applicant demonstrates a clear understanding of how to conduct open and interoperable 5G T&E activities with a comprehensive and feasible technical approach, work plans, and milestone plans. (15 points)
  - The applicant demonstrates that the proposed T&E activities will lead to sustained and accessible testing resources and data that advance industry adoption and the goals of the Innovation Fund Program. (15 points)
  - The applicant's plan for the analysis and safeguarding of data collected from the testing and the plan for how to share information with different audiences. (5 points)
- *Optional Tasks:* Applications that do not propose the following optional tasks will receive a score of -0- for the optional elements.
  - The applicant's approach to provide ongoing neutral T&E outside of T&E events and the resources provided to support start-ups, small and socially and economically disadvantaged individual-owned businesses (SEDI) to develop open and interoperable 5G radio access network solutions. (8 points)
  - The applicant's approach to provide technical assistance and support to new and emerging industry entities in the 5G T&E ecosystems. (8 points)
  - Other additional activities proposed to facilitate the programs goals. (4 points)
- Competence and Capability (25 points)
  - Applicant's organizational capability (personnel, facilities, experience) to complete the specific project proposed. (5 points)
  - Reasonableness of the applicant's proposed budget. (10 points)
  - Project's fiscal sustainability beyond the award period. (10 points)

**For Testing Methods R&D:**

- Project Purpose and Benefits (80 points)
  - The applicants proposed technical approach is comprehensive and feasible and demonstrates a clear understanding of the research area. (30 points)
  - The applicant demonstrates that the proposed research program will lead to a successful product, service, or method with a viable pathway to industry adoption. (30 points)
  - The principal/key investigators, supporting staff, and consultants have the qualifications and experience to accomplish the proposed research effort. In addition, reviewers will evaluate, as applicable, the extent to which the applicant has access to the facilities and equipment necessary to complete the proposed research. (20 points)
- Competence, Capability, and Budget (20 points)

- Applicant's competence (skill, expertise, experience) and organizational capability (personnel, facilities, equipment) to complete the specific project proposed. (10 points)
- Reasonableness of the applicant's proposed budget. (10 points)

#### **4.4 What is the Programmatic Review, and what criteria are assessed during Programmatic Review?**

As described in *Section 4.1.3* of the NOFO, the Innovation Fund staff will conduct a Programmatic Review to verify that proposed activities align with the NOFO objectives and that the proposed budget appears allowable, allocable, and reasonable. NTIA may ask applicants to submit additional information, as appropriate, to clarify or to further substantiate the representations made in their applications, which will be taken into consideration before completing the programmatic review. For more information on Programmatic Review, refer to *Section 4.1.3* of the NOFO.

#### **4.5 How will award selections occur?**

All applications will be rank-ordered by total of the three merit scores, within their like-focused project lists. Then, the Assistant Secretary of Commerce for Telecommunications and Information and NTIA Administrator will review and make award selections using the following selection factors:

- a) The availability of funding.
- b) Relative cost-effectiveness between like-focused applications. Factors that may be considered in determining cost-effectiveness include total project costs, amount of cost share provided, number and scope of T&E Activities to be conducted, and scope of testing to be conducted. Meritorious projects that demonstrate a match will be given priority over projects that do not include a match.
- c) Regional diversity. For T&E Activity projects, NTIA will give preference to applications from different geographic areas of the United States, in order to support T&E availability and accessibility. Therefore, the Selecting Official may select lower merit review scoring application from a different region before selecting a second applicant within the same region.

See *Section 4.1.4* of the NOFO for more information.

### **5 Application Components and Process**

#### **5.1 When does the Innovation Fund grant application period open and when is the deadline to apply?**

Complete applications must be received through Grant.gov no later than 11:59 p.m. Eastern Daylight Time (EDT) on June 2, 2023. Complete applications or portions thereof submitted by postal mail, courier, email, or by facsimile will not be accepted. All application forms and documents must be included with an applicant's complete application packet submission through Grants.gov.

When developing the submission timeline, each applicant should keep in mind that: (a) all applicants are required to have current registrations in the electronic System for Award Management (SAM.gov); and (b) the free annual registration process in SAM.gov may take

weeks. Please note that a federal assistance award cannot be issued if the designated recipient's registration in SAM.gov is not current at the time of the award.

## **5.2 What are the components of the grant application, and how should eligible entities submit their applications?**

Applicants must submit separate applications for Interoperability, Performance, and Security T&E Activities and for Testing Methods R&D projects.

Both types of applications must include the following:

- Standard Documentation such as the SF 328, SF 424, SF 424A (for years 1-4), and a second SF 424A (for 5<sup>th</sup> year of the project), CD-511, and SF-LLL (if applicable)
- Budget Narrative and Justification
- Indirect Cost Rate Agreement (if applicable)
- Technical Proposal
- Consortiums (if applicable)

As described in **Section 3.3.1** of the NOFO, NTIA is requesting a Technical Proposal for T&E Activities projects with the following components:

- a) Executive Summary
- b) Technical Objectives
- c) Work Plan
- d) Milestone Plan
- e) Related Activities and Unique Aspects of the Proposal
- f) Record Retention and Data Analysis
- g) Partnering and Collaboration
- h) Consultants, Contracts, Subawards
- i) Cybersecurity
- j) Qualification of the Applicant
- k) Fee Structure
- l) Facilities and Equipment
- m) Long-term Sustainability
- n) Host Facilities for Other T&E (Optional Objective)
- o) Technical Assistance (Optional Objective)

As described in **Section 3.3.2** of the NOFO, NTIA is requesting a Technical Proposal for Testing Methods R&D projects with the following components:

- Executive Summary
- Testing Methods Research Area
- Identification and Significance of the Problem or Opportunity
- Rationale for Need
- Technical Objectives
- A Work Plan
- Related Research/Research & Development
- Key Individuals and Bibliography of Related Work
- Qualification of Applicant
- Facilities and Equipment
- Consultants, Contracts, and Subawards
- Current and Pending Support

For full details and other requirements, applicants are encouraged to consult **Section 3** of the NOFO.

### **5.3 What to know if applying for more than one specific research focus area?**

Any applicant proposing more than one specific research focus area must submit a separate application for each focus area, as applications will be evaluated individually. If an entity is applying for more than one R&D project, a separate technical proposal, SF- 424A, and budget narrative and justification must be submitted for each project.

### **5.4 What accounts and registration are needed to submit applications electronically?**

Each applicant will need a Unique Entity Identifier (UEI), registration with the System for Award Management (SAM), and an account with Grants.gov.

Please note that the Unique Entity Identifier (UEI) is replacing the DUNS (Dun & Bradstreet Data Universal Numbering System) number. (See [Unique Entity Identifier](#) update.)

### **5.5 How to register in SAM.GOV (System for Award Management)?**

All applicants are required to have a current registration in the electronic System for Award Management (SAM.gov). Note that the free annual registration process in SAM.gov may take weeks. A federal assistance award cannot be issued if the designated recipient's registration in SAM.gov is not current at the time of the award.

### **5.6 How to submit an Application for this NOFO via Grants.gov?**

Grants.gov applicants can apply using Workspace within Grants.gov. If you do not already have a Grants.gov account, you will need to create one on Grants.gov for free. Then, use Workspace within Grants.gov. Workspace is a shared, online environment where members of a grant team may simultaneously access and edit different webforms within an application. For each NOFO, you can create individual instances of a Workspace.

For an overview of applying on Grants.gov using Workspaces, refer to:

<https://www.grants.gov/web/grants/applications/workspace-overview.html>

Applicants using unreliable Internet connections should be aware that the process of completing the Workspace can take some time. Therefore, applicants should allow enough time to prepare and submit the application before the package closing date.

- 1.) Create a workspace: Creating a workspace allows you to complete an application online and route it through your organization before reviewing and submitting.
- 2.) Complete a workspace: Add participants to the workspace to work on the application together, complete all required forms online or by downloading PDF versions, and check for errors before submission. The Workspace progress bar will display the state of your application process as you apply. As you apply using Workspace, you may click on the blue question mark icon near the upper-right corner of each page to access context-sensitive help.

- a.) Adobe Reader: If you decide not to apply by filling out webforms, you can download individual PDF forms in Workspace. The individual PDF forms can be downloaded and saved to your local device storage, network drive(s), or external drives, then accessed through Adobe Reader.

NOTE: visit the Adobe Software Compatibility page on Grants.gov to download the appropriate version of the software at:

<https://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html>

b.) Mandatory Fields in Forms: In the forms, you will note fields marked with an asterisk and a different background color. These fields are mandatory fields that must be completed to successfully complete your application.

c.) Complete SF-424 Fields First: These forms are designed to fill in common required fields across other forms, such as the applicant's name, address, and SAM UEI. Once it is completed, the information will be transferred to other forms.

3.) Submit a Workspace: An application must be submitted through Workspace by clicking on the “Sign and Submit” button on the “Manage Workspace” page, under the “Forms” tab.

Grants.gov recommends submitting your application package at least 24 to 48 hours prior to the close date to provide you with time to correct any potential technical issues that may disrupt the application submission.

4.) Track a Workspace Submission: After successfully submitting a Workspace application, a Grants.gov Tracking Number (GRANTXXXXXXXX) is automatically assigned to the application. The number will be listed on the Confirmation page that is generated after submission. Using the tracking number, access the “Track My Application” page under the “Applicants” tab or the “Details” tab in the submitted workspace.

For additional training resources, including video tutorials, refer to:

<https://www.grants.gov/web/grants/applicants/applicant-training.html>

## **5.7 Who to contact for more information?**

Grants.gov provides applicants 24/7 support via the toll-free number 1-800 518-4726 and email at [support@grants.gov](mailto:support@grants.gov). For questions related to the specific grant opportunity, contact the number listed in the application package of the grant you are applying for.

If you are experiencing difficulties with your submission, it is best to call the Grants.gov Support Center and get a ticket number. The Support Center ticket number will assist NTIA with tracking your issue and understanding background information on the issue.

## **5.8 When will grants be awarded?**

NTIA expects to make awards on a rolling basis with initial awards issued no later than August 8, 2023.

## **5.9 How to track if application was received?**

An electronic date/time stamp is generated within the system when the application is successfully received by Grants.gov. The applicant’s Authorized Official Representative (AOR), who submitted the application, will receive an acknowledgement of receipt and a tracking number (GRANTXXXXXXXX) from Grants.gov with the successful transmission of their application. The AOR will also receive the official date/time stamp and Grants.gov Tracking number in an email serving as proof of their timely submission.

When NTIA successfully retrieves the application from Grants.gov, and acknowledges the download of submissions, Grants.gov will provide an electronic acknowledgment of receipt of the application to the email address of the applicant’s AOR. Again, proof of timely submission shall be the official date and time that Grants.gov receives your application. Applications

received by Grants.gov after the established due date for the program will be considered late and will not be considered for funding by NTIA.

Grants.gov will provide either an error or a successfully received submission message in the form of an email sent to the applicant's AOR.

### **5.10 What to expect for award notices?**

An applicant will be notified in writing by the NIST Grants Officer if its application is selected for an award. If the application is selected for funding, the NIST Grants Officer will issue the grant award (Form CD-450), which is the authorizing financial assistance award document. By signing the Form CD-450, the recipient agrees to comply with all award provisions, terms, and conditions.

Unsuccessful applicants will be notified in writing by e-mail and will have the opportunity to receive a debriefing after the final award decisions have been announced. Applicants must make a request within ten (10) business days of the email notification to receive a debrief from NTIA. NTIA will then work with the unsuccessful applicant in arranging a date and time for the debrief. (See *Sections 4.3 and 4.4* of the NOFO for more information.)

## **6 Technical FAQs**

### **6.1 Has a point of demarcation been defined for what components of Open RAN are in scope versus out of scope?**

The T&E Activities must also support testing of the interoperability, performance, and/or security, of the Radio Unit (RU), Central Unit (CU), and/or Distributed Unit (DU) solutions of the 5G NR Radio Access Network. The performance of ancillary components (e.g., accelerator cards) shall only be tested as a part of a complete RU, CU, or DU solution. Testing of systems not unique to 5G radio access networks (e.g., general purpose computing equipment) is not an eligible project under this first NOFO, except as required for testing a complete RU, CU, or DU solution.

### **6.2 What is the governing standard(s) that applicants should use to define Open RAN?**

All applications for grants advancing this specific research focus area must include industry-accepted T&E Activities to allow open and interoperable network suppliers to test equipment and software interoperability, performance, and/or security against industry-accepted test cases and best practices for 5G systems (e.g., 3GPP specifications, O-RAN Alliance specifications, and/or other relevant industry-accepted test cases).

### **6.3 Is new proposed functionality in scope or just compliance with existing standards?**

More generally, examples of Testing Methods R&D include, but are not limited to:

- a) Developing new and emerging performance indicators such as for energy and spectrum efficiency of 5G radio access networks;
- b) Developing enhanced methods for existing 5G radio access network test criteria, where the goal is to make material improvement on current methods;

- c) Developing new means of cybersecurity testing in 5G radio access networks;
- d) Developing innovative testing solutions not contemplated by (a), (b), or (c) above. An example of such a solution might be a virtualized testing environment that allows open and interoperable, standards-based 5G RAN products to be tested individually or in a stack at a more iterative pace than is permitted by “in real life” testing events.