

The OneOklahoma Cyberinfrastructure Initiative (OneOCII) is a statewide, all-inclusive, advanced digital services collaboration that provides access to Cyberinfrastructure (CI) resources, as well as expertise and education, to all non-commercial researchers and educators across the state. OneOCII began with Oklahoma's 2008 NSF EPSCoR RII Track-1 project and expanded under the current track-1 award, which began in 2013 under grant number OIA-1301789. Both the Oklahoma State University High Performance Computing Center and the OU Supercomputing Center for Education and Research at the University of Oklahoma provide resources (hardware, storage, software), as well as expertise, training and education to use those resources.

AVAILABLE RESOURCES

Cluster Supercomputers

OSU, OU, TU, Langston Univ., UCO, and the OK Innovation Institute all have significant cluster supercomputers available at no charge for non-commercial research and education. These systems have slightly different configurations to meet a variety of needs.

Research Clouds

These systems (OU and OSU) provide virtual servers and storage resources to enable research that requires interactive computing, sharing of large datasets, web interfaces and other uses not conducive to typical cluster computing. They provide powerful Windows and Linux environments, customized to meet research needs.

Archival Storage

The Oklahoma Petastore at OU provides long term archival storage (write once, read seldom), with researchers buying tape cartridges only, at far less than the cost per TB of USB disk drives.

Informatics

Research computing facilitators embedded in specific research projects.

Training

OneOCII's six service provider sites provide training on topics ranging from how to use the supercomputers to how to create new supercomputer applications. If you've got a topic you're interested in exploring, ask our OneOCII team and we may be able to help!

OneOklahoma Cyberinfrastructure Initiative

- All academic institutions in Oklahoma are eligible to sign up for use of OU's and OSU's centrally-owned Cyberinfrastructure resources.
- Goals of this initiative are to:
 - Reach out to institutions outside of the mainstream of advanced computing,
 - Serve higher education institutions with relevant curricula,
 - Educate Oklahomans about advanced computing, and
 - Attract underrepresented populations and institutions into advanced computing.



OneOCII members gather together during the Annual Supercomputing Conference.

OK EPSCoR and Cyberinfrastructure

The OneOCII team has been essential in making the current Oklahoma NSF EPSCoR project a success. Below are some examples of their extraordinary efforts:

- Worked with Dr. Ochsner to develop "Soilmapnik," which is a web app that hosts high-resolution, daily soil moisture maps.
- Assisting our downscaling group in the development of a Global Climate Model Data Portal.
- Working with our social science group to develop an Online Policy Database.
- Providing assistance with code development and data processing.

FOR MORE INFORMATION

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