

Frequently Asked Questions (FAQ)

2023 5G Challenge: Advanced Interoperability

Version 1.2

February 22, 2023





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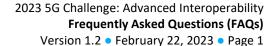
Department of Defense Office of the Under Secretary of Defense, Research and Engineering (OUSD(R&E)) The Pentagon, Washington, DC 20301





Document History

Version	Date	Changes
1.0	2/1/2023	Initial release
1.1	2/16/2023	Updated with Q&A from the informational webinar on 2/9/2023
1.2	2/22/2023	Clarification on host lab server hardware





1 Eligibility

1.1 I work for a company that is doing contracted work for the U.S. government. Are we permitted to participate?

A: Government contractors are not barred from participating in the 2023 5G Challenge. However, your participation cannot be within the scope of your contract or employment for the U.S. government. In other words, you cannot be paid by the government or bill your time to the government for your participation in the 2023 5G Challenge.

1.2 Can service providers team up with vendors? Can academia team up with industry? Can an organization that does not have an RU/CU+DU collaborate with an organization with RU/CU+DU?

A: Yes. Multiple organizations (or multiple individuals) can work together and submit a single application. Your white paper must identify all organizations (or individuals) on the team and the contestant Leader (e.g., the lead organization for organization applicants). The contestant Leader will serve as the single point-of-contact for communicating with the 5G Challenge Organizers, and any prize money will be awarded to that contestant Leader. NTIA/ITS will not be involved in further distribution of prize money within teams.

1.3 If multiple organizations apply together, do all of them need to have primary place of business in U.S.? Or just the leading organization?

A: Only the leading organization must have a business that is incorporated in, and maintains a primary place of business in, a U.S. state or territory. However, no barred individuals or organizations are allowed to join a team. See Section 5.1.2 of the Official Rules for details.

1.4 We are a wholly owned U.S.-based subsidiary company, but our parent company is European. Are we allowed to participate?

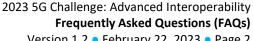
A: Yes.

1.5 Can a company be part of multiple affiliate teams with each team submitting a white paper application for the challenge?

A: Yes, if all the white paper applications clearly identify the company's involvement in these different teams. List your affiliation in Section 1 (Applicant Information) and be sure to identify any prior integrations in Section 9. This relationship would impact the 5G Challenge Organizers' selection of partner contestants.

1.6 Can you determine my eligibility before I submit a white paper?

A: Yes. Contestants are encouraged to submit eligibility criteria as early as possible by emailing 5qchallenge@ntia.qov to request the secure file transfer instructions. 5G Challenge organizers will review eligibility documents and respond before the white paper deadline, as time permits.





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- 1.7 We are a start-up with experienced personnel but limited or no corporate qualifications. Are we eligible to participate in the 2023 5G Challenge?
- A. Yes. Corporate qualifications are not an eligibility requirement.

2 Application

2.1 I have multiple RUs with different technical specifications. How do I choose which to submit?

A: Contestants may submit multiple RUs with different technical specifications. This will help the 5G Challenge select compliant integration partners. Keep in mind that each contestant must consolidate multiple subsystem submissions into one application white paper.

2.2 Can I submit an entire gNB?

A: No. However, contestants may submit both RU and CU+DU (in a single white paper application) and request that they be configured together as a "Type A" contestant pairing (i.e., single gNB) for mobility testing. This configuration is expected to proceed more quickly through E2E integration testing and will not qualify for Multi-vendor E2E Integration Prizes.

3 Challenge Design and Structure

3.1 Is there a plan, or intention, to invite the final winner to attend DOD or some other U.S. Government's bid?

A: No. This is not a sales opportunity. This is an ecosystem development opportunity. The 2023 5G Challenge provides contestants with an independent technical assessment of their interface compatibility with 3GPP standards and O-RAN ALLIANCE specifications.

3.2 Could we bring our own 5G SA Core?

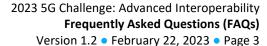
A: No. All contestants will be required to use the host lab-provided Core and emulated UE.

3.3 What if I prefer one test system over the other? Can I request a different 5G test system than I am assigned by the host lab?

A: No. Contestants will be assigned a 5G test system (Keysight or Viavi) for each accepted subsystem by the host lab. This 5G test system will be used for each assigned subsystem's entire testing schedule and cannot be changed. Applicants may request their preferred 5G test system on their application, but the 5G Challenge Organizers do not guarantee that contestants will be assigned to their preferred system.

3.4 Will the RIC be involved in any testing for the Challenge?

A: No. However, NTIA/ITS and DoD intend to host a RIC/xApp Forum in 2024 to showcase live xApp demonstrations. We plan to announce the RIC/xApp Forum in the summer.





4 Host Lab Testing

4.1 Will the contestants receive the test plan or scripts prior to their testing?

A: An overview of the Host Lab Test Plans is available to applicants during the submission window at https://5qchallenge.ntia.gov/resources. The detailed Host Lab Test Plans will be released when lab testing begins.

- 4.2 Do we have to support specific frequency bands in FR1?
- A: No, any FR1 bands are acceptable.
- 4.3 For delivery options 2 and 3, will the host lab-supplied system have FPGA hardware available? If so, how is the firmware to be installed?

A: No FPGAs will be included in the host lab-provided system.

4.4 Will the 2023 5G Challenge include security testing?

A: The security components of the 2023 5G Challenge are the SBOM and VEX. Applicants are required to submit an SBOM within ten (10) business days of acceptance into the 2023 5G Challenge. If there are known vulnerabilities, the applicant must also submit a VEX. Two (2) contestants with the highest rated SBOM and VEX will each receive two weeks of in-kind security testing prizes.

4.5 Does the contestant engineer need to be onsite all the time for the duration of the challenge?

A: Each contestant is required to have on-site engineer for the testing of their submitted subsystems during their various lab phases. However, contestants can apply for an exemption if providing onsite support is not possible. In such a case, the contestant must still provide dedicated remote support ("off-site staff") during the host lab's business hours (Mountain Daylight Time) throughout their testing window(s). Off-site staff must be available to quickly respond (i.e., within 90 minutes) to troubleshoot and resolve integration issues.

4.6 May we modify the server hardware that is available for contestant software?

A: The host lab server hardware is supplied "as is." Allowing modifications in the past has proven to be an inefficient use of integration time compared to contestants supplying their own servers.