



Agenda and General Information

IEEE 802.3cd

**50 Gb/s, 100 Gb/s and 200 Gb/s Ethernet Task
Force**

Mark Nowell, Cisco

Contingent Interim

Oct 9th, 2018

Voting at Electronic meetings

- IEEE 802.3 Operations Manual, 3.2.4:

Electronic meetings shall only consider motions to progress a draft and only when balloting is substantially complete.

Electronic meetings that will consider motions shall be approved by the WG Chair prior to the meeting announcement. In such meetings only IEEE 802.3 Working Group members may make and vote on motions. If a motion is not approved by unanimous consent it shall be taken as a roll call vote.

Agenda

- Approve Agenda
- Approve Minutes
- Ground Rules
- IEEE
 - Structure, Bylaws and Rules
 - Call for Patents
 - IEEE Standards Process
- Comment Resolution
- Motions and Closing Business

Meeting

- Attendance
 - Attendee names and affiliations for this contingent Interim meetings will be taken from the WebEx participants list.
 - Please ensure that your full name and employer/affiliation are indicated correctly.
 - If the WebEx participants list does not correctly indicate your name and employer/affiliation, please send an e-mail to the Task Force recording secretary: Kent Lusted (kent dot c dot lusted at intel dot com).
- WebEx
 - Please mute your lines if you are not speaking
 - *6 to mute/unmute or click on mute button in the WebEx window
 - Noisy, unmuted lines will be muted by the WebEx organizer
 - *6 to unmute if this happens to you

Ground Rules

- Based upon IEEE 802.3 Rules
 - Foundation based upon Robert's Rules of Order
 - Anyone in the room may speak
 - ~~Anyone in the room may vote~~ See earlier slide for voting process
- **RESPECT**... give it, get it
- NO product pitches
- NO corporate pitches
- NO prices!!!
 - This includes costs, ASPs, etc. no matter what the currency
- NO restrictive notices

Important Bylaws and Rules

- **IEEE-SA Operations Manual**
http://standards.ieee.org/develop/policies/sa_opman/
- **IEEE-SA Standards Board Bylaws**
<http://standards.ieee.org/develop/policies/bylaws/>
- **IEEE-SA Standards Board Operations Manual**
<http://standards.ieee.org/develop/policies/opman/>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Policies and Procedures**
<http://standards.ieee.org/about/sasb/audcom/pnp/LMSC.pdf>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Operations Manual**
<http://www.ieee802.org/devdocs.shtml>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Working Group (WG) Policies and Procedures**
<http://www.ieee802.org/devdocs.shtml>
- **IEEE 802.3 Working Group Operating Rules**
http://ieee802.org/3/rules/P802_3_rules.pdf

Participation in IEEE 802 Meetings

Participation in any IEEE 802 meeting (Sponsor, Sponsor subgroup, Working Group, Working Group subgroup, etc.) is on an individual basis

- Participants in the IEEE standards development individual process shall act based on their qualifications and experience. (https://standards.ieee.org/develop/policies/bylaws/sb_bylaws.pdf section 5.2.1)
- IEEE 802 Working Group membership is by individual; “Working Group members shall participate in the consensus process in a manner consistent with their professional expert opinion as individuals, and not as organizational representatives”. (subclause 4.2.1 “Establishment”, of the IEEE 802 LMSC Working Group Policies and Procedures)
- Participants have an obligation to act and vote as an individual and not under the direction of any other individual or group. A Participant’s obligation to act and vote as an individual applies in all cases, regardless of any external commitments, agreements, contracts, or orders.
- Participants shall not direct the actions or votes of any other member of an IEEE 802 Working Group or retaliate against any other member for their actions or votes within IEEE 802 Working Group meetings, see https://standards.ieee.org/develop/policies/bylaws/sb_bylaws.pdf section 5.2.1.3 and the IEEE 802 LMSC Working Group Policies and Procedures, subclause 3.4.1 “Chair”, list item x.

By participating in IEEE 802 meetings, you accept these requirements. If you do not agree to these policies then you shall not participate.

(Latest revision of IEEE 802 LMSC Working Group Policies and Procedures: <http://www.ieee802.org/devdocs.shtml>)

Participants have a duty to inform the IEEE

- Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

Early identification of holders of potential Essential Patent Claims is encouraged

Ways to inform IEEE

- Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); or
- Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
- **Speak up now and respond to this Call for Potentially Essential Patents**

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

Other guidelines for IEEE WG meetings

- All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.
 - Don't discuss the interpretation, validity, or essentiality of patents/patent claims.
 - Don't discuss specific license rates, terms, or conditions.
 - Relative costs of different technical approaches that include relative costs of patent licensing terms may be discussed in standards development meetings.
 - **Technical considerations remain the primary focus**
 - Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.
 - Don't discuss the status or substance of ongoing or threatened litigation.
 - Don't be silent if inappropriate topics are discussed ... do formally object.

For more details, see *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and
Antitrust and Competition Policy: What You Need to Know at
<http://standards.ieee.org/develop/policies/antitrust.pdf>

Patent-related information

The patent policy and the procedures used to execute that policy are documented in the:

- *IEEE-SA Standards Board Bylaws*
(<http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6>)
- *IEEE-SA Standards Board Operations Manual*
(<http://standards.ieee.org/develop/policies/opman/sect6.html#6.3>)

Material about the patent policy is available at
<http://standards.ieee.org/about/sasb/patcom/materials.html>

**If you have questions, contact the IEEE-SA
Standards Board Patent Committee
Administrator at patcom@ieee.org**

IEEE P802.3cd Task Force Approved Project Documents

- 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
- Timeline
 - http://www.ieee802.org/3/cd/P802d3cd_timeline.pdf

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

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 $\leq 30\text{dB}$ 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 $\leq 30\text{dB}$ 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 $\leq 30\text{dB}$ at 13.28125 GHz.
- Define 200 Gb/s PHYs for operation over MMF with lengths up to at least 100m

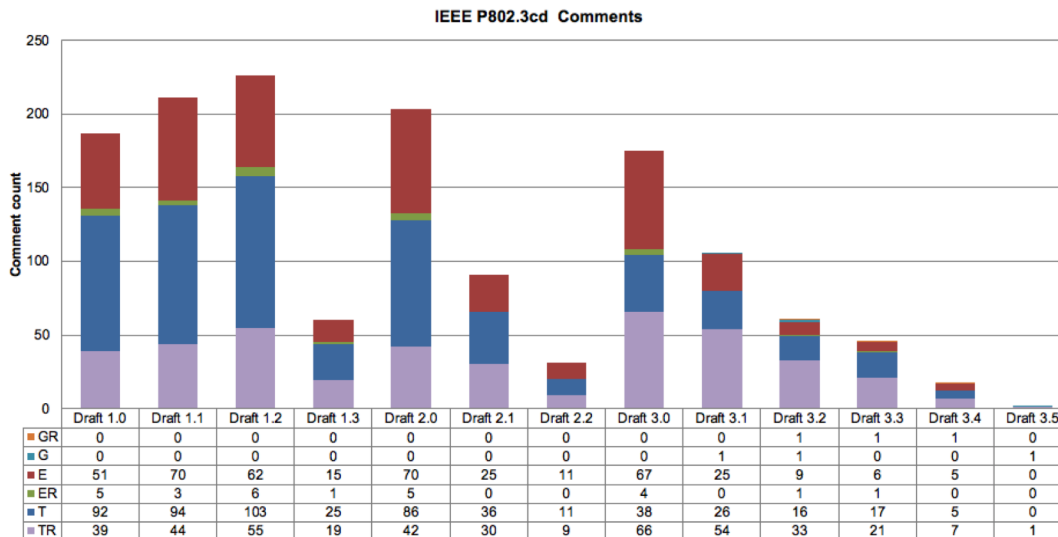
D3.5 Sponsor Ballot Recirc

142 Voters
 125 Approve
 2 Disapprove
 5 Abstain
 132 Ballots returned

Draft 3.5 generated and sent out for SB Recirculation:

- Review Period: Sept 19th to Oct 4th, 2018
- 2 comment received (G:0 GR:1 E:0 ER:0 T:0 TR:1)
- Comments & proposed responses: <http://www.ieee802.org/3/cd/public/comments>

92% Response Rate ($\geq 75\%$ required)
 3% Abstain Rate ($< 30\%$ required)
 98% Approval Rate ($\geq 75\%$ required)



Path to completion

Step	Date	Comment
D3.4 Comment Resolution	Sept 11th	Next week
Request for Conditional RevCom Submittal	Sept 13th	Next week
Launch D3.5 recirculation	Sept 21 st -Oct 5 th	Low probability of comments
802 EC Conditional RevCom Approval request	Oct 2nd	Teleconf
D3.5 Comment resolution - Contingent Interim	Oct 9 th	Today Resolve any comments that are received – probably cancel
Launch D3.6 recirculation	Oct 12 th – Oct 26 th	Only if a change happens
RevCom Submittal	Oct 15th	Woohoo!
D3.6 Comment Resolution November Plenary	Nov 19 th	If needed

Goals for the meeting

- Comment Resolution on D3.5 comments
- Generate D3.6 (if needed) for Sponsor Ballot recirculation



Thank You!

Motions slides from meeting...

Motion #3

Move to accept the comments as closed and progress P802.3cd Draft D3.5 to RevCom submittal without a recirculation.

- M: Matt Brown
- S: Adee Ran
- Technical ($\geq 75\%$),
- Results: Y: N: A:
- Passed without objection