



June 18, 2007

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Upcoming Events

June 18-21, 2007

[NXTcomm](#)

Booth #2041

McCormick Center

Chicago, IL USA

June 25-29, 2007

[IIR WDM and Next Generation
Optical Networking Conference](#)

Hilton Cannes

Cannes, France

Associate Sponsorship

August 13-16, 2007

**OIF Q3 Technical and MA&E
Committee Meeting**

Somerset, NJ USA

September 17-19, 2007

[ECOC 07](#)

Berlin, Germany

November 5-8, 2007

**OIF Q4 Technical and MA&E
Committee Meeting**

Kobe, Japan

Words from the OIF Leadership



Customer demand for broadband and on-demand network resource provisioning is relentless. The OIF moved to meet the industry's needs through the Forum's ongoing ASON/GMPLS control plane standardization work, which enables "on-the-fly" connection provisioning.

The OIF has expanded these capabilities to multi-domain and multi-layer network environments by providing Implementation Agreements (IAs) for ASON/GMPLS inter-domain and inter-layer interfaces. In addition, the OIF is carrying out interoperability evaluations of prototype implementations of these interfaces, enabling:

- Proof-of-concept evaluations of IAs and standards
- Substantial feedback to standardization work based on practical experience and lessons learned
- Follow up and spin-off activities at carrier labs, e.g. field trials, test networks
- Finally, seamless interworking in current and future heterogeneous network environments

This summer, seven of the world's largest carriers, AT&T, China Telecom, Deutsche Telekom, France Telecom Group, KDDI, Telecom Italia and Verizon, will participate in the OIF's Worldwide Interoperability Demonstration - On-Demand Ethernet Services, showing multi-vendor interoperability in a multi-carrier environment. The demonstration will highlight dynamic Ethernet services over multiple, control plane-enabled intelligent optical core networks, based on OIF UNI and E-NNI functions, including:

- Ethernet Private Line service
- Non-disruptive bandwidth modification
- Graceful recovery from control plane or signalling network failures

Please join us at ECOC 2007 in Berlin, September 17-19 to view the public demonstration of the interoperability test taking place at the Carrier labs this summer.

Hans-Martin Foisel

OIF Carrier Working Group Chair and Vice President

Contact Us

Want to contribute something in the next issue? We'd like to hear from you!
Send comments and ideas to Kimberly Chiu, OIF Project Manager, at
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Member Section

OIF Corporate Member – Level 3 Communications

Jack Waters, Chief Technology Officer for Level 3 Communications, addressed the OIF members at the Q207 quarterly meeting, "Traffic continues to grow at high rates and the industry can't afford to wait. 100G is needed very soon. I challenge the members of the OIF to move the industry forward and smooth the economic and technical development of 100G."

OIF Welcomes Its Newest Member



The OIF consists of more than 100+ members, including the world's leading carriers, system vendors and component manufacturers. For a complete list of OIF members, please visit <http://www.oiforum.com/public/membercompanies.html>

Working Group Highlight – Software

The OIF Software Working Group's mission is to define, promote, and deliver software interfaces that permit development of network elements that easily integrate multiple software applications and network processing devices. These software interfaces reduce considerably the software development costs for network elements, by allowing the integration of off the shelf software applications (COTS), while increasing significantly the interchangeability of the building block components, thus reducing the dependency or lock-in with one vendor.

Additionally, a goal of the software working group is to provide software interfaces for controlling, managing, or programming the elements of the hardware physical layer or optical layer interfaces defined by the Physical and Link Layer Working Group, implemented in network elements. The benefits of using these standardized software interfaces apply not only to network element manufacturers, but also to network component manufacturers, as well as the carriers and network providers who deploy the network elements.

There are currently several active projects, among which the most recent contributions were for a Revision of the Interface Management Application Programming Interface, with enhancements for Ethernet, SONET, SDH and PDH. For more information on the Software Working Group, contact group chair, Alex Conta at aconta@txc.com.

Educational Outreach and Upcoming Events

100G Work

"The OIF's role is to perform a gap analysis of the missing elements required to bring 100G technology to market," said Steve Joiner, OIF Vice President of Marketing. "The OIF member companies are beginning to identify the gaps and to look for ways to foster the rapid, cost-effective development of new technologies for optical internetworking." The OIF extends an open invitation to the industry to join in paving the road to 100 Gbps.

The OIF has several planned sessions at its' third quarter meeting to present members with a snapshot of the current status of 100 Gbps optical networking standards development and to begin defining next steps. Vendors interested in participating in this work and helping to develop implementation agreements to bring 100 Gbps to market are invited to contact the OIF. Companies interested in speaking with an OIF board member should direct inquiries to Andi Kosich at akosich2@oiforum.com. The following guest speakers will present to the OIF members on Tuesday, August 14, 2007.

John D'Ambrosia, Force10

John is the chair of the IEEE 802.3 Higher Speed Study Group (HSSG) that is currently studying Ethernet at rates greater than 10Gb/s including running Ethernet at 100 Gb/s. His group has focused on determining whether the technical and market feasibility warrants the creation of a full task group to standardize such a technology. The HSSG group will be making its final recommendations to 802.3 soon. The OIF has a likely role to play in producing both electrical and optical infrastructure elements to enable this market. John will speak about the HSSG effort as well as the possible interaction between the IEEE and the OIF.

Ghani Abbas, Ericsson

Currently, the ITU-T SG15 is studying Optical Transport Network interfaces for bit rates in excess of the current standards. They are studying an Optical Data Unit level four (ODU-4) capable of accommodating a number of ODU-3s (ie. 40Gb/s) or ODU-2s (ie. 10Gb/s) or ODU-1s (ie. 2.5Gb/s). It is also envisaged that the new ODU-4 can transport an

Ethernet bit rate of 100Gb/s which is being discussed in IEEE HSSG. The new ODU-4 will be capable of transporting various services such as Ethernet, FC etc. The presentation, by Ghani Abbas, will provide an up to date status of the ITU-T SG15 standards activities on these high bit rates interfaces.

ASON/GMPLS Tutorial

The OIF is developing an ASON/GMPLS Optical Control Plane tutorial, in support of a long-standing goal to develop and offer educational materials in line with OIF work items. The goal of this tutorial is to provide a thorough review of optical control plane applications: ASON requirements and architecture, signaling, routing, auto discovery, and control plane management standards; OIF optical control plane security and ASON/GMPLS signaling and routing IAs, and OIF interoperability experience. The tutorial is expected to be completed during the third quarter of 2007. If interested in participating in this project, OIF members may subscribe to the oif-agape@oiforum.com exploder or contact Eve Varma at evarma@alcatel-lucent.com. A shortened version of this topic in a presentation is available under the "What's New" section at www.oiforum.com

AT&T GNOC Tour

The OIF will be holding a tour of the AT&T Global Networks Operations Center (GNOC) on Monday, August 13, 2007 during the Q307 Technical and MA&E Committees Meeting in Somerset, New Jersey. Please note that the registration deadline for this event is July 13, 2007. Reservations will be accepted on a first-come, first-served basis.* Thirty slots are available for each tour - we will fill the 2:00 pm tour first. Contact Lucille Goldiner, Association Coordinator to reserve your spot - Phone: 510.492.4041 (direct) / 510.492.4040 (main) or Email: lgoldiner@oiforum.com. *For members only

AT&T's Global Network Operations Center is the "mission control" for the flow of IP, voice and data traffic that crosses AT&T's worldwide network. This is a state-of-the-art, 198,000 square-foot facility that operates 24 hours a day, seven days a week. The mission of this center is to monitor network traffic at all corners of the globe to ensure reliable, quality communications services for AT&T customers.

ECOC 2007

The 2007 OIF Worldwide Interoperability Demonstration - On-Demand Ethernet Services will culminate in a public demonstration of the results at the exhibition of the [ECOC 2007](#), September 17-19, 2007 in Berlin, Germany. The ECOC conference and exhibition is the most important event in Europe regarding optical communication and networks, and therefore fits very well to the goal and scope of the OIF interoperability demonstrations. There are three additional OIF activities planned during ECOC:

- **ECOC2007 Workshop** on "Global Interoperability in Multi-Domain and Multi-Layer ASON/GMPLS Networks" will highlight the paramount importance of interoperable solutions for ASON/GMPLS networks. *September 16, 2007*
- **ECOC Market Focus Seminar** - OIF presentation on "On-Demand Broadband Services on Global Scale" by Hans Martin-Foisel on *September 18, 2007*
- **Lab Tours to Deutsche Telekom** premises, located adjacent to the ECOC 2007 Exhibition Hall. DT will be demonstrating live the ASON/GMPLS functions of the OIF Worldwide Test Network and the MUPBED European scale test network and enabling a "hands on" real telecom world for visitors. *September 17-19, 2007*

Q3 Meeting

Invited Speaker:

Dr. Stu Elby, VP Technology, Verizon

Dr. Elby will speak to OIF membership during lunch on August 15, 2007.

Q4 Meeting

Invited Speaker:

Prof. Kenichi Kitayama, Vice Chair of the Photonic Internet Forum (PIF).

Monday workshop - time TBD

Technology Update

The OIF has several ongoing work projects taking place in various working groups. Highlighted in this newsletter are projects out of the Physical and Link Layer (PLL) and Networking Working Groups.

E-NNI 2.0 Signaling

The E-NNI 2.0 Signaling IA defines the protocol used across the E-NNI reference point between adjacent domains (either within the same carrier network or in two different carrier networks) for the purpose of establishing optical connections. E-NNI signaling functions, along with the OIF UNI 2.0 and I-NNI signaling protocols (the latter not specified by OIF), are

used to establish end-to-end connection services over multiple domains. The E-NNI 2.0 Signaling IA adds a number of features not found in the E-NNI 1.0 Signaling IA, including:

- the protocol elements necessary to provide UNI 2.0 services
- clarification of how the different E-NNI identifiers are used in the signaling protocol

This project is expected to go to straw ballot in the second half of 2007. For more information, contact the document co-editors, Eve Varma at evarma@alcatel-lucent.com or Jim Jones at jim.d.jones@alcatel-lucent.com

Logging & Auditing Syslog

This IA specifies how to use a subset of the IETF's standard version of Syslog to log OIF control plane traffic as the basis for an audit capability. It also covers securing the log files and controlling their generation and collection. It is an optional component of the UNI and NNI intended to be used in conjunction with the *Security Extension for UNI and NNI* and the *Addendum to the Security Extension for UNI and NNI*. This project is expected to go to principal ballot in the second half of 2007. Contact Rich Graveman, document editor, for more information at rfgraveman@nac.net

SFI-X - The OIF has launched a SERDES Framer Interface SFI-X project that will define a scalable interface from an optical module to a framer device for line rates from 40 Gbps to 100 Gbps and beyond. The SFI-X project forms an important contribution to the requirements for transport of high-speed data via the OIF's Common Electrical Interface (CEI). The current, ongoing CEI-25 project establishes electrical signaling rates for high-speed backplanes. The next generation SFI-X will support the aggregation and deskewing of 4-16 data lanes at CEI (6 - 11G) or future CEI-25 (20 - 25G) signal rates. The SFI-X project is an extension of the prevalent OIF SFI-4 specification for 10 Gbps interfaces. SFI-X is targeted to support the 100G work being addressed by standards bodies like IEEE 802.3 HSSG and ITU-T, and forums like ATIS and the Ethernet Alliance. For more information contact Dave Stauffer, PLL Working Group Chair at dstauffe@us.ibm.com

StatEye

In Q3 of 2006, the OIF funded a major upgrade to StatEye, an open-source software package that is an integral part of the channel compliance methodology of the OIF's Common Electrical Interface Specification (CEI). CEI defines specifications for serial signaling and channels in chip-to-chip and board-to-board applications up to 11 Gb/s. This upgrade of StatEye enables it to handle cross-talk effectively and adds a useful Graphical User Interface and an XML (Extensible Markup Language) framework. The project is expected to go to principal ballot at the end of June 2007. For more information, contact Dave Stauffer, PLL Working Group Chair at dstauffe@us.ibm.com

OIF Presentations and in the News

OIF Presentations at Industry Conferences

iPOP 2007

Tokyo, Japan

June 7, 2007

Presenter: Joe Berthold

Special Session 1: Next Generation Transport from Ethernet to Lambda

Recent Progress of ASON Technologies in the OIF

Presentation is available at

<http://oiforum.com/public/oifpresentations.html>

TERENA Networking Conference 2007

Lyngby, Denmark

May 21, 2007

Presenter: Hans-Martin Foisel

MUPBED Workshop

ASON/GMPLS Optical Control Plane Tutorial

Presentation is available under "What's New" at

www.oiforum.com

OIF In The News

Press Releases and Related Coverage can be viewed at <http://oiforum.com/public/pressreleases.html>

June 6, 2007

Seven Global Telecom Carriers Unite for OIF Interoperability Demonstration

Demonstration of On-Demand Ethernet Services Enabled by OIF UNI and E-NNI Functions

May 16, 2007

OIF Invites Industry To Help Shape 100G Interface

New SFI-X Project Extends Scalability of SERDES-Framer Interfaces to 100 Gbps

February 13, 2007

OIF Greets 2007 With New Agreement and Technical Projects

E-NNI Routing IA Approved, Software and Optical Projects Launched