

Beyond Connectivity: Shaping a Secure 6G Future for National Defense

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FutureG Motivation and Mission



MOTIVATION

**Military information requirements are outpacing
DoD mobile wireless capabilities**

MISSION

ADOPT, ADAPT, AND ADVANCE

commercial technologies for asymmetric warfighter advantage

RESEARCH AND DEVELOP

wireless innovations to meet DoD technical and capability requirements

INVENT, INNOVATE, AND LEAD

to increase U.S. defense utility of commercial developments

TECHNOLOGY AREA	COMMERCIAL	DEFENSE
Coverage	Non-urban access	Worldwide coverage
Networks	Carrier networks	Base and tactical networks
Remote operations	Remote tele-operations	Remote operations and planning
Sensing / AI technologies	Smart city	Smart battlefield
Drones / UXS	Urban delivery	Force protection
Health	Biometric wearables	Warfighter health/status
Transportation	Autonomous vehicles	Autonomous supply chain



FutureG Strategic Lines of Effort

Drive commercial wireless innovations to meet DoD requirements

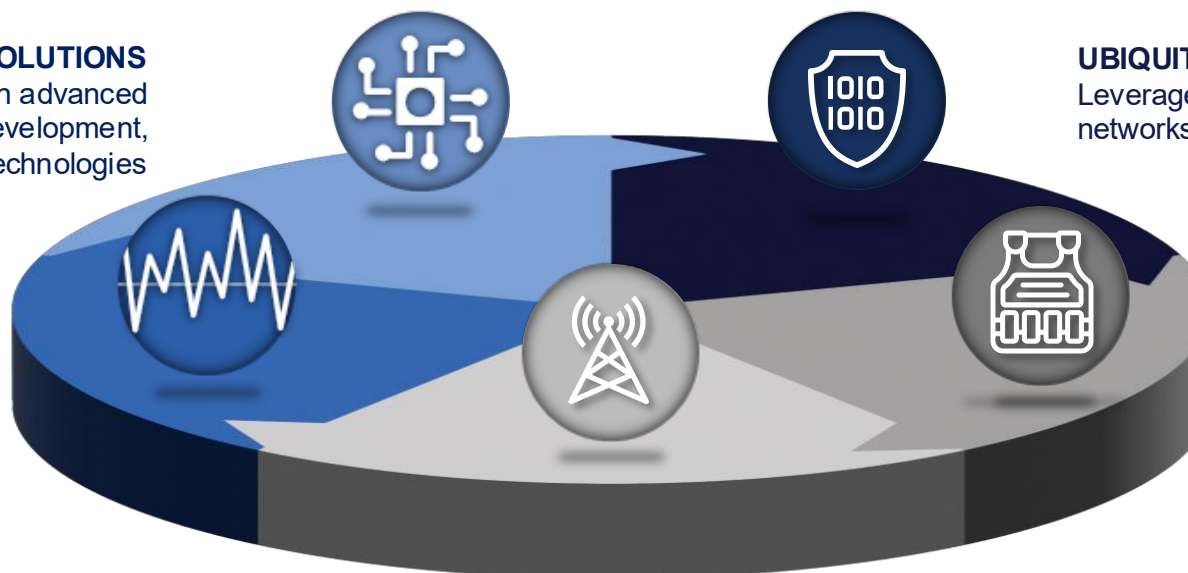


RESILIENT AND OPEN COMMERCIAL SOLUTIONS

Innovate and collaborate with industry on advanced research in open solutions, workforce development, wireless components, and other dual-use technologies

AGILE SPECTRUM OPERATIONS

Advance spectrum sharing technologies for seamless coexistence for commercial and military users



UBIQUITOUS, SECURE AND INSTANT ACCESS

Leverage world-wide high availability commercial networks for assured and resilient DoD communications

EXPEDITIONARY AND TACTICAL USE

Deliver rapidly deployable networks by leveraging the increasing overlap between commercial mobile network capabilities and warfighting needs

INTEGRATED SENSING AND COMMUNICATIONS

Utilize developing sensing concepts in commercial networks to create new military capabilities such as force protection, information operations, and surveillance

CROSS-CUTTING TOPICS

STANDARDS

Represent U.S. interests in an international industry operating at a global scale

WORKFORCE DEVELOPMENT

Advance skillsets inside and outside DoD at all layers of the network and all career levels

SECURITY

Monitor and address risks across cyber, operational, and supply chain security

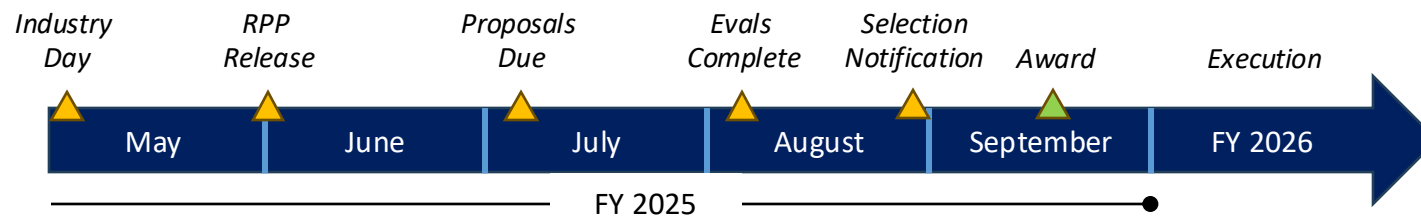


Open Centralized Unit Distributed Unit (OCUDU) Project

The **Open Centralized Unit Distributed Unit (OCUDU)** project is intended to deliver DoD-unique capabilities on a commercially sustainable platform, ultimately saving acquisition costs and driving rapid capability changes to the field

OCUDU Request for Prototype Proposals (RPP)

- In coordination with Army Contracting Command-New Jersey (ACC-NJ) and National Spectrum Consortium (NSC)
- Bidders have been notified of award
- Negotiations complete
- Award processing



SECURE



RESILIENT



AI-DRIVEN



UBIQUITOUS



TRANSPARENT



INTEROPERABLE



COST-EFFECTIVE



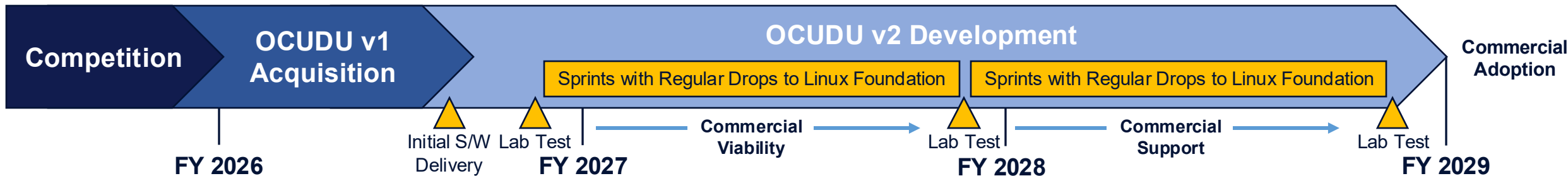
CUSTOMIZABLE

DOD INVESTS IN OPEN SOURCE FOR SUSTAINABILITY AND RAPID INNOVATION



OCUDU Software Project Timeline

3 Year Period of Performance



Competition

- Industry Day – 7 May
- RPP Release – 4 June
- Proposal Completion – 10 July
- Selection Notifications – 26 Aug
- Award Announcement – NLT 15 Sept

4 Months from RPP to Award

Acquisition

- Contract Start – ~1 Oct (FY 2026)
- Standup of Technical Steering Committee (TSC)
- Initial Software (S/W) Deliver – ~March 2026
- Open MPI BSD-3 Clause Licensing
- Linux Foundation Support

TSC Formed and Operational S/W is Open Source

Development

- Initial Lab Tests – ~June 2026
- Development in Sprint Cycles
- Regular S/W Drops to Linux Foundation
- CI/CD/CT pipeline
- Performance diversity
- Scalable, commercial grade CU/DU S/W
- Community and ecosystem build-out

Established Development and Testing Cycles with Community Contributions

Integrated Sensing and Communication (ISAC) Strategy

- Advanced communications, object detection, sensing, and 3-D imaging integrated onto the same radio resources
 - Scale and leverage commercial investments
 - Collaboration with Mobile Network Operators (MNOs) for some sensing modes
 - Standardization expectation for 6G
- A key success factor for a commercially successful ISAC is positioning it as a platform for innovation



Mono-static



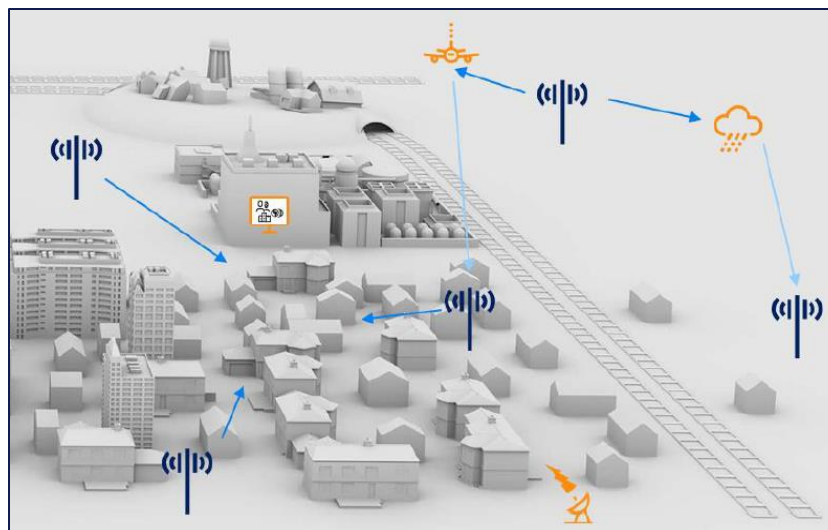
Bi-static



Passive Coherent Localization

Use Cases:

- Non-emitting UAS detection
- Ground vehicle detection
- Biometric detection
- Environmental Sensing



FutureG Executed Timeline

- Dear Colleague Letter to Industry – February 2025
 - 30+ responses
 - Learned about company proprietary research
- ISAC Academic Workshop – April 2025
 - 20 top researchers
 - Identified ISAC research challenges
- ISAC Strategy Summit – August 13-15, 2025
- ISAC Strategically Aligned Project Kick-Offs – FY 2026

ISAC Strategy Summit – 13-15 August 2025



Day 1 (13 August) – “Industry Day”

- What is the state of practice?
- What is needed to advance ISAC capabilities (technically & commercially)?

Day 2 (14 August) – “Government Day”

- How are governments perceiving ISAC?
- What do U.S. agencies want to use ISAC for?

Day 3 (15 August) – Classified Day

- Defense and intelligence aspects of ISAC



Takeaways:

- Community formation
- Focal point for industry investment
- Incentive compatible early system deployment
- Standards leadership
 - Support MNO and vendor collaboration
 - Application Programming Interfaces (APIs) to access ISAC info
- Key technical advances



Scan the QR code to connect on the website

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