



PAWR Project Office

PAWR RFP FAQs

Question 50, Topic: Testbeds

- **Question:** Are indoor testbeds allowed, or must all testbeds be located outdoors?
- **Answer:** To achieve PAWR program goals, some outdoor component to the proposed platform is desired. However, indoor locations are allowed as long as they satisfy or extend the topological significance of the research area being proposed as part of the vision. All such design considerations should be clearly articulated. Proposers should also be aware of supporting a critical density of users, even if the proposed locations are indoors (i.e., as stated in the RFP, “Proposed platforms should be designed to support a critical density of users complementing the focused research area. As an illustration, a spectrum-sharing research platform might require a small pool of users across a large geographical area whereas a low-powered IoT radio platform might require a large pool of users in a building”).

Question 51, Topic: Testbeds

- **Question:** Do all the parts of a testbed have to be deployed in a city or can parts of a testbed be deployed on a university campus?
- **Answer:** PAWR envisions city-scale coverage areas, so campus locations are permitted if the university is large enough and the proposed platform can cover the entire campus. Please refer to PAWR Platform Design Elements section on Page 8 of the RFP for other suggested criteria.

Question 52, Topic: End Users

- **Question:** Can you give us a minimum size, in terms of potential end-users or square miles or end-devices, if not users?
- **Answer:** As stated in the RFP, proposers are encouraged to complement their vision with topologically significant deployment locations, which will support the number of end-user devices required for conducting at-scale experimentation. The PPO will evaluate each proposal on the merits of how well the enabled research areas, sites, user devices and budget work together to realize the proposed vision.

Question 53, Topic: Communities

- **Question:** Could a physically large, though extremely rural area (e.g., Alaska, northern Idaho, much of Montana and Wyoming) make a proposal that the PPO would seriously consider?
- **Answer:** Platforms deployed in communities must support a diversity of users and topologies for experimenters. An environment that does not have characteristics such as high density of buildings, users and existing broad spectrum usage that provides richness for experimentation will need to justify how the above would be provided. Please also refer to existing national laboratories such as Idaho National Labs for guidance (<https://www.inl.gov/>).

Question 54, Topic: Innovation

- **Question:** How much innovation do you expect to see in software (e.g., algorithms, protocols) versus hardware (e.g., RF boards, antennas) versus services (e.g., cloud, HPC)?
- **Answer:** The vision promulgated by the selected teams will dictate the emphasis of that particular platform. The only guidance from the PPO is to not innovate exclusively in a niche area that limits the participation of a broad set of researchers. Even though the key emphasis of this



PAWR Project Office

program is on wireless research, an end-to-end system will help mutually enrich broader research communities.

Question 55: Topic: Latency

- **Question:** Does the PAWR program address the requirements for future M2M feedback control where latency < 1 ms and error rate < 1e-9 are necessary?
- **Answer:** Yes - the PPO has provided a non-exhaustive list of application areas that are listed on Page 10 of the RFP. The sub-1ms latency and low-error rate are requirements for multiple application areas (not just limited to M2M control feedback) and are also not absolute benchmarks that PAWR strives to attain. Industrial Internet of Things (IoT) and vehicular networking research verticals also list achieving the above parameters in wireless communications as significant milestones.

Question 56: Topic: Backhaul

- **Question:** Will the PPO favor fiber-based backhaul versus, say, high-powered fixed wireless?
- **Answer:** High-powered fixed wireless backhaul is a very interesting topic in and of itself for research. There is no PPO-favored backhaul solution and proposers are encouraged to propose such innovative ideas. However, the PPO will scrutinize the deployment and operational plans within the Platform Development Plan (PDP) to understand performance and reliability of such proposed solutions. As a reminder, the PDP will be required only at the Site Visit stage after finalists from the full proposals are selected.

Question 57: Topic: Security Requirements

- **Question:** Are minimum “Cybersecurity” requirements specified in the RFP, or going to be considered in the proposal evaluation process?
- **Answer:** The PPO does not require a separate Cybersecurity section in either the Preliminary or Full Proposal stages. However, the PDP, submitted by selected finalists after the Full Proposal, will be evaluated carefully to ensure compliance with industry and open-source community best practices to safeguard PAWR infrastructure.

Question 58, Topic: PAWR Industry Consortium

- **Question:** At Proposers’ Day, the PPO offered to send a list of contacts of PAWR Industry Consortium members. When will the contact information of PAWR Industry Consortium members be distributed?
- **Answer:** Contact information of PAWR Industry Consortium members will be distributed at the Full Proposal stage, as this level of collaboration is not required during the Preliminary Proposal stage. To view the list of PPO Partners, please visit the “Partners” section of the PAWR website, advancedwireless.org/.

Question 59, Topic: RFP Access

- **Question:** If an intention to submit a PAWR Preliminary Proposal was not submitted, can a Preliminary Proposal still be submitted on June 1, 2017?
- **Answer:** Submission of an intention to submit a PAWR Preliminary Proposal is not a requirement. If you did not provide an intention to submit, you may still submit a PAWR Preliminary Proposal by the June 1, 2017 deadline.



PAWR Project Office

Question 60, Topic: RFP Account

- **Question:** How do I create an RFP365 account? Do I need to pay for the RFP365 account needed to submit the proposal?
- **Answer:** The PAWR Project Office is using RFP365 to manage the RFP process. You will need to create a free account with RFP365 in order to access the RFP and other information documents and submit your RFP response. You may access the RFP by visiting [this link](#). If you experience any issues creating a RFP365 account, please download and review the RFP365 [Account Creation Guide](#). Additionally, if you receive any automated messages from RFP365 regarding your trial account expiring or credits being needed, please contact the PPO.

Question 61, Topic: Contributions

- **Question:** Are the corporate partners only contributing in kind or will they bring cash contributions as well?
- **Answer:** Industry Consortium members will be contributing both in-kind and cash contributions.

Question 62, Topic: Testbeds

- **Question:** When PAWR platforms are released, how do testbed owners gain access to use the PAWR platforms?
- **Answer:** The PPO will define the experimenter lifecycle model as well as authentication and authorization model that will support experimentation on and across the platforms. The “platform owners” will work closely with the PPO to execute this vision and each platform will have a dedicated set of operation personnel who will serve as administrators.

Question 63, Topic: Collaboration

- **Question:** There have been several efforts since the 1980s seeking collaboration among Industry, University, and Government. Typically, Government was assumed to be the Federal government. The PAWR program rotates subnational government into this scenario. However, local governments face issues related to annual budget cycles, permitting processes, local regulations, etc. What plans/resources can you make available to negotiate these potential ground-level barriers?
- **Answer:** The PPO is prepared to help with matchmaking efforts between communities and researchers who would like to partner. It is expected that such communities will work with researchers to overcome potential barriers such as permitting processes and local regulations.

Question 64, Topic: Sustainability

- **Question:** Can you describe more clearly what a sustainability plan might be, particularly what kind of organization would be responsible for maintaining the platform after the five-year timeline?
- **Answer:** It is expected that the proposing consortium of researchers and local community will propose a plan to guarantee financial sustainability of the platform beyond the five years of funding from the PAWR Project Office. This can come from a combination of user fees, sponsorship and external grants, as well as contributions from local communities, among other sources. Proposers are encouraged to be creative on this important evaluation criterion.



PAWR Project Office

Question 65, Topic: Research

- **Question:** Are you going to favor single area research (e.g., health or education) or multi-area research (e.g., health and education, and safety and environmental monitoring etc.)?
- **Answer:** The PPO does not have any specific guidance on this issue. Either way, the rationale for supporting a single area of for supporting multiple areas of research needs to be clearly articulated.

Question 66, Topic: Teaming

- **Question:** I would like to explore the possibility of joining an established team. Where can I find a list of current teams?
- **Answer:** Please send an email to pawr@us-ignite.org and the PPO will assist with matchmaking.

Question 67, Topic: Geographic Coverage

- **Question:** How does the PPO plan to maintain a balance between geographic coverage and ultra-high-speed/bandwidth technologies (e.g. mm Wave)?
- **Answer:** As we understand this question, it seems like you are asking about the limited range of selected frontier frequency technologies (>6GHz, mmWave, THz) and a wide geographic coverage area. If the platform is focused on enabling research in this area, proposers should look at supporting the equipment within its range and capacity limitations, but also focusing on compensating for the lack of wide geographic area coverage by allowing for high density of such devices within a smaller area. The key is to enable significant topologies that allow for advancing fundamental research in this area.