

The Fourth IEEE LCN Workshop on Network Measurements

Zürich, Switzerland

October 23, 2009

Workshop Program

8:30-10:00 Network Measurements

- “IP addresses distribution in Internet and its application on reduction methods for IP alias resolution,” Santiago Garcia-Jimenez, Eduardo Magaña, Mikel Izal and Daniel Morato, Universidad Publica de Navarra, Spain
- “Hash tables for efficient flow monitoring: vulnerabilities and countermeasures,” David Eckhoff, Tobias Limmer, and Falko Dressler, University of Erlangen Germany
- “A scheme for measuring subpath available bandwidth,” Andreas Johnsson, Svante Ekelin and Christofer Flinta, Ericsson Research, Sweden
- “Flow-based Front Payload Aggregation,” Tobias Limmer and Falko Dressler, University of Erlangen, Germany

10:00-10:30 Coffee Break

10:30-10:55 Network Measurements (Contd.)

- “Estimation of maximum achievable end-to-end throughput in IEEE 802.11 based wireless mesh networks, Gayatri Venkatesh and Kuang-Ching Wang, Clemson University, US

11:00 - 12:00 Panel on Network Measurements |

Energy Consumption Measurement in Communication Networks, Dominique Dudkowski

Will address the challenges and experiences in measuring the energy consumption in communication networks. Enterprise networks and data center networks will be used as examples to address challenges, such as scalability, accuracy, and privacy of energy consumption measurements. Low-level support for measurement, such as instrumentation of network switches, will be considered.

Measurement of Spatial & Temporal Spread of Internet Traffic Anomalies, Anura Jayasumana

Will consider a novel approach for examining the anomaly behavior on Internet. The graph wavelet based approach is very effective in detecting the anomaly behavior and propagation. It also provide a mechanism to capture the anomaly characteristics, and generating models for anomaly generation and propagation over subnets. Internet measurements are used to illustrate the effectiveness of the approach.

Dominique Dudkowski received his diploma in computer science in 2002 from the University of Stuttgart, Germany. He worked as a research assistant in Distributed Systems Group and defended his doctoral degree in mobile communications in September 2009. Since 2008, he is with the Network Management Group of NEC's Network Laboratories in Heidelberg, Germany, working on future Internet management within the EU Integrated Project “4WARD”, and on energy management in enterprise and data center networks. He is member of several technical program committees and co-author of more than 15 technical papers.

Anura Jayasumana is a Professor in Electrical and Computer Engineering at Colorado State University. He received Ph.D. and M.S. in Electrical Engineering from Michigan State University, USA and B.Sc. from University of Moratuwa, Sri Lanka. He has served as a consultant to industry, provided numerous tutorial, invited and keynote presentations, co-authored over 200 conference and journal papers, and received two US patents. Has supervised over 50 M.S. and 15 Ph.D. theses.

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