

Calendar/Meetings

August 2005

22-26, [ACM SIGCOMM 2005](#), Philadelphia, Pennsylvania

23-27, [20th APAN Meeting: Advanced Network Conference in Taipei](#), Taipei, Taiwan

29-30, [Open Science Grid Blueprint Meeting](#), Buffalo, New York

30-31, [Bridging the Gap: End-to-End Networking for Landmark Applications](#), Ann Arbor, Michigan

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Feature Story

Brazil Makes Strides Addressing Digital Divide



Projected October 2005 map of RNP's core network.

Image Courtesy Michael Stanton, RNP

A meeting between two physicists at a conference in 2001 has helped lead to a success in addressing the digital divide—the difference in computing and connectivity between the developed and the developing world.

"I was concerned about upgrading Brazil's computing capacity for high energy physics," said Alberto Santoro from Rio de Janeiro State University (UERJ). "After reading a paper on grid computing, I approached one of the paper's authors, Harvey Newman from the California Institute of Technology, to talk about Brazil getting involved in grids."

The International Committee on Future Accelerators Standing Committee on Interregional Connectivity, which Newman chairs, had just decided that the digital divide would be a main focus of its activities. The committee started with Latin America, holding its 2002 workshop at UERJ. Representatives from Brazil's National Research and Education Network (RNP), network providers and the local community attended to discuss network requirements for scientific research.

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Summer Institute Focuses On Managing Large Data Sets



Image Courtesy SDSC

Thirty graduate students, scientists and researchers attended the Eleventh Annual Computing Institute, held July 25–29 at the San Diego Supercomputer Center on the campus of The University of California, San Diego. Participants from 17 institutions in the U.S. and abroad received a solid introduction to the creation, manipulation, dissemination and analysis of large data sets.

"The attendees all got an intensive introduction to the resources, techniques and tools for dealing with the extreme data and I/O needs of today's computational science applications," said David Hart, SDSC allocations manager and organizer of this year's summer institute. "By all accounts, everyone left excited and inspired, with new ideas for applying the latest capabilities in their own research."

The institute, which was funded by the National Science Foundation, covered a number of topics including: how to use the SDSC computing environment; parallel I/O; HDF5 and NetCDF file formats; moving data across the TeraGrid; building and using data collections; an introduction to database design; using the SDSC Storage Resource Broker; data mining and workflows; data visualization and case studies of extreme I/O applications.

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Image of the Week



Map of TWGrid sites. (Click on

image for larger version.)

Image courtesy of Eric Yen, Academia Sinica Computing Centre

TWGrid is a Taiwanese virtual organization for grid applications, serving as a portal to the grid for academic researchers in the fields of particle physics, atmospheric science, biomedical and biodiversity informatics, digital archiving and earth science. TWGrid facilitates information exchange among the grid computing and scientific communities in Taiwan, and is building a national e-science infrastructure through the involvement of international collaborations and grid projects.

Link of the Week

Internet Educational Equal Access Foundation

The IEEAF is a partnership between the research and education community and the private sector, geared toward obtaining donations of international bandwidth to enable a global collaboration in research and education. The IEEAF Global Quilt Initiative stitches together a "network of networks" to create a single fabric shared equally by all.

Grids in the News

Canadian grid computing project finds place in ATLAS

ITbusiness.ca, August 18, 2005
by Shane Schick

The development of Canada's largest grid computing network is not only contributing to a worldwide particle physics project—it's teaching high-performance users how to share their resources.

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Office of Science/
U.S. DOE

\$150 Million TeraGrid Award Heralds New Era for Scientific Computing



Image Courtesy TeraGrid

National Science Foundation Press Release, August 17, 2005

The National Science Foundation (NSF) has made a five-year, \$150 million award to operate and enhance the Extensible Terascale Facility (ETF)—also called "TeraGrid." Researchers and educators around the country can now access a range of computing resources that will accelerate advances in science and engineering.

"Many new users from a range of scientific communities will now have access to sophisticated IT applications and computational tools. Over time, these applications will be customized to the needs of the individual or community," said NSF Director Arden L. Bement, Jr.

TeraGrid—built over the past 4 years—is the world's largest, most comprehensive distributed cyberinfrastructure for open scientific research. Through high-performance network connections, TeraGrid integrates high-performance computers, data resources and tools, and high-end experimental facilities around the country.

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FUD-Busting e-Science Grids



It's tough to rationalize why Grid groups have been so divisive recently, drawing a line in the sand between research/academia and enterprise—inferring (if not saying directly) that the Grid breakthroughs in e-science somehow do not match up to the rigorous requirements of enterprise Grids.

To point to e-Science and academic Grids and call them niche experiments—or to assign a higher value to one over the other—is to turn a blind eye to the history of IT. Some of enterprise IT's most mainstream technologies today were born in academic/science circles. When Sandy Lerner and Len Bosack figured out how to make different computers talk to each other across the Stanford campus, the result was the commercial router (and the birth of networking behemoth, Cisco). When major universities (UCSB, Stanford Research Institute, UCSB and UCLA) connected computers in the ARPA project in the late '60s, little did they know the effort was an important link in the evolution towards the commercial Internet we all know today.

In 1997, The Economist quipped that the now late John Postel (networking pioneer working out of ISI) and his academic colleagues were ill-equipped to handle the commercial evolution of the Internet. The concluding remarks of the article: "But perhaps the main lesson for the Internet is that it is time to abandon amateurism. For all their expertise, neither Mr. Postel nor most of the members of the IAHC have the resources (nor, indeed, the mandate) to dictate the Net's future course. Many are volunteers with full-time jobs. This was fine when the Net was largely an academic tool. Now, though, it is commercial. And commerce needs the service of professionals."

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This article by Ian Foster originally

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Globus Consortium Journal.