Ohio Supercomputer Center to collaborate on $10 million cyberinfrastructure initiative

COLUMBUS, Ohio (Apr 25, 2022) — The Ohio Supercomputer Center (OSC) will collaborate on a five-year, $10 million National Science Foundation-funded initiative, led by the University of Colorado Boulder, to reimagine cyberinfrastructure user support services and delivery to keep pace with the evolving needs of academic scientific researchers.

The initiative—MATCH, or Multi-tier Assistance, Training and Computational Help—is part of a larger program called Advanced Cyberinfrastructure Coordination Ecosystem: Services and Support (ACCESS). ACCESS is replacing the Extreme Science and Engineering Discovery Environment (XSEDE), which has been the leading program for NSF-funded cyberinfrastructure for the U.S. for the past 11 years.

According to the NSF, ACCESS "aims to establish a suite of cyberinfrastructure coordination services—meant to support a broad and diverse set of requirements, researchers and modes from all areas of science and engineering research and education—set up as five independently managed yet tightly cooperative service tracks supported by a coordination office."

MATCH—one of the five ACCESS tracks—is spearheaded by CU Boulder's Research Computing group. MATCH proposes a new model for cyberinfrastructure (CI) support services that reflects significant changes in the size and composition of the user group community.

"CU Boulder and our MATCH collaborators will lead this groundbreaking effort nationally by leveraging existing tools, interfaces and community experts to assist researchers using NSF-funded cyberinfrastructure to most effectively conduct their research," said Dr. Shelley Knuth, assistant vice chancellor of Research Computing at CU Boulder and MATCH principal investigator.

In addition to CU Boulder and OSC, other organizations participating in MATCH include the Massachusetts Green High Performance Computing Center (MGHPCC), University of Southern California Information Sciences Institute and the University of Kentucky.

The MATCH project will include the design and development of the Pegasus workflow-management system, continued development of the Connect.CI portal currently led by the Northeast Cyberteam and design and development of OSC's Open OnDemand.

Open OnDemand is an NSF-funded (#1534949), open-source HPC portal developed by OSC, based on its original OnDemand portal. Open OnDemand helps researchers and students easily access computing resources anywhere from any device.

"The NSF ACCESS research computing centers will be joining hundreds of other computing centers that already utilize Open OnDemand, bringing intuitive, innovative and interactive interfaces to a broad group of computational researchers who will be able to utilize remote computing resources faster and more efficiently as a result," said David Hudak, OSC executive director.

The MATCH project has three goals:

- Leverage modern information delivery systems and simplify user interfaces to provide cost-effective scaled support to a broader community.

- Leverage experts from the community to develop training materials and instructions that can reduce the user learning curve for an expanding range of systems, applications and computational techniques.
- Employ a matchmaking service that will maintain a database of specialist mentors and student mentees that can be matched with projects that provide the domain-specific expertise needed to leverage ACCESS resources.

The effort will be discussed in a co-located event at the 2022 Practice and Experience in Advanced Research Computing (PEARC) conference that will be held July 10-14 in Boston, Massachusetts.

About OSC: *The Ohio Supercomputer Center (OSC) addresses the rising computational demands of academic and industrial research communities by providing a robust shared infrastructure and proven expertise in advanced modeling, simulation and analysis. OSC empowers scientists with the services essential to making extraordinary discoveries and innovations, partners with businesses and industry to leverage computational science as a competitive force in the global knowledge economy and leads efforts to equip the workforce with the key technology skills required for 21st century jobs.*

Subjects:
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