

IEEE 802.3 Ethernet Working Group  
**DRAFT** Liaison Communication

Source: IEEE 802.3 Working Group<sup>1</sup>

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From: David Law Chair, IEEE 802.3 Ethernet Working Group  
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Subject: Liaison reply to Liaison "400ZR IA Maintenance Project update", dated 08 November 2021.

Approval: Agreed to at IEEE 802.3 plenary electronic meeting, 14 July 2022

Dear Mr. Otto and members of the OIF,

We would like to thank the OIF for providing a status update on the 400ZR IA Maintenance Project and the latest draft of the 400ZR Implementation Agreement.

The following highlights key progress made by the IEEE P802.3cw Task Force since our last communication:

- Based on the progress of the project, a new project timeline was adopted by the Task Force at its 21 March 2022 teleconference. The new timeline may be found at [https://www.ieee802.org/3/cw/proj\\_doc/timeline\\_3cw\\_220321.pdf](https://www.ieee802.org/3/cw/proj_doc/timeline_3cw_220321.pdf). The new target date for ratification of the IEEE P802.3cw standard is March 2024.
- Given the importance of EVM data for validating the use of EVM for 400 Gb/s 16-QAM signaling, we wish to inform you that the following new EVM data was presented to the IEEE P802.3cw Task Force:
  - 400GBASE-ZR Performance versus Tx EVM - [https://www.ieee802.org/3/cw/public/22\\_03/maniloff\\_3cw\\_01\\_220314.pdf](https://www.ieee802.org/3/cw/public/22_03/maniloff_3cw_01_220314.pdf)

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<sup>1</sup> 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.

- 400GBASE-ZR EVM Characterization -  
[https://www.ieee802.org/3/cw/public/22\\_0516/williams\\_3cw\\_01\\_220516.pdf](https://www.ieee802.org/3/cw/public/22_0516/williams_3cw_01_220516.pdf)
- Transmitter Metric for 400GBase-ZR Interoperability -  
[https://www.ieee802.org/3/cw/public/22\\_0523/way\\_3cw\\_01a\\_220523.pdf](https://www.ieee802.org/3/cw/public/22_0523/way_3cw_01a_220523.pdf)
- Based on the noted contributions, the IEEE P802.3cw Task Force has selected a normative maximum EVM of 12%. This has been combined with normative TX parameters.
- Other key technical developments include:
  - For the EVM Reference receiver the signal will be equalized using an FIR filter with 15 real taps.
  - Limits for adjacent channel isolation, as defined in Recommendation ITU-T G.671, have been defined.
  - Update to the criteria to determine when a frame alignment word (FAW) is valid.
  - **Other?**

The IEEE P802.3cw Task Force initiated Working Group Ballot with Draft 2.0. We are happy to provide you with this draft, and request that this be shared only with your membership.

We would appreciate any input that the OIF may have relevant to the IEEE P802.3cw project and look forward to the future collaborations between our two groups.

Sincerely,

David Law

Chair, IEEE 802.3 Ethernet Working Group