

NREN-Grids Workshop, Amsterdam, Thursday 12 May 2005 Meeting Report

TERENA hosted an NRENs-Grids Workshop on Thursday 12 May 2005, in Amsterdam. The purpose of the meeting was to discuss and evaluate the implications of Grid services on network provision in our community. The meeting was attended by 35 delegates representing 25 organisations in 21 countries.

The objectives of the day were to:

- Exchange information on current practice
- Reach a common understanding about the likely impact of Grids on NRENs
- Consider which initiatives and/or projects we need to engage with
- To compile a list of potential action points if necessary

The morning session consisted of seven presentations from the NRENs and members of the Grid community which were intended to inform discussions. The topics presented were:

- The PERT approach to enabling high-performance applications over Research Networks;
- Authentication and Authorisation Infrastructure;
- Support for Virtual Organisations;
- Network Monitoring for Grid Users;
- Security Incident Handling;
- Network Infrastructure;
- The EGEE Project and its relationship to NRENs.

During the discussions that took place during the afternoon, many practical issues were explored. These included the need for a common problem ticketing system between the grid community and the NRENs, the need to agree SLA's (although in the case of committing to premium IP services, this would be difficult), the need for End-to-End services. It was thought that the Grid Community has the view that the network has total reliability and therefore do not take into account the need to recover from network component failures in their middleware. The view that this will take several years to be fully implemented in production middleware was expressed.

There was an extended discussion regarding the equitable sharing of network resources and costs. Many in the Grid community see the network infrastructure as a free resource which is available in sufficient quantity to satisfy the needs of Grid users whatever the level of their demand. Conversely, the NRENs have to devise a mechanism where they have sufficient funding (either centrally provided or from user contribution) to put in place a reliable infrastructure to satisfy these demands. Whilst the provision of hybrid networks may go some way to address this issue by driving down the cost of high-bandwidth switched end-to-end links, we were left with the impression that a sustainable funding model is needed. Some delegates were interested to know the business model for Grids.

In discussing the provision of Authentication and Authorisation Infrastructures it was agreed that the Grid community could potentially gain a great deal by working with the NRENs who are currently working on AAls for general use. The NRENs and TERENA undertakes work in this area in the task force TF-EMC² which itself works with EuroGridPMA and the relevant GGF WGs.

It was agreed that communications and interaction between the NRENs and the Grid community as a whole must be improved. Some delegates thought that even within the Grid community communications needs improvement. It was felt that TERENA's dissemination role in the EGEE project had not provided much in the way of benefits in respect of providing good communication channels between the NREN community and the Grid community.

The delegates suggested that since they found this NREN-Grid workshop useful it should form the basis of a regular six-monthly event. It was agreed that whilst this first event had been focussed on the NREN perspective, future events should be publicised more widely in the Grid community. In that way members of the NREN and Grid communities could update one another and reach common understandings. It was agreed that integrating one of these meetings each year with a European GGF meeting would be advantageous and should be explored by TERENA.

It was agreed that such meetings would not be the fora in which detailed technical work would take place, but this should be left to existing TERENA Task Forces such as TF-EMC².

The list of issues that need solving includes:

- Global inter-working AAI
- Schedulable deterministic end-to-end pipes
- User & network administrator training
- Quality of service
- End-to-end security
- NRENs as a neutral point for connecting resources (in the sense of being a trusted broker)
- Understanding the real performance issues with a PERT in particular knowing how contentious flows complete with one another.

The full programme, presentation material and meeting report will be made available at: <http://www.terena.nl/tech/grid/nren-workshop.html>

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