

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

Marco Ajmone Marsan
Giorgio Corazza
Marco Listanti
Aldo Roveri

Organization

Program Committee

Program Committee Cochairs

Marco Ajmone Marsan (Politecnico di Torino)
Giorgio Corazza (Università di Bologna)
Marco Listanti (Università di Roma, La Sapienza)
Aldo Roveri (Università di Roma, La Sapienza)

Program Committee Members

Anthony Acampora	Stefano Giordano
Ian F. Akyildiz	Weibo Gong
Mohammed Atiquzzaman	Enrico Gregori
Tulin Atmaca	Ibrahim Habib
Andrea Baiocchi	Mounir Hamdi
Mario Baldi	Boudewijn Haverkort
Albert Banchs	Sundar Iyer
Roberto Battiti	Bijan Jabbari
Giuseppe Bianchi	Laszlo Jereb
Nicola Blefari-Melazzi	Denis A. Khotimsky
Chris Blondia	Daniel Kofman
Franco Callegati	Udo Krieger
Pietro Camarda	Santosh Krishnan
Andrew T. Campbell	Anurag Kumar
Augusto Casaca	T.V. Lakshman
Olga Casals	Jean-Yves Le Boudec
Claudio Casetti	Luciano Lenzini
Carla-Fabiana Chiasserini	Emilio Leonardi
Franco Davoli	Christoph Lindemann
Edmundo A. de Souza e Silva	Alfio Lombardo
Christophe Diot	Saverio Mascolo
Lars Dittman	Marco Mellia
Josè Enrìquez-Gabeiras	Michela Meo
Serge Fdida	Sandor Molnar
Enrica Filippi	Masayuki Murata
Viktoria Fodor	Michele Pagano
Andrea Fumagalli	Sergio Palazzo
Rossano Gaeta	Krzysztof Pawlikowski
Richard Gail	George C. Polyzos
Giorgio Gallassi	Ramon Puigjaner

VIII Organization

Carla Raffaelli
Roberto Sabella
Stefano Salsano
Fausto Saluta
Andreas Schrader
Matteo Sereno
Dimitris Serpanos
Rajeev Shorey
Aleksandra Smiljanic
Josep Solè-Pareta

Tatsuya Suda
Guillaume Urvoy-Keller
Yutaka Takahashi
Tetsuya Takine
Asser Tantawi
Phuoc Tran-Gia
Sergio Treves
Adam Wolisz

Organizing Committee

Organizing Committee Cochairs

Luigi Fratta (Politecnico di Milano)
Gian Paolo Rossi (Università di Milano)

Organizing Committee Members

Antonio Capone (Politecnico di Milano)
Fiorella Moneta (Politecnico di Milano)
Elena Pagani (Università di Milano)

Sponsoring Institution

Ericsson Lab Italy