

TECHNICAL PROGRAM

NI08.4 Optimizing Network Resource Sharing in Grids

L. Marchal, École Normale Supérieure de Lyon, France
P. Vicat-blanc Primet, École Normale Supérieure de Lyon, France
Y. Robert and J. Zeng, École Normale Supérieure de Lyon, France

NI09 QoS

Thursday, 1 December 2005 • 4:00–5:45PM
Room: Complex 226/Level Two/America's Center
Session Chair: **Kenji Yoshigoe**, University of Arkansas at Little Rock

NI09.1 Information Exchange in DiffServ Pricing

Nan Jin, University of California, Irvine, USA, Scott Jordan, University of California, Irvine, USA

NI09.2 A New Fair Bandwidth Allocation Algorithm for Multimedia Multicasting in DiffServ

Lie Qian, Yiyang Tang and Yuke Wang, University of Texas at Dallas, USA
Bashar Bou-Diab and Wladek Olesinski, Alcatel, Canada

NI09.3 End-to-End Delay Satisfaction Balancing Routing

Mohamed Ashour and Tho Le-Ngoc, McGill University, Canada

NI09.4 On Designing Traffic Controller for AQM Routers Based on Robust U-Analysis

Qiang Chen and Oliver W. W. Yang, University of Ottawa, Canada

NI09.5 QoS-Aware Object Replica Placement in CDNs

Zhiyong Xu, Suffolk University, USA, Laxmi Bhuyan, University of California, Riverside, USA

Autonomic Internet Symposium

Chair: **Marco Ajmone Marsan**, Politecnico di Torino, Italy
Vice Chairs: **Marcus Brunner**, NEC Europe Ltd., Germany, **Wanjiun Liao**, National Taiwan University and **Claudio Casetti**, Politecnico di Torino, Italy

AN01 Peer-to-Peer Communications - I

Tuesday, 29 November 2005 • 10:30AM–12:15PM
Room: Pershing/Lindall/Level One/Renaissance Grand Hotel
Session Chair: **Marco Ajmone Marsan**, Politecnico di Torino, Italy

AN01.1 Search Time in Unstructured Peer-to-Peer Networks with Clustered Demands

Saurabh Tewari and Leonard Kleinrock, University of California at Los Angeles, USA

AN01.2 Gambling Heuristic on a Chord Ring

Dario Rossi, Politecnico di Torino, Italy
Ion Stoica, University of California, Berkeley, USA

AN01.3 Harnessing SIP for Autonomous Mobile Peer-to-Peer Networking

Douglas Howie, Erkki Harjula, Jussi Ala-Kurikka and Mika Ylianttila, University of Oulu, Finland

AN01.4 On the Stability of Chord-based P2P Systems

Andreas Binzenhöfer, Dirk Staehle, and Robert Henjes, University of Würzburg, Germany

AN02 Routing

Tuesday, 29 November 2005 • 2:00–3:45PM
Room: Complex 226/Level Two/America's Center
Session Chair: **Kohei Shiimoto**, NTT, Japan

AN02.1 Route Optimization among a Group of Multihomed Stub Networks

Yong Liu and A. L. Narasimha Reddy, Texas A&M University, USA

AN02.2 Measurement of Highly Active Prefixes in BGP

Ricardo V. Oliveira and Rafit Izhak-Ratzin, University of California, Los Angeles, USA, Beichuan Zhang, University of Arizona, USA
Lixia Zhang, University of California, Los Angeles, USA

AN02.3 Predictive Mobility and Location-Aware Routing Protocol in Mobile Ad hoc Networks

Tse-En Lu and Kai-Ten Feng, National Chiao Tung University, Taiwan

AN02.4 On Routing Asymmetry in the Internet

Yihua He, Michalis Faloutsos and Srikanth Krishnamurthy, University of California, Riverside, USA, Bradley Huffaker, University of California, San Diego, USA

AN02.5 InterSensorNet: Strategic Routing and Aggregation

Min-You Wu, Shanghai Jiao Tong University, China
Wei Shu, The University of New Mexico, USA

AN03 Overlay Networks

Tuesday, 29 November 2005 • 4:00–5:45PM
Room: Parkview/Aubert/Mezzanine Level/Renaissance Grand Hotel
Session Chair: **Miki Yamamoto**, Osaka University, Japan

AN03.1 ServerCast: Efficient Cooperative Bulk Data Distribution Scheme for Content Distribution Networks

Tin-Man T. Kwan and Kwan L. Yeung, University of Hong Kong, PR China

AN03.2 Last Mile Problem in Overlay Design

Parijat Dube, Zhen Liu, Sambit Sahu and Jeremy Silber, IBM T.J. Watson Research Center, USA

AN03.3 TACON: Tactical Construction of Overlay Networks

Jawwad Shamsi, Monica Brockmeyer and Liya Abebe, Wayne State University, USA

AN03.4 Application Layer Addressing, Routing and Naming Framework for Overlays

Damien Magoni and Pascal Lorenz, Université de Haute Alsace, France

AN03.5 A New Peer-to-Peer Overlay Network for Scalable Content-based Publish/Subscribe Systems

Yongjin Choi, Hyunbin Lee, Keuntae Park, Daeyeon Park, Korea Advanced Institute of Science and Technology, Korea

AN04 Network Management

Tuesday, 29 November 2005 • 4:00–5:45PM
Room: Complex 226/Level Two/America's Center
Session Chair: **Nelson Fonseca**, University Estadual de Campinas, Brazil

AN04.1 Autonomic Power Management Schemes for Internet Servers and Data Centers

Lykomidis Mastroleon, Nicholas Bambos, Christos Kozyrakis and Dimitris Economou, Stanford University, USA

AN04.2 A Unified Resource Switching for Real-Time Communication in an Ubiquitous Networking Environment

Naoki Imai, Manabu Isomura and Hiroki Horiuchi, KDDI R&D Laboratories Inc., Japan

AN04.3 Toward an Autonomic Control of Wireless Access Networks

N. Blefari-Melazzi, University of Rome "Tor Vergata", Italy
D. Di Sorte, M. Femminella and G. Reali, University of Perugia, Italy

AN04.4 Using Feedback Control to Manage QoS for Clusters of Servers Providing Service Differentiation

Wael Hosny Fouad Aly and Hanan Lutfiyya, The University of Western Ontario, Canada

AN04.5 Evaluation of Router Address Autoconfiguration Time during Network Initialization for Centralized and Distributed Schemes

Josep Mangués-Bafalluy, Centre Tecnològic de Telecom. de Catalunya, Spain, Gabriel Martínez-Pérez, Universitat Politècnica de Catalunya, Spain
Guillaume Chelius, CITI/ARES-INRIA, France

AN05 Peer-to-Peer Communications - II

Wednesday, 30 November 2005 • 10:30AM–12:15PM
 Room: Pershing/Lindall/Level One/Renaissance Hotel
 Session Chair: Marcus Brunner, NEC, Germany

- AN05.1 Efficient Person Searching in a Peer-to-Peer Network**
 Meng I. Lei, S.-H. Gary Chan and Albert Kai-Sun Wong, The Hong Kong University of Science and Technology, Hong Kong
- AN05.2 Content Management Policies in Peer-to-Peer File Sharing Networks**
 Michela Meo and Fabio Milan, Politecnico di Torino, Italy
- AN05.3 An Efficient Random Walks -based Approach to Reducing File Locating Delay in Unstructured P2P Network**
 Qianbing Zheng, Xicheng Lu, Peidong Zhu and Wei Peng, National University of Defense Technology, PR China
- AN05.4 A Markov Model of a Freerider in a BitTorrent P2P Network**
 Mario Barbera, Alfio Lombardo, Giovanni Schembra and Mirco Tribastone, University of Catania, Italy
- AN05.5 Optimizing Neighbors by Objective Functions in Peer-to-Peer Networks**
 Michael Parker, Amir Nader-Tehrani, Alok Nandanand Giovanni Pau, University of California, Los Angeles, USA

AN06 Autonomic Internet Session

Wednesday, 30 November 2005 • 2:00–5:00PM
 Room: Majestic C/Level Two/Renaissance Hotel
 Session Chair: N/A

- AN06.01 Call Level Service Differentiation for Efficient SLA Management**
 Yu Cheng, Weihua Zhuang and Alberto Leon-Garcia, University of Toronto, Canada
- AN06.02 Load-Balanced CICB Packet Switch with Support for Long Round-Trip Times**
 Roberto Rojas-Cessa, Ziqian Dong and Sotirios G. Zivavras, New Jersey Institute of Technology, USA
- AN06.03 A New Traffic Aggregation Technique Based On Markov Modulated Poisson Processes**
 Ming Yu, State University of New York, USA, David G. Daut, Rutgers University, USA
- AN06.04 QoS Guarantees of Point-to-Multipoint VPLS Connections**
 Najah Abu Ali, Queen's University, Canada, Hussein Mouftah, University of Ottawa, Canada, Saeed Gazor, Queen's University, Canada
- AN06.05 Multicast Tree in MPLS Network**
 Bernard Cousin, IRISA/INRIA Rennes, France
- AN06.06 Cost Effective Ethernet Routing Schemes for Dynamic Environments**
 Filip De Greve, Ghent University, Belgium, Frederic Van Quickenborne, Ghent University, Belgium, Filip De Turck, Ingrid Moerman and Piet Demeester, Ghent University, Belgium
- AN06.07 Efficient Buffer Management for TCP Services**
 J. Stepanek, M. Y. Sanadidi and M. Gerla, University of California, Los Angeles, USA
- AN06.08 Maximum Connectivity and Maximum Lifetime Energy-Aware Routing for Wireless Sensor Networks**
 Charles Pandana and K. J. Ray Liu, University of Maryland, USA
- AN06.09 Estimating Parameters of the Pareto Distribution by Means of Zipf's Law: Application to Internet Research**
 Edward Chlebus and Rahul Ohri, Illinois Institute of Technology, USA
- AN06.10 A Packet Ring Fairness Protocol and Its Impact on TCP Fairness**
 Marcos R. Salvador CPqD Telecom & IT Solutions, Brazil
 Marcelo M. Uesono, State University of Campinas, Brazil
 Nelson L. S. da Fonseca, State University of Campinas, Brazil

AN07 Miscellaneous Topics

Wednesday, 30 November 2005 • 4:00–5:45PM
 Room: Parkview/Aubert/Mezzanine Level/Renaissance Grand Hotel
 Session Chair: Claudio Casetti, Politecnico di Torino, Italy

- AN07.1 An Adaptive Callback Cache Access for Wireless Internet**
 Yang Xiao and Hui Chen, University of Memphis, USA
- AN07.2 Performance Analysis of Server-based Poll-Each-Read in Wireless Internet**
 Hui Chen and Yang Xiao, University of Memphis, USA
 Xuemin Shen, University of Waterloo, Canada
- AN07.3 Composition of Context-Aware Services Using Policies and Models**
 Kun Yang, Shumao Ou, Antonio Liotta and Ian Henning, University of Essex, UK
- AN07.4 Toward Secure Autonomic Pervasive Environments**
 Mohamed Ganna and Eric Horlait, Université Pierre et Marie Curie, France
- AN07.5 Adaptive Multiloop PI Rate-based Controller Design for a MIMO IP Router -based on Phase Margin**
 ang Hong and Oliver W.W. Yang, University of Ottawa, Canada

AN08 Traffic Management

Thursday, 1 December 2005 • 10:30AM–12:15PM
 Room: Pershing/Lindall/Level One/Renaissance Grand Hotel
 Session Chair: Trisha Anjali, Illinois Institute of Technology, USA

- AN08.1 Virtual Network -based Autonomic Network Resource Control and Management System**
 Myung Sup Kim, Ali Tizghadam and Alberto Leon-Garcia, University of Toronto, Canada, James Won-Ki Hong, POSTECH, Korea
- AN08.2 Traffic Engineering for Hose-Model VPN Provisioning**
 Yu-Liang Liu and Yeali S. Sun, National Taiwan University, Taiwan
 Meng Chang Chen, Academia Sinica, Taiwan
- AN08.3 Recursive Parameter Estimation for the Dynamic Packet Loss System**
 Dongli Zhang and Dan Ionescu, University of Ottawa, Canada
- AN08.4 An Adaptive Transport Protocol for Balanced Multihoming of Real-Time Traffic**
 M. Fiore and C. Casetti, Politecnico di Torino, Italy
- AN08.5 A Dynamic Pricing Approach for Self-Organized Mobile Ad hoc Networks**
 Zhu Ji, Wei Yu and K. J. Ray Liu, University of Maryland, USA

AN09 Network Probing and Evaluation Tools

Thursday, 1 December 2005 • 4:00–5:45PM
 Room: Parkview/Aubert/Mezzanine Level/Renaissance Grand Hotel
 Session Chair: Tsung-nan Lin, National Taiwan University, Taiwan

- AN09.1 Web User Session Characterization via Clustering techniques**
 A. Bianco, G. Mardente, M. Mellia, M. Munafò and L. Muscariello, Politecnico di Torino, Italy
- AN09.2 A Simulation Tool for Tuning IP Network Parameters Based on**
 Mario Barbera, Andrea G. Busà, Alessandro G. Di Nuovo, Alfio Lombardo and Giovanni Schembra, University of Catania, Italy
- AN09.3 One Way Delay Trend Detection for Available Bandwidth Measurement**
 Alexander Chobanyan, Matt Mutka, Zhiwei Cen and Ning Xi, Michigan State University, USA
- AN09.4 A Proposal for a Mobile Communication Traffic Forecasting Method Using Time-Series Analysis for Multi-Variate Data**
 Yoshikazu Akinaga, Shigeru Kaneda, Noriteru Shinagawa and Akira Miura, NTT DoCoMo, Inc., Japan
- AN09.5 Handoff Ordering Using Link Quality Estimator for Multimedia Communications in Wireless Networks**
 Tsung-Nan Lin and Po-Chiang Lin, National Taiwan University, Taiwan