

Preface

In recent years we have witnessed the explosion of multimedia traffic on the Internet. The availability of high-bandwidth connections together with the recent advances in high-quality video and audio compression techniques have created a fertile ground for the growth of multimedia applications such as interactive video on-demand, collaborative distance learning, and remote medical diagnosis. Furthermore, the availability of low bit rate video and audio applications (e.g., H.263 and G.728) and the proliferation of pervasive devices create a new demand for wireless multimedia communication systems. After a decade or more of research and development in multimedia networking, the research community has learned a number of lessons. First, increasing the capacity of the “best effort” networks and services does not provide an effective and permanent solution for offering a guaranteed Quality of Service (QoS). Second, the integration of service and network management is a key element in providing end-to-end service management. Third, management techniques for Internet multimedia services must be scalable and adaptive to guarantee QoS and maintain fairness with optimal network resource.

The IFIP/IEEE International Conference on Management of Multimedia Networks and Services 2001 was the fourth in its series aimed at stimulating technical exchange in the merging field of management of multimedia networking. The IFIP/IEEE MMNS is the premier IEEE/IFIP conference and known for its high-quality papers from various research communities. The aim of this conference is to provide a forum for exploratory research and practical contributions from researchers all over the world. A total of 106 papers were submitted to the conference, from North America, Europe, South America, The Middle East, and The Far East, of which 23 were accepted as full papers and 6 were accepted as short/position papers. The program covers a variety of research topics in the area of management of multimedia networks, i.e., QoS management, multi-point and multicast services management, monitoring, network programmability for multimedia services, policy-based management for multimedia services, packet scheduling and dropping techniques, resource management in wireless multimedia, configuration management of edge and core for multimedia services, wireless and mobile network management, multimedia traffic management, multimedia content protection, deployment of multimedia services, multimedia service engineering, multimedia session management and middleware support for management.

In closing we would like to thank the members of the Program Committee and the army of reviewers that helped us put together this year’s program. We are also indebted to Raouf Boutaba and Guy Pujolle in the Advisory Committee, for generously providing their advice and assistance. Finally, we are indebted to Hazem Hamed and Bin Zhang, for their assistance in handling the electronic paper submission process.

August 2001

Ehab S. Al-Shaer
Giovanni Pacifici

Conference Co-chairs

Ehab Al-Shaer, DePaul University, USA
Giovanni Pacifici, IBM Research, USA

Tutorial Chair

Mohammed Atiquzzaman, University of Oklahoma, USA

Organization Committee Chair

Greg Brewster, DePaul University, USA

Local Publicity Chair

Curt White, DePaul University, USA

MBONE Broadcast Specialist

John Kristoff, DePaul University, USA

Media Specialist

Paul Sisul, DePaul University, USA

Advisory Committee

Raouf Boutaba, University of Waterloo, Canada
Guy Pujolle, Université Pierre et Marie Curie, France
Wolfgang Zimmer, GMD FIRST, Germany

Program Committee

Ahmed Abutaleb, Lucent Technologies, USA
 Nazim Agoulmine, University of Evry, France
 Salah Aidarous, NEC America, USA
 Kevin Almeroth, University of California, Santa Barbara, USA
 Nikos Anerousis, VoiceMate.com, USA
 Mohammed Atiquzzaman, University of Oklahoma, USA
 Michael Borella, 3Com, USA
 Mohamed Bettaz, Philadelphia University, Jordan
 Andrew Campbell, Columbia University, USA
 Jean Pierre Claudé, University of Versailles, France
 Mohammed Erradi, ENSIAS, Morocco
 Metin Feridun, IBM Research, Switzerland
 Dominique Gaiti, University of Troyes, France
 German Goldszmidt, IBM Research, USA
 Mohsen Guizani, University of West Florida, USA
 Abdelhakim Hafid, Telcordia, NJ, USA
 Masum Hasan, Cisco Systems, USA
 Go Hasegawa, Osaka University, Japan
 Ahmed Helmy, University of Southern California, USA
 Muhammad Jaseemuddin, Nortel Networks, Canada
 Joaquim Celestino Júnior, UECE, Brazil
 Ahmed Karmouch, University of Ottawa, Canada
 Lundy Lewis, APRISMA, USA
 Derong Liu, University of Illinois, Chicago, USA
 Manu Malek, Lucent Technologies, USA
 Allen Marshall, Queen's University, UK
 Ahmed Mehaoua, University of Versailles, France
 Jose M. Nogueira, Universidade Minas Gerais, Brazil
 Jong-Tae Park, Kyungpook National University, Korea
 Puneet Sharma, HP Labs, USA
 Yuval Shavitt, Tel Aviv University and Bell Labs, USA
 Chien-Chung Shen, University of Delaware, USA
 Rolf Stadler, Columbia University, USA
 Burkhard Stiller, ETH Zurich, Switzerland
 Ralf Steinmetz, GMD, Germany
 José Neuman de Souza, Universidade Federal do Ceara, Brazil
 Alaa Youssef, IBM Research, USA

Organization Committee

Mouayad Albaghdadi, Motorola, USA
 Anthony Chung, DePaul University, USA
 Hazem Hamed, DePaul University, USA
 Yongning Tang, DePaul University, USA
 Bin Zhang, DePaul University, USA

Reviewers

Ahmed Abutaleb, Lucent Technologies, USA
Nazim Agoulmine, University of Evry, France
Salah Aidarous, NEC America, USA
Mouayad Albaghdadi, Motorola, USA
Ehab Al-Shaer, DePaul University, USA
Irfan Ali, Motorola, USA
Kevin Almeroth, University of California, Santa Barbara, USA
Hesham Anan, Microsoft, USA
Nikos Anerousis, VoiceMate.com, USA
Mohammed Atiquzzaman, University of Oklahoma, USA
Mohamed Bettaz, Philadelphia University, Jordan
Michael Borella, 3Com, USA
Raouf Boutaba, University of Waterloo, Canada
Greg Brewster, DePaul University, USA
Andrew Campbell, Columbia University, USA
Joaquim Celestino Júnior, UECE, Brazil
Lai-Tee Cheok, Columbia University, USA
Jerry Chow, Nortel Networks, USA
Anthony Chung, DePaul University, USA
Jean Pierre Claudé, University of Versailles, France
Vasilios Darlagiannis, Darmstadt University of Technology, Germany
Mohamed El-Darieby, Carleton University, Canada
Abdulmotalab El-Saddik, Darmstadt University of Technology, Germany
Mohammed Erradi, ENSIAS, Morocco
Metin Feridun, IBM Research, Switzerland
Bill Gage, Nortel Networks, Canada
Dominique Gaiti, University of Troyes, France
German Goldszmidt, IBM Research, USA
Mohsen Guizani, Univeristy of West Florida, USA
Abdelhakim Hafid, Telcordia, USA
Hazem Hamed, DePaul University, USA
Masum Hasan, Cisco Systems, USA
Go Hasegawa, Osaka University, Japan
Bassam Hashem, Nortel Networks, Canada
Ahmed Helmy, University of Southern California, USA
Stefan Hoermann, Darmstadt University of Technology, Germany
Sugih Jamin, University of Michigan, USA
Muhammad Jaseemuddin, Nortel Networks, Canda
Ahmed Karmouch, University of Ottawa, Canada
Sung-Ju Lee, Hewlett Packard Labs, USA
Lundy Lewis, APRISMA, USA
Hongyi Li, Nortel Networks, Canada
Ching-yung Lin, IBM TJ Watson Research Center, USA
Derong Liu, University of Illinois at Chicago, USA
Zhen Liu, IBM TJ Watson Research Center, USA
Dimitrios Makrakis, University of Ottawa, Canada
Manu Malek, Lucent Technologies, USA
Allen Marshall, Queen's University, UK

Ahmed Mehaoua, University of Versailles, France
Jonathan Munson, IBM TJ Watson Research Center, USA
Jose Nogueira, Universidade Minas Gerais, Brazil
Giovanni Pacifici, IBM Research, USA
Jong-Tae Park, Kyungpook National University, Korea
Guy Pujolle, Université Pierre et Marie Curie, France
Utz Roedig, Darmstadt University of Technology, Germany
Lopa Roychoudhuri, DePaul University, USA
Mohamed-Vall Salem, Université de Montréal, Canada
Puneet Sharma, HP Labs, USA
Yuval Shavitt, Tel Aviv University and Bell Labs, USA
Chien-Chung Shen, University of Delaware, USA
José Neuman de Souza, Universidade Federal do Ceara, Brazil
Rolf Stadler, Columbia University, USA
Ralf Steinmetz, GMD, Germany
Burkhard Stiller, ETH Zurich, Switzerland
Yongning Tang, DePaul University, USA
Olivier Verscheure, IBM Research, USA
Paul Ward, University of Waterloo, USA
Peter Westerink, IBM Research, USA
Tilman Wolf, Washington University, USA
Jason Yao, DePaul University, USA
Alaa Youssef, IBM Research, USA
Bin Zhang, DePaul University, USA
Yi Zhang, University of Illinois at Chicago, USA
Wolfgang Zimmer, GMD FIRST, Germany