



Workshop on Key Issues and Grand Challenges in Optical Networking

Jointly organized and sponsored by ePhoton/ONe, NSF and COST291

Albert Borschette building, 36, rue Froissart, Brussels
27.06.2005-28.06.2005

Chairs

Fabio Neri and Biswanath Mukherjee

Technical and Organization Committee

- | | |
|--------------------|-------------------------|
| - Fabio Neri | - Biswanath Mukherjee |
| - Mike O Mahony | - George Rouskas |
| - Ioannis Tomkos | - Arun Somani |
| - Piet Demester | - Malathi Veeraraghavan |
| - Christoph Gauger | - Chunming Qiao |
| - Slobodanka Tomic | |

Final Agenda

Monday, June 27, 2005

- 8:00 – 8:55 am: Registration
- 8:55 – 9:00 am: Welcoming Remarks,
– Slobodanka Tomic
- 9:00 – 10:45 am: Workshop Overview, Goals and Rationale
– Fabio Neri, “*Overview of ePhoton/One*”
– Biswanath Mukherjee, “*Review of Workshop Goals*”
– Admela Jukan, “*On Opportunities and Challenges in International Research Collaborations*”
– Jorge Pereira, EC, “*EC Objectives and Research Programs*”
– Afonso Ferreira, EC, “*COST Programs*”
– Discussion, moderator Fabio Neri
- 10:45 – 11:00 am: Coffee Break**
- Current status of optical networking R&D, chair Biswanath Mukherjee*
- 11:00 – 11:30 am: European Perspective
– Piet Demester, “*Success stories: IP NOBEL, STREP Lasagne GEANT2*”
– Ioannis Tomkos, “*COST 291*”
- 11:30 – 12:00 am: US Perspective
– George Rouskas, “*NSF-Funded Projects*”
– Malathi Veeraraghavan, “*Testbeds*”
- 12:00 – 12:30 am: Japanese Perspective
– Ken-ichi Kitayama, “*Activities of Photonic Internet Forum of Japan*”
- 12:30 – 2:00 pm: Lunch Break**
- Key Notes from Provider and Vendor Perspective, chair Christoph Gauger*
- 2:00 – 2:30 pm: Andreas Gladisch, “*The Patchwork of Optical Networks*”
- 2:30 – 3:00 pm: Martin Zirngibl, “*A Vision for Scalable Optical Networks For Bursty Data Traffic*”

Outlining Key Issues and Great Challenges in Optical Networking

3:00-4:30pm

European Perspective, chair Fabio Neri

- Ton Koonen, "Research directions in optical access networks"
- Dieter Jaeger, "Home Networks: A Future Market"
- Josep Prat, "High-density FTTH PONs and Electronic Processing"
- Piet Demeester, "Optics in access/aggregation networks: Consumer Grid and Wireless Internet Train"
- Alexandros Stavdas, "New Concepts for Dynamically Reconfigurable Optical Nodes"
- Mario Pickavet, "Migration towards hybrid optical networks: circuit & packet"
- Ioannis Tomkos, "Some thoughts on research topics for optical topics for optical networks"
- Fabio Neri, "Research directions in optical networking"
- Peter Tomsu, "Future Needs of Optical Networking"
- Christoph Gauger, "Integrated research to tackle challenges in photonic networking"
- Franco Callegati, "Research Directions in Optical Core Networks"
- Maurice Gagnaire, "Optical transparency in WDM long-haul networks: myth or reality?"
- Piero Castoldi, "Service-oriented optical networks"
- Tibor Cinkler, "On Routing, Traffic Engineering and Resilience over Optical Networks"
- Dimitra Simeonidou, "Applications-Networks Convergence: Implications on Optical Network Technologies"
- Branko Mikac, ,"
- Pierluigi Poggiolini, ,"

4:30 –4:45 pm:

Coffee Break

4:45 – 6:15 pm:

US Perspective, chair Biswanath Mukherjee

- Martin Zirngibl, "Why we Love our DARPA Projects"
- G. K. Chang, "Challenges for Optical Packet Switching Networks"
- Loukas Paraschis, "Technologies and Architectures that Improve Optical Network Operations and Cost"
- Laxman Tamil, "Sub-Wavelength Switching in Optical Networks"
- Malathi Veeraraghavan, "Distributed scheduling"
- Admela Jukan, "Top 10 Life Saving Arguments on Why Optical Networking Research (still) Matters"
- Gigi Karmous-Edwards, "Network Research based on Vertical Integration"
- Tom Lehman, "Inter-Domain Control Plane Architectures for Optical Networks"
- Wu-chun Feng, "Optical Networking: An Initial Piece to a Larger Solution"
- Biswanath Mukherjee, "Network Architectures: Building Bridges with and Between Applications and Devices for Optical Networks"
- George Rouskas, "Thoughts on Research Challenges and US/EU Collaboration"
- Arun Somani, "Issues in Grooming and New Approaches"
- Suresh Subramaniam, "Research Opportunities and Challenges in Optical Networking Research"
- Jason Jue, "Research Challenges in Optical Burst Switching"
- Nasir Ghani, "Vertical/Horizontal Layer Integration and Infrastructure Virtualization"

Wrap-up and Further Steps

6:15 –6:30 pm:

Closing comments for Day 1 and Goals for Day 2 (Workshop Co-Chairs)

Final Agenda

Tuesday, June 28, 2005

- 8:00 – 9:00 am: Registration
- 9:00 – 9:15 am: Review of Workshop Goals & Day 2 Agenda
- Fabio Neri
 - Biswanath Mukherjee

Exploring Key Issues and Great Challenges in Optical Networking

- 9:15 – 10:45 am: Focused Discussion on Network Architectures
- EU Lead: Piet Demeester
 - US Lead: Arun Somani

10:45 – 11:00 am: *Coffee Break*

- 11:00 – 12:30 pm: Focused Discussion on Hardware Systems
- EU Lead: Pierluigi Poggolini
 - US Lead: G.K. Chang

12:30 – 2:00 pm: *Lunch Break*

- 2:00 – 3:30 pm: Focused Discussion on Network Control and Management
- EU Lead: Dimitra Simeonidou
 - US Lead: Malathi Veeraraghavan

3:30 – 3:45 pm: *Coffee Break*

Wrap-up and Further Steps

- 3:45 – 4:45 pm: Final Workshop Report – Strategies, Focus, And Delegation of Tasks.
- 4:45 – 5:00 pm: Closing comments (Workshop Co-Chairs)

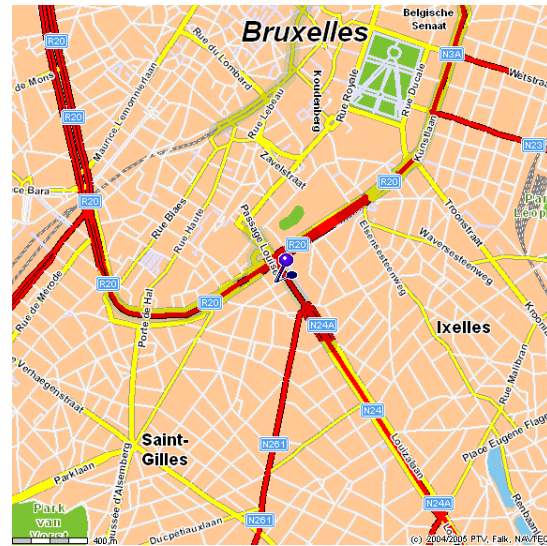
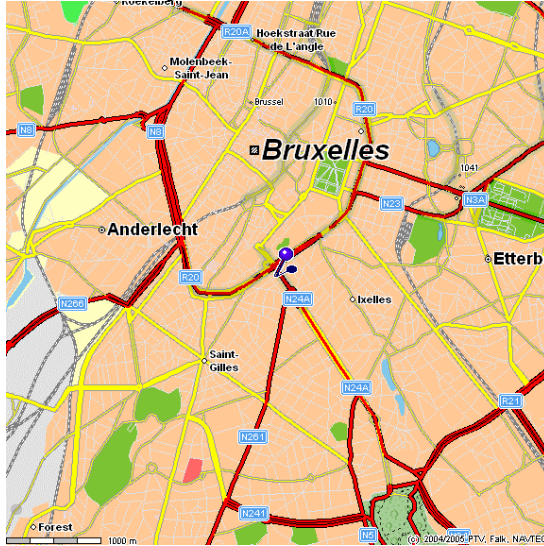
Participants

1. Fabio NERI, Politecnico di Torino, Italy
2. Ioannis TOMKOS, Athens Information Technology Centre, Greece
3. Piet DEMEESTER, Ghent University, Belgium
4. Mike O MAHONY, University of Essex, UK
5. Christoph GAUGER, University of Stuttgart, Germany
6. Slobodanka TOMIC, Vienna Technical University, Austria
7. Jorge PEREIRA, European Commission
8. Afonso FERREIRA, European Commission
9. Andreas GLADISCH, T-Systems Nova GmbH, Germany
10. Tibor CINKLER, Budapest University of Technology and Economics, Hungary
11. Dimitra SIMEONIDOU, University of Essex, UK
12. Dieter JAEGER, University of Duisburg-Essen, Germany
13. Alexandros STAVDAS, National Technical University of Athens, Greece
14. Branko MIKAC, University of Zagreb, Croatia
15. Pierluigi POGGIOLINI, Politecnico di Torino, Italy
16. Franco CALLEGATI, Università di Bologna, Italy
17. Maurice GAGNAIRE, Groupe des Ecoles des Télécommunications, France
18. Piero CASTOLDI, Scuola Superiore di Studi Universitari e di Perfezionamento Sant'Anna, Italy
19. Mario PICKAVET, Ghent University, Belgium
20. Ton KOONEN, Technische Universiteit Eindhoven, Netherlands
21. Joseph PRAT, Universitat Politècnica de Catalunya, Spain
22. Peter TOMSU, Cisco Europe, Austria
23. Biswanath MUKHERJEE, UC Davis (mukherje@cs.ucdavis.edu), US
24. George ROUSKAS, North Carolina State University (rousкас@csc.ncsu.edu), US
25. Arun SOMANI, Iowa State University (arun@iastate.edu), US
26. Malathi VEERARAGHAVAN, University of Virginia (mv5g@virginia.edu), US
27. Martin ZIRNGIBL, Lucent (mz@lucent.com), US
28. G. K. CHANG, Georgia Tech and formerly Telcordia, (gkchang@ece.gatech.edu), US
29. Loukas PARASCHIS, Cisco (loukas@cisco.com), US
30. Laxman TAMIL, UT Dallas and formerly Alcatel & Yotta Nets, (laxman@utdallas.edu), US
31. Admela JUKAN, University of Illinois (jukan@uiuc.edu), US
32. Gigi KARMOUS-EDWARDS, MCNC (gkarmous@mcnc.org), US
33. Tom LEHMAN, ISI (tlehman@east.isi.edu), US
34. Wu-chun FENG, Los Alamos National Lab (feng@lanl.gov), US
35. Suresh SUBRAMANIAM, George Washington University (suresh@gwu.edu), US
36. Jason JUE, UT Dallas (jjue@utdallas.edu), US
37. Nasir GHANI, Tennessee Tech and formerly Sorrento Nets, (nghani@tntech.edu), US
38. Tomonori AOYAMA, The University of Tokyo, Japan
39. Ken-ichi KITAYAMA, Osaka University, Japan
40. Yuichi MATSUSHIMA, National Institute of Information & Communications Technology, Japan
41. Ken-ichi SATO, Keio University, Japan
42. Naoaki YAMANAKA, Keio University, Japan
43. Kazuo HAGIMOTO, NTT Network Innovation Laboratories, Japan
44. Kuniaki MOTOSHIMA, Mitsubishi Electric Corp., Japan
45. Masanobu ARAI, NEC Corporation, Japan

Dinner Location for Monday, June 27

Le Délire Parisien, 16 Rue Jourdan, 1060 Bruxelles, Tel. 02/537.06.94

Overview Maps



Local Map

