

IEEE 802.3 Ethernet Working Group Liaison Communication

Source: IEEE 802.3 Working Group¹

To: Stefano Ruffini Rapporteur Q13/15, ITU-T
stefano.ruffini@ericsson.com

 Silvana Rodrigues Associate Rapporteur Q13/15, ITU-T
silvana.rodrigues@huawei.com

CC: Konstantinos Karachalios Secretary, IEEE-SA Standards Board
 Secretary, IEEE-SA Board of Governors
sasecretary@ieee.org

 Paul Nikolich Chair, IEEE 802 LMSC
p.nikolich@ieee.org

 Adam Healey Vice-chair, IEEE 802.3 Ethernet Working Group
adam.healey@broadcom.com

 Jon Lewis Secretary, IEEE 802.3 Ethernet Working Group
jon.lewis@dell.com

 Steve Gorshe Chair, IEEE P802.3cx Task Force
steve.gorshe@microchip.com

 Steve Trowbridge Chair, ITU-T Study Group 15
steve.trowbridge@nokia.com

From: David Law Chair, IEEE 802.3 Ethernet Working Group
dlaw@hpe.com

Subject: Status of IEEE P802.3cx Improved PTP Timestamping Accuracy Task Force

Approval: Agreed to at IEEE 802.3 plenary teleconference meeting, 18th March 2021

Dear Mr Ruffini,

The IEEE P802.3cx Improving PTP Timestamping Accuracy Task Force has identified four aspects of some recently adopted Ethernet PHYs that could potentially limit the accuracy of transporting PTP timestamps. These aspects can be summarized as:

1. The impact of Idle insertion and removal associated with Alignment Marker / Code Word Marker removal and insertion
2. The impact of different implementations for distributing information across multiple PCS lanes at the transmitter and recovering the information at the receiver
3. Discrepancy between the timestamp reference points specified by IEEE Std 1588 / IEEE Std 802.1AS and IEEE Std 802.3-2018.
4. Transmitter skew not associated with media delays

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.

IEEE P802.3cx has adopted solutions with associated baseline text for each of these and is working on an informative annex to provide guidance to users. Once the baseline text for the annex is adopted, IEEE P802.3cx will move into the Task Force review phase. When draft IEEE P802.3cx moves from Task Force review to the Working Group ballot phase, the Task Force plans to provide a copy of the draft for information to Q13/15. Links to the project scope, objectives and adopted timeline can be found at <<https://www.ieee802.org/3/cx/index.html>>. Note that the timeline is subject to updates.

Sincerely,

David Law

Chair, IEEE 802.3 Ethernet Working Group