




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

Opening Plenary Report

Dallas, Tx
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IEEE P802.3ba Task Force Organization

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<u>Frank Chang</u>	Task Force Web Master

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IEEE P802.3ba Private Area

- URL: <http://www.ieee802.org/3/ba/private/>
 - Username: 802.3ba
 - Password: xxxxxxxx
 - Password is case sensitive

- Write it down...

Task Force Approved Project Documents

■ PAR

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

■ 5 Criteria (pending IEEE 802 EC Approval)

- http://ieee802.org/3/ba/PAR/P802.3ba_5C_0308.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

September Interim Meeting

- Seoul, Korea
 - Hosted by LG / Nortel – Thank You!
 - Sept 16 - 19
 - 130 Attendees
 - 23 Presentations
 - 2 presentations related to MMF reach heard after completion of approval of generation of D1.0
 - Adopted 4x10G solution for 40G 10km Objective
 - Review of Proposed Text
 - Result of meeting – Generation of Draft 1.0!
 - Motion - Move to adopt Draft 0.9 and king_01_0908 as modified by the comments contained in D0_9_Comments_0908.pdf as the basis for Draft 1.0.
 - Results » Motion Passes: All (y/n/a) 59/0/1

Straw Polls (1 of 2): Related to 40G \geq 10km SMF

■ **Straw Poll #1:** (Chicago Rules)

- I would support a decision for a 40G SMF solution this week based on:

- a) 4x10G CWDM per cole_01_0908.pdf
- b) 2x20G CWDM per dawe_01_0908.pdf
- c) Serial per traverso_02_0708.pdf

- Results All in the room: 802.3 voters:

- | | |
|-------|-------|
| a) 70 | a) 35 |
| b) 12 | b) 10 |
| c) 31 | c) 20 |

■ **Straw Poll #2:** (select 1 only)

- I would support a decision for a 40G SMF solution this week based on:

- a) 4x10G CWDM per cole_01_0908.pdf
- b) 2x20G CWDM per dawe_01_0908.pdf
- c) Serial per traverso_02_0708.pdf
- d) Abstain

- Results All in the room: 802.3 voters:

- | | |
|-------|-------|
| a) 61 | a) 33 |
| b) 4 | b) 4 |
| c) 24 | c) 16 |
| d) 8 | d) 3 |

Straw Polls (2 of 2): Related to 40G \geq 10km SMF

■ **Straw Poll #3:**

- ❑ I would support the removal of the 40GbE 10km objective if no agreement
- ❑ Results (y/n/a): 20 / 54 / 19

■ **Straw Poll #4:** (proposed by Jeff Maki)

- ❑ I would support a 40G Serial proposal based on 40G electrical lane
- ❑ Results (y/n/a): 5 / 23 / 55

Motions Related to 40G 10km SMF

■ **Motion #1:**

- Move to adopt 2x20G CWDM as per “dawe_01_0908.pdf” as the baseline proposal for the 40GE 10km SMF PMD objective.
- Results: All (y/n/a): 15/51/24, 802.3 voters (y/n/a): 11/33/10
- Motion fails

■ **Motion #2:**

- Move to adopt Serial as per “traverso_02_0708.pdf” as the baseline proposal for the 40GE 10km SMF PMD objective.
- Results: All (y/n/a): 39/49/16, 802.3 voters (y/n/a): 23/33/3
- Motion fails

■ **Motion #3:**

- Move to adopt 4x10G CWDM as per “cole_01_0908.pdf” as the baseline proposal for the 40GE 10km SMF PMD objective.
- Results: All (y/n/a): 74/26/6, 802.3 voters (y/n/a): 41/20/1
- Motion fails

■ **Motion #4:**

- Move to remove the 40GE 10km SMF PMD objective from the P802.3ba project.
- Results: All (y/n/a): 33/43/27, 802.3 voters (y/n/a): 16/21/19
- Motion fails

Motion #3 Reconsidered

■ **Motion #3 Reconsidered:**

- ❑ Move to adopt 4x10G CWDM as per “cole_01_0908.pdf” as the baseline proposal for the 40GE 10km SMF PMD objective.
- ❑ Results: All (71/3/23), 802.3 (39/2/16)
- ❑ Motion passes

■ **Straw Poll #5:** (Requested by Matt Traverso)

- ❑ I believe that the 40GbE serial PMD proposal is worthy of consideration in a future project.
- ❑ Results: Y: 86

Straw Poll related to XR Ad Hoc / MMF

- **Straw Poll #6**: (Requested by Paul Kolesar)
 - The goal for extending the reach on MMF should be:
 - A. at least 150m on OM3
 - B. at least 250m on OM4
 - C. both A and B
 - D. at least 200m on OM4
 - E. both A and D
 - F. there should be no goal for extended reach

- Results (All):
 - A: 7
 - B: 3
 - C: 5
 - D: 1
 - E: 0
 - F: 27

Draft 1.0

- All objectives met.
 - Released Oct 1
 - Comment Submission Date: Oct 30
-
- Thanks to Editorial team, volunteers and contributors for their efforts in releasing and commenting on Draft 1.0.

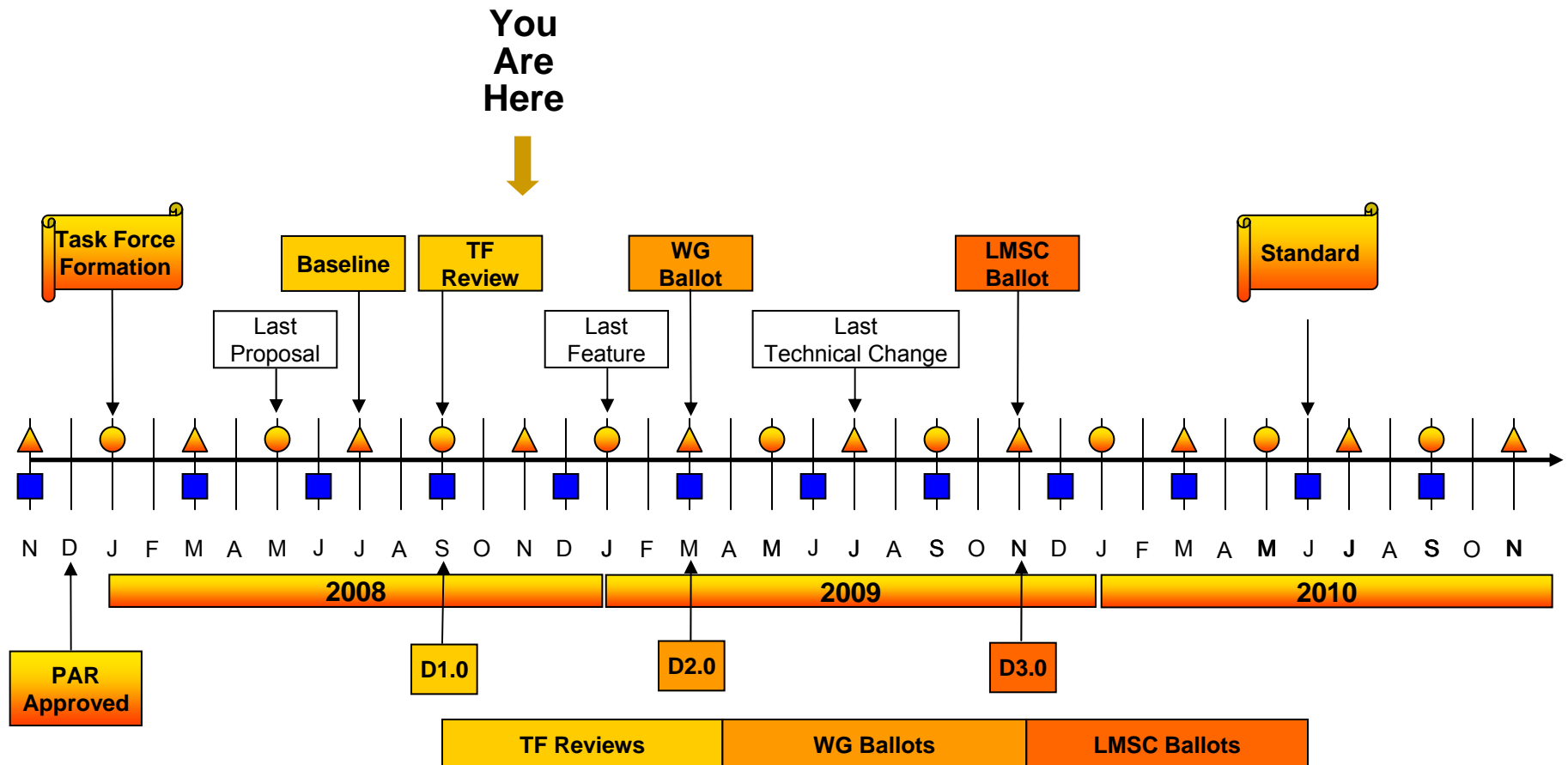
Comments Received Against D1.0

Description	Clause (s)	T/TRs	E/ERs	Total
Front matter, MAC, 40G and 100G Introduction	00, 01, A, 4, 4A, 80, 99	37	38	75
Management	30, 30A, 30B, 45	43	14	57
RS/MII and PCS	81, 82	66	41	107
PMA	83	29	22	51
XLAUI and CAUI	83A	43	18	61
Backplane KR4 related	69, 69A, 69B, 73, 74, 84	32	10	42
Copper CR4 & CR10	85	73	7	80
Optical SR4 & SR10	86	81	17	98
Optical 40G LR4	87	25	6	31
Optical 100G LR4 & ER4	88	32	8	40
	Total	461	181	642

November Interim Meeting

- Adjacent and co-located with 802 Plenary Meeting (11/9 – 11/10)
- ≈ 60 attendees
- Liaisons
 - ITU-T SG15, Document #COM 15-LS-02-E
 - ISO/IEC JTC 1/SC 25/WG 3, Document #N 882A
- Ad hoc Reports
 - XR MMF Ad hoc
 - nAUI Ad hoc
- Comment Resolution – Introductory Material, Logic Sub-Task Force, Cu Sub-Task Force (Annex 83A – XLAUI / CAUI)
- Joint meeting between Task Forces to discuss electrical specifications, FEC, Auto-negotiation

IEEE P802.3ba Task Force Timeline



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

Legend	
▲	IEEE 802 Plenary
●	IEEE 802.3 Interim
■	IEEE-SA Standards Board

Goals for This Week

- Progress towards a technically complete document.
- Comment Resolution
 - Hear 31 technical presentations related to comments
- Consider 2 liaisons
 - ITU-T SG15, Document #COM 15-LS-02-E
 - ISO/IEC JTC 1/SC 25/WG 3, Document #N 882A

Key Issues to Address

- Common to logic and PMD clauses
 - Skew and Delay constraints (PCS/PMA/PMD)
- Test procedures
- Test patterns
- Electrical specifications
- Electrical channel characterization
- Management
 - Strategy to address Multiple PMA instances, atomic PMAs, and PMAs separated from PMDs
 - Management objects (Clause 30)

Meeting Map (1 of 2)

	Sun	Mon	Tues		
8:00		SEC	Copper (Annex 83A)		
8:30					
9:00					
9:30					
10:00					
10:30					
11:00		802.0 Plenary			
11:30					
12:00		Lunch			
12:30					
13:00	All	802.3 Plenary	Logic		
13:30				Copper	
14:00					Optics
14:30					
15:00					
15:30					
16:00					
16:30					
17:00	Dinner				
17:30					
18:00	Joint Mtg of Copper and Optics	Logic	Dinner		
18:30					
19:00					
19:30			Intro Clause 80 & Mgmt		
20:00					
20:30					

Meeting Map (2 of 2)

	Wed	Thur	Fri	
8:00	Logic	Copper	Optics	All - Motions & Closing Business
8:30				
9:00				
9:30				
10:00				
10:30				
11:00	Logic	Copper	Optics	802.3 Plenary
11:30				
12:00				
12:30				
13:00				
13:30				
14:00	Logic	Copper	Optics	SEC
14:30				
15:00				
15:30				
16:00				
16:30				
17:00	Logic	Copper	Optics	SEC
17:30				
18:00				
18:30				
19:00				
19:30				
20:00	Social			
20:30				



Thank You!

