

# **X1T1.5/ITU Liaison Ad Hoc Report**

**Roy Bynum**

**802.3 Plenary**

**November 8-11, 1999**

**Koloa Hawaii**

Issues With  
“Ethernet Over SONET/SDH”  
(EOS)

IEEE 802.3 Plenary

November 8-11, 1999

Ethernet Over SONET/SDH (EOS) Ad Hoc

18 members currently on mailing list

Current membership:

Tom Alexander

Paul Bottorff

Gary Bourque

Roy Bynum (Chair)

Bill Cronin

Steve Dabecki

Stephen Haddoc

Kevin Kayser

Scott Lowrey

Jeff Lynch

David Martin

Gary Nicholl

Mark Nowell

Som Sikdar

Lain Verigin

Jerrrey Warren

Peter Wang

Nader Vijeh

11 individuals attended and voted at the last meeting,  
Wednesday at Lunch Time

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Issues before the group:

1. Timely informal request for signal label expansion to  
ITU-T SG15

2. T1X1.5 Contributions:

99-267 - Concerns with the use of HDLC framing for  
encapsulation of 802.3 Ethernet MAC frames

99-268r1 - Generic mapping format for IEEE 802.3  
Ethernet MAC frames over SONET

3. ITU-T SG7 - Draft recommendation on 802.3 Ethernet  
frames over SDH/WDM by use of LAPS

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**A timely informal request for signal label expansion to  
ITU-T SG15**

Signal Label definitions for protocols like the 802.3ae WAN PHY are issued under ITU-T G.707 from SG 15. Currently the signal label code space is exhausted. Unless the code space is expanded, the code space availability will be closed for two years at the ITU-T meeting in April of 2000 when G.707 is finalized.

SG15 Rapatures which would be responsible for expanding the code space is meeting is next week and will not meet again before April 2000.

An informal agreement with the chair of SG15/Q9 allowed 802.3 to send an informal letter advising SG15 that the task force to be formed to define the P802.3ae standard would be requesting a signal label definition. This provides reason for opening code space at the November 15 Rapatures meeting so that a definition will be available when it is requested from the P802.3ae Task Force.

A letter was drafted, approved by the 802 Exec, and sent out.

## IEEE 802.3

*Geoff Thompson, Chair*

November 11, 1999

TO: Stephen J. Trowbridge <sjtrowbridge@lucent.com>  
Gilles Joncour <gilles.joncour@cnet.francetelecom.fr>  
Subject: Informational Advisement of a Future Request re Ethernet

Gentlemen:

The IEEE 802.3 Working Group is in the process of formally initiating a project that will include formatting at the physical layer for transmission through the framed wide area infrastructure at 10 Gb/s. It is expected that this will require the allocation of a signal label (C2 byte) code point from ITU-T but we are not at that stage of the project yet. We do understand that due to the timing of ITU-T meetings that having a formal request in place in time for their April 2000 meeting is appropriate if we wish a formal value within the next 2 years.

This letter is to advise you that we expect to make such a formal request out of our Plenary meeting to be held in Albuquerque, NM during March 6-10, 2000. The HSSG (Higher Speed Study Group) and its expected successor, the 10 Gigabit Ethernet Task Force (P802.3ae) is meeting in Kauai, HI November 8-11, in Dallas TX during the week of Jan 17, 2000 and in Albuquerque, NM March 6-10, 2000. For further information please see the IEEE 802.3 web page at: <http://grouper.ieee.org/groups/802/3/index.html>

Specifically, the HSSG is a Study Group, operating under the IEEE 802.3 Working Group. HSSG has the charter to pursue a project to extend the IEEE 802.3 Standard to 10 Gigabit per second operation. The HSSG has adopted an objective to define two physical interfaces (PHY) for 802.3 Ethernet at or about 10 Gigabit per second (10Gb) data rate. One of the physical interfaces is a Wide Area Network compatible PHY at a data rate which is compatible with the payload rate of OC-192c/SDH VC-4-64c. It is intended that this PHY will operate as a Path tributary to 10Gb or higher digital SONET, SDH, or WDM transmission systems. This PHY will provide for 802.3 Ethernet MAC frames to be mapped directly into the path payload envelope without alteration.

We expect to have an authorized project and be sufficiently far along in the definition stage to be able to make our formal request for allocation of a signal label (C2 byte) code point by the completion of the March, 2000 meeting. If there is any groundwork that needs to be laid please let us know. If there are any questions regarding our work please get back in touch.

Thank you very much.

Geoffrey O. Thompson M/S SC01-05  
Chairman, IEEE 802.3 Working Group

Bay Networks, Inc

4401 Great America Parkway

Post Office Box 58185

Santa Clara, CA 95052-8185

Copy: Jim Carlo, Chair, IEEE 802 <jcarlo@ti.com>

Phone: 408-495-1339

FAX: 408-988-5525

Internet E-Mail: gthompso@nortelnetworks.com

This is a copy of  
the letter that was  
sent by 802.3 to  
ITU SG15  
concerning the  
future need for a  
signal label for  
P802.3ae

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**T1X1.5 Contributions:**

**99-267 - Concerns with the use of HDLC framing for encapsulation of 802.3 Ethernet MAC frames**

**99-268r1 - Generic mapping format for IEEE 802.3 Ethernet MAC frames over SONET**

The ad hoc group met Wednesday at lunch and drafted a letter to be sent to T1X1.5 regarding the contributions listed above.

The letter reflected agreement with the concerns expressed in 99-267 about using HDLC to encapsulate 802.3 Ethernet MAC frames. The letter also recognized that the 99-268r1 contribution satisfied the basic criteria for transport of 802.3 Ethernet MAC frames.

Vote on the acceptance of the letter's content by the ad hoc attendees was unanimous

# This is a copy of the T1X1.5 liaison response letter's content

802.3 Liaison Response to T1X1.5

802.3 EOS ad hoc

11/10/99

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Response to liaison communications from T1X1.5 dated October 8, 1999, requesting feedback in reference to T1X1.5/99-267 and T1X1.5/99-268r1.

T1X1.5/99-267 discussed several significant concerns with the use of HDLC framing for encapsulation of Ethernet frames for mapping into SONET/SDH tributary paths as proposed in T1X1.5/99-204. We consider these concerns to be valid. The primary objection is the modification of the 802.3 Ethernet MAC frame to encapsulate within HDLC.

T1X1.5/99-268r1 introduces a generic mapping format for carrying IEEE 802.3 Ethernet MAC frames over SONET in either point-to-point or ring topologies. We believe that this contribution satisfies the following criteria for 802.3 Ethernet standards:

1. A common direct mapping of all 802.3 Ethernet MAC frames without modification,
2. Maintains the error detection performance of the 802.3 Ethernet FCS,
3. Provides deterministic throughput rates,
4. A robust delineation for 802.3 Ethernet data frames,
5. Provides for inter-operation between 802.3 Ethernet MAC frames in SONET payloads and any standardized IEEE 802.3 Ethernet physical layer transport.

We encourage T1X1.5 to continue to develop this contribution ( T1X1.5/99-268r1 ) as a full standard within the Digital Optical Hierarchy standards project. Please keep us informed of continuing developments of this standard.

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**ITU-T SG7 - Draft recommendation on 802.3 Ethernet frames over SDH/WDM by use of LAPS**

Time has not allowed the EOS ad hoc to fully consider the content and a response to this communication.

A response needs to be sent to ITU SG7 well before March 2000, the time of their next rapatures meeting. This will not allow time for it to be considered at the next 802.3 Plenary.

Proposal:

All the EOS ad hoc members to conduct meetings by e-mail and formulate a response for the 802.3 voting membership as a whole.

Yes: \_\_\_\_\_ No: \_\_\_\_\_ Abstain: \_\_\_\_\_