

Hands-On with the Summit Supercomputer

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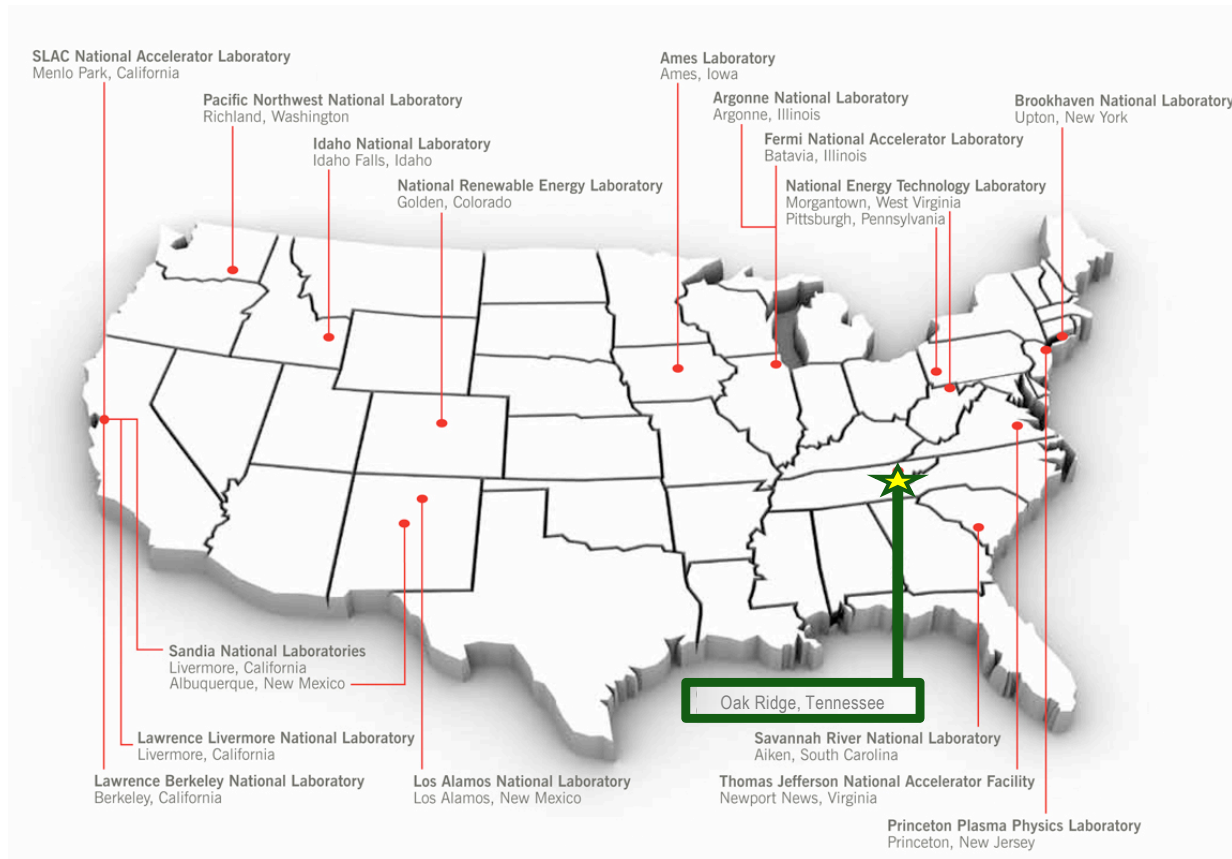
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Agenda

What	When (ET)
Welcome	11:00 – 11:05
Intro to the Oak Ridge Leadership Computing Facility	11:05 – 11:15
Intro to the Summit supercomputer	11:15 – 11:30
Using the Summit Supercomputer	11:30 – 12:00
Hands-on Challenges	12:00 – 2:55
Closing	2:55 – 3:00

A Little About ORNL...



Oak Ridge National Laboratory is the largest US Department of Energy (DOE) open science laboratory

What is a Leadership Computing Facility (LCF)?

- Collaborative DOE Office of Science user-facility program at ORNL and ANL
- Mission: Provide the computational and data resources required to solve the most challenging problems.
- 2-centers/2-architectures to address diverse and growing computational needs of the scientific community
- Highly competitive user allocation programs (INCITE, ALCC).
- Projects receive 10x to 100x more resource than at other generally available centers.
- LCF centers partner with users to enable science & engineering breakthroughs (Liaisons, Catalysts).

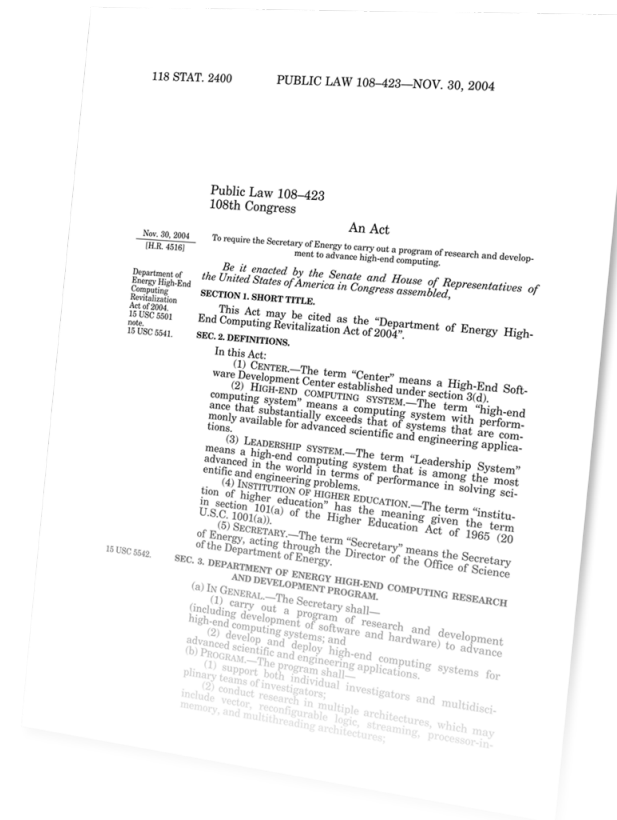


Origin of Leadership Computing Facility

Department of Energy High-End Computing Revitalization Act of 2004 (Public Law 108-423):

The Secretary of Energy, acting through the Office of Science, shall

- Establish and operate Leadership Systems Facilities.
- Provide access [to Leadership Systems Facilities] on a competitive, merit-reviewed basis to researchers in U.S. industry, institutions of higher education, national laboratories and other Federal agencies.



The OLCF has Successfully Delivered Six Systems Since 2004

- All projects delivered on scope, schedule, and budget
- Frontier will be system number seven and will provide an increased capability of over 80,000x
- Large part of success has been strong user partnerships to scale & refactor codes/methods
- Partnering has been essential to delivering science in a rapidly changing computational environment

