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# **IEEE 802.3bg 40Gb/s SMF PMD Task Force**

Opening Plenary Report

San Diego, CA

July 2010

# 40GE SMF PMD Task Force organization

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Recording Secretary: Volunteer per meeting

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# Reflector and Web

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- To subscribe to the IEEE 802.3 40GE SMF PMD Task Force reflector, send an email to:

***ListServ@ieee.org***

with the following in the body of the message (do not include “<>”):

***subscribe stds-802-3-40GSMF <yourfirstname> <yourlastname>  
end***

- Send IEEE 802.3 40GE SMF Task Force reflector messages to:  
***STDS-802-3-40GSMF@listserv.ieee.org***
- Task Force web page URL:  
***<http://grouper.ieee.org/groups/802/3/bg/index.html>***
- Study Group material archived at:  
***<http://grouper.ieee.org/groups/802/3/40GSMF/index.html>***

# IEEE P802.3bg Private Area

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- URL: <http://www.ieee802.org/3/bg/private/>
  - Username: 802.3bg
  - Password: \*\*\*\*\*
- Write it down as this password will not be posted...
- Note - Any drafts are 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

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- PAR

- [http://grouper.ieee.org/groups/802/3/40GSMF/40GESMF\\_SG\\_PAR\\_0110.pdf](http://grouper.ieee.org/groups/802/3/40GSMF/40GESMF_SG_PAR_0110.pdf)

- 5 Criteria

- [http://grouper.ieee.org/groups/802/3/40GSMF/40GESMF\\_SG\\_5C\\_responses\\_0110.pdf](http://grouper.ieee.org/groups/802/3/40GSMF/40GESMF_SG_5C_responses_0110.pdf)

- Objectives

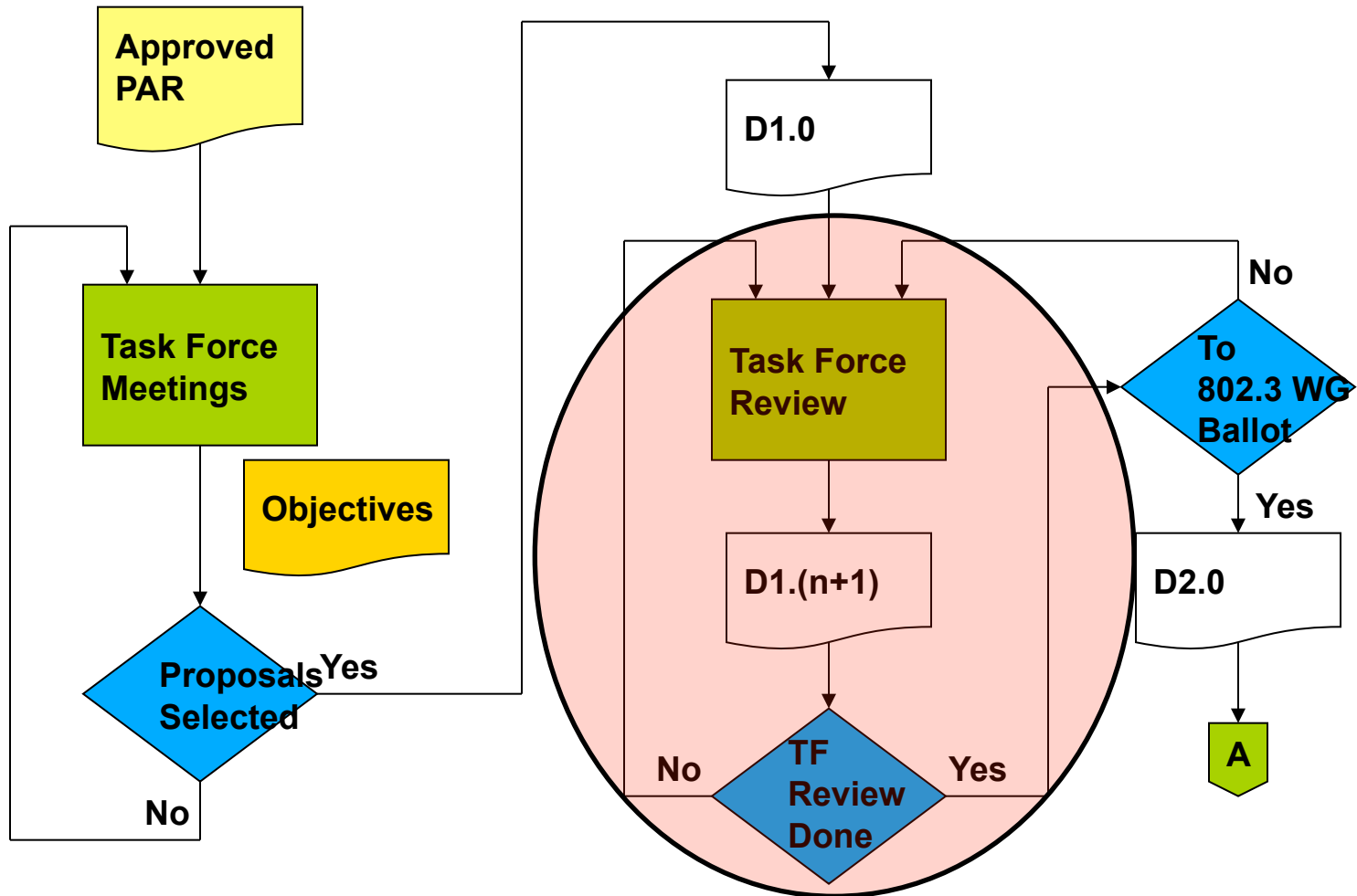
- [http://grouper.ieee.org/groups/802/3/40GSMF/40GESMF\\_SG\\_Objectives\\_0110.pdf](http://grouper.ieee.org/groups/802/3/40GSMF/40GESMF_SG_Objectives_0110.pdf)

# Objectives

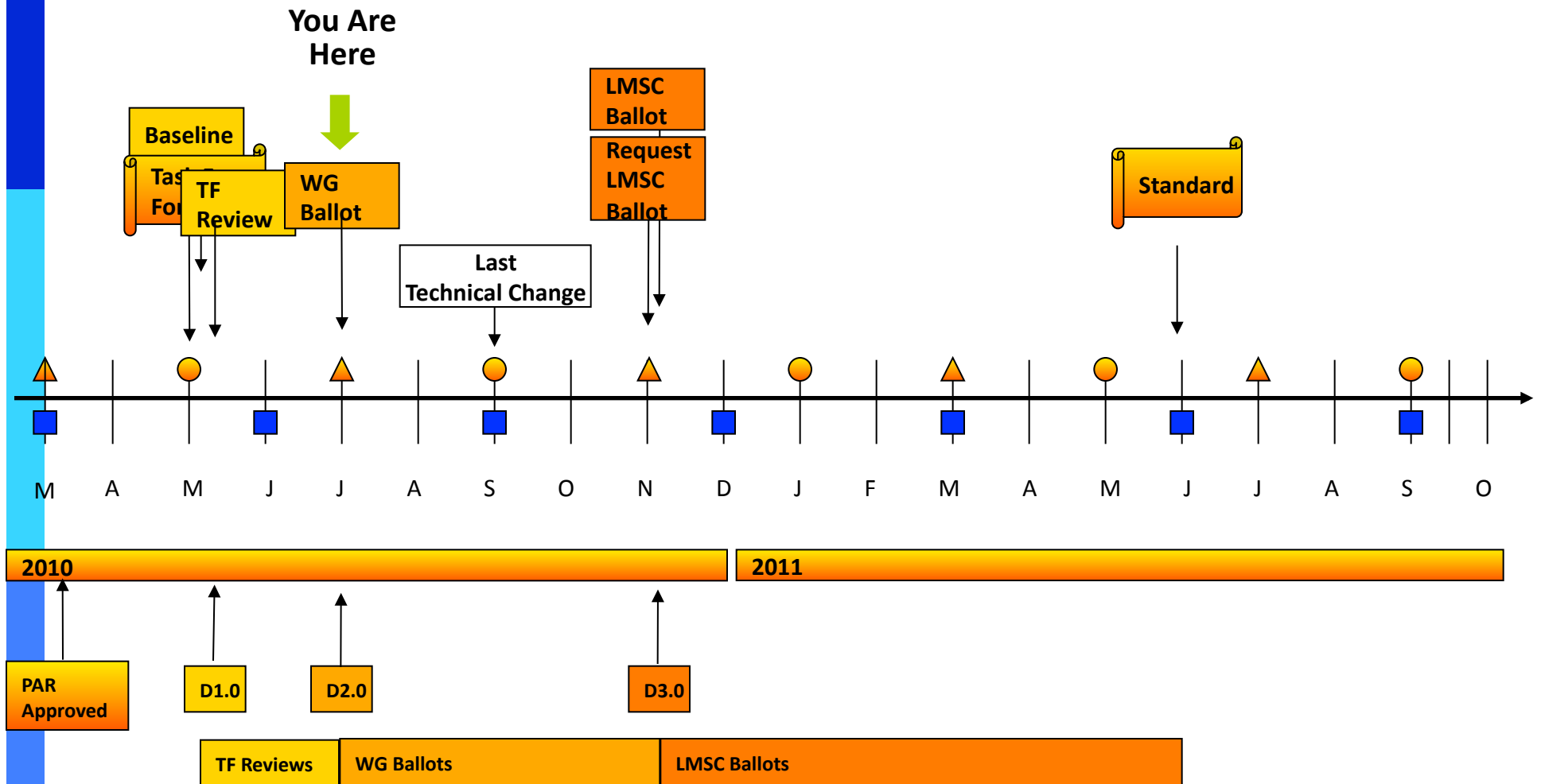
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- Preserve the IEEE 802.3 / Ethernet frame format utilizing the IEEE 802.3 MAC
- Preserve minimum and maximum FrameSize of current IEEE 802.3 standard
- Support a BER better than or equal to  $10^{-12}$  at the MAC/PLS service interface
- Support a MAC data rate of 40 Gb/s
- Use the 40GBASE-R PCS and PMA
- Use only existing electrical and logical interfaces from IEEE Std 802.3 as modified by IEEE P802.3ba
- Provide Physical Layer specification which support 40 Gb/s operation over at least 2 km on SMF.
- Provide optical compatibility with existing carrier 40Gb/s client interfaces (OTU3/STM-256/OC-768/40G POS).

# Overview of IEEE 802.3 Standards Process (2/5) - Task Force Comment Phase



# IEEE P802.3bg Task Force Timeline



\* Not currently adopted by the TF.

**Legend**

- ▲ IEEE 802 Plenary
- IEEE 802.3 Interim
- IEEE-SA Standards Board



# May Interim Meeting

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- Geneva, Switzerland – May 26-27 Hosted by ITU
- First Task Force meeting
- 47 Attendees 12 Presentations
  
- Significant progress made
  - key proposals reviewed
  - resolution to key technical issue (wavelength choice)
  - nomenclature adopted (40GBASE-FR)
  - Baseline text for Draft 1.0 adopted based on proposals. Baseline text highly leveraged from 802.3ba project.
  - Motion made to request pre-submittal of Draft 1.0 in anticipation of request for WG ballot at July plenary.

# Straw polls from May Interim

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## Straw Poll #1:

I would support adopting into the baseline text for 802.3bg a proposal based on:

- a) 1300 nm
- b) 1550 nm
- c) Either 1300 nm or 1550 nm
- d) Need more information

Chair's note: It is understood that project documentation may need to be modified dependent on the accepted baseline proposal.

All in the room: a: 7 b: 10 c: 10 d: 4

## Straw Poll #2:

I believe the optical compatibility objective is met with an interoperability probability against the deployed base of:

- a) >98%
- b) >95%
- c) >90%
- d) >85%
- e) >80%
- f) >75%

Chicago rules

All in the room: a: 20 b: 11 c: 10 d: 8 e: 7 f: 6

# Straw polls from May Interim

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## Straw Poll #3

I believe that the nomenclature for the 40G serial interface should be (Chicago rules):

- a) 40GBASE-FR
- b) 40GBASE-VR
- c) 40GBASE-JR
- d) 40GBASE-MR

All in room

- a) 24
- b) 7
- c) 18
- d) 7

# Motions from May meeting

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## **Motion #1**

Move to adopt the ITU-T style of optical power budget specification as proposed in slide 4 of anslow\_03\_0510. M: Pete Anslow S: Jonathan King

Technical >75% All in room Y: 32 N: 0 A: 0 Motion Passes

## **Motion #2**

Move to adopt the receiver characteristics from slide 6 of anslow\_03\_0510, with the modification that the operating wavelength range will be 1290-1330 nm and 1530-1565 nm.

M: Osamu Ishida S: Zeng Li

Technical >75% All in room Y: 28 N: 0 A: 3 Motion Passes 802.3 Y: 21 N: 0 A: 1

## **Motion #3**

Move to adopt 1550 nm as the nominal transmitter wavelength, accepting as a baseline the optical parameter specifications from slide 5 of anslow\_03\_0510.

M: Chris Cole S: Sam Sambasivan

Technical >75% All in room Y: 31 N: 0 A: 3 Motion Passes 802.3 voters Y: 23 N: 0 A: 1

## **Motion #4**

Move to adopt the optical power budget from slide 7 of anslow\_03\_0510 with editorial license to replace the "TBD" per the motions #2 & #3.

M: Pete Anslow S: Jon Anderson Technical >75% All in room Y: 29 N: 0 A: 2

## **Motion #5**

Move to adopt 40GBASE-FR as the nomenclature for the 40G serial interface.

M: John D'Ambrosia S: Scott Kipp Technical >75% All in room Y: 33 N: 1 A: 2 Motion Passes

# Motions from May meeting

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## **Motion #6**

Move to adopt anslow\_02\_0510 as the 802.3bg baseline text as modified by motions 1-5 as the basis for Draft 1.0 with editorial license to make modifications as necessary.

M: Brad Booth S: Steve Trowbridge

Technical >75% All in room Y: 34 N: 0 A: 2 Motion passes 802.3 voters Y: 26 N: 0 A: 1

## **Motion #7**

Move to adopt proposals in anslow\_04\_0510 to address TBDs in the adopted baseline text and grant editorial license to make appropriate modifications.

M: Pete Anslow S: Jeffery Maki

Technical >75% All in room Y: 29 N: 0 A: 0 Motion Passes

## **Motion #8**

Move to pre-submit Draft 1.0 to IEEE 802.3 in anticipation of requesting WG ballot at the July 2010 Plenary. M: Brad Booth S: Steve Trowbridge

Procedural >50% All in room Y: 34 N: 0 A: 0 Motion Passes

# Activities since last meeting

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- Draft 1.0 released
  - TF Review period opened 2 June 2010, closed 1 July 2010
  - 30 day comment period
  - 21 comments received
- Preview Copy (Draft 1.0) released to 802.3WG on July 1<sup>st</sup> in anticipation of requesting Working Group Ballot in July Plenary (Thursday).

# Goals for this week

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- Progress towards generating D2.0
  - Respond to comments
  - Hear technical presentations
- At the closing session, we will ask WG to initiate WG Ballot for IEEE P802.3bg
  - Changes, if any are made to the previewed version of the draft, will be presented for WG review during the closing plenary immediately prior to the vote for approval to go to WG.

Description	Clause(s)	TR	T	ER	E	Total
Front matter, Intro	00, 1, A, 99	1	3	0	1	5
Management	30, 45	0	0	0	0	0
Introduction, PMA	80, 83	1	2	0	0	3
40GBASE-FR PMD	89	6	5	2	0	13
Total comments		8	10	2	1	21

# Meeting Map

	Mon	Tues	Wed	Thur	Fri
8:00	SEC	All	All	All - Motions & Closing Business	
8:30					
9:00					
9:30					
10:00					
10:30	802.0 Plenary				
11:00					
11:30					
12:00	Lunch	Lunch	Lunch	Lunch	
12:30	802.3 Plenary	All	All	802.3 Plenary	SEC
13:00					
13:30					
14:00					
14:30					
15:00					
15:30					
16:00					
16:30					
17:00					
17:30	Dinner	Dinner	Dinner		
18:00					
18:30					
19:00	Tutorial #1	Tutorial #3	Social		
19:30					
20:00	Tutorial #2	Tutorial #4			
20:30					
21:00					
21:30					

Based on number of comments and presentations, it is anticipated that the 802.3bg TF may complete it's work on Tues.



# Future Meetings

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- Future Meeting information at:
  - <http://www.ieee802.org/meeting/index.html>
- Sept 2010 IEEE 802.3 Interim
  - Sept 20-23<sup>rd</sup> (802.3bg currently estimated to meet on Tues 9/21 – Thurs 9/23 am)
  - Portland, OR - Embassy Suites Hotel Downtown
- Nov 2010 IEEE 802.3 Plenary
  - Nov 7-12
  - Hyatt Regency Dallas at Reunion, Dallas, Texas USA
- How many plan to attend the Sept 2010 Interim meeting in Portland?



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**Thank You!**