



IEEE P802.3ba 40Gb/s and 100Gb/s Ethernet

Closing Plenary Report

San Francisco, CA, USA
July 2009

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IEEE P802.3ba Task Force Officers and Editors

<u>John D'Ambrosia</u>	Task Force Chair
<u>Ilango Ganga</u>	Task Force Chief Editor Editor – Clauses 1, 4, 80, Annexes A, 4A
<u>Mark Gustlin</u>	Chair, “Logic” Sub-task Force Editor – Clauses 81, 82
<u>Chris DiMinico</u>	Chair, “Cu” Sub-task Force Editor – Clause 85
<u>Pete Anslow</u>	Chair, “Optical” Sub-task Force Editor – Clause 88
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<u>Alessandro Barbieri</u>	Co-chair – Extended Reach Parallel MMF Ad Hoc
<u>John Petrilla</u>	Co-chair - Extended Reach Parallel MMF Ad Hoc
<u>George Oulundsen</u>	Task Force Secretary
<u>Frank Chang</u>	Task Force Web Master

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- To subscribe to the IEEE P802.3ba Task Force reflector, send an email to:

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- Task Force web page URL:

http://www.ieee802.org/3/ba/

IEEE P802.3ba Private Area

- URL: <http://www.ieee802.org/3/ba/private/>
 - Username: 802.3ba
 - Password: xxxxxxx
 - Password is case sensitive
- Write it down...
- Note - The draft is posted for your review only, and neither the draft nor access information should be copied or redistributed to others in violation of document copyrights.

Task Force Approved Project Documents

■ PAR

- http://ieee802.org/3/ba/PAR/par_0308.pdf

■ 5 Criteria

http://ieee802.org/3/ba/PAR/P802.3ba_5C_0908.pdf

■ Objectives

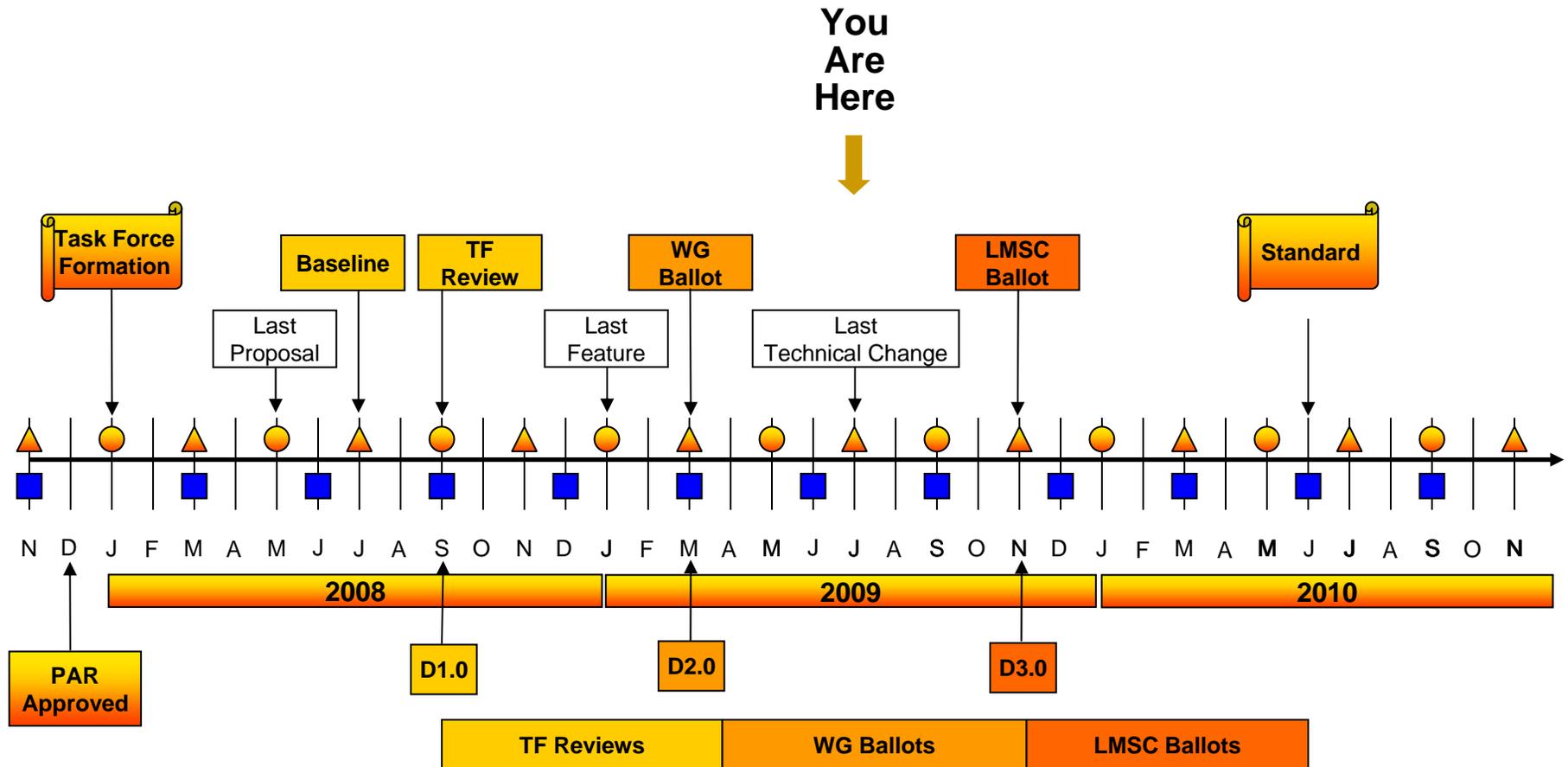
- http://ieee802.org/3/ba/PAR/P802.3ba_Objectives_0308.pdf

Task Force Objectives

- Support full-duplex operation only
- Preserve the 802.3 / Ethernet frame format utilizing the 802.3 MAC
- Preserve minimum and maximum FrameSize of current 802.3 standard
- Support a BER better than or equal to 10⁻¹² at the MAC/PLS service interface
- Provide appropriate support for OTN
- Support a MAC data rate of 40 Gb/s
- Provide Physical Layer specifications which support 40 Gb/s operation over:
 - at least 10km on SMF
 - at least 100m on OM3 MMF
 - at least 10m over a copper cable assembly
 - at least 1m over a backplane
- Support a MAC data rate of 100 Gb/s
- Provide Physical Layer specifications which support 100 Gb/s operation over:
 - at least 40km on SMF
 - at least 10km on SMF
 - at least 100m on OM3 MMF
 - at least 10m over a copper cable assembly

Adopted by IEEE P802.3ba and approved by 802.3 at Mar 2008 Plenary

IEEE P802.3ba Task Force Timeline



* Adopted by IEEE P802.3ba TF at March 08 Plenary

D2.1 Comments report

Description	Editor	Clause	TR	T	ER	E	Total
Front matter, MAC, 40G & 100G Intro	Ilango Ganga	99, 00, 01, A, 4, 4A, 31B, 80	13	4	7	15	39
Management	Hugh Barrass	30, 45	6	9	2	8	25
RS/MII and PCS	Mark Gustlin	81, 82	7	22	1	21	51
PMA	Steve Trowbridge	83, 83C	10	4	4	9	27
XLAUI/CAUI	Ryan Latchman	83A, 83B	24	4	10	4	42
Backplane KR4 related	Arthur Marris	69, 69A, 69B, 73, 74, 84	4	1	0	6	11
Copper CR4 & CR10	Chris Di Minico	85, 85A	58	42	12	12	124
Optical SR4 & SR10, and Cls. 52	Piers Dawe	86, 86A, 52	21	23	7	20	71
Optical 40G LR4	Jonathan King	87	1	16	2	6	25
Optical 100G LR4 & ER4	Pete Anslow	88	4	4	2	2	12
Total comments			148	129	47	103	427

Accomplishments for the Week

- 113 Attendees
- Completed comment resolution
 - Reviewed all T (129), TR(148), and ER (47) received on D2.1
 - 25 technical presentations in support of comments
- Informal Communications
 - ITU-T SG15: Communication of Draft 2.2
- Liaison - ISO/IEC JTC 1/SC 25/WG 3 to IEEE 802.3 regarding optical fibre terminology
 - Addressed comments submitted by Alan Flatman regarding terminology

Big Ticket Item: Cu Objective

■ Motion #1

- Move that the IEEE P802.3ba Task Force modify the following Physical Layer Specification objective for 40 Gb/s and 100 Gb/s operation from “at least 10m over a copper cable assembly” to “at least 7m over a copper cable assembly”
- Results: All (y/n/a): 53/0/4 802.3 (y/n/a): 45/0/3

■ Motion #3

- Move that the IEEE 802.3ba Task Force submit the modified copper cable reach objectives as agreed in Motion #1 to the 802.3 Working Group for approval
- Results: All (y/n/a): 71/0/3 802.3 (y/n/a): 61/0/0

Big Ticket Item - Nomenclature

- Agreement to replace text in 80.1.4 which has letter indicating port type. Adding table (similar to Table 52-1) that equates PHY string to port type including reach
- There was no agreement to change the nomenclature (see straw poll below)
 - Straw Poll: The Task force was asked to indicate a preference between the options:
 - Leave the nomenclature unchanged
 - change the nomenclature to one of 100GBASE-LRE4, 100GBASE-LR4E, 100GBASE-LR4-E
 - Results:
 - All (unchanged / changed): 25 / 25
 - 802.3 (unchanged / changed): 26 / 26

Other Motions

■ **Motion #2**

- Move that the task force:
 - Accepts comment resolutions from D2.1 as recorded in the comment database, P8023ba-D21-Final_Responses_byClisa.pdf
 - Directs the IEEE P802.3ba editorial team to generate Draft 2.2, based on Draft 2.1 and the resolution of comments against Draft 2.1
 - Requests Working Group Chair to Conduct an IEEE 802.3 WG recirculation ballot for P802.3ba/D2.2
- Results: All (y/n/a): 72 / 0 / 1

■ **Motion #4**

- Move that 802.3ba approve the text in trowbridge_02_0709.pdf, attaching IEEE P802.3ba Draft 2.2, with editorial license granted to the Chair (or his appointed agent) as an informal communication by the Chair to ITU-T Study Group 15
- Results: All Passed by voice vote without opposition

Next Steps

- 802.3 WG 2nd Recirculation Ballot
 - WG Ballot to open Aug 18, 2009
 - WG Ballot to close Sept 3, 2009
- Between meetings – “Cu” Subtask Force work
 - Conference calls for further review on Clause 85
- Sept Interim - Comment Response to WG Ballot on Draft 2.2

Updated IEEE P802.3ba Objectives

- Support full-duplex operation only
- Preserve the 802.3 / Ethernet frame format utilizing the 802.3 MAC
- Preserve minimum and maximum FrameSize of current 802.3 standard
- Support a BER better than or equal to 10^{-12} at the MAC/PLS service interface
- Provide appropriate support for OTN
- Support a MAC data rate of 40 Gb/s
- Provide Physical Layer specifications which support 40 Gb/s operation over:
 - at least 10km on SMF
 - at least 100m on OM3 MMF
 - **at least 7m over a copper cable assembly**
 - at least 1m over a backplane
- Support a MAC data rate of 100 Gb/s
- Provide Physical Layer specifications which support 100 Gb/s operation over:
 - at least 40km on SMF
 - at least 10km on SMF
 - at least 100m on OM3 MMF
 - **at least 7m over a copper cable assembly**

Motion (WG)

- Move that 802.3 approve the proposed revision to IEEE P802.3ba Task Force objectives, as per 0709_ba_close_report.pdf
- Technical ($\geq 75\%$)
- Moved by: John D'Ambrosia on behalf of the IEEE P802.3ba Task Force
- 802.3 Voters (Y/N/A): / /
- Motion

Future Meetings

- Future Meeting information at:
 - <http://ieee802.org/3/interims/index.html>
- Sept 2009 IEEE 802.3 Interim
 - Sept 21 - 25
 - Chicago, IL, USA
- Nov 2009 IEEE 802 Plenary
 - Nov 15 – 20
 - Hyatt Regency Atlanta
 - Atlanta, GA, USA
- Jan 2010 IEEE 802.3 Interim
 - To be announced
- March 2010 IEEE 802 Plenary
 - March 14 - 19
 - Caribe Royale Orlando All Suites Resort and Convention Center
 - Orlando, FL, USA



Thank You!

