

IEEE 802.3 Ethernet Working Group
Liaison Communication

Source: IEEE 802.3 Working Group¹

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From: David Law Chair, IEEE 802.3 Ethernet Working Group
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Subject: Liaison reply to ITU-T SG15: OTNT Standardization Work Plan

Approval: Agreed at IEEE 802.3 plenary meeting, Atlanta, GA, USA, 16 March 2023

Dear Mr Parsons and members of ITU-T SG15,

Thank you for your liaison statement from September 2022 concerning the OTNT Standardization Workplan.

Concerning aspects of this workplan and other activity within Study Group 15, please be aware of the following:

Since our last communication, six additional amendments to IEEE Std 802.3-2022 have been approved:

- Amendment 2: IEEE Std 802.3cs-2022, Physical Layers and Management Parameters for Increased-Reach Point-to-Multipoint Ethernet Optical Subscriber Access (Super-PON), was approved by the Standards Board on 21 September 2022 and published on 18 November 2022.
- Amendment 3: IEEE Std 802.3db-2022, Physical Layer Specifications and Management Parameters for 100 Gb/s, 200 Gb/s, and 400 Gb/s Operation over Optical Fiber Using 100 Gb/s Signaling, was approved by the Standards Board on 21 September 2022 and published on 20 December 2022.

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.

- Amendment 4: IEEE Std 802.3ck-2022, Physical Layer Specifications and Management Parameters for 100 Gb/s, 200 Gb/s, and 400 Gb/s Electrical Interfaces Based on 100 Gb/s Signaling, was approved by the Standards Board on 21 September 2022 and published on 28 December 2022
- Amendment 5: IEEE Std 802.3de-2022, Enhancements to MAC Merge and Time Synchronization Service Interface for Point-to-Point 10 Mb/s Single-Pair Ethernet, was approved by the Standards Board on 21 September 2022 and published on 30 December 2022.
- Amendment 6: IEEE Std 802.3cx-2023, Media Access Control (MAC) Service Interface and Management Parameters to Support Improved Precision Time Protocol (PTP) Timestamping Accuracy, was approved by the Standards Board on 30 March 2023 and is being prepared for publication.
- Amendment 7: IEEE Std 802.3cz-2023, Physical Layer Specifications and Management Parameters for Multi-Gigabit Optical Automotive Ethernet, was approved by the Standards Board on 30 March 2023 and is being prepared for publication.

The current version of the Ethernet MIBs standard is published as IEEE Std 802.3.1-2013. A maintenance project to update this SNMP MIB document to cover the new features present in IEEE Std 802.3-2022 has been initiated.

The current version of the Ethernet YANG models is published as IEEE Std 802.3.2-2019. A maintenance project to update this YANG model to cover the new features present in IEEE Std 802.3-2022 has been initiated.

The following Task Forces, Study Groups, and ad hoc groups are currently active within the IEEE 802.3 Working Group:

- The IEEE P802.3cw 400 Gb/s over DWDM Systems Task Force is in the Working Group ballot phase.
- The IEEE P802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet Task Force is in the Standards Association ballot phase.
- The IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement Task Force is in the proposal selection phase.
- The IEEE P802.3df 200 Gb/s, 400Gb/s, 800Gb/s, and 1.6Tb/s Ethernet Task Force was split in November 2022 and renamed the 400 Gb/s and 800Gb/s Ethernet Task Force. The scope of work is 800 Gb/s PHYs based on 100G/lane signalling (all of which have reach of 2 km or less), as well as some derivative 400 Gb/s PHYs. The rationale for the split is that 100G/lane signalling is well understood, and the work can be completed quickly. This task force is in the Working Group ballot phase.
- The IEEE P802.3dg Physical Layer Specifications and Management Parameters for 100 Mb/s Operation and associated Power Delivery over a Single Balanced Pair of Conductors Task Force was formed out of the Greater than 10 Mb/s Long-Reach Single Pair Ethernet Study Group and is in the proposal selection phase.
- The IEEE P802.3dh Multi-Gigabit Optical Automotive Ethernet using Graded-Index Plastic Optical Fiber Task Force was formerly part of the scope of the P802.3cz Task Force and is in the proposal selection phase.
- The IEEE P802.3dj 200 Gb/s, 400Gb/s, 800Gb/s, and 1.6Tb/s Ethernet Task Force was split out of the original P802.3df task force. This task force will define PHYs based on 200G/lane IMDD signalling or coherent detection. This task force met for the first time in January 2023 and is in the proposal selection phase.

- The IEEE P802.3dk Greater than 50 Gb/s Bidirectional Access PHYs Task Force was formed in January 2023 and is in the proposal selection phase.

At present there are no active Study Groups, which are study activities that have not yet reached the stage of an approved Project Authorization Request (PAR), Criteria for Standardization Development (CSD), or project objectives.

Concerning Issue 31 of the OTNT Standardization work plan itself:

- In Clause 4.7.1.1, the text could be rewritten to remove reference to the amendments that have been incorporated into IEEE Std 802.3-2022 and note the addition of the P802.3dj task force as follows:

IEEE Std 802.3-2022 and IEEE Std 802.3db-2022 include 100G, 200G, and 400G interfaces supporting a variety of reaches and using a variety of signalling formats. Additional high bit rate interfaces are under development by the currently active IEEE P802.3cw, IEEE P802.3df, and IEEE P802.3dj task forces.

- In clause 4.7.1.2, the text can be revised as follows to reflect that 802.3cs has been published:

Various PON interfaces exist in IEEE Std 802.3-2022 and IEEE Std 802.3cs-2022 that may be used as Ethernet access networks.

- The text in clause 4.7.1.13 can be updated to delete the second through 15th bullet points, all of which are referring to amendments to IEEE Std 802.3-2018 that are now incorporated into IEEE Std 802.3-2022. The above-mentioned 4 additional amendments can be added to the bullet list that begins with IEEE Std 802.3dd-2022, and the introductory text to that list can be updated to indicate that there are 7 approved amendments. The bullet list of task forces and study groups can be updated to reflect the information provided above.
- Table 3 in clause 6.1 can be updated to reflect the publication of IEEE Std 802.3db-2022 and IEEE Std 802.3ck-2022, which define interfaces that may be relevant in the context of OTN systems.

Thank you for the opportunity to review and comment on this workplan. We look forward to continued collaboration between ITU-T Study Group 15 and the IEEE 802.3 Working Group.

Sincerely,
David Law
Chair, IEEE 802.3 Ethernet Working Group