INTERNATIONAL TELECOMMUNICATION UNION

TELECOMMUNICATION STANDARDIZATION SECTOR

STUDY PERIOD 2017-2020

SG15-LS99

STUDY GROUP 15

Original: English

Question(s): 6/15 Geneva, 29 January - 9 February 2018

Ref.: SG15-TD139 Annex A

Source: ITU-T Study Group 15

Title: LS/r to IEEE 802.3 on coherent 100 Gbit/s DWDM interfaces (reply to SG15-LS56)

LIAISON STATEMENT

For action to:

For comment to: IEEE 802.3 WG, IEEE 802.3 Beyond 10 km Optical PHYs Study Group

For information to:

Approval: ITU-T SG15 meeting (Geneva, 9 February 2018)

Deadline: 1 June 2018

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Q6/15 thanks IEEE 802.3 for their Liaison Statement, dated 9 November 2017, which we reviewed during our SG15 Plenary Meeting, Geneva, 29 January – 9 February 2018.

In your liaison statement you informed Q6 that the scope of the IEEE 802.3 Beyond 10 km Optical PHYs Study Group has been expanded to include optical solutions beyond 10 km at 100 Gb/s.

Furthermore, you expressed a wish to receive a copy of draft revised Recommendation ITU-T G.698.2 for the Study Group members, and any further information on this topic that Q6 would be willing to share with IEEE 802.3.

As we clarified in our previous Liaison Statement Q6 has an ongoing activity to revise Recommendation ITU-T G.698.2 to include multi-vendor interoperable 100 Gbit/s single channel optical interfaces and that Q6 is targeting consent of revised G.698.2 at the SG15 Plenary Meeting in October 2018.

Q6 expects to create a relatively mature version of draft revised G.698.2 at the Q6 interim meeting in June 2018 and would be pleased to share that version with IEEE 802.3.

Q6 also considered the outcome of the joint workshop between IEEE 802.3 and ITU-T SG15, held on 27 January 2018, in particular Session 1 "New High-Speed and Long Reach Optical Interfaces" with the suggestion that Q6 should consider including Ethernet rates in its optical signal class definitions to facilitate re-use of specifications.

At this SG15 Plenary Meeting in Geneva Q6 provisionally agreed the definition of optical tributary signal class DP-DQPSK 100G, "A class of continuous digital signals with non-return to zero differential quadrature phase shift keying modulation applied separately to two orthogonal polarizations of a carrier, operating at a total bit rate from nominally 103.1 Gbit/s to nominally 112.74 Gbit/s.", which specifically includes the rate for 100 Gbit/s Ethernet signals. Q6 furthermore decided to also add an application code for 100G applications to the revision of G.698.2 appropriate

for 80 km distances, not precluding 120 km, and without OADMs. Additionally, it was provisionally agreed to adopt differential encoding for the new 100G application codes and to change the format indication from DP-QPSK to DP-DQPSK, where DQPSK refers to differentially encoded QPSK.

As Q6 progresses its work on the revision of Recommendation ITU-T G.698.2, we will be happy to continue to liaise with IEEE 802.3 about the progress made.

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