

IEEE 802.3 Ethernet Working Group
DRAFT Liaison Communication

Source: IEEE 802.3 Working Group¹

To: Frank Effenberger Rapporteur Q2/15
Kazuhide Nakajima Rapporteur Q5/15
Fabio Cavaliere Rapporteur Q6/15

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From: David Law Chair, IEEE 802.3 Ethernet Working Group

Subject: Liaison reply to ITU-T SG15 regarding G.652

Approval: Agreed to at IEEE 802.3 interim meeting, San Antonio, 18 May 2023

Dear Drs. Effenberger, Nakajima, and Cavaliere,

Thank you for your liaison letter informing us about the correspondence activity regarding the properties of ITU-T G.652 fibers. This topic is of great importance to the work of the P802.3dj Task Force and the P802.3dk Task Force and therefore we would like to encourage this process so that we can gain mutual benefits across our standards development organizations.

Per the scope of IEEE 802.3, we use external references such as the ITU for our fiber specifications and changing those specifications is out of our scope. So far IEEE 802.3 has always used worst case fiber specifications in link analysis, which may result in excess

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penalty and increase complexity of optical interfaces. This limitation is particularly severe for 200 Gb/s IMDD technologies at distances up to at least 10 km. However, we are able to specify the channel (cable) specifications that our interface specifications support. This gives us some latitude to align the channel specs with characteristics of the fibers used in current and future infrastructures. The P802.3dj and P802.3dk Task Forces have recently started to investigate whether there are any statistical approaches that would allow us to continue to support the 200 Gb/s IMDD interfaces under consideration, without significantly impacting the performance of the networks.

We would appreciate any guidance or analysis that would lead to any alteration of the reference fiber specifications or improved approaches to address our channel specifications for these interfaces.

You can see an example of a recent contribution the Task Force reviewed here: https://www.ieee802.org/3/dj/public/23_05/cole_3dj_01_2305.pdf.

Regarding the plan going forward, the P802.3dj Task Force and the P802.3dk Task Force will both have meetings on July 10-13^h, 2023 and Sept 11-14^h, 2023 where this topic will continue to be studied. We look forward to continued communications on this topic, so that we can better align our work.

Sincerely,

David Law

Chair, IEEE 802.3 Ethernet Working Group