IEEE 802.3 Ethernet Working Group Liaison Communication

Source: IEEE 802.3 Working Group[1]

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Date: 12th March 2009

Subject: Liaison to SG-15 from IEEE 802.3

Action: Response to ITU-T SG15 Liaison Statement titled 'Slow protocols question on a 1Gbit/s point-to-point Ethernet-based optical access system'

From: David Law, Chair, IEEE 802.3 Ethernet Working Group (david_law@3com.com)

Approval: At IEEE P802.3 Plenary meeting, Vancouver, BC, Canada on 12th March, 2009

Dear Mr. Maeda and members of ITU-T Q2/15,

The IEEE 802.3 Working Group thanks SG-15 for their kind liaison regarding your work on the "G.gbe" point to point optical access system. We support the basic goal of having standards from the two groups coexist in a harmonious way.

As to your specific question regarding the usage of the OAM slow protocol channel, the IEEE 802.3 Working Group chartered an Ad-Hoc group to study this issue. This group considered the liaison, the draft G.gbe document, and the Email discussion that occurred on the subject. The conclusion of that discussion was that it was not appropriate to classify organizational specific PDUs as link critical. Therefore, if the "10-frames-per-second" limit is of concern, then neither the OAM nor the slow-protocol organizational specific extension messages are suitable for the encapsulation of OMCI messages.

There seem to be two other possible ways to carry OMCI messages. The first is to use the MAC-Control organizational specific extension (currently part of the IEEE P802.3av™/D3.0 draft). The second is to use the OUI extended Ethertype (defined in IEEE Std 802a™-2003 IEEE standard for local and metropolitan area networks: overview and architecture amendment 1: ethertypes for protoypes and vendor-specific protocol development). Both of these use the same basic concept of defining a PDU format that is extensible by the organization that is identified by the OUI. The MAC-control channel extension is link-local and is typically used for functions

[1] This document solely represents the views of the IEEE 802.3 Working Group, and does not necessarily represent a position of the IEEE, the IEEE Standards Association, or IEEE 802.

that are tightly coupled to the MAC operation, while the Ethertype extension could be transported across bridges and is treated the same as user data.

In the case that you are interested in using extension MAC Control mechanism, the IEEE P802.3av/D3.0 draft is attached[2] for your reference. In the case that using IEEE Std 802a-2003 is preferred, please consult the IEEE 802.1 Working Group.

We understand the importance of timely communication between the two groups and will make every effort to facilitate this. We also request that ITU-T SG-15 continue to keep the IEEE 802.3 Working Group advised as to the progress of its work related to IEEE optical access systems.

Sincerely,

David J. Law

Chair, IEEE 802.3 Ethernet Working Group

Enclosure:

[1] IEEE P802.3av/D3.0 Draft Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications Amendment: Physical Layer Specifications and Management Parameters for 10 Gb/s Passive Optical Networks

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