

Agenda and General Information

IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement Task
Force Joint Meeting with

IEEE P802.3dg 100 Mb/s Long-Reach Single-Pair Ethernet Task Force

Chad Jones - Cisco Systems, Inc. &

George Zimmerman - CME Consulting/ADI, APL Group, Cisco, Marvell, OnSemi,
SenTekSe, Sony

Interim Meeting – Phoenix, AZ, USA – 20-23 January 2025

Joint IEEE P802.3da and P802.3dg Meeting

- The 802.3da and 802.3dg Task Forces plan to meet jointly in January, while also providing time to the POPI Study Group
- The rough meeting plan:

	Monday	Tuesday	Wednesday
AM1	DA	DG	DA
AM2	DA	DG/DA	DA
PM1	POPI	DG/DA	
PM2	POPI/DA	DA	

Agenda

- Welcome and Introductions
- Approve Agenda
- Approve Minutes
- Attendance
- Goals for this meeting
- Big Ticket Items
- Reflector and Web
- Ground Rules
- IEEE
 - Structure, Bylaws and Rules
 - Call for Patents
 - IEEE Standards Process
- ~~Liaisons and Communications~~
- Timeline
- Comment resolution
- Presentations
- Motions and Closing Business
- Future Meetings

Minutes to Approve

- DA/DG joint meeting November 2024:
 - https://www.ieee802.org/3/dg/public/May_2024/Unconfirmed_minutes_3da_dg_11132024.pdf and
 - [https://www.ieee802.org/3/da/public/1124/spmd TF minutes 00 1124.pdf](https://www.ieee802.org/3/da/public/1124/spmd_TF_minutes_00_1124.pdf)
- DG ad hocs:
 - https://www.ieee802.org/3/dg/public/May_2024/Unconfirmed_minutes_3dg_12182024.pdf
 - https://www.ieee802.org/3/dg/public/May_2024/Unconfirmed_minutes_3dg_01152025.pdf
- power ad hoc:
 - https://www.ieee802.org/3/dg/public/May_2024/Unconfirmed_minutes_3dg_10242024.pdf

Task Force 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. (January 2020 IEEE-SA Standards Board Ops Manual 5.3.3.2)
- Press (i.e., anyone reporting publicly on this meeting) are to announce their presence (January 2020 IEEE-SA Standards Board Ops Manual 5.3.3.3)
- The conference tool in use for this meeting has a chat function. Public, and in some cases private chats, are available to the teleconference host after the meeting, and should be treated as a public statement that could appear in the minutes. The public chat function shall only be used for official business related to the meeting, as determined by the Chair.
- Cell phone ringers off
- Please observe proper decorum in meetings – **MUTE WHEN NOT TALKING**

Affiliation

- If you have not edited your Webex profile to show your employer and/or affiliation, please type it in the chat window so the secretary can add to the minutes.
- Webex has recently updated to allow update of display name. Right click.
- If you do not announce your affiliation, you will be removed from the meeting

Hybrid Meeting Queue

- Online attendees will use the chat window to enter the queue
- In room attendees will use the microphone to queue
- Chair will monitor when queue was entered

Meeting Fees

- This meeting is conducted as part of the IEEE 802.3 Interim Meeting. Registration and payment of fees is required, and attendance without properly registering is subject to penalties under IEEE 802 rules.
- See <https://www.ieee802.org/3/interims/index.html> for further information and a registration link

Membership requirements (gaining and retaining)

- Membership requirements (gaining)
 - Attendance in at least 75% of meeting slots at 2 of the last 4 plenary sessions
 - Attendance in at least 75% of meeting slots at recent IEEE 802.3 Ethernet Working Group or Task Group Interim Session may be substituted for one of the two Plenary Sessions
 - Attendance **in at least 75% of the meeting slot's duration** is required for that attendance to count towards gaining or maintaining voting membership
 - **You can only claim IMAT attendance credit if you attend at least 75% of slot's duration**
 - Officers may remove IMAT attendance credit if you attend less than 75% of slot's duration
 - Provide declaration of affiliation and valid contact information
 - Request to become member during potential voter agenda item at an IEEE 802.3 Ethernet Working Group opening or closing **plenary** meeting
- Membership requirements (retaining)
 - Continue to meet above attendance, contact, and affiliation requirements
 - Participate in **two** out of the last **three** Working Group Letter Ballot Series
- For more details see: <https://www.ieee802.org/3/rules/member.html>

Attendance

- Taken from the WebEx log and IMAT
- Tutorial Material on attendance tool
 - http://ieee802.org/3/minutes/attendance_procedures.pdf
- Access details
 - URL: <http://imat.ieee.org/>
 - Password:

Goals for the meeting

- 802.3da:
 - Progress through WG ballot to prepare for SA ballot
- 802.3dg:
 - Adopt baselines to fill out d1.0 PCS baseline
 - Progress PMA training – adopt/refine baselines
 - Progress powering discussion – consider what fits into 802.3dg

Reflector and Web - DA

- To subscribe to the P802.3da reflector, send an email to:

ListServ@ieee.org

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

*subscribe stds-802-3-SPMD <yourfirstname> <yourlastname>
end*

- Send P802.3da reflector messages to:

stds-802-3-SPMD@listserv.ieee.org

- Task Force web page URL:

<http://www.ieee802.org/3/da/index.html>

Reflector and Web - DG

- To subscribe to the 100 Mb/s Long-Reach Single-Pair Ethernet 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-SPEP2P <yourfirstname> <yourlastname>
end*

- Send 100 Mb/s Long-Reach Single-Pair Ethernet Task Force reflector messages to:

stds-802-3-SPEP2P@listserv.ieee.org

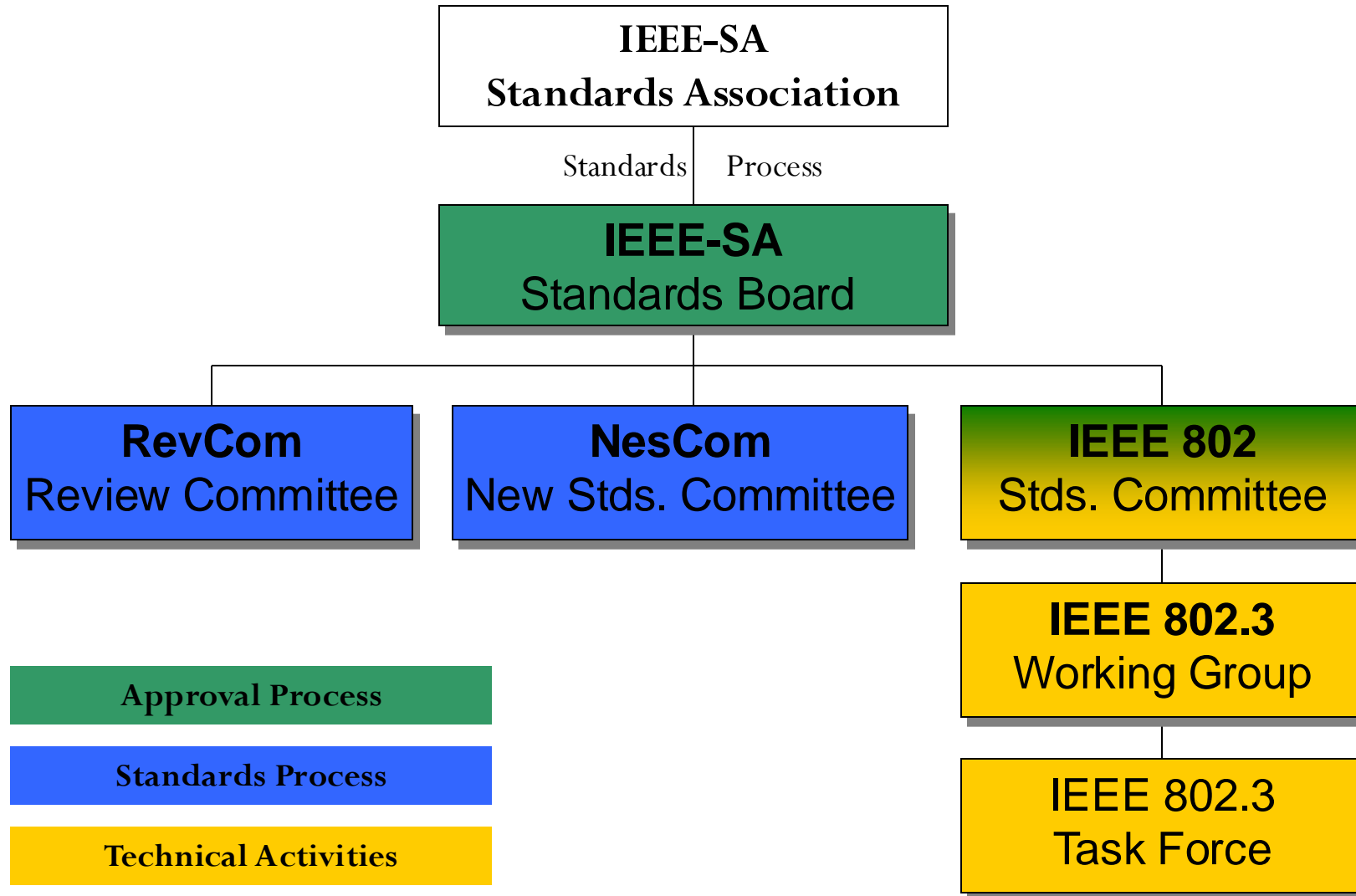
- Task Force web page URL:

<http://www.ieee802.org/3/dg/index.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**
- **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 Structure



Important Bylaws and Rules

- **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

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



STANDARDS
ASSOCIATION

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

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.html/>

- IEEE SA Best Practices for IEEE Standards Development
 - http://standards.ieee.org/develop/policies/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>

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>

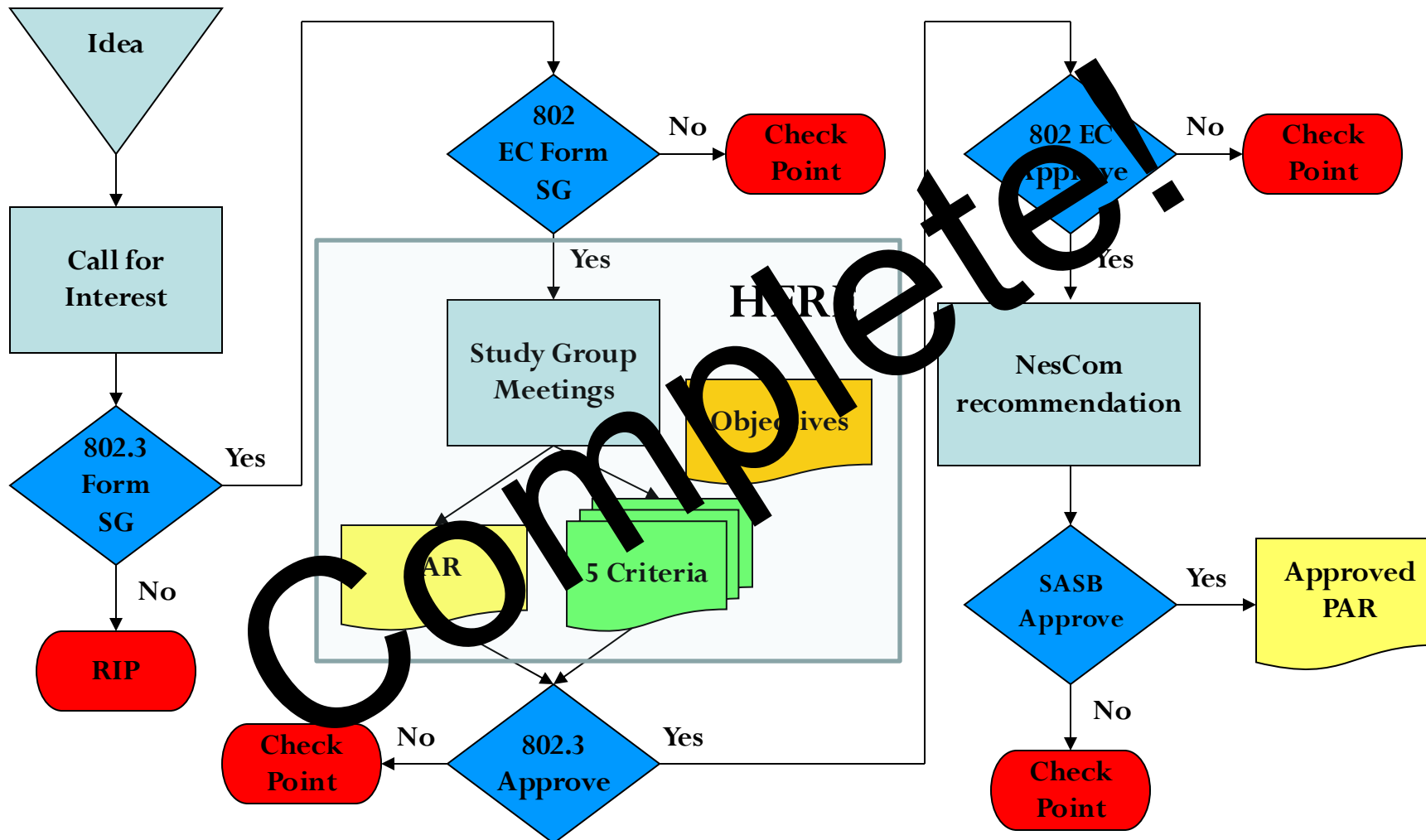
Participants in the IEEE-SA “*individual process*” shall act independently of others, including employers

- 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

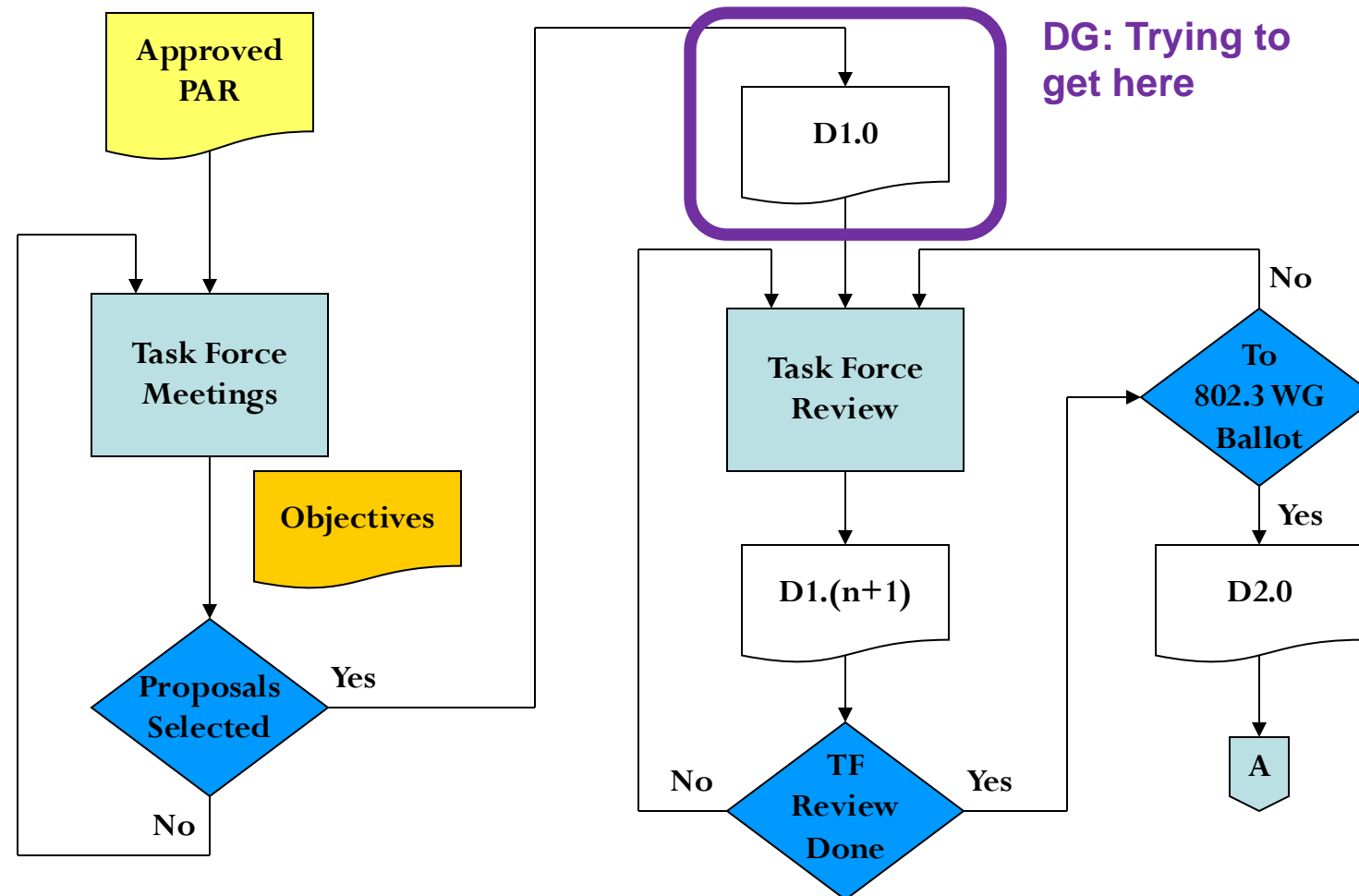
- The [IEEE-SA Standards Board Bylaws](#) (clause 5.2.1.3) specifies that *“the standards development process shall not be dominated by any single interest category, individual, or organization”*
 - This means no participant may exercise *“authority, leadership, or influence by reason of superior leverage, 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

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



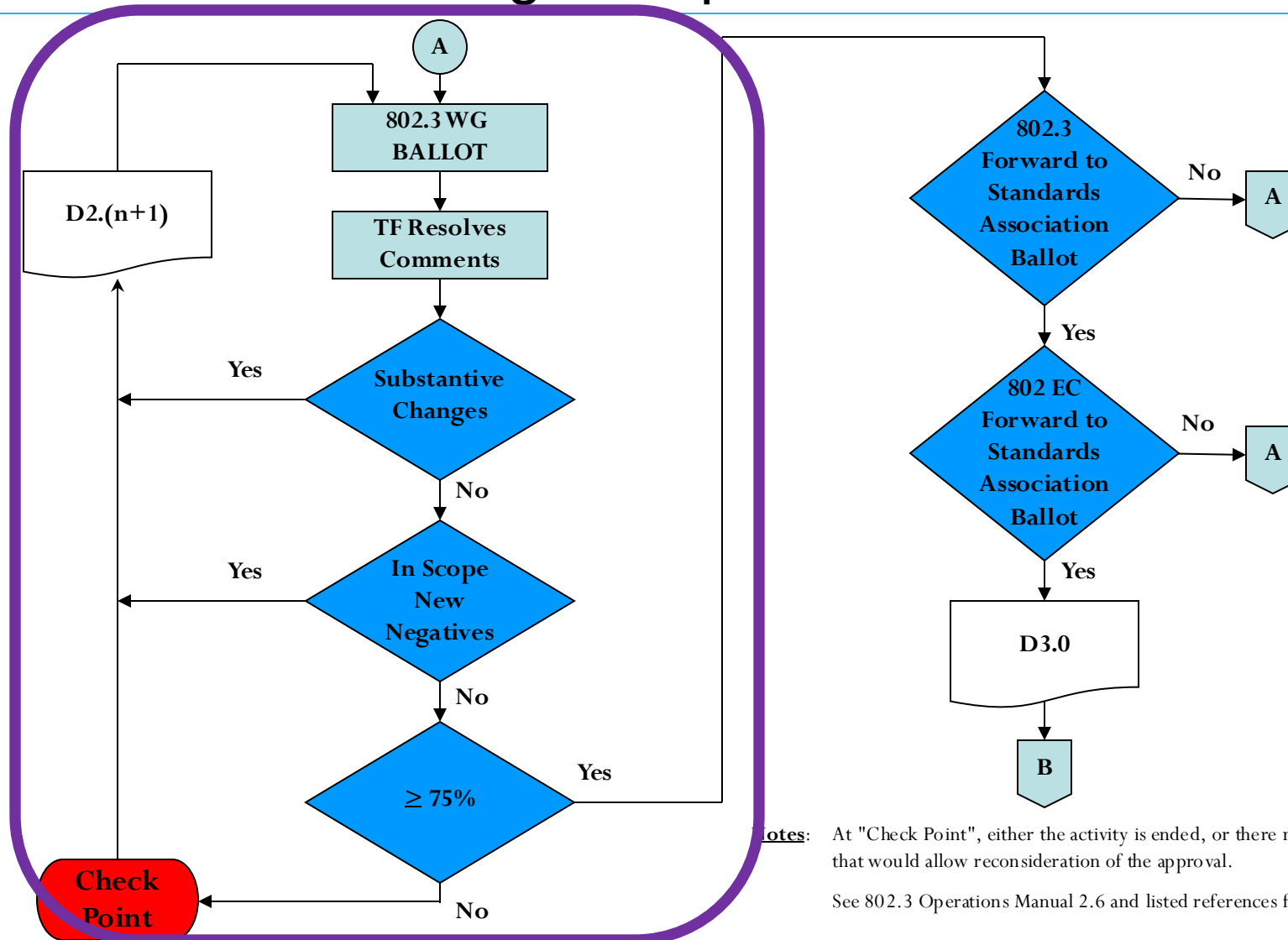
Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

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



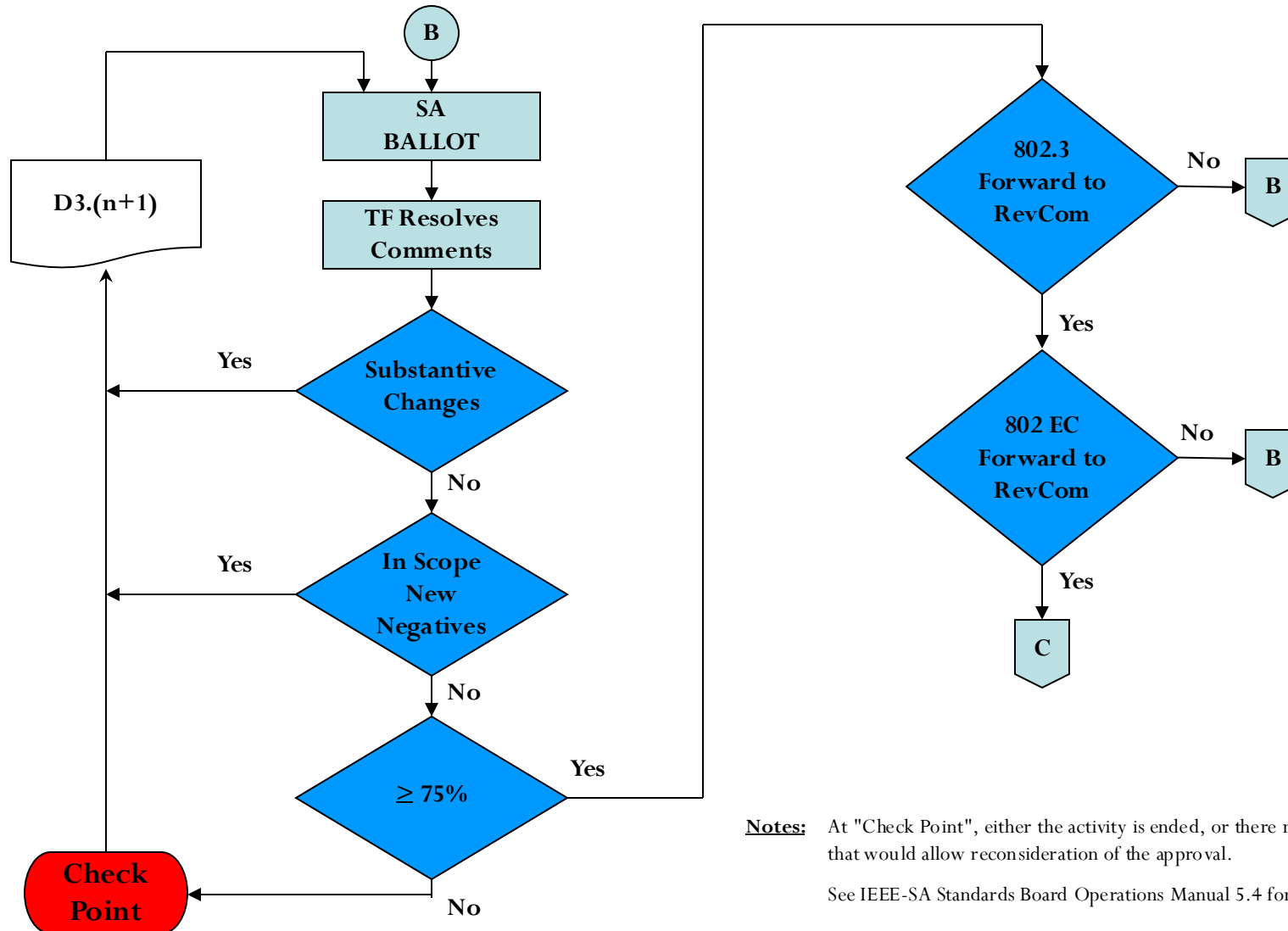
Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase

DA: working through this process



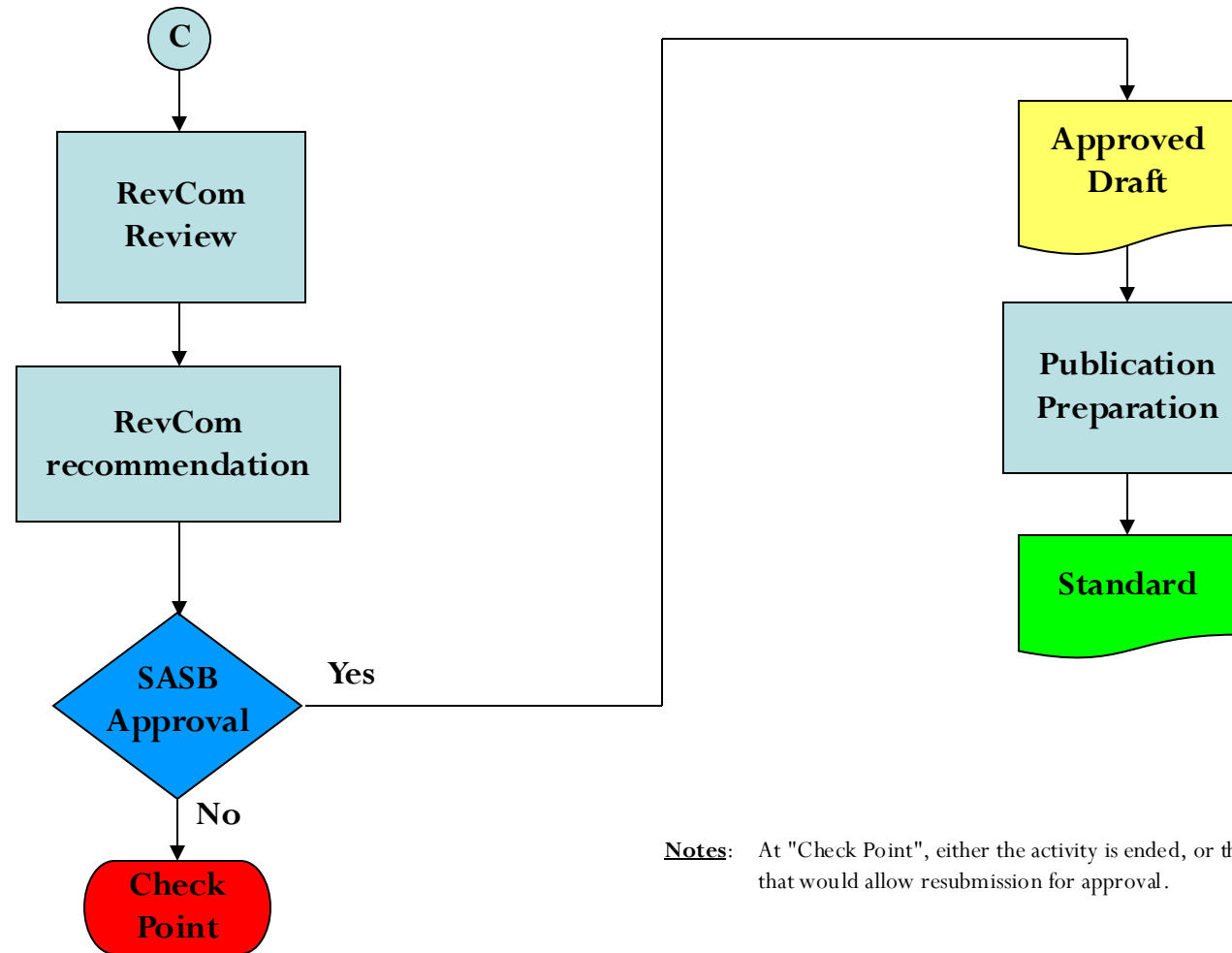
Notes: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.
See 802.3 Operations Manual 2.6 and listed references for complete description

Overview of IEEE 802.3 Standards Process (4/5)- IEEE 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 Operations 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 P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement Approved Project Documents

- PAR
 - http://www.ieee802.org/3/da/P802d3da_PAR.pdf
- 5 Criteria
 - <https://mentor.ieee.org/802-ec/dcn/20/ec-20-0096-00-ACSD-p802-3da.pdf>
- Objectives
 - http://www.ieee802.org/3/da/802d3da_objectives.pdf

IEEE P802.3dg Approved Project Documents

- PAR

- https://www.ieee802.org/3/dg/P802d3dg_PAR.pdf


- 5 Criteria

- <https://mentor.ieee.org/802-ec/dcn/22/ec-22-0086-00-ACSD-p802-3dg.pdf>

- Objectives

- https://www.ieee802.org/3/GT10MSPE/Objectives_11102021_SGadopted.pdf

IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement Timeline, V6



year	month	input	event
2024	jan, feb	D1.0	TF review
	may	D1.1	
	jun	D1.2	
	jul	D1.3	
	sep	D1.4	
	nov	D1.5	WG Ballot
2025	jan	D2.0	
	mar	D2.1	
	may	D2.2	
	jul	D2.3	
	sep	D3.0	SA Ballot
	nov	D3.1	
2026	jan-mar	D3.2	Submit to REVCOM

- ✓ Sept 2022 – Measurements of Noise, Link segments examples
 - ✓ Need to consider hybrid cables, separation of circuits, internal coupling
- ✓ Nov 2022 – Potential PHY & Link segment baseline starts
- ✓ Jan 2023 – PHY baseline discussion
 - Link segment baselines (electrical characteristics of communication) selected
- ✓ July 2024 – Major PCS/PMA baselines selected
- ❖ Nov 2024 – Draft 1.0 (baselines + skeleton draft)
- ❖ Nov - Mar 2025 - TF review
- ❖ May 2025 – Draft 2.0, Initial WG ballot
- ❖ Nov 2025 – initiate SA ballot
- ❖ Mar 2026 – conditional approval for RevCom
- ❖ June 2026 – SASB – standard complete

Presentations

Title	Presenter

- Numerous presentations were submitted for this meeting. They can all be found on the January meeting page: <https://www.ieee802.org/3/da/public/0125/index.html>
- Presentations will be viewed as needed for comment resolution

Motion

- Move that the editors create IEEE P802.3da Draft 2.1 by incorporating the comment resolutions against Draft 2.0 and start a review cycle
- M:
- S:
- Technical (>75%) ~~passes by unanimous consent~~

Future Meetings

- See: <http://www.ieee802.org/3/interims/index.html>
 - January 2025 Interim – Registration Fee Required
 - Date: January 20-24
 - Phoenix, AZ
 - March 2025 Plenary - Registration Fee Required
 - Date: March 10-14
 - Atlanta, GA
 - May 2025 Interim – Registration Fee Required
 - Date: May 12-16
 - New Orleans, LA
 - Anyone interested in hosting an interim meeting contact the IEEE 802.3 Executive Secretary: [Chad Jones](#).
- 802.3 Call and Meeting Calendar:
<http://www.ieee802.org/3/calendar.html>

Thank You!