

World's largest scientific Grid sustains a million jobs per month

Geneva, 25 September 2006 – A milestone for scientific Grid computing was announced today at the launch of EGEE'06, a major conference on scientific Grids hosted by CERN [1] and held in Geneva this week. The Enabling Grids for E-science (EGEE) project [2] maintains a global Grid infrastructure that has been able to sustain more than 30000 jobs a day – over a million per month – for a period of six months this year. These computing tasks were submitted by scientists from diverse fields of research, and range from simulations of molecular drug docking for neglected diseases to geophysical analysis of oil and gas fields. Clusters of hundreds and even thousands of PCs, in institutes and universities around the world, have been executing these calculations – in total over 25000 central processor units (CPUs) are involved. Several million gigabytes of data storage in disk and tape facilities also contribute to make EGEE the world's largest scientific Grid infrastructure.

The EGEE project, launched in 2004, today involves 91 institutional partners in Europe, the U.S.A, Russia and Asia. The project has helped develop a production-quality Grid middleware distribution called gLite, which ensures the seamless operation of this global computing facility. A round-the-clock service ensures this Grid infrastructure is always available. In addition to scientific applications, EGEE has targeted a range of business applications for support, including financial analysis. Recently, successful demonstrations have been made of interoperation with other major national and international Grids, such as the Open Science Grid in the US and NAREGI in Japan. These achievements hasten the original vision of Grid computing, which is to establish a common Grid infrastructure for sharing computing and storage resources, similar to what the World Wide Web achieves for information sharing.

Speaking to over 600 participants at the EGEE'06 conference, CERN Director General, Robert Aymar emphasized the importance of this Grid infrastructure to the field of High Energy Physics. "We are just over one year away from the anticipated launch of the Large Hadron Collider, or LHC, based at CERN. We expect this device will open up new horizons in particle physics", said Dr. Aymar. "Thousands of physicists around the world will need to use the Grid to access and analyse their data. The EGEE infrastructure is a key element in making the LHC Computing Grid possible, and thus the success of the LHC is linked to the success of the EGEE project."

European Commissioner for Information Society and Media, Viviane Reding, commented that "Today, the GÉANT2 network is providing nearly unlimited bandwidth to millions of research and education users in Europe. This has underpinned the emergence of production quality grids: prominently, EGEE for computer clusters and DEISA for supercomputers. The setting up of the world's largest multi-science grid represents a major success for Science and for Europe. It is the result of a long relationship of trust between the many EGEE partners and of good cooperation with the European Commission."

Further information:

EGEE: <http://www.eu-egee.org/>

CERN: www.cern.ch

OSG: <http://www.opensciencegrid.org/>

NAREGI: http://www.naregi.org/index_e.html

GEANT2: <http://www.geant2.net/>

DEISA: <http://www.deisa.org/>

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[1] CERN, the European Organization for Nuclear Research, has its headquarters in Geneva. At present, its Member States are Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland and the United Kingdom. India, Israel, Japan, the Russian Federation, the United States of America, Turkey, the European Commission and UNESCO have observer status.

[2] The Enabling Grids for E-science (EGEE) project is funded by the European Commission and the second two-year phase of the project (EGEE-II) began on 1 April 2006. The project operates the largest multi-science Grid infrastructure in the world with some 200 sites connected around the globe, providing researchers in both academia and industry with access to major computing resources, independent of their geographic location.

[3] GÉANT2 delivers the next generation research and education network for Europe. GÉANT2 is co-funded by the European Commission under the Sixth Research and Development Framework Programme. The project partners are 30 European National Research and Education Networks (NRENs), TERENA and DANTE. It is co-ordinated by DANTE, the research networking organisation that plans, manages and builds research networks all over the world.