

# **Welcome to the Innovation Fund NOFO #2 Information Session**

**If you plan to participate in the audience Q&A portion of today's event, please sit near an aisle, as able, for easier access to the standing microphones.**

**Please note that today's session is being livestreamed and recorded to post online.**



# PUBLIC WIRELESS SUPPLY CHAIN INNOVATION FUND

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**NOFO 2, “Open Radio Commercialization and  
Innovation,” Information Session**

May 17, 2024



# Agenda

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- 1 Welcome
- 2 Overview of the Program and Second NOFO
- 3 Technical Overview
- 4 NOFO Response Best Practices and Guidelines
- 5 Panel Discussion
- 6 Moderated Audience Q&A
- 7 Closing Remarks

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# Welcome

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# Overview of Program and Second Notice of Funding Opportunity (NOFO 2)

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# Program Overview

The Public Supply Chain Wireless Fund (Innovation Fund) is a \$1.5 billion competitive grant program authorized by Section 9202(a)(1) of the FY21 NDAA and appropriated by Div. A, Section 106 of the CHIPS and Science Act of 2022.

## Vision

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Develop a competitive global ecosystem of trusted telecommunications vendors that are fielding open and interoperable network equipment domestically and overseas.

## Mission

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Develop and implement a grant program that accelerates the adoption and deployment of open radio access networks (open RAN) through investments in interoperability, hardware maturity, security, and supply chain diversity.

## FY21 NDAA Program Objectives

1. Promoting and deploying open technology
2. Accelerating commercial deployments of open, interoperable equipment
3. Promoting and deploying compatibility of new 5G equipment with future open, interoperable equipment
4. Managing integration of multi-vendor network environments
5. Identifying objective criteria to define equipment as compliant with open standards
6. Promoting and deploying security features
7. Promoting and deploying network virtualization

# NOFO 2 Overview

NOFO 2 is divided into two specific research focus areas (SRFAs).

## SRFA 1 – Open RU Commercialization

Accelerate the development of open RU products to the point where they meet carrier needs and are ready for commercial trials.

- **Funding Range:** \$25,000,000-\$45,000,000
- **Eligibility:** RU supplier partnered with MNO(s). Applicant and/or MNO must hold Ultimate Beneficial Ownership (UBO) in the U.S.
- **Period of Performance:** Not to exceed twenty-four (24) months
- **Place of Performance:** RU development must be performed in the U.S.; work in support of MNO testing can be outside the U.S.
- **Cost Share Requirement:** Minimum cost share of 10 percent of total project cost. Cost share of 16 percent or more is rewarded.
- **Partnership Requirement:** All applicants must demonstrate a partnership with at least one Mobile Network Operator (MNO) through a Letter of Partnership Intent

## SRFA 2 – Open RU Innovation

Improve the overall performance and capabilities of open RUs through targeted research and development.

- **Funding Range:** \$5,000,000-\$10,000,000
- **Eligibility:** For- and non-profit companies, institutions of higher education, industry groups, and partnerships. No UBO requirement.
- **Period of Performance:** Not to exceed five (5) years
- **Place of Performance:** All activities must occur in the U.S., its territories and possessions
- No cost share requirement
- No partnership requirement

# NOFO 2 Eligibility

For both SRFAs, eligible entities include for-profit and non-profit companies, institutions of higher education, industry groups, and partnerships of two or more such entities.

## SRFA 1 – Open RU Commercialization

- Applicant **must** be an RU supplier\*.
- Applicant **must** partner with at least one MNO\*\*, demonstrated through a **Letter of Partnership Intent**.
- Applicant **must** demonstrate their intent and ability **to deploy** open RUs in one or more commercial networks after the period of performance (POP).
- Applicant and MNO partner(s) can be based in the U.S. or abroad, but the applicant, an MNO partner, or both **must hold Ultimate Beneficial Ownership** (UBO) in the U.S.

## SRFA 2 – Open RU Innovation

- Applicant may be based in the U.S. or abroad and is not required to hold UBO in the U.S.
  - U.S. **Place of Performance** requirements apply.

**\*RU Supplier:** An entity capable of production and commercial sale of open radio units (RUs).

**\*\*MNO:** An entity that operates a 5G NR network (this includes 4G network operators with 5G NR upgrade plans), offering network services to the public, and owns the RAN infrastructure used by the network using radio spectrum for which it holds a license or lease providing for exclusive use by the operator.



# Submission Instructions for Multiple Projects

## If my organization is considering...

More than one distinct SRFA 2 project



Both SRFA 1 and SRFA 2 projects



## ...then my organization should submit:

Separate application packages for each SRFA 2 project

Separate application packages for each SRFA's project

**NOTE:** NTIA is limiting the number of applications allowed from each applicant for each SRFA.

- Each SRFA 1 applicant is limited to one (1) application
- Each SRFA 2 applicant is limited to three (3) applications.

*Each application may only contain one proposed project (see NOFO Sections 2.2.1 and 3.3.1).*

## Best Practices

- In the technical proposal...
  - Clearly indicate the SRFA
  - (SRFA 2 only) Clearly indicate the radio innovation topic area(s)
- Name documents so they clearly indicate what the contents are and/or which project they are associated with.

# MNO Letter of Partnership Intent (SRFA 1)

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Each MNO partnership should be demonstrated through a Letter of Partnership Intent on the MNO's letterhead, signed by a senior representative of the MNO.

NTIA will request a more formal demonstration of the partnership post-award.

## Letter of Partnership Intent Key Elements (see NOFO Section 2.4.4.)

- A brief explanation of the **form of the partnership**.
- A **demonstrable commercial need** for the technology from both the MNO and open RU supplier perspective.
- **Resources invested** by both parties.
- A **post-award commitment** to deploying the open RU in a commercial setting.
- A statement that the MNO is **committed to executing its roles, responsibilities, and/or commitments**.
- The **proportion of federal funding** that would be utilized by the MNO (if applicable).
- **Voluntary committed resources** (if applicable), including those for any in-kind match.
- The MNO's System for Award Management (SAM) **Unique Entity Identifier (UEI)**, OR a completed SF-328 for the MNO.
- **Point of Contact** at the entity for any inquiries.

# Letters of Commitment

## Who should submit a Letter of Commitment?

Partners or entities who will be integral to the success of the project, including consultants, sub-recipients, or subcontractors who will be actively executing the activities outlined in the technical proposal.

### Key Elements

Per section 4.1. 1. (n) of the NOFO, Letters of Commitment **should** include:

- The **entity's role** and **overall level** of participation.
- The **qualifications** of personnel who will be actively involved.
- **Federal share** of funding for the entity (if applicable).
- Any **voluntary committed cost-share** (if applicable), including what specific services and/or products will be provided for any in-kind match.
- Any point of Contact at the entity for any inquiries regarding the **partnership** and/or the **Letter of Commitment**.

### Important Submission Information

- Included letters **do not** count against the technical proposal's page limit.
- Letters **must** be signed on the participating entity's letterhead, by a senior representative of the entity (see NOFO Section 4.1.1 (n)).
- **Letters of Commitment** are distinct from **Letters of Partnership Intent**.
  - **Letters of Partnership Intent** are exclusive to SRFA 1 and will demonstrate the MNO partnership with the applicant (see NOFO Section 2.4.4).
  - MNO partners under SRFA 1 **are not required** to submit a Letter of Commitment, only the RU supplier.

# Cost Share (SRFA 1)

- **SRFA 1 applicants must include a minimum cost share of 10% of the total project cost.**
- Applications with a cost share of **16 percent or more** will receive favorable weighting during Programmatic Review.
- Cost share percentage will be calculated based on information provided in Form SF-424, Section 18.

$$\text{Cost Share \%} = \frac{\text{Non-Federal Funding}}{\text{Total Project Cost}}$$

- Calculated cost share percentage will be rounded down to the nearest integer value.

Cost Share (%)	Weight (%)
10%	0%
10-15%	0%
16-17%	1%
18-19%	2%
20-21%	3%
22-23%	4%
24-25%	5%
26-27%	6%
28-29%	7%
30-31%	8%
32-33%	9%
34+%	10%

# Commercial Transition Plan

## SRFA 1 – Open RU Commercialization

Details about the plan to **commercialize and scale** the product after the POP should include:

- **Customer** and **end-market demand**.
- An **assessment** of **market position** and **key competitors**.
- **Program plan** specifying possible timing to move from **advanced prototype** to mass production.
- **Awareness** of project's **commercial risks** and **mitigation strategies**.

## SRFA 2 – Open RU Innovation

Details about the plan for **investment and scaling** after the POP should include:

- **Funding** for the next round of **R&D/product development**.
- **Past success** in **commercializing R&D**.
- **Characterizing** the **demand** from **potential customers** for applicants' **proposed technology advances** and **benefits** to the customer.

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# Technical Overview

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# Technical Overview

Each SRFA has its own technical objectives, as described below.

## SRFA 1 – Open RU Commercialization

- Projects to **advance development** of feature-rich, interoperable RU products from lab testing to the early-field trial stage.
- Focused on **RU manufacturers/developers** to allow new entrants into the ecosystem.
- Requires **partnerships with MNOs** to drive development of relevant features and functions that currently don't exist.

## SRFA 2 – Open RU Innovation

- Projects to **advance radio design**, focusing on “hot topics” in the radio innovation space (high-performing software-defined radio (SDR), antenna design and beamforming, radio component advancement, etc.).
- Conduct R&D on the RU to ensure that **Open RUs are outperforming** their proprietary counterparts in the long run.

# SRFA Breakdown

## SRFA 1 – Open RU Commercialization

**SRFA 1 focuses on accelerating the deployment of RU ORAN products.**

- Only projects at technology readiness level (**TRL**) levels of 5, 6, or 7 and manufacturing readiness level (**MRL**) levels of 4 through 8 are eligible for funding.
- Requires partnership with at least one **MNO** to establish line of site to scaled deployments.
- RUs must **comply** with certain **3GPP** and **ORAN Alliance specifications** to ensure open architectures are used in development and testing activities.
- Among other specifications, strong **commercial transition plans** detail how producers will accelerate their development efforts to higher TRL and MRL levels.

## SRFA 2 – Open RU Innovation

**SRFA 2 focuses on R&D to support improvement of RU capabilities or performance.**

- Applications must clearly address at least one of five (5) **radio innovation topic** areas: **Software Defined Radios (SDR), Antenna & Beamforming (ABF), Radio Component Advancement (RCA), Advanced Modulation & Digital Signal Processing (DSP), and Advanced Fronthaul Technologies (AFT)**.
- Required to identify how **research will facilitate** commercial deployments of ORAN RU products.
- Required to disclose related research to closely **align research** activities with program goals.



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# NOFO Response Best Practices and Guidelines

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# SAM.gov and Grants.gov

## Registering through Grants.gov

1. Register with SAM to receive a Unique Entity Identifier (UEI)
2. Register an account with Grants.gov
3. Add a profile to a Grants.gov account representing a single applicant organization using your organization's UEI
4. The EBiz POC will receive the request and must authorize the appropriate roles, including the Authorized Representative (AOR)

LOGIN.GOV SAM.GOV

Sign in Create an account

Sam.gov is using Login.gov to allow you to sign in to your account safely and securely.

Sign in for existing users

SAM.gov only recognizes one email address on Login.gov accounts. Adding email addresses to your Login.gov account may cause your SAM.gov login to fail.

Sharing your Login.gov password or using someone else's Login.gov account violates the rules of use.

Email address

Password

Show password

Sign in

Sign in with your government employee ID

- Organizations must have an active System for Award Management (SAM) registration and UEI.
- Plan accordingly as the SAM registration process may take weeks and is needed to meet submission deadlines.
- An active registration of the designated recipient is required at the time of an award.
- Waivers will not be provided for entities that do not have an active SAM registration.

## Submitting an application through Grants.gov

1. Create a Workspace
2. Add participants to the workspace to complete required forms and work on the application together
3. Click the Sign and Submit button on the Manage Workspace page to apply. Grants.gov recommends submitting at least 24-48 hours prior to the close date

## Important Submission Information

- **APPLICATION DEADLINE:** 11:59 p.m. (EDT) on July 10, 2024
- NTIA will only accept applications submitted electronically via Grants.gov
- Before you submit, confirm the latest and correct versions of your documents have been uploaded

# Application Requirements

## Required Application Documents – Standard Documents

- a) SF-424, Application for Federal Assistance
- b) SF-424A, Budget Information for Non-Construction Programs
- c) Project/Performance Site Locations Form
- d) CD-511, Certification Regarding Lobbying
- e) SF-LLL, Disclosure of Lobbying Activities (if applicable)
- f) SF-328 Certification Pertaining to Foreign Interests
- g) Budget Narrative and Justification
- h) Indirect Cost Rate Agreement (if applicable)
- i) Technical Proposal
- j) Work Plan
- k) Commercial Transition Plan
- l) Intellectual Property Plan (if applicable)
- m) Product Security and Cybersecurity Management Plan
- n) Letter(s) of Commitment for Consultants, Contracts and Subawards
- o) MNO Letter(s) of Partnership Intent (Required only for SFRA 1)
- p) Current and Pending Support Attachment (Required only for SFRA 2)
- q) Other Materials (Optional)

## Lessons from NOFO #1

- **ASAP** – Awards will be funded through advanced payments via the Department of Treasury’s Automated Standard Application for Payments (ASAP) system. As you prepare your application, establish a working relationship with your ASAP official. Based on previous experience, some recipients faced challenges meeting ASAP’s task deadlines resulting in processing delays.
- **SF-328** - The most frequently omitted or incorrectly completed form was the SF-328, Certificate Pertaining to Foreign Interests. This created extra steps and communication burden with applicants to get a complete copy of the form.
- **Waivers** - It is the general intent of NTIA not to waive any of the provisions set forth in the NOFO. Under extraordinary circumstances and when it is in the best interest of the Federal government, NTIA will consider waiving any provision in this NOFO.

# Mandatory Forms: SF 424 and SF424A

The SF 424 is a standard form required for use as a cover sheet for applying for federal assistance. Form SF 424A is a standard form required to use as a budget information form for non-construction programs.

## SF 424

- Must be signed by an authorized representative of the applicant organization.
- This form is used to upload additional attachments, as required by the NOFO to the application. Documents ‘e’ through ‘q’ mentioned in previous slide, must be uploaded to Grants.gov as attachments to field 15 of the SF-424 form by clicking on “Add Attachment.”

## SF 424A

- The Budget Information document that reflects anticipated Federal and non-Federal expenses for the entire project. It must include:
  - A full accounting of cost share sources and the basis for the valuation must be included in the budget narrative and SF-424A.
  - Non-federal cost share amounts must be provided in Section A, B & C of the SF-424A, and exactly match the amounts in the SF-424 and budget narrative.

## Eligible Cost Share

- Direct cost (e.g., travel, equipment, personnel, and facilities).
- Indirect costs (e.g., facilities and indirect administrative costs).
- For a proposed cost share to be eligible, the cost must be allowable as a direct cost.

# Budget Narrative and Justification Preparation

## Budget Narrative and Justification Must:

- **Support the dollar amounts** identified in the SF-424 and SF-424(A)
- Organize costs according to the **cost categories** in the SF-424(A)
- Provide **itemization for each cost** and a full description, including the necessity and basis of each charge
- Explain the **rationale** for the applicant's proposed **cost share**, as applicable.
- Include **funding levels** consistent with the **project scope**
- Only reflect **allowable costs** consistent with the project's scope

## Some Ineligible Costs Include (See 6.3.2. NOFO):

- **Pre-application expenses** including previously incurred administrative costs or previously purchased supplies or equipment
- **Construction costs**
- Equipment, supplies, and services from vendors designated as **foreign entities of concern**

## Lessons from NOFO #1

- Program developed a **Budget Narrative and Justification Template** to streamline the process
- This template offers detailed instructions for each budget line **to ensure alignment** with the SF-424(A) form
- This will help applicants ensure they provide all necessary details and explanations

# Budget Narrative and Justification Common Mistakes and Best Practices

## Common Mistakes

- Budgets **do not** exactly **match** across the:
  - SF-424
  - SF-424A
  - Budget Narrative and Justification
- The forms **do not include** the proposed cost-share breakdown.
- The budget narrative and justification includes cost categories that **do not align** with the SF-424A categories.
- Total project costs mentioned in the executive summary or other narratives **do not align** with the budget documents
- Often Supplies are categorized as Equipment.

## Best Practices

- Ensure **alignment** between Budget forms before submitting the application.
- Clearly **indicate line items** that will be funded partially or completely by matching funds.
- Ensure the latest versions of your budget materials are uploaded and check over the entire application for **cost alignment** before submission.
- **Follow the instructions** in NOFO 4.1.1.g regarding each budget category.

# Other Critical Aspects

## Indirect Cost Rate Agreement

- If indirect costs are included in the proposed budget, provide a copy of the approved negotiated agreement if this rate was negotiated with a cognizant Federal audit agency.
- If a successful applicant includes indirect costs in the budget and has not established an indirect cost rate with a cognizant Federal audit agency, the applicant will be required to obtain such a rate.\*
- Alternate - in accordance with 2 C.F.R. § 200.414(f), applicants that do not have a current negotiated (including provisional) indirect cost rate\*\* may elect to charge a de minimis rate based on modified total direct costs (MTDC) – must note this election as part of the Budget Narrative and Justification and an Indirect Cost Rate Agreement is not required.

## “Subrecipient” vs. “Contractor”

- Bottom Line Up Front (BLUF) - A subrecipient is involved in financial assistance activities, and a contractor is involved in providing goods or services for the recipient.
- Through the recipient, a subrecipient performs work to accomplish a public purpose authorized by law.\*\*\*
- In other words, a subrecipient performs substantive work on an award project.
- A contractor does not seek to accomplish a public benefit and does not perform substantive work on the project. A contractor is a vendor providing goods or services to directly benefit the recipient.

\*Section B.06 of the Department of Commerce Financial Assistance Standard Terms and Conditions, dated November 12, 2020

\*\*Except for those non-Federal entities described in Appendix VII, paragraph D.1.b. of 2 C.F.R. § 200

\*\*\*2 CFR 200.331 ; see also 15 CFR §14.25(c) (8)

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# Panel Discussion

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# Moderated Audience Q&A

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# Moderated Q&A

Today's session is being livestreamed and recorded to post online.

If you would like to ask a question during the audience Q&A, please use one of the standing microphones in either aisle.

If you are unable to access the microphone or prefer to stay seated, please raise your hand, and we will bring a wireless microphone to you.



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# Closing Remarks

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# THANK YOU

Email us at [InnovationFund@ntia.gov](mailto:InnovationFund@ntia.gov)

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