

IEEE 802.3 Maintenance Task Force

21 July 2025

Adam Healey, Broadcom Inc.
Chair, IEEE 802.3 Maintenance TF
Vice Chair, IEEE 802.3 Ethernet WG

Voting at electronic meetings

- IEEE 802.3 Operations Manual 3.4.2

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.

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)
- Please observe proper decorum in meetings

Teleconference decorum

- **Please MUTE if you are not speaking**
- 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. Parallel discussions between participants using the public chat function can be a distraction from the meeting and the Chair or designee will ask participants to cease such discussions should they occur.

Agenda

- Review and approve agenda
- Approve meeting minutes
- Guidelines for IEEE-SA Meetings
- IEEE-SA Copyright policy
- Participation in IEEE 802 Meetings
- Attendance procedures
- Extension request
- Consideration of comments on IEEE P802.3.2/D3.3
- Consideration of maintenance requests
- Future meetings

Agenda motion

- Motion #1: Approve the agenda
 - M: C. Jones S: G. Thompson
 - Passed by unanimous consent at 10:12 am EDT
- February 2025 minutes were posted on 4 February 2025
- Motion #2: Approve the [February 2025](#) minutes
 - M: C. Jones S: L. Torres
 - Passed by unanimous consent at 10:13 am EDT

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>

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

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
 - <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>

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

Attendance procedures

- Meeting attendance will be determined using the Zoom meeting attendance record
- This meeting does qualify for attendance credit towards obtaining or maintaining voting membership

Extension request

[Review request, motion]

Extension motion

- Motion #3: Approve request for 2-year extension for revision of IEEE Std 802.3 in [extension_request_1_0725.pdf](#)
 - M: C. Jones S: G. Thompson
 - Passed by unanimous consent at 10:45 am EDT

Consideration of comments against IEEE P802.3.2/D3.3

https://www.ieee802.org/3/2/a/public/202507/agenda_d2_202507_01.pdf slides 26, 27, and 28

https://www.ieee802.org/3/2/a/comments/D3.3/802d3d2a_D3_3_approved.pdf

Consideration of maintenance requests

Maintenance request status

- 22 new requests received since the February 2025 meeting
- 103 open maintenance requests
- Current status of open requests
 - Approved 0
 - Balloting 0
 - Ready for ballot 68
 - Awaiting clarification 3
 - Errata 0
 - To be categorized 32
- Also see http://www.ieee802.org/3/maint/requests/open_num.html

Maintenance requests to be categorized

- Deadline for consideration at this meeting was 16 June 2025
- New requests to be considered today

No.	Date	Standard	Reference	Subject
1474	19-Feb-25	802.3-2022	Figure 135A-7	Extraneous text in figure
1475	10-Apr-25	802.3-2022	Various, see details	Incorrect symbol
1476	10-Apr-25	802.3-2022	130.10.4.2	Incorrect symbol

Post-deadline maintenance requests, 1 of 2

No.	Date	Standard	Reference	Subject
1477	23-Jun-25	802.3-2022	98.2.1	PHYs missing from list
1478	23-Jun-25	802.3-2022	97.1.2	Incorrect signal name
1479	23-Jun-25	802.3-2022	97.1.2	Improve accuracy of text
1480	23-Jun-25	802.3-2022	97.1.2	Improve accuracy of text
1481	23-Jun-25	802.3-2022	97.3.2	Improve accuracy of text
1482	23-Jun-25	802.3-2022	Various, see details	Use "octet" in place of "oct"
1483	23-Jun-25	802.3-2022	97.5.2.1	Fixtures vs. configurations
1484	23-Jun-25	802.3-2022	149.1.3	Incorrect signal names
1485	23-Jun-25	802.3-2022	149.1.3	Improve accuracy of text
1486	23-Jun-25	802.3-2022	149.1.3	Improve accuracy of text
1487	23-Jun-25	802.3-2022	149.1.3.1	Reed-Solomon notation
1488	23-Jun-25	802.3-2022	149.3.2	Improve accuracy of text
1489	23-Jun-25	802.3-2022	Figure 149-18	Indicate optional portions
1490	23-Jun-25	802.3-2022	Various, see details	Use "octet" in place of "oct"

Post-deadline maintenance requests, 2 of 2

No.	Date	Standard	Reference	Subject
1491	23-Jun-25	802.3-2022	149.5.1.1	Fixtures vs. configurations
1492	23-Jun-25	802.3-2022	Various, see details	Redundant text
1493	23-Jun-25	802.3-2022	Various, see details	Capitalization
1494	23-Jun-25	802.3-2022	149.11.4.1	Correct PICS status
1495	23-Jun-25	802.3-2022	Various, see details	Physical "medium" attachment

Consideration of maintenance requests, 1 of 5

No.	Date	Standard	Reference	Synopsis	Complete?	In scope?	Status
1421	11-Oct-23	802.3-2022	97.4.2.4	No update.	N		I
1429	2-Apr-24	802.3-2022	46.3.4.3	No update.	N		I
1433	14-May-24	802.3cx-2023	90.7.1	No update.	N		I

Consideration of maintenance requests, 2 of 5

No.	Date	Standard	Reference	Synopsis	Complete?	In scope?	Status
1448	4-Oct-24	802.3-2022	149.3.9	<p>"OAM shall beis operational as long as both PHYs implement this mechanism and the link is up. It shall continues to be operational during Low Power Idle, albeit the information is transferred at a slower rate during the refresh cycle." Add PICS.</p> <p>The text is descriptive and not normative. The proposed requirement does not appear to be enforceable since 1) "implementation" is not an externally observable trait and 2) the term "operational" does not have a clear definition. For item 1) reference to advertisement of the capability using e.g., the "MultiGBASE-T1 OAM ability" may be more appropriate. For item 2) "operation" apparently means that OAM frames may be exchanged using the mechanism defined in this subclause although there does not appear to be any requirement to do so (except perhaps for EEE support) or how often OAM frames should be exchanged.</p>	N		R
1450	4-Oct-24	802.3-2022	149.3.9.2.1	<p>"The dummy OAM symbol is all 0's and its value shall beis ignored at the receiver."</p> <p>Clearly indicate that it is a normative behavior for the value of the dummy OAM symbol to be ignored and add a PICS.</p>	Y		R

Consideration of maintenance requests, 3 of 5

No.	Date	Standard	Reference	Synopsis	Complete?	In scope?	Status
1451	4-Oct-24	802.3-2022	149.3.9.2.1	"Bit 0 of each OAM symbol shall be is the first bit transmitted in the 10-bit OAM field. Symbol 0 shall be is the first symbol transmitted in each OAM frame." Replace OAM2 with a new PICS that reflects these transmitter order requirements. However, the replacement would result in no PICS requirement covering that symbol<0> should be inserted in the first RS-FEC frame of an RS-FEC super-frame when L=2 or L=4. It seem that the new requirement should be a separate PICS item.	N		R
1456	4-Oct-24	802.3-2022	149.3.9.2.15	"If a PHY receives SNR<1:0> set to 01 by its link partner, then it shall not cannot enter into LPI in the egress direction." Also add PICS. However, the PCS 64B/65B Transmit state diagram, part b (see Figure 149–17) is defined such that the transmitter will not go into LPI mode if the link partner is sending SNR<1:0> = 01 . Therefore, it seems appropriate that this text simply be a statement of fact.	Y		R
1457	4-Oct-24	802.3-2022	97.3.8.2.14	"If a PHY receives SNR<1:0> set to 01 by its link partner, then it shall not cannot enter into LPI in the egress direction." However, the PCS Transmit state diagram (see Figure 97–14) is defined such that the transmitter will not go into LPI mode if the link partner is sending SNR<1:0> = 01. Therefore, it seems appropriate that this text simply be a statement of fact. The additional PICS for this behavior (97.11.8 OAM7) should be removed.	Y		R

Consideration of maintenance requests, 4 of 5

No.	Date	Standard	Reference	Synopsis	Complete?	In scope?	Status
1460	4-Oct-24	802.3-2022	Figure 149–24	Add action "rx_boundary <= FALSE" to state CHECK_READ. The purpose is to add clarity about when the variable is set to FALSE. However, the definition of rx_boundary in 149.3.9.4.3 seems clear that it is set to FALSE when the "receive stream is not at a boundary end". The definition indicates the variable is set to TRUE at the boundary end and is FALSE otherwise.	Y		R
1461	4-Oct-24	802.3-2022	Figure 149–25	Add action "tx_boundary <= FALSE" to state CHECK_ACK and TRANSMIT symbol states. The purpose is to add clarity about when the variable is set to FALSE. However, the definition of tx_boundary in 149.3.9.4.3 seems clear that it is set to FALSE when the "transmit stream is not at a boundary end". The definition indicates the variable is set to TRUE at the boundary end and is FALSE otherwise.	Y		R
1463	4-Oct-24	802.3-2022	149.3.9.4.5	Rewrite definition of function "rs" to clearly identify function inputs and outputs. There is no change to the operation of the function.	Y	Y	
1464	4-Oct-24	802.3-2022	149.3.9.4.5	Rewrite definition and usage of function "rs_correct" to clearly identify function inputs and outputs. There is no change to the operation of the function.	Y	Y	

Consideration of maintenance requests, 5 of 5

No.	Date	Standard	Reference	Synopsis	Complete?	In scope?	Status
1473	03-Dec-24	802.3cz-2023	Table 166–16	Proposes to change values of TDFOM0 which, in turn, would modify the “Transmitter distortion figure of merit” TDFOM results which are specified for transmitters (and for calibration of stressed receiver inputs). The differences are largest (0.13~0.14 dB reduction in TDFOM) for 2.5GBASE-AU, 5GBASE-AU, and 10GBASE-AU. Corrigendum project IEEE Std 802.3-2022/Cor 2 (IEEE 802.3dr) approved.	Y	Y	B
1474	19-Feb-25	802.3-2022	135A.3.1	Figure 135A-7 includes the text “CAUI-4 = 100 Gb/s FOUR-LANE ATTACHMENT UNIT INTERFACE” but the figure does not illustrate CAUI-4. Remove the text.	Y	Y	B
1475	10-Apr-25	802.3-2022	Various, see details	In Clauses 55, 72, 82, 127, replace the character sequence “<=“ with the left-arrow assignment character as appropriate.	Y	Y	B
1476	10-Apr-25	802.3-2022	130.10.4.2	In item FS3, replace character sequence “<=“ with the less-than-or-equal-to symbol	Y	Y	B

Future meetings

- Next meeting is expected to be an electronic meeting occurring around the September 2025 IEEE 802.3 interim meeting series
- Meeting details will be announced on the Task Force reflector

Adjourn