Unapproved Minutes
IEEE P802.3by 25 Gb/s Ethernet on a Single Lane Task Force
Plenary Meeting
March 9-10, 2015
Berlin, Germany
Prepared by Kent Lusted

Table of Contents

IEEE P802.3by 25 GbE Task Force Meeting – 9 March 2015:

Prepared by Kent Lusted

IEEE P802.3by 25 Gb/s Task Force interim meeting convened at 8:11 a.m., Monday, 9 March, 2015, by Mark Nowell, IEEE P802.3by Task Force Chair.

Chair displayed the agenda slides:
http://www.ieee802.org/3/by/public/Mar15/agenda_3by_01_0315.pdf

Introductions were made.

Mark Nowell reviewed agenda in
http://www.ieee802.org/3/by/public/Mar15/agenda_3by_01_0315.pdf

Motion #1:
Move to approve the agenda:
- Moved by: Mike Dudek
- Second by: Thananya Baldwin
- Pass by voice without opposition

January 2015 interim minutes were posted shortly after the meeting. No comments were received.

Motion #2:
Move to approve the January 2015 minutes:
- Moved by: Thananya Baldwin
- Second by: Adee Ran
- Pass by voice without opposition

Called for members of the press. No one responded. Photography and recording are not permitted. Chair reminded participants to observe meeting decorum.

Chair reviewed the reflector and web information. Chair reviewed the ground rules for the meeting.

Chair reviewed the attendance procedures. IMAT sign-in will only available during the opening plenary session from 10:00 a.m. to 12:00 p.m.

Chair reviewed the IEEE structure.

Chair reviews the Bylaws and Rules slides in --
http://www.ieee802.org/3/by/public/Mar15/agenda_3by_01_0315.pdf

---

IEEE Patent Policy: Chair reviewed the Patent related slides on the 4 slides contained in the agenda. Chair calls for potentially essential patents. No one responded. Chair read the Guidelines for IEEE WG meetings.   No one responded.

A communication letter from Ethernet Alliance was received. EA requests input on the 25G plugfest test input. Jeff Lapack noted that there will be 2 events at the plugfest: one for 40G/100G and a co-located 25G. Chair assigned Jeff Lapack to prepare a response.

Chair reviewed the adopted objectives in the agenda slides.

Chair reviewed a summary of the Study Group's January interim meeting.

Chair reviewed the adopted timeline.

Goals for the meeting:
- Review D0.1 comments and resolve them
- Big Ticket Item closure
    - PHY naming
    - 3m cable
- Decisions and motions
- Direct editorial team to generate D1.0

Chair reviewed the presentation schedule for the meeting. All times listed are subject to change.

Chair asked if there was objection to hearing Chris Diminico presentation on the mated test fixture and cable assembly specifications. No one responded.

Chair noted that the architecture and optical ad hocs will continue. The ad hoc schedule will be sent to the email reflector.

Future Meetings:
- May 2015 interim – Week of May 18th
    - Pittsburgh, PA, USA
- July 2015 Plenary – Week of July 12th
    - Waikoloa, Hawaii, USA
- September 2015 interim – Week of Sept 14th
    - Bonita Springs, FL, USA
- November 2015 Plenary – Week of Nov 8
    - Dallas, TX, USA

Anyone interested in hosting a meeting should contact the Chair or Steve Carlson.

25 Gb/s Ethernet Task Force Architecture Ad Hoc Report:
By: Matt Brown, APM
See: http://www.ieee802.org/3/by/public/Mar15/brown_3by_01_0315.pdf
- No comments from participants.

Chief Editor's Report:
By: Matt Brown, APM
See: http://www.ieee802.org/3/by/public/Mar15/802p3by_chief_editors_report_0315.pdf

Matt Brown noted that comments deemed non-controversial are listed on page 22 of the Chief Editors Report. These comments will be considered in a "bucket" motion during closing business. Please contact the Chief Editor to have a comment pulled from the list and considered in the Task Force meeting.

Chief Editor will attempt to address comments in Clause 109 with Clauses 112, if time allows.

Comment resolution begins at 9:04 a.m.

Break at 9:47 a.m. resume at 1:03 p.m.

John D'Ambrosia spoke about the Ethernet Alliance communication letter. See http://www.ieee802.org/3/by/public/Mar15/communication_Ethernet_Alliance_8023by_25GFeas.pdf The letter asks for input from the Task Force participants on the test plan development. Chair intends to send P802.3by draft 0.1 with the response to the communication letter. Jeff Lapack will prepare the response. There was a request for information on the channel models.

Presentation #1:
Title: 2 Port types for 25GBASE-CR.
By: Mike Dudek
See: http://www.ieee802.org/3/by/public/Mar15/dudek_3by_01a_0315.pdf
- Updated version with changes to the supporters list.
- John D'Ambrosia asked to be listed as a supporter.
- Clarifying questions were asked and answered.

Presentation #2:
Title: Understanding the tradeoffs for 25GBASE-CR
By: Dan Dove
See: http://www.ieee802.org/3/by/public/Mar15/dove_3by_01a_0315.pdf
- Updated presentation with changes to the supporters list
- Comment about cables are determined by CA-L and CA-S spec, not length.

Presentation #3:
Title: 25G PHY Types
By: Jeff Slavick
See: http://www.ieee802.org/3/by/public/Mar15/slavick_3by_02_0315.pdf
- Updated presentation with changes to the supporters list
- Clarifying questions were asked and answered

Chair encouraged participants to discuss the port type different choices offline and build consensus.

Resumed comment resolution.

Break at 3:05 p.m. Resume at 3:31 p.m.

Resumed comment resolution.

Straw Poll #1: 5:26 p.m.
- To enable discussion this evening to lead to closure
  - Superset PHY = PHY supporting all FEC options (RS-FEC, BASE-R FEC and noFEC) as mandatory
  - Subset PHY = PHY supporting mandatory BASE-R and no FEC
- I would support adopting (Chicago Rules):
  - (A) A single PHY solution (Superset PHY): 29
  - (B) A two PHY solution (Superset + Subset PHYs): 41
  - (C) Undecided: 11
  Room Count: 84

Chair encouraged offline consensus building tonight on PHY types.

Break at 5:27p.m.

IEEE P802.3by 25 GbE Task Force Meeting – 10 March 2015:

Prepared by Kent Lusted

IEEE P802.3by 25 Gb/s Task Force interim meeting convened at 8:03 a.m., Tuesday, 10 March, 2015, by Mark Nowell, IEEE 25 Gb/s Ethernet Task Force Chair.

Chair displayed the agenda slides:
http://www.ieee802.org/3/by/public/Mar15/agenda_3by_01_0315.pdf

Patent policy: Chair displayed the patent policy related slides in the agenda
(http://www.ieee802.org/3/by/public/Mar15/agenda_3by_01_0315.pdf) . Chair asked if anyone is unfamiliar with the IEEE patent policy. No one responded. Chair called for potentially essential patents. No one responded.

Chair reviewed the plans for the day. Comment resolution will be in the morning. Big ticket items and motions after lunch.

Chair reminded participants to sign into the IEEE Attendance tool and to sign the book.

Resumed comment resolution.

Broke at 10:12 a.m. Resume at 10:39 a.m.

Presentation #4:
Title: LPI signaling across Clause 108 RS-FEC
By: Adee Ran
See: http://www.ieee802.org/3/by/public/Mar15/ran_3by_01_0315.pdf
- No comments

Matt Brown noted that comments deemed non-controversial are listed on page 22 of the Chief Editors Report. These comments will be considered in a "bucket" motion during closing business. Please contact the Chief Editor to have a comment pulled from the list and considered in the Task Force meeting.

Presentation #5:
Title: The cost of using CWMs
By: Jeff Slavick
See: http://www.ieee802.org/3/by/public/Mar15/slavick_3by_01_0315.pdf

Motion #3:   11:37 a.m.
Move to adopt slide 8 of slavick_3by_01a_0315.pdf to remove CWMs from 25GE RS-FEC data streams.
- M: Jeff Slavick
- S: Andre Szczepanek
- Technical (>= 75%),
- Y: 31 , N: 11   , A: 35
- Result: Fails

Motion #4:   11:43 a.m.
Move to adopt first bullet from slide 9 of slavick_3by_01a_0315.pdf to change AM0 from 40G to 100G.
- M: Jeff Slavick
- S: Andre Szczepanek
- Technical (>= 75%),
- Y: 25   , N: 8   , A: 44
- Result: passes

Resumed comment resolution.

Chair noted that discussion on PHY types and the associated motions will occur after lunch.

Broke for lunch at 12:03 p.m. Resume at 1:13 p.m.

Motion #5: 2 PHY types
Move to:
- – adopt the PHY type approach outlined on page 5 of dudek_3by_01b_0315.pdf. This defines both 25GBASE-CR and 25GBASE-CR-S PHY types.
- – create an informal communication to the SFF committee to inform them of our decision
- M: Brad Booth
- S: Dan Dove
- Technical (>= 75%),
- Y: 35   , N: 2   , A: 7
- Result: passes! 1:30 p.m.

<mark>Action Item:</mark> Dan Dove to develop a draft informal communication to be reviewed by Task Force in May meeting.

Presentation #6:
Title: Auto-negotiation New Proposal
By: Mike Dudek
See: http://www.ieee802.org/3/by/public/Mar15/dudek_3by_03_0315.pdf
- Much discussion on the resolution flow on slide 4.
- Request by TF to map proposal into a truth table format and re-present later in meeting.

Motion #6: 2:20 p.m.

Move to:
- – Adopt the backplane PHY types 25GBASE-KR and 25GBASE-KR-S analogous to 25GBASE-CR and 25GBASE-CR-S as outlined on page 5 of dudek_3by_01b_0315.pdf
- M: Adee Ran
- S: M Dudek
- Technical (>= 75%),
- Y: 33 , N: 1   , A: 5
- Result: passes

Presentation #7:

Title: 25GE hi_ber Issues

By: Eric Baden

See: http://www.ieee802.org/3/by/public/Mar15/baden_3by_02_0315.pdf
- Clarifying questions were asked about the bad CWM indication mechanism proposed on slide 6.

Resumed comment resolution.

Action Item: Adee Ran to confirm that the proposed window size and BER count on comment #13 is correct.

Break at 3:02 p.m.   Resume at 3:20 p.m.

Action Item: Adee Ran. With respect to comment #127, it is accepted but the signaling method needs to be addressed in the next draft.

Chair noted that updated presentations were posted to the website.

Presentation #8:

Title: Auto-negotiation New Proposal

By: Mike Dudek

See: http://www.ieee802.org/3/by/public/Mar15/dudek_3by_03a_0315.pdf
- Discussion of the newly added truth table

Motion #7: 5:10 p.m.

Move to adopt the Auto-negotiation FEC resolution proposal in dudek_3by_03a_0315.pdf, slide 2-4 for the cable and backplane PHYs.
- M: Mike Dudek
- S: Adee Ran
- Technical (>= 75%),

- Y: 26 , N: 0   , A: 8
- Result: passes

Presentation #9:
Title: Feasibility of a 3m DAC Link Without FEC
By: Mike Andrewartha
See: http://www.ieee802.org/3/by/public/Mar15/andrewartha_3by_01a_0315.pdf
- No comments

Presentation #10:
Title: Aligning Test 3 and Test 4 Fitted Insertion Loss Coefficients to Posted Channels
By: Rich Mellitz
See: http://www.ieee802.org/3/by/public/Mar15/mellitz_3by_01_0315.pdf
- Received questions about the last row of the table on slide 8.

Presentation #11:
Title: Adding a No FEC cable (CA-N) to 25GBASE-CR
By: Mike Dudek
See: http://www.ieee802.org/3/by/public/Mar15/dudek_3by_02b_0315.pdf

Presentation #12:
Title: Proposed response to editors note page 158 line 6
By: Tom Palkert
See: http://www.ieee802.org/3/by/public/Mar15/palkert_3by_02_0315.pdf

Chief Editor asked if there was objection to reopening comment #130, which was previously closed. No one responded.

Presentation #13:
Title: 802.3by 25 Gb/s Task Group Draft 0.1 MTF ICN TBD
By: Chris Diminico
See: http://www.ieee802.org/3/by/public/Mar15/diminico_3by_01_0315.pdf
-

Chief Editor asked if there was objection to reopening comment #58, which was previously closed. No one responded.

Chair asked if anyone wanted a comment pulled from the bucket list in the editor's report for discussion on the floor. Received a comment that the list was ok. No other responses.

Presentation #14:
Title: FEC-protected chip-to-module 25G-AUI specification

By: Piers Dawe
See: http://www.ieee802.org/3/by/public/Mar15/dawe_3by_01a_0315.pdf
- Discussed concern of interoperability of hosts designed to this proposal with modules with PMD not employing FEC.

Motion 8: 7:50 p.m.
Move that the IEEE 802.3by 25 Gb/s Ethernet Task Force approve the text in lapak_3by_01_0315.pdf, with editorial license granted to the Chair (or his appointed agent), as an informal communication by the Chair to the Ethernet Alliance.
- M: Andrew Lillie
- S: Brad Booth
- Technical (>= 75%),
- Passed by voice without opposition.

Motion 9: 7:51 p.m.
Move to:
- Adopt proposed responses to bucket comments (slide 22) as indicated in 802p3by_chief_editors_report_0315.pdf
- Generate Draft 1.0 for Task Force review from Draft 0.1 and closed comments
- M: Brad Booth
- S: Mike Dudek
- Technical (>= 75%),
- Passed by voice without opposition.

Motion #10:
Motion to Adjourn:
- Moved by: Adee Ran
- Second by: Mike Dudek
- Passed by voice without opposition.

Meeting ends at 7:52 p.m.

Attendees

IEEE 25Gb/s Task Force, Mar 2015 Plenary			9-Mar-15	10-Mar-15
Last Name	**First Name**	**Affiliation**	**Monday**	**Tuesday**
Andrewartha	Mike	Microsoft	x	x
Anslow	Pete	Ciena Corporation		x
Baden	Eric	Broadcom	x	x
Bains	Amrik	Cisco	x	
Baldwin	Thananya	Ixia	x	x
Bhatt	Vipul	Inphi		x
Bietti	Ivan	Marvell Semiconductor	x	
Bliss	Will	Broadcom		x
Booth	Brad	Microsoft	x	x
Bouda	Martin	Fujitsu		x
Bourgeois	Stephane	Belden	x	x
Braun	Ralf-Peter	Deutsche Telekom	x	x
Brooks	Paul	JDSU	x	x
Brown	David	Semtech	x	
Brown	Matt	Applied Micro	x	x
Brown	Tom	Vitesse Semiconductors	x	x
Carty	Clark	Cisco		x
Chalupsky	David	Intel		x
chang	Jacky	HP	x	x
Chang	Xin	Huawei	x	x
Chuang	Keng Hua	HP	x	x
Clairardin	Xavier	FCI USA		x
D'Ambrosia	John	Dell	x	x
Dawe	Piers	Mellanox	x	x
Dedic	Ian	Fujitsu Semiconductors	x	x
DiMinico	Christopher	MC Communications/Panduit	x	x
Dove	Dan	Dove Networking Solutions (DNS) & Emulex	x	x
Dudek	Mike	QLogic	x	x
Estes	Dave	Spirent Communications	x	x
Ewen	John	IBM	x	x
Filip	Jan	Maxim Integrated Products Inc.		x
Flatman	Alan	LAN Technologies	x	x
Freeburn	Paul	Avaya	x	x
Fu	Shiyong	Huawei	x	x
Ghiasi	Ali	Ghiasi Quantum	x	x
Gong	Zhigang	O-net	x	x
Grillaert	Joosi	Nexans	x	x
Gustlin	Mark	Xilinx		x
Hammond	Bernie	TE Connectivity	x	
Healey	Adam	Avago Technologies		x

11

IEEE 25Gb/s Task Force, Mar 2015 Plenary			9-Mar-15	10-Mar-15
Last Name	**First Name**	**Affiliation**	**Monday**	**Tuesday**
Hidaka	Yasuo	Fujitsu Laboratories of America	x	x
Hirai	Riu	Hitachi	x	
Holden	Brian	Kandou Bus	x	x
Ingham	Jonathan	Avago Technologies	x	x
Ishibe	Kazuhiko	Anristu	x	x
Issenhuth	Tom	Microsoft	x	x
Jackson	Ken	Sumitomo	x	x
Jimenez	Andrew	Anixter Inc.	x	
Jones	Peter	Cisco	x	
Kang	Vincent	GUC	x	
Kareti	Upen Reddy	Cisco	x	x
Karinou	Fotini	Huawei	x	
Kawatsu	Yasuaki	Hitachi-Metals	x	x
Kim	Yong	Broadcom	x	
King	Jonathan	Finisar Corp.	x	
Klempa	Mike	UNH-IOL	x	x
Koehler	Daniel	More than IP	x	x
Lapak	Jeff	UNH-IOL	x	x
Law	David	HP		x
LeCheminant	Greg	Keysight Technologies		x
Lee	Arthur	MediaTek Inc	x	x
Lewis	Dave	JDSU	x	x
Li	Mike	Altera	x	x
Lillie	Andrew	Intel	x	x
Lusted	Kent	Intel	x	x
Maki	Jeffery	Juniper Networks	x	x
Malkiman	Yonatan	Mellanox	x	x
Marris	Arthur	Cadence	x	x
Matsubara	Satoshi	Fujitsu Laboratory Limited	x	x
McDonough	John	NEC America	x	x
Mei	Richard	Commscope	x	
Mellitz	Richard	Intel	x	x
Mooney	Paul	Spirent Communications	x	x
Moritake	Toshiyuki	JAE	x	x
Muir	Ron	JAE	x	x
Nakamoto	Edward	Spirent Communications	x	x
Nordin	Ron	Panduit Corp.		x
Nowell	Mark	Cisco	x	x
Ofelt	David	Juniper Networks	x	x
Ogura	Ichiro	Petra	x	x
Palkert	Tom	Luxtera - Molex - MoSys	x	x
Parthasarathay	Vasudevan	Broadcom		x

IEEE 25Gb/s Task Force, Mar 2015 Plenary			9-Mar-15	10-Mar-15
Last Name	**First Name**	**Affiliation**	**Monday**	**Tuesday**
Pepper	Gerald	Ixia	x	x
Rabinovich	Rick	Alcatel-Lucent	x	x
Ran	Adee	Intel	x	x
Roth	Christopher	Molex	x	x
Rotolo	Salvatore	ST Microelectronics	x	x
Shariff	Masood	Commscope	x	
Slavick	Jeff	Avago Technologies	x	x
Sommers	Scott	Molex	x	x
Stassar	Peter	Huawei	x	x
Stone	Rob	Broadcom	x	x
Swanson	Steve	Corning	x	
Szczepanek	Andre	Inphi	x	x
Szeto	William	Xtera	x	
Tailor	Bharat	Semtech Corp	x	x
Theissen	Hubert	Nexans		x
Tipper	Alan	Semtech	x	x
Tooyserkani	Pirooz	Cisco	x	x
Tracy	Nathan	TE Connectivity	x	x
Trowbridge	Steve	Alcatel-Lucent	x	x
Ulrichs	Ed	Source Photonics	x	x
Valle	Stefano	ST Microelectronics	x	x
Vanderlaan	Paul	Nexans	x	
Wang	Roy	HP	x	x
Wang	Tongtong	Huawei	x	x
Wang	Xinyuan	Huawei	x	
Wertheim	Oded	Mellanox	x	x
White	Martin	Cavium	x	x
Xu	Yu	Huawei	x	x
Zhuang	Yan	Huawei		x
Zivny	Pavel	Tektronix	x	