IEEE 802.3 Ethernet Working Group
Liaison Communications

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Mr. Wael Diab

From: IEEE 802.3 Ethernet Working Group[1]

Subject: Liaison reply to LS-348 and LS-380 from ITU-T Study Group 15

Date: 15 March, 2012

Approval: Agreed to at IEEE 802.3 Plenary meeting, Waikoloa, Hawaii, 15 March 2012

Dear Messrs Effenberger and Kani,

We thank you for your letters LS-349 dated 16 December 2011 and LS-380, dated 9 February 2012. We share your desire to work together harmoniously in order to align our common goals, eliminate conflicting requirements, and avoid the unnecessary duplication of effort. We also thank you for forwarding a copy of the most recent G.epon draft, which we reviewed with great interest.

From reading your draft we understand that the goal of the G.epon project is to create an alternative set of messages and associated protocols for the management of EPON systems, based on Package B of the IEEE P1904.1 draft standard. This set of messages and protocols is expected to align with the ITU-T OMCI specifications, while the behavior and functions of the EPON system will comply with the IEEE P1904.1 draft and IEEE Std 802.3. Please, confirm that our understanding of the project goals is correct.

We realize that G.epon is in its early draft stages, however we identified several areas that are of concern to the 802.3 working group:

- In section 7.4, the G.epon specification states that "*OMCI-EPON technology shall support Ethernet frames having a maximum length of 1526 bytes.*" Please, note that IEEE 802.3 standard currently supports envelope frames up to 2000 bytes long. Without

[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.

the envelope encapsulation, basic frame sizes shall not exceed 1518 bytes. Please, refer to Table 4-2 in IEEE Std 802.3-2008.

- In section 5, the G.epon document states "*MAC control extension which is defined in Annex31C of 802.3 is a suitable control channel <ed. for managing ONU> because of its broadcasting capability and lack of frame rate limitation.*" Please, note that in IEEE 802.3, the use of MAC Control frames is reserved for protocols that control media access. Using MAC Control frames for generic device management is inconsistent with the IEEE 802.3 model. Also please note that in the draft revision of the IEEE 802.3 specification currently in Sponsor Ballot, the frame limit for Slow Protocol frames can be set programmatically (refer to aSlowProtocolFrameLimit attribute in http://www.ieee802.org/3/maint/requests/maint_1229.pdf).

- In section 8.2.4, the G.epon specification states that the OMCI-EPON OLT transceiver shall conform to Class 1M laser safety. The IEEE Std 802.3 requires OLT transceivers to comply with Class 1 laser safety, therefore devices that are compliant with G.epon may not be compliant with IEEE Std 802.3.

In addition, we would like to clarify whether G.epon intends to use the set of management attributes currently defined in IEEE Std 802.3.1, or will define/reference a different set of attributes.

We feel it is vital to maintain the alignment of our work programs and the resulting specifications. We request that once the G.epon specification reaches a more mature state, ITU-T SG15/Q2 send us another draft to ensure that G.epon does not introduce requirements that are contradictory to IEEE Std 802.3. We further suggest that time for a discussion of G.epon be added to the agenda of our upcoming joint workshop in Geneva in September 2012. As always, the IEEE 802.3 WG would be happy to answer any questions ITU-T SG15/Q2 may have regarding our standard. We look forward to your next update.

Sincerely,

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