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Quality of Service in Multiservice IP Networks

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Preface

IP has become the dominant paradigm for all sorts of networking environments, from traditional wired networks to innovative networks exploiting WDM links and/or wireless accesses. Key to the success of IP is its flexibility that allows the integration within one network of a number of systems which at lower layers may have different characteristics, as well as the transport over a common infrastructure of the traffic flows generated by a variety of applications (web browsing, e-mail, telephony, audio and video distribution, multimedia multicasting, financial transactions, etc.) whose performance requirements may be extremely different. This situation has generated a great interest in the development of techniques for the provision of quality-of-service guarantees in IP networks offering a variety of services through a range of different user interfaces (wired and wireless, of different nature).

In 2001 and 2002, the Italian Ministry of Education, Universities and Research funded four research programmes on these topics, named IPPO (IP packet optical networks), NEBULA IP (techniques for end-to-end quality-of-service control in multidomain IP networks), PLANET-IP (planning IP networks), and RAMON (reconfigurable access module for mobile computing applications).

At the end of their activity, these four programmes organized in Milan, Italy in February 2003 the *Second International Workshop on QoS in Multiservice IP Networks* (QoS-IP 2003), for the presentation of high-quality recent research results on QoS in IP networks, and for the dissemination of the most relevant research results obtained within the four programmes.

This volume of the LNCS series contains the proceedings of QoS-IP 2003, including 1 invited paper as well as 53 papers selected from an open call. These very high quality papers provide a clear view of the state of the art of the research in the field of quality-of-service provisioning in multiservice IP networks, and we hope that these proceedings will be a valuable reference for years to come.

This volume benefitted from the hard work of many people: the researchers of IPPO, NEBULA, PLANET-IP, and RAMON, the paper authors, the reviewers, and the LNCS staff, Alfred Hofmann in particular. We wish to thank all of them for their cooperation. Special thanks are due to Luigi Fratta and Gian Paolo Rossi for taking care of the conference organization in Milan, and to Michela Meo, Claudio Casetti, and Maurizio Munafò for their help in the preparation of the technical program of QoS-IP 2003.

December 2002

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