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Tenth International Workshop on Quality of Service (IWQoS 2002)

Final Program

May 15-17, 2002

*Wyndham Miami Beach Resort
Miami Beach, Florida, USA*

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<http://www.cs.virginia.edu/~iwqos/>

Wednesday, May 15, 2002

- 7:00am **Breakfast and Registration** Regency Ballroom
- 8:45–10am **Keynote Address** Regency Ballroom
After the Internet
Ken Birman, Cornell University
- 10–10:30am **Break**
- 10:30–12 pm **Session 1: Storage** Regency Ballroom
Session Chair: *Nina Bhatti (University of Arizona)*
- QoS-Driven Server Migration for Internet Data Centers
S. Ranjan (Rice University), J. Rolia (HP Laboratories), H. Fu, E. Knightly (Rice University)
 - An Observation-based Approach Towards Self-Managing Web Servers
P. Pradhan, R. Tewari, S. Sahu (IBM T.J. Watson Research Center), A. Chandra, P. Shenoy (University of Massachusetts)
 - An Adaptive Control Framework for QoS Guarantees and its Application to Differentiated Caching Services
Y. Lu, T. Abdelzaher, C. Lu, G. Tao (University of Virginia)
- 12–1:30pm **Lunch** Mediterranean West
- 1:30–3pm **Session 2: Denial of Service and Pricing** Regency Ballroom
Session Chair: *Edward Knightly (Rice University)*
- Defending Against Distributed Denial-of-Service Attacks with Max-min Fair Server-centric Router Throttles
D. K. Y. Yau (Purdue University), J. C. S. Lui (Chinese University of Hong Kong), F. Liang (Purdue University)
 - Mitigation of DoS Attacks through QoS Regulation
A. Garg, A.L. Narasimha Reddy (Texas A&M University)
 - Simplification of Network Dynamics in Large Systems
X. Lin, N. B. Shroff (Purdue University)
- 3–3:30pm **Coffee Break**
- 3:30–5pm **Session 3: Scheduling** Regency Ballroom
Session Chair: *Kevin Jeffay (University of North Carolina, Chapel Hill)*
- End-to-End Delay Guarantess for Multi-Channel Schedulers
J. A. Cobb, M. Lin (University of Texas at Dallas)
 - Aliquem: a Novel DRR Implementation to Achieve Better Latency and Fairness at $O(1)$ Complexity
L. Lenzi, E. Mingozzi, G. Stea (University of Pisa)
 - The Performance of GPS and EDF with Temporary Sessions
M. Andrews, L. Zhang (Bell Laboratories)
- 7:00pm **Hors d'Oeuvres Reception** North Terrace

Thursday, May 16, 2002

- 7:30am **Breakfast and Registration** Regency Ballroom
- 8:30–10am **Session 4: Multicast** Regency Ballroom
Session Chair: *Shivkumar Kalyanaraman (RPI)*
- Probe-Based Admission Control for Multicast
Ignacio Más, V. Fodor, G. Karlsson (KTH, Royal Institute of Technology)
 - A Graph Theoretic Approach to Bounding Delay in Proxy-Assisted, End-System Multicast
N. M. Malouch (INRIA), Z. Liu (IBM T.J. Watson Research Center), D. Rubenstein (Columbia University), S. Sahu (IBM T.J. Watson Research Center)
 - A Case for Tree Evolution in QoS Multicasting
A. Chakrabarti, A. Striegel, G. Manimaran (Iowas State University)
- 10–10:30am **Break**
- 10:30–12pm **Session 5: Bandwidth Allocation** Regency Ballroom
Session Chair: *Ness Shroff (Purdue University)*
- A SLA Framework for QoS Provisioning and Dynamic Capacity Allocation
M. Singh Dang (Cornell University), R. Garg (IBM India Research Lab), R. Singh, Randhawa, H. Saran (IIT-Delhi)
 - Robust Bandwidth Allocation Strategies
O. Heckmann, J. Schmitt, R. Steinmetz (Darmstadt University of Technology)
 - A Scalable and Robust Solution for Bandwidth Allocation
S. Machiraju, M. Seshadri, I. Stoica (University of California, Berkeley)
- 12–1:30pm **Lunch** Mediterranean West
- 1:30–3pm **Session 6: Systems** Regency Ballroom
Session Chair: *Lars Wolf (University of Braunschweig)*
- QoS-Aware Component Frameworks
M. A. de Miguel (Technical University of Madrid)
 - Operating System Support for Network Control: a Virtual Network Interface Approach for End-Host OSs
T. Okumura (WIDE Project), D. Mossé (University of Pittsburgh), M. Minami, O. Nakamura (Keio University)
 - A QoS Framework for Clusters to Support Applications with Resource Adaptivity and Predictable Performance
S. Senapathi, D. K. Panda (Ohio State University), D. Stredney (Ohio Supercomputer Center), H.-W. Shen (Ohio State University)
- 3–3:30pm **Break**

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Thursday, May 16, 2002 (cont'd)

3:30–5 pm **Session 7: Networking** Regency Ballroom
Session Chair: Dan Rubenstein (*Columbia University*)

- Supporting Low Latency TCP-Based Media Streams
A. Goel, C. Krasic, K. Li, J. Walpole (Oregon Graduate Institute)
- The Packet Size Dependence of Packet Pair Like Methods
A. Pásztor (University of Melbourne and Ericsson Hungary R&D), D. Veitch (Ericsson Hungary R&D)
- Performance Evaluation of a QoS-Aware Framework for Providing Tunable Consistency and Timeliness
S. Krishnamurthy, W. H. Sanders (University of Illinois, Urbana-Champaign), M. Cukier (University of Maryland, College Park)

Friday, May 17, 2002

7:30am **Breakfast and Registration** Regency Ballroom

8:30–10am **Session 8: Wireless** Regency Ballroom
Session Chair: *Stephen Patek (University of Virginia)*

- Achieving Efficient Channel Utilization and Weighted Fairness for Data Communications in IEEE 802.11 WLAN under the DCF
D. Qiao, K. G. Shin (University of Michigan)
- Assured and Expedited Forwarding Extensions for IEEE 802.11 Wireless LAN
A. Banachs (NEC Europe), M. Radimirsch (University of Hannover), X. Pérez (NEC Europe)
- Quality of Service Scheduling in Cable and Broadband Wireless Access Systems
M. Hawa, D. W. Petr (University of Kansas)

10–10:30am **Break**

10:30–12pm **Session 9: IP Telephony** Regency Ballroom
Session Chair: *Thomas Gross (ETH Zurich)*

- Experiences with Evaluating Network QoS for IP Telephony
M. Bearden, L. Denby, B. Karaçali, J. Meloche, D. T. Stott (Avaya Labs Research)
- Speech Recognition Performance as an Effective Perceived Quality Predictor
W. Jiang, H. Schulzrinne (Columbia University)
- Resource Management for IP Telephony Networks
M. C. Caesar (University of California, Berkeley), D. Ghosal (University of California, Davis), R. H. Katz (University of California, Berkeley)