IEEE 802.1 Working Group
September 16-19, 2025 Interim Session
Düsseldorf, Germany – Mixed Mode
Session Minutes

The Working Group (WG) Chair, Glenn Parsons, presided and had requested that any subgroup Chair in remote attendance have on-site an individual acting on their behalf as needed to help conduct proceedings in "mixed mode", i.e. with local and remote participants. The Recording Secretary, Jessy Rouyer, wrote and/or edited the minutes in part based on input from subgroup Chairs and their Secretaries.

Note that, throughout this document, minuted/recorded inputs from any attendee can not/shall not be assumed to represent a position of their employer or affiliated organization. Discussion points captured do not necessarily reflect the views of the presenter, discussion leader or minute taker, and do not imply consensus unless that is explicitly minuted. The content of draft standards is determined by the ballot process; other formal decisions are the subject of Working Group motions.

1 Attendance and affiliation

The table in this section reflects the attendance (denoted by the ● symbol) and affiliation of attendees in all 802.1 WG and subgroup meetings held in this session.

Last name	First name	Affiliation	TSN, Tue Sep 16, 08:00-10:00	TSN, Tue Sep 16, 10:30-12:30	Maintenance, Tue Sep 16, 13:30-15:30	Maintenance, Tue Sep 16, 16:00-18:00	Maintenance, Wed Sep 17, 08:00-10:00	TSN, Wed Sep 17, 10:30-12:30	TSN - IEC/IEEE 60802, Wed Sep 17, 13:30-15:30	YANGsters, Wed Sep 17, 16:00-18:00	Nendica, Thu Sep 18, 08:00-10:00	TSN, Thu Sep 18, 10:30-12:30	TSN, Thu Sep 18, 13:30-15:30	Security, Thu Sep 18, 16:00-18:00	TSN, Fri Sep 19, 08:00-10:00	Maintenance, Fri Sep 19, 10:30-12:30	Security, Fri Sep 19, 13:30-15:30
Bottorff	Paul	Hewlett Packard Enterprise	●	●		●	●	●		●	●			●		●	●
Canchi	Radhakrishna	Kyocera International Inc	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Chan	Hing	Rolls-Royce plc	●	●	●	●	●	●	●	●		●	●	●	●	●	●
Chen	Lihao	Huawei Technologies Co., Ltd	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Farkas	Janos	Ericsson AB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Fischer	Kai	Siemens AG								●							
Gravel	Mark	Hewlett Packard Enterprise	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Gutierrez	Marina	L-Acoustics	●	●	●	●	●	●									
Haddock[1]	Stephen	Stephen Haddock Consulting, LLC									●						
Hantel	Mark	Rockwell Automation	●	●	●	●	●	●	●			●	●	●	●		

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Hortig	Philipp	avn	•	•	•	•		•	•			•	•	•	•		
Huh[1]	Woojung	Microchip Technology, Inc.								•							
Jabbar	Abdul	General Electric Company (GE)			•	•		•	•	•		•	•	•	•		•
Kehrer[1]	Stephan	Belden								•							
Kiessling	Marcel	Beckhoff Automation			•	•	•	•	•	•	•	•	•	•	•	•	•
Lai	Gavin	Moxa Inc.	•	•	•	•	•	•	•	•		•	•	•	•	•	•
Li	Jieyu	China Mobile	•	•		•	•	•	•	•	•	•			•		•
Lyu	Yunping(Lily)	Huawei Technologies Co., Ltd	•	•	•	•		•	•		•	•		•	•	•	•
Maile[1]	Lisa	Eindhoven University of Technology						•	•								
Mangin	Christophe	Mitsubishi Electric Corporation	•	•	•	•	•	•	•	•		•	•	•	•		
Mansfield	Scott	Ericsson AB	•	•		•	•	•		•	•		•	•	•	•	•
Mater	Olaf	Infineon Technologies	•	•	•	•	•	•	•		•		•	•	•	•	
McCall	David	Intel	•	•	•	•	•	•	•			•	•		•	•	
McIntosh	James	Microchip Technology, Inc.												•			•
Meisinger	Andreas	Siemens AG						•	•	•		•	•	•	•		
Mittelberger	Martin	Siemens AG	•	•	•	•		•	•	•		•	•	•	•		
Osswald[1]	Lukas	Eberhard Karls University of Tuebingen													•		
Ostertag	Martin	Zurich University of Applied Sciences	•	•	•		•	•	•	•	•	•	•		•	•	
Parsons	Glenn	Ericsson AB	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Peterson	Eric	Blue Origin	•	•	•	•	•	•	•		•	•	•	•	•		
Proell	Dieter	Siemens AG	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Randall[1]	Karen	Randall Consulting			•	•	•						•				•
Regev	Alon	Keysight Technologies	•	•	•		•	•	•		•	•	•				
Reinhard	Michael	SEI Automotive Europe GmbH			•												
Rodrigues	Silvana	Huawei Technologies Co., Ltd	•	•	•	•	•	•	•	•	•	•	•		•	•	•
Rouyer	Jessy	Nokia	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Seaman[2]	Michael	Individual						•		•				•			•
Seewald	Maik	Cisco Systems, Inc.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Sivakolundu	Ramesh	Cisco Systems, Inc.	•	•	•		•	•	•	•		•	•	•	•	•	•
Specht[2]	Johannes	Johannes Specht	•	•	•	•		•	•		•	•			•	•	
Traore	Karim	Microchip/Microsemi Corporation			•	•	•	•	•	•	•	•	•	•	•	•	•
Tse[1]	Richard	Microchip Technology, Inc.										•	•		•		
Turner	Max	Ethernovia			•	•											
Varga[1]	Balazs	Ericsson AB	•	•				•	•								
Wang	Tongtong	Huawei Technologies Co., Ltd		•	•	•		•		•	•				•	•	•	•
Wood	Tim	General Electric Company (GE)													•		

Last name	First name	Affiliation	TSN, Tue Sep 16, 08:00-10:00 CEST	TSN, Tue Sep 16, 10:30-12:30 CEST	Maintenance, Tue Sep 16, 13:30-15:30 CEST	Maintenance, Tue Sep 16, 16:00-18:00 CEST	Maintenance, Wed Sep 17, 08:00-10:00 CEST	TSN, Wed Sep 17, 10:30-12:30 CEST	TSN - IEC/IEEE 60802, Wed Sep 17, 13:30-15:30 CEST	YANGsters, Wed Sep 17, 16:00-18:00 CEST	Nendica, Thu Sep 18, 08:00-10:00 CEST	TSN, Thu Sep 18, 10:30-12:30 CEST	TSN, Thu Sep 18, 13:30-15:30 CEST	Security, Thu Sep 18, 16:00-18:00 CEST	TSN, Fri Sep 19, 08:00-10:00 CEST	Maintenance, Fri Sep 19, 10:30-12:30 CEST	Security, Fri Sep 19, 13:30-15:30 CEST
Woods	Jordon	None - Self-funded												●			
Zein	Nader	NEC Europe (NLE)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

(1) WG Chair designated remote individuals limited to specific topics - Single Meeting (IEEE 802 LMSC Operations Manual, clause 5)

(2) IEEE 802 LMSC fee waivers - Full week (6.3 of IEEE 802 LMSC WG P&P)

2 802.1 Officers and Leadership

- Chair: Glenn Parsons
- Vice-Chair and Recording Secretary: Jessy Rouyer
  - Executive Secretary: Stephan Kehrer
  - Liaison Secretary: Karen Randall
- Maintenance TG Chair: Mark Hantel
- Security TG Chair: Mick Seaman
  - Security TG Vice-Chair: Karen Randall
- TSN TG Chair: János Farkas
  - TSN TG Vice-Chair: David McCall
  - TSN TG Secretary: Johannes Specht
  - IEC/IEEE 60802 Joint Project Chair: Dieter Pröll
  - IEEE P802.1DP/SAE AS6675 joint project co-Chairs: Abdul Jabbar & János Farkas
  - IEEE P802.1DP/SAE AS6675 joint project Secretary: Nader Zein
- NENDICA Chair: Roger Marks
  - Nendica Vice-Chair: Johannes Specht
- YANGsters Chair: Scott Mansfield
  - YANGsters Vice-Chair and Secretary: Stephan Kehrer
- Maintenance of Email exploder: Mark Hantel and Hal Keen
- Maintenance of website: Mark Hantel, Roger Marks, John Messenger

3 Maintenance Task Group

Between this session and the preceding session, the IEEE 802.1 Maintenance Task Group (TG) held electronic meetings whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the Maintenance TG meeting held 2025-06-24 11:00 – 11:42 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;3ec3d47c.25&S=
- Minutes of the Maintenance TG meeting held 2025-07-01 11:02 – 13:03 ET (revised-date correction) https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;f9e09a1.25&S=
- Minutes of the Maintenance TG meeting held 2025-07-22 11:00 – 13:04 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;38e7ea6e.25&S=

See section 1 for attendance and affiliation information.

Call to order Sep 16, 2025 at 13:30 CEST by Mark Hantel, IEEE 802.1 Maintenance TG Chair (Chair), who presided and wrote the minutes, assisted by Karen Randall, IEEE 802.1 Liaison Secretary.

Agenda items and dispositions:

1. Meeting introduction and other administrative items. The IEEE SA slides on IEEE SA Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0325-v01.pdf .
The Chair showed this presentation advising that the following, provided beforehand, applies:
   - Participant behavior shall comply with the outlined requirements;
   - IEEE SA'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.
   - 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.
   The Chair made the Call for Potentially Essential Patents thereby providing 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: there were no responses to this Call prior to the end of the meeting.
   The Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.
2. Approval of agenda. The Chair presented the agenda in https://1.ieee802.org/september-2025-interim-session-maintenance-tg-agenda/.
   Disposition: The agenda was reviewed, discussed, and agreed (informally, none dissenting) as presented.

3. Liaison Activity. Karen Randall reviewed liaisons sent as a result of the July Plenary.
   Disposition: For information.
4. Maintenance Project Status. Mick Seaman, P802.1Q-2022-Rev editor, gave a verbal update on P802.1Q-2022-Rev. The Chair gave a verbal update on P802.1ACea, P802.1CB-2017/Cor 1, and P802.1X-2020/Cor 1.
   Disposition: For information.
5. Outstanding Maintenance item review. The Chair led discussion on maintenance items 368 and 374.
   Disposition: The status of maintenance items 368 and 374 were updated.
6. P802.1AS-2020-Revision D2.0 Comment Resolution. Silvana Rodrigues, P802.1AS-2020-Rev editor, led the resolution of comments received on https://www.ieee802.org/1/files/private/as-2020-rev-drafts/d2/802-1AS-2020-Rev-d2-0.pdf.
   Disposition: Comments 17, 14, 10, 15, 18, 19, 20, 21, 22, 8, 4, 6, 7, 9, 12, 11, 13, 5, 16, 1, 2, and 3 resolved.

15:24 CEST recess

Call to order Sep 16, 2025 at 16:00 CEST by Mark Hantel, IEEE 802.1 Maintenance TG Chair (Chair), who presided and wrote the minutes, assisted by Karen Randall, IEEE 802.1 Liaison Secretary.

7. P802.1CB-2017-Revision D0.1 Comment Resolution. Christophe Mangin, P802.1CB-2017-Rev, led the resolution of comments received on https://www.ieee802.org/1/files/private/cb-2017-rev-drafts/d0/802-1CB-2017-Rev-d0-1.pdf.
   Disposition: Comments 4, 5, 7, and 6 resolved. Final disposition: https://www.ieee802.org/1/files/private/cb-2017-rev-drafts/d0/802-1CB-2017-Rev-d0-1-dis-v01.pdf.
8. P802.1AC-2016-Revision D0.1 Comment Resolution. Jessy Rouyer, P802.1AC-2016-Rev editor, led the resolution of comments received on https://www.ieee802.org/1/files/private/ac-2016-rev-drafts/d0/802-1AC-2016-Rev-d0-1.pdf.
   Disposition: Comments 5, 4, 11, 3, 2, and 9 resolved.

18:00 CEST recess.

Call to order Sep 17, 2025 at 8:00 CEST by Mark Hantel, IEEE 802.1 Maintenance TG Chair (Chair), who presided and wrote the minutes, assisted by Karen Randall, IEEE 802.1 Liaison Secretary.

9. P802.1AC-2016-Revision D0.1 Comment Resolution. Jessy Rouyer, P802.1AC-2016-Rev editor, led the resolution of comments received on https://www.ieee802.org/1/files/private/ac-2016-rev-drafts/d0/802-1AC-2016-Rev-d0-1.pdf.
   Disposition: Comments 3, 11, 9, 1, 10, 7, 12, 8, 6, 13, 14 and 15 resolved.
10. P802.1AB-2016-Revision D1.0 Comment Resolution. Paul Bottorff P802.1AB-2016-Rev editor, led the resolution of comments received on https://www.ieee802.org/1/files/private/ab-2016-rev-drafts/d1/802-1AB-2016-Rev-d1-0.pdf.
    Disposition: Comments 1, 3, 4 and 5 resolved.

10:00 CEST recess

Call to order Sep 18, 2025 at 13:30 CEST by Mark Hantel, IEEE 802.1 Maintenance TG Chair (Chair), who presided and wrote the minutes, assisted by Karen Randall, IEEE 802.1 Liaison Secretary.

11. P802.1AS-2020-Revision D2.0 Comment Resolution. Silvana Rodrigues, P802.1AS-2020-Rev editor, led the resolution of comments received on https://www.ieee802.org/1/files/private/as-2020-rev-drafts/d2/802-1AS-2020-Rev-d2-0.pdf. **Disposition:** Comment 13 revised. Final disposition: https://www.ieee802.org/1/files/private/as-2020-rev-drafts/d2/802-1AS-2020-Rev-d2-0-dis-v01.pdf .

13:41 CEST recess

Call to order Sep 19, 2025 at 10:30 CEST by Mark Hantel, IEEE 802.1 Maintenance TG Chair (Chair), who presided and wrote the minutes, assisted by Karen Randall, IEEE 802.1 Liaison Secretary.

12. P802.1AB-2016-Revision D1.0 Comment Resolution. Paul Bottorff, P802.1AB-2016-Rev editor, led the resolution of comments received on https://www.ieee802.org/1/files/private/ab-2016-rev-drafts/d1/802-1AB-2016-Rev-d1-0.pdf. **Disposition:** Comments 2, 6, 7, 8, 12, 4, 5, 10, 11 and 9 resolved. Final disposition: https://www.ieee802.org/1/files/private/ab-2016-rev-drafts/d1/802-1AB-2016-Rev-d1-0-dis-v02.pdf.
13. P802.1AC-2016-Revision D0.1 Comment Resolution. Jessy Rouyer, P802.1AC-2016-Rev editor, led the resolution of comments received on https://www.ieee802.org/1/files/private/ac-2016-rev-drafts/d0/802-1AC-2016-Rev-d0-1.pdf. **Disposition:** Comments 3 and 1 were revised. Final disposition: https://www.ieee802.org/1/files/private/ac-2016-rev-drafts/d0/802-1AC-2016-Rev-d0-1-dis-v02.pdf .
14. Any other business. No other business was discussed by the Maintenance TG in this session.

11:30 CEST adjournment

4 Security Task Group

Between this session and the preceding session, the IEEE 802.1 Security Task Group (Security TG) did not hold electronic meetings.

See section 1 for attendance and affiliation information.

Call to order Sep 18, 2025 at 16:03 CEST by Mick Seaman, IEEE 802.1 Security TG Chair, who presided and wrote the minutes assisted by Karen Randall, Security TG Vice-Chair.

Agenda items and dispositions:
1. Meeting introduction.
   The IEEE SA slides on IEEE SA Patent Policy, IEEE SA Copyright Policy, and Participation Policies ("Policies") were provided beforehand as part of "MEETING INTRODUCTION" http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0325-v01.pdf.
   The Security TG Chair showed this presentation advising that the following, provided beforehand, applies:
   - Participant behavior shall comply with the outlined requirements;

- IEEE SA'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.
- 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.

The Security TG Chair made the Calls for Potentially Essential Patents thereby providing 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: there were no responses to these Calls prior to the end of the session.

The Security TG Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

2. Approval of agenda. The Security TG Chair presented the agenda as previously made available in https://1.ieee802.org/may-2025-interim-session-security-tg-agenda/
Disposition: The agenda was reviewed, discussed, and updated as recorded by these minutes.

3. 802.1AE MACsec Ascon Cipher Suite amendment PAR and CSD development. The Jul 2025 802.1 closing plenary meeting had approved development, during this interim session, of the PAR and CSD for presubmission to the LMSC for their approval during the Nov 2025 802 plenary session for submission to NesCom.

3.1 MACsec Ascon Cipher Suite PAR development. The Security TG Chair led a discussion using, as starting point, the individual contribution first discussed in the May 2025 802.1 interim session: https://www.ieee802.org/1/files/public/docs2025/new-seaman-macsec-ascon-draft-par-0425-v01.pdf

Discussion:

- The designation P802.1AEef had been assigned, by the Working Group Chair, to identify this potential project.
- Suggestion to remove the note to #5.4 explaining the apparent deletion of the Purpose clause. This was felt to be unnecessary. If questions arise it should be noted that 5.4 has been automatically edited by MyProject to show deleted text. No revision of the base standard for this project, since and including the first approved in 2006 has included a Purpose clause. The original PAR, as submitted to NesCom included section 13 with the text shown in 5.3 with the following heading:

  "13. Purpose of Proposed Project: [Intended users and user benefits. REVISION STANDARDS - Purpose of the original standard and reason for the standard's revision. Please be brief (less than 5 lines).]".

It appears the Section addressed the issue later reflected in Section 5.5 Need for the Project. Note further that the PARs shown when accessing https://standards.ieee.org/ieee/<standard designation> are not an accurate record of PARs at the time of approval. Apart from reorganization and repurposing of included material, they show the current Standards and Working Group Vice

Chairs, not those responsible for the original PAR and the corresponding standard development.

- Suggestion to remove the explanatory note to #7.3. This was felt by staff to be unnecessary, and potentially confusing since #7.3 is not included in the PDF produced by myProject (the myProject application input contains fields not included in the PDF generated for review).

Disposition: The proposed PAR was updated as discussed. The myProject PDF output of the updated PAR is available at: https://www.ieee802.org/1/files/public/docs2025/ef-ascon-macsec-cipher-suite-PAR-0925-v01.pdf. Subject to any editorial changes resulting from staff review, this proposed PAR will be presubmitted for LMSC consideration and approval to forward to NesCom following the Nov 2025 closing plenary meeting of IEEE 802.

3.2 MACsec Ascon Cipher Suite CSD development The Task Group Chair, Mick Seaman, led a discussion and item-by-item review using, as a starting point, the following contribution: https://www.ieee802.org/1/files/public/docs2025/ef-seaman-draft-CSD-0925-v00.pdf.
Disposition: The proposed CSD was updated as discussed and is available at: https://www.ieee802.org/1/files/public/docs2025/ef-ascon-macsec-cipher-suite-CSD-0925-v01.pdf. This proposed CSD will be part of the PAR submittal for LMSC consideration in the Nov 2025 closing plenary meeting of IEEE 802.

4. 802.1AR Secure Device Identity (DevID) ML-DSA amendment PAR and CSD development. The Jul 2025 802.1 closing plenary meeting had approved development, during this interim session, of the PAR and CSD for presubmission to the LMSC for their approval during the Nov 2025 802 plenary session for submission to NesCom.

4.1 DevID ML-DSA amendment PAR development. Paul Bottorff led a discussion using, as a starting point, the individual contribution https://www.ieee802.org/1/files/public/docs2025/new-bottorff-P802-1AReg-PAR-0925-v01.pdf.
Discussion:

- The designation P802.1AReg had been assigned, by the Working Group Chair, to identify this potential project.
- Revise amendment Title to "Support for the Module-Lattice-Based Digital Signature Algorithm"
- The ML-DSA variants (sizes) are correctly referred to as "parameter sets", rather than alternate algorithms.
- The formal status of the LAMPS draft at the IETF is "in the RFC Editor's queue". This is a more advanced status than simply "expected to be published" which might include further review steps.
- Text regarding management should be removed and the need (or not) for additional management provisions in the standard discussed in the CSD.
- Copyright permission needs to be sought from the IETF Trust for the included fragment of ASN.1. It would probably be wise to cover all existing ASN.1 fragments in the request.

Disposition: The myProject PDF output of the updated PAR is available at https://www.ieee802.org/1/files/public/docs2025/eg-ml-dsa-PAR-0925-v00.pdf. Subject to any editorial changes resulting from staff review, this proposed PAR will be presubmitted for LMSC consideration and approval to forward to NesCom following the Nov 2025 closing plenary meeting of IEEE 802.

5. Timing optimization for 802.1X. The Security TG Chair gave a brief verbal report on expected activity following up on the discussion of automotive applications of group MACsec connectivity in the May 2025 interim and Jul 2025 plenary Security TG sessions.

Discussion:
- Timing is known to be tight, and complicated by the possibility of participant restarts due to power fluctuation at initialization/ignition on time.
- Issue is avoiding replay attacks on a restarting participant.
- The existing rules for fresh data key distribution are not vital during the restart time window as equipment theft and analysis during that time is a more difficult attack than in a general network (moving car) and changing the nonce space as opposed to a complete key distribution exchange (see Jul 2025 plenary session minutes and presentation) is a possibility. Any successful exploit (by equipment extraction and tampering, not by traffic observation and modification) would be on an individual car-by-car basis, and not applicable to an entire fleet.

Disposition: One or more electronic meetings are expected (subject to the usual calling notice) between this meeting and the Nov 2025 802 plenary session.

18:00 CEST recess

Call to order Sep 19, 2025 at 13:30 CEST by the Security Task Group Chair, who reminded the meeting that the previously presented and available IEEE SA Patent, Copyright, and Participant Behavior policies applied and repeated the Call for Patents.

4. 802.1AR Secure Device Identity (DevID) ML-DSA amendment PAR and CSD development (continued).
4.2 DevID ML-DSA amendment CSD development. Paul Bottorff led a discussion and item-by-item review using, as a starting point, the individual contribution https://www.ieee802.org/1/files/public/docs2025/new-bottorff-pqc-proposed-criteria-0925-v05.pdf.
   Disposition: The proposed CSD was updated as discussed and is available at https://www.ieee802.org/1/files/public/docs2025/eg-ml-dsa-CSD-0925-v00.pdf. This proposed CSD will be part of the PAR submittal for LMSC consideration in the Nov 2025 closing plenary meeting of IEEE 802.
6. Any Other Business. The Security TG Chair noted that the 802.3 Chair has asked the 802.1 Security TG to review the proposed 802.3 PHY-layer security proposal previously presented to Nendica. A joint 802.1 and 802.3 discussion was to have happened during the Jul 2025 802 plenary session, but was postponed pending changes to the proposal to address data integrity and origin authenticity as well as confidentiality. An electronic meeting, scheduled to be convenient for both 802.1 and 802.3 participants, would be held once an updated proposal presentation addressing the integrity and control plane issues has been made available.
7. Future meetings. Since many Security TG participants are unable to attend the Nov 2025 802 plenary session in Bangkok in-person, the Security TG business at that session will be limited to considering and providing responses to comments from the other Working Groups on the P802.1AEef Ascon amendment and P802.1AReg amendment PARs. Additional electronic meetings may be held, subject to the usual notice requirements, to address Security TG matters arising.
   The Security TG intends to meet during the Jan 2026 802.3/802.1 interim session to be held in Austin, TX, USA.

15:10 CEST adjournment

5 Time-Sensitive Networking Task Group

Between this session and the preceding session, the IEEE 802.1 Time-Sensitive Networking (TSN) Task Group (TG) held electronic meetings on generic TSN topics whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the TSN TG meeting held 2025-08-18, 10:16 – 12:05 ET
  https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;b1e58253.25&S=

Between this session and the preceding session, the IEEE P802.1DP/SAE AS 6675 joint project did not hold electronic meetings.

See section 1 for attendance and affiliation information.

Minutes of the IEC/IEEE 60802 Joint Project meetings are in section 5.1.

Call to order Sep 16, 2025 at 8:00 CEST by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction. The IEEE SA slides on IEEE SA Patent Policy and, IEEE SA Copyright Policy, and Participation Behavior ("Policies") were provided beforehand as part of "MEETING INTRODUCTION" https://www.ieee802.org/1/files/public/templates/admin-TG-intro-0325-v01.pdf.
   The Chair showed this presentation advising that the following, provided beforehand, applies:
   - Participant behavior shall comply with the outlined requirements;
   - IEEE SA'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.
   - 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.

   The Chair made the Calls for Potentially Essential Patents at the beginning of each TG meeting during this session thereby providing 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: there were no responses to these Calls prior to the end of the session.
   The Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.

2. Lihao Chen welcomed participants and provided logistical information.
   Disposition: For information.

3. Approval of agenda. The Chair presented the agenda https://1.ieee802.org/2025-09-interim-tsn-agenda/.
   Disposition: The agenda was reviewed, discussed and agreed (informally, none dissenting) as presented.
4. Silvana Rodrigues, P802.1ASds editor, led the resolution of comments received on https://www.ieee802.org/1/files/private/asds-drafts/d1/802-1ASds-d1-3.pdf.
   Disposition: Disposition per agenda item 23.
5. Alon Regev presented "Comparing 802.1AS structure options for P802.1ASds integration" https://www.ieee802.org/1/files/public/docs2025/ds-regev-comparing-document-structure-options-0925-v00.pdf.
   Disposition: Presentation discussed.

10:00 – 10:30 CEST recess

6. Balázs Varga presented "FRER Improvements - Elimination of Contradicting Design Requirements" https://www.ieee802.org/1/files/public/docs2025/ec-varga-FRER-improvements-0925-v00.pdf.
   Disposition: Presentation discussed.
7. The Chair presented https://www.ieee802.org/1/files/public/docs2025/ec-farkas-draft-PAR-modification-0925-v00.pdf and https://www.ieee802.org/1/files/public/docs2025/ec-farkas-draft-CSD-modification-0925-v00.pdf, and led the development of P802.1CBec PAR and CSD modification drafts.
   Disposition:
   Draft PAR modification: https://www.ieee802.org/1/files/public/docs2025/ec-farkas-draft-PAR-modification-0925-v01.pdf.
   Draft CSD modification: https://www.ieee802.org/1/files/public/docs2025/ec-farkas-draft-CSD-modification-0925-v01.pdf.
8. Lihao Chen, Ramesh Sivakolundu, and Lily Lyu presented "SFC simulation" https://www.ieee802.org/1/files/public/docs2025/dw-chen-sfc-simulation-pfc-dcqcn-0925-v01.pdf.
   Disposition: Presentation discussed.

12:30 CEST recess

Call to order Sep 17, 2025 at 10:30 CEST by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

9. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
10. Martin Mittelberger, P802.1DD editor, presented https://www.ieee802.org/1/files/private/dd-drafts/d1/802-1DD-d1-3.pdf and "P802.1DD Architecture Overview" https://www.ieee802.org/1/files/public/docs2025/dd-mittelberger-architecture-0925-v01.pdf.
    Disposition: Presentations discussed. Further discussion needed.
11. The Chair continued the development of P802.1CBec PAR and CSD modification drafts.
    Disposition:
    Draft PAR modification: https://www.ieee802.org/1/files/public/docs2025/ec-farkas-draft-PAR-modification-0925-v02.pdf.
    Draft CSD modification: https://www.ieee802.org/1/files/public/docs2025/ec-farkas-draft-CSD-modification-0925-v02.pdf.

12. Lihao Chen presented "Using Strict Priority to meet latency targets"
https://www.ieee802.org/1/files/public/docs2025/new-chen-sp-for-cyclic-0925-v01.pdf.
Disposition: Presentation discussed.

13. Mick Seaman presented "Starvation-free priority precedence"
https://www.ieee802.org/1/files/public/docs2025/new-seaman-priority-precedence-ppt-0725-v0.pdf.
Disposition: Presentation discussed.

14. Tongtong Wang, and Lihao Chen presented "Embodied AI and TSN Potentials"
https://www.ieee802.org/1/files/public/docs2025/new-wangtt-embodiedAI-robots-TSN-potentials-0925-v02.pdf.
Disposition: Presentation discussed.

12:40 CEST recess

Call to order Sep 18, 2025 at 11:30 CEST by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

15. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.

16. Abdul Jabbar presented "IEEE P802.1DP/SAE AS6677 Update"
https://www.ieee802.org/1/files/public/docs2025/dp-jabbar-profile-status-update-0925-v01.pdf.
Disposition: Presentation discussed.

17. Abdul Jabbar, P802.1ASed editor, presented an editor's report
https://www.ieee802.org/1/files/public/docs2025/ed-jabbar-d3-0-initial-sa-ballot-editors-report-0925-v01.pdf and led the resolution of comments received on
https://www.ieee802.org/1/files/private/ased-drafts/d3/802-1ASed-d3-0.pdf.
Disposition: Disposition per agenda item 18.

12:30 – 13:41 CEST recess

18. Abdul Jabbar, P802.1ASed editor, continued the resolution of comments received on
https://www.ieee802.org/1/files/private/ased-drafts/d3/802-1ASed-d3-0.pdf.
Disposition: Partial disposition: https://www.ieee802.org/1/files/private/ased-drafts/d3/802-1ASed-d3-0-pdis-v02.pdf.

19. Silvana Rodrigues, P802.1ASds editor, continued the resolution of comments received on
https://www.ieee802.org/1/files/private/asds-drafts/d1/802-1ASds-d1-3.pdf.
Disposition: Disposition per agenda item 23.

15:00 CEST recess

Call to order Sep 19, 2025 at 8:00 CEST by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

20. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.

21. Abdul Jabbar presented "IEEE P802.1DP/SAE AS6677 Update" https://www.ieee802.org/1/files/public/docs2025/dp-jabbar-profile-status-update-0925-v01.pdf.
Disposition: Presentation discussed.

22. Abdul Jabbar, P802.1ASed editor, continued the resolution of comments received on https://www.ieee802.org/1/files/private/ased-drafts/d3/802-1ASed-d3-0.pdf.
Disposition: Final disposition: https://www.ieee802.org/1/files/private/ased-drafts/d3/802-1ASed-d3-0-dis-v01.pdf.

23. Silvana Rodrigues, P802.1ASds editor, continued the resolution of comments received on https://www.ieee802.org/1/files/private/asds-drafts/d1/802-1ASds-d1-3.pdf.
Disposition: Final disposition: https://www.ieee802.org/1/files/private/asds-drafts/d1/802-1ASds-d1-3-dis-v00.pdf.

24. Lukas Osswald presented "Resource Allocation Protocol (RAP) for Inter-domain QoS Signaling in TSN" https://www.ieee802.org/1/files/public/docs2025/new-osswald-tsn-inter-domain-0925-v01.pdf.
Disposition: Presentation discussed.

10:00 CEST adjournment

5.1   IEC/IEEE 60802 Joint Project

Between this session and the preceding session, the IEC/IEEE 60802 Joint Project did not hold electronic meetings.

See section 1 for attendance and affiliation information.

Call to order Sep 17, 2025 at 13:40 CEST by János Farkas, IEEE 802.1 TSN TG Chair (TSN TG Chair). Dieter Proell, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair) wrote the minutes.

Agenda items and dispositions:
1. Meeting introduction and other administrative items. The IEEE SA slides on IEEE SA Patent Policy, IEEE SA Copyright Policy, and Participant Behavior ("Policies") were provided beforehand as part of "MEETING INTRODUCTION" https://www.ieee802.org/1/files/public/templates/admin-TG-intro-0325-v01.pdf.
The TSN TG Chair announced that the meeting is subject to these Policies as read and displayed at the opening TSN TG meeting.
The TSN TG Chair explained that the IEC/IEEE 60802 Joint Project also follows the IEC patent and copyright policies, https://www.iec.ch/news-resources/reference-material#policy.
The TSN TG Chair made the Call for Potentially Essential Patents thereby providing 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: there were no responses to this Call prior to the end of the session.
The TSN TG Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

2. Approval of agenda. The TSN TG Chair presented the agenda in https://1.ieee802.org/2025-09-interim-tsn-agenda/.
Disposition: The agenda was reviewed, discussed, and updated as recorded by these minutes.

3. IEC/IEEE 60802 status update. The 60802 chair reported FDIS preparation is ongoing and will provide more details in the next plenary session.
   Disposition: For information.
4. Brainstorming on a potential amendment to IEC/IEEE 60802. David McCall presented "Review of potential use cases for a potential amendment to IEC/IEEE 60802" https://www.ieee802.org/1/files/public/docs2025/60802-McCall-use-cases-review-0925-v01.pdf.
   Disposition: Presentation discussed and updated as https://www.ieee802.org/1/files/public/docs2025/60802-McCall-Use-Case-Review-0925-v02.pdf, based on discussion. More discussion is needed.

15:20 CEST adjournment

6 Nendica

Between this session and the preceding session, Nendica held electronic meetings whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the Nendica meeting held 2025-09-04 09:00-11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;8fa986d3.25&S=

See section 1 for attendance and affiliation information.

Call to order Sep 18, 2025 at 08:00 CEST by Johannes Specht, IEEE 802 Nendica Vice Chair (Chair) who presided and wrote the minutes.

Agenda items and dispositions:
1. Meeting introduction and other administrative items. The IEEE SA slides on IEEE SA Patent Policy, IEEE SA Copyright Policy, and Participant Behavior ("Policies") were provided beforehand as part of "MEETING INTRODUCTION" https://www.ieee802.org/1/files/public/templates/admin-TG-intro-0325-v01.pdf.
   The Chair showed this presentation advising that the following, provided beforehand, applies:
   - Participant behavior shall comply with the outlined requirements;
   - 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.
   The Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.
2. Approval of agenda. The Mentor server document list was noted.
   Disposition: The agenda was reviewed and agreed (informally, none dissenting) as https://1.ieee802.org/802-nendica-agenda-2025-09-18/.
3. Minutes. The Chair reviewed the draft "Minutes of the Nendica meeting held 2025-09-04 09:00-11:00 ET" https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;8fa986d3.25.
   Disposition: It was agreed (informally, none dissenting) to approve the minutes.
4. Nendica Organization.
   The Chair noted that the Nendica annual report was presented to the ICCOM meeting held Sep 11, 2025 without comment.
   Disposition: For information.

5. Study Items.
   AICN Study Item.
   Jieyu Li presented "Follow-up Discussion on Switch-controlled Packet-level Load Balancing Solutions" https://mentor.ieee.org/802.1/dcn/25/1-25-0016-01-ICne-follow-up-discussion-on-switch-controlled-packet-level-load-balancing-solutions.pdf.
   Disposition: Presentation discussed. Further discussion needed.
   Lily Lyu presented "Mixture of Experts (MoE) in AICN" https://mentor.ieee.org/802.1/dcn/25/1-25-0015-00-ICne-moe-in-aicn.pdf.
   Disposition: Presentation discussed. Further discussion needed.
6. Vetting and New Topics. No activity.
7. Next meeting. Nendica intends to meet next on Oct 2, 2025 9:00-11:00 ET.
8. Other Business. No other business was discussed by Nendica in this meeting.

9:15 CEST adjournment

7 YANGsters

Between this session and the preceding session, YANGsters held electronic meetings whose minutes are incorporated to these session minutes by reference as follows:
- Minutes of the YANGsters meeting held 2025-08-12 10:00 –10:59 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;2964c46e.25&S=
- Minutes of the YANGsters meeting held 2025-08-26 10:00 –10:10 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;b0a173ed.25&S=
- Minutes of the YANGsters meeting held 2025-09-09 10:00 –10:35 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;31d9611f.25&S=

See section 1 for attendance and affiliation information.

Call to order Sep 17, 2025 at 16:00 CEST by Scott Mansfield, YANGsters Chair, who presided and wrote the minutes.

Agenda items and dispositions:
1. Meeting introduction. The IEEE SA slides on IEEE SA Patent Policy, IEEE SA Copyright Policy, and Participant Behavior ("Policies") were provided beforehand as part of "MEETING INTRODUCTION" https://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0325-v01.pdf.
   The YANGsters Chair showed this presentation advising that the following, provided beforehand, applies:
   - Participant behavior shall comply with the outlined requirements;
   - 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.
   The YANGsters Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.
2. Approval of agenda. The YANGsters Chair presented the agenda in https://1.ieee802.org/september-2025-interim-session-in-dusseldorf-germany-yangsters-agenda/.
   Disposition: The agenda was reviewed, discussed, and updated as recorded by these minutes.

3. Introduction to YANGsters. The YANGsters Chair presented the "Introduction" slide of "YANGsters" https://www.ieee802.org/1/files/public/docs2025/yangsters-smansfield-dusseldorf-status-0925-v02.pdf to introduce the following:
   - https://1.ieee802.org/yangsters/, and
   - https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/.

   Disposition: For information.

4. Status. The YANGsters Chair presented slide 4 of the presentation in agenda item 3.
   - The table on the "YANG Status" slide provides an overview of all currently open IEEE 802.1 projects that contain or are expected to contain YANG.
   - An online version of this table is provided at "YANG Sanity" https://1.ieee802.org/yang-sanity/.

   Disposition: For information.

5. ieee802-types.yang discussion. The YANGsters Chair provided an overview of the topic and led the discussion.
   - An overview of the issue was provided:
     - IEEE 802.1Q and IEEE 802.1AB both modify the same YANG module, ieee802-types.yang.
     - Users need to be aware of this to ensure that they check both standards and are using the most recent version of the YANG module,
   - An option to achieve this is an editor's note pointing out the issue.
   - YANGsters agreed to provide the editor of P802.1AB-2016-Rev with the following guidance:
   - Recommend that two notes be added:
     - The ieee802-types YANG module is common across various IEEE 802.1 standards and can be updated by any IEEE 802.1 standard that imports the ieee802-types YANG module.
     - Consult the IEEE 802.1 website at https://1.ieee802.org/yang-modules/ to determine the current revision of any IEEE 802.1 YANG module.
   - Recommend removing the ieee802-types.yang module from IEEE 802.1AB-2016-Rev.

   Disposition: Agreed (informally, none dissenting) to provide the guidance outlined above.

6. AXdz Instance discussion. The YANGsters Chair provided an overview of the topic and led the discussion.
   - The potential of setting up a Tier 3 open-source project to capture YANG instance examples for 802.1AXdz and 802.1Q, among others, was discussed.
   - Contributions for the Nov 2025 plenary session are requested, related to use cases and instance examples that can be used to explain how to use the capabilities, and also serve as a way to exercise that the YANG modules are working as intended.

   Disposition: More discussion needed.

7. IEEE 802 YANG SC Update. The YANGsters Chair introduced the topic by presenting "Proposal IEEE 802 YANG SC" https://mentor.ieee.org/802-ec/dcn/25/ec-25-0166-01-LMSC-proposal-ieee-802-yang-sc.pdf and led the discussion.
   - More information can be found at https://www.ieee802.org/Stand_Com/YANG/index.shtml.
   - The IEEE 802 YANG SC has been established with Scott Mansfield as its chair.
   - The IEEE 802 YANG SC provides a point of contact for all IEEE 802 groups interested in YANG.
   - The IEEE 802 YANG SC reports to the LMSC about the IEEE 802.1 YANGsters group, the IEEE 802.3 YANG Open Source project, and the YANG work in IEEE 802.

   Disposition: For information.

8. IEEE Open Source Status. The YANGsters Chair provided an overview of the topic and led the discussion.
    - Information on the IEEE 802.3 YANG Open Source Project Ad Hoc can be found at https://www.ieee802.org/3/ad_hoc/YANGOS/index.html.
    Disposition: For information.
9. YANG Guidelines Update. The YANGsters Chair presented "YANGsters FAQ (draft 0.2)" https://www.ieee802.org/1/files/public/docs2025/yangsters-huh-guidelines-outline-0925-v01.pdf and led the discussion.
    - The material at https://1.ieee802.org/yangsters/yang-guidelines-collection/ is currently being reorganized.
    - Contributions are requested.
    Disposition: For information.
10. Next meeting. YANGsters intend to meet next electronically on Oct 7, 2025.
11. Any Other Business. No other business was discussed by YANGsters in this session.

17:15 CEST adjournment

8 Next Session

Nov 10-13, 2025 mixed mode interim session in Bangkok, Thailand.