

Agenda and General Information

IEEE P802.3dj Task Force

**IEEE 802.3 May 2024 Interim
Annapolis, MD, USA**

**John D'Ambrosia,
Chair, IEEE P802.3dj Task Force
Futurewei, U.S. Subsidiary of Huawei**



Non-payment of registration fees

Every attendee (Face-to-Face or Remote) at any IEEE 802.3 meeting during the May 2024 IEEE 802.3 Interim meeting series must register and pay a fee to participate

If the individual is in arrears:

[1] The individual is not permitted to register for any future IEEE 802 Plenary or IEEE 802 Subgroup Interim (if registration is required).

[2] As a result of [1], the individual is not permitted to attend any portion of a technical meeting that is part of an IEEE 802 plenary session. They are also not permitted to attend any portion of a technical meeting that is part of an IEEE 802 Subgroup Interim if that IEEE 802 Subgroup Interim required registration.

IEEE P802.3dj Task Force Session Agenda

- Approve Agenda
- Approve Minutes (see next page)
- Meeting Decorum
- Attendance
- Task Force Project Information
- Goals For Session
- Ground Rules
- Voting / Voting Rights
- Review IEEE SA Policies (<http://ieee802.org/3/policies.html> / included) *
 - IEEE SA Patent Policy
 - IEEE SA Participation Policy
 - IEEE SA Copyright Policy
- Liaisons Overview
- Baseline Status
- Ad hocs – Summary
- Presentations
- Begin Comment Resolution
- Discussion, Strawpolls, Motions
- Future Meetings
 - Task Force
 - Ad hocs
- Closing Business

* Note – additional slides covering procedures and IEEE-SA Policies are in Backup

Minutes to be Approved

■ IEEE P802.3cw / dj Joint Task Force

- March 2024 Plenary - https://www.ieee802.org/3/dj/public/24_03/minutes_3cwdj_2403_unapproved.pdf

■ COM Ad hoc

- 2 Apr 2024 - https://www.ieee802.org/3/dj/public/adhoc/COM/24_0402/minutes_3dj_COM_240402_unapproved.pdf
- 9 Apr 2024 - https://www.ieee802.org/3/dj/public/adhoc/COM/24_0409/minutes_3dj_COM_240409_unapproved.pdf
- 16 Apr 2024 - https://www.ieee802.org/3/dj/public/adhoc/COM/24_0416/minutes_3dj_COM_240416_a_unapproved.pdf
- 23 Apr 2024 - https://www.ieee802.org/3/dj/public/adhoc/COM/24_0423/minutes_3dj_COM_240423_unapproved.pdf
- 30 Apr 2024 - https://www.ieee802.org/3/dj/public/adhoc/COM/24_0430/minutes_3dj_COM_240430_unapproved.pdf

■ Joint Optics / Logic Ad hoc

- 25 Apr 2024 - https://www.ieee802.org/3/dj/public/adhoc/optics/0424_OPTX/minutes_3dj_optx_240425_unapproved.pdf

■ Joint Electrical / Optics / Logic Ad hoc

- 18 Apr 2024 - https://www.ieee802.org/3/dj/public/adhoc/electrical/24_0418/minutes_3dj_elec_240418_unapproved.pdf

Meeting Decorum



- **An officer is permitted to make an audio or slideshow recording of this meeting exclusively for the purpose of generating minutes which shall not be copied or distributed. IEEE 802.3 meetings do not use this option. Recording of the proceedings by any other participant or observer, in part or in whole, via any means, is prohibited. (Feb 2023 IEEE-SA Standards Board Ops Manual 5.3.3.2)**
- **Press (i.e., anyone reporting publicly on this meeting) are to announce their presence (Feb 2023 IEEE-SA Standards Board Ops Manual 5.3.3.3)**
- **Cell phone ringers off**
- **Please observe proper decorum in meetings**
- **Please mute your self when not speaking**
- **Please do not turn on video**

Attendance

- **All attendees must register their attendance via IMAT**
 - **IMAT –**
 - **Tutorial - http://iee802.org/3/minutes/attendance_procedures.pdf**
 - **Access details**
 - **URL: <http://imat.ieee.org/>**
 - **802.3 Password – to be given out by chair at meeting**
- **Please be sure to sign-in with your name / affiliation information**
- **Zoom attendance will be used to identify remote attendance as well.**

IEEE P802.3dj Task Force Project information

■ Organization

- John D'Ambrosia, Chair, IEEE P802.3dj Task Force
- Mark Nowell, Vice-Chair, IEEE P802.3dj Task Force; Chair, Optics Track
- Kent Lusted, Secretary, Chair, Electrical Track
- Gary Nicholl, Chair, Architecture and Logic Track
- Matt Brown, IEEE P802.3dj Chief Editor

▪ Task force web and reflector information:

- Home page: [IEEE P802.3dj Public \(ieee802.org\)](http://www.ieee802.org)
- Reflector Info - <https://www.ieee802.org/3/df/reflector.html>
 - TF Reflector: stds-802-3-b400g@listserv.ieee.org
 - Logic Reflector: stds-802-3-b400g-logic@listserv.ieee.org
 - Optical Reflector: stds-802-3-b400g-optx@listserv.ieee.org
 - Electrical Reflector: stds-802-3-b400g-elec@listserv.ieee.org

▪ Project Documentation –

- PAR : https://www.ieee802.org/3/dj/projdoc/P802d3dj_PAR.pdf
- CSD: <https://mentor.ieee.org/802-ec/dcn/22/ec-22-0256-00-ACSD-p802-3dj.pdf>
- Objectives: https://www.ieee802.org/3/dj/projdoc/objectives_P802d3dj_240314.pdf
- Adopted Timeline: https://www.ieee802.org/3/dj/projdoc/timeline_3dj_231128.pdf

▪ P802.3dj TF meeting information may be found on:

- Public page: <https://www.ieee802.org/3/df/public/index.html>
- 802.3 Calendar: <https://www.ieee802.org/3/calendar.html>

Goals for the Session

- **Technical Presentations**
 - In support of comments submitted against D1.0
 - Addressing open issues in D1.0
 - Big Ticket Items – Logic / Optics (See Next Page)
- ▣ **Consideration of comments submitted against D1.0 may begin**

Big Ticket Items

▪ Logic/Optics/General

- OLT adoption
- OAN adoption
- Specification methodology for error rates (BER, DER, FLR, etc.) – (For all Type 1 and Type 2 PHYs)
- Test Vectors: SM-PMA test vectors - Clause 176, 800GBASE-LR1 Inner FEC and PMA test vectors – Clause 184, 800GBASE ER1 PCS and PMA test vectors – Clause 186

▪ Electrical

- Parameter values for CR/KR/AUI-C2M/AUI-C2C
- AUI C2M transmitter and receiver compliance methodologies
- AUI specification and measurement method: BER, CER, FLR, FEC symbol error ratio, PAM4 decision error ratio, etc.
- CR/KR transmitter and receiver compliance and CA channel test methods

▪ Optics IMDD

- TDECQ methodology refinement or improvement
 - Reference Receiver definition
- 800G-LR4 related baseline concerns
 - Dispersion etc
- Optical Channel model/Fiber specs topic
- Adopted PMDs - continued experimental validation

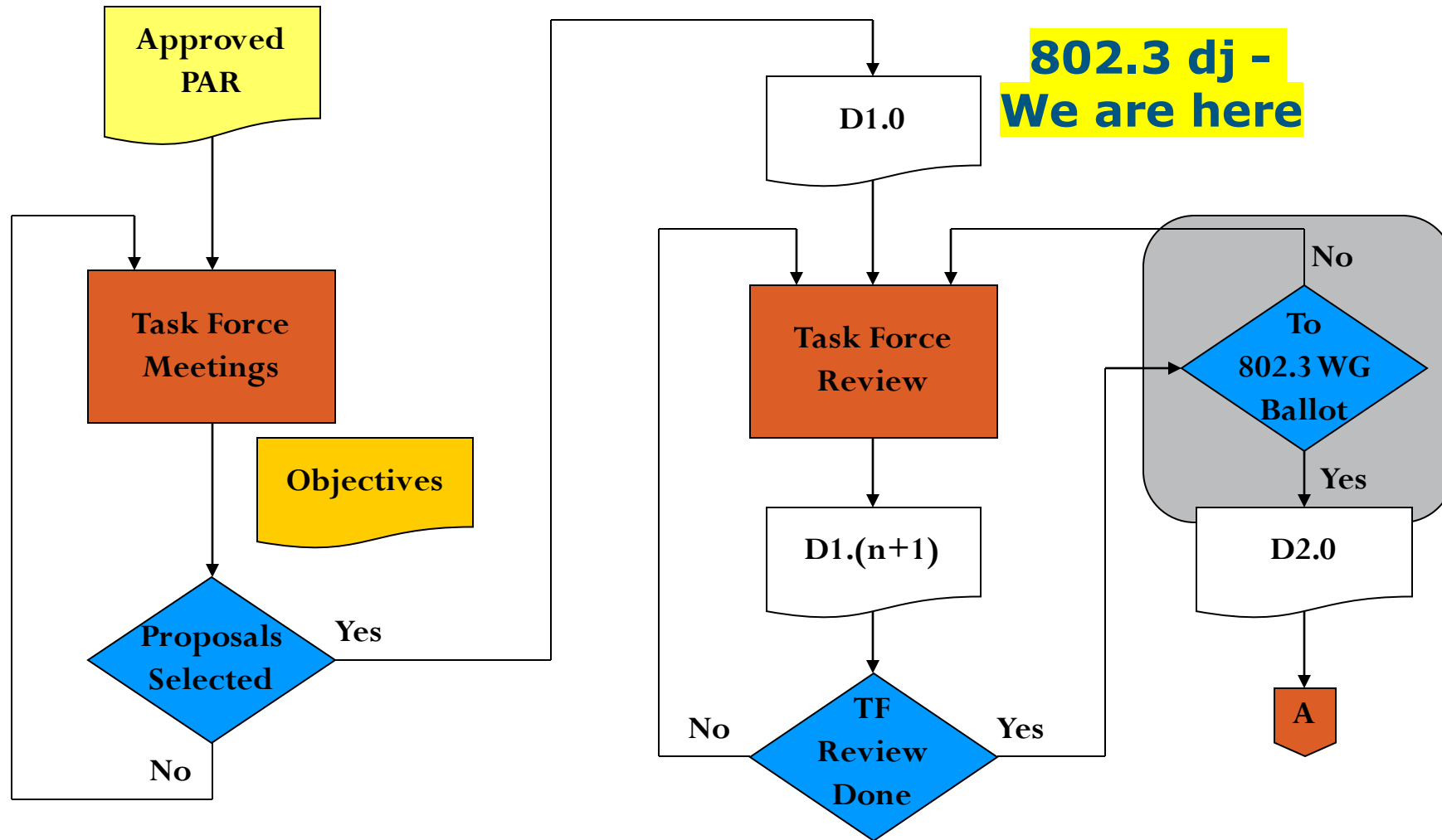
▪ Optics Coherent

- PTP support (ER1 PHY types)
- Transmitter TQM
 - Reference receiver?
- ER1 optical channel model (not defined)

Ground Rules

- **Based upon IEEE 802.3 Rules**
 - **Foundation based upon Robert's Rules of Order**
 - **Anyone in the room may speak**
 - **Anyone in the room may vote on straw polls, but we have to follow 802.3 Voting rules**
- **RESPECT... give it, get it**
- **NO product pitches**
- **NO corporate pitches**
- **NO prices!!!**
 - **This includes costs, ASPs, etc. no matter what the currency**
- **NO restrictive notices**

Overview of IEEE 802.3 Standards Process (2/5) – Task Force Comment Phase (802.3dj)



Voting

- Per 802.3 WG Chair - “The plenary session will be held at The plenary session will be held at the Hyatt Regency Denver at the Colorado Convention Center, Denver, CO, USA with support for mixed-mode attendance (i.e., remote attendance). Please note that the meetings are being planned around an in-person schedule, with remote access provided on a best-effort basis.” i.e. “electronic meeting”
 - See <https://www.ieee802.org/3/private/email/msg02780.html>
- Reference: Excerpt from Section 3.4.2, IEEE 802.3 Operations Manual
 - http://www.ieee802.org/3/rules/P802_3_rules.pdf

There are two type of votes in the TF; votes on motions and votes in straw polls.

In face-to-face meetings where a TF is operating with membership rules for voting (see 3.3) only the TF members may make and vote on motions. In face-to-face meetings where membership rules are not in force all TF participants may make and vote on motions, subject only to the provision that they believe that they are qualified to vote on the matter before the TF. **Electronic meetings that will consider motions shall be approved by the WG Chair prior to the meeting announcement. In such meetings only IEEE 802.3 Working Group members may make and vote on motions. If a motion is not approved by unanimous consent it shall be taken as a roll call vote**

In all cases, regardless of any membership rules that may or may not be in force, all participants who feel qualified may participate in a straw poll

Note – Chair reserves the right to take informative straw polls by 802.3 WG voting membership

- IEEE 802.3 Requirements for Working Group voting membership – <https://www.ieee802.org/3/rules/member.html>

Review of IEEE SA Policies

■ Email reminders

- <https://www.ieee802.org/3/B400G/email/msg01134.html>

sent to Task Force Reflector reminding all to review and be familiar with following policies:

- Patent Policy
- Copyright Policy
- Participation

■ See Backup for slides or <http://ieee802.org/3/policies.html>.

Liaisons Overview (As of 09 May 2024)

- **Incoming**
- **Outgoing**

Summary IEEE P802.3dj Progress @ End of Jan 2024 Interim – Logic

	AUI	Backplane	CU Cable	SMF 500m/2km	SMF 10km 4 Wavelength	SMF 10km 1 Wavelength	SMF 20km 1 Wavelength	SMF 40km
Ethernet Rate	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?
200 Gb/s								
400 Gb/s								
800 Gb/s								
1.6 Tb/s								

Adopted baselines

Proposed Baselines

Summary IEEE P802.3dj Progress @ End of Jan 2024 Interim – PMDs (& AUIs)

Ethernet Rate	Assumed Signaling Rate	AUI	Backplane	Cu Cable	SMF 500m	SMF 2km	SMF 10km	SMF 20km	SMF 40km
200 Gb/s	200 Gb/s	200GAUI-1 C2C C2M	200GBASE-KR1	200GBASE-CR1	200GBASE-DR1	200GBASE-FR1			
400 Gb/s	200 Gb/s	400GAUI-2 C2C C2M	400GBASE-KR2	400GBASE-CR2	400GBASE-DR2	400GBASE-DR2-2			
800 Gb/s	200 Gb/s	800GAUI-4 C2C C2M	800GBASE-KR4	800GBASE-CR4	1.800GBASE-DR4 2.800GBASE over 4λ	1. 800GBASE-DR4-2 2. 800GBASE-FR4	800GBASE-LR4		
	800 Gb/s						800GBASE-LR	800GBASE-ER1-20	800GBASE-ER1
1.6 Tb/s	100 Gb/s	1.6TAUI-16 C2C C2M							
	200 Gb/s	1.6TAUI-8 C2C C2M	1.6TBASE-KR8	1.6TBASE-CR8	1.6TBASE-DR8	1.6TBASE-DR8-2			

Adopted baselines

Proposed Baselines

IEEE P802.3dj Ad Hocs

1. Architecture and Logic Ad hoc – Gary Nicholl, Ad Hoc Chair

Charter: The Architecture and Logic Ad Hoc is chartered to address the following:

- 1) Develop terminology and definitions for terms related to architecture, including but not limited to FEC Architecture, FEC Scheme, End-to-end FEC, Segmented FEC, Concatenated FEC. .
- 2) Act as forum to discuss architectural requirements and consider proposals related to PCS, FEC, and PMA logic sublayers.

2. Electrical Ad Hoc – Kent Lusted, Ad Hoc Chair

Charter: The Electrical Ad Hoc is chartered to address the following:

- 1) Act as forum to discuss and consider technical proposals and contributions:
 - a. Related to electrical interfaces and electrical PMD sublayers
 - b. Related to logic PCS, FEC, and PMA sublayers that may impact electrical interfaces and electrical PMD sublayers
 - c. Electrical interfaces and electrical PMD nomenclature
- 2) Provide inputs based on electrical interfaces and electrical PMD sublayers into any relevant ad hocs

3. Optics Ad Hoc – Mark Nowell, Ad Hoc Chair

Charter: The Optical Ad Hoc is chartered to address the following:

- 1) Act as forum to discuss and consider technical proposals and contributions:
 - a. Related to optical PMD sublayers
 - b. Related to logic PCS, FEC, and PMA sublayers that may impact optical PMD sublayers
 - c. Optical PMD nomenclature
- 2) Provide inputs based on optical PMDs into any relevant ad hocs

4. COM Ad Hoc – Kent Lusted, Ad Hoc Chair

Charter: The COM Ad Hoc is chartered to address the following:

- 1) Act as a forum to discuss and consider technical proposals and contributions related to the implementation and execution of TF adopted features and functionality in the Channel Operating Margin (COM) code, including code architecture and sub-routine functions.
2. Identify, collect, verify, and fix COM code-related issues stemming from 3dj TF implemented features and functions.

Ad hoc Summary

- **Joint Logic / Optics Ad hoc (4/11, 4/25, 4/17 (joint Logic / Optics / Electrical ad hocs))**
 - Meeting materials - <https://www.ieee802.org/3/dj/public/adhoc/optics/index.html>
 - Ad hoc Report - https://www.ieee802.org/3/dj/public/24_05/nowell_3dj_01_2405.pdf
- **Electrical Ad hoc (4/4, 4/18)**
 - Meeting materials - <https://www.ieee802.org/3/dj/public/adhoc/electrical/index.html>
 - Ad hoc Report - https://www.ieee802.org/3/dj/public/24_05/lusted_3dj_01_2405.pdf
- **The COM Ad hoc (4/2, 4/9, 4/16, 4/23, 4/30)**
 - Meeting materials - <https://www.ieee802.org/3/dj/public/adhoc/COM/index.html>
 - Ad hoc Report - https://www.ieee802.org/3/dj/public/24_05/lusted_3dj_02_0524.pdf

May 2024 Session (Mon 13 May)

All times and order listed are subject to change.
See meeting webpage for latest presentation version

Time	Presenter	Affiliation	Title	File Name
8:00 AM	John D'Ambrosia	Futurewei, U.S. Subsidiary of Huawei	Agenda and General Information - Mar Plenary	agenda_3dj_2405
8:30 AM	Kent Lusted	Intel	IEEE P802.3dj COM Ad Hoc Report	lusted_3dj_02_2405
8:40 AM	Kent Lusted	Intel	COM Reference RX Progress Update v4.5 – 13 May 2024	lusted_3dj_04_2405
9:05 AM	John Calvin	Samtec	Validation of C2M and CR physical layer test-points real world -vs- COM	mellitz_3dj_01_2405
9:30 AM	Ray Schmelzer	Wilder Technologies	Demonstrated implementation feasibility of suggested 224G C2M test fixture loss with	schmeizer_3dj_01_2405
10:00 AM	Break			
10:20 AM	Adee Ran	Cisco	AUI-C2M host and module input specifications	ran_3dj_01_2405
10:45 AM	Adee Ran	Cisco	AUI-C2M host and module output specifications	ran_3dj_02_2405
11:10 AM	Adee Ran	Cisco	Proposed Tx Jitter methodology and limit values	ran_3dj_03_2405
11:35 AM	Richard Mellitz	Samtec	SNDR insertion loss adjustments	mellitz_3dj_02_2405
12:00 PM	Lunch			
1:30 PM	Adam Healey	Broadcom Inc.	Budgeting for receiver noise in Channel Operating Margin (COM)	healey_3dj_01_2405
2:00 PM	Hossein Shakiba	Huawei Technologies Canada	Significance of including Quantization Noise in COM Evaluation	shakiba_3dj_02_2405
2:30 PM	Howard Heck	Intel Corporation	AUI C2C Reference Receiver Parameter Analysys	heck_3dj_01_2405
3:00 PM	Break			
3:20 PM	Ali Ghiasi	Ghiasi Quantum/Marvell	C2M Analysis on Select Channels with COM 4.5	ghiasi_3dj_02_2405
3:50 PM	Tobey P.-R. Li	MediaTek	Choosing an optimum reference receiver for 200Gbps/L C2M	lit_3dj_02_2405
4:20 PM	Upen Reddy Kareti	Cisco	Update on 224G - C2M channel Analysis with COM 4.5 Beta 3	kareti_3dj_01_2405
4:50 PM	Kent Lusted	Intel	P802.3dj COM Parameter Value Proposal - AUI C2M	lusted_3dj_06_2405
5:20 PM	Discussion & Straw Polls			
6:00 PM	Recess for the day			

May 2024 Session (Tues 14 May)

All times and order listed are subject to change.
See meeting webpage for latest presentation version

Tues	12-Mar-24			
Time	Presenter	Affiliation	Title	File Name
8:00 AM	John D'Ambrosia	Futurewei, U.S. Subsidiary of Huawei	Chair's Opening Comments	
8:05 AM	Mike Peng Li	Intel	MLSE Delta COM Equation U1.c Rewritten in 802.3 Standard DER Definition	lim_3dj_02_2405
8:30 AM	Hossein Shakiba	Huawei Technologies Canada	MLSE DCOM Equation U1.c for L-level PAM	shakiba_3dj_01_2405
8:50 AM	Mike Peng Li	Intel	212.5 Gbps PAM4 Link Simulations and Analyses for CR and KR Channels: Using COM 4.50 Beta	lim_3dj_01_2405
9:20 AM	Tobey P.-R. Li	MediaTek	Choosing an optimum reference receiver for 200Gbps/L CR & KR	lit_3dj_01_2405
9:50 AM	Kent Lusted	Intel	Proposed COM parameter values for CR and KR PHYs	lusted_3dj_05_2405
10:15 AM	Break			
10:45 AM	Adee Ran	Cisco	Proposed content for Annex 174A	ran_3dj_04_2405
11:15 AM	John D'Ambrosia	Futurewei, U.S. Subsidiary of Huawei	Revisiting the IEEE P802.3dj Adopted Timeline	dambrosia_3dj_01_2405
11:20 AM	Matt Brown	Alphawave Semi	IEEE P802.3dj Editorial Team Report	brown_3dj_01_2405
11:35 AM	Matt Brown	Alphawave Semi	Architectural Considerations	brown_3dj_02_2405
12:00 PM	Lunch			
1:15 PM	Jeff Slavick	Broadcom	Clause 73 updates	slavick_3dj_01_2405
1:45 PM	Eugene Opsasnick	Broadcom	1.6TbE PCS FEC Codeword Examples and Test Vectors for Clause 175 and Annex 175A	opsasnick_3dj_01_2405
2:05 PM	Adee Ran	Cisco	Annex 176A nomenclature	ran_3dj_06_2405
2:35 PM	Arnon Loewenthal	Alphawave Semi	PMA with RS-FEC symbol multiplexing test vectors	loewenthal_3dj_01_2405
3:00 PM	Break			
3:30 PM	David Ofelt	Juniper Networks	Background for the 800GBASE-ER PTP accuracy issue	ofelt_3dj_01_2405
3:55 PM	Xiang He	Huawei	Timestamp accuracy for Clause 177 and Clause 184 Inner FECs	he_3dj_01_2405
4:25 PM	Mike Sluyski	Cisco	Addressing PTP timestamp accuracy for 800GBASE-ER1 with an 800GMII Extender	sluyski_3dj_01_2405
4:55 PM	Discussion & Straw Polls			
6:00 PM	Recess for Day			

May 2024 Session (Wed 15 May)

All times and order listed are subject to change.
See meeting webpage for latest presentation version

<u>Wed</u>	<u>13-Mar-24</u>			
	Presenter	Affiliation	Title	File Name
8:00 AM	John D'Ambrosia	Futurewei, U.S. Subsidiary of Huawei	Chair's Opening Comments	
8:05 AM	Qirui Fan	Huawei	Fiber transmission experimental test of an 800G-LR4 OSFP module	fan_3dj_01_2405
8:25 AM	Vince Ferretti	Corning	Insights on pre-connectorized single mode cables shipped in 2023 to datacenter customers	ferretti_3dj_01_2405
8:40 AM	Earl Parsons	CommScope	Chromatic Dispersion Analysis	parsons_3dj_01_2405
9:10 AM	Roberto Rodes	Coherent	optical channel model proposal update - May 2024	rodes_3dj_01_2405
9:40 AM	John Johnson	Broadcom	Optical fiber tables and chromatic dispersion specs	johnson_3dj_02_2405
10:10 AM	Break			
10:30 AM	Discussion &			
11:00 AM	John Johnson	Broadcom	Supporting explanations for P802.3dj draft D1.0 comments	johnson_3dj_01_2405
11:25 AM	Brian Welch	Cisco	TDECQ/TECQ/SECQ Coefficients	welch_3dj_01_2405
12:00 PM	Lunch			
11:45 AM	Kechao Huang	Huawei	Details for Hamming(68,60) Code	huang_3dj_01_2405
1:30 PM	Matt Brown	Alphawave	Counters for Inner FEC	brown_3dj_05_2405
1:50 PM	Ali Ghiasi	Ghiasi Quantum/Marvell	The Need for Pre-Coder for Optical PMDs	ghiasi_3dj_03_2405
2:20 PM	Matt Brown	Alphawave	Optical auto-negotiation (OAN) background	brown_3dj_03_2405
3:00 PM	Break			
3:30 PM	Matt Brown	Alphawave	Optical auto-negotiation (OAN) baseline	brown_3dj_04_2405
4:00 PM	Ali Ghiasi, et. al.	Ghiasi Quantum/Marvell	Proposed Optical Link Training "OLT"	ghiasi_3dj_01_2405
4:30 PM	Discussion & Straw Polls			
5:00 PM	Recess for Day			

May 2024 Session (Thurs 16 May)

All times and order listed are subject to change.
See meeting webpage for latest presentation version

<u>Thurs</u>	<u>14-Mar-24</u>			
	Presenter	Affiliation	Title	File Name
8:00 AM	John D'Ambrosia	Futurewei, U.S. Subsidiary of Huawei	Chair's Opening Comments	
8:05 AM	John D'Ambrosia	Futurewei, U.S. Subsidiary of Huawei	Revisiting Nomenclature - 200GBASE-FR1	dambrosia_3dj_02_2405
8:35 AM	Leon Bruckman	Huawei	800GBASE-LR1 synchronization state diagram parameters	bruckman_3dj_01_2405
9:00 AM	Eric Maniloff	Ciena	800GBASE-LR1 Frequency Tuning and Tuning Range Specifications	maniloff_3dj_01_2405
9:30 AM	Eric Maniloff	Ciena	Transmit Quality Metric approach for Coherent Specifications	maniloff_3dj_02_2405
10:00 AM	Break			
10:30 AM	Discussion (including strawpolls / motions) / comment resolution			
12:00 PM	Lunch			
1:30 PM	Discussion (including strawpolls / motions) / comment resolution			
3:00 PM	Break			
3:30 PM	Discussion (including strawpolls / motions) / comment resolution			
4:00 PM	Kent Lusted	Intel	Channel Operating Margin (COM) Code Pathway to Open Source – May Update	lusted_3dj_03_2405
4:20 PM	Closing Business			
5:00 PM	Adjourn			

Future Meetings

IEEE P802.3dj: <https://www.ieee802.org/3/dj/public/index.html>

- IEEE P802.3dj Electronic Meeting
 - 03 – 06 June, 9am to 1pm ET
 - 10 – 13 June, 9am to 1pm ET
- IEEE 802 July 2024 Plenary
 - Week of July 15-19, 2024
 - Montreal, Quebec, Canada
- IEEE 802.3 Sept 2024 Interim
 - Week of Sept 16-20, 2024
 - Hamburg, Germany
- IEEE 802 Nov 2024 Plenary
 - Week of Nov 11-15, 2024
 - Vancouver, BC, Canada
- IEEE 802.3 Jan 2025 Interim
 - Week of Jan 20-25, 2025
 - Location: TBD
- IEEE 802 Mar 2025 Plenary
 - Week of Mar 10-14, 2025
 - Atlanta, GA, USA

Future Ad hoc Meetings

- Joint Optics / Logic
 - 25 Jun 2024, 10am to 1pm ET
- Electrical
 - 20 Jun 2024, 9:30am to 12:30am ET
- COM
 - 21 May 2024, 10am to 10:30am ET
 - 28 May 2024, 10am to 10:30am ET
 - 18 Jun 2024, 10am to 10:30am ET
 - 25 June 2024, 10am to 10:30am ET
 - 02 Jul 2024, 10am to 10:30am ET

THANK YOU!



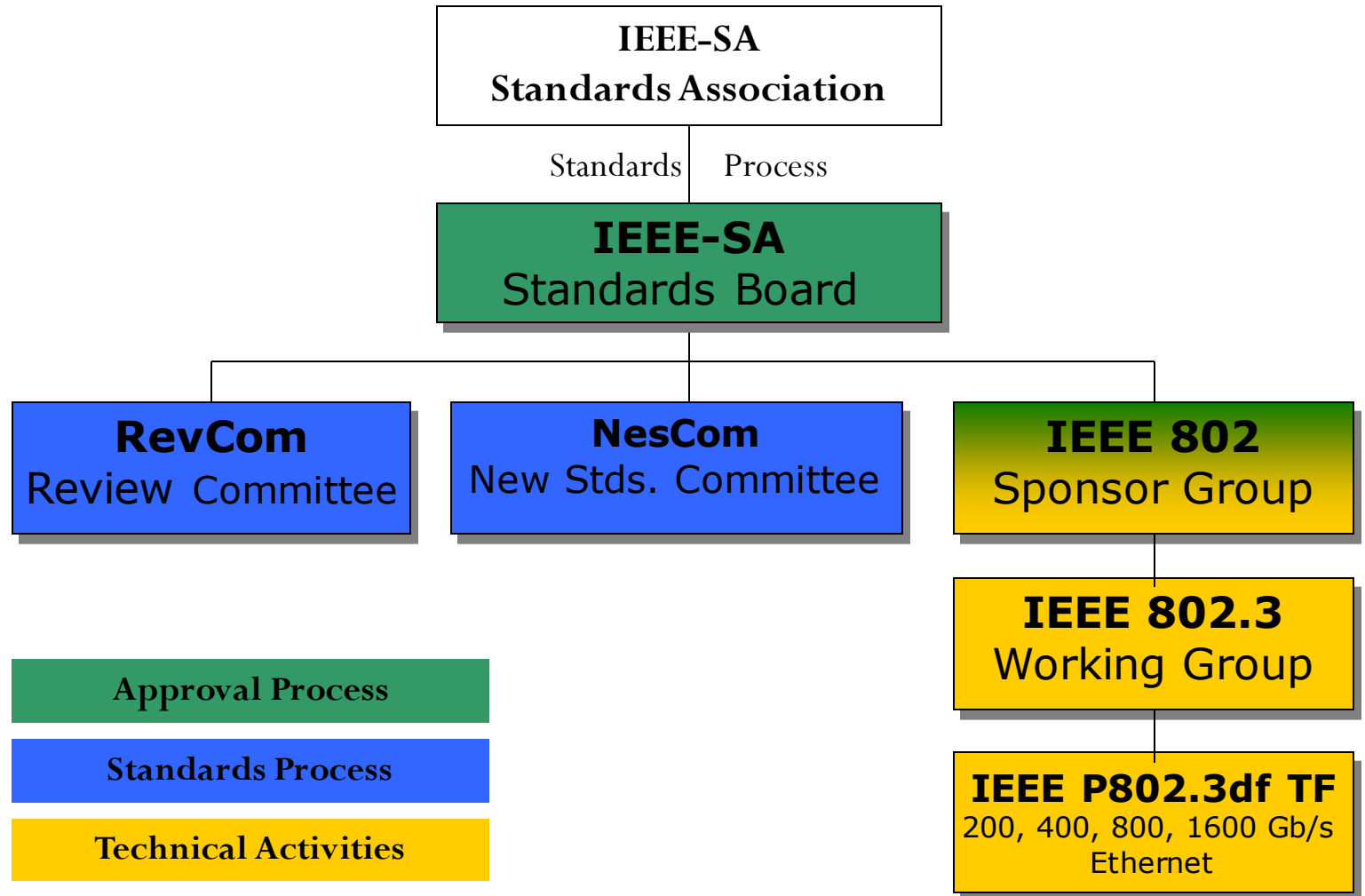
BACKUP



The Role of the Chair / Vice Chair

- **Per the IEEE 802.3 Ethernet WG Operations Manual (http://www.ieee802.org/3/rules/P802_3_rules.pdf)**
 - **Per 3.4 - Operation of the Task Force**
 - **The operation of the TF has to be balanced between democratic procedures that reflect the desires of the TF members and the TF Chair's responsibility to produce a draft standard, recommended practice, or guideline in a reasonable amount of time for review and approval by the WG. Robert's Rules of Order shall be used in combination with these operating rules to achieve this balance.**
 - **The full responsibilities of the chair are specified in 3.4.3 Task Force Chair's Responsibilities.**
 - **The Role of the Vice Chair is specified in 3.2 –**
 - **There may be a TF Vice-Chair. A TF Vice-Chair carries out the TF Chair's duties if the TF Chair is temporarily unable to do so or chooses to delegate specific duties.**
- **Reminders –**
 - **We are a contribution driven organization. It should not be assumed by anyone that work will just get done without contributions to drive it. Areas not moving forward will be brought to the attention of the Task Force for consideration on how to address.**
 - **Individual standards activities within the WG are, at the discretion of the WG, carried out by Task Forces (TF) operating under, and reporting to, the WG.**

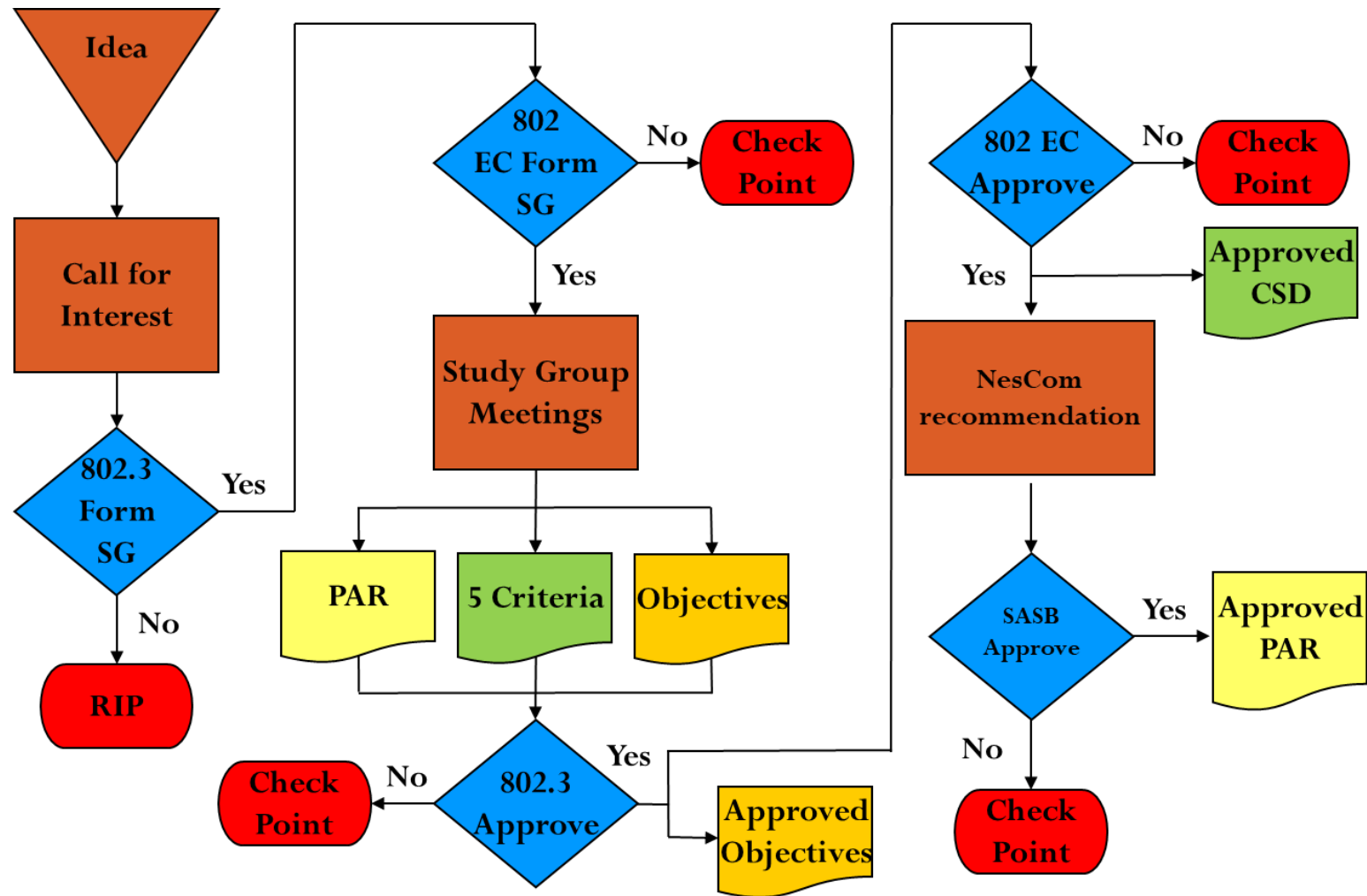
IEEE Structure



Important Bylaws, Rules, and References

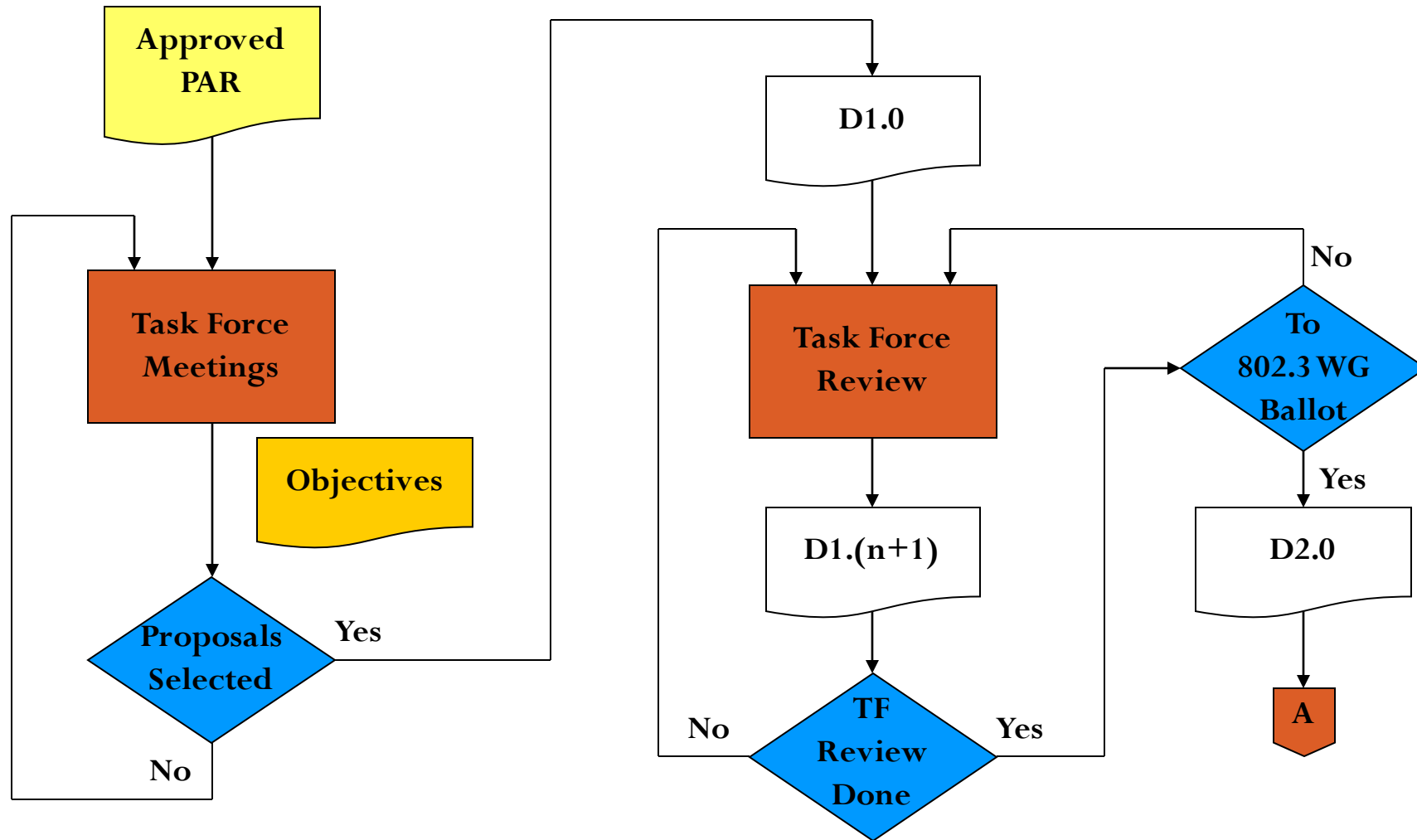
- **IEEE-SA Operations Manual**
http://standards.ieee.org/develop/policies/sa_opman/
- **IEEE-SA Standards Board Bylaws**
<http://standards.ieee.org/develop/policies/bylaws/>
- **IEEE-SA Standards Board Operations Manual**
<http://standards.ieee.org/develop/policies/opman/>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Policies and Procedures**
<https://ieee.app.box.com/v/PandP-LMSC>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Operations Manual**
<http://www.ieee802.org/devdocs.shtml>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Working Group (WG) Policies and Procedures**
<http://www.ieee802.org/devdocs.shtml>
- **IEEE 802.3 Working Group Operating Rules**
http://ieee802.org/3/rules/P802_3_rules.pdf
- **“Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy”**
<http://standards.ieee.org/develop/policies/antitrust.pdf>

Overview of IEEE 802.3 Standards Process (1/5)- Study Group Phase

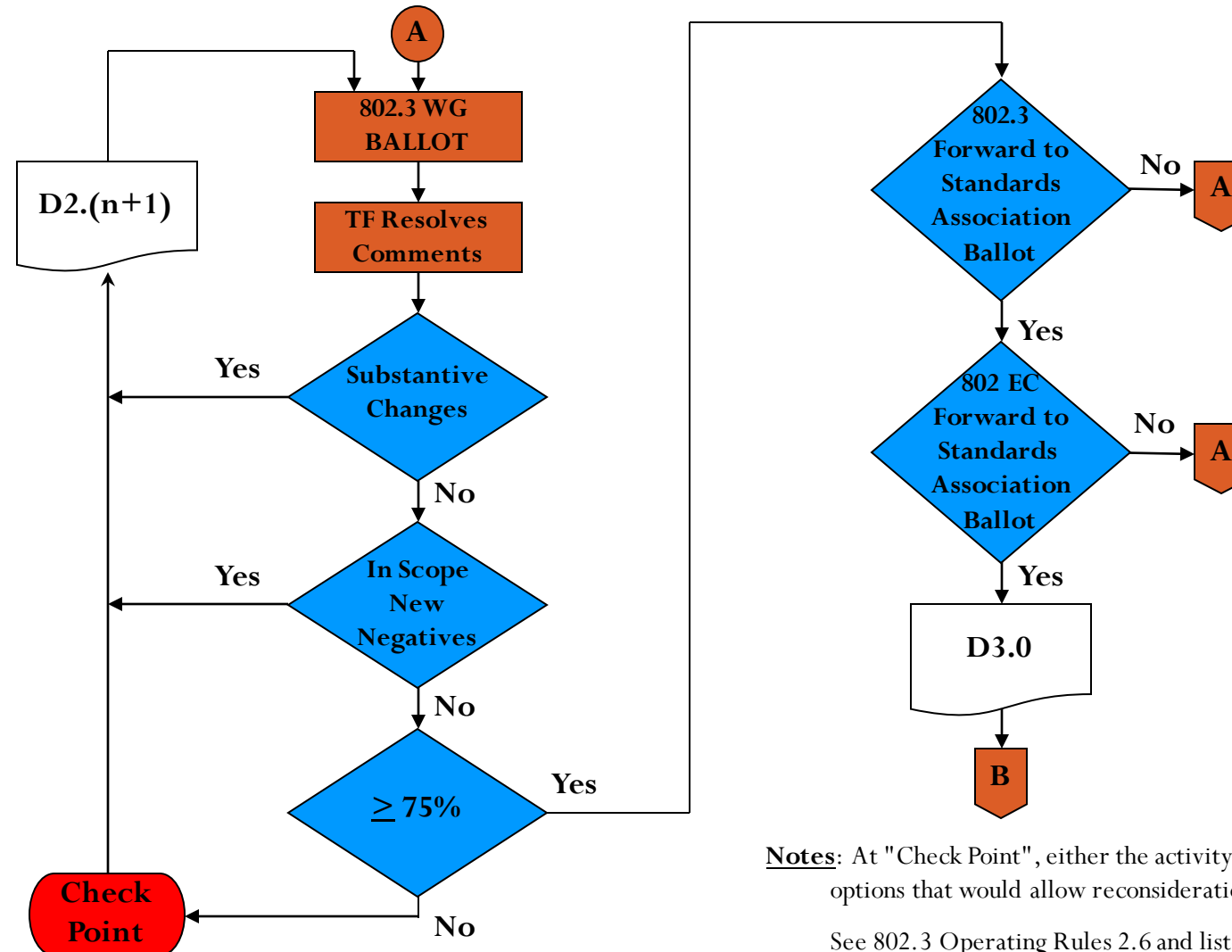


Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

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



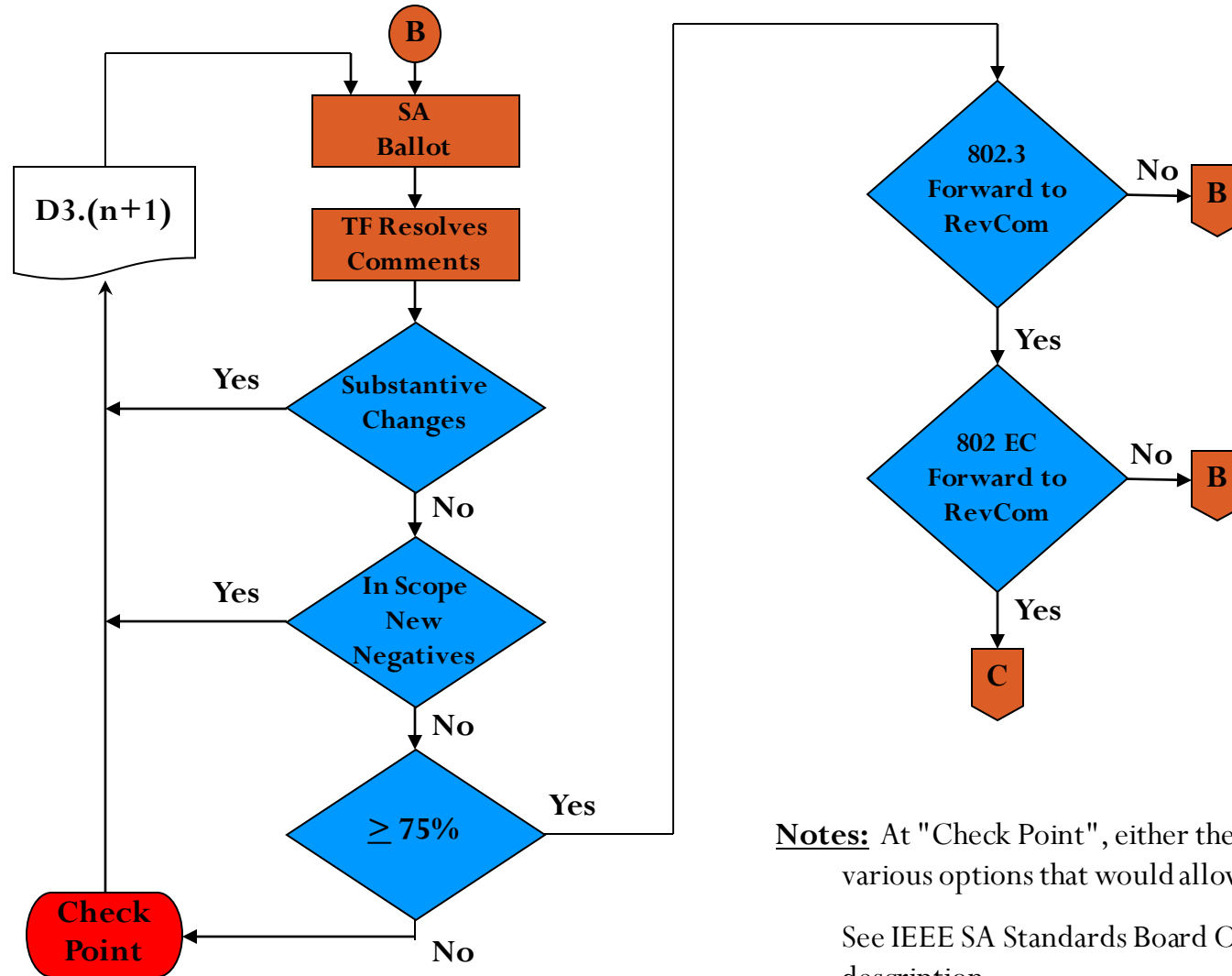
Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



Notes: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

See 802.3 Operating Rules 2.6 and listed references for complete description

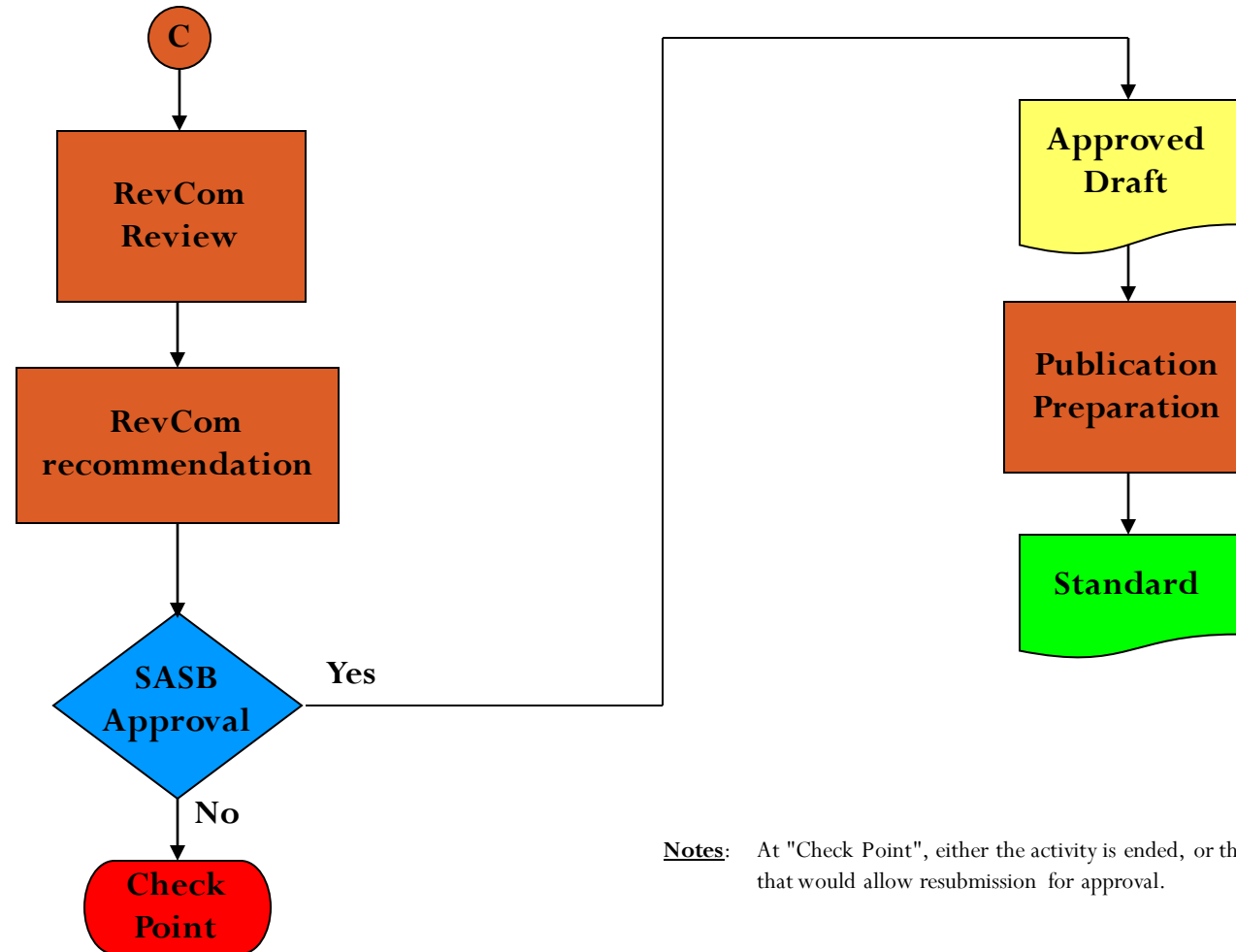
Overview of IEEE 802.3 Standards Process (4/5)- Standards Association (SA) Ballot Phase



Notes: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

See IEEE SA Standards Board Operation Manual 5.4 for complete description.

Overview of IEEE 802.3 Standards Process (5/5) – Final Approvals / Standard Release



Notes: At "Check Point", either the activity is ended, or there may be various options that would allow resubmission for approval.

IEEE SA POLICIES

IEEE SA PATENT POLICY

Instructions for the WG Chair

- The IEEE SA strongly recommends that at each WG meeting the chair or a designee:
 - Show slides 1 through 4 of this presentation
 - Advise the WG attendees that:
 - IEEE's patent policy is described in Clause 6 of the *IEEE SA Standards Board Bylaws*;
 - Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
 - There may be Essential Patent Claims of which IEEE is not aware. Additionally, neither IEEE, the WG, nor the WG Chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
 - Instruct the WG Secretary to record in the minutes of the relevant WG meeting:
 - That the foregoing information was provided and that slides 1 through 4 (and this slide 0, if applicable) were shown;
 - That the chair or designee provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard
 - Any responses that were given, specifically the patent claim(s)/patent application claim(s) and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any) and by whom.
 - The WG Chair shall ensure that a request is made to any identified holders of potential essential patent claim(s) to complete and submit a Letter of Assurance.
 - It is recommended that the WG Chair review the guidance in *IEEE SA Standards Board Operations Manual* 6.3.5 and in FAQs 14 and 15 on inclusion of potential Essential Patent Claims by incorporation or by reference.
- Note: **WG** includes Working Groups, Task Groups, and other standards-developing committees with a PAR approved by the IEEE SA Standards Board.

Participants have a duty to inform the ieee

- Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

–Early identification of holders of potential Essential Patent Claims is encouraged

Ways to inform ieee

- Cause an LOA to be submitted to the IEEE SA (patcom@ieee.org); or
- Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
- **Speak up now and respond to this Call for Potentially Essential Patents**
 - If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

Other Guidelines for IEEE Working Group Meetings

- All IEEE SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.
 - Don't discuss the interpretation, validity, or essentiality of patents/patent claims.
 - Don't discuss specific license rates, terms, or conditions.
 - Relative costs of different technical approaches that include relative costs of patent licensing terms may be discussed in standards development meetings.
 - Technical considerations remain the primary focus.
 - Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.
 - Don't discuss the status or substance of ongoing or threatened litigation.
 - Don't be silent if inappropriate topics are discussed. Formally object to the discussion immediately.

■ For more details, see *IEEE SA Standards Board Operations Manual*, clause 5.3.10 and *Antitrust and Competition Policy: What You Need to Know* at <http://standards.ieee.org/develop/policies/antitrust.pdf>

Patent-related information

- **The patent policy and the procedures used to execute that policy are documented in the:**
 - *IEEE SA Standards Board Bylaws*
(<http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6>)
 - *IEEE SA Standards Board Operations Manual*
(<http://standards.ieee.org/develop/policies/opman/sect6.html#6.3>)

–Material about the patent policy is available at
<http://standards.ieee.org/about/sasb/patcom/materials.html>

- **If you have questions, contact the IEEE SA Standards Board Patent Committee Administrator at patcom@ieee.org**

IEEE SA COPYRIGHT POLICY

Instructions for Chairs of standards development activities

- **At the beginning of each standards development meeting the chair or a designee is to:**
 - Show the following slides (or provide them beforehand)
 - Advise the standards development group participants that:
 - IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;
 - Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy;
 - Instruct the Secretary to record in the minutes of the relevant meeting:
 - That the foregoing information was provided and that the copyright slides were shown (or provided beforehand).

IEEE SA Copyright Policy

- **By participating in this activity, you agree to comply with the IEEE Code of Ethics, all applicable laws, and all IEEE policies and procedures including, but not limited to, the IEEE SA Copyright Policy.**
 - Previously Published material (copyright assertion indicated) shall not be presented/submitted to the Working Group nor incorporated into a Working Group draft unless permission is granted.
 - Prior to presentation or submission, you shall notify the Working Group Chair of previously Published material and should assist the Chair in obtaining copyright permission acceptable to IEEE SA.
 - For material that is not previously Published, IEEE is automatically granted a license to use any material that is presented or submitted.

IEEE SA Copyright Policy

- The IEEE SA Copyright Policy is described in the IEEE SA Standards Board Bylaws and IEEE SA Standards Board Operations Manual
- IEEE SA Copyright Policy, see
 - Clause 7 of the IEEE SA Standards Board Bylaws
<https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7>
 - Clause 6.1 of the IEEE SA Standards Board Operations Manual
<https://standards.ieee.org/about/policies/opman/sect6.html>
- IEEE SA Copyright Permission
- <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/permissionltrs.zip>
- IEEE SA Copyright FAQs
- <http://standards.ieee.org/faqs/copyrights>
- IEEE SA Best Practices for IEEE Standards Development
- http://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/best_practices_for_ieee_standards_development_051215.pdf
- Distribution of Draft Standards (see 6.1.3 of the SASB Operations Manual)
- <https://standards.ieee.org/about/policies/opman/sect6.html>

IEEE SA PARTICIPATION SLIDES

Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct

- All participants in IEEE-SA activities are expected to adhere to the core principles underlying the:
 - [IEEE Code of Ethics](#)
 - [IEEE Code of Conduct](#)
- The core principles of the IEEE Codes of Ethics & Conduct are to:
 - *Uphold the highest standards of integrity, responsible behavior, and ethical and professional conduct*
 - *Treat people fairly and with respect, to not engage in harassment, discrimination, or retaliation, and to protect people's privacy.*
 - *Avoid injuring others, their property, reputation, or employment by false or malicious action*
- The most recent versions of these Codes are available at <http://www.ieee.org/about/corporate/governance>

Participants in the IEEE-SA *“individual process”* shall act independently of others, including employers

- The [IEEE-SA Standards Board Bylaws](#) require that *“participants in the IEEE standards development individual process shall act based on their qualifications and experience”*
- This means participants:
 - **Shall act & vote** based on their personal & independent opinions derived from their expertise, knowledge, and qualifications
 - **Shall not act or vote** based on any obligation to or any direction from any other person or organization, including an employer or client, regardless of any external commitments, agreements, contracts, or orders
 - **Shall not direct** the actions or votes of other participants or retaliate against other participants for fulfilling their responsibility to act & vote based on their personal & independently developed opinions
- By participating in standards activities using the *“individual process”*, you are deemed to accept these requirements; if you are unable to satisfy these requirements then you shall immediately cease any participation

IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints

- The [IEEE-SA Standards Board Bylaws](#) (clause 5.2.1.3) specifies that *“the standards development process shall not be dominated by any single interest category, individual, or organization”*
 - This means no participant may exercise *“authority, leadership, or influence by reason of superior leverage, strength, or representation to the exclusion of fair and equitable consideration of other viewpoints”* or *“to hinder the progress of the standards development activity”*
- This rule applies equally to those participating in a standards development project and to that project’s leadership group
- Any person who reasonably suspects that dominance is occurring in a standards development project is encouraged to bring the issue to the attention of the Standards Committee or the project’s IEEE-SA Program Manager