



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

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Dear Colleague Letter: Launch of Advanced Cyberinfrastructure Coordination Ecosystem

September 30, 2022

Dear Colleagues:

The National Science Foundation (NSF), through the Computer and Information Science and Engineering (CISE) Directorate's Office of Advanced Cyberinfrastructure (OAC), is excited to announce the start of operations for the fabric of services funded as part of the Advanced Cyberinfrastructure Coordination Ecosystem of Services and Support ([ACCESS](#)) program. As of September 1, 2022, science and engineering researchers and educators can now benefit from a new set of ACCESS services, as part of an agile, integrated, robust, trustworthy, and sustainable cyberinfrastructure (CI) ecosystem, that will drive new thinking and transformative discoveries. Building on successes from the eXtreme Science and Engineering Discovery Environment ([XSEDE](#)) project, the ACCESS services will blend agile innovations with stable and scalable operations, and ensure the continued availability of services and support to the S&E research and education community. A key goal of the ACCESS services is to ensure democratized and equitable access to the CI ecosystem.

The ACCESS program teams will coordinate integrated operation of the advanced cyberinfrastructure ecosystem by: (1) simplifying and accelerating [allocations](#) to use high performance computing systems; (2) establishing consistent roadmaps to [operationally integrate](#) HPC systems, new testbed systems, cloud-based resources, edge instrumentation, and data resources; (3) [supporting researchers'](#) needs via workflow automation utilities and self-serve knowledgebases, as well as brokering personal assistance by matching researchers needs with skilled mentor/student teams and/or cyberinfrastructure professionals (CIP) with common research interests.; (4) [measuring system usage](#) data to monitor capacity, optimize algorithm performance, and conceivably to apply machine learning to forecast future CI needs; and (5) [amplifying ecosystem awareness](#) by reaching out to research groups and communities who have not yet made extensive use of the advanced CI ecosystem.

NSF has launched ACCESS in response to insights gained from community feedback, as well as guidance provided by the [strategic plan](#) developed by the National Science and

Technology Council Subcommittee on the Future Advanced Computing Ecosystem, the NSF [Advisory Committee for Cyberinfrastructure](#), responses from [Requests for Information](#), and community workshops such as the [CI Workforce Development Workshop 2020](#). ACCESS strongly emphasizes democratizing engagement and inclusiveness of the advanced CI ecosystem as called for in the recent [Missing Millions](#) report. The advanced CI ecosystem will leverage experts and integrate tools from a portfolio of programs and projects with aligned missions, including, but not limited to, [Training-based Workforce Development for Advanced Cyberinfrastructure \(CyberTraining\)](#), [Campus Cyberinfrastructure \(CC*\)](#), [Research Coordination Networks: Fostering and Nurturing a Diverse Community of CI Professionals \(RCN:CIP\)](#), [Partnership for High-Throughput Computing \(PaTH\)](#), and [Advanced Computing Systems and Services \(ACSS\)](#).

Through this DCL, NSF invites researchers, educators, and CI professionals to take advantage of multiple opportunities to directly participate in NSF's advanced CI ecosystem via ACCESS as:

- Members of the User Advisory Board or External Advisory Board;
- Reviewers of allocation requests for the HPC marketplace;
- Administrators of the On-Ramps allocations utility to bridge campus and ACCESS resources;
- Mentor/student teams or Cyberinfrastructure Professionals to be matched with researcher needs; and/or
- Evaluators of the new framework to analyze system usage and performance.

If you are interested in participating, or have questions, please contact the ACCESS team at <http://ACCESS.qitdclient.com/about/Contact> or by emailing Info@ACCESS-CI.org. More information about the ACCESS program is available at <https://access-ci.org>.

Sincerely,

Margaret Martonosi
Assistant Director
Computer and Information Science and Engineering

Manish Parashar
Office Director
Office of Advanced Cyberinfrastructure