

IEEE 802.3 Beyond 10km Optical PHYs SG - Response to Received Comments

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Comments Received

- IEEE 802.11 - <http://ieee802.org/secmail/msg22606.html>

802.3cn - Amendment: 50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s Operation over Single-Mode Fiber and DWDM (dense wavelength division multiplexing) systems, [PAR](#) and [CSD](#)

7.1 Should 100G be 100Gb/s?

7.1 What is 400ZR ? Suggest put explanation in 8.1

The 7.1 Sponsor Organization section is hard to parse.

7.1 “Stakeholders have expressed a desire to see an IEEE 802.3 standard address 100 Gb/s Ethernet and 400 Gb/s Ethernet over DWDM systems.

Where appropriate, existing standards will be referenced, rather than duplicated.”

This section should describe the projects that have similar scope, and not promise features or direction. This first sentence is unnecessary, and the second sentence is not actionable. Neither sentence is appropriate in this clause, please delete.

**802.3cn - Amendment: 50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s
Operation over Single-Mode Fiber and DWDM (dense wavelength
division multiplexing) systems, [PAR](#) and [CSD](#)**

CSD: Distinct Identity: in the PAR Section 7.1 two similar projects are identified. Please describe how the 802.3 project while similar is distinct from those projects here in the CSD. This has answered the extra criteria that 802.3 has added, but not the general 802 question of Distinct Identity.

Proposed Response to 7.1 Concerns / Issues

- Change the proposed response to the following (changes indicated in red)-

While there are no other IEEE standards or projects with a similar scope, the IEEE 802.3 Working Group has received liaisons from two organizations indicating that the respective groups have related efforts underway. ITU-T Study Group 15 has communicated that it is revising Recommendation ITU-T G.698.2 to include multi-vendor interoperable 100 Gb/s single channel optical interfaces ~~that operate over a DWDM system, which specifically includes the rate for 100 Gb/s Ethernet signals, and will include an application code for 100G appropriate for approximately 80 km distances, not precluding 120 km, and without OADMs (optical add drop multiplexers).~~ The Optical Internetworking Forum (OIF) has communicated that it is developing the 400ZR Implementation Agreement (IA), which is targeted at (passive) single channel and (amplified) short-reach DWDM (dense wavelength division multiplexing) /DCI (data center interconnect) pluggable modules with distances supported from 80-120 km. The effort will support 400 Gb/s Ethernet via the 400GAUI-8 interface that is defined by IEEE 802.3, ~~but other system side formats may also be considered. Stakeholders have expressed a desire to see an IEEE 802.3 standard address 100 Gb/s Ethernet and 400 Gb/s Ethernet over DWDM systems. Where appropriate, existing standards will be referenced, rather than duplicated.~~

Stakeholders have expressed the desire for this project, as it will define physical layer specifications and Protocol Implementation Conformance Statements (PICS) for 100 Gb/s and 400 Gb/s Ethernet operation over DWDM systems that are consistent and completely integrated with existing IEEE 802.3 Ethernet specifications.

- **Sponsor Organization:** ITU-T SG15 and OIF
- **Project/Standard Number:** Recommendation ITU-T G.698.2 and OIF 400ZR Implementation Agreement
- **Project/Standard Date:**
- **Project/Standard Title:** Recommendation ITU-T G.698.2 Amplified multichannel dense wavelength division multiplexing applications with single channel optical interfaces and OIF 400ZR Implementation Agreement ~~for 400ZR~~

Distinct Identity

Each proposed IEEE 802 LMSC standard shall provide evidence of a distinct identity. Identify standards and standards projects with similar scopes and for each one describe why the proposed project is substantially different.

[Substantially different from other IEEE 802.3 specifications / solutions.](#)

- Modify response by adding additional first bullet to address first question (**shown in red**)
 - While there are no other IEEE standards or projects with a similar scope, the IEEE 802.3 Working Group has received liaisons from two organizations indicating that the respective groups have related efforts underway. ITU-T Study Group 15 has communicated that it is revising Recommendation ITU-T G.698.2 to include multi-vendor interoperable 100 Gb/s single channel optical interfaces that operate over a DWDM system for approximately 80 km distances. The Optical Internetworking Forum (OIF) has communicated that it is developing the 400ZR Implementation Agreement (IA), which is targeted at (passive) single channel and (amplified) short-reach DWDM (dense wavelength division multiplexing) / DCI (data center interconnect) pluggable modules with distances supported from 80-120 km. The effort will support 400 Gb/s Ethernet via the 400GAUI-8 interface that is defined by IEEE 802.3. Stakeholders have expressed the desire for this project, as it will define physical layer specifications and Protocol Implementation Conformance Statements (PICS) for 100 Gb/s and 400 Gb/s Ethernet operation over DWDM systems that are consistent and completely integrated with existing IEEE 802.3 Ethernet specifications.
 - There is no IEEE 802.3 standard or project developing a standard that supports point-to-point Ethernet over 40 km of single-mode fiber cabling at a data rate of 50 Gb/s, 200 Gb/s, or 400 Gb/s or 80 km over a DWDM system at a data rate of 100 Gb/s or 400 Gb/s.