



NATIONAL SCIENCE FOUNDATION
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NSF 18-077

Frequently Asked Questions (FAQs) for [NSF 18-540](#), NSF/VMware Partnership on Edge Computing Data Infrastructure (ECDI)

The following set of FAQs relate to NSF/VMware ECDI program solicitation ([NSF 18-540](#)). They are not intended to be a modification of the program solicitation.

Prior to preparing a NSF-VMware ECDI proposal, please read the ECDI solicitation and refer to the general information about NSF proposal submission including the [Proposal and Award Policies and Procedures Guide \(PAPPG\)](#).

1. Will proposals that use VMware technology and products [e.g., virtualization, Internet of Things (IoT) management software, etc.] receive favorable consideration?
2. Because of VMware's involvement, is it expected that virtualization and VM-based techniques will need to be used to support the goal of multi-tenancy?
3. Are proposals with hardware changes eligible or does the proposed work need to be strictly software stack-based?
4. I have a new IoT application in mind that I would like to propose. Is application research or the focus on a specific application relevant to this solicitation?
5. What are the intellectual property (IP) considerations for this solicitation?
6. Is there any guidance or preference on how to balance the different aspects of the proposal or emphasize one over the other?
7. Are energy and power consumption important in the context of the solicitation?
8. Will the awards be selected primarily based on VMware's preference?
9. Will VMware claim any ownership to the IP that emerges from the funded projects?
10. Does the solicitation allow for collaborators from other companies? Will letters of collaboration from other companies adversely affect the chances of success?
11. Our proposal does not require the full \$3 million. Would it be acceptable to submit a

proposal that requests less than \$3 million?

12. Can I get feedback on my proposal ideas before submission?
 13. May I suggest possible reviewers for my proposal?
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1. Will proposals that use VMware technology and products [e.g., virtualization, Internet of Things (IoT) management software, etc.] receive favorable consideration?

No. The use of VMware technology and products is not a required component of proposals submitted and use of such technology and products will not result in favorable consideration. This solicitation targets long-term research in edge computing that address technical challenges that extend beyond today's state-of-the-art technologies, products, and services.

2. Because of VMware's involvement, is it expected that virtualization and VM-based techniques will need to be used to support the goal of multi-tenancy?

Not at all. There is no presumption on the approach or the use of a specific technique to achieving the goals specified in the solicitation. Even within VMware, there are multiple technical approaches used for a specific task.

3. Are proposals with hardware changes eligible or does the proposed work need to be strictly software stack-based?

Hardware changes are acceptable as long as they satisfy some of the key challenges outlined in the solicitation. One of the additional review criteria is a systems perspective, which requires a software stack above existing or new hardware.

4. I have a new IoT application in mind that I would like to propose. Is application research or the focus on a specific application relevant to this solicitation?

While new applications are definitely relevant to this solicitation, systems that address just one specific application's needs are not desirable. The research should address one or more of the key systems, architecture, data sharing, etc., challenges outlined in the solicitation and demonstrate that the solutions proposed are generalizable to multiple applications.

A few example domains are mentioned in the solicitation. However, principal investigators (PIs) are welcome to use other application domains or a set of applications that are of critical need or have broad societal needs. We expect to see how the

proposed approach supports some application in reasonable detail. Not all applications considered need to be dealt with at the same level of detail.

5. What are the intellectual property (IP) considerations for this solicitation?

There are some special IP, publishing, and software licensing considerations identified in the solicitation in Section VII, specifically the second point under "Special Award Conditions."

6. Is there any guidance or preference on how to balance the different aspects of the proposal or emphasize one over the other?

We are looking for a systems contribution with prototypes and just theoretical results would not be appropriate. Given the solicitation details, the exact balance between theory and practice is left to the PIs.

7. Are energy and power consumption important in the context of the solicitation?

Yes.

8. Will the awards be selected primarily based on VMware's preference?

No. NSF will use its standard merit review process as stated in the solicitation. VMware will conduct its own internal review and then the final decisions will be made jointly by NSF and VMware.

9. Will VMware claim any ownership to the IP that emerges from the funded projects?

No, VMware will not own any of the IP associated with a funded project. However, there are some special IP guidelines. Please read Section VII of the solicitation, specifically the second point under "Special Award Conditions."

10. Does the solicitation allow for collaborators from other companies? Will letters of collaboration from other companies adversely affect the chances of success?

Collaboration across industry and academia is encouraged, with the expectation that this will lead to broader impacts of the proposed research. Letters of collaboration from other industry partners will not adversely affect the chances of success.

11. Our proposal does not require the full \$3 million. Would it be acceptable to submit a proposal that requests less than \$3 million?

Proposals are expected to reflect the scope of work as called forth in the solicitation and will be reviewed according to both the National Science Board approved and

solicitation-specific review criteria. Proposal budgets will be considered only with respect to whether they are appropriate for the proposed work. To give you an idea as to the expected scope of the projects, the solicitation states that awards are anticipated to be up to \$3,000,000 total and of 3 years in duration.

12. Can I get feedback on my proposal ideas before submission?

PIs wishing to discuss suitability of their projects should contact one of the cognizant NSF program officers listed in the solicitation. All inquiries will be handled jointly by the NSF and VMware program teams.

13. May I suggest possible reviewers for my proposal?

Yes, PIs are encouraged to include a list of suggested reviewers along with your proposal, which should be uploaded as a Single Copy Document.