



IEEE P1904.1 *SIEPON* Working Group
Standard for Service Interoperability in Ethernet Passive Optical Networks

Source: **IEEE 1904.1 SIEPON Working Group**¹
To: David Law, Chair, IEEE 802.3 Ethernet Working Group
David_Law@3com.com
From: Glen Kramer, Chair, IEEE P1904.1 SIEPON Working Group
glen.kramer@ieee.org
Subject: **Single-Copy Multicast Support in EPON**

Approved at IEEE P1904.1 Working Group meeting, Tokyo Japan, 27-OCT-2010

Dear Mr. Law,

P1904.1 is developing interoperability specifications for IEEE Std 802.3-compliant 1G-EPON and 10G-EPON systems. Our work addresses equipment functionality, traffic engineering, service-level QoS/CoS mechanisms, and management specifications that cover equipment management, service management, and power utilization. The output of P1904.1 will complement the EPON specifications contained within IEEE Std 802.3, which insure interoperability at the Physical layer and Data-Link layer.

In the course of our work we have identified the need for single-copy multicast support by EPON systems. A single-copy multicast capability would be valuable for the selective and efficient distribution of video or management traffic, and would allow the partitioning of an EPON into logical domains suitable for the support of commercial services. We have examined the existing alternatives we are aware of and found inadequacies in all of them. For example, using a specific VID to identify a single-copy multicast group cannot be used for Extended OAM frames, which do not allow the addition of a VLAN tag.

To enable the use of multicast LLIDs, P1904.1 respectfully requests that 802.3 Working Group consider the changes to IEEE Std 802.3, Subclause 65.1.3.3.2 and IEEE Std 802.3av-2009 Subclause 76.2.6.1.3.2 described below:

Following the paragraph that begins with "If the device is an ONU ...," add the following sentence as a third bullet item in each of the aforementioned Subclauses:

If the LLID matches any of the assigned multicast LLIDs, accept the frame.

P1904.1 would be happy to correspond with 802.3 on this topic if desired, and we look forward to your help in resolving this issue.

Very truly yours,

Glen Kramer, Chair, IEEE P1904.1 *SIEPON* Working Group (glen.kramer@ieee.org)

¹ This document solely represents the views of the IEEE P1904.1 Working Group, and does not necessarily represent a position of the IEEE, the IEEE Standards Association, or IEEE Communications Society.