



May 17, 2021

To: David Law (IEEE 802.3 WG Chair),

CC: John D' Ambrosia and participants of "Beyond 400 Gb/s Ethernet Study Group", Jon Lewis (IEEE 802.3 WG Secretary) and participants of IEEE 802.3

Subject: 800G Coherent Project Status

From: Klaus Holger-Otto, OIF Technical Committee Chair
(Klaus-holger.otto@nokia.com)

Dear Mr. Law,

The OIF Q2 Technical and MA&E Committees meetings were held virtually from May 10th through May 14th, 2021. At this meeting the Physical and Link Layer (PLL) Working Group discussed multiple contributions to define 800G coherent interfaces. Currently the group is working towards a baseline draft titled "Implementation Agreement for 800ZR and 800LR Coherent Interfaces". The 800ZR interface is defined to support single-span amplified DWDM links up to 80-120km for datacenter interconnect (DCI) applications. The 800LR interface is defined to support fixed-wavelength unamplified 2-10km links for campus applications. At this meeting the group decided to adopt DP-QAM16 modulation, support 32 channels spaced at 150GHz and adapt the FlexO-8 frame structure for the 800ZR interface. For the 800LR interface the group decided to use DP-QAM16 modulation and a default operating frequency of 193.7THz over G.652 fiber. These interfaces would support Ethernet client(s) (minimum 100GE) up to 800G aggregate bandwidth.

Since Ethernet clients are the primary payload for the proposed optical modules and both applications are of interest to the participants at 802.3, we propose to liaise the draft implementation agreements periodically during the project. We would also be interested in any future 800GE chip-to-module (C2M) specifications developed within 802.3.

Sincerely,
Klaus-Holger Otto,
OIF Technical Committee Chair (Klaus-holger.otto@nokia.com)