ACM SIGCOMM 2014 Capacity Sharing Workshop

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http://conferences.sigcomm.org/sigcomm/2014/csws.php

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Capacity Sharing

- Internet data traffic continues to grow rapidly
- Low Latency becoming a pressing need

→New technologies to efficiently utilize available network resources

  - Application design and transport mechanisms
  - Traffic engineering and network management
  - Resource allocation and flow management
  - QoE/QoS mapping, metrics and measurements

This Workshop

- Keynote
  - Dave Täht (Bufferbloat Project)
    The Value of Repeatable Experiments and Negative Results — A Journey through the History and Future of AQM and Fair Queuing Algorithms

- Session 1: Queuing and Scheduling
- Session 2: Transport Protocols
- Session 3: Mobile Networks

Contributions

10 papers accepted (23 submitted):

- Queuing and Scheduling
  - *Revisiting Old Friends: Is CoDel Really Achieving What RED Cannot?*
  - *Managing Fairness and Application Performance with Active Queue Management in DOCSIS-based Cable Networks*
  - *WQM: An Aggregation-Aware Queue Management Scheme for IEEE 802.11n Based Networks*
- Transport Protocols
  - *Coupled Congestion Control for RTP Media*
  - *Experimental Evaluation of Multipath TCP Schedulers*
- Mobile Networks
  - *ConEx Lite for Mobile Networks*
  - *Mobile Network Sharing Between Operators: A Demand Trace-Driven Study*
- Video Rate Adaption
  - *Network Assisted Rate Adaptation for Conversational Video over LTE, Concept and performance evaluation*
  - *Self-clocked rate adaptation for conversational video in LTE*
  - *Dynamic Bandwidth Allocation for Multiple Network Connections: Improving User QoE and Network Usage of YouTube in Mobile Broadband*

TPC

- Marcelo Bagnulo Braun, UC3M
- Bob Briscoe, BT Research&Technology
- Anna Brunström, Karlstad University
- Phil Eardley, BT Research&Technology
- Lars Eggert, NetApp
- Gorry Fairhurst, University of Aberdeen
- Matthew Ford, Internet Society
- Michio Honda, NEC Laboratories Europe
- Janardhan Iyengar, Google
- Suresh Krishnan, Ericsson
- Andreas Mäder, NEC Laboratories Europe
- Andrew McGregor, Google
- Marco Mellia, Politecnico di Torino
- Michael Menth, University of Tuebingen
- Luca Muscariello, FranceTelecom
- Yoshifumi Nishida, GE Global Research
- Piers O'Hanlon, Oxford Internet Institue
- Jörg Ott, Aalto University
- Colin Perkins, University of Glasgow
- David Ros, Simula Research Laboratory
- Pasi Sarolahti, Aalto University
- Michael Scharf, Alcatel-Lucent Bell Labs
- Meral Shirazipour, Ericsson
- Martin Stiemerling, NEC Laboratories Europe
- Brian Trammell, ETH
- Kurt Tutschku, Blekinge Institute of Technology
- David Wagner, University of Stuttgart
- Matthias Waehlisch, Freie Universitaet Berlin
- Ying Zhang, Ericsson
- Thomas Zinner, University of Würzburg

Thanks!

Review Process

- Shepherding step in the review process
  - enabling a dialogue between authors and reviewers
  - We thank the authors and especially the shepherds **Bob Briscoe, Gorry Fairhurst, and Mathew Ford** for their support and cooperation in this process
- Best paper award
  - Best paper to be published in upcoming CCR edition
  - Will be announced at the end of the workshop based on review results and presentation

Program

08:45 Welcome

09:00 **Keynote:** The Value of Repeatable Experiments and Negative Results — A Journey through the History and Future of AQM and Fair Queuing Algorithms *by Dave Täht (Bufferbloat Project)*

10:00 Coffee break

10:30 **Technical Session 1:** Queuing and Scheduling

12:00 Lunch

13:30 **Technical Session 2:** Transport Protocols

14:30 **Technical Session 3:** Mobile Networks

15:30 Coffee

16:00 **Technical Session 3:** Mobile Networks (cont'd)

17:30 Wrap-Up and Conclusions

17:45 End

Keynote

The Value of Repeatable Experiments and Negative Results — A Journey through the History and Future of AQM and Fair Queuing Algorithms

by Dave Täht

- Co-founder of the Bufferbloat Project
- Architect of the CeroWrt reference home router project
- IETF AQM WG
- *“helping make the Internet faster, and better, for everyone”*