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SG15-LS331

STUDY GROUP 15

Original: English

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Source: ITU-T Study Group 15

Title: LS/o on initiation of work on greater than 50G Bidirectional Optics

LIAISON STATEMENT

For action to: IEEE 802.3

For comment to: [redacted]

For information to: -

Approval: Question 2/15 meeting (E-meeting, 9 November 2021)

Deadline: 6 December 2021

Contact: Frank Effenberger
Futurewei Technologies
USA
E-mail: [redacted]

Contact: Jun-ichi Kani
NTT
Japan
Tel: [redacted]
Fax: [redacted]
E-mail: [redacted]

Keywords: Bidirectional optics, Access, 100G, 200G, 400G

Abstract: Discussions on higher speed bidirectional optical access PHYs have begun in ITU-T Q2/15. The purpose of this liaison is to inform the IEEE 802.3 of this work, and to inquire if any joint investigation is desired.

First, some background to this topic should be mentioned. Question 2 of ITU-T Study Group 15 has defined several different speeds of single-fibre bidirectional optical access PHYs: G.985 (100 Mb/s), G.986 (1 Gb/s), and G.9806 (10, 25, and 50 Gb/s). In the last case, G.9806 was developed alongside the corresponding IEEE 802.3cp standard (Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s Optical Access PHYs), and these two documents are aligned and complementary to each other. It was an excellent example of cooperation.

Over the past few meetings of Q2/15, we have seen contributions that raise the issue of specifying higher speed bidirectional optics, with speeds of 100 Gb/s or more. There are various issues that have been initially discussed, such as the number of wavelengths and their baud rate, the impact of dispersion, and the distance requirements for such links. No decisions have been made so far; however, most would agree that leveraging or reusing the existing Ethernet PHYs at these speeds would be beneficial.

Therefore, Q2/15 would like to explore this topic with 802.3 and maintain close contact to ensure maximum alignment. Q2/15 looks forward to 802.3's response to these issues. Our next relevant meeting is 6-17 December 2021.