

**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>
- Home page: <https://www.ieee802.org/3/B400G/index.html>

Activities Since Mar 2021 Plenary

- **April 2021 Electronic Session -**
https://www.ieee802.org/3/B400G/public/21_04/index.html
 - Multiple electronic meetings – 4/1, 4/5
- **May 2021 Electronic Session -**
https://www.ieee802.org/3/B400G/public/21_05/index.html
 - Multiple electronic meetings – 4/26, 5/3, 5/17, 5/24
- **June 3 Electronic Meeting -**
https://www.ieee802.org/3/B400G/public/21_06/index.html

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**

* Adopted by B400G SG, Apr 2021
 ** Adopted by B400G SG Apr 26, 2021
 *** Adopted by B400G SG May 3, 2021
 **** Adopted by B400G SG May 17, 2021
 # Adopted by B400G SG Jun 3, 2021
 Approval by 802.3 WG Pending

- 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 MMF with lengths up to at least 100 m *
 - 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 #
 - 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)–**
https://www.ieee802.org/3/B400G/public/21_07/index.html
- **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 ($\geq 75\%$)
- 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!

