

IEEE 802.3cu 100 Gb/s per lane optical PHYs Task Force

Opening Report

Mark Nowell, Cisco
Kona, Hawaii

Week of Nov 11th, 2019

IEEE 802.3cu 100 Gb/s per lane optical PHYs Task Force

Project information

Task Force Organization

Mark Nowell, Cisco, Chair

Kenneth Jackson, Sumitomo Electric, Recording Secretary

Gary Nicholl, Cisco, Editor-in-Chief

Task Force web and reflector information

Reflector information: <http://www.ieee802.org/3/cu/reflector.html>

Home page: <http://www.ieee802.org/3/cu/index.html>

Project Documentation

PAR: http://www.ieee802.org/3/cu/P802_3cu_PAR.pdf

CSD: <https://mentor.ieee.org/802-ec/dcn/19/ec-19-0062-00-ACSD-p802-3cu.pdf>

Objectives: http://www.ieee802.org/3/cu/Objectives_Approved_Sept_2019.pdf (updated last meeting)

Draft Timeline: http://www.ieee802.org/3/cu/public/July19/agenda_3cu_01_1119.pdf

Approved Objectives (Approved March 2019, Updated Sept 2019)

- Support a MAC data rate of 100 Gb/s
- Support a MAC data rate of 400 Gb/s
- 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
- Provide appropriate support for OTN
- Support a BER of better than or equal to 10^{-12} at the MAC/PLS service interface (or the frame loss ratio equivalent) for 100 Gb/s operation
- Support a BER of better than or equal to 10^{-13} at the MAC/PLS service interface (or the frame loss ratio equivalent) for 400 Gb/s operation
- Define a single-wavelength 100 Gb/s PHY for operation over SMF with lengths up to at least 2 km
- Define a single-wavelength 400 Gb/s PHY for operation over SMF with lengths up to at least 10 km
- Define a four-wavelength 400 Gb/s PHY for operation over SMF with lengths up to at least 2 km
- Define a four-wavelength 400 Gb/s PHY for operation over SMF with lengths up to at least 6 km

Activities since July 2019

One interim meeting and 5 ad hoc meetings have been held

Indianapolis, IN interim <http://www.ieee802.org/3/cu/public/Sept19>

Ad hocs http://www.ieee802.org/3/cu/public/cu_adhoc/cu_archive/index.html

Interim TF meeting in Sept 2019, Indianapolis

Reviewed 7 presentations

5 Motions, 3 Straw Polls

Adopted final PMD baselines (400G 6km) and simultaneously modified equivalent objective from 10 km to 6 km

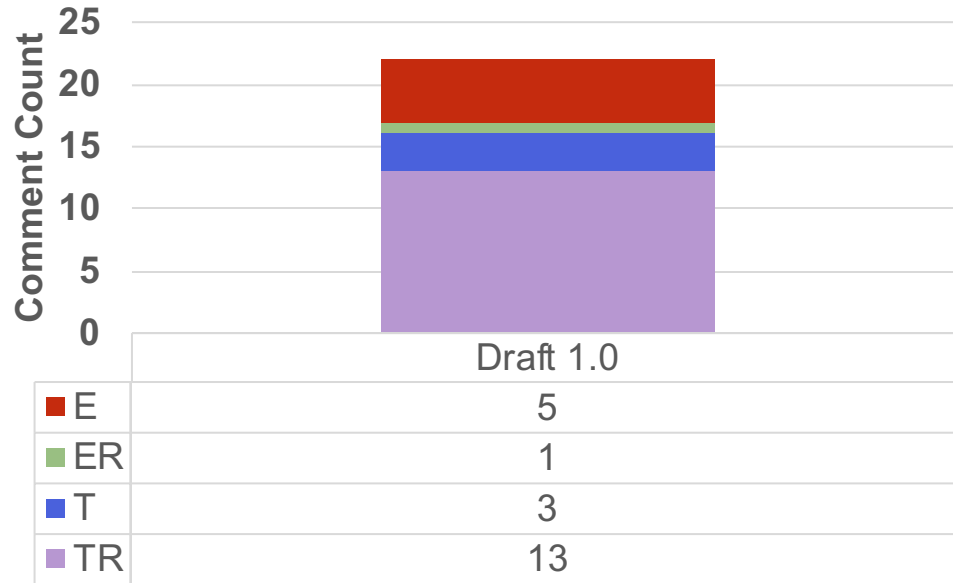
D1.0 Task Force review completed

Review Period: Sept 27th – Oct 29th, 2019

22 comments (E:5 ER:1 T:3 TR:13)

Comments and proposed responses: <http://www.ieee802.org/3/cu/comments/index.html>

Draft 1.0 Task Force Status



* Pre draft 1.0 was circulated for review. D0.4 had greater than 150 comments submitted

IEEE 802.3cu 100 Gb/s per lane optical PHYs Task Force: week plan

Meeting:

Monday afternoon 1pm-5pm (Queen's 5)

Tues all day 9am-5pm (Kona 5)

Goals for this week's meeting

Review technical contributions

Resolve nomenclature discussion on 400G 6km PMD

Adopt timeline

Resolve comments

Big ticket items

Nomenclature

In 802.3 WG closing plenary

No anticipated decisions/approval

Questions?

Thank you!