

Ohio Supercomputer Center

An **OH·TECH** Consortium Member



High-powered computing resources for academic and industry research, education and innovation.

The Ohio Supercomputer Center accelerates discovery for Ohio's academic and commercial researchers with processing power exceeding 1,000 desktop computers available any time, any place. OSC turns days of computation into minutes, creating a competitive advantage for Ohio at a fraction of the cost of alternatives, all with expert consultation and secure storage.



Ohio Universities



Companies



Nonprofits & Govt Agencies



Other Educational Institutions



Clients



College Courses Used OSC Resources



Training Opportunities

Data July 2020–June 2021

Catalyzing Discovery

Supercomputing services

The Ohio Supercomputer Center provides strategic capabilities in high performance computing (HPC), research data storage and scientific software expertise, enabling the groundbreaking academic research and industrial innovation that increasingly serves as the foundation of economic progress in Ohio.

Training and support

Utilizing OSC is simple and straightforward for users of all skill levels through one-on-one consultations, web-based training classes and extensive online how-to guides, paired with a robust client services team ready to help.

Easy access

The Center’s own easy-to-use Open OnDemand web portal, developed with National Science Foundation funding, enables supercomputing from anywhere on any device. This industry-leading, open-source scientific gateway is installed at more than 200 prominent HPC centers around the world.

Flexibility, scalability, affordability

The supercomputers at OSC are engineered with flexibility and scalability in mind, built to affordably deliver cutting-edge capabilities on demand and tailored to individual needs. Academic researchers generally utilize OSC with little or no cost thanks to state funding, while industry and commercial clients around the globe pay competitive rates.

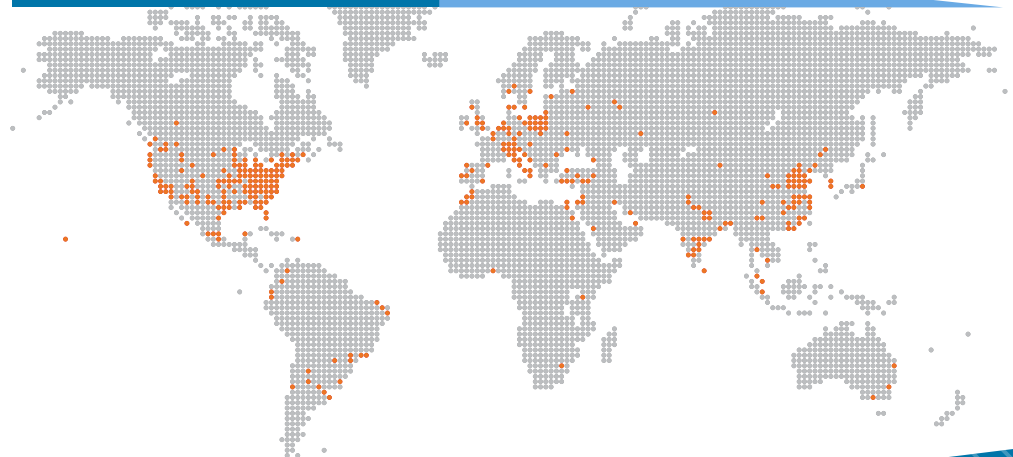
Education

OSC is helping to develop the next generation of innovators by providing virtual computer labs and free classroom usage to educators at all levels in Ohio, from grade school to grad school. OSC’s annual Summer Institute and Young Women’s Summer Institute engage Ohio’s budding STEM experts in math, data analysis and the scientific method.

Any discipline, anywhere

An ever-growing range of disciplines and client types rely on OSC, including researchers in data-intensive fields of analytics, machine learning and artificial intelligence. From social language analysis to particle physics, OSC fuels the incredible work of teachers, students, scientists, engineers and businesses in Ohio and across the world.

Serving Ohio & Beyond



OSC provides state-of-the-art resources and services to academic researchers and industry innovators, both within the state of Ohio and beyond its borders. Clients develop new knowledge, products and technologies that benefit society.

Spotlight



Ohio State students in Professor Laura Kubatko's class utilize OSC via their university-issued iPads.

Introducing students to data analysis

The Ohio State University Professor Laura Kubatko turned to OSC for a streamlined online learning environment for her Statistics for the Life Sciences class. With the Open OnDemand platform, Kubatko's students can access the supercomputers and R software via a web browser on their university-issued iPads. "What's great about it is that it brings a widely used tool for statistical analysis of biological data to every student, basically for free, and lets them experiment with it," Kubatko said.

Read more: osc.edu/ipadstats



D2H leverages OSC's computing power to quickly and accurately simulate and visualize wind tunnel tests. (Image ©D2H)

Maximizing efficiency in engineering

Automotive and industrial engineering firm D2H Advanced Technologies relies on OSC for maximum efficiency. From its locations in the UK and North Carolina, D2H's complex computational fluid dynamics analyses reduce the need for expensive wind tunnel tests. "The true on-demand service with low wait times is unique. The prices are great, the service is great and OSC keeps it all up to date," D2H CEO Darren Davies said.

Read more: osc.edu/d2h

Savings

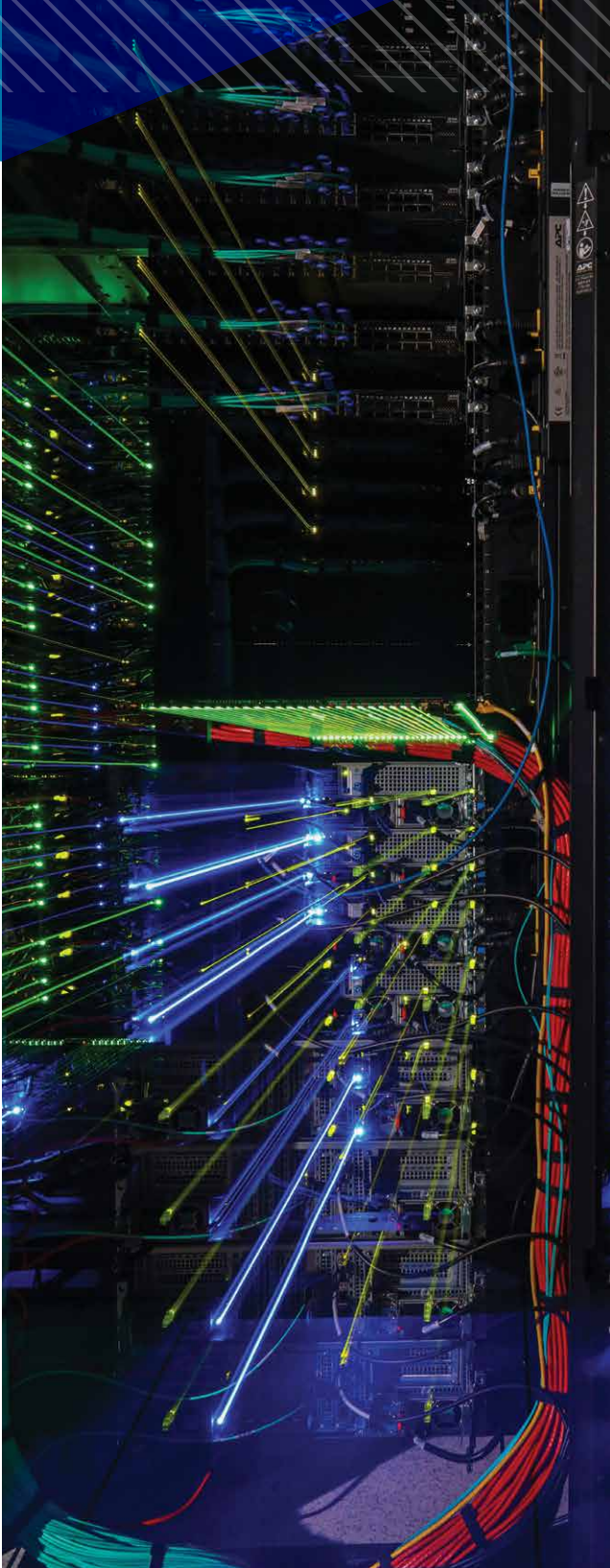
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\$9.9+ MILLION

Estimated annual cost savings compared to commercial cloud





Continued Growth

By equipping innovators in academia and enterprise with cutting-edge technology, Ohio ensures its leadership role in the creation and dissemination of knowledge and the development of a workforce prepared for tomorrow's high-tech economy. As the pace of change accelerates, we are building an innovative path to a better and stronger Ohio.

Our Campus Champions program helps us stay connected to the specific and evolving technical requirements of Ohio colleges and universities. In addition, we are contributing HPC resources and large-scale data storage to major new research initiatives, such as the AI Institute for Intelligent Cyberinfrastructure with Computational Learning in the Environment (ICICLE) led by The Ohio State University.

OSC also is introducing HPC to new sectors of research and innovation in Ohio. We reach out to academic disciplines that traditionally have not used HPC but could benefit greatly from it. The Center also has a strong track record of engaging with the private sector to meet its specialized HPC needs. With our globally recognized Open OnDemand program, we are lowering the bar to entry and increasing the ease of HPC use for new clients.



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