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 November 2016

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 1.1 generated and sent for Task Force recirculation

- Review Period: Dec 2-16, 2016
- 208 comments from 17 reviewers including 34 late comments
- Comments and proposed responses: http://www.ieee802.org/3/cd/public/comments

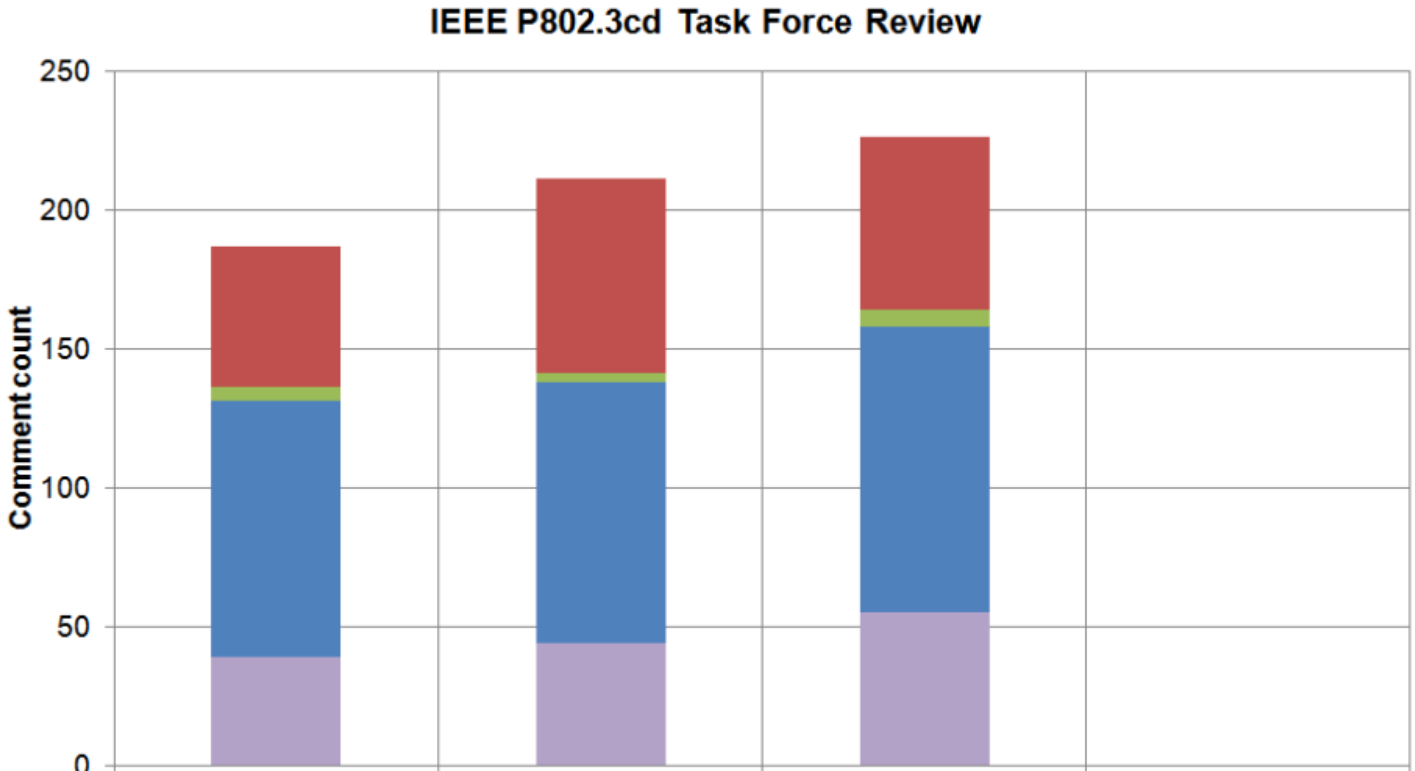
Interim TF meeting in January 2017, Huntington Beach, CA

- Reviewed 8 presentations
- 4 Straw Polls, 4 Motions
- Approved generation of D1.2

Draft 1.2 generated and sent for Task Force recirculation

- Review Period: Feb 3-23, 2017
- 226 comments from 16 reviewers
- Comments and proposed responses: http://www.ieee802.org/3/cd/public/comments

D1.2 Task Force Status



	Draft 1.0	Draft 1.1	Draft 1.2	Draft 1.3
E	51	70	62	TBD
ER	5	3	6	
T	92	94	103	
TR	39	44	55	

E/ER = editorial, T/TR = technical

P802.3cd Task Force Meeting: week plan

- Meeting Monday @ 1pm & all day Tuesday – Fairmont Hotel
  - Monday (13 March)
    - “Columbia” for main Task Force meeting
    - “Boardroom” for breakout track
  - Tuesday (14 March)
    - “British” for main TF meeting
    - “Boardroom” for breakout track
  - See http://802world.org/apps/session/97/attendee/schedule for latest schedule
- Goals for this week’s meeting
  - Comment Resolution
  - Review technical presentations
  - Generate D1.3
- Big ticket items
  - None – resolve open TBDs
- In 802.3 WG closing plenary
  - No motions - WG ballot approval targeted for May 2017 Interim

Questions?

Thank you!