PRESS RELEASE

Barcelona, Monday, 21 September 2009

Today the GridTalk project launches its 8th GridBriefing at the Enabling Grids for E-sciencE (EGEE) conference in Barcelona. The report covers how information and communication technologies (ICTs), particularly computing grids, are used in the health and biomedical sectors of European research. EGEE has supported this research community since the project's birth and it is the second largest user group after physics research.

ICT has become a major part of all our lives and the health sector has proved no exception. This latest GridBriefing gives an overview of the impact grid research has had in this area, as well as discussing the challenges which arise when using grids for eHealth. GridTalk's GridBriefings cover topics of key interest to the grid computing community, providing timely summaries of policy-oriented reports in jargon-free language. With contributions from experts working on projects from medical imaging to grid-based paediatrics, this GridBriefing offers an insight into how grids are helping to shape the future of healthcare.

EGEE has helped many health projects access vital resources and expertise. As part of the conference, some of these projects will demonstrate the results of their work. NeuGrid is the first project within the neuroscientific community to use this type of technology. Launched in 2008, NeuGrid aims to establish an e-Infrastructure supplying neuroscientists with the most advanced ICT to help defeat neuro-degenerative diseases, such as Alzheimer's. Alzheimer's is the second most feared disease associated with aging, following cancer, according to the Alzheimer Society of Canada. At the conference, neuGRID will be showcasing preliminary results of its ongoing data challenge. They are using the power of the grid to analyse millions of 3D magnetic resonance brain images and measure cerebral cortex thickness — a measurement aligned with brain health and its deterioration over time. This potentially allows for the effectiveness of potential drugs to be tested by measuring the delay of cortical thinning, rather than waiting years for a patient's condition to worsen.

"Using EGEE's gLite, we are able to synchronize and optimize the way we use our heterogeneous computing resources to process demanding medical imaging pipelines," says David Manset of neuGrid. "gLite efficiently balances the load over the grid resources and has demonstrated its reliability several times when there are network bottlenecks or power supply problems. By rescheduling automatically, gLite saves time and keeps processing ongoing."

Radiotherapy is one of the most important tools for treating cancer. It involves firing X-rays at the tumour while minimising damage to surrounding healthy tissue and organs. To make sure treatment is as effective as possible, physicians use computer simulations to strike a balance between the length of the treatment and the accuracy of the dose. On doctors' desktop computers, this can take days. Since 2005, RadioTherapyGrid has been using EGEE's computational resources to help speed up this process and optimise the treatments. This has cut the processing time to just an hour—they will demonstrate their application at the EGEE conference.

The grid offers many advantages to the health community, one of the biggest being its ability to combine data from various sources quickly and securely. This could be of great benefit to doctors around Europe - giving them access to a storehouse of medical imaging data to help them identify and treat a variety of illnesses or particularly unusual conditions that they may not see every day. The sensitivity of this data however, means that any system of this type calls for extremely secure data protection protocols. With this is mind, the Modalis project has developed the Medical Data Manager, an easy-to-use graphical interface with strict data access control and encryption built-in. It is built on the Digital Imaging and Communications in Medicine (DICOM) standard used across the globe and could benefit patients around the world.

Also present at the conference, EUAsiaGrid will share their work on modelling and monitoring future flu pandemics. By combining various tools and databases, the system will track changes within the flu virus during a pandemic. The team is working with the current H1N1 outbreak so that they can make an impact on future pandemics.

You can download the GridBriefing "The Future of Healthcare: eHealth and Grid Computing" at
http://www.gridtalk.org/GT-Documents.htm

EGEE Press Office – CERN – 600-R017 – 1211 Geneva 23
Switzerland - Tel: +41 22 767 4176 – pressoffice@eu-egee.org
EGEE III is co-funded by the European Commission under contract number INFSO-RI-222667

PRESS RELEASE

Notes for Editors

EGEE'09 runs from the 21st to the 25th of September 2009, in the Barcelo Sants hotel, Barcelona, Spain. If you are interested in attending or covering the conference please contact EGEE's press and events manager, Neasan O'Neill n.oneill@qmul.ac.uk.

For more information on the project, visit the conference media room at: http://egee09.eu-egee.org/?id=631

If you can't make it to the conference we have many online ways of keeping up-to-date with the proceedings:

EGEE09 Blog - http://gridtalk-project.blogspot.com
EGEE is teaming up with the GridTalk project to bring you live news from the conference on the GridCast blog.

Conference Pictures – http://www.flickr.com
Just search flickr for images tagged egee09 once the conference has begun.

Twitter – http://www.twitter.com/enablinggrids
Others at the conference will be using the #egee hashtag.

Other GridTalk projects:

GridCafé: http://www.gridcafe.org
The GridCafé website is the definitive beginners guide to grid computing, created in 2003 and recently relaunched in English and Spanish to keep the public informed about advances in grid computing.

International Science Grid This Week: http://www.isgtw.org
International Science Grid This Week is a successful electronic newsletter with more than 5000 subscribers in nearly two hundred countries. iSGTW is a joint project between Open Science Grid in the U.S. (http://www.opensciencegrid.org/) and GridTalk in Europe.

GridBriefings: http://www.gridtalk.org/GT-Documents.htm
GridBriefings are jargon-free articles that provide timely summaries of policy-oriented issues in grid computing. The briefings target non-technical policymakers in government and industry, as well as scientists and the public.

About EGEE:

The Enabling Grids for E-sciencE (EGEE) project is co-funded by the European Commission. The project aims to provide researchers, in both academia and industry, with access to major computing resources, independent of their geographic locations.

EGEE's main aims are:

1. To build a secure, reliable and robust grid infrastructure
2. To supply a computing service for many scientific disciplines
3. To attract, engage and support a wide range of users from science and industry, and provide them with extensive technical and training support.

http://www.egee-eu.org

Other Links

1. NeuGrid http://www.neugrid.eu
2. RadioTherapy Grid http://www.beingrid.eu/radiotherapygrid.html
3. Modalis http://modalis.i3s.unice.fr/
4. EUAsiaGrid http://www.euasiagrid.org/