

G. MULTIMEDIA AND VOIP* - SERVICES AND TECHNOLOGIES SYMPOSIUM

Technical Program Committee:

Co-Chair: Elliot Eichen, *Genuity, USA*

Co-Chair: Ryoichi Komiya, *Ryutsu Keizai University, Japan*

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Dave Oran, *Cisco, USA*

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Jakub Segen, *Bell Laboratories, Lucent Technologies, USA*

Mei Siegel, *Carnegie Mellon University, USA*

Henry Sinnreich, *WorldComm, USA*

Ralf Steinmetz, *Technical University Darmstadt, Germany*

Baruch Sterman, *Delta Three, Israel*

Heiner Stuetzgen, *NEC Europe, Germany*

Jing-ao Sun, *Beijing University of Posts and Telecommunications, China*

Steve Weinstein, *USA*

Wilhelm Wimmreuter, *Siemens AG, Germany*

Lars Wolf, *University of Karlsruhe, Germany*

Adam Wolisz, *Technical University Berlin, Germany*

Hisao, Yamamoto, *NTT Service Integration Lab, Japan*

Heather Yu, *Panasonic Research Lab, USA*

Sponsoring Technical Committee:

Multimedia Communications and Communications Switching and Routing

G01 MULTIMEDIA COMMUNICATION SYSTEMS (A)

Monday 29 April 2002

8:50 - 10:20

Edison, 5th Floor

Session Chair: S.-H. Gary Chan, *Hong Kong University of Science and Technology, Hong Kong*

Invited Talk - Market Creation Activities for New Broadband Services in Japan-HIKARI Service Architecture Consortium

Professor Hiroshi Yasuda, *University of Tokyo, Japan*

G01-1 Distributed Media Control for Multimedia Communications Services

Eric Cheung, Michael Jackson, Pamela Zave, AT&T Labs Research, USA

G01-2 A Global Multimedia Testbed: Malaysia's Multimedia Super Corridor

Kher Hui Ng, Ryoichi Komiya, *Multimedia University, Malaysia*

G01-3 ATM Network Impairment Evaluation of an Experimental 3D Videophone for Virtual Reality Telecommunication System

Nor Azhar Mohd Arif, Ryoichi Komiya, *Multimedia University, Malaysia*

G02 MULTIMEDIA COMMUNICATION SYSTEMS (B)

Monday 29 April 2002

10:40 - 12:10

Edison, 5th Floor

Session Chair: R. Chandramouli, *Stevens Institute of Technology, USA*

G02-1 Interworking between SIP and MPEG-4 DMIF for Heterogeneous IP Video Conferencing

Toufik Ahmed, Ahmed Mehaoua, *University of Versailles, France*, Raouf Boutaba, *University of Waterloo, Canada*

G02-2 Retransmission Scheduling in Layered Video Caches

Michael Zink, Jens Schmitt, Ralf Steinmetz, *Darmstadt University of Technology, Germany*

G02-3 Efficiently Providing Secure

Multimedia Conferencing in SEC

Giovanni Di Crescenzo, Hyong Sop Shim, Gardner Patton, Siddhartha Dalal, *Telcordia Technologies Inc., USA*, Olga Kornievskaya, *University of Michigan at Ann Arbor, USA*

G02-4 Adaptive and Energy Efficient Wavelet Image Compression for Mobile Multimedia Data Services

Dong-Gi Lee, Sujit Dey, *University of California at San Diego, USA*

G03 MULTIMEDIA COMMUNICATION SYSTEMS (C)

Monday 29 April 2002

13:40 - 15:10

Edison, 5th Floor

Session Chair: Melbourne Barton, *Telcordia Technologies, USA*

G03-1 VELVET: An Adaptive Hybrid Architecture for VERY Large Virtual Environments

Jauvane C. de Oliveira, Nicolas D. Georganas, *University of Ottawa, Canada*

G03-2 A Multi-Multicast Sharing Technique for Large-Scale Video Information Systems

Duc A. Tran, Kien A Hua, Mounir Yantaoui, *University of Central Florida, USA*

G03-3 Bitrate Adaptation Flow Control for Multimedia-on-Demand

Siu Ping Chan, Chi-Wah Kok, *Hong Kong University of Science and Technology, Hong Kong*

G03-4 Bit-Plane-Wise Unequal Error Protection for Internet Video Applications

Joohee Kim, Russell M. Mersereau, Yucel Altunbasak, *Georgia Institute of Technology, USA*

G04 MULTIMEDIA SERVICE PROTOCOLS

Monday 29 April 2002

15:30 - 17:00

Edison, 5th Floor

Session Chair: Ryoichi Komiya, *Ryutsu Keizai University, Japan*

G04-1 Rate and Robustness Control with RTP Monitoring Agent for Mobile Multimedia Streaming

T. Yoshimura, T. Ohya, T. Kawahara, M. Etoh, *NTT DoCoMo, Inc., Japan*

G04-2 Design of the Application-level Protocol for Synchronized Multimedia Sessions

Chun-Chuan Yang, *National Chi Nan University, Taiwan*

G04-3 Throughput Analysis of Tree-based Protocols for Many-to-Many Reliable Multicast

Wonyong Yoon, *Samsung Advanced Institute of Technology, Information and Communications University, Korea*, Dongman Lee, *Information and Communications University, Korea*, Hee Yony Youn, *Sungkyunkwan University, Korea*, Seok Joo Koh, *Electronics and Telecommunications Research Institute, Korea*

G04-4 Implementation of Fair Link Sharing through Modifications of the Linux Kernel

Julie Hatalsky, Neel Murarka, Paul Hatalsky, Hugh Smith, *California Polytechnic State University, USA*

G05 MULTIMEDIA SUPPORTING TECHNOLOGIES

Tuesday 30 April 2002

10:40 - 12:10

Edison, 5th Floor

Session Chair: Dave Boyer, *Avaya, USA*

Invited Talk: Recent Development in Multimedia and IT in Malaysia

Dr. Lee Sze Wei, *Multimedia University, Malaysia*

G05-1 On the Effectiveness of Buffer Sharing in Multimedia Server Network Switches with Self-Similar Traffic

Yunkai Zhou, Harish Sethu, *Drexel University, USA*

G05-2 Placement of Storage Capacity in Distributed Video Servers

Juan Segarra, Vicent Cholvi, *Universitat Jaume I, Spain*

G05-3 Optimal Linear Interpolation Coding for Server-based Computing

Fei Li, Jason Nieh, *Columbia University, USA*

G06 QoS FOR MULTIMEDIA AND IP TELEPHONY 1

Tuesday 30 April 2002
13:40 - 15:10
Edison, 5th Floor

Session Chair:

G06-1 Policing Aggregates of Voice Traffic with the Token Bucket Algorithm
M. J. C. Buchli, D. De Vleeschauwer, J. Janssen, G. H. Petit, Alcatel Bell, Belgium

G06-2 Channel Loss and Queuing Loss Tradeoffs in Voice Transmission over ATM Switching Systems

S. B. ZahirAzami, A. Yongacoglu, L. Orozco-Barbosa, A. Ali, University of Ottawa, Canada

G06-3 A General Method for Analyzing and Synthesizing Loss Patterns

Vilho Räisänen, Nokia Networks, Finland Ari Lakaniemi, Nokia Research Center, Finland

G06-4 Orthogonal Layered Multicast: Improving the Multicast Transmission of Multimedia Streams at Multiple Data Rates
M. Novaes, P. Westerink, C. Codella, IBM T. J. Watson Research Center, USA

G07 QoS FOR IP TELEPHONY (2)

Tuesday 30 April 2002
15:30 - 17:00

Edison, 5th Floor

Session Chair: Ajay Joesph, *IBasis, USA*

G07-1 Assessing Network Readiness for IP Telephony

M. Bearden, L. Denby, B. Karaçali, J. Meloche, D. T. Stott, Avaya Labs Research, USA

G07-2 Perceived Speech Quality Prediction for Voice over IP-based Networks

Lingfen Sun, Emmanuel C. Ifeachor, University of Plymouth, UK

G07.3 Performance Comparison between VBR Speech Coders for Adaptive VoIP Applications

F. Beritelli, S. Casale, G. Ruggeri, University of Catania, Italy

G07-4 A Passive Method for Monitoring Voice-over-IP Call Quality with ITU-T Objective Speech Quality Measurement Methods
Adrian E. Conway, Verizon, USA

G08 IP TELEPHONY - ISSUES AND TECHNOLOGY

Wednesday 01 May 2002
8:50 - 10:20

Edison, 5th Floor

Session Chair: Elliot Eichen, *Genuity, USA*

Invited Talk - IP Telephony, Convergence and the Regulatory Process

J. Scott Marcus, Federal Communications Commission, USA

G08-1 A Framework for 911 Service in a PBX LAN

Karthik Venkataraman, David Johnston, Deep Medhi, University of Missouri at Kansas City, USA

G08-2 A Platform Architecture to Support the Deployment of Distributed Applications
Tonghong Li, Andreas Hoffman, Marc Born, Ina Schieferdecker, GMD FOKUS, Germany

C11 VoIP AND QoS MANAGEMENT, A JOINT SESSION WITH COMMUNICATIONS QoS AND RELIABILITY

Wednesday 01 May 2002
10:40 - 12:10

Carnegie, 5th Floor

Session Chair: Jergen Quittek, *NEC Europe, Germany*

C11-1 End-to-End Measurement Based Admission Control for VoIP Networks

Kenichi Mase, Yuichiro Toyama, Niigata University, Japan

C11-2 Characterizing Packet Audio Streams from Internet Multimedia Applications

Chen-Nee Chuah, University of California at Davis, USA, Randy H. Katz, University of California at Berkeley, USA

C11-3 TCP-Friendly Transmission of Voice over IP

F. Beritelli, G. Ruggeri, G. Schembra, University of Catania, Italy

C11-4 Architecture and Design of an Enhanced H.323 VoIP Gateway

T. Dagiuklas, P. Galiotos, INTRACOM S.A., Greece

H NEXT GENERATION INTERNET

Technical Program Committee

Co-Chair: Stan Moyer, *Telcordia Technologies, USA*

Co-Chair: Michael Devetsikiotis, *North Carolina State University, USA*

Alagan Anpalagan, *University of Toronto*
S.-H. Gary Chan, *Hong Kong University of Science and Technology*

Ted Faber, *USC Information Sciences Institute*
Nelson Fonseca, *State University of Campinas, Brazil*

David Harle, *University of Strathclyde, Scotland*
Bassam Hashem, *Nortel Networks*

Mohammad Ilyas, *Florida Atlantic University*
Muhammad Jaseemuddin, *Nortel Networks*

Sung-Ju Lee, *HP Labs*
Pascal Lorenz, *University of Haute-Alsace, France*

Amitabh Mishra, *Virginia Polytech*
Vishal Misra, *University of Massachusetts*

Tim Moors, *Polytechnic University*
Jogesh Muppala, *Hong Kong University of Science & Technology*

Eric Nahum, *IBM Watson Research*
Algirdas Pakstas, *University of North London*

Symeon Papavassiliou, *New Jersey Institute of Technology*

Elizabeth Royer, *UC Santa Barbara*
Behcet Sarikaya, *Alcatel USA*

Ray Sundararaman, *Lucent*
Joe Touch, *USC Information Sciences Institute*

Sponsoring Technical Committees:

Communications Systems Integration and Modeling, Computer Communications, Communications Software, Personal Communications

H01 NEXT GENERATION INTERNET BANDWIDTH MANAGEMENT

Monday 29 April 2002
8:50 - 10:20

Alvin, 5th Floor

Session Chair: Michael Devetsikiotis, *North Carolina State University, USA*

Invited Talk: Next Generation Internet: What's Missing?

Will Leland, *Telcordia, USA*

H01-1 A New Bandwidth Sharing Scheme for Non-Responsive Multicast Flows
Fethi Filali, Walid Dabbous, *INRIA, France*

H01-2 An Early Bandwidth Notification (EBN) Architecture for Dynamic Bandwidth Environment

Debojyoti Dutta, *USC / ISI, USA*, ongguang Zhang, *HRL Laboratories, L.L.C., USA*

H01-3 Prefix Caching Assisted Periodic Broadcast for Streaming Popular Videos
Yang Guo, Don Towsley, *University of Massachusetts at Amherst, USA*, Subhabrata Sen, *AT&T Labs - Research, USA*