IEEE 802 July 2021
Electronic Plenary

IEEE 802.3 Ethernet WG
Opening Plenary
12 Jul 2021

IEEE 802.3
Beyond 400 Gb/s Ethernet SG
Opening Report
IEEE P802.3 B400G Study Group Project information

- **Study Group Organization**
  - John D’Ambrosia, Study Group Chair
  - Tom Issenhuth, Study Group Recording Secretary

- **Task force web and reflector information**
  - Reflector information: [https://www.ieee802.org/3/B400G/reflector.html](https://www.ieee802.org/3/B400G/reflector.html)
Activities Since Mar 2021 Plenary

- **April 2021 Electronic Session** -
  - Multiple electronic meetings – 4/1, 4/5

- **May 2021 Electronic Session** -
  - Multiple electronic meetings – 4/26, 5/3, 5/17, 5/24

- **June 3 Electronic Meeting** -
Progress to Date

- Adopted Objectives – see next page
- Remaining objectives – to be discussed at July 2021 Session
- Proposed plan – single PAR to be submitted for consideration at Nov Plenary
  - Overview presentation to 802.3 under consideration
• **Non-Rate Specific**
  • Support full-duplex operation only *
  • Preserve the Ethernet frame format utilizing the Ethernet MAC *
  • Preserve minimum and maximum FrameSize of current IEEE 802.3 standard *
  • Support a BER of better than or equal to 10^-13 at the MAC/PLS service interface (or the frame loss ratio equivalent) **
  • Provide support to enable mapping over OTN ***

• **800 Gb/s Related**
  • Support a MAC data rate of 800 Gb/s *
  • Support optional eight-lane 800 Gb/s attachment unit interfaces for chip-to-module and chip-to-chip applications ****
  • Support optional four-lane 800 Gb/s attachment unit interfaces for chip-to-module and chip-to-chip applications ****
  • Define a physical layer specification that supports 800 Gb/s operation:
    • over 8 pairs of MMF with lengths up to at least 50 m *
    • over 8 pairs of SMF with lengths up to at least 100 m *
    • over 8 pairs of SMF with lengths up to at least 2 km *
    • over 4 pairs of SMF with lengths up to at least 500 m *
    • over 4 pairs of SMF with lengths up to at least 2 km *
    • over 4 wavelengths over a single SMF in each direction with lengths up to at least 2 km *
    • over a single SMF in each direction with lengths up to at least 10 km *
    • over a single SMF in each direction with lengths up to at least 40 km *

• **1.6 Tb/s Related**
  • Support a MAC data rate of 1.6 Tb/s #
  • Support optional eight-lane 1.6 Tb/s attachment unit interfaces for chip-to-module and chip-to-chip applications #
  • Define a physical layer specification that supports 1.6 Tb/s operation:
    • over 8 pairs of SMF with lengths up to at least 500 m #
    • over 8 pairs of SMF with lengths up to at least 2 km #
Key Anticipated Dates

- Jan 14, 2021: 1st Meeting of B400G Study Group
- Mar 2021: B400G SG Rechartered by IEEE 802 EC to July 2021 Plenary
- **Jul 14, 2021: B400G SG extension deadline**
- July 22, 2021: Request SG Rechartering by IEEE 802.3
- July 23, 2021: Request SG Rechartering by 802 EC (to Nov 2021 Plenary)
- Aug - Sept 2021
  - SG - Finish / approve project documentation (PAR / CSD / Objectives)
- 30 days before start of Nov 2021 Plenary (Est – Oct 5, exact date pending)
  - Submit PAR / CSD to 802
- Oct 18 – NesCom Submittal Deadline
- Between NesCom Submittal and Nov Plenary – consider presenting project / project documentation to 802.3 WG for review
- Nov 2021 Plenary
  - 802.3 WG Approval
  - 802 EC Approval
- Dec 6 -8 – IEEE SA Standards Board Meeting
- Jan 2022 – Anticipated 1st TF Meeting
802.3 July Plenary Plans

- **July 2021 Session Page (7/13, 7/20, 7/29)**—

- **Goals** –
  - Request SG Extension and Rechartering
  - Consider objectives / CSD / Project Documentation
  - Consider liaison responses to OIF and ITU-T SG15
WG Motion

- Move that the IEEE 802.3 Working Group request the extension of the IEEE 802.3 Beyond 400 Gb/s Ethernet Study Group.

- Moved by: John D’Ambrosia
- Second: Tom Issenhuth
- Technical (>=75%)
- Results (802.3 Voters) (y/n/a)
- Motion:

- Note – Motion to request rechartering of B400G Study Group will be brought forward at the 802.3 Closing Plenary
THANK YOU!