

IEEE 802dm Hybrid Meeting Practices

- In-room Attendees:
 - In Webex choose connect without audio before you join
 - Use the Webex chat to indicate you want to speak (“q”)
 - Wait to be called on before speaking (even at the microphone)
 - Repeat any questions that may be asked away from the microphone
- Remote Attendees:
 - Join Webex and set Webex audio as ‘music’
 - Use the Webex chat window to indicate you want to speak (“q”)
 - Wait to be called on to speak – Please MUTE otherwise

Agenda and General Information

IEEE P802.3dm Asymmetrical Electrical Automotive
Ethernet Task Force

Natalie Wienckowski

IVN Solutions LLC / Ethernovia

802.3dm plenary Meeting, 29 July 2025

Agenda

- Welcome and Introductions
- Approve Agenda
- Approve Minutes
- Reflector and Web
- Ground Rules
- IEEE
 - Structure, Bylaws and Rules
 - Call for Patents
 - IEEE Standards Process
- Presentations
- Motions and Closing Business
- Future Meetings

Approve Agenda (Motion #1)

- Move to approve the agenda as modified
- M: Peter Jones
- S: Max Turner

Approve prior meeting minutes

Need to approve the following meeting minutes:

- February 27 ad hoc:
https://ieee802.org/3/dm/public/adhoc/022725//Unconfirmed_minutes_3dm_02272025.pdf
- March 2025 Plenary: https://ieee802.org/3/dm/public/0325/Unconfirmed_minutes_3dm_031025sp.pdf
- Proposed revision: [Unconfirmed_minutes_3dm_031025_r1prop.pdf](#)
- March 24 ad hoc:
https://ieee802.org/3/dm/public/adhoc/032425/Unconfirmed_minutes_3dm_040125.pdf
- May Interim: https://ieee802.org/3/dm/public/0525/Unconfirmed_minutes_3dm_051425.pdf
- Proposed revision: [Unconfirmed_minutes_3dm_051425_r1prop.pdf](#)
- June 26 ad hoc:
https://ieee802.org/3/dm/public/adhoc/062625/Unconfirmed_minutes_3dm_062625.pdf
- July 10 interim: https://ieee802.org/3/dm/public/071025/Unconfirmed_minutes_3dm_071025.pdf

General Decorum

- An officer of the Working Group or one of its subgroups, unless prohibited by the P & P of the Standards Committee or Working Group, is permitted to record the proceedings of an IEEE standards development meeting for which they are responsible by making an audio or slideshow recording or by producing a transcript using software or an artificial intelligence (AI) application approved by IEEE. **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. Software or AI shall not be used if it enables persons other than the officer making the recording or authorized Standards Department staff to initiate or obtain the transcription or recording. (March 2025 IEEE-SA Standards Board Operations Manual 5.3.3.2)
- Press (i.e., anyone reporting publicly on this meeting) are to announce their presence (March 2025 IEEE-SA Standards Board Operations Manual 5.3.3.3)

In-Person Decorum



- Cell phone ringers off
- Wear your badges at all times in meeting areas
 - Help the hotel security staff improve the general security of the meeting rooms
 - **PCs HAVE BEEN STOLEN** at previous meetings
 - **DO NOT** assume that meeting areas are secure
- Please sign into the teleconference **without audio and video**
- Please line up at the floor mic(s) to join the queue
- Please don't speak from your seat—you won't be heard on the teleconference
- Please observe proper decorum in meetings—no sidebar conversations

Teleconference Decorum



- Please **MUTE** unless called on
- << Use the “**Raise Hand**” function to be placed into the queue >>
 - << Don’t forget to lower your hand once recognized >>
- The chat can only send to “Everyone” or the officers
- Please observe proper decorum in meetings

Big ticket items

- Update Objectives to include additional one added in May
- Approve additional baselines that don't depend on Modulation method
- Select a Modulation method, TDD or ACT
- Timeline?

Meeting - fees

- This meeting is conducted as part of the IEEE 802 Plenary 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

Reflector and Web

- To subscribe to the Asymmetrical Electrical Automotive 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-ISAAC <yourfirstname> <yourlastname>
end*

- Send Asymmetrical Electrical Automotive Ethernet Task Force reflector messages to:

STDS-802-3-ISAAC@listserv.ieee.org

- Task Force web page URL:

<https://www.ieee802.org/3/dm/index.html>

Task Force Private Area

- URL: <http://www.ieee802.org/3/dm/private>
 - Username: <<xxxxxx>>
 - Password: <<xxxxxx>>
- Write it down...
- Note - The draft, and any other content, is posted for your review only, and neither the content nor access information should be copied or redistributed to others in violation of document copyrights.

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

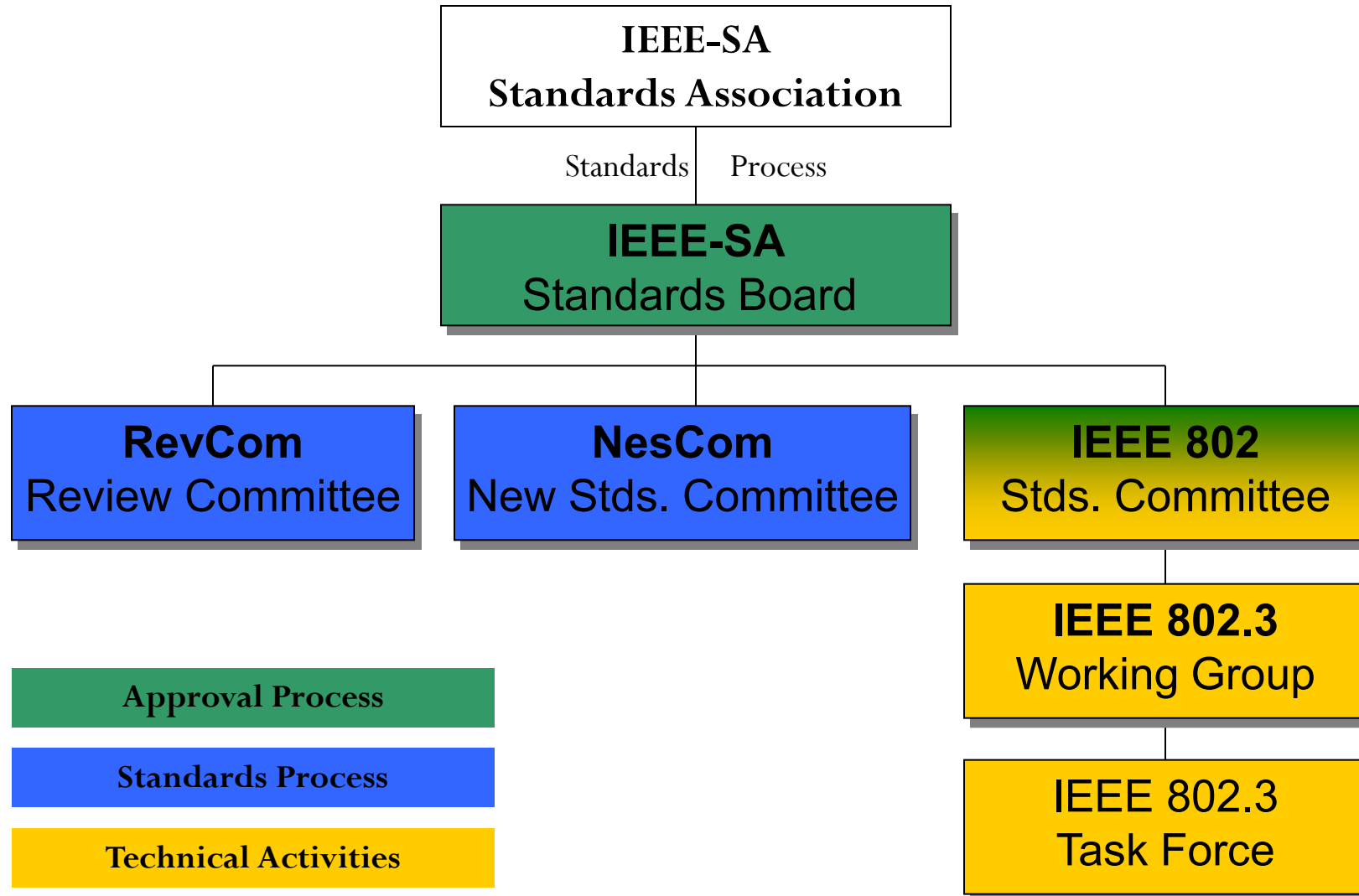
Membership and attendance recording & Membership requirements (gaining and retaining)

- 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

- Attendance will be taken from IMAT and Webex
 - IMAT is the official record – so be sure to sign in
 - But only if you plan to be here for 75% of the slot.
 - Remember – IMAT for each of the 4 slots per day...
 - Suggest everyone sign onto the Webex
 - Tutorial Material on attendance tool
 - http://ieee802.org/3/minutes/attendance_procedures.pdf
 - Access URL: <http://imat.ieee.org/>
- **PLEASE DO NOT FORGET TO SIGN INTO IMAT – NEED FOR CORRECTIONS IS STRONGLY DISCOURAGED**
- Please put your affiliation in your Webex name. You are able to rename yourself in Webex. To update your name, click on the 3 dots to the right of your name in the Participants pane and select “Edit Display Name”.

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

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

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
 - <https://standards.ieee.org/faqs/copyrights/>
- 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>

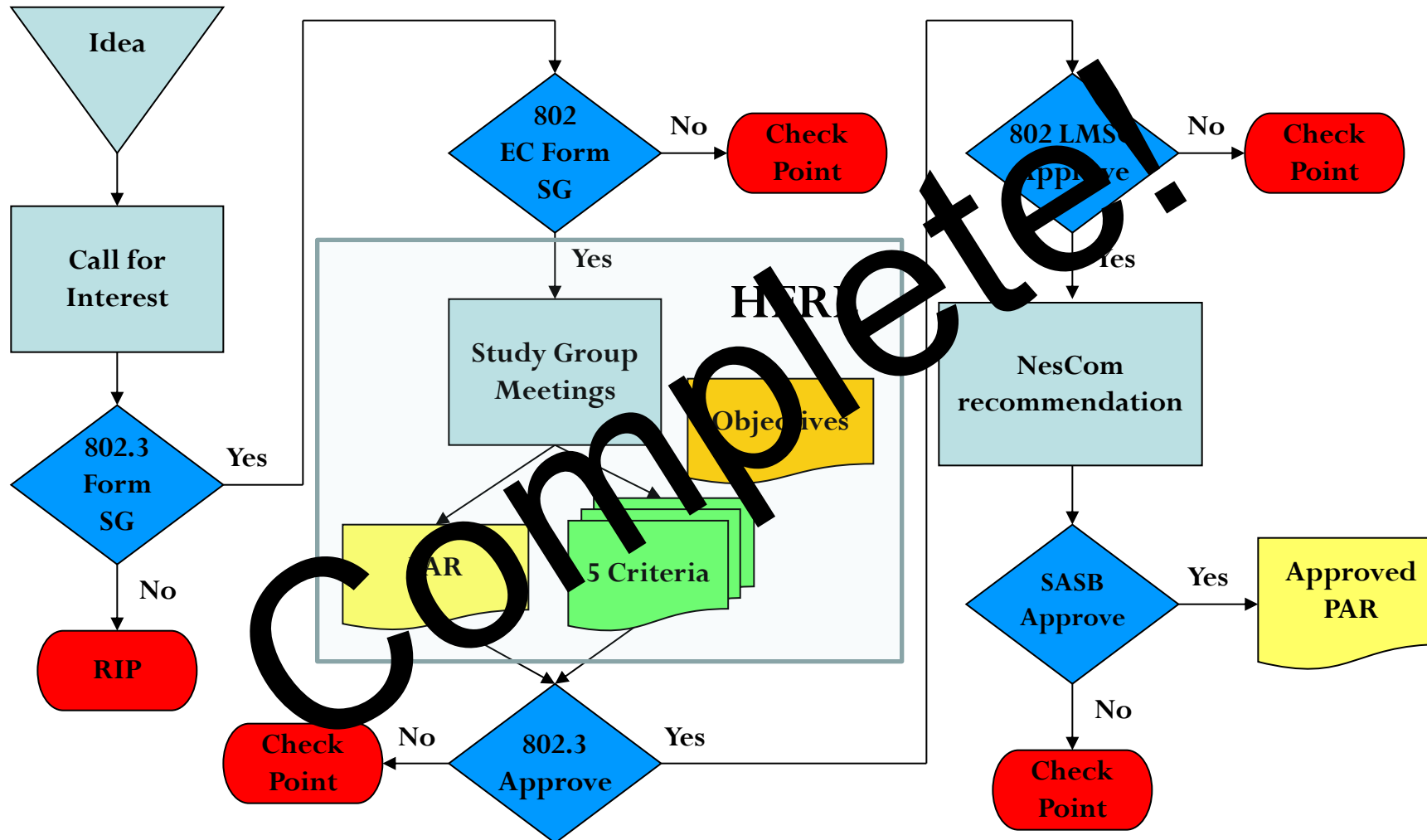
Participants in the IEEE-SA “*individual process*” shall act independently of others, including employers

- 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

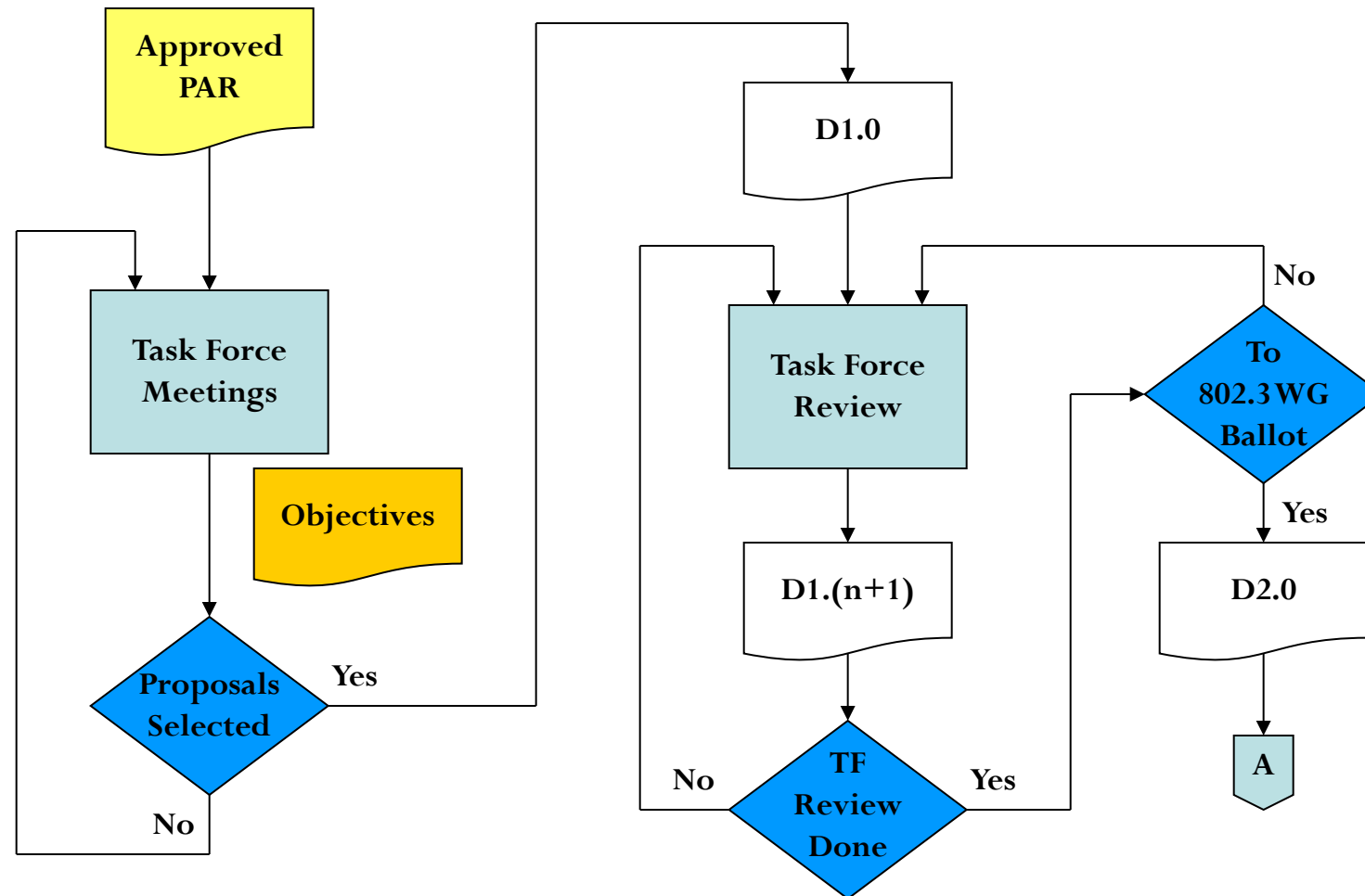
- The [IEEE-SA Standards Board Bylaws](#) (clause 5.2.1.3) specifies that *“the standards development process shall not be dominated by any single interest category, individual, or organization”*
 - This means no participant may exercise *“authority, leadership, or influence by reason of superior leverage,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

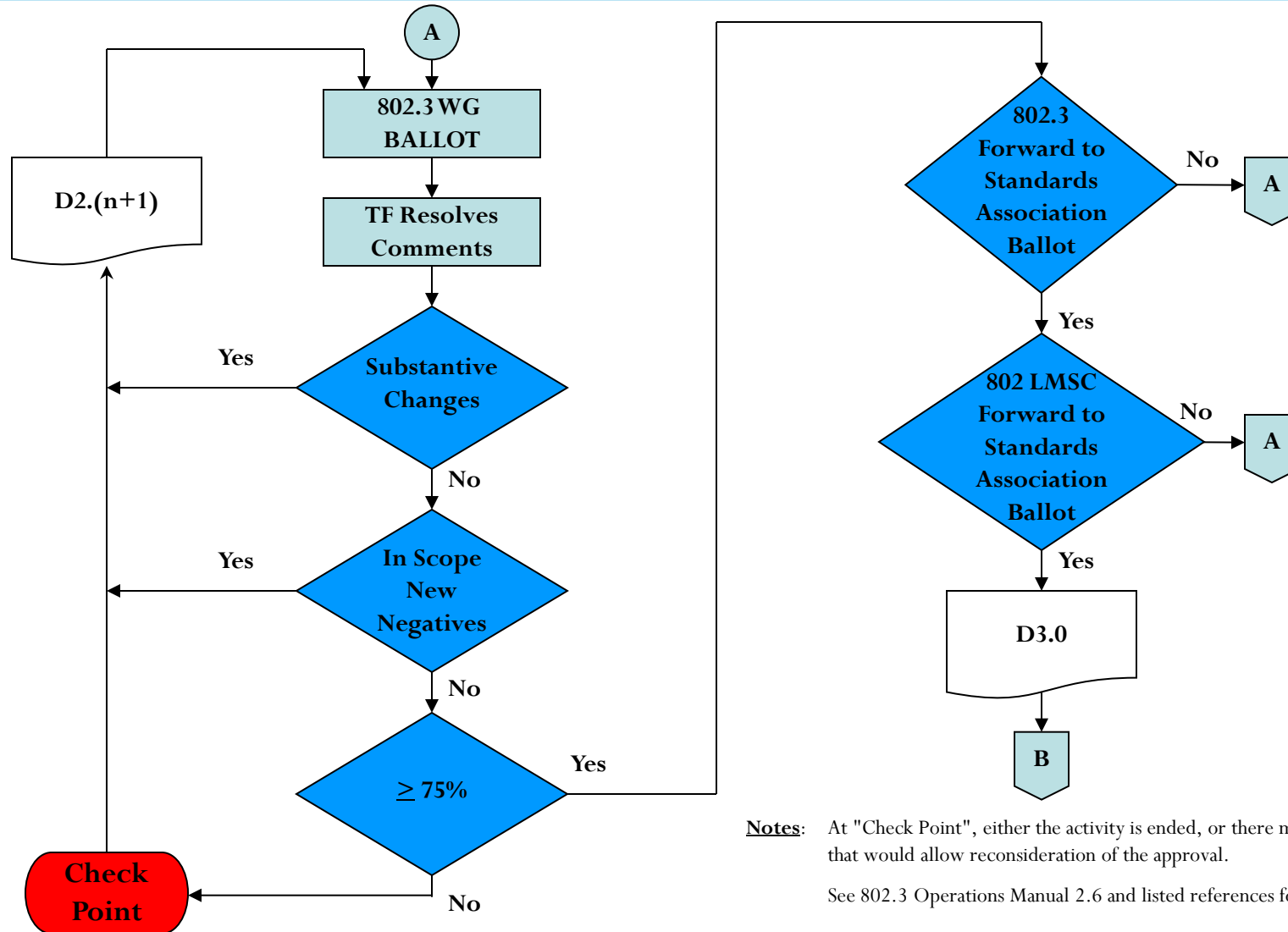


Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

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



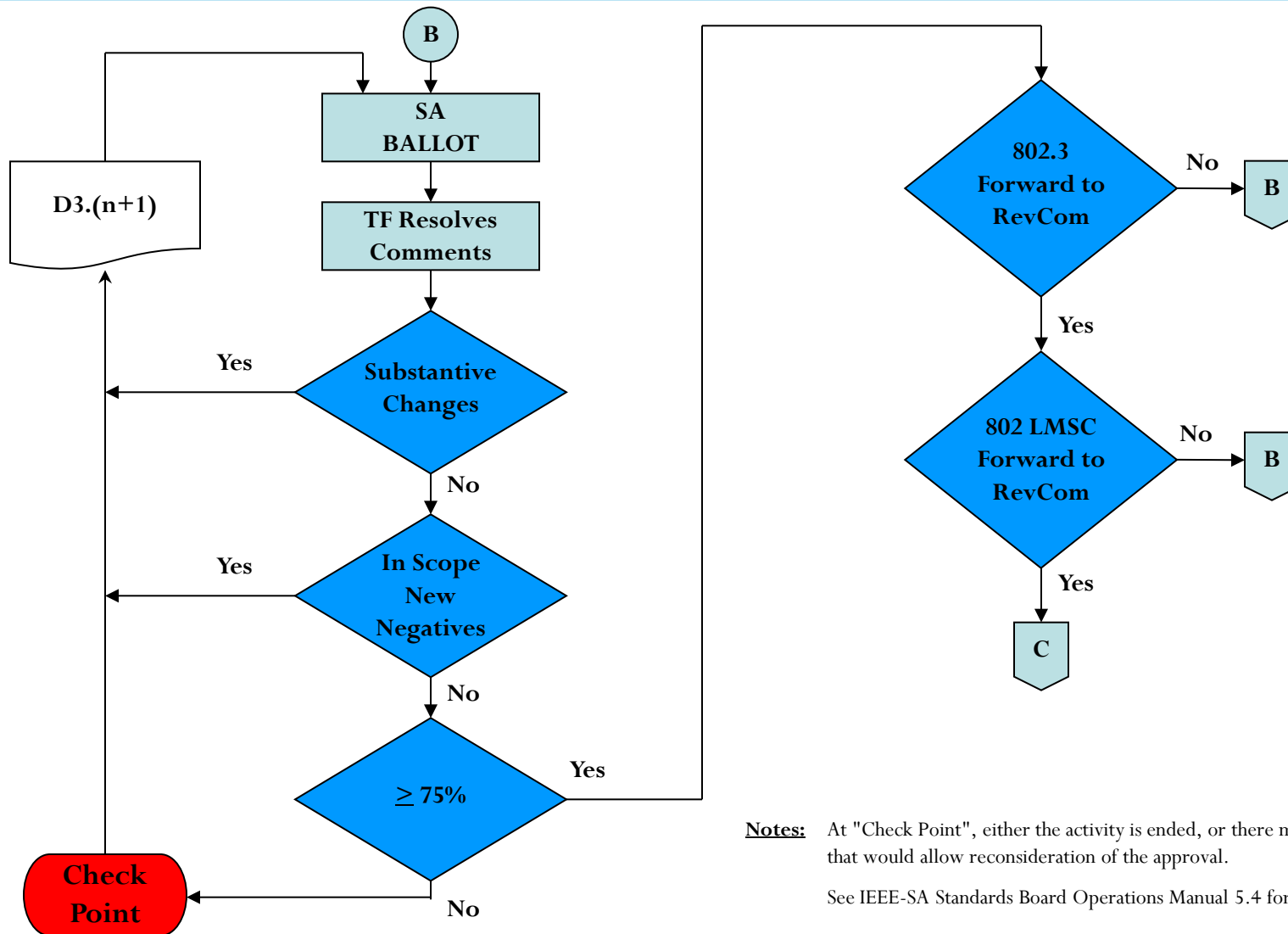
Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



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

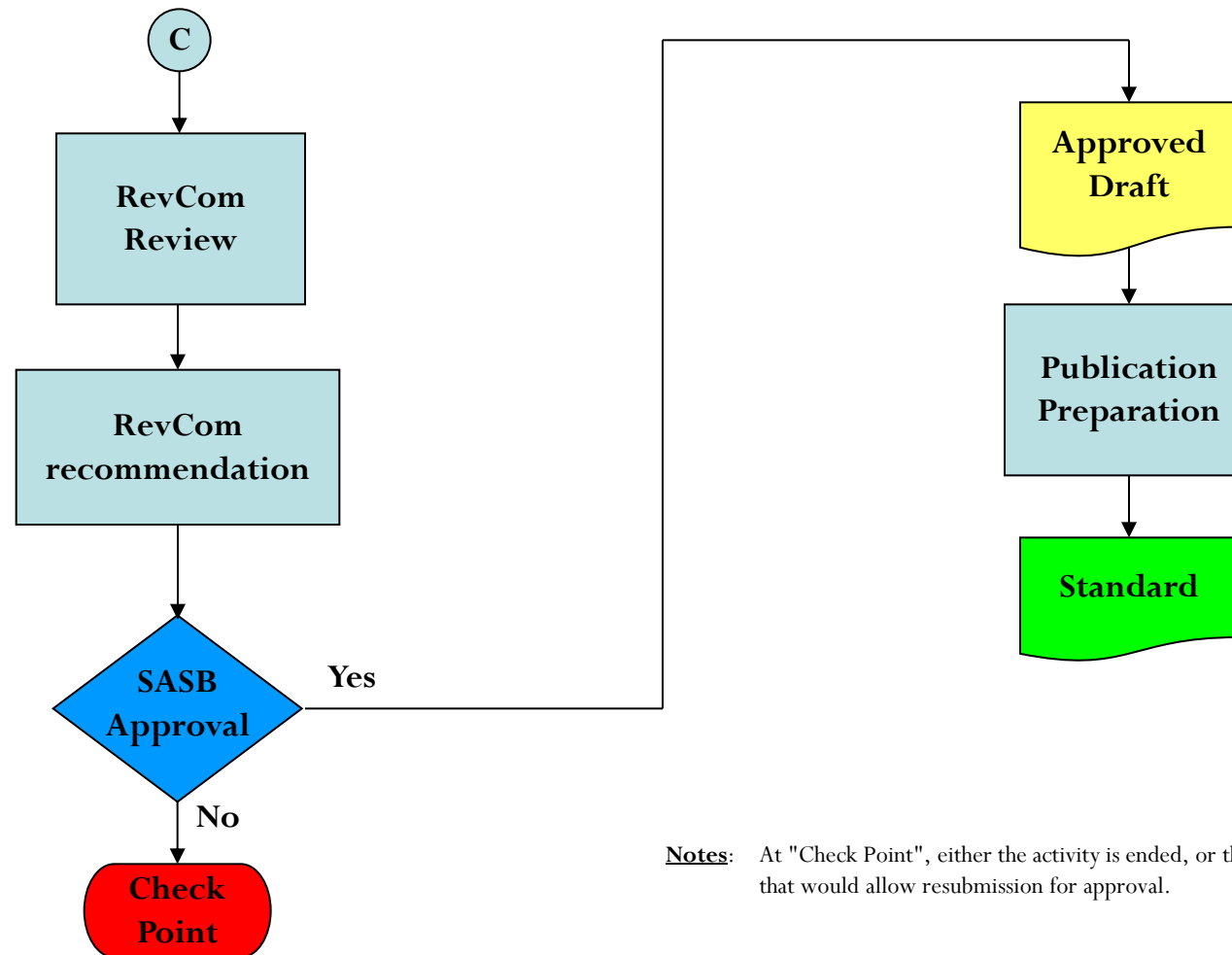
Overview of IEEE 802.3 Standards Process (4/5)- IEEE Standards Association (SA) Ballot Phase



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.

Liaisons and Communications

- None

IEEE P802.3dm Approved Project Documents

- PAR
 - https://ieee802.org/3/dm/P802.3dm_PAR.pdf
- 5 Criteria
 - <https://mentor.ieee.org/802-ec/dcn/24/ec-24-0074-00-ACSD-p802-3dm.pdf>
- Objectives
 - https://www.ieee802.org/3/ISAAC/public/0324/Objectives_ISAAC_01_0324.pdf

Bold items are fixed. Other times are approximate, and the meeting will progress faster if possible.

Presentations

Start Time CEST	Title	Presentation Author(s) and Affiliation(s)
14h15	Agenda and general business	Natalie Wienckowski, IVN Solutions LLC / Ethernovia
Presentations		
	Updated Emissions Profiles of ACT and TDD PHYs	Hiok Tiaq Ng, Aviva Links Inc.
	Immunity Testing Results for a TDD PHY w/ COAX - Update (01a) *	Conrad Zerna, Kamal Dalmia, Hiok Tiaq Ng, Aviva Links Inc.
16h26	Break	
	ACT EMC performance (01a)	Dance Wu - Marvell Cliff Fung - Marvell TJ Houck - Marvell
	Time-Domain Analysis of Analog-Based ACT Receiver	Hossein Sedarat – Ethernovia
	Electromagnetic Sensitivity - ACT vs TDD (02a)	Hossein Sedarat – Ethernovia
	Comments on the 802.3dm Complexity and EMC performance (02b)	Ahmad Chini and Mehmet Tazebay, Broadcom
19h30	End of day business	Natalie Wienckowski, IVN Solutions LLC / Ethernovia

* Request for presentation was late, but presentation was received on time. The author requested this replace a presentation that was requested on time. As other authors have changed their titles, I will accept this unless requested otherwise by the TF Members.

Bold items are fixed. Other times are approximate, and the meeting will progress faster if possible.

Presentations Day 2

Start Time CEST	Title	Presentation Author(s) and Affiliation(s)
09h00	Agenda and general business	Natalie Wienckowski, IVN Solutions LLC / Ethernovia
Presentations		
	RL Data and Screening Attenuation	Rohit Sharma (Molex) Rich Boyer (Aptiv)
	Clause 30 proposed text	Natalie Wienckowski IVN Solutions LLC/Ethernovia
	Clause 45 proposed text	Natalie Wienckowski IVN Solutions LLC/Ethernovia
	Test modes in ACT Downstream Direction	Hossein Sedarat – Ethernovia
	Link Synchronization Based on the Burst Detector	Alireza Razavi, Aleksei Zharebtsov, Ragnar Jonsson - Marvell
	Summary of Latest Updates to PCS/PMA Logic for ACT/GMSLE Transceiver	William Lo (Axonne Inc)
	Auto-Negotiation Priority Resolution Proposal	William Lo (Axonne Inc)
11h00	Break	
	ACT text proposal for IEEE 802.3dm	Ragnar Jonsson - Marvell Jay Cordaro - ADI Hossein Sedarat - Ethernovia William Lo – Axonne Inc
	TDD Resync/Refresh Header Format Proposal	Steve Gorshe (Microchip), Scott Muma (Microchip)

Bold items are fixed. Other times are approximate, and the meeting will progress faster if possible.

Presentations Day 2 (cont'd)

Start Time CEST	Title	Presentation Author(s) and Affiliation(s)
09h00	Agenda and general business	Natalie Wienckowski, IVN Solutions LLC / Ethernovia
Presentations		
	Updates on P802.3dm TDD Proposal	Conrad Zerna – Avivalinks, Wei Lou--Broadcom
	TSN compatibility of TDD PHY with a focus on gPTP operation	Guy Hutchison [Aviva Links] Venkat Arunarthi [Broadcom]
13h15	Lunch Break	
	On the PoC Inductor Selection for 802.3dm (01c)	Ahmad Chini, Broadcom
	Considerations for Crystal-less PHY	HioK Tiaq Ng, Kamal Dalmia (Aviva Links Inc.)
	Margin and Robustness	George Zimmerman / CME Consulting (ADI, APL Group, Cisco, Marvell, ON semi, Sony)
	Uplink and Downlink PHYs Complexity Analysis Based on IEEE 802.ch Channel Parameters	Sujan Pandey, Velink
16h15	Break	
	On Complexity and Reliability	Ragnar Jonsson – Marvell
	Results from the Comparison Study v0.8 * (01d)	Kirsten Matheus, Gumersindo Veloso; BMW
18h30	End of day business	Natalie Wienckowski, IVN Solutions LLC / Ethernovia

Bold items are fixed. Other times are approximate, and the meeting will progress faster if possible.

Presentations Day 3

Start Time CEST	Title	Presentation Author(s) and Affiliation(s)
09h00	Agenda and general business	Natalie Wienckowski, IVN Solutions LLC / Ethernovia
Presentations		
40	ACT and TDD comparison	TJ Houck – Marvell Jay Cordaro – ADI
	Proposal for a Path Forward	Mehmet Tazebay (Broadcom), Amir Bar Niv (Marvell), Kamal Dalmia (Aviva Links)
11h00	Break	
11h15	End of day business including Motions	Natalie Wienckowski, IVN Solutions LLC / Ethernovia
13h15	Lunch Break	

* Late presentation, requires TF approval to present

New Objective from May

I will present the new objective to the WG during the closing.

I will make a motion on behalf of the TF to request approval of the new objective.

Updated Objectives

Motion 7

Adopt the Clause 30 proposed text in

https://www.ieee802.org/3/dm/public/0725/8023dm_Clause30_proposal.pdf with Editorial License.

- M:
- S:
- Technical $\geq 75\%$

Motion 8

Adopt the Clause 30 proposed text in

https://www.ieee802.org/3/dm/public/0725/8023dm_Clause45_proposal_v2.pdf with Editorial License.

- M:
- S:
- Technical $\geq 75\%$

Straw Polls

Straw Polls were taken with GoogleForms

<https://forms.gle/G7S9fG6SDj1kbHf37>

Potential Future Meeting(s)

Propose we have one 3 hour (10:00 – 13:00 EDT) meeting or two 2 hour (10:00 – 12:00 EDT) meetings before the September Interim.

Straw poll for preference for 1 or 2 meetings

Potential dates: August 14, August 21, August 28, September 4.

Straw poll for availability

Future Meetings

- September 802.3 Interim – Minneapolis, MN (Sept. 15 – 19)
 - In-person with remote access on a best effort basis
 - See <https://www.ieee802.org/3/interims/index.html> for information
 - Registration Fee Required
- Meeting coordinates: <https://www.ieee802.org/3/calendar.html>
- Anyone interested in hosting an interim meeting contact me or the IEEE 802.3 Executive Secretary [Chad Jones](#).

Thank You!