

A tropical beach scene at sunset. A hammock is strung between a palm tree on the left and a point on the right. The sun is low on the horizon, casting a golden glow over the blue ocean and sky. The text "2008 2nd IEEE International Workshop on Bandwidth on Demand (BoD 2008)" is overlaid in white at the bottom.

**2008 2nd IEEE International Workshop on
Bandwidth on Demand (BoD 2008)**



University of Zurich

BoD Workshop @ NOMS 2008 Salvador da Bahia, Brazil, April 11, 2008



2008 2nd IEEE International Workshop on Bandwidth on Demand (BoD 2008)

Workshop Co-Chairs:

David Hausheer, Panayotis Antoniadis,
Kohei Shiomoto, Burkhard Stiller, Jean Walrand

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Introduction

BoD 2008 follows the first BoD workshop held at Globecom 2006

Workshop theme: From Bandwidth on Demand to Networks on Demand – Bandwidth Trading in the Era of Network Virtualization

Rapid technological progress in the area of network virtualization is becoming a key driver for Bandwidth on Demand

- Optical fiber technology
- Virtual router infrastructures

Suitable business models are needed for the provisioning of “on demand” bandwidth services



Technical Focus of this Workshop

Technical design of scalable, reliable, and cost-effective bandwidth trading infrastructures, including market mechanisms as a way to increase efficiencies

Economic studies and modeling of market and business models in carrier and service provider networks

Resource allocation and provision in non-profit bandwidth trading systems (economic modeling, incentive mechanisms, policies)

Industrial developments of new technologies that facilitate or create impediments to bandwidth on demand

Legislative and regulatory issues related to the Telecom Act and in comparison to other commodities markets such as the electric grid



Workshop Statistics

Submissions: 12

Reviews: 48

Accepted Papers: 8

- Asia-Pacific: 4
- North America: 3
- Europe: 1

Attendees: 13+



Acknowledgement of TPC / Reviewers

Aiko Pras
Bruno Tuffin
Charis Kaskiris
Chris Edwards
Christian Hoene
Costas Courcoubetis
Dan Li
George Huitema
Giancarlo Ruffo
Greg Bernstein
György Dán
Hajime Nakamura
Hannes Hartenstein
Huw Oliver
Jochen Dinger
Lisandro Zambenedetti Granville
Luciano Paschoal Gaspar

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Oliver Heckmann
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Peter Reichl
Rahul Jain
Shigeo Urushidani
Shin'ichi Arakawa
Soichiro Araki
Tiago Fioreze
Torsten Braun
Vasilios Darlagiannis
Young Lee
Zoran Despotovic



Acknowledgements

BoD Keynote Speaker and Panelists

BoD Workshop Co-Chairs

IEEE NOMS 2008 Workshop Co-Chairs

- Edmundo Madeira and Rolf Stadler

IEEE

- Gayle Weisman, Elizabeth Aubrey, Bruce Worthman

Workshop Patrons

- Huawei Technologies, USA





Agenda (Morning)

09:15 **Keynote**

Keynote Speaker: Jean Walrand, UC Berkeley

10:15 Coffee break

10:30 **Session 1: Provisioning of Bandwidth on Demand (Part 1)**

Session Chair: David Hausheer, University of Zurich

11:30 **Panel**

Moderator: Burkhard Stiller, University of Zurich

12:30 Lunch break



Agenda (Afternoon)

- 14:00 **Session 2: Economics of Bandwidth on Demand**
Session Chair: Burkhard Stiller, University of Zurich
- 15:30 Coffee break
- 16:00 **Session 3: Provisioning of Bandwidth on Demand (Part 2)**
Session Chair: David Hausheer, University of Zurich
- 17:30 End of workshop



Workshop Proceedings

Workshop handouts with all papers have been distributed to all workshop participants

- For further hardcopies, please contact g.weisman@comsoc.org

Additionally, papers will be available electronically on IEEE Xplore after the workshop

- Check out <http://ieeexplore.ieee.org/>

Presentations will be uploaded to the workshop website after the workshop

- <http://www.csg.uzh.ch/events/bod08/>
- All speakers please send slides to hausheer@ifi.uzh.ch



Have a Good Workshop Start!

Thank you for attending!

We wish you a lively and interesting Workshop with many interactions.



Keynote



Pricing of Bandwidth and Communication On Demand Services

Keynote Speaker: Jean Walrand, UC Berkeley

Session 1: Provisioning of Bandwidth on Demand (Part 1)



University of Zurich



Session Chair: David Hausheer, University of Zurich

Resource Allocation and Provision for Bandwidth/Networks on Demand in SINET3

Tutorial: Path Computation Architectures Overview in Multi-domain Optical Networks
Based on ITU-T ASON and IETF PCE



Panel

Moderator: Burkhard Stiller, University of Zurich

From Bandwidth on Demand to Networks on Demand –
Bandwidth Trading in the Era of Network Virtualization

Panelists:

- Aiko Pras, University of Twente
- Prosper Chemouil, Orange-FT Research
- Kohei Shiimoto, NTT Labs
- Young Lee, Huawei

Session 2: Economics of Bandwidth on Demand



University of Zurich



Session Chair: Burkhard Stiller, University of Zurich

An Efficient Mechanism for Network Bandwidth Auction

American Options Based Service Pricing For Virtual
Operators

Time-Dependent Network Pricing and Bandwidth
Trading

Session 3: Provisioning of Bandwidth on Demand (Part 2)



University of Zurich



Session Chair: David Hausheer, University of Zurich

BoD Service with VCAT/LCAS and GMPLS Signalling

Enhancing Bandwidth on Demand Service Based on Virtual Network Topology Control

Services Parameters and Novel Provisioning Techniques for a Bandwidth Reservation Network