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From QoS Provisioning to QoS Charging

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Preface

This volume of the Lecture Notes in Computer Science series contains the set of papers accepted for publication at the colocated QofIS/ICQT 2002 workshops, i.e. the 3rd COST Action 263 International Workshop on Quality of future Internet Services (QofIS) and the 2nd International Workshop on Internet Charging and QoS Technology (ICQT), both of which took place at the ETH Zürich, Switzerland, hosted by the Computer Engineering and Networking Laboratory, TIK.

QofIS 2002 was the third in a series of highly successful technical workshops and meetings on Internet services within the framework of the COST Action 263 “Quality of future Internet Services”, following previous events in Berlin, Germany in 2000 and in Coimbra, Portugal in 2001. ICQT 2002 was the follow-up to a vivid and extremely well-attended workshop on Internet economics and charging technology that took place within the framework of the Annual Meeting of the German Society for Computer Science (GI) and the Austrian Computer Society in 2001 in Vienna, Austria.

Combining QofIS and ICQT in the QofIS/ICQT 2002 event reflects a natural complement between Internet services technologies and their economics. The specific focus title “From QoS Provisioning to QoS Charging” was chosen deliberately in order to reflect current developments in this rapidly growing research area. As the emphasis lies on the technology for end-to-end and top-down provisioning of QoS, covering Internet as well as end-systems, focusing additionally on the economics of QoS and the required technology for charging support, both workshops taken together target the identification of solutions, investigations of their feasibility, and consolidation of technical and economic mechanisms to enable fast, guaranteed, and efficient provisioning of QoS-based services in the Internet. This is also reflected in the session titles, i.e., End-to-End QoS, Traffic Management, Traffic Marking and Queuing, Signaling, Multi-path Routing, QoS and Congestion Control, Charging Technologies, Pricing and Business Models, and Security.

These QofIS and ICQT workshops are aimed at bringing together researchers from the area of Internet technology and economy in both industry and academia to discuss recent and leading advances and to support further progress in these fields. By their nature, these workshops follow a single-track three-day program, in order to stimulate interaction and active participation. Altogether, the technical sessions of the QofIS and ICQT workshops contained 20 and 10 papers, respectively, which were selected out of 53 and 21 submissions, respectively, via a thorough reviewing process. Showing a truly international scope, the final program of both workshops included 20 European, 7 North and South American, and 3 Asian papers. To complete the technical program, keynote speakers were invited and a panel on “Premium IP: On the Road to Ambient Networking” was added.

QofIS/ICQT 2002 could not have taken place without the enthusiastic and never-abating support of a number of different organizations and people. Firstly, following the event series established during the last three years, COST Action 263 forms the

steering lead of these workshops. Secondly, we would like to acknowledge the support of our QofIS/ICQT 2002 patrons, especially IBM, Siemens, and Swisscom for their financial contributions. With their support, these companies demonstrate their interest in the international forum that QofIS/ICQT 2002 provides and the results it will disseminate.

Both workshops owe their technical and research success to all members of the two distinct technical program committees, who devoted their excellent expertise and much of their time to provide this year's QofIS/ICQT with an excellent technical program. Furthermore, we would like to express our thanks to Jan Gerke, Hasan, David Hausheer, Jan Mischke, and Pascal Kurtansky, who performed brilliantly in maintaining the QofIS/ICQT 2002 Web server, managing the electronic system ConfMan for paper submission and review, and dealing with camera-ready papers. In addition, all of them assisted us unceasingly in all phases of the workshops' preparations with technical and administrative help. Thanks go also to Annette Schicker, who ran the QofIS/ICQT 2002 registration and on-site offices and provided our participants with a first-rate service. Finally, we would like to thank the ETH Zürich and the TIK for hosting the QofIS/ICQT 2002 workshop in a convenient and stimulating environment.

August 2002

Burkhard Stiller
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