Enabling Grids for E-sciencE

Newsletter

November 2005

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NEWS IN BRIEF

FEEDBACK ON EGEE-II PROPOSAL

On 12 October the project received feedback on the recently submitted EGEE-II proposal, which extends the scope of EGEE with an expanded consortium of 91 partners from 32 countries. The project was invited to attend hearings on 7 November, which included addressing a short list of questions to clarify the plans laid out in the proposal. A small team, selected by the Project Management Board, attended the hearings, represented all areas of the project. Further details will be reported in the January Newsletter

FORTHCOMING EU REVIEW

The project has recently received notice from the European Commission of the dates for the forthcoming 'focused' Review, which will take place at CERN 6-7 December 2005. The review will assess all activities on their progress and key deliverables from Project Month 10-18 in particular the extent to which they have responded to the previous review recommendations.

CERN will host a full dress rehearsal on 29-30 November, where all participants will go through their presentations and receive feedback from members



Commissioner Reding with the CERN Director General, and senior staff from EGEE and the CERN IT department

of the External Advisory Committee. Attendance at the review itself will be by invitation only, selected by the Federation and Activity heads.

BEGRID JOINS EGEE

BEgrid is the Belgian Grid infrastructure that resulted from the BELNET Grid initiative. Long associated with EGEE through partners VUB and ULB, BEgrid has now connected its resources to the EGEE infrastructure, intially supporting the CMS VO.

NEW E-LEARNING FRAMEWORK DEMONSTRATED IN PISA

The fourth EGEE Conference at Pisa saw the first demonstration of the eLearning framework developments announced at the Den Haag and Athens EGEE conferences. The system is based on the open source Fedora (Linux) digital library and has been extended by Dr Boon Low to provide extra functionality that supports personalisation for students. It also provides a Web Services based solution to allow groups to develop their own localised clients for the system. The demonstration was highly successful, provoking a great deal of interest and leading to a collaboration with the DILIGENT Digital Library project to share metadata between the two systems.



CONFERENCE REPORT

The last week in October saw the fourth EGEE conference, held in Pisa, Italy, and hosted by INFN. This, the final conference of EGEE, provided an opportunity to make plans for the last six months of the project, as well as looking to the future and the plans made for EGEE-II.

MANAGEMENT CHANGES

Following the departure of Project Director Fabrizio Gagliardi on 1 November, a number of changes have been made to the project management. Dr Gagliardi is replaced by Robert Jones as Project Director. Dr Jones, well known to most members of the project, was previously EGEE Technical Director and Deputy Project Leader for the EU DataGrid (EDG) project. Prior to this he worked on the ATLAS



Some of the 461 delegates attending the Fouth EGEE Conference, held in Pisa, Italy, 24-28 October.

The conference was held in the *Palazzo dei Congressi* in central Pisa amid unseasonably warm temperatures, with a record breaking 461 delegates attending five days of plenary sessions, parallel discussions and demonstrations. Speakers included Robert Aymar, CERN Director General, and Mario Campolargo, Director of Research Infrastructures at the European Commission, who discussed plans for FP7. The plenary sessions also saw talks by representatives of sister projects such as DEISA and the United States' Open Science Grid, stressing EGEE's desire to integrate with complementary Grid efforts around the globe.

During a gala dinner at the picturesque Villa San Marco outside Pisa, the project also bid a final farewell to outgoing Project Director Fabrizio Gagliardi. Dr Gagliardi was presented with gifts including a book containing messages written by all conference delegates.

The second day of the conference also saw a session devoted to integration of the many related projects funded through recent FP6 Research Infrastructures calls, with which EGEE will closely collaborate. NA5 activity leader Fotis Karayannis invited each project to introduce itself, then led a panel discussion on issues common to the 14 projects present.

collaboration, a detector for CERN's forthcoming Large Hadron Collider.

Dr Jones will be assisted by Dieter Kranzlmüller, who will take a full time position at CERN to continue his post as Deputy Director. Professor Kranzlmüller was previously at the Institute of Graphics and Parallel Processing at the Johannes Kepler University Linz, Austria, and is Area Director for Applications at the Global Grid Forum. The position of Technical Director will be taken over by Erwin Laure, previously the EGEE Deputy Manager for Middleware Reengineering (JRA1). Dr Laure was also Technical Coordinator for the EDG project.

Finally, the JRA1 activity (Middleware Reengineering) will be led by Claudio Grandi of Italy's Istituto Nazionale di Fisica Nucleare (INFN). Dr Grandi is based in Italy, where he has previously worked on the Italian contribution to the CMS experiment, as well as participating in EU DataGrid and EGEE. While there are several changes described above, the core management team will remain unchanged, facilitating a seamless transfer to the proposed EGEE-II project in 2006.



EU COMMISSIONER HAILS TWO MILLION JOBS RUN IN 2005

The recent EGEE conference saw the announcement that the EGEE infrastructure had surpassed 2 million computing jobs, or the equivalent of over 1000 years of processing on a single PC, since the beginning of 2005.

"The results for EGEE so far are very satisfying and well beyond our initial expectations," commented Fabrizio Gagliardi, former EGEE Project Director. "Clearly the Grid is a service that will allow many scientists to do calculations much faster that were once hugely time consuming." He gave the example of WISDOM, a drug discovery application for malaria, which recently managed to reduce the time needed for computer simulation of 46 million potential drug candidates to just six week's work on the Grid, the equivalent of 80 years on a single PC.

The final day of the EGEE conference in Pisa coincided with a visit to CERN by Viviane Reding, European Commissioner for Information Society and Media, there to be briefed on the use of Grid technology at CERN. Ms Reding visited the cavern for the ATLAS detector, an experiment for CERN's forthcoming Large Hadron Collider, as well as being briefed on EGEE and its sister project LCG.

"On hearing about EGEE's achievements, I wanted to see for myself some of the practical benefits that this Grid technology is providing," said the Commissioner. "I am very satisfied to see such a major step forward in collaborative computing between scientists across Europe and even on a global scale. Europe's strategic investments in Grids and in the GÉANT network infrastructure are certainly already paying dividends."

GENDER ACTION AND EGEE

Amongst all the project updates and introductions, the fourth EGEE conference also featured a different kind of talk. Nancy Pascall, from the European Commission (EC) Information Society and Media Directorate, came to present one of the most complex EC requirements, the Gender Action Plan.

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Commissioner Reding with Bob Jones, EGEE Project Director, and Wolfgang von Rüden, head of the CERN IT Department

Each project funded by the EC Information Society and Media Directorate in FP6 must have a plan for promoting equality between men and women. In practice, many of the projects, including EGEE, have found this a difficult task. Nancy Pascall confirmed that many projects seemed to be unsure how to proceed: of more than 100 Gender Action Plans she has considered, she estimated that only five were meaningful. What the EC is looking for is concrete 'action', rather than the more common promises to monitor the situation or broad agreement with the principles of gender equality. Ms Pascall suggested activities such as organising 'Girls' Days' at the workplace, and - though happy to be invited to speak - suggested that EGEE could do more in this area.

As part of EGEE's Gender Action Plan, the question 'In your opinion, what could be done to get more women to work in your workplace?' was included in the conference feedback questionnaire. The Project Office looks forward to reading your ideas and considering our gender action goals. The main issue for EGEE/EGEE-II is likely to be the distribution of women in the project. Although many women are involved in the administrative side of the project, they are still under-represented in technical roles. Ms Pascall pointed out two direct consequences of this imbalance. She believes that the lack of female participation in technical work prevents the resultant technology from reflecting the needs and concerns of all citizens. She also points out that a lack of female participation helps maintain the wage gap between men and women. Across the EU women earn on average 16% less than men, a fact compounded





by the concentration of women in lower paid administrative positions.

A common claim in projects such as EGEE is that there is little we can do, given the predominance of male candidates for technical jobs. However, the Gender Action Plan could be used to give EGEE members the impetus to contribute to broader initiatives, such as those aimed at schoolchildren, that encourage girls and women to take up careers in technology. The Project Office would be very happy to hear more ideas on how to encourage the participation of women in technical activities, if you have any ideas, please contact us through the email address at the end of the newsletter.

UNESCO GRID EVENT AT CERN

At the end of September, the UNESCO Regional Bureau for Science in Europe (ROSTE) and CERN organised a joint event on Grid computing at CERN sponsored by HP, with the help and participation of EGEE. Current and future Grid participants, universities, and research institutions - with a special focus on South-Eastern European countries - were invited to learn about the capabilities and opportunities of the Grid.

As the delegates pointed out, bringing people together to talk about Grid computing not only raises awareness in other scientific fields, but also gives the researchers the feeling of being part of a bigger whole. Individual researchers can thus find motivation if they see that they are not alone. The more tangible benefits of Grid computing, access to computing resources and cutting-edge technologies outside the region, can serve a higher purpose, through easing the Digital Divide. The possibilities opened up by the Grid helps universities and small research groups to attract students, thus maintaining talent in the area and alleviating the brain drain.

The event was a success, with good feedback from many of the participants, and led to the decision to hold a training event next year in Split, Croatia. This event, to be organised by CERN and SEE-GRID will act as a pilot event for a CERN School of Computing in Croatia in 2007.

GRIDKA SCHOOL ATTRACTS INTERNATIONAL CROWD

For the third year running, one of the German EGEE partners, Forschungszentrum Karlsruhe (FZK) hosted the annual GridKa Computing School. The one-week event comprised four EGEE-related



Students at the third annual GridKa summmr school, hosted by EGEE partner Forschungszentrum Karlsruhe.

hands-on sessions, ranging from an introduction to gLite and the ROOT/PROOF analysis framework over Grid application development to a gLite installation course. A particular technical highlight was the use of Xen to virtualise an entire Grid in a 16-node cluster, a system with considerable potential for other training and research scenarios.

A total of 17 different presentations covered all aspects of Grid Computing at the school. Contributions from speakers working in the High-Energy Physics environment were complemented by talks covering non-HEP Grid applications such as the DAME project (Distributed Aircraft Maintenance Environment), descriptions of national Grid initiatives such as D-Grid, or virtualisation techniques. EGEE and its goals and developments were discussed in detail.

Support for the courses and the entire GridKa School came from many EGEE partners, including GSI in Germany, Fraunhofer SCAI in Germany, NeSC in the United Kingdom and DESY in Germany. Industrial IT firms IBM and Oracle also presented their view on Grid computing in a special Industry Plenary session.

The GridKa School originally started as a workshop



for the users of the GridKa Cluster, a Tier-1 centre for the LCG project with over 1500 CPUs, located at FZK. The scope of the workshop quickly grew, as there is no similar event in the region. Participants and speakers from ten different nations, coming from a diverse set of industry and research organisations, show the increasing international interest in the GridKa School

TRAINING NEWS

EDINBURGH SEES FIRST INTAKE OF E-SCIENCE MSC STUDENTS

The start of the academic year saw the first intake of students onto the University of Edinburgh's new MSc in e-Science.

This inter-disciplinary degree programme features core courses, taught by academic staff from the Schools of Physics and Informatics and trainers from the National e-Science Centre, supplemented by options chosen from a pool of more than 100 courses across many subjects.

The first cohort of students have a range of nationalities, ages and educational backgrounds, reflecting the broad spectrum of areas within which e-Science and Grid computing techniques can be applied. The intake for the programme is planned to expand significantly in the coming years, and it is hoped that further schools will want to become involved, gaining exposure to e-Science and Grid technologies in return for supervising student projects.

Further details of the e-Science MSc can be obtained from the Programme Director Bob Mann (rgm@roe.ac.uk) or by looking at the website: http://www.ph.ed.ac.uk/postgraduate/degrees/msc_escience.html.



FORTHCOMING TRAINING EVENTS

For full event listings, see http://www.egee.nesc.ac.uk

2 – 3 November 2005, Rutherford Appleton Laboratory, Didcot, UK

Induction to Grid Computing and the National Grid Service Rutherford Appleton Laboratory, Chilton, Didcot, UK Details

2 - 4 November, 2005, Rome, Italy EGEE tutorial <u>Details</u>

10 - 11 November, 2005, St Andrews, United Kingdom Induction to Grid Computing and the National Grid Service

Details Registration

10 - 11 November, 2005 GGUS Training for Supporters Karlsruhe, Germany Details Registration

21 - 25 November, 2005, Merida, Venezuela First Latin American Workshop for Grid Administrators Details

28 November, 2005, Edinburgh, United Kingdom EGEE Training activity NA3 External Review Details

30 November - 3 December, 2005, Warsaw, Poland Grid Application User and Developer Course Details

TRAINING MATERIAL

A great deal of training material can be found in the NA3 Training Material Archive at:

http://www.egee.nesc.ac.uk/trgmat/index.html .

Current course material is available in:

- EGEE Induction
- LCG2 APIsWeb Services
- Globus Toolkit
- LCG2 Install and Admin
- UML for developing web services

The training team expects to be adding the first gLite material in the coming months .

Thanks for reading this newly redesigned newsletter. While the format has changed, it will still keep you up to date on events within the project and the European Grid community in general. You are receiving this newsletter as you have expressed an interest in the EGEE project. If you have any questions, comments or suggestions for the next issue, please feel free to contact owen.appleton@cern.ch.

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