

# Agenda and General Information

**Joint Session -  
IEEE P802.3df Task Force  
IEEE P802.3dj Task Force**

**Mar 2023 Plenary  
13 Mar 2023**

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



# Non-payment of registration fees

Every attendee at any IEEE 802 plenary meeting (Face-to-Face or Remote) 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.

# Joint Task Force Meetings

- **Per Motion #11 approved @ IEEE 802.3 Closing, Nov 2022** (see minutes @ <https://www.ieee802.org/3/minutes/nov22/index.html>)
  - Move that the IEEE 802.3 Working Group grant approval for the P802.3df and P802.3dj Task Forces to take motions during any joint meeting between these task forces only
- **Joint Task Force meetings will be announced**

# Joint IEEE P802.3df / .3dj Task Force Session

## ■ Agenda

- Approve Agenda
- Approve Minutes (see next page)
- Decorum
- Attendance
- Task Force Project Information
- 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
  - 802.3df
  - 802.3dj
- Presentations (including discussion, strawpolls, and motions) – See Pages 6 - 7
- Future Meetings
  - Task Force
  - Ad hocs
  - Future Joint Meetings with P802.3cw
- Closing Business

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

# Minutes to be Approved

## ■ Joint P802.3df / .3dj TF Mtg – Jan 2023 Session

- [https://www.ieee802.org/3/dj/public/23\\_01/minutes\\_3df\\_2301\\_unapproved.pdf](https://www.ieee802.org/3/dj/public/23_01/minutes_3df_2301_unapproved.pdf)

## ■ Ad hoc Meetings

- P802.3df Electrical Ad hoc
  - 21 Sept 2022 – [https://www.ieee802.org/3/df/public/adhoc/electrical/22\\_0921/minutes\\_3df\\_adh\\_220921\\_unapproved.pdf](https://www.ieee802.org/3/df/public/adhoc/electrical/22_0921/minutes_3df_adh_220921_unapproved.pdf)
- P802.3df Logic Ad hoc –
  - 21 Feb, 2023 - [https://www.ieee802.org/3/df/public/adhoc/logic/23\\_0221/minutes.pdf](https://www.ieee802.org/3/df/public/adhoc/logic/23_0221/minutes.pdf)
- P8023dj Optics Ad hoc
  - 22 Feb 2023 - [https://www.ieee802.org/3/dj/public/adhoc/optics/0223\\_OPTX/minutes\\_3df\\_optx\\_230222\\_unapproved.pdf](https://www.ieee802.org/3/dj/public/adhoc/optics/0223_OPTX/minutes_3df_optx_230222_unapproved.pdf)
- P802.3dj Electrical Ad hoc
  - 23 Feb 2023 - [https://www.ieee802.org/3/dj/public/adhoc/electrical/23\\_0223/minutes\\_3df\\_adh\\_230223\\_unapproved.pdf](https://www.ieee802.org/3/dj/public/adhoc/electrical/23_0223/minutes_3df_adh_230223_unapproved.pdf)

# Mar 2023 Session (1 of 2)

All times and order listed are subject to change.

Mon	13-Mar-23			
Time	Presenter	Affiliation	Title	File Name
1:00 PM	John D'Ambrosia	Futurewei, U.S. Subsidiary of Huawei	Agenda and General Information	agenda_3dfdj_2303
1:40 PM	Ali Ghiasi	Ghiasi Quantum / Marvell	Proposed Liaison to OIF	ghiasi_3dj_01_2203
1:45 PM	Kent Lusted	Intel	Towards a 200G/lane Backplane Objective – An Update	lusted_3dj_01_2203
2:30 PM	Kent Lusted	Intel	200GAUI-1/400GAUI-2/800GAUI-4/1.6TAUI-8 AUI C2M Interfaces: Link Training or Not?	lusted_3dj_02_2203
2:50 PM	Break			
3:10 PM	Ali Ghiasi	Ghiasi Quantum/Marvell	Further Details and Progress on CMIS-LT	ghiasi_3dj_03_2203
3:35 PM	Ali Ghiasi	Ghiasi Quantum/Marvell	CRU Bandwidth Recommendation for 200G Interfaces	ghiasi_3dj_02_2203
4:05 PM	Tobey P.-R. Li Mau-Lin Wu	MediaTek	200G/L C2M Baseline Follow Up–Achievable IL under Different 802.3dj C2M Candidates	li_3dj_01_2203
4:35 PM	Tobey P.-R. Li Mau-Lin Wu	MediatTek	Further on the COM Analysis for 200G/L AUI C2M–TP1a Simulation	li_3dj_02_2203
5:05 PM	Discussion and Straw Polls			
6:00 PM	Recess for Day			

Tues	14-Mar-23			
Time	Presenter	Affiliation	Title	File Name
8:30 AM	John D'Ambrosia	Futurewei, U.S.	Chair's Opening Comments	
8:35 AM	Eugene Opsasnick	Broadcom	Baseline Proposal for 1.6TbE PCS Lane Formation and AM Insertion	opsasnick_3dj_01_2203
9:05 AM	Adee Ran	Cisco	Baseline proposal for PMAs with 200G per lane signaling	ran_3dj_01_2203
9:35 AM	Discussion and Straw Polls			
10:00 AM	Break			
10:20 AM	Mark Gustlin	Cisco	AUI Types vs. FEC Partitioning (Update)	gustlin_3dj_01_2203
10:50 AM	Matt Brown	Huawei Technologies	PHY/FEC Architecture considerations	brown_3dj_01_2203
11:20 AM	Leon Bruckman	Huawei	End-to-end FEC for 200G per lane applications in Data Center	bruckman_3dj_01_2203
12:00 PM	Break for Lunch			
1:15 PM	Upen Reddy Kareti	Cisco	200G/lane PAM4: Error Profile, Propagation and Correction considerations: Part2 -Effects of precoding and Inner FEC	kareti_3dj_01_2203
1:45 PM	Upen Reddy Kareti	Cisco	200G/lane PAM4: Error Profile, Propagation and Correction considerations: Part3 -Multi part links cases - FEC strategies	kareti_3dj_02_2203
2:15 PM	Vasu Parthasarathy	Broadcom	The Case for Concatenated Codes	parthasarathy_3dj_01_2203
2:40 PM	Xiang He	Huawei	Architectural Considerations for Type 2 PHY/FEC Scheme (Concatenated FEC) for 200G per Lane IMDD	he_3dj_01_2203
3:10 PM	Break			
3:30 PM	Masoud Barakatain	Huawei	Consideration on Concatenated FEC Proposal for 200 Gbps per Lane IMDD Optical PMD	barakatain_3dj_01_2203
4:00 PM	Jamal Riani	Marvell Semiconductors	Impact of burst errors on concatenated FEC scheme.	riani_3dj_01_2203
4:20 PM	Sridhar Ramesh	Maxlinear	Reliability Analysis of In-Band Signaling Message Fields for 200G proposal with inner code	ramesh_3dj_01_2203
4:40 PM	Piers Dawe	Nvidia	FEC options for 200G/lane DRn, DRn-2 and FR1	dawe_3dj_01_2203
5:10 PM	Discussion and Straw Polls			
6:00 PM	Recess for Day			

# Mar 2023 Session (2 of 2)

All times and order listed are subject to change.

Wed	15-Mar-23			
	Presenter	Affiliation	Title	File Name
8:30 AM	John D'Ambrosia	Futurewei, U.S. Subsidiary of Huawei	Chair's Opening Comments	
8:35 AM	Lenin Patra	Marvell Semiconductors	Concatenated FEC baseline proposal for 200Gb/s per Lane IM-DD Optical PMD	patra_3dj_01_2203
9:05 AM	Xinyuan Wang	Huawei	Proposal of BCH/Hamming Inner Code of Type 2 PHY/FEC Scheme (Concatenated FEC)	wang_3dj_01_2203
9:35 AM	Discussion and Straw Polls			
10:00 AM	Break			
9:35 AM	Brian Welch	Cisco	Proposal for an additional optical objective: 400GBASE-DR2-2	welch_3dj_01_2203
10:20 AM	Brian Welch	Cisco	Baseline proposals for 200G/L PMD specifications for single wavelength 500m and 2km standards	welch_3dj_02_2203
10:45 AM	Brian Welch	Cisco	Baseline proposal for 200G/L PMD specification for 4 wavelengths over a single SMF in each direction with lengths up	welch_3dj_03_2203
11:10 AM	Xiang Liu	Huawei	Additional suppression of FWM due to practical fiber cable segmentation in 800G-LR4	liu_3dj_01_2203
12:00 PM	Break for Lunch			
1:15 PM	Chris Cole	Quintessent	10km Duplex SMF Objectives Proposal	cole_3dj_01_2203
1:35 PM	Roberto Rodes	Coherent	Towards an 800G-LR4 IMDD Specification Consensus - March 2023 update	rodes_3dj_01_2203
1:55 PM	Discussion and Straw Polls			
3:00 PM	Break			
3:20 PM	Eric Maniloff	Ciena	Baseline proposal for 10 & 40km 800Gb/s objectives in 802.3dj	maniloff_3dj_01_2203
3:50 PM	Tom Williams	Cisco	Update to oFEC-based single lambda baseline for 10km and 40km objectives	williams_3dj_01_2203
4:20 PM	Discussion and Straw Polls			
6:00 PM	Recess for Day			

Thurs	16-Mar-23	IEEE P802.3dj		
	Presenter	Affiliation	Title	File Name
8:00 AM	John D'Ambrosia	Futurewei, U.S. Subsidiary of Huawei	Chair's Opening Comments	
8:05 AM	Discussion, Straw Polls, and Motions			
10:00 AM	Break			
10:20 AM	Discussion, Straw Polls, and Motions			
11:20 AM	Matt Brown	Huawei	Overview of WG Ballot Process	
11:40 AM	Closing Business			
12:00 PM	Adjourn			

# Goals for the Session

- **IEEE P802.3df**
  - Progress D2.0 to WG Ballot
- **IEEE P802.3dj**
  - Hear Technical Presentations
    - Consider Baseline Proposals
    - Objectives Related Presentations
      - Splitting 800 GbE 10m SMF Objective
      - Backplane – 200 GbE / 400 GbE / 800 GbE / 1.6 TbE
      - 400GBASE-DR2-2
- Consider Liaisons from OIF
  - OIF 800LR IA Project Update
  - OIF CEI-112-XSR+ PAM4
  - Possible Outgoing to OIF - CMIS



# 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](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 P802.3df 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, IEEE P802.3dj Task Force; Chair, Electrical Track
- Matt Brown, IEEE P802.3dj Chief Editor
- Mark Gustlin, Chair, Architecture and Logic Track

## ▪ Task force web and reflector information:

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

## ▪ Project Documentation –

- PAR : [https://www.ieee802.org/3/df/proj\\_doc/P802.3df\\_031222.pdf](https://www.ieee802.org/3/df/proj_doc/P802.3df_031222.pdf)
- CSD: <https://mentor.ieee.org/802-ec/dcn/21/ec-21-0306-01-ACSD-p802-3df.pdf>
- Objectives: [https://www.ieee802.org/3/df/proj\\_doc/objectives\\_P802d3df\\_221117.pdf](https://www.ieee802.org/3/df/proj_doc/objectives_P802d3df_221117.pdf)
- Adopted Timeline: [https://www.ieee802.org/3/df/proj\\_doc/timeline\\_3df\\_221004.pdf](https://www.ieee802.org/3/df/proj_doc/timeline_3df_221004.pdf)

## ▪ P802.3df 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>

# 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
- Matt Brown, IEEE P802.3dj Chief Editor
- Mark Gustlin, Chair, Architecture and Logic Track

## ▪ Task force web and reflector information:

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

## ▪ Project Documentation –

- PAR : [https://www.ieee802.org/3/dj/projdoc/P802d3dj\\_PAR.pdf](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\\_221117.pdf](https://www.ieee802.org/3/dj/projdoc/objectives_P802d3dj_221117.pdf)
- Adopted Timeline: [https://www.ieee802.org/3/dj/projdoc/timeline\\_3dj\\_230116.pdf](https://www.ieee802.org/3/dj/projdoc/timeline_3dj_230116.pdf)

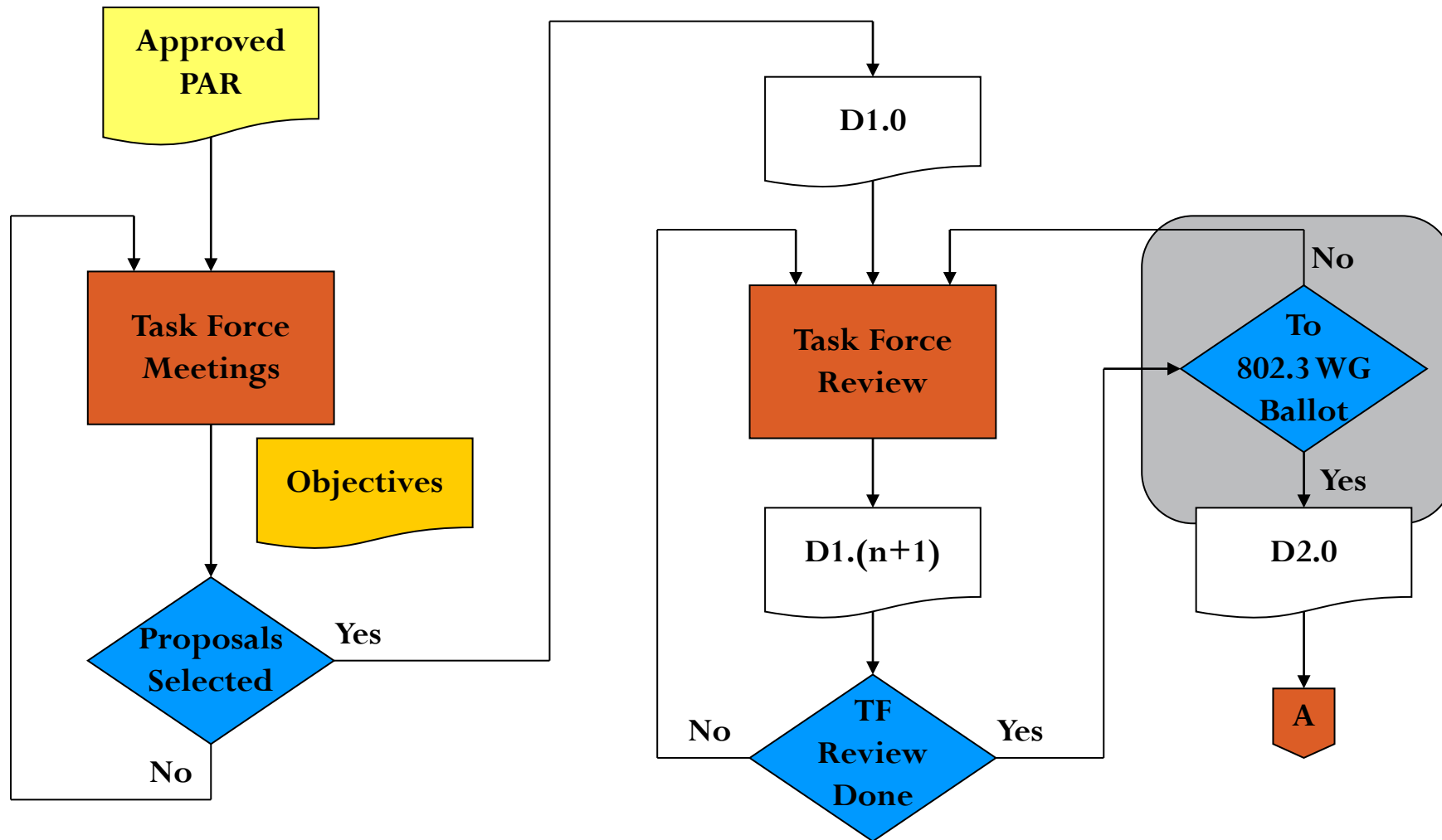
## ▪ P802.3df TF meeting information may be found on:

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

# 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**

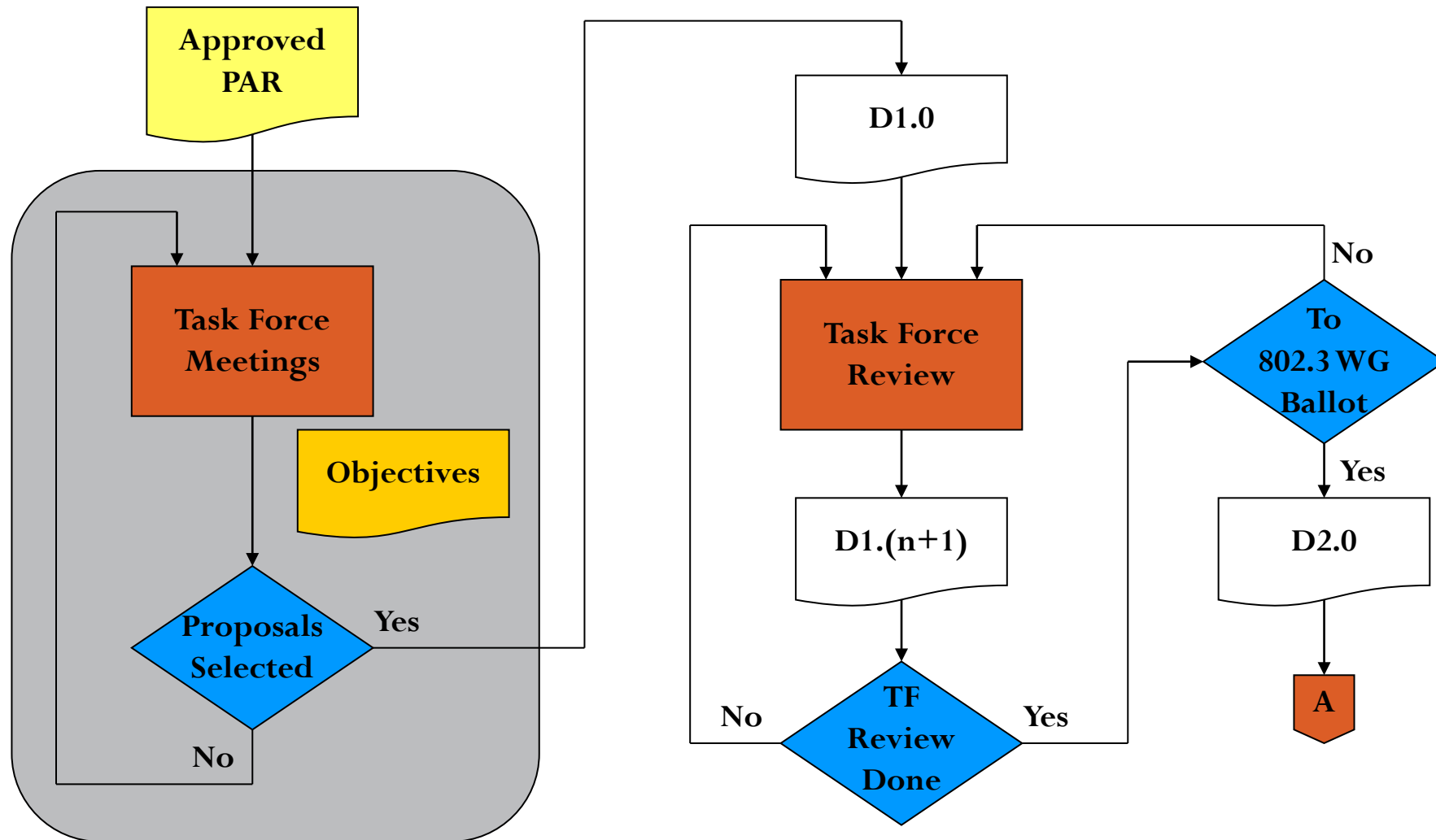
# IEEE P802.3df Task Force: Task Force Comment Phase



**We  
are  
here**

# IEEE P802.3dj Task Force: Task Force Comment Phase

We  
are  
here



# Voting

- Mar 2023 IEEE 802.3 Task Force Meeting has been classified by 802.3 WG Chair as "mixed mode"
  - See [https://www.ieee802.org/3/email\\_dialog/msg01401.html](https://www.ieee802.org/3/email_dialog/msg01401.html)

- Reference: Excerpt from Section 3.4.2, IEEE 802.3 Operations Manual
  - [http://www.ieee802.org/3/rules/P802\\_3\\_rules.pdf](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 strawpolls 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 reminder** (<https://www.ieee802.org/3/B400G/email/msg00703.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**

# Liaisons Overview (As of 09 Mar 2023)

- **Incoming:**
  - OIF 800LR IA Project Update –
    - [https://www.ieee802.org/3/minutes/jan23/incoming/OIF\\_liaison\\_letter\\_IEEE802.3\\_800LR\\_17Jan23\\_Redacted.pdf](https://www.ieee802.org/3/minutes/jan23/incoming/OIF_liaison_letter_IEEE802.3_800LR_17Jan23_Redacted.pdf)
  - OIF CEI-112-XSR+PAM4 Project
    - [https://www.ieee802.org/3/minutes/mar23/incoming/OIF\\_liaison\\_letter\\_IEEE802.3\\_CEI-112G-XSR\\_18Jan23\\_Redacted.pdf](https://www.ieee802.org/3/minutes/mar23/incoming/OIF_liaison_letter_IEEE802.3_CEI-112G-XSR_18Jan23_Redacted.pdf)
    - Attachment (Password protected) - [https://www.ieee802.org/3/private/liaison\\_docs/OIF/OIF\\_liaison\\_cover\\_IEEE802.3\\_CEI-112G-XSR\\_18Jan23-combined.pdf](https://www.ieee802.org/3/private/liaison_docs/OIF/OIF_liaison_cover_IEEE802.3_CEI-112G-XSR_18Jan23-combined.pdf)
- **Proposed Liaison letter to OIF**
  - Request for information regarding CMIS Update Request - [https://www.ieee802.org/3/dj/public/23\\_03/ghiasi\\_3dj\\_01\\_2303.pdf](https://www.ieee802.org/3/dj/public/23_03/ghiasi_3dj_01_2303.pdf)

# Baseline Status - Logic

Ethernet Rate	AUI		CU Cable	SMF 500m/2km	SMF 10km	SMF 40km
	PCS/FEC?	PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?
200 Gb/s						
400 Gb/s				500m only		
800 Gb/s						
1.6 Tb/s	A few open issues					

Adopted baselines

Proposed Baselines

# Baseline Status

Ethernet Rate	Assumed Signaling Rate	AUI	Cu Cable	SMF 500m	SMF 2km	SMF 10km	SMF 40km
200 Gb/s	200 Gb/s	200GAUI-1 C2C C2M	200GBASE-CR1	200GBASE-DR1	1 pair 200GBASE-FR1		
400 Gb/s	200 Gb/s	400GAUI-2 C2C C2M	400GBASE-CR2	200GBASE-DR2			
800 Gb/s	200 Gb/s	800GAUI-4 C2C C2M	800GBASE-CR4	800GBASE-DR4	1. 800GBASE-DR4-2 2. 800GBASE-FR4		
	TBD					Over single SMF in each direction IMDD Coherent	Over single SMF in each direction IMDD Coherent
1.6 Tb/s	100 Gb/s	1.6TAUI-16 C2C C2M					
	200 Gb/s	1.6TAUI-8 C2C C2M	1.6TBASE-CR8	1.6TBASE-DR8	1.6TBASE-DR8-2		

Adopted baselines

Proposed Baselines (3dj)

# IEEE P802.3df Ad Hocs

Announcement - <https://www.ieee802.org/3/B400G/email/msg00257.html>

## 1. Architecture and Logic Ad hoc – Mark Gustlin, 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. Draft definitions to be presented to Task Force at May 2022 session.
- 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

# IEEE P802.3dj Ad Hocs

The following ad hocs are appointed. They meet with respective IEEE P802.3df ad hocs when announced.

## 1. Architecture and Logic Ad hoc – Mark Gustlin, 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

# Ad hoc Summary

- ▣ 802.3df Ad Hoc Meetings
  - Architecture Ad hoc (21 Feb)
    - 2 technical presentations considered – Skew
    - <https://www.ieee802.org/3/df/public/adhoc/logic/index.html>
- ▣ 802.3dj Ad Hoc Meetings
  - Optics Ad hoc (22 Feb)
    - 4 technical presentations considered
      - Proposal to split 800 GbE SMF 10km Objective
      - Architecture / FEC Presentations
    - [https://www.ieee802.org/3/dj/public/adhoc/optics/0223\\_OPTX/index.html](https://www.ieee802.org/3/dj/public/adhoc/optics/0223_OPTX/index.html)
  - Electrical Ad hoc (23 Feb)
    - 2 technical presentations considered
      - MLSE
      - COM 4.0 using Rx which utilizes MLSE
    - <https://www.ieee802.org/3/dj/public/adhoc/electrical/index.html>

# Future Meetings

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

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

**Permission will be requested @ 802.3 Closing Plenary to allow motions to be taken @ joint meetings between P802.3cw / P802.3df / P802.3dj**

- Joint IEEE P802.3df / .3dj TF May 2023 Interim –
  - Week of May 15 – 18, 2023
  - Hilton Palacio del Rio – Riverwalk
  - San Antonio, TX, USA
  - Hosted by Ethernet Alliance
- Joint IEEE P802.3df / .3dj TF July 2023 Plenary
  - Week of July 10 – 13, 2023
  - Estrel Berlin
  - Berlin, Germany
- Joint IEEE P802.3df / .3dj TF Sept 2023 Interim
  - Week of Sept 11 – 14, 2023
- Joint IEEE P802.3df / .3dj TF Nov 2023 Plenary
  - Week of Nov 13 – 16, 2023
  - Hawaiian Village
  - Oahu, Hawaii, USA
- Any additional meetings will be announced, as appropriate.



# Future Ad hoc Meetings

- **IEEE P802.3df**
  - None
- **IEEE P802.3dj**
  - **Electrical Ad hoc –**
    - **Thurs, 06 April, 9:30am to 12:30pm ET**
    - **Thurs, 20 April, 9:30am to 12:30pm ET**
    - **Thurs, 04 May, 9:30am to 12:30pm ET**
  - **Joint Logic / Optics Ad hoc**
    - **Thurs, 13 April , Time TBA**
    - **Thurs, 27 April , Time TBA**

**THANK YOU!**



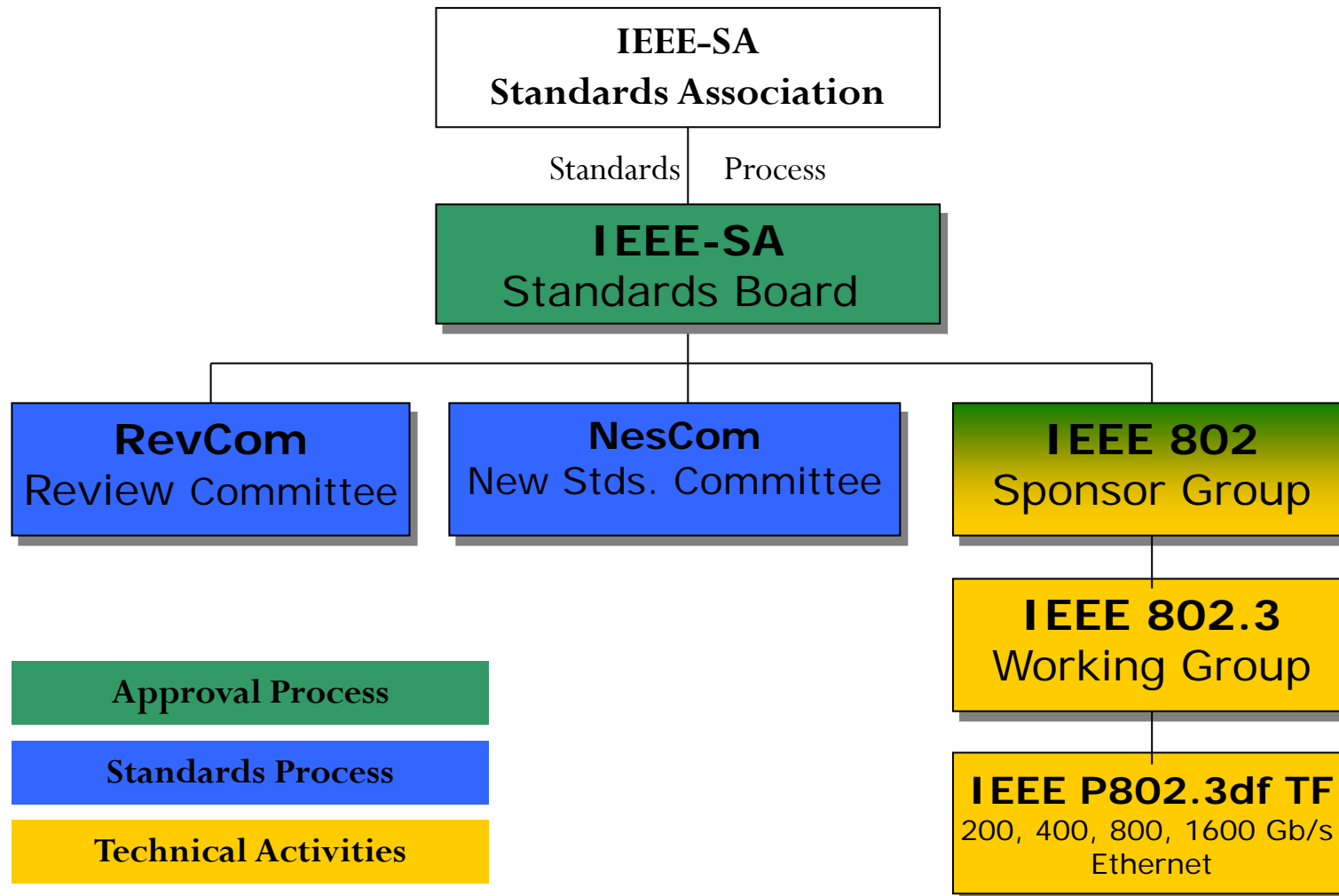
# BACKUP



# 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](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.

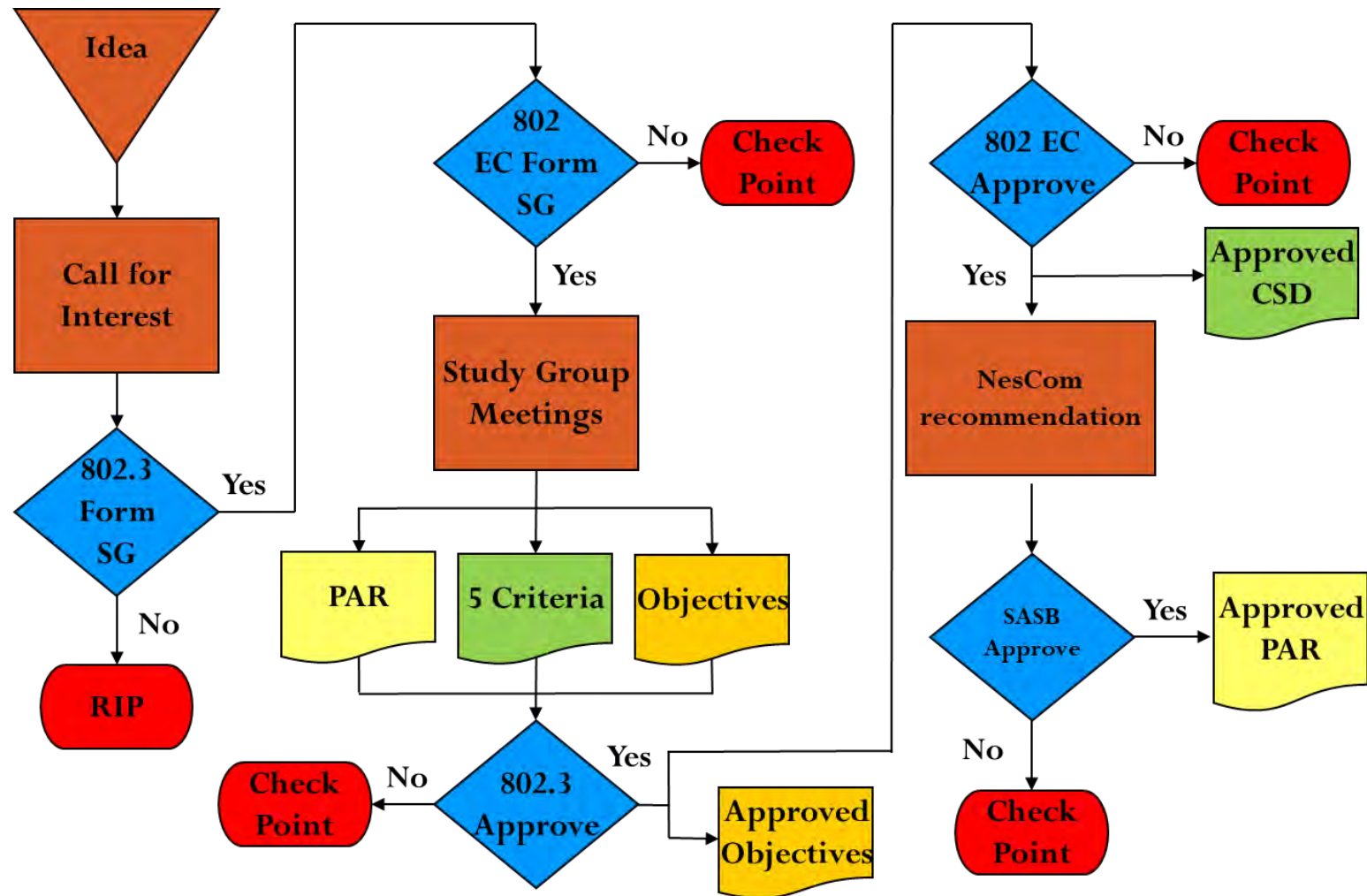
# IEEE Structure



# Important Bylaws, Rules, and References

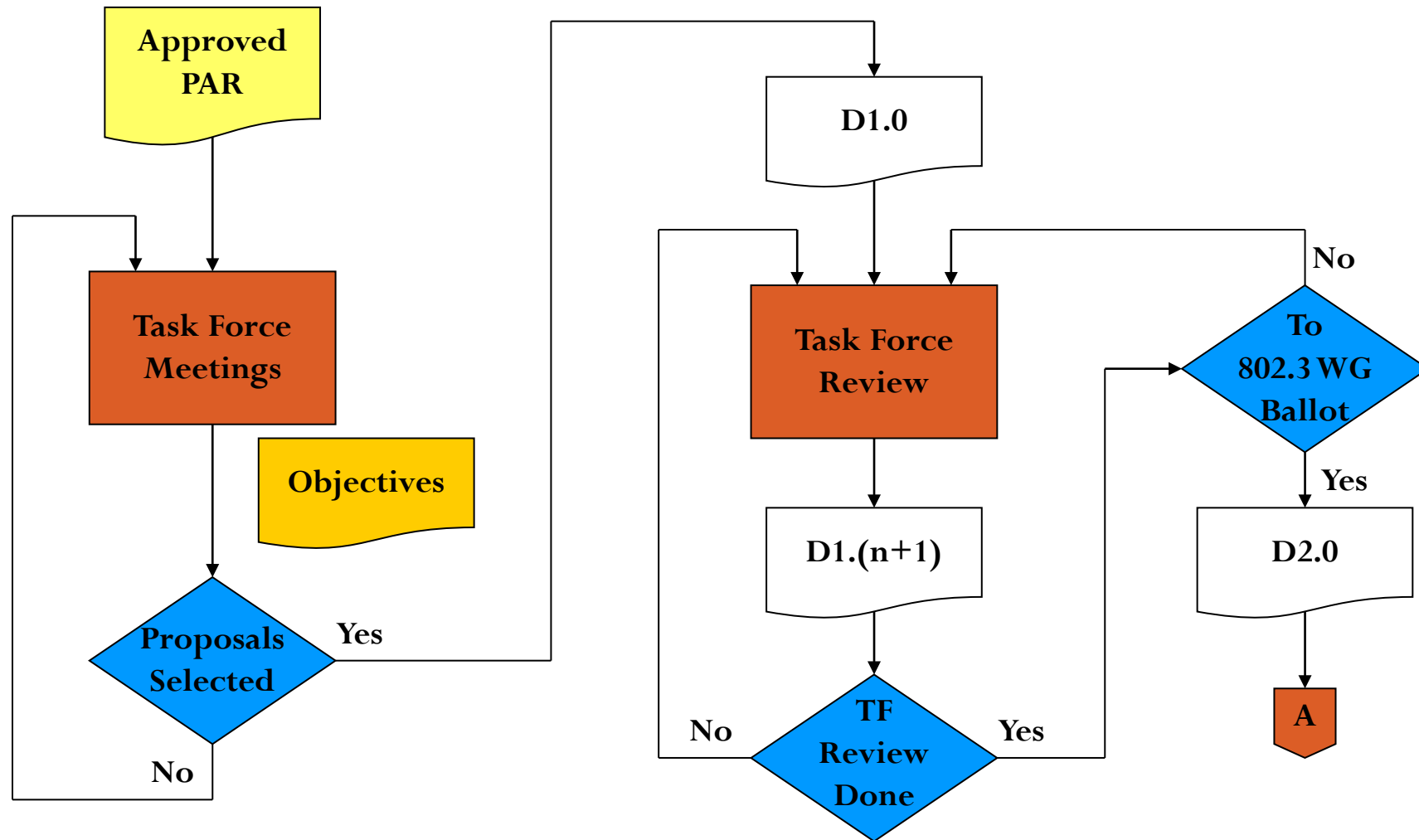
- IEEE-SA Operations Manual  
[http://standards.ieee.org/develop/policies/sa\\_opman/](http://standards.ieee.org/develop/policies/sa_opman/)
- IEEE-SA Standards Board Bylaws  
<http://standards.ieee.org/develop/policies/bylaws/>
- IEEE-SA Standards Board Operations Manual  
<http://standards.ieee.org/develop/policies/opman/>
- 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](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



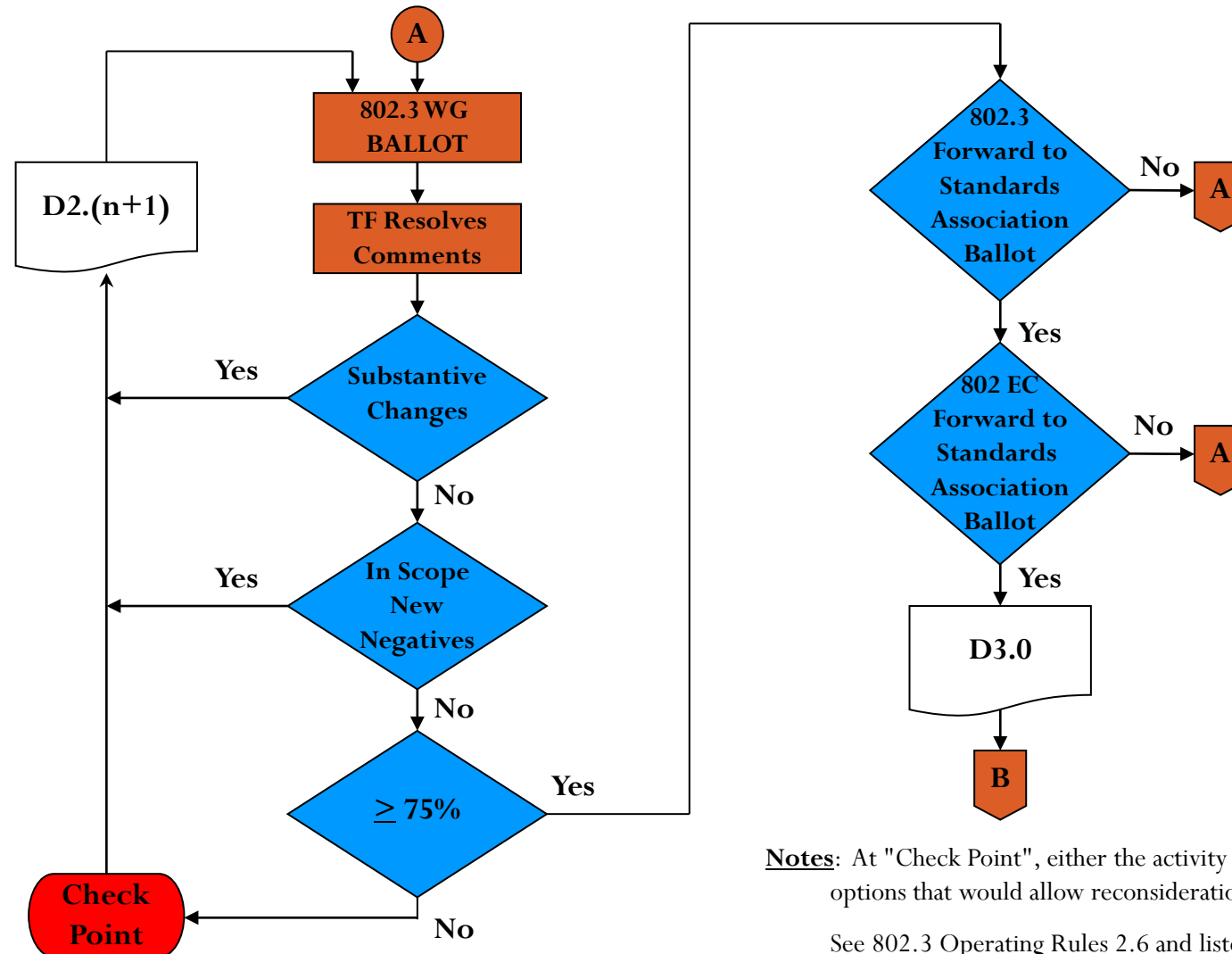
Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

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





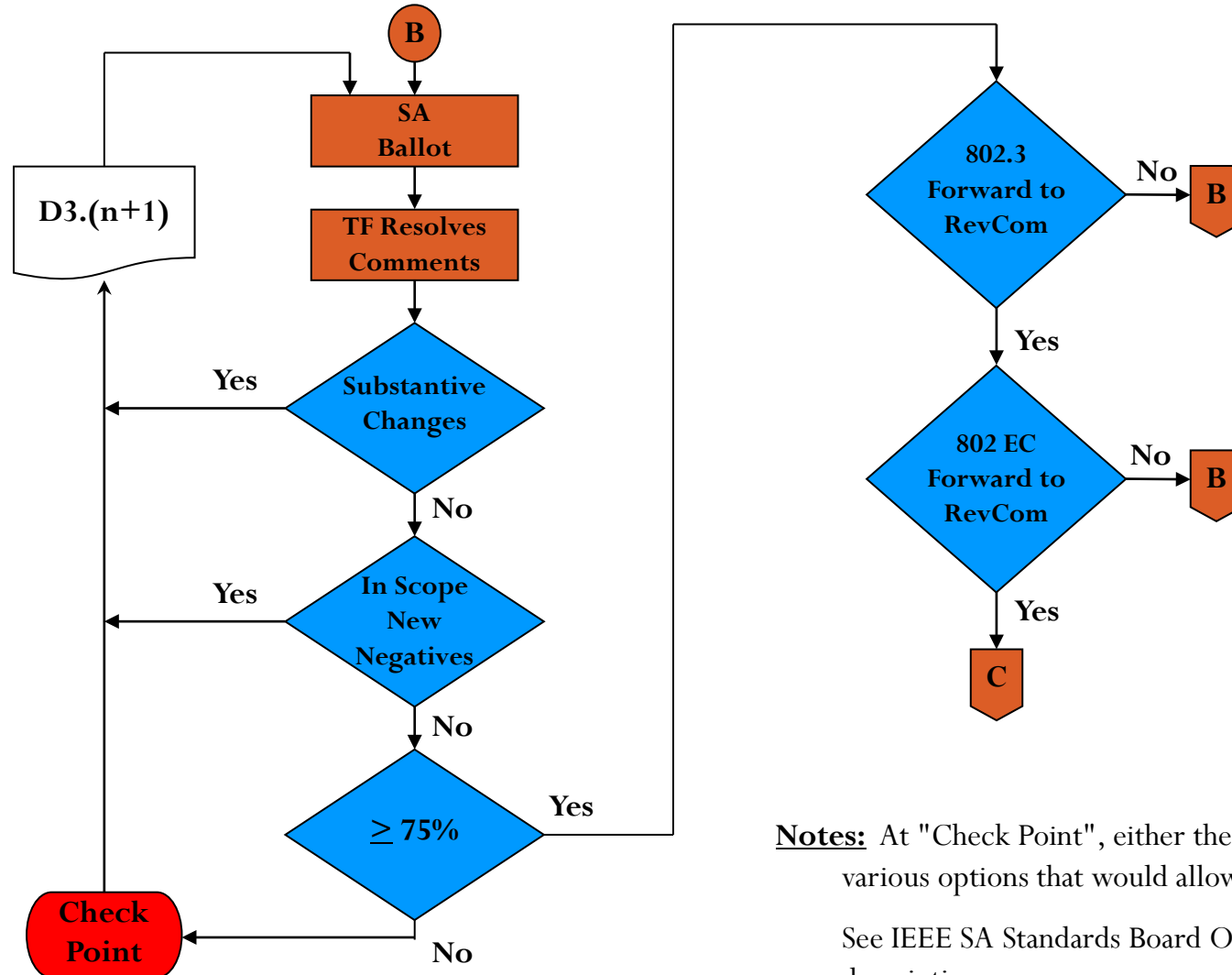
# Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



**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

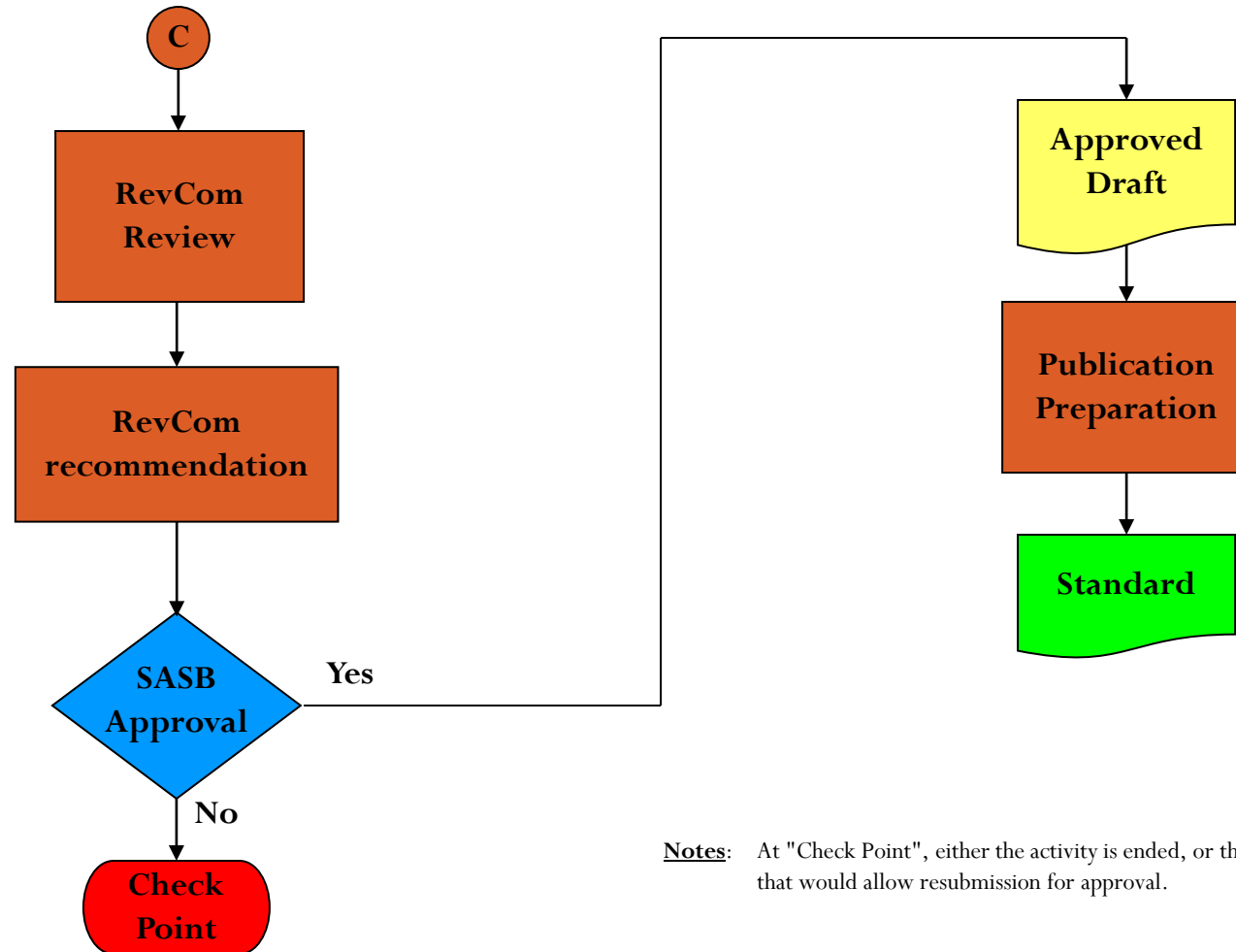
# Overview of IEEE 802.3 Standards Process (4/5)- Standards Association (SA) Ballot Phase



**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](mailto: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](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