

NEWS FROM TERENA (149)

TERENA Networking Conference 2004 in Rhodes attended by more than 400 participants



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The TERENA Networking Conference 2004, which was held in Rhodes, Greece on 7-10 June 2004, was the twentieth annual European research and education networking conference. The Rhodes campus of the University of the Aegean provided a professional and attractive venue for more than 400 participants from Europe and beyond. A total of 129 speakers addressed the conference over the four days, giving invited talks or presenting papers selected by the conference programme committee.

An unprecedented number of meetings and events took place around the conference, including meetings of the TERENA task forces TF-AACE, TF-Mobility and TF-PR. Other TERENA bodies meeting in Rhodes were the TERENA General Assembly and the TERENA Technical Advisory Council. Workshops organised by the EU-funded projects 6NET and MOME were included as integral parts of the conference programme. In addition there were project meetings of MOME and 6NET/Euro6IX, and an IPv6 cluster meeting.

Juniper Networks hosted an R&E Summit that is becoming an annual conference event, as is the popular Cisco Systems Next-Generation Internet Symposium, held for the fourth year on the Thursday and Friday after the conference. Ted Hanss from Internet2 and Egon Verharen from SURFnet again teamed up to deliver a one-day, hands-on training on H.323 videoconferencing to a selected group of students already working in the area of providing videoconferencing services.

Birds-of-a-feather meetings provided conference attendees with the opportunity to flock together with like-minded people to discuss new ideas and activities of common interest in an informal setting. The conference included a wide variety of BoFs, both scheduled and ad-hoc. Topics included lower-layer technologies, EU Structural Funds (for the new countries that have recently joined the European Union), and product management; a well-attended BoF called "Beyond Lightpaths" discussed hybrid IP-optical networks. A meeting in preparation for a new task force on voice and video attracted members of previous TERENA task forces as well as new participants. Ken Klingenstein from Internet2 and Bob Morgan from the University of Washington assembled the middleware enthusiasts to discuss the definition, development and deployment of middleware infrastructures and to exchange experiences on, and look for possibilities for, global collaboration.

The conference theme "One Step Ahead" was a reflection of the belief that in many areas, European research and education networking leads in the development of networking infrastructures, technologies and services. The twenty years of development were summed up by Peter Kirstein from University College London in his talk in the Opening Plenary Session. Professor Kirstein explained that the first decade had brought large-scale backbones up to Megabits per second, resolved the protocol wars, made remote communication a standard service and provided Web access. The second decade brought backbones to low Gigabits per second, remote access to Megabits per second and enabled readily-available real-time communications. He predicted that the next decade will see the removal of the constraints of distance in academia.

The second and third day of the conference both kicked off with plenary sessions. Bob Jones from CERN and Jaap van Till from Stratix Consultancy in the Netherlands presented two important conference topics. Bob Jones' talk was called "Grids - the Next Killer Application". Just as twenty years ago the Internet revolutionised computer communications, Grids are now poised to have the same effect on distributed computer systems. He described the state of Grids today and outlined the plans for a production Grid facility for Europe as undertaken by the new EU-funded EGEE (Enabling Grids for E-science in Europe) project. The area of Grids was further discussed in parallel sessions, which addressed the subjects of an optical network infrastructure for global Grid computing, a distributed coding environment and the design of a commercial Grid service. Later in the conference, Grid technologies again featured in a session on "Greedy Applications", which are enabled by Grid technologies and require huge amounts of bandwidth. Jaap van Till introduced the important topics of vulnerability and security, explaining how the Internet is one of the vital infrastructures of society, and how we can try to make it safer and less vulnerable to attack.

The plenary speakers on the third day introduced two additional conference topics. Vijay Kumar spoke about the Open Courseware Initiative of the Massachusetts Institute of Technology, which aims to make the content of 2,000 classes freely available on the Web. He also spoke about the MIT-led key infrastructure initiative, OKI, which is developing an open architecture to promote the development of portable and sustainable applications for IT-based education. Erik Huizer, Professor of Internet Applications at the universities of Twente and Utrecht, wore another hat as Director Strategy, Innovation and Business Development with NOB Cross Media Facilities, and addressed the conference on the controversial and timely subject of "Copyright and the Internet: One Step Behind". He pointed out that copyright was invented to stimulate creativity and innovation but said that it seems to stifle rather than promote them now that we are in the digital era. He outlined the need for a comprehensive framework of legislation, technology and business practice that follows the spirit of copyright law, so that creators get their rewards, while at the same time users do not feel restricted.

The closing plenary speaker referred to the many topics and technologies that had been discussed throughout the conference and presented an important practical use for a broad range of them. Alan Noble from Buckingham County Council sketched a vivid picture of his project to bring life-long learning to the community. While his talk focussed on the United Kingdom, and more specifically on his project now being tested in the County of Buckinghamshire, it was easy to see how relevant the ideas and solutions are to many places in the world. The project is now successfully delivering accessible and attractive programmes to the community, contributing to the much-needed upgrading of job skills and at the same time enabling a broad spectrum of the population to participate fully in the new IT-based society that confronts them, particularly those whom the traditional educational structure has failed in the past.

The balance of each day of the conference was devoted to parallel sessions, running four at a time, with invited talks and some sixty selected papers on technologies for the "last mile", Quality of Service tools, services and performance monitoring, voice and video services, advanced network collaboration, and the middleware services of authentication and authorisation and "upperware". Special attention was given to optical networks, including practical examples of the rollout of some of the big optical networks worldwide. Some of the current TERENA activities were presented, as well as a record of twelve short papers on recent results. Mobility was the subject of two well-attended sessions, and a discussion on eLearning followed on from the introduction by Vijay Kumar in his plenary talk.

The venue meant that special consideration was given to issues affecting the Mediterranean and southeast European regions. Project meetings of the southeast European and Mediterranean networks were held before the conference, and two conference sessions were dedicated to networking prospects for southeast Europe, following on from the SEEREN project.

The conference was organised by TERENA and hosted by GRNET, the Greek Research and Technology Network, with local support from Triaena Tours and Congress S.A. Generous sponsorship for the conference was provided by Cisco Systems, Logicalis, OTE Business, the Municipality of Rhodes, OTEGlobe, IBM, Juniper Networks, POLYCOM, COLT, INTRACOM, Sun Microsystems, Extreme Networks, Global Crossing, Level 3 Communications and GRNET.

Papers and presentation slides from the conference as well as the video archive from each session are available from the Programme section of the conference website at

<http://www.terena.nl/conferences/tnc2004/>