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

Closing Plenary Report

Denver, CO
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John D'Ambrosia
jdambrosia@ieee.org

IEEE P802.3ba Task Force Organization

John D'Ambrosia	Task Force Chair
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Mark Gustlin	"Logic" Sub-task Force Chief Editor Editor – RS and PCS Clauses
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Alessandro Barbieri	Co-chair – Extended Reach Parallel MMF Ad Hoc
John Petrilla	Co-chair - Extended Reach Parallel MMF Ad Hoc
George Oulundsen	Task Force Secretary
Frank Chang	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:

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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
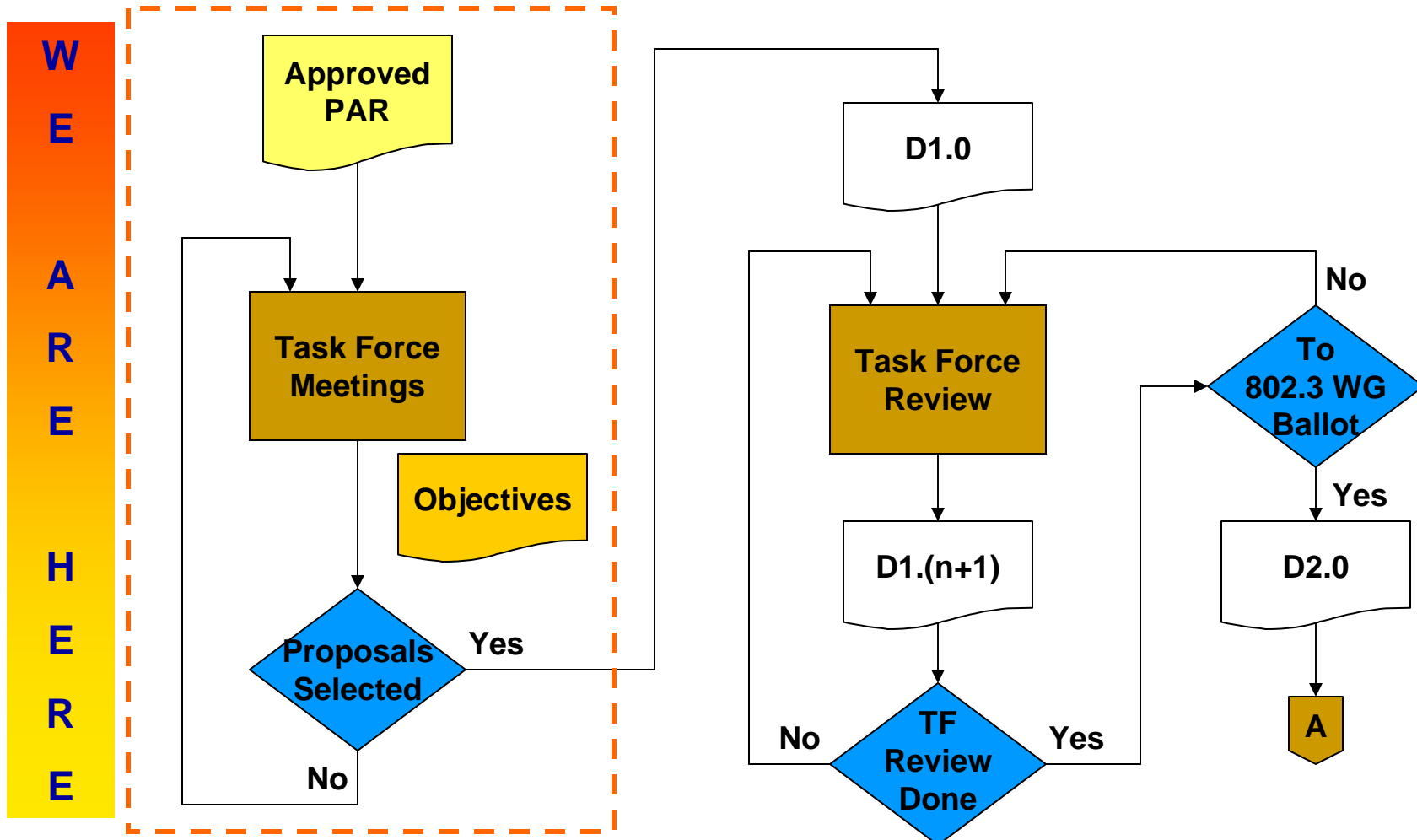
- ## Objectives
  - http://ieee802.org/3/ba/PAR/P802.3ba_Objectives_0308.pdf
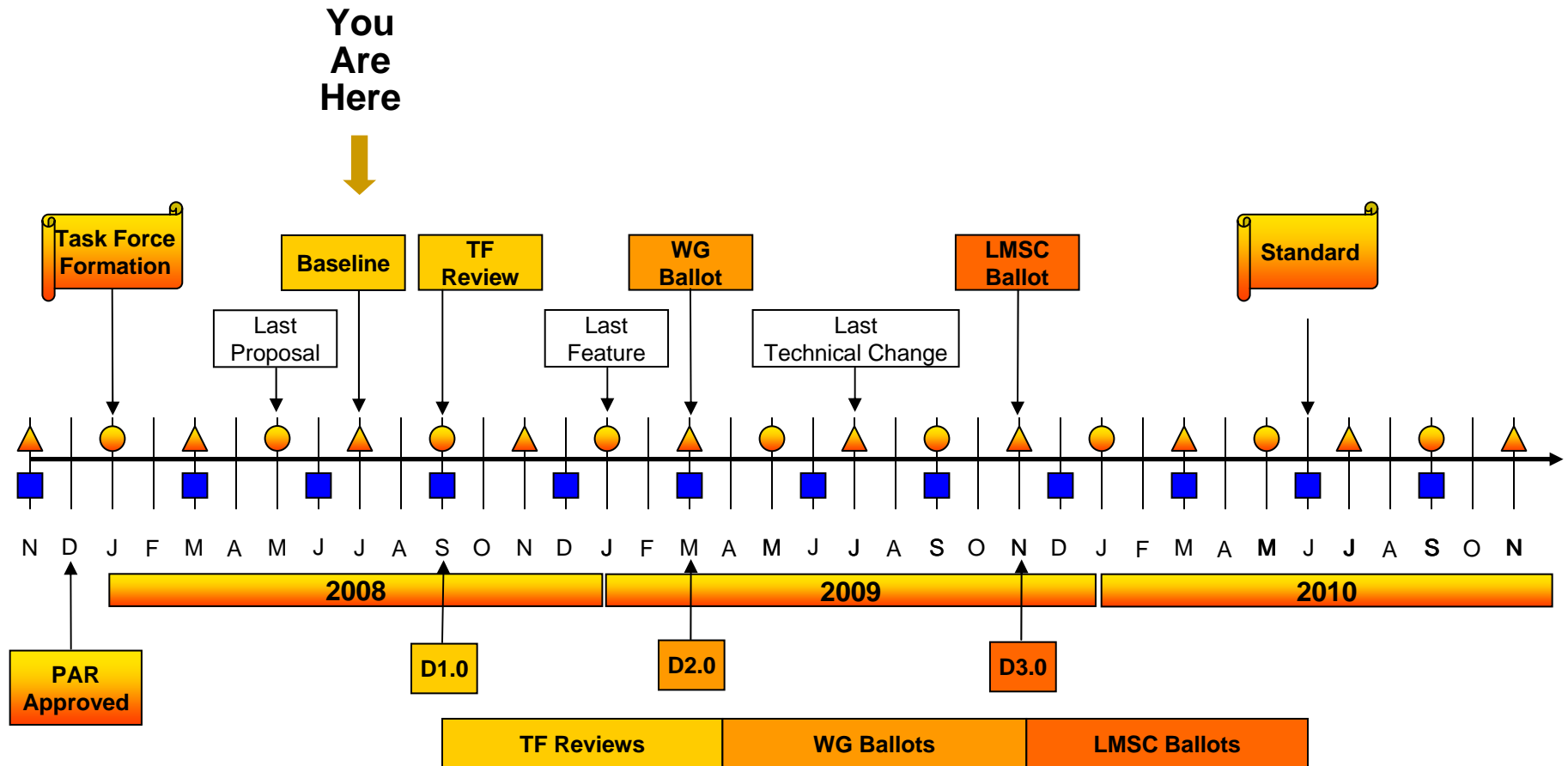
Task Force Objectives

- 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

IEEE P802.3ba Task Force Timeline

You Are Here

Task Force Formation

Baseline

TF Review

WG Ballot

LMSC Ballot

Standard

Last Proposal

Last Feature

Last Technical Change

N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N

2008   **2009**   **2010**

PAR Approved

D1.0

D2.0

D3.0

TF Reviews   WG Ballots   LMSC Ballots

Legend
△ IEEE 802 Plenary
○ IEEE 802.3 Interim
■ IEEE-SA Standards Board

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

Accomplishments for the Week (1 of 2)

- **Attendees – 162**
- **Reviewed patent slides each day**
- **Review liaisons / communications**
  - ❑ INCITS T11.2 Activities Report – Reviewed activities report
  - ❑ ITU-T SG15 – Generated liaison
  - ❑ OIF
    - Generated informal communication response to liaison regarding CEI-25LR and CEI-28SR received in May.
    - Informed OIF of proposal selections this week.
- **Ad hocs**
  - ❑ Statistical Eye
  - ❑ Extended Reach Over Parallel MMF
- **Heard 39 Presentations**
  - ❑ Update on IEEE P802.3az

Accomplishments for the Week (2 of 2)

- **Proposals adopted as baselines**
  - PMA Sublayer (All (y/n/a) 119/0/17, 802.3 (y/n/a): 62/0/6)
  - XLAUI / CAUI interface (All (y/n/a) 121/0/13, 802.3 (y/n/a): 63/0/6)
  - PMD Service interface (All (y/n/a) 129/0/16, 802.3 (y/n/a): 72/0/5)
  - 40G / 100G for ≥10m Cu Cable Objectives (All (y/n/a) 107/7/33, 802.3 (y/n/a): 69/6/16)
- **Refinement to existing proposals**
  - 100GbE ≥ 10km SMF (All (y/n/a) 116/0/8, 802.3 (y/n/a): 61/0/3)
  - 100 GbE ≥ 40km SMF (All (y/n/a)121/0/11, 802.3 (y/n/a): 68/0/4)

Note – All #'s reported come from Motions

40G for $\geq$10km SMF objective

StrawPoll: Is the Task Force ready to adopt a solution this week based on

    A. 2x20 as in dawe_01_0708.pdf
    B. 4x10 as in cole_03_0708.pdf
    C. 40 G-Serial as in traverso_02_0708.pdf
    D. Need more information
    E. Will not make a decision

    Results Chicago Rules (a / b / c / d / e): 32 / 83 / 41 / 10 / 10

StrawPoll: Is the Task Force ready to adopt a solution this week based on

    A. 4x10 as in cole_03_0708.pdf
    B. 40 G-Serial as in traverso_02_0708.pdf
    C. Need more information
    D. Will not make a decision

    Results (a / b / c / d): 79 / 41 / 12 / 9

Motion: 4x10 CWDM - (All (y/n/a) 81/38/31, 802.3 (y/n/a): 52/22/8)
         Motion Fails

No adopted proposal

Dual Fiber MMF for 40GbE Proposal

- Straw Poll #7

  I would support:

  A. Adopting the following objective:
  "Provide Physical Layer specifications which support 40 Gb/s operation over at least 100m on dual OM3 MMF"

  B. Continued development of a dual fiber based Standard outside of 802.3ba for short reach MMF 40GbE

  C. I need more information

  D. I will abstain now and later

  E. No dual MMF solution is needed

- Results (A / B / C / D / E): 24 / 52 / 9 / 34 / 16

TF Motion – Liaison to ITU-T SG15

- **Move that the 802.3ba Task Force approve the liaison statement to the ITU-T SG15 in "trowbridge_02_0708.pdf".**

- **Results**
  - **All (y/n/a) :   121 / 0 / 8**
  - **802.3 (y/n/a):   69 / 0 / 5**

TF Motion

- Request that the 802.3ba editorial team create a draft based on adopted baseline proposals for circulation prior to the September 2008 interim meeting.

- Results
  - All (y / n / a): 150 / 0 / 1
  - 802.3 (y / n / a): 80 / 0 / 0

- August 25th – Goal for preview version of the proposed text released to the TF

Motion

- Move that 802.3 approve and forward the liaison letter (trowbridge_02_0807) with appropriate edits by the Chair (or his appointed agent) and appropriate approvals by the EC to the ITU-T SG15.

- Technical (>75%)
- Moved by: John D'Ambrosia on behalf of P802.3ba Task Force

- 802.3 Voters (Y/N/A): 84 / 0 / 3
- Motion Passes

Future Meetings
http://ieee802.org/3/interims/index.html

- ## Sept 2008 Interim
  - Hosted by LG / Nortel
  - Sept 15 - 19
  - Seoul, Korea
- ## Nov 2008 Plenary
  - Nov 10 – 13
  - Hyatt Regency Dallas at Reunion
  - Dallas, Tx, USA

Thank You!