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Quality for All

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Preface

The Internet has nearly a ten year history as a global, public communication infrastructure. The two applications that have created the demand from private and business users have been the World-Wide Web and electronic mail. We have in the last five years seen the rapidly emerging popularity of peer-to-peer sharing of files, mostly for music, and to a more limited extent also the introduction of Internet telephony, television, and radio. These services place demands on the infrastructure that are higher with respect to quality and connectivity than web surfing and e-mail.

Mobile (cellular) telephony has rivaled the Internet with respect to growth during the last decade. The hitherto separate networks are now set to merge into a mobile Internet that will give wireless access to all Internet services. The ambition behind the Internet's continuing development is that it should serve as a general-purpose infrastructure and provide adequate support for all types of applications in terms of quality, connectivity, and cost. Thus the demands made on all Internet services must also be met by wireless access, and the circuit quality of a voice connection for mobile telephony must also be provided in the wired IP networks.

This volume of the Lecture Notes in Computer Science series contains 22 research papers that address in particular the problems associtated with providing quality of service to communication applications. The contributions pertain to traffic engineering and quality-of-service routing, performance evaluation, explicit mechanisms and methods for the provision of quality, and to quality of service in wireless access networks. The goal of the research community is to ensure sufficient quality from network services and end systems so that the communication applications appear natural to use and the intermediating systems do not interfere in the information exchange between the persons or the machines. We wish to support all applications for every user over any network; in short, to provide *quality for all!*

The papers in this volume were accepted for the Fourth COST Action 263 International Workshop on Quality of Future Internet Services, QoFIS 2003. It took place on October 1–2, 2003 at the Royal Academy of Engineering Sciences in Stockholm, Sweden, and was arranged by the Laboratory for Communication Networks of KTH, the Royal Institute of Technology. QoFIS 2003 followed the highly successful workshops in Zurich in 2002, Coimbra in 2001, and Berlin in 2000. It was the last workshop for the COST Action 263; it continues under the auspices of the European Union Network of Excellence E-NEXT. The workshop was organized in seven sessions and featured two invited talks by Dr. James Roberts of France Telecom R&D and Prof. Jon Crowcroft of the University of Cambridge. In addition to the main technical program, the third day of the workshop on October 3 was dedicated to QoS in wireless networks. The program consisted of invited presentations and was organized by Prof. Jens Zander of

the KTH Center for Wireless Systems and Dr. Bengt Ahlgren of the Swedish Institute of Computer Science.

The workshop received 73 submissions, which underwent strict peer review by members of the program committee or reviewers assigned by them; each member provided on average six reviews. It is our pleasure to acknowledge the excellent work of the program committee in helping to select the papers for the program from the submissions. This work was done in addition to the daily business and we were fortunate to have such a committed and careful group of experts to help us.

The arrangements for the workshop were handled by a wonderfully dedicated local organizations committee, by Prof. Peter Sjdin. They managed the Conf-Man paper handling system, the QoFIS web site (now with its own registered domain), the preparation of the camera-ready papers for the proceedings in this volume, and much more. We would also like to thank Mrs Barbro Redin, the secretary for LCN at KTH, who did most of the work for the conference regarding accommodations, registrations, and social events. We also extend our gratitude to our sponsors, in particular Vinnova, the Swedish Agency for Innovation Systems.

We learned about the untimely death of our dear colleage Prof. Olga Casals on June 11 and would like to dedicate this volume to her memory.

October 2003

Gunnar Karlsson
Michael Smirnov

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