P802.3cd
50 Gb/s, 100 Gb/s and 200 Gb/s Ethernet Task Force
Opening Report

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IEEE P802.3cd Task Force
Project information

Task Force Organization

Mark Nowell, Cisco, TF Chair

Kent Lusted, Intel, TF Recording Secretary

Matt Brown, APM, Editor-in-Chief

Task force web and reflector information

Reflector information: http://www.ieee802.org/3/50G/reflector.html

Home page: http://www.ieee802.org/3/cd/index.html

Project Documentation

PAR: http://www.ieee802.org/3/cd/P802.3cd.pdf

CSD: https://mentor.ieee.org/802-ec/dcn/16/ec-16-0060-02-ACSD-802-3cd.pdf

Objectives: http://www.ieee802.org/3/cd/P802d3cd_objectives_v4.pdf

Adopted Objectives (1 of 2)

- 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 optional Energy-Efficient Ethernet operation
- Provide appropriate support for OTN
- Support a MAC data rate of 50 Gb/s and 100 Gb/s
- Support a BER of better than or equal to 10^{-12} at the MAC/PLS service interface (or the frame loss ratio equivalent) for 50 Gb/s and 100 Gb/s operation
- Support a MAC data rate of 200 Gb/s
- Support a BER of better than or equal to 10^{-13} at the MAC/PLS service interface (or the frame loss ratio equivalent) for 200 Gb/s operation

Adopted Objectives (2 of 2)

50 Gb/s Ethernet PHYs

Define single-lane 50 Gb/s PHYs for operation over

- copper twin-axial cables with lengths up to at least 3m.
- printed circuit board backplane with a total channel insertion loss of <= 30dB at 13.28125 GHz.
- MMF with lengths up to at least 100m
- SMF with lengths up to at least 2km
- SMF with lengths up to at least 10km

100 Gb/s Ethernet PHYs

Define a two-lane 100 Gb/s PHY for operation over

- copper twin-axial cables with lengths up to at least 3m.
- printed circuit board backplane with a total channel insertion loss of <= 30dB at 13.28125 GHz.
- MMF with lengths up to at least 100m

Define a single lane 100 Gb/s PHY for operation over duplex SMF with lengths up to at least 500 m, consistent with IEEE P802.3bs Clause 124

200 Gb/s Ethernet PHYs

Define four-lane 200 Gb/s PHYs for operation over

- copper twin-axial cables with lengths up to at least 3m.
- printed circuit board backplane with a total channel insertion loss of <= 30dB at 13.28125 GHz.

Define 200 Gb/s PHYs for operation over MMF with lengths up to at least 100m

Activities since March 2017

One interim meeting and 7 ad hoc meetings have been held

- Huntington Beach, CA, USA Interim http://www.ieee802.org/3/cd/public/Jan17/
- Ad hocs http://www.ieee802.org/3/cd/public/adhoc/archive/index.html

Draft 1.3 generated and sent for Task Force recirculation

- Review Period: April 13th-May 4th 2017
- 60 comments (E:15 ER:1 T:25 TR:19)
- Comments and proposed responses: http://www.ieee802.org/3/cd/public/comments

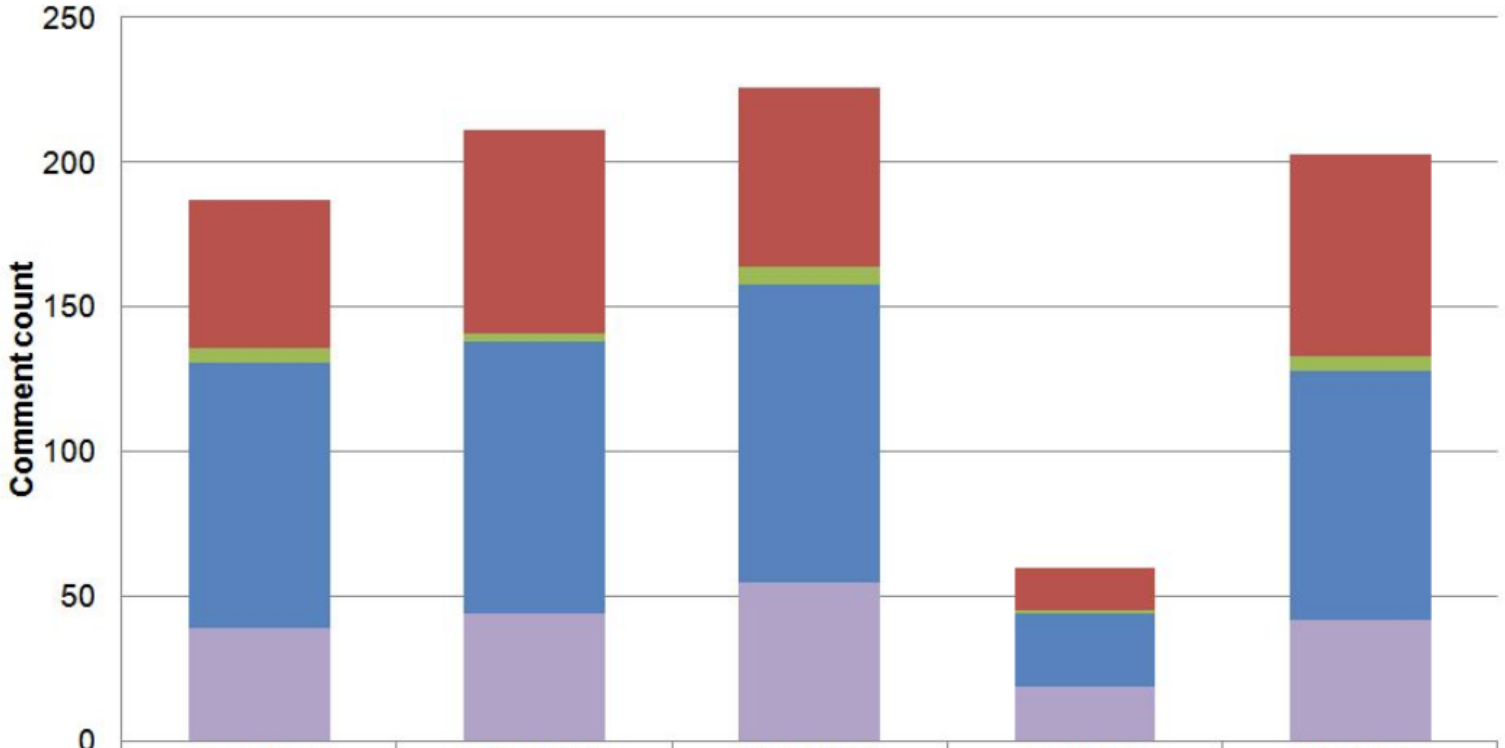
Interim TF meeting in May 2017, New Orleans

- Reviewed 6 presentations
- 2 Straw Polls, 4 Motions
- Approved generation of D2.0

Draft 2.0 generated and sent for Initial Working Group Ballot

- Review Period: May 27th-June 25th, 2017
- 203 comments from 27 reviewers (incl. 30 late comments)
- Comments and proposed responses: http://www.ieee802.org/3/cd/public/comments

D2.0 Task Force Status



	Draft 1.0	Draft 1.1	Draft 1.2	Draft 1.3	Draft 2.0
E	51	70	62	15	70
ER	5	3	6	1	5
T	92	94	103	25	86
TR	39	44	55	19	42

E/ER = editorial, T/TR = technical

P802.3cd Task Force Meeting: week plan

Meeting:

- Tues (right after P802.3bs TF, but no later than 1pm) - Estrelsaal A - Lobby
- Wed (all-day) – rooms for 2 tracks available
- Thursday AM
- Main Meeting room: Estrelsaal A - Lobby
  - Room for Track on Wednesday: Nizza

Goals for this week's meeting

- Comment Resolution
- Review technical presentations
- Generate D2.1

Big ticket items

- None – resolve open TBDs. Addressing COM and TDECQ issues are hot-spots

In 802.3 WG closing plenary

- No motions anticipated

Questions?

Thank you!