

## PREFACE

The TERENA Networking Conference 2005 was organised by TERENA, the Trans-European Research and Education Networking Association and hosted by the Poznań Supercomputing and Networking Centre (PSNC), operator of the Polish Research and Education Network, PIONIER.

TERENA Networking Conferences are prominent annual events, offering an opportunity to present and discuss technical and strategic aspects of the provision of networks and services to the research and education community, and the corresponding research and development activities. They bring together leading figures from the research networking community in Europe and worldwide to learn about the latest developments and plans.

“Pervasive networking” refers to the next generation networking environment where information and communication technology are available everywhere, for everyone, at any time and for a wide range of applications. The conference provided a unique opportunity for over 480 technical networking specialists and users of research networks to meet and discuss requirements for the future.

Grids will play an increasingly important role in facilitating the large applications that scientists and researchers want, and the conference heard presentations on advances in Grid technology, Grid access and the administration of Grids. Optical networks are also poised to play a key role in delivering network facilities on the scale required for big, distributed scientific collaborations and advanced e-Science applications.

The bigger, faster networks create new opportunities in many fields such as realtime streaming, conferencing and multicast, and the monitoring of network performance is of crucial importance. Middleware becomes an even more vital element to paste it all together to deliver all of these services to the user in a pervasive way.

Mobility sessions at the conference included talks on future directions, on academic roaming with eduroam and eduPass and on the deployment and management of large-scale wireless networks.

Eight presentations on security addressed the need to provide the security services required to meet current threats to the networks.

User issues are becoming more important for the national research and education networks (NRENS) and they need to manage the services they offer. Special attention was paid this year to networking in Eastern Europe, including a panel discussion on future developments in the countries in the region.

An archive of the live stream of all of the conference presentations is at: <http://www.terena.nl/conferences/tnc2005/-programme/>

The papers published here represent the best of the papers presented at the TERENA Networking Conference 2005 in Poznań, Poland. Over one hundred and sixty extended abstracts were submitted in response to the call for papers, and after review, sixty-two of these were chosen by the Programme Committee for presentation at the conference. In addition, seventy-two recognised experts in their field were invited to give presentations at the conference.

All speakers were then invited to submit full papers for potential selection for this publication of the conference proceedings, and after review by the Programme Committee and other experts when necessary, those that were finally selected are published here. The papers represent a good mix of subjects covering the entire breadth of the main themes of the conference.

The programme committee was composed of members of the research and education networking communities in Europe and the United States. It was chaired by Olivier Martin (CERN) and included Roberto Barbera (INFN and the University of Catania), Artur Binczewski (PSNC), David Chadwick (University of Kent), Ted Hanss (University of Michigan School of Medicine), Janne Kanner (CSC), Jaroslaw Nabrzyski (PSNC), Victor Reijjs (HEAnet), Klaas Wierenga (SURFnet), Thomas Schmidt (HAW Hamburg and FHTW Berlin), Arne Sundström (Lund University) and Steve Williams (UKERNA). TERENA’s Vice President for Conferences, Shirley Wood also participated in the work of the programme committee, which was supported by TERENA’s PR & Conference Officer, Carol de Groot.

*Programme Committee  
of the TERENA Networking Conference 2005*