NSF Award 190444:Exploring Clouds for Acceleration of Science

Phase 2 – Submission Guide

INTRODUCTION

Thank you for your participation in the Exploring Clouds for Acceleration of Science (E-CAS) project funded by the National Science Foundation (NSF) and administered by Internet2 under a Cooperative Agreement. Awardees in Phase 1 of the project are invited to submit proposals for Phase 2 of the project.

PROPOSAL DEADLINE AND SUBMISSION

Proposals will be due by Thursday, April 30, 2020 at 5:00 pm submitter's local time. Proposals must be submitted via email to :
Jamie Sunderland at jsunderland@internet2.edu with a copy to:
Nili Tannenbaum ntannen@internet2.edu

If the proposal and associated report from Phase 1 are too large to email, they should be placed in the team's individual folder on Google Drive and the link to the documents should be emailed as above.

ELIGIBILITY

Only projects that are Awardees in Phase 1 of the project are eligible to submit a proposal for Phase 2.

PROPOSAL REVIEW PROCESS AND CRITERIA

Proposals will be reviewed by academic members of the E-CAS Advisory Board, with support from external peer reviewers from the research community selected for content expertise. The external peer reviewers will be selected to include scientists from a wide range of fields and deep levels of expertise and will include members of the HPC provisioning community rooted in national centers and campuses with a wide range of expertise and scale including cloud provisioning, performance measurement and efficiency. All board and review panel members will comply with Conflict of Interest regulations that are consistent with NSF guidelines and will recuse themselves from review or discussion of any proposal in which either the appearance or occurrence of bias or conflict could be perceived to exist.

Phase 2 proposal format

Phase 2 proposals should clearly state the key achievements of Phase I, and articulate plans for continuing the project's initial momentum.
Each Phase II proposal will be required to include the Phase I Final Report, which will contain detailed descriptions of activities, results and lessons learned.
The project's proposed activities should include a brief description of the project team's members' roles and qualifications.

Documents should be submitted in PDF format using at least 11 point font and should include the following items:

Proposal items	Page limit
Project summary	Up to one page
Key achievements in phase 1	Up to one page

A description of how the project contributed to:
  ● **Acceleration of Science** (to achieve the best time-to-solution for scientific application/workflows using cloud) and/or
  ● **Innovation** (to explore innovative use of heterogeneous hardware resources to support and extend application workflows.)
	Up to one page

Proposed Phase 2 activities, including overall goals, plans to sustain these beyond the scope of the overall award and mechanisms to disseminate project findings to the community.	Up to two pages
Description of Intellectual Merit and Broader Impacts, including community supported by this project.	Half page
Budget	Use attached template-one page
Resource usage plan, justification and demonstration of need. This includes both staffing and detailed cloud resource estimates. Note: Phase 2 does not provide cloud credits up-front, but instead will reimburse cloud resource costs based on invoices documenting actual usage. Any pre-purchased or reserved resources purchased through this project must not extend beyond September 2021. Any resources purchased through this project may only be used for the purposes of this project and may not be used by any other project.	Up to two pages
Declaration of other funding sources and related projects. Where appropriate, a description of how funds are kept separate and accounted for.	Half page
NSF Format Bio-sketches for PI and key staff	1-2 pages
Total length of proposal	8-10 pages (Max 12) + Final Report.

Supplementary documents

1. Phase I final report.

Documenting achievements measured against original goals, lessons learned, actual cloud resource use versus estimates, examples of innovation and/or acceleration of time to science, impact within/beyond scientific field.

2. Phase 1 workshop presentation.

Team presentations at the E-CAS Workshop may be used to assist the reviewers in understanding the project execution and outcomes. The presentations will be available to the reviewers and the general public from the Internet2 website.

Proposal Review

Proposals, including supplementary documents will be distributed to external reviewers.

Proposals will be evaluated specifically as to how their projects:
- Have achieved scientific advances within one or both of the two areas of focus during Phase 1 of the project and will be able to build upon those advance in Phase 2;
- Appropriateness of proposed activities for phase 2;
- Have demonstrated efficient use of resources in phase 1 and justify the selection of platform(s) and resources requested for phase 2;
- Have been able to benefit from on-demand resources through commercial cloud beyond other available options; determination of need based on access to other campus and national computing resource; scalability and potential for large-scale usage and/or demonstrate an innovative use of technology;
- Demonstrate feasibility and likelihood of success;
- Include plans for longer-term sustainability
- Have potential impact on science outcomes through accelerated access to resources.

The review process will consider the proposal and the attached Phase 1 Final Report for phase 1. Reviewers may also consider presentations from the E-CAS Phase 1 workshop in their evaluation.

The review process may involve follow-up discussions with applicants regarding the details of requested cloud resources. All proposals and proposal reviews will be treated as confidential by project administration and the review panel, however workshop presentations and Phase 1 Final Reports are expected to be made public as part of the overall project.

Phase 2 Awards – Selection and limits.

The academic members of the E-CAS Advisory Board will make the final selection of Phase 2 awards based on recommendations by the reviewers and project team, funding up to two awards in total. Each award will include:

1. direct costs, to cover partial salary and fringe benefits for staff, postdoctoral fellow, or graduate student for a one-year period of up to $80,000 total. This can be partial salary of multiple people within that financial limit.
2. direct costs for Cloud Service expenditure as invoiced from Amazon Web Services, Google Cloud Platform or the nominated third-party reseller of cloud services such as DLT or Carahsoft, up to a maximum of $500,000 over the 12-month period of Phase 2, and
3. indirect costs recovered on the above costs at the documented sub-awardee campus rate.
4. The total sub-award for each of the phase 2 participants is limited to $831,000 including all direct and indirect costs.