



Workshop on IP/Optical

The "hot" topics of the convergence between the Internet and Optical Networks will be discussed.

Tuesday 9th to Thursday 11th July 2002
Chitose ANA Hotel, Chitose, Hokkaido, Japan

The Internet transport infrastructure is moving towards a model of high-speed routers interconnected by optical fibre networks to answer the urgent need of telecommunication providers to establish a multi-service transport platform supporting Internet, IP and other packet-based data services and traditional telecommunication services. The architectural choices for the interaction between IP and optical network layers, particularly the routing and signalling aspects, are being developed and will be discussed.

New global standards for Automatically Switched Optical Networks (ASON) and their control mechanisms will add dynamic capabilities to new optical networks or established SDH networks.

Based on the studies conducted within ITU-T and other standard developing organizations, this workshop will focus on the following topics:

- IP over Optical – Business and Market Aspects
- Switched Optical Networks
- Optics in Access and Metropolitan Networks
- Optical Components and Technologies
- IP/Optical Performance and Management
- Service and Network Evolution Perspectives

<http://www.itu.int/ITU-T/worksem>

This Workshop is free and open to non-members

► **Other workshops planned in 2002**

- Tutorial Workshop on IPv6 – Geneva (Switzerland), 6 May 2002
- ITU Workshop on Security – Seoul (Korea, Rep. of), 13-14 May 2002
- ITU Seminar on IMT-2000 and Systems beyond – Ottawa (Canada), 28 May 2002
- Workshop on Satellites in IP and Multimedia – Geneva (Switzerland), 9-11 December 2002

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Opening session (a.m.)

Session Coordinators	<i>Mr P. Wery, SG 15 Chairman</i> <i>Mr Y. Maeda, SG 13 Vice-Chairman</i>
Opening and welcome	<i>Mr T. Higashikawa, Mayor of Chitose</i>
Opening remarks from Japan	<i>Japan Administration representative (tbd)</i>
Opening remarks	<i>Mr H. Zhao, Director of TSB</i>
General information	<i>Mr Y. Onuma, City of Chitose</i>
Workshop objectives	<i>Mr F. Bigi, Workshop Coordinator</i>
Lead SG Optical and Access	<i>Mr P. Wery, SG 15 Chairman</i>
Lead SG on IP-based networks	<i>Mr B. W. Moore, SG 13 Chairman</i>
IETF Overview of SUB-IP Area	<i>Mr B. Wijnen, Area Director – SUB-IP, IETF</i>
IEC Views and Plans on IP/Optical	<i>Mr M. de Vecchis, IEC SB 4 Chairman</i>
Optical Network System in the City of Chitose and the role of CIST	<i>Prof. Hiroyuki Sasabe, President, Chitose Institute of Science and Technology (CIST)</i>

Session 1 (p.m.)**IP over Optical – Business and Market Aspects**

- Overall trends and market evaluation
- Access aspects
- Core and backbone aspects

Mr H. Schink, SG 13 Vice-Chairman

Session 2 (p.m.)**Switched Optical Networks**

- Motivation and requirements for Switched Optical Networks
- ITU-T activities to address these requirements: ASTN/ASON/DCM, protocols, routing, link management
- Related work in other SDOs (IETF GMPLS, OIF UNI and NNI)

Mr S. Trowbridge, SG 15 Vice-Chairman
Mr M. Mayer, SG 15 Editor
Mr Y. Maeda, WP 3/13 Chairman

Session 3 (a.m.)**Optics in Access and Metropolitan Networks**

- Access network architecture
- Passive optical access (e.g. Gbit/access)
- Ethernet
- WDM, DWDM, passive DWDM
- FTTH deployment

Mr D. Faulkner, SG 15 Rapporteur

Session 4 (a.m.)**Optical Interfaces**

- Structure and characteristics of optical interfaces
- Common electro-optics for various high bitrate (≥ 2.5 Gbit/s) optical interfaces
- Optical routing and interface requirements

Mr A. Mattheus, SG 15

Session 5 (a.m.)**Optical/IP Network OAM and Protection and Restoration**

- OTN equipment and deployment in today's transport networks
- General principles for OTN protection
- General principles of OAM network requirements

Mr G. Abbas, SG 15 Rapporteur
Mr Y. Maeda, WP 3/13 Chairman

**Session 6 (p.m.)
WDM and DWDM**

- What's coming next? – 40G/WDM, 160G, field trial, Raman amplification, etc.
- What's coming next? – OTDM, SDWDM, new light sources, Raman amplification, etc.
- How/whether to standardize these new technologies in ITU-T. IEC activities on these technologies, especially on Raman amplification

Mr M. Tomizawa, SG 15

**Session 7 (p.m.)
Signalling and Routing**

- Call and connection control protocols: the ITU-T SG 11 perspectives
- ASON control requirements and models
- P-NNI/Q.2931-based ASON protocol
- GMPLS CR-LDP based protocol
- GMPLS RSVP-TE based protocol
- Carrier's perspective

**Mr N. Morita, SG 13 Rapporteur
Mr A. Le Roux, SG 11 Vice Chairman**

**Session 8 (p.m.)
Optical Fibres, Cables and Components**

- Fibre technology
- Dispersion and compensation
- Optical amplifiers
- Passive components
- Optical sub-systems
- Sub-marine
- Outside plant

Mr J. Matthews, SG 15 Rapporteur

**Session 9 (p.m.)
Optical Network Management**

- Fault management – Detection and service recovery
- Practical issues in managing optical networks
- Network management issues of Ethernet over WDM

**Mr K. Lam, SG 15 Rapporteur
Mr N. Fujii, SG 4 Vice-Chairman**

Day 3

Wednesday 10th July 2002

**Session 10 (a.m.)
Optical Switching and Equipment**

- Optical cross-connectors
- Electric/optical/electric switch
- Photonic switch
- Interfaces integration
- Mux: add/drop
- Router

**Mr G. Bonaventura, SG 15 Vice-Chairman
Mr M. Betts, SG 15 Editor**

**Session 11 (a.m.)
Network Performance (IP/Optical)**

- IP layer performance
- Optical layer performance
- IP/Optical performance management

Mr N. Seitz, SG 13 Vice-Chairman

**Session 12 (a.m.)
Optical Network Clients and Services**

- Layers
- Service providers
- Generic Frame Format (GFP)
- SDH/SONET
- Transport network interfaces

Mr G. Joncour, SG 15 Rapporteur

**Session 13 (a.m.)
Service and Network Evolution**

- NGN in Europe
- New services based on optical networks in Japan
- Multimedia services evolution / Mediacom 2004

**Mr J.-Y. Cochenec, SG 13 Vice-Chairman
Mr C.-S. Lee, SG 13 Vice-Chairman
Mr P.-A. Probst, SG 16 Chairman**

Closing session (p.m.)

Closing remarks (Sessions 4, 6, 8, 10 and 12) Mr P. Wery, SG 15 Chairman

Closing remarks (Sessions 5, 7, 9, 11 and 13) Mr B. W. Moore, SG 13 Chairman

Closing remarks (Sessions 1 to 3) and Workshop Closing Mr F. Bigi, Workshop Coordinator



ITU-T

International Telecommunication Union

Workshop on IP/Optical
(Chitose, Japan, 9-11 July 2002)



ITU-T

REGISTRATION FORM

To be returned to TSB (Fax: +41 22 730 5853)

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