

IEEE 802.1 Working Group

May 13-17, 2024 Interim Session

Warsaw, Poland – 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. Also see section 3.

			TSN, Fri May 17, 2024, 10:30-12:30 CEST																	
			TSN, Fri May 17, 2024, 8:00-10:00 CEST																	
			TSN - IEC/IEEE 60802, Thu May 16, 2024, 16:00-18:00 CEST																	
			TSN, Thu May 16, 2024, 13:30-15:30 CEST																	
			TSN, Thu May 16, 2024, 10:30-12:30 CEST																	
			Nendica, Thu May 16, 2024, 8:00-10:00 CEST																	
			TSN - P802.1DG, Thu May 16, 2024, 8:00-10:00 CEST																	
			TSN - IEC/IEEE 60802, Wed May 15, 2024, 16:00-18:00 CEST																	
			P802REVc, Wed May 15, 2024, 16:00-18:00 CEST																	
			TSN - P802.1DP/AS6675, Wed May 15, 2024, 13:30-15:30 CEST																	
			TSN, Wed May 15, 2024, 10:30-12:30 CEST																	
			TSN, Wed May 15, 2024, 8:00-10:00 CEST																	
			802.1/802.15 Joint, Tue May 14, 2024, 18:00-19:00 CEST																	
			YANGsters, Tue May 14, 2024, 16:00-18:00 CEST																	
			TSN, Tue May 14, 2024, 13:30-15:30 CEST																	
			TSN, Tue May 14, 2024, 10:30-12:30 CEST																	
			Maintenance, Tue May 14, 2024, 8:00-10:00 CEST																	
			TSN - IEC/IEEE 60802, Mon May 13, 2024, 16:00-18:00 CEST																	
			TSN - P802.1DG, Mon May 13, 2024, 13:30-15:30 CEST																	
			TSN, Mon May 13, 2024, 10:30-12:30 CEST																	
			TSN, Mon May 13, 2024, 8:00-10:00 CEST																	
Last name	First name	Affiliation																		
Arunarathi	Venkat	Broadcom Corporation	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Boiger	Christian	Infineon Technologies	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Bottorff	Paul	Hewlett-Packard Development Company, L.P.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Canchi	Radhakrishna	Kyocera International Inc	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Chen	Feng	Siemens AG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Chen	Lihao	Huawei Technologies Co., Ltd	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Farkas	Janos	Ericsson AB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Fedyk	Donald	LabN Consulting, L.L.C.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Garner	Geoffrey	Analog Devices	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

			TSN, Fri May 17, 2024, 10:30-12:30 CEST																						
			TSN, Fri May 17, 2024, 8:00-10:00 CEST																						
			TSN - IEC/IEEE 60802, Thu May 16, 2024, 16:00-18:00 CEST																						
			TSN, Thu May 16, 2024, 13:30-15:30 CEST																						
			TSN, Thu May 16, 2024, 10:30-12:30 CEST																						
			Nendica, Thu May 16, 2024, 8:00-10:00 CEST																						
			TSN - P802.1DG, Thu May 16, 2024, 8:00-10:00 CEST																						
			TSN - IEC/IEEE 60802, Wed May 15, 2024, 16:00-18:00 CEST																						
			P802REVc, Wed May 15, 2024, 16:00-18:00 CEST																						
			TSN - P802.1DP/AS6675, Wed May 15, 2024, 13:30-15:30 CEST																						
			TSN, Wed May 15, 2024, 10:30-12:30 CEST																						
			TSN, Wed May 15, 2024, 8:00-10:00 CEST																						
			802.1/802.15 Joint, Tue May 14, 2024, 18:00-19:00 CEST																						
			YANGsters, Tue May 14, 2024, 16:00-18:00 CEST																						
			TSN, Tue May 14, 2024, 13:30-15:30 CEST																						
			TSN, Tue May 14, 2024, 10:30-12:30 CEST																						
			Maintenance, Tue May 14, 2024, 8:00-10:00 CEST																						
			TSN - IEC/IEEE 60802, Mon May 13, 2024, 16:00-18:00 CEST																						
			TSN - P802.1DG, Mon May 13, 2024, 13:30-15:30 CEST																						
			TSN, Mon May 13, 2024, 10:30-12:30 CEST																						
			TSN, Mon May 13, 2024, 8:00-10:00 CEST																						
Last name	First name	Affiliation																							
Specht	Johannes	Analog Devices, Inc.; Mitsubishi Electric Corporation; Phoenix Contact GmbH & Co. KG; PROFIBUS Nutzerorganisation e.V.; Self; Self Employed; Siemens AG; Texas Instruments, Inc.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Stanica	Marius	ABB AB	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tse	Richard	Microchip Technology, Inc.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Turner	Max	Ethernovia	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Venkatesan	Ganesh	Intel	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Wang	Ruixue	Chinamobile																							
Wessels	Leon	Uman Technologies ZA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Winkel	Ludwig	PNO e.V.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Woods	Jordon	Analog Devices Inc.																							
Zein	Nader	NEC Europe (NLE)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(*) Last and first names and affiliation possibly incorrect as based on Webex access information or otherwise, and either outdated or not provided in IMAT.

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: Ludwig Winkel
 - IEC/IEEE 60802 Joint Project Secretary: Dieter Pröll
 - IEEE P802.1DP/SAE AS6675 joint project co-Chairs: Abdul Jabbar & János Farkas
 - IEEE P802.1DP/SAE AS6675 joint project Secretary: vacant
- 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

3 802.1/802.15 Joint Meeting

Between this session and the preceding session, no 802.1/802.15 joint meetings were held.

See section 1 for 802.1 attendance and affiliation information and 802.15 session minutes for 802.15 attendance and affiliation information.

The minutes of the 802.1/802.15 joint meeting held May 14, 2023 are on page 6 of “802.15 WG & CAC & Joint 1/15 Minutes May 2024” <https://mentor.ieee.org/802.15/dcn/24/15-24-0334-01-0000-802-15-wg-cac-joint-1-15-minutes-may-2024.docx>.

4 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 P802-REVc meeting held 2024-04-23 10:00 - 11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;82eee3ee.24&S=>
- Minutes of the Maintenance meeting held 2024-05-07 10:00-12:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;3f5b8150.24&S=>

See section 1 for attendance and affiliation information.

Call to order May 14, 2024 at 8:02 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 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-0324-v01.pdf>.

The Chair showed this presentation advising that the following, provided beforehand, applies:

- Participant behavior shall comply with the outlined requirements;
- 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.
- 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/may-2024-interim-session-maintenance-tg-agenda/>.

Disposition: The agenda was reviewed, discussed, and agreed (informally, none dissenting) as presented.

3. Maintenance Project Status.

- The Chair gave a verbal update on P802-REVc.
- The Chair gave a verbal update on P802.1AS-2020-Rev.
- The Chair gave a verbal update on P802.1ACea.
- Mick Seaman, P802.1Q editor, gave a verbal update on P802.1Q-2022-Revision.
- Christophe Mangin, P802.1CB-2017-Cor1 editor, presented “802.1CB-2017/Cor1 Editor’s update” <https://www.ieee802.org/1/files/public/docs2024/maint-mangin-CB-Cor1-0524-v01.pdf>.

Disposition: For Information.

4. Liaison Report. Karen Randall, Liaison Secretary gave a verbal update on outgoing liaisons. Two new liaisons had been received from LNI 4.0 and IEC TC57/WG15.

Disposition: For information.

5. PAR Review.

- The Chair reviewed and led the development of the draft PAR <https://www.ieee802.org/1/files/public/docs2024/ab-Hantel-draft-PAR-0524-v03.pdf> for P802.1AB-2016-Rev.
- The Chair reviewed and led the development of the draft PAR <https://www.ieee802.org/1/files/public/docs2024/ac-Hantel-draft-PAR-0524-v02.pdf> for P802.1AC-2016-Rev.

Disposition: For information.

6. New Maintenance Items. The Chair led discussion on Maintenance Item 369.

Disposition: For information.

7. Outstanding Maintenance Items. The Chair led discussion on Maintenance Item 363.

Disposition: Further discussion needed.

8. Any Other Business. No other business was discussed by the Maintenance TG in this meeting.

9:36 CEST recess

Call to order May 15, 2024 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.

9. Meeting introduction and other administrative items. The Chair announced that the 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 minute taker.

10. Approval of agenda. The Chair presented the agenda in <https://1.ieee802.org/may-2024-interim-session-maintenance-tg-p802-revc-comment-resolution/>.

Disposition: The agenda was reviewed, revised by the Chair to include next sessions under Any Other Business, and agreed (informally, none dissenting) as presented.

11. P802-REVC D1.2 comment resolution. James Gilb, P802-REVC Editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/802-REVC-drafts/d1/P802-REVC-d1.3.pdf>.

Disposition: Ballot comments 13, 14, 20, 21 were resolved. Final disposition: <https://mentor.ieee.org/802.1/dcn/24/1-24-0029-00-Mntg-p802-revc-d1-3-comments-dis.pdf>.

12. Any Other Business. Next meeting was scheduled for Jun 4, 2024, 12:00-13:00 ET. No other business was discussed by the Maintenance TG in this session.

17:03 CEST adjournment

5 Security Task Group

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

The Security TG did not meet at this session.

6 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 2024-03-18, 11:00 – 13:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;e79282e.24&S=>
- Minutes of the TSN TG meeting held 2024-03-25, 11:00 – 13:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;7e7ac12d.24&S=>
- Minutes of the TSN TG meeting held 2024-04-08, 11:00 – 13:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;452ef9db.24&S=>
- Minutes of the TSN TG meeting held 2024-04-15, 11:00 – 13:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;8227d5ac.24&S=>
- Minutes of the TSN TG meeting held 2024-04-22, 11:00 – 13:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;57c0992f.24&S=>
- Minutes of the TSN TG meeting held 2024-04-29, 11:00 – 13:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;4b0d6b41.24&S=>
- Minutes of the TSN TG meeting held 2024-05-06, 11:00 – 13:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;4e1ccb9e.24&S=>

Between this session and the preceding session, the IEEE 802.1 Time-Sensitive Networking (TSN) Task Group (TG) held electronic meetings on P802.1DG whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the IEEE P802.1DG meeting held 2024-04-02 9:00 - 10:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;4a898c11.24&S=>

See section 1 for attendance and affiliation information.

Minutes of the IEC/IEEE 60802 Joint Project meetings are in section 6.1.

Minutes of the IEEE P802.1DP/SAE AS 6675 joint project meeting are in section 6.2.

Call to order May 13, 2024 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 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-0721-v01.pdf>.

The Chair showed this presentation advising that the following, provided beforehand, applies:

- 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.
- 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. Approval of agenda. The Chair presented the agenda in <https://1.ieee802.org/2024-05-interim-tsn-agenda/>.

Disposition: The agenda was reviewed, and updated as recorded by these minutes.

3. The chair showed the incoming liaisons and communication:
 - “LS on work items related to deterministic networking in SG13” (ITU-T SG13 LS 94) <https://www.ieee802.org/1/files/public/docs2024/liaison-itu-t-SG13-LS156-DetermNetwrking-apr24.pdf>.

Disposition: Incoming liaisons discussed.

4. Feng Chen, P802.1Qdd editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-9.pdf>.

Disposition: Disposition per agenda item 20.

12:30 CEST recess

Call to order May 14, 2024 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.

5. 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.
6. The chair presented “LNI 4.0 LS on access to 802.1 drafts”
<https://www.ieee802.org/1/files/public/docs2024/liaison-LNI40-access-to-drafts-0525.pdf>.
Disposition: Presentation discussed. Further discussion needed.
7. Feng Chen led the development of the draft PAR
(<https://www.ieee802.org/1/files/public/docs2024/dd-draft-PAR-0524-v01.pdf>) and CSD
(<https://www.ieee802.org/1/files/public/docs2024/dd-draft-CSD-0524-v01.pdf>) for P802.1DD Resource Allocation Protocol.
Disposition: Disposition as per agenda item 14.

12:30 – 13:30 CEST recess

8. The Chair and Richard Tse led the initial development of the draft PAR
(<https://www.ieee802.org/1/files/public/docs2024/ed-draft-PAR-0524-v01.pdf>) and CSD
(<https://www.ieee802.org/1/files/public/docs2024/ed-draft-CSD-0524-v01.pdf>) for P802.1ASed Fault-Tolerant Timing with Time Integrity.
Disposition: Further development to continue in the May 15, 2024 IEEE P802.1DP/SAE AS6675 joint project meeting.

15:30 CEST recess

Call to order May 15, 2024 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.

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. Feng Chen continued leading the development of the draft PAR
(<https://www.ieee802.org/1/files/public/docs2024/dd-draft-PAR-0524-v01.pdf>) and CSD
(<https://www.ieee802.org/1/files/public/docs2024/dd-draft-CSD-0524-v01.pdf>) for P802.1DD Resource Allocation Protocol.
Disposition: Disposition as per agenda item 14.
11. Feng Chen, P802.1Qdd editor, continued the resolution of comments received on
<https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-9.pdf>.
Disposition: Disposition per agenda item 20.

10:00 – 10:30 CEST recess

12. Geoffrey Garner, P802.1ASdm editor, led the resolution of comments received on
<https://www.ieee802.org/1/files/private/asdm-drafts/d2/802-1ASdm-d2-2.pdf>.
Disposition: Comments 1-6, 12, 15, 17, 18, 21-22 resolved. Disposition per agenda item 16.

12:30 CEST recess

Call to order May 16, 2024 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.

13. 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.
14. Feng Chen continued leading the development of the draft PAR (<https://www.ieee802.org/1/files/public/docs2024/dd-draft-PAR-0524-v01.pdf>) and CSD (<https://www.ieee802.org/1/files/public/docs2024/dd-draft-CSD-0524-v01.pdf>) for P802.1DD Resource Allocation Protocol.
Disposition: For information.
15. Johannes Specht, P802.1DU editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/du-drafts/d0/802-1-DU-d0-2.pdf>.
Disposition: Final disposition: <https://www.ieee802.org/1/files/private/du-drafts/d0/802-1du-d0-2-dis-v01.pdf>.
16. Geoffrey Garner, P802.1ASdm editor, continued the resolution of comments received on <https://www.ieee802.org/1/files/private/asdm-drafts/d2/802-1ASdm-d2-2.pdf>.
Disposition: Comments 7-11, 13, 14, 16, 19, 20, 23-26 resolved. Final disposition: <https://www.ieee802.org/1/files/private/asdm-drafts/d2/802-1ASdm-d2-2-dis-v00.pdf>.
17. Silvana Rodrigues, P802.1ASds editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/asds-drafts/d0/802-1ASds-d0-3.pdf>.
Disposition: Disposition per agenda item 19.

12:30 – 13:30 CEST recess

18. Steve Haddock, P802.1AXdz editor, presented updates on “802.1AXdz YANG for Link Aggregation” (<https://www.ieee802.org/1/files/private/axdz-drafts/d0/802-1-AXdz-d0-0.pdf>) with an editor’s report <https://www.ieee802.org/1/files/public/docs2024/dz-haddock-editors-report-0524-v1.pdf>.
Disposition: Presentation discussed.
19. Silvana Rodrigues, P802.1ASds editor, continued the resolution of comments received on <https://www.ieee802.org/1/files/private/asds-drafts/d0/802-1ASds-d0-3.pdf>.
Disposition: Final disposition <https://www.ieee802.org/1/files/private/asds-drafts/d0/802-1ASds-d0-3-dis-v00.pdf>.
20. Feng Chen, P802.1Qdd editor, continued the resolution of comments received on <https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-9.pdf>.
Disposition: Comments 1-4, 9, 10, 14-17, 19-29, 31-47, 49-58, 62, 63, 65, 67, 72, 74-77, 79, 83-86, 91, 97, 98, 100, 105-107, 109-112, 116-117 resolved. Partial disposition <https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-9-pdis-v02.pdf>.

15:30 CEST recess

Call to order May 17, 2024 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.

21. 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.
22. Max Turner, P802.1DG editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/dg-drafts/d3/802-1DG-d3-0.pdf>.
Disposition: Patrial disposition: <https://www.ieee802.org/1/files/private/dg-drafts/d3/802-1DG-d3-0-pdis-v04.pdf>.

12:30 CEST adjournment

6.1 IEC/IEEE 60802 Joint Project

Between this session and the preceding session, the IEC/IEEE 60802 Joint Project held electronic meetings whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2024-04-22 9:00 - 11:00 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;e22b28a5.24&S=>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2024-04-26 9:00 - 11:00 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;5cc8a054.24&S=>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2024-04-29 9:00 - 11:00 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;27169165.24&S=>

See section 1 for attendance and affiliation information.

Call to order May 13, 2024 at 16:00 CEST by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair), who presided together with János Farkas, IEEE 802.1 TSN TG Chair (TSN TG Chair). Dieter Proell, IEC/IEEE 60802 Joint Project Secretary (60802 Secretary), wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction and other administrative items. The IEEE SA slides on IEEE 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-0324-v01.pdf>.
The 60802 Chair announced that the meeting is subject to these Policies as read and displayed at the opening Time-Sensitive Networking Task Group meeting.
The 60802 Chair made the Calls for Potentially Essential Patents at the beginning of the 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 this Call prior to the end of the session.
The 60802 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 60802 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 60802 Chair presented the agenda in <https://1.ieee802.org/2024-05-interim-tsn-agenda/>.
Disposition: The agenda was reviewed, discussed, and updated as recorded by these minutes.
3. Editor's update. Jordon Woods, IEC/IEEE 60802 Joint Project Editor (60802 Editor), gave a brief update and announced an editor report in the next meeting. The WG recirculation ballot on <https://www.ieee802.org/1/files/private/60802-drafts/d2/60802-d2-4.pdf> closes May 14, 2024.
Disposition: For information.
4. Revised Time Error Accumulation Simulation Results for Transport over a 60802 Network. Geoff Garner presented "Revised Multiple Replication 60802 Time Domain Simulation Results for Cases with Drift Tracking Algorithms and PLL Noise Generation - Version 2" <https://www.ieee802.org/1/files/public/docs2024/60802-garner-revised-time-domain-simul-results-with-drift-tracking-algorithms-and-PLL-noise-generation-multiple-replic-0524-v02.pdf>.
Disposition: Presentation discussed; a contribution is requested to add the new minimum bandwidth requirement ("Conclusion - 2" on page 55) to the IEC/IEEE 60802 draft for SA ballot.

17:20 CEST recess

Call to order Mar 15, 2024 at 16:00 CEST by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair). Dieter Proell, IEC/IEEE 60802 Joint Project Secretary (60802 Secretary), wrote the minutes.

5. Meeting introduction and other administrative items. The 60802 Chair announced that the 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 minute taker.
6. Editor's update. Jordon Woods, 60802 Editor, presented "Editor's Report 60802 Draft 2.4" <https://www.ieee802.org/1/files/public/docs2024/60802-woods-D2-4-update-05-13-v01.pdf>.
Disposition: The WG recirculation ballot on <https://www.ieee802.org/1/files/private/60802-drafts/d2/60802-d2-4.pdf> closed with no comments and a 100% approval rate. The project may proceed to SA ballot.
7. Timeline. The 60802 chair presented "IEC/IEEE 60802 timeline update" <https://www.ieee802.org/1/files/public/docs2024/60802-Winkel-timeline-0424-v16.pdf>.
Disposition: Presentations discussed and updated as <https://www.ieee802.org/1/files/public/docs2024/60802-Winkel-timeline-0524-v17.pdf> based on discussion; no IEC/IEEE 60802 Joint Project meeting is planned for the July 2024 plenary session.
8. The 60802 Chair proposed to cancel the IEC/IEEE 60802 Joint Project electronic meetings from May 20, 2024 to June 14, 2024, and to resume with electronic meetings on June 17, 2024 per "Agenda of the IEC/IEEE 60802 Joint Project meeting to be held 2024-06-17, 9:00 AM - 11:00 AM EST" <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;6011efad.24>.
Disposition: Agreed (informally, none dissenting) to cancel the meetings from May 20, 2024 to June 14, 2024, and to resume on June 17, 2024.
9. Time sync. David McCall presented "Planned Time Sync Comments on SA Ballot" <https://www.ieee802.org/1/files/public/docs2024/60802-Garner-McCall-Rodrigues-Planned-Time-Sync-Comments-SA-0524-v01.pdf>.
Disposition: Presentation discussed; time sync simulation finished; agreed (informally, none dissenting) that 1 μ sec time sync accuracy over 100 hops can be met, which prompted a round of applause.

17:10 CEST recess

Call to order Mar 16, 2024 at 16:00 CEST by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair). Dieter Proell, IEC/IEEE 60802 Joint Project Secretary (60802 Secretary), wrote the minutes.

10. Meeting introduction and other administrative items. The 60802 Chair announced that the 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 minute taker.
11. Traffic Class Mapping and Stream Admission. Stephan Kehrer presented “IEC/IEEE 60802 Traffic Class mapping and Stream Admission”
<https://www.ieee802.org/1/files/public/docs2024/60802-kehrer-traffic-class-mapping-0524-v01.pdf>.
Disposition: More discussion needed.
12. Review of minutes. The draft minutes were reviewed under the lead of the 60802 Secretary.

17:30 CEST adjournment

6.2 IEEE P802.1DP/SAE AS6675 joint project

Between this session and the preceding session, the IEEE 802.1 Time-Sensitive Networking (TSN) Task Group (TG) held electronic meetings on P802.1DP/SAE AS 6675 whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the IEEE P802.1DP/SAE AS6675 meeting held 2024-05-08 10:00 – 11:56 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;3ce56444.24&S=>

See section 1 for attendance and affiliation information.

Call to order May 15, 2024 at 13:30 CEST by János Farkas, IEEE 802.1 TSN TG Chair. Abdul Jabbar and János Farkas, IEEE P802.1DP/SAE AS6675 joint project co-Chairs, presided. Jessy Rouyer, IEEE P802.1DP/SAE AS6675 Secretary, wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction. The IEEE SA slides on IEEE Patent Policy, IEEE SA Copyright Policy, and Participation Behavior were provided beforehand as part of “MEETING INTRODUCTION” <https://www.ieee802.org/1/files/public/templates/admin-TG-intro-0324-v01.pdf>.
János Farkas, IEEE P802.1DP/SAE AS6675 co-Chair, announced that the meeting is subject to these Policies as read and displayed at the opening plenary meeting.
János Farkas, IEEE P802.1DP/SAE AS6675 co-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.
János Farkas, IEEE P802.1DP/SAE AS6675 co-Chair, explained that the IEEE P802.1DP/SAE AS6675 Joint Project also follows the SAE International code of conduct https://www.sae.org/about/legal-policies/content_policy and policy on intellectual property and copyright <https://www.sae.org/about/legal-policies/intellectual-property>.
János Farkas, IEEE P802.1DP/SAE AS6675 co-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. János Farkas, IEEE P802.1DP/SAE AS6675 co-Chair, presented the agenda in https://1.ieee802.org/2024-03-plenary-tsn-agenda/#TSN_P8021DPAS6675.
Disposition: The agenda was reviewed, discussed and updated as recorded by these minutes.
3. Abdul Jabbar, IEEE P802.1DP/SAE AS6675 editor, presented “IEEE P802.1DP TSN Profile for Aerospace Status Overview”
<https://www.ieee802.org/1/files/public/docs2024/dp-jabbar-status-overview-0524-v01.pdf>.
Disposition: For information.
4. Abdul Jabbar and János Farkas, IEEE P802.1DP/SAE AS6675 joint project co-Chairs, presented the draft PAR extension <https://www.ieee802.org/1/files/public/docs2024/dp-draft-PAR-extension-0524-v01.pdf> for P802.1DP/SAE AS6675.
Disposition: For information.
5. János Farkas, IEEE 802.1 TSN TG Chair, and Richard Tse led further development of the draft PAR (<https://www.ieee802.org/1/files/public/docs2024/ed-draft-PAR-0524-v01.pdf>) and CSD (<https://www.ieee802.org/1/files/public/docs2024/ed-draft-CSD-0524-v01.pdf>) for P802.1ASed Fault-Tolerant Timing with Time Integrity.
Disposition: For information.

15:30 CEST adjournment

7 Nendica

Between this session and the preceding session, the IEEE 802 “Network Enhancements for the Next Decade” Industry Connections Activity (Nendica) held electronic meetings whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the Nendica meeting held 2024-03-21 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;8ec6735a.24&S=>
- Minutes of the Nendica meeting held 2024-04-11 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;c672573b.24&S=>
- Minutes of the Nendica meeting held 2024-04-18 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;4eb24328.24&S=>
- Minutes of the Nendica meeting held 2024-05-02 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;7638db58.24&S=>

See section 1 for attendance and affiliation information.

Call to order May 16, 2024 8:05 CEST by Johannes Specht, Nendica Vice Chair (“Chair”), who presided. Jessy Rouyer, IEEE 802.1 Recording Secretary, wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction and other administrative items. The IEEE SA slides on IEEE 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-0324-v01.pdf>. The Chair showed this presentation advising that the following 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 the Nendica meeting, 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 Chair presented the agenda at <https://1.ieee802.org/802-nendica-agenda-2024-05-16/> and noted the Mentor server document list.

Disposition: The agenda was reviewed and agreed (informally, none dissenting) as presented.

3. Minutes. The Chair reviewed the draft “Minutes of the Nendica meeting held 2024-05-02 09:00-11:00 ET” <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;7638db58.24&S=>

Disposition: Agreed (informally, none dissenting) to approve the minutes.

4. Update. No discussion.
5. Nendica organization. No discussion.
6. Study Items.

AI Computing Networks (AICN). Yunping(Lily) Lyu and Jieyu Li presented “AICN Report Draft v0” <https://mentor.ieee.org/802.1/dcn/24/1-24-0028-00-ICne-aicn-report-draft.pdf>.

Discussion: It was suggested that references be provided for numerical values currently provided as is. Deadlocks, priority-based flow control, and the comparative pros and cons of lossless techniques (in large scale networks) vs. best effort techniques (elsewhere) in meeting AI requirements were discussed. It was suggested that a new transport paradigm may be needed for best effort delivery in such networks where not all flows require ordered delivery (remote direct memory access example), and not all applications require scale. It was indicated that the current draft may address a subset of AI applications at larger scale only, and that there may be a broader range of AI applications at different scales. Contribution suggested. It was indicated that “100s GB” in the table on page 8 is for one iteration. It was suggested to change “40,000 kW” to “40 MW” and to delete “, which could power around 31,000 average U.S. homes[3].” in the last paragraph on page 9.

Disposition: Contributions were invited. More discussion needed. Post-session presentation update: <https://mentor.ieee.org/802.1/dcn/24/1-24-0028-01-ICne-aicn-report-draft.pdf>.

7. Vetting and New Topics. No discussion.
8. Next Meeting. Nendica is authorized to meet electronically alternate Thursdays 9:00 - 11:00 ET with additional meetings as announced at least 10 days in advance. Nendica intends to meet next electronically on May 30, 2024 9:00 - 11:00 ET (may be cancelled two days prior in absence of contributions).
9. Other Business. No other business was discussed by Nendica in this session.

9:32 CEST adjournment

8 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 2024-03-26 10:07 –11:05 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;8c901972.24&S=>
- Minutes of the YANGsters meeting held 2024-04-23 10:05 –11:12 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;851c55ee.24&S=>
- Minutes of the YANGsters meeting held 2024-05-07 10:03 –10:56 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;47225806.24&S=>

See section 1 for attendance and affiliation information.

Call to order May 14, 2024, at 16:00 CEST by Scott Mansfield, YANGsters Chair, who presided. Stephan Kehrer, YANGsters Secretary, wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction. The IEEE SA slides on IEEE Patent Policy, IEEE SA Copyright Policy, and Participant Behavior (“Policies”) were provided beforehand as part of “MEETING INTRODUCTION” <http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0324-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/may-2024-interim-session-yangsters-agenda/>.

Disposition: The agenda was reviewed, discussed, and agreed (informally, none dissenting) as presented.

3. Introduction to YANGsters. The YANGsters Chair presented the “Introduction” slide of “YANGsters” <https://www.ieee802.org/1/files/public/docs2024/yangsters-smansfield-warsaw-status-0524-v01.pdf> to introduce the following:

- <https://1.ieee802.org/yangsters/>, and
- <https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/>.

Disposition: For information.

4. YANGsanity Spreadsheet. The YANGsters Chair presented slide 3 of the presentation in agenda item 3.

- The slide’s YANG “sanity” table provides an overview of all currently open IEEE 802.1 projects that contain or are expected to contain YANG.

Disposition: For information.

5. AXdz Augmentation Issue. The YANGsters Chair presented “Link Aggregation YANG Considerations” <https://www.ieee802.org/1/files/public/docs2024/yangsters-smansfield-axdz-augmentation-issue-0524-v01.pdf> to introduce the topic and led the discussion.

The current structure of the P802.1AXdz YANG is such that there is an issue if a port is an aggregation port.

- To address this issue there is a need to update the `ieee802-dot1q-bridge.yang` module so that it allows the bridge-port container to be excluded from the tree when an ethernetCSMAcd is an aggregation port.
- Several options to achieve this were discussed.

Disposition: More discussion needed.

6. IEEE 802.3 YANG Update. The YANGsters Chair provided the update:

- The IEEE 802.1 and 803.3 May interim sessions are taking place at the same time.
- For this reason, no update was available during the IEEE 802.1 May interim session.
- An update is planned for the next YANGsters meeting.

Disposition: For information.

7. YANG Instance Testing and Tooling. The YANGsters Chair provided an overview of the topic.
 - An overview of approaches to do instance tests on YANG modules was provided.
 - Some tooling options to support instance testing were provided.**Disposition:** For information.
8. Ecosystem Collaboration. The YANGsters Chair provided an overview and can provide information on how to get involved in the Ecosystem Collaboration.
Disposition: For information.
9. Project Issues or Guidelines. Deferred to a future meeting.
10. Any Other Business. No other business was discussed by YANGsters in this session.

17:21 CEST adjournment

9 Next Session

Jul 15-19, 2024 mixed mode plenary session in Montreal, QC, Canada.