From: IEEE 1588 Working Group

To: ITU-T, Study Group 15, Question 13
IEEE 802.3 Working Group
IEEE 802.1 Working Group

Re: Liaison Statement from ITU-T SG15 entitled “LS on Timestamping Point for Multilane Ethernet Interfaces,” approved at the ITU-T Q13/15 meeting in San Jose, March 2-6, 2015.

Date: April 2, 2015.

The IEEE 1588 Working Group supports the position expressed by the ITU-T Q13/15 committee on multilane Ethernet timestamping. The issue for timing applications is clearly described in the ITU-T liaison document. Note that network latency measurements performed on non-timing protocol frames will also encounter the same issue.

The ITU-T Q13/15 document lists static network element timing error requirements of 20 and 50 ns, for two classes of devices, in the telecommunications industry. It is worth noting that there are also precise timing requirements in several other industries including power utilities, test and measurement, industrial automation, defense, aerospace, audio visual, television and motion picture studios, finance and automotive. Many of the requirements are as strict, or stricter than those from the telecommunications industry.

We believe that this is an issue which needs to be solved at the physical layer, since this is where the skewing and deskewing operations are implemented. We also suggest that the IEEE 802.3 Working Group members have more expertise on PHY implementations and high speed Ethernet than any other standards body. We therefore support the request by the ITU-T Q13/15 committee that IEEE 802.3 take up this issue, at its earliest convenience.

The IEEE 1588 Working Group wishes to be kept up to date on any progress on this issue. We would be happy to review and provide feedback on any draft documents related to the matter.

Because of its importance, if the IEEE 802.3 WG is not able to tackle the issue in the near future than another standards group will be forced to do so. We fear that in this scenario technologists with inadequate understanding of Ethernet PHYs might define requirements for PHY manufacturers, which are unnecessarily difficult to implement or are unclear.

Sincerely,
Doug Arnold and John Eidson
IEEE 1588 Working Group Chairs