

IEEE P802.3cm
400 Gb/s over Multimode Fiber
Task Force
Opening Report

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IEEE P802.3 Task Force Project Information

Task force organization

Robert Lingle Jr, OFS, TF Chair

Mabud Choudhury, OFS, TF Secretary

Jonathan King, Finisar, Editor-in-Chief & SR8 clause

Jonathan Ingham, FIT, Editor for SR4.2 clause

Task force web & reflector information

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

Home page: <http://www.ieee802.org/3/cm/>

Project documentation

PAR: http://www.ieee802.org/3/cm/P802_3cm_PAR_140518.pdf

CSD: <https://mentor.ieee.org/802-ec/dcn/18/ec-18-0018-02-00EC-ieee-p802-3cm-draft-csd.pdf>

Objectives:

http://www.ieee802.org/3/cm/Adopted_Objectives_NGMMF_01_08mar18.pdf

Adopted Objectives

1. Support full-duplex operation only
2. Preserve the Ethernet frame format utilizing the Ethernet MAC
3. Preserve the minimum and Maximum FrameSize of current Ethernet standard
4. Provide appropriate support for OTN
5. Specify optional Energy Efficient Ethernet (EEE) capability
6. Support a BER of better than or equal to 10^{-13} at the MAC/PLS service interface (or the frame loss ratio equivalent)
7. Support a MAC data rate of 400 Gb/s
8. Define a physical layer specification that supports 400 Gb/s operation over 8 pairs of MMF with lengths up to at least 100m
9. Define a physical layer specification that supports 400 Gb/s operation over 4 pairs of MMF with lengths up to at least 100m

Activities since March 2017 plenary

Held five ad hoc calls

- Three were NGMMF SG calls, prior to final TF approval
 - <http://www.ieee802.org/3/NGMMF/public/adhoc/index.shtml>
- Two were official TF calls
 - <http://www.ieee802.org/3/cm/public/adhoc/index.shtml>

Met during the May 2018 interim meeting series

- <http://www.ieee802.org/3/cm/public/May18/>
- Major items discussed, decisions made and actions
 - Heard 8 contributions; 35 attendees over two days
 - 6 straw polls and 6 motions
 - http://www.ieee802.org/3/cm/public/May18/straw_polls_and_technical_motions_3cm_0518.pdf
 - Adopted a baseline for the 400 Gb/s objective over 8 pairs MMF
 - Identified key topics requiring consensus-building for the 400 Gb/s objective over 4 pairs MMF

IEEE P802.3cm Task Force: this week's plan

Meeting

- Scheduled for Tuesday afternoon & Wednesday morning
- <http://schedule.802world.com/schedule/schedule/show>

Goals for the meeting

- There is a market need to create our baseline proposals ASAP, based on growing interest in these PMDs for the introduction of 400G in large data centers.
- Hope to adopt a baseline for the 400 Gb/s over 4 pairs MMF objective, so we can produce draft 1.0 by November plenary

Big ticket items

- The group seems to have found consensus on the wavelength ranges for the 4-pair objective during Ad Hoc calls in June.
- The major remaining item is the optical multiplexing scheme for the two wavelengths: bi-directional vs. co-directional

Questions?

Thank you!