



IEEE Workshop on  
IP Operations & Management  
October 1 – 3, 2003  
Kansas City, Missouri, USA  
<http://conrel.sice.umkc.edu/ipom2003/>



## **Main Workshop Program**

**All events at Marriott-Country Club Plaza, unless specified otherwise**

**October 1, 2003 (Wednesday)**

**Workshop Reception (sponsored by Sprint Corporation): 5:30PM – 6:30 PM**

**October 2, 2003 (Thursday)**

**8:45AM – Welcome: *William Osborne, Dean, School of Computing & Engineering, University of Missouri-Kansas City***

**9:00AM – 9:45AM Keynote Speaker: *Robert Doverspike, Division Manager, AT&T Labs (Research)***

**9:45AM – 10:05AM Coffee Break**

**Session-1: Analysis and Performance / 10:05AM – 11:55 AM**

"Performance of IP Address Fragmentation Strategies for DDoS Traceback" Ihab Hamadeh (Pennsylvania State University), George Kesidis (Pennsylvania State University).

"Analysis of Adjusted Probabilistic Packet Marking" Bilal Rizvi (University of Cincinnati), Emmanuel Fernandez (University of Cincinnati).

"Traffic Balancing via Smart Packets" Erol Gelenbe (University of Central Florida), Ricardo Lent (University of Central Florida), Arturo Nunez (University of Central Florida).

"Application Layer Striping: A Deployable Technique for Providing Quality of Service" Raheem Beyah, Raghupathy Sivakumar, John Copeland (Georgia Tech).

"Flow-Level Upstream Traffic Behavior in Broadband Access Networks: DSL versus Broadband Fixed Wireless" Amit Sinha, Kenneth Mitchell, Deep Medhi (University of Missouri - Kansas City).

## **Lunch & Panel Discussion / 12:00noon – 1:20PM**

*Panel Moderator: Renee Keffer, Director, Network Design, Sprint Corporation*

*Panelists: Karthik Ramasamy (Juniper Networks), Greg Monaco (Great Plains Networks/Internet2), Hadriel Kaplan (Avici Systems)*

## **Session-2: System and Internetworking / 1:30PM – 3:00PM**

"Managing IPv4-to-IPv6 Transition Process in Cellular Networks and Introducing New Peer-to-Peer Services" Juha Wiljakka (Nokia), Jonne Soininen (Nokia).

"IPv6 migration implications for Network Management - Introducing the Site Transitioning Framework (STF)" Michael Mackay (Lancaster University), Christopher Edwards (Lancaster University).

"Performance Evaluation of Telephony Routing over IP (TRIP)" Matthew Schlesener (Sprint), Victor Frost (Univ. Kansas).

"MobyDick FlowVis - Using NeTraMet for distributed protocol analysis in a 4G network environment" Nevil Brownlee (University of Auckland), Paul Christ, Juergen Jaehnert (University of Stuttgart), Yongzheng Liang (University of Stuttgart), Krishna Srinivasan (University of Stuttgart), Jie Zhou (University of Stuttgart).

**Visit to Sprint's Network Operations Center: 3:15PM – 5:45PM (including travel time) – Lenexa, Kansas**

## **Workshop Banquet 6:30PM – 8:30PM**

Banquet Speaker: Ben Vos, Director, Technology Development, Sprint Corporation

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## **October 3, 2003 (Friday)**

## **Session-3: Routing & Traffic Engineering / 8:15AM – 10:05AM**

"A QoS Specification Proposal for IP Virtual Private Networks" Muckai Girish (ARRIS), John Yu (Hammerhead Systems), Tom Soon (SBC TRI).

"A Bi-Criteria Optimization Approach for Robust OSPF Routing" Di Yuan (Linköping University).

"Off-Line Reduced Complexity Layout Design for MPLS Networks"  
Sergio Beker (ENST- Telecom Paris), Daniel Kofman (ENST-Telecom Paris), Nicolas Puech (Ecole Nationale Supérieure des Télécommunications).

"A Reordering-free Multipath Traffic Engineering Architecture for Diffserv-MPLS Networks" Nail Akar (Bilkent University), Ibrahim Hokelek (Bilkent University), Muammer Atik (Bilkent University), Ezhan Karasan (Bilkent University).

"An Algorithm for Rerouting in Traffic Engineering of MPLS Based IP Networks" Muckai Girish (ARRIS), Bei Zhou (SBC TRI), Jian-Qiang Hu (Boston University).

**Coffee Break: 10:05AM – 10:30AM**

**Session-4: Measurement & Management/ 10:30AM – 12:20PM**

"An Integrated Service and Network Management System for MPLS Traffic Engineering and VPN Services" Changhoon Kim (Electronics and Telecommunications Research Institute), Taesang Choi (Electronic and Telecommunications Research Institute), Taesoo Jeong (Electronics and Telecommunications Research Institute(ETRI)), Youngseok Lee (Seoul National University, Dept. of Computer Engineering).

"Implementation of an IPFIX compliant flow traffic meter: challenges and performance assessment" Maurizio Molina (NEC Europe Ltd.), Sandra Tartarelli (NEC Network Laboratories), Frederic Raspall (NEC Europe Ltd), Saverio Niccolini (NEC Europe Ltd.).

"A Data Clustering Algorithm for Mining Patterns From Event Logs" Risto Vaarandi (Tallinn Technical University).

"RTTometer: Measuring Path Minimum RTT with Confidence" Amgad Zeitoun (University of Michigan), Zhiheng Wang (Univ. of Michigan, Ann Arbor), Sugih Jamin (University of Michigan).

"An Alarm Management Approach in the Management of Multi-Layered Networks" Jane Zupan, Deep Medhi (University of Missouri - Kansas City)

**Lunch 12:30PM – 1:30PM**

**Main Workshop adjourns**

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## IPOM2003: Tutorials

### October 1, 2003 (Wednesday)

Afternoon: 2:00 - 5:00 pm

**Tutorial-A:** *"IP Traffic Measurements: Technologies, Tools, and Protocols"*

Presented by Maurizio Molina, NEC Europe

**Tutorial-B:** *"Simplified Operations Through Resilient IP Network Design"*

Presented by Hadriel Kaplan, Avici Systems

### October 3, 2003 (Friday)

Afternoon: 2:00 - 5:00 pm

**Tutorial-C:** *"Mobile All IP network Service Architecture Options"*

Presented by Thomas Magedanz, Fraunhofer Institute FOKUS, Germany

**Tutorial-D:** *"Networks Have To Think Smarter: An IP vision on distributed FCAPS functionality"*

Presented by Petre Dini, Cisco Systems