

Calendar/Meetings

September 2005

19-22, [Fall 2005 Internet2 Member Meeting](#), Philadelphia, Pennsylvania

19-22, [U.K. e-Science All Hands Meeting 2005](#), Nottingham, UK

19-22, [2nd International Conference on Grid Service Engineering and Management](#), Erfurt, Germany

21, [International Workshop on Advanced Technologies for E-Learning and E-Science \(ATELS '05\)](#), Compiègne, France

25-27, [OECD Global Science Forum Workshop on Grids and Basic Research Programs](#), Sydney, Australia

26-30, [GridKa School 2005](#), Karlsruhe, Germany

26-30, [APAC'05: The APAC Conference and Exhibition on Advanced Computing, Grid Applications and eResearch](#), Gold Coast, Australia

26-30, [Cluster 2005](#), Boston, Massachusetts

26-29, [iGrid 2005 Workshop](#), San Diego, California

27-29, [Joint Open Science Grid/Enabling Grids for E-Science Operations Workshop](#), Abingdon, United Kingdom

[Full Calendar](#)

Image of the Week

Feature Story

Lighting Up Advanced Networks



The UltraLight test bed includes sites in the Americas, Europe and Asia.

Imagine setting up an ultra-high-speed Internet connection directly from your home computer to an electronic data warehouse one hundred times the size of the Library of Congress, and then selecting and downloading thousands of books in just seconds. Researchers in the UltraLight project study ways to allow scientists similar access to their data, by changing the way networks are operated, managed, and integrated with grid computing services.

"Current networks are a black box, you put bits of data in with a destination in mind, and hope they come out quickly on the other end," said physicist Shawn McKee from the University of Michigan. "The network makes no guarantees, and there's no way to negotiate with it. We're looking into how to make the network a managed component of grids, like computing and storage resources are now."

Today's scientists produce vast amounts of data, and need to transfer that data among increasingly international collaborations. Transfers currently take place over shared connections, governed by protocols developed in the 1970s that are inefficient for very high-speed, long distance network connections. UltraLight is funded by the National Science Foundation to study ways to replace the older protocols and manage networks as part of grid infrastructures. Tools allowing scientists to connect multiple

Tsai Moves from the South East to the Far East

Min Tsai is an excellent example of how Grid computing helps international collaboration. In September he will move back to Taipei, leaving CERN where he has been acting as liaison for the South-Eastern European Grid-enabled e-Infrastructure Development (SEE-GRID) project. He will take up the role of deputy manager of the first Asian Regional Operations Centre (ROC) for the Enabling Grids for E-science (EGEE) project at Academia Sinica in Taipei.



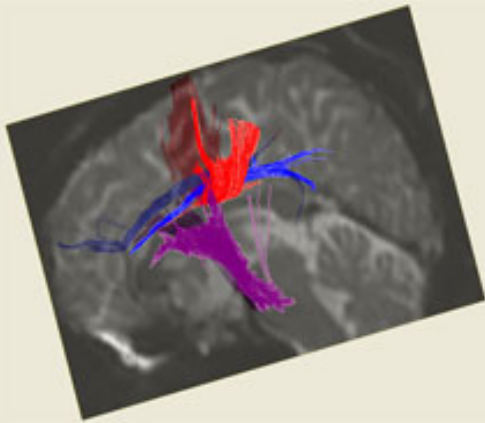
Heading east: Min Tsai

Tsai's path to Grid computing is unusual. Neither a computer scientist nor a physicist, he studied mechanical engineering in the US then worked in industry in telecommunications and networking. Hired because of his networking background, he arrived at Academia Sinica just over a year and a half ago to help set up Grid computing there. His first assignment was to go to CERN and learn hands-on about Grid operations by working in the Grid Deployment group, and after six months he was offered the liaison position for SEE-GRID.

[Read more...](#)

This article, by CERN's François Grey, originally appeared in the September/October issue of [LCG News](#).

Grids in the News



Major axon tracts in the human cortex as revealed by diffusion tensor imaging and fiber tractography. (Click on image for larger version.)

Image courtesy of Gideon Caplovitz and James Dobson, Dartmouth College

The major axon tracts in the brain are not identifiable using conventional methods or scans. Scientists at [Dartmouth College](#) use diffusion tensor imaging, based on the three-dimensional diffusion of water, and fiber tractography, which uses special techniques of magnetic resonance imaging and computer post-processing, to visualize the tracts. Analysis of the raw MRI data, obtained at the Dartmouth Brain Imaging Center, was performed using Open Science Grid resources.

Link of the Week

NextGRID Industrial Videos

Visit this site to view a series of five short videos that illustrate how grid computing can be used by industry. One introductory video is followed by case studies in the drug discovery, car manufacturing, flood modeling and financial modeling sectors.

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Office of Science/
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institutions directly by high-performance network connections, reserve a certain amount of network space for specific transactions, and those that allow grid services to plan large data flows across multiple sites are in development.

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From Brazil, with Love: A Look at OurGrid

GRIDtoday editor Derrick Harris



recently spoke with Walfredo Cirne, director of the Distributed Systems Lab at the Universidade Federal de Campina Grande in Brazil, about OurGrid—a project he leads (and to which HP has contributed a fair amount of resources) that has become one of the largest computational Grids in Brazil. Cirne will be presenting at the next Gelato Federation meeting, which will take place Oct. 2–5 in Porto Alegre, Brazil.

GRIDtoday: Tell me about OurGrid. Can you give me a brief background on the project and what it hopes to accomplish?

WALFREDO CIRNE: OurGrid is an open, free-to-join Grid. Unlike traditional Grids, joining OurGrid is automatic. No paperwork or approvals of any sort are required. Someone wanting to join OurGrid just downloads the software from www.ourgrid.org and installs it. OurGrid forms a peer-to-peer Grid in which peers donate their idle computational resources in exchange for accessing other peers' idle resources when needed. The vision is that OurGrid provides a massive worldwide compute platform on which research labs can trade their spare compute power for the benefit of all.

[Read more...](#)

This article, by GRIDtoday editor Derrick Harris, originally appeared in the September 19, 2005 issue of GRIDtoday.

Challenging the World's Largest Computing Grid

PPARC Press Release, September 21, 2005

Enough data to fill 17,000 CDs(*) were transferred from Edinburgh University to the CCLRC Rutherford Appleton Laboratory (RAL) in nine days, as part of the latest networking challenge by particle physicists. Delegates to the UK e-Science All Hands Meeting in Nottingham will be able to watch the progress of the challenge in real time on a screen showing data being exchanged between sites worldwide.

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Negotiating Trust on the Grid

Access Online, September 13, 2005 by Trish Barker

Grids connect researchers with far-flung computers, data stores, instruments, and visualization technologies, enabling them to tap the resources they need when they need them.

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NSF Awards \$2 Million for CLEANER Project Office

NCSA News Release, September 13, 2005

CHAMPAIGN, IL — The National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign (UIUC) has received a grant of \$2 million to lead a two-year intensive effort to develop a roadmap for CLEANER, the Collaborative Large-scale Engineering Analysis Network for Environmental Research.

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