

IEEE 802.3 Ethernet Working Group Liaison Communication

Source: IEEE 802.3 Working Group¹

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Subject: Liaison response to OIF liaison "400ZR Interop Project" in respect to IEEE P802.3cn
Approval: Agreed to at IEEE 802.3 interim meeting, Long Beach, CA, USA, 17th January 2019

Dear Mr Otto, Mr Frlan, and members of the OIF,

Thank you for your liaison letter of 8th November 2018, which provided an update on the status of the 400ZR Interop Project and attached the draft 400ZR Implementation Agreement (Document # oif2017.245.10).

Since our last communication, the IEEE P802.3cn Task Force was officially formed, and has held two meetings. The web pages for the two task force meetings may be found at the following URL's:

- IEEE 802 November 2018 Plenary:
http://www.ieee802.org/3/cn/public/18_11/index.html
- IEEE 802.3 Jan 2019 Interim:
http://www.ieee802.org/3/cn/public/19_01/index.html

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 original Project Authorization Request (PAR) for IEEE P802.3cn encompassed a project that was targeting objectives for 50 Gb/s, 200 Gb/s, and 400 Gb/s Ethernet for 40 km and 100 Gb/s and 400 Gb/s Ethernet for 80 km over a DWDM system.

The IEEE 802.3 Working Group has chosen to divide the scope of the original PAR, modifying the IEEE P802.3cn PAR to target 50 Gb/s, 200 Gb/s, and 400 Gb/s Ethernet over SMF for 40 km reaches, and created a new PAR, IEEE P802.3ct, to target 100 Gb/s and 400 Gb/s Ethernet for 80 km over a DWDM system. These two PARs are currently awaiting approval by the IEEE-SA Standards Board, and it is anticipated that they will be approved in February 2019. The updated project documentation for the two projects may currently be found on the IEEE P802.3cn webpage at <http://www.ieee802.org/3/cn/index.html>. Upon the anticipated approval of the IEEE P802.3ct project, a webpage for the new project would be created, and will be at <http://www.ieee802.org/3/ct/index.html>.

Within the scope of the revised IEEE P802.3cn PAR:

- At the November 2018 Plenary, baseline proposals for the three 40 km objectives (50GBASE-ER, 200GBASE-ER4, 400GBASE-ER8) were adopted.
- At the January 2019 Interim, those baseline proposals had been incorporated into an initial Draft 1.0 which was adopted for the beginning of Task Force review.

Within the scope of the new IEEE P802.3ct PAR:

- At the November 2018 Plenary, for the 400 Gb/s Ethernet 80 km objective the DP-16QAM modulation format and CFEC (hard decision Staircase outer-code, soft-decision Hamming inner-code) was selected.
- At the January 2019 Interim:
 - For the 400 Gb/s Ethernet 80 km objective, a detailed proposal for the PCS/PMA and frame format was adopted, consistent with the OIF 400ZR frame format.
 - For the 100 Gb/s Ethernet 80 km objective, DP-DQPSK was adopted as the modulation format, and a PCS/PMA was adopted consistent with the ITU-T G.709.2 frame format.

Given the scope of the anticipated IEEE P802.3ct project, and one of its objectives targeting 400 Gb/s operation on a single wavelength for at least 80 km over a DWDM system, we request that the OIF continue to provide updates on the 400ZR project.

Sincerely,
David Law
Chair, IEEE 802.3 Ethernet Working Group