IEEE 802.3 Ethernet Working Group
DRAFT Liaison Communication

Source:	IEEE 802.3 Working Group[1]	
To:	Karl Bois	Technical Committee chair, OIF [redacted]
	Kimberly Naughton	Project Manager, OIF [redacted]
CC:	Alpesh Shah	Secretary, IEEE-SA Standards Board Secretary, IEEE-SA Board of Governors [redacted]
	Paul Nikolich	Chair, IEEE 802 LMSC [redacted]
	Adam Healey	Vice-chair, IEEE 802.3 Ethernet Working Group [redacted]
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From:	David Law	Chair, IEEE 802.3 Ethernet Working Group [redacted]
Subject:	Liaison to OIF, IEEE 802.3dj 800 GbE Coherent PHYs	
Approval:	Agreed at IEEE 802.3 closing plenary meeting, Denver, CO, USA, 14 March 2024	

Dear Mr. Bois and members of the OIF,

The IEEE P802.3dj project will be entering its next stage, as it has completed its baseline selection and will begin the task of develop a technically complete draft.

The latest list of objectives for the IEEE P802.3dj project may be found at https://www.ieee802.org/3/dj/projdoc/objectives_P802d3dj_240314.pdf.

Please note that the IEEE P802.3dj Task Force has adopted the proposal in https://grouper.ieee.org/groups/802/3/dj/public/23_07/nicholl_3dj_02a_2307.pdf (as modified by https://grouper.ieee.org/groups/802/3/dj/public/24_03/huber_3dj_01a_2403.pdf) as the complete logic baseline for the following 800 GbE Coherent PHYs based on OFEC:

Define a physical layer specification that supports 800 Gb/s operation:

- over a single SMF in each direction with lengths up to at least 20 km
- over a single SMF in each direction with lengths up to at least 40 km

[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 proposal is aligned with the IEEE 802.3dj architecture that specifies an optional 800 Gb/s MII Extender that can be used in a fashion similar to what was done in the OIF's 400ZR Implementation Agreement.

At this time only limited information regarding the technical aspects related to the development of 800ZR has been shared with IEEE 802.3. IEEE 802.3 requests the latest draft of the draft 800ZR Implementation Agreement. This will enable the development of logic for the IEEE P802.3dj 800 GbE PHYs that aligns with 800ZR.

Additionally, please be aware that the IEEE 802.3 Ethernet Working Group received a liaison from the Mobile Optical Pluggables Alliance (MOPA). See https://www.ieee802.org/3/minutes/nov23/incoming/MOPA_to_IEEE_802p3_231102_Redacted.pdf.

This liaison expressed concern about how the use of the MII extender might yield unknown (and un-correctable) latency variation, which would affect the classification of the optical module with respect to PTP time error performance. The OIF was copied on the IEEE 802.3 Ethernet WG's liaison response to MOPA.

This liaison is to explore additional questions with the OIF:

- What is the status of the OIF 800LR IA Project?
- Is there a draft that can be shared?
- Does 800LR utilize the 800GMII Extender? If it does, has the OIF evaluated whether this approach can address supporting "ITU-T Recommendation G.8273.2 'Class C' and 'Class D' system time error performance?

As discussed in the liaison to MOPA, the IEEE 802.3dj Task Force is considering this topic. We will communicate any further developments in the future on this issue.

We look forward to the continued collaboration between our two groups.

Sincerely,

David Law

Chair, IEEE 802.3 Ethernet Working Group