

NCCS Snapshot

The Week of September 22, 2008

NATIONAL CENTER
FOR COMPUTATIONAL SCIENCES



Oak Ridge National Laboratory
U.S. Department of Energy

Jaguar to Host Next-Generation Climate Models

NOAA collaboration continues NCCS climate work

- The NCCS will provide the resources to research advanced climate models and simulations for the National Oceanic and Atmospheric Administration (NOAA)
- The collaboration between the DOE's Office of Science and NOAA will make available more than 10 million hours on three of the DOE's top supercomputers
- Besides exploring climate models researchers will also perform weather prediction research on the DOE machines



NOAA Administrator Conrad C. Lautenbacher, Jr. (left) and DOE Under Secretary for Science Dr. Raymond L. Orbach sign the memorandum of understanding between the two agencies on collaborative climate research.

"This is a great step forward in further developing the relationship between DOE and NOAA in the important area of climate research."

Jim Hack, NCCS Director

Jaguar Poised to Pounce on Petascale

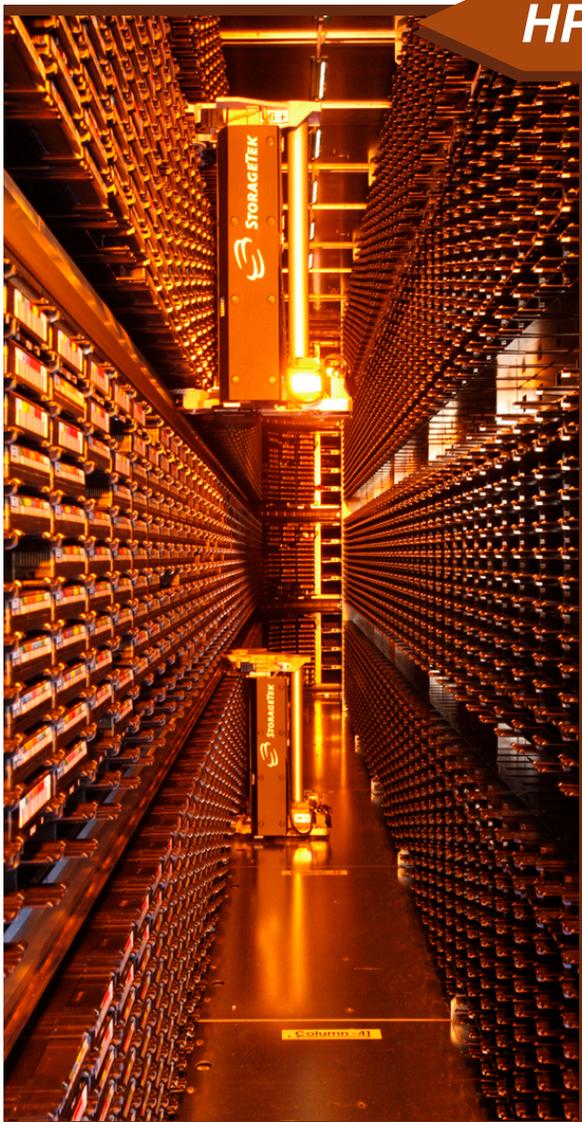
First cabinets arrive at ORNL

- The NCCS has begun receiving the first cabinets of its upcoming Cray XT5 petascale supercomputer, a system that will soon be among the most powerful in the world
- Named Jaguar, the new machine will feature liquid-cooled cabinets and quad-core AMD Opteron™ 2.3 gigahertz processors
- Jaguar will be the most powerful open science system in the world when it comes online in 2009, continuing the NCCS's leadership in areas such as climate modeling, astrophysics, and fusion energy



Storage System Tops 3 Petabytes

HPSS storage on track to double again in coming year



- ORNL's High-Performance Storage System (HPSS) reached a significant milestone recently, surpassing 3 petabytes of storage
- That amount doubles the system's storage from this time last year
- According to Stan White of the NCCS, the system's storage is on track to double again in the coming year
- The decade-old HPSS is ORNL's principal archival storage system, holding simulation data for both of ORNL's major supercomputing centers

NCCS Staffers Lead Technology Development Efforts

Shipman and Graham announced as new group leads

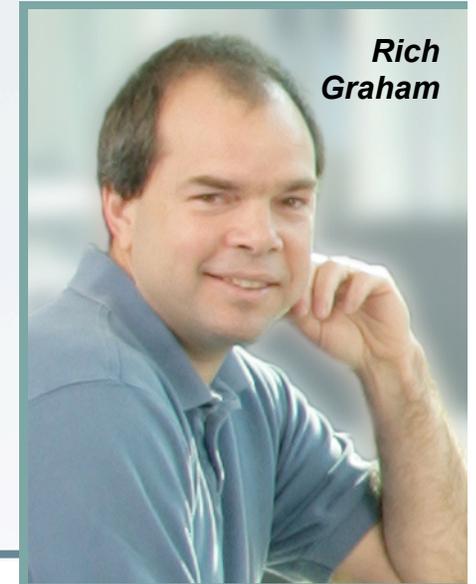


- Two members of the NCCS Technology Integration Group are moving up to take formal leadership roles as the center pushes the limits of computing technology
- Galen Shipman will take over as group leader and Rich Graham will step in as leader of the newly created Application Productivity Software Group (APSG)

- The APSG will focus on developing advanced software tools such as debuggers, performance tools, and development environments

“Each one of these guys is in a role that draws on their professional strengths, the most ideal matches for what we need in the way of leadership for those activities.”

Jim Hack, NCCS Director



HPC Users Meet to Share Petascale Science Initiatives

- “Delivering Science on Petascale Computers” was the theme of the 4th annual Fall Creek Falls Conference, held Sept. 7-10 at Montgomery Bell State Park in Tennessee
- The conference brought together experts from universities, national laboratories, and industry to address the challenges of high-performance computing
- More than 100 participants at this year’s conference made presentations and participated in panels organized around climate change
- The Fall Creek Falls Conference, hosted by the Computing and Computational Sciences Directorate at ORNL, was first launched in 2004 to discuss how best to use the new computing resources provided by the DOE Office of Science



2008 Fall Creek Falls Conference a success