

EIROforum Grids Group (EGG) report to the DG Assembly

1. The main activity of the EGG since the previous DG's Assembly at the end of April was a face-to-face meeting held at CERN on 14 September.
2. This meeting was well-attended, with Bird and Williams from CERN, Arshad and Farthing from EFDA-JET, Boulin, Hemberger and Rice from EMBL, de Paz from ESA (Ansari had a clashing commitment), Dolensky from ESO, Klotz from ESRF, and Ghosh and Johnson from ILL. In addition we had invited Groep from NIKHEF, Born from the Swiss national network (SWITCH), and Simonsen from UNI-C (Copenhagen).
3. All presentations (Bird, Groep and Simonsen) can be found via the EGG Wiki site at <http://www.euro-vo.org/twiki/bin/view/Egg/NotesMeeting20050914>
4. The general format consisted of presentations of three main topics (EGEE, EDUROAM and support for the mobile scientist, and Grid Security and EUGridPMA) during the morning, and structured discussions of what, if anything, we should aim to do in each area, during the afternoon.

EGG and EGEE Phase 2

5. Ian Bird, who is the EGEE Operations Manager, presented the present status of EGEE, and the plans for EGEE Phase 2. He emphasised that although particle physics and various biomedical applications have been the primary drivers, there are now some 40 different applications which have been ported to run on EGEE. One of the main successes of EGEE has been to put in place an operational structure to enable the ~160 participating sites to be monitored and "operated" on a continual (24*7) basis. That monitoring and "operation" is completely independent of the applications which each site supports. In the particle physics context the EGEE infrastructure (plus other grid infrastructures) forms the basis for the major LHC data and service challenges, where hundreds of thousands of jobs are processed over periods of many weeks.
6. EGEE had always been conceived as a 4-year project, but in view of the scale of investment the EC had required that it be treated as two 2-year projects. The Phase 2 proposal had been submitted on ~6 September 2005. In general terms the Phase 2 proposal is less about developing middleware, and more about improving the ease of deployment (more and better training, simpler deployment, etc.). A major emphasis is on helping significant pan-European applications to move to use the EGEE infrastructure.
7. We discussed the procedure by which a small group of sites having nothing to do with particle physics can "join EGEE". A typical first stage is to send someone such as Ian Bird to one of the sites to give a general introductory seminar and

start discussions. EGEE operates regular introductory training seminars, which one of our group (W-D.K) had attended, and of which he spoke well, and sending several of the local staff to those is a useful initial step. Then the local group should set up a small local test-bed and start testing. Depending on how things develop, more focussed training may be needed, perhaps a few-day workshop covering the software and services in more technical details, and EGEE and EGEE Phase 2 are in principle funded to provide that. If things develop well then a more formal "negotiation" with EGEE becomes necessary at some point. If the local community wishes to keep full control of all resources and not participate in broader resource sharing, then that is possible. The preference on the side of EGEE, however, is that participating communities should offer and benefit from providing and getting access to momentarily available resources, and that obviously requires agreement on the conditions for that mutual sharing.

8. We reviewed the status of grid deployment in the various organisations, and looked at what could be the next steps. One particularly attractive idea is that the Grenoble site - where EMBL, ESRF and ILL are all present (very specifically in the Partnership for Structural Biology - PSB) could form an excellent test bed. In addition EFDA-JET has a major requirement for Tokomak modelling, and there appears to be a strong user demand for that to be grid-enabled. One approach which is being explored would be to make a cluster available via EGEE and/or the UK National Grid Service.

EDUROAM and support for the mobile scientist

9. David Simonsen explained the objectives of EDUROAM. The basic idea is to provide support inside the academic and research community for "roaming users". We are often confronted with the fact that when we spend some hours or days at a "remote" site (for example, when we attend EIROforum meetings) it is often difficult, and can even be close to impossible, to obtain productive network connectivity, for a variety of reasons. EDUROAM aims to fix that problem, especially (but not exclusively) in the case of wireless access by users with a portable computer. The effort is coordinated through the European networking community (TERENA and GEANT-2).
10. There is an EDUROAM Website at www.eduroam.org and 18 European countries plus Australia are currently EDUROAM-enabled, with a growing number of universities providing support. We had a discussion of organisational and technical issues (including security). There was interest among all sites in exploring how they could join. In general the resource implications appear to be low, and we expect that one or more of the EIRO sites will start to make tests rather quickly. Simonsen has agreed to act as a "single point of contact" so that we can easily keep ourselves informed about our progress in this area.
11. The EDUROAM collaboration is actively working to improve the ease of installation of the EDUROAM client software.

12. Concerning security it was pointed out that each site can in principle (and many do, in practice) partition its network into one or more very secure systems plus a less secure system where visitors only have access to a limited range of services.

Grid Security and the EUGridPMA

13. David Groep provided us with a very clear introduction to the rather complex topic of grid security and certificates.
14. One basic message is that certificates, which can be thought of as identity documents or passports, and whose contents are protected via public key cryptography, are a fundamental component of grid security. Another message is that running a Certification Authority or CA (the body that issues these electronic IDs) is not to be undertaken lightly. Today CERN is a CA, dating from the period at the start of its work with grids when there were no other CAs, and both EFDA-JET and ESA are Registration Authorities or RAs, which can be thought of as local representatives of a CA.
15. In Europe a set of national CAs for research and education has been created, which are federated via the EUGridPMA (Policy Management Authority), which Groep chairs.
16. It can often make good sense for each EIRO to negotiate with its national CA(s) to become an RA, since the person requesting the certificate is required to be physically present at the RA when a certificate is first issued. On the other hand there will be sites, such as Garching or Grenoble, where the existence of a single RA will be sufficient, and that maybe will even be provided by a local national agency.
17. We agreed that the EIROs who have no experience with certificates should start a dialogue with their national CA(s) to explore the best way of ensuring some reasonable geographic cover. We will report on progress in this area at our next meeting, which will (provisionally) be held by video-conference on 9 December.
18. Groep raised the question of whether EIROforum (specifically the Grids Group) should be encouraged to join the EUGridPMA. Basically, as our use of grids increases, we are likely to increasingly depend on certificates issued by the EUGridPMA federation (and the corresponding federations which are being set up in Asia-Pacific and the Americas) and to find ourselves relying on the quality of those certificates. EUGridPMA is the body where CAs (people providing the certificates and determining their quality) meet with the partners who rely on the quality of those certificates. We agreed to raise this point at the next DG's Assembly.

Other issues

19. Using an e-mail consultation the chair had issued a letter of support from the EIROforum Grids Group for the EGEE Phase-2 proposal. The key passage states

“During its first phase, the EGEE project has worked on identifying and developing grid technologies with several EIROforum members, especially CERN and ESA, but also EMBL via the EMBRACE project. We encourage the EGEE consortium to expand significantly during its second phase on the range of scientific disciplines with which it works. The EIROforum Grids Group would be very interested to work with EGEE Phase 2 to help to establish the basis for an inter-operable grid infrastructure which could be used by all interested EIROforum members”.

20. The chair wishes to step down. Salim Ansari (ESA) had agreed to take over the chair, on the basis that it would be for a 12-month period, and that the successor had already been identified. Mark Johnson (ILL) agreed to be this designated successor.

David Williams