



August 29, 2022

To: David Law and participants of the IEEE 802.3 Ethernet Working Group
cc: John D'Ambrosia – IEEE P802.3df Task Force Chair

Subject: 800LR IA Project update

From: Klaus-Holger Otto, OIF Technical Committee Chair ([REDACTED])

Dear Mr. Law and participants of IEEE 802.3 Working Group,

The OIF Q3'22 Technical and MA&E Committees meetings were held from August 2nd through August 4th in Toronto, Canada. The focus of this meeting's 800LR work sessions were to discuss and try to reach consensus on some open work items. We are pleased to communicate that the group has reached consensus and selected interleaving, FEC and DSP framing schemes. The project is moving forward with a concatenated FEC approach, utilizing 802.3 RS(544,514) FEC as an outer code, and a BCH(126,110) FEC as an inner code. Permutation functions and convolutional interleavers are used to ensure proper distribution of RS symbols to BCH codewords. The DSP framing consists only of periodic Pilot Symbols inserted every 64 symbols, with a DP-16QAM modulation, resulting in a baud of ~123.7GBd. The 800LR Implementation Agreement scope includes support for 2x400GBASE-R and 1x800GE-ETC (Ethernet Technology Consortium) based on 100G physical lane architectures. We expect further detail to be captured in draft text in the timeframe aligned with our planned Q1 meeting in January 2023.

The optical specifications for 800LR are still being discussed by the group but we hope to have additional information in the future. There have been contributions on C-band vs O-band and associated link loss parameters, but no conclusions have been reached in this meeting.

It is our intention to align our concatenated FEC scheme to architectures discussed in P802.3df Task Force. We very much appreciate our ability to liaise with IEEE 802.3 and look forward to any updates and further developments from the P802.3df Task Force.

Thank you for your interest in CMIS-LT, but we have no information to share at this time.

Sincerely,

Klaus-Holger Otto,
OIF Technical Committee Chair ([REDACTED])