November 9, 2020

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 Start

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

Dear Mr. Law,

The OIF Q4 Technical and MA&E Committees meetings were held virtually from Nov 2nd through Nov 6th, 2020. At this meeting the Physical and Link Layer (PLL) Working Group voted in favor of a project start for 800G Coherent. This new project has objectives to develop an implementation agreement (IA) to define interoperable 800G coherent optical line specifications for datacenter interconnect (DCI) and campus applications. The DCI objective would support single-span amplified DWDM links upto 80-120km and the campus objective would support fixed-wavelength unamplified 2-10km links. These interfaces would support Ethernet client(s) (minimum 100GE) up to 800G aggregate bandwidth.

This implementation agreement will be highly relevant for router-to-router interconnect use cases where multi-vendor interop is often a requirement. This project should ensure a cost-effective and long-term relevant implementation with single-carrier 800G, coherent detection and advanced DSP / FEC algorithms. The project start proposal attracted supporters from 24 companies, including end users, system, component and test equipment suppliers.

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.

We request that access to the attached documents be restricted to 802.3 participants only and that you acknowledge the OIF in any derivative work.

Sincerely,

Klaus-Holger Otto,
OIF Technical Committee Chair (Klaus-holger.otto@nokia.com)
Attachment: oif2020.359.07

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