Networking and telecommunication infrastructures play a vital role in modern society. The advancements in the range of network service offerings, their performance, quality of service, security, and ubiquity are relentless, despite global economy fluctuations. The demand for high bandwidth network infrastructures is continuously growing within both academic and industrial sectors. Grid computing and e-science distributed infrastructures are some examples of the new emerging paradigm of networking characterized by huge data traffic flows, that require an extremely high-performance network infrastructure. The need of high speed is emerging also in mobile, wireless network environments, where new wireless technologies promise data rates above 100 Mbps. Other high bandwidth network examples include community access networks, on demand optical networks and the Next Generation Internet.

To meet these challenges, experimental activities on infrastructures, such as testing, verification, deployment, are pivotal for academic researchers, developers, service managers and providers, as well as for end users. The management of research infrastructures is increasingly dependent on a business model that optimizes their operational price/performance ratio. For example, access to experimental infrastructures for real-life applications by specific user communities would benefit all the stakeholders involved: the end users, because of the experimental evaluation of the provided services, the researchers and infrastructure experimenters, because of the knowledge gained from case-study analysis, and the infrastructure managers, because of the business exploitation of the network.

The synergies created by opening research infrastructures to real life users offer all parties involved an enormous development potential, which needs to be thoroughly investigated and discussed. Tridentcom 2005 has been the first event to bring together all aspects related to experimental telecommunication infrastructures, creating a forum where telecommunication networks researchers, vendors, providers and users can exchange ideas on past experience, requirements, needs, visions for the establishment of such infrastructures. The meeting took place at Trento, capital of the Trentino province (Italy), heart of recent and rapidly growing R&D initiatives in Computer Science and Telecommunications.

A technical program committee was appointed for the review process, comprising 36 experts in the field. Each TPC member was in charge of assigning at least three reviews per paper. The selection process was rigorous and 21 out of 43 high-quality submissions were selected for publication. The conference had a strong international character, with contributions from Europe, the Americas and the Asia-Pacific region.

The technical program was organized around nine sessions: multimedia services, ubiquitous services, wireless testbeds and new capabilities, ORBIT testbeds, wireless testbeds and new capabilities, next generation wireless networks, protocol testbeds, optical and high-speed networks and testbeds and measurements. The conference scope has been broad, yet specifically focused on testbeds and research infrastructures. Most importantly, the conference also hosted 6 demos, thus providing a hands-on experience for the attendees.

It is a unique pleasure to thank all colleagues who contributed to the organization, the definition of the technical program, and the review process. See also http://www.tridentcom.org/ for additional conference details.

Conference General Chairs
Roberto Battiti, University of Trento, Italy
Mario Gerla, UCLA, USA

Technical Program Chairs
Javier Aracil, Universidad Publica de Navarra, Spain
Shivkumar Kalyanaraman, Rensselaer Polytechnic Institute, USA
Kenichi Mase, Niigata University, Japan