

3 802.1/802.15 Joint Meeting

Between this session and the preceding session, an 802.1/802.15 joint meeting was held whose minutes are incorporated to these session minutes by reference as follows:

- IEEE 802.1 802.15 Joint Call (April 11, 2022) Minutes
<https://mentor.ieee.org/802.15/dcn/22/15-22-0213-00-0000-april-2022-ieee-802-1-802-15-joint-call-minutes.docx>

The table in section 1 reflects the attendance and affiliation of all participants in all 802.1 WG and subgroup meetings held in this session.

At this session, an 802.1/802.15 joint meeting was held whose minutes are incorporated to these session minutes by reference as follows:

- 802.15 WG & CAC Minutes Virtual May Interim 2022
<https://mentor.ieee.org/802.15/dcn/22/15-22-0233-01-0000-802-15-wg-cac-mins-may-2022-virtual-interim.docx> (pages 6-7)

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 Maintenance TG meeting held 2022-03-29 11:01 – 12:21 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;44fa5232.22>

The table in section 1 reflects the attendance and affiliation of all participants in all 802.1 WG and subgroup meetings held in this session.

Call to order May 10, 2022 at 14:00 ET by Paul Congdon, IEEE 802.1 Maintenance TG Chair who presided and 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 Maintenance TG 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 Maintenance TG 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 Maintenance 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 Maintenance TG chair presented the agenda in <https://1.ieee802.org/may-2022-interim-session-electronic-maintenance-tg-agenda/>
Disposition: The agenda was reviewed, discussed, and updated as recorded by these minutes.
3. P802.1Q-Rev/D1.1 Comment Resolution. Mick Seaman, P802.1Q-Rev editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/q-rev-drafts/d1/802-1Q-rev-d1-1.pdf>.
Disposition: Comments 1-4 and 6-11 were discussed. Partial comment resolution: <https://www.ieee802.org/1/files/private/q-rev-drafts/d1/802-1Q-rev-d1-1-pdis-v1.pdf>.
4. IEEE 802.1Qcw YANG changes and P802.1Q-Rev. The Maintenance TG Chair led a discussion of two maintenance requests that have been fixed in P802.1Qcw, but not been retrofitted into P802.1Q-Rev: <https://www.802-1.org/items/346> and <https://www.802-1.org/items/380>.
Disposition: Agreed (informally, none dissenting) to not incorporate the YANG changes into P802.1Q-Rev because additional changes are required to the base text as well as YANG modules. Agreed (informally, none dissenting) to include in P802.1Qcz; however, see agenda item 8 as YANGsters made a different recommendation post-meeting.
5. SC6 Status. Karen Randall presented “ISO/IEC JTC1 SC6 STATUS May 2022” slides in “Maintenance Task Group Electronic Meetings”
<https://www.ieee802.org/1/files/public/docs2022/maint-congdon-em-0522-1-v01.pdf>.
Disposition: For information.
6. P802.1Qdj response to comment 68 on maintenance request 0312. Stephan Kehrer, P802.1Qdj editor, led the discussion of comment 68 (on <https://www.ieee802.org/1/files/private/dj-drafts/d0/802-1Qdj-d0-2.pdf>) in <https://www.ieee802.org/1/files/private/dj-drafts/d0/802-1Qdj-d0-2-pdis-v07.pdf> related to maintenance request #0312 <https://www.802-1.org/items/423>
Disposition: Agreed (informally, none dissenting) that the comment response is consistent with the desired proposed change for the maintenance request. The minutes of the maintenance request were updated. Details for discussion are logged in the IEEE 802.1 maintenance database at <https://www.802-1.org/home> where items progressed at the meeting can be reviewed by selecting ‘Meetings’.
7. Liaisons. Karen Randall led the review and drafting of the outgoing liaison response to IEEE Std 802.1ACct CIB (60-day ballot) comments
<https://1.ieee802.org/liaisons/liaisonable/>
Disposition: Drafted liaison response <https://www.ieee802.org/1/files/private/liaison-drafting/liaison-SC6CommentResponseACct-0522-v02.pdf>. A motion would be made at the July 2022 IEEE 802.1 plenary session to approve and send to SC6.

15:32 ET recess

Call to order May 13, 2022 at 14:00 ET by Paul Congdon, IEEE 802.1 Maintenance TG Chair who presided and wrote the minutes.

The Maintenance TG Chair announced that this ad hoc 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.

8. Update on maintenance requests for P802.1Qcw. The Maintenance TG chair provided a status update on the YANGsters recommendation on handling the P802.1Qcw maintenance requests.
Disposition: The related maintenance requests will not be pulled up into P802.1Qcz despite the disposition of agenda item 4.
9. P802.1ASdr Editor's Update. Silvana Rodrigues, P802.1ASdr editor, presented "802.1ASdr Editor's Update" <https://www.ieee802.org/1/files/public/docs2022/dr-Rodrigues-editors-update-0522-v00.pdf>.
Disposition: For information.
10. P802-Rev status update. The 802.1 Chair provided an update on P802-Rev.
Disposition: James Gilb will be the editor of P802-Rev. An agenda item will be added to the July 2022 IEEE 802 Technical Plenary agenda to review any available draft and discuss with the meeting participants the plan for running P802-Rev ballots and comment resolution. A motion needs to be made in the July 2022 IEEE 802.1 plenary session to authorize James Gilb to generate drafts and run Working Group ballots. The Maintenance TG Chair is to create the P802-Rev project page.
11. P802.1Q-Rev/D1.1 Comment Resolution. Mick Seaman, P802.1Q-Rev editor, continued leading the resolution of comments received on <https://www.ieee802.org/1/files/private/q-rev-drafts/d1/802-1Q-rev-d1-1.pdf>.
Disposition: Comment R1-6 was discussed in detail. Post-session final **Disposition:** <https://www.ieee802.org/1/files/private/q-rev-drafts/d1/802-1Q-rev-d1-1-dis.pdf>.
12. Existing Maintenance Items: The Maintenance TG chair led the discussion of the following existing maintenance items:
 - 0242: IEEE Std 802.1Qcp-2018: Collected issues on data consistency and others
 - 0248: Managed objects for ECP in 802.1Q-2018
 - 0314: network media and PHY
 - 0324: Use of Tick in List Execute state machine (802.1Q)
 - 0325: AVB latency calculation
 - 0330: Incorrect definition of BucketEmptyTime in IEEE Std 802.1Qcr-2020**Disposition:** Details for discussion on all items are logged in the IEEE 802.1 maintenance database at <https://www.802-1.org/home> where items progressed at the meeting can be reviewed by selecting 'Meetings'.
13. Any Other Business. None discussed.
14. Future meetings. Agreed (informally, none dissenting) to hold an electronic meeting of the Maintenance TG on Jun 14, 2022 at 11:00 ET <https://1.ieee802.org/maintenance-tg-electronic-meeting-agenda-june-14-2022-11-am-et/> to resolve comments received in the P802.1Q-Rev SA recirculation ballot and to hold also another meeting to review liaisons and 802 PARs under consideration Jul 05, 2022 at 11:00 ET <https://1.ieee802.org/maintenance-tg-electronic-meeting-agenda-july-05-2022-11-am-et/>.

15:21 ET adjournment

5 Security Task Group

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

- Minutes of the Security TG meeting held 2022-04-05 13:00 - 13:35 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;49db5011.22&S=>

The table in section 1 reflects the attendance and affiliation of all participants in all 802.1 WG and subgroup meetings held in this session.

Call to order May 10, 2022 at 11:00 ET 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 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 Security TG 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 SAs 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 in <https://1.ieee802.org/may-2022-interim-session-electronic-security-tg-agenda/>

Discussion:

- Under agenda item 4. Any Other Business, there will be a presentation from the proponents of the proposed P1943 PAR (Project Authorization Request) for "Standard for Post-Quantum Network Security" in the Thursday May 12, 2022 meeting. The (draft) minutes of the last Security TG meeting summarize discussion of this topic at that meeting. References that may be of interest are Kampanakis, Panburana, Daw, and Van Geest "The Viability of Post-Quantum X.509

Certificates” <https://eprint.iacr.org/2018/063.pdf> and Sikederis, Kampanakis, Devetsikiotis “Post-Quantum Authentication in TLS- A Performance Study” <https://www.ndss-symposium.org/wp-content/uploads/2020/02/24203.pdf>: these precede the current round of NIST evaluation, so their conclusions may be dated, however Falcon (at least) is a 3rd round finalist.

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

3. P802.1AEdk MAC Privacy protection. The Security TG Chair summarized the results of the WG ballot on <https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-0.pdf>:
 - The ballot passed (>75% Approval, >50% Response: 78 voters, 26 Approved, 1 Disapproved, 29 Abstained - 96% Approval, 72% Response rate). A voting summary with an initial proposed disposition of comments was available: <https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-0-pdis-v02.pdf> with an interim draft, prepared to assist in comment resolution at: <https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-01.pdf>.

Don Fedyk, P802.1AEdk Editor, led the discussion of proposed comment dispositions.

Disposition: To be continued.

13:00 ET recess

Call to order May 12, 2022 at 11:04 ET by Mick Seaman, IEEE 802.1 Security TG Chair.

4. Any Other Business

- 4.1 Proposed P1943 “Standard for Post-Quantum Network Security”. Jonathan Attia and Ludovic Perret (proposed P1943 Chair & Vice-Chair, respectively) presented “IEEE P1943 (deferred) QuNET/WG” <https://www.ieee802.org/1/files/public/docs2022/new-attia-p1943-deferred-discussion-0522-v01.pdf>.

Discussion:

- IETF and IRTF coordination considered.
- Original proposal considered by NesCom April 27, 2022 stated “The Security Task Group of the 802.1 Working Group does not consider quantum-resistant cryptography in network security protocols”.
- IEEE Std 802.1AE (MACsec) and IEEE Std 802.1X MACsec Key Agreement (MKA) use symmetric key cryptography and supported current NIST/NSA recommendations for quantum resistant 256-bit symmetric keys from 2011 and 2010 respectively.
- IEEE Std 802.1AR Secure Device Identity uses asymmetric keys in X.509 certificates and is planned to adopt NIST recommendations for those certificates when NIST public review completes (anticipated 2024). Standard was restructured (802.1AR-2018) to ease addition of future cipher suites, so anticipate rapid incorporation of NIST recommendation when final.
- IEEE 802.1 expects to defer to IEEE 802.11 and IETF for post-quantum updates to EAP (Extensible Authentication Protocol), though expects those updates to be less urgent than post-quantum updates for end-to-end protocols such as TLS, since the recording of sessions for future quantum computer analysis of 802.1X/EAP dialogue would only reveal network access information and not the application dialogue if the latter was post-quantum protected.
- Update to proposed PAR stating that 802.1 does consider post-quantum requirements desired.

- How much coordination and liaison is needed? Draft sharing (when draft available).
- What is the role of an IEEE standard in this area?
- P1943 proponents to rework proposal, clarifying final product and how it fits into the standards space, also updating information on related standards and coordination.

Disposition: Looking forward to future discussion.

5. P802.1AEdk MAC Privacy protection (continued). Don Fedyk, P802.1AEdk Editor, led the continued discussion of proposed comment dispositions for the WG ballot on <https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-0.pdf>.

Disposition: To be continued.

13:02 ET recess

Call to order May 13, 2022 at 11:02 ET by Mick Seaman, IEEE 802.1 Security TG Chair.

5. P802.1AEdk MAC Privacy protection (continued). Don Fedyk, P802.1AEdk Editor, led the continued discussion of proposed comment dispositions for the WG ballot on <https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-0.pdf>.

Disposition: Agreed responses, with items requiring response text detail affirmation, and outstanding comments recorded in <https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-0-pdis-v03.pdf> (updated post-session in <https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-0-pdis-v05.pdf>).

6. A.O.B (Any other business)

- 6.1 MACsec and T1S. The Security TG Chair led a brief discussion of the use of MACsec with 802.3 T1S.

Discussion:

- This issue had been raised previously, November 2011.
- Need to record prior determination that MACsec can be used with T1S, and supports shared media, multipoint, and point-to-multipoint as well as point-to-point.

Disposition: Item closed.

7. Future meetings. Agreed (informally, none dissenting) to hold an electronic meeting May 24 11:00-13:00 ET, to discuss P802.1Qdt (PFC enhancements) and to continue P802.1AEdk/D2.0 WG ballot comment resolution.

13:02 ET adjournment

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 IEEE 802.1 TSN TG meeting held 2022-03-21 11:00 - 13:05 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;39653e30.22&S=a>
- Minutes of the IEEE 802.1 TSN TG meeting held 2022-03-28 11:00 - 11:50 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;1d5d211d.22&S=a>
- Minutes of the IEEE 802.1 TSN TG meeting held 2022-04-04 11:00 - 13:08 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;1eded04.22&S=a>
- Minutes of the IEEE 802.1 TSN TG meeting held 2022-04-11 11:00 - 13:04 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;f393a023.22&S=a>
- Minutes of the IEEE 802.1 TSN TG meeting held 2022-04-25 11:00 - 13:03 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;625331ec.22&S=a>
- Minutes of the IEEE 802.1 TSN TG meeting held 2022-05-02 11:00 - 13:02 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;f51c77c3.22&S=a>
- Minutes of the TSN TG meeting held 2022-05-04 09:00 – 10:59 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;2db2dc39.22&S=a>

Between this session and the preceding session, the TSN 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 2022-03-022 9:00 - 10:59 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;b5d91cca.22&S=a>
- Minutes of the IEEE P802.1DG meeting held 2022-03-29 9:00 - 10:56 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;1dffbf52.22&S=a>
- Minutes of the IEEE P802.1DG meeting held 2022-04-05 9:00 - 10:57 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;677b8102.22&S=a>
- Minutes of the IEEE P802.1DG meeting held 2022-04-12 9:00 - 10:27 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;dc8cb432.22&S=a>
- Minutes of the IEEE P802.1DG meeting held 2022-04-19 9:00 - 10:55 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;2c06b3f4.22&S=a>

Between this session and the preceding session, the TSN TG and IEEE 802.11 TGbe (Enhancements for Extremely High Throughput WLAN Task Group) held an electronic meeting whose minutes are incorporated to these session minutes by reference as follows:

- TGbe March to May 2022 teleconference minutes | 21st Conf. Call: Apr 20 (10:00–12:00 ET)–JOINT TGbe/TSN <https://mentor.ieee.org/802.11/dcn/22/11-22-0602-03-00be-mar-may-tgbe-teleconference-minutes.docx> (pages 25-28)

The table in section 1 reflects the attendance and affiliation of all participants in all 802.1 WG and subgroup meetings held in this session.

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

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

Call to order May 09, 2022 at 11:30 ET by János Farkas, IEEE 802.1 TSN TG Chair, who presided. Christian Boiger, IEEE 802.1 TSN TG 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 TSN TG Chair announced that the meeting is subject to these Policies as read and displayed at the preceding TSN - IEC/IEEE 60802 Joint Project meeting.
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/2022-05-interim-tsn-agenda/>.
Disposition: The agenda was reviewed, discussed, and updated as recorded by these minutes.
3. The TSN TG Chair presented proposed ePoll motions concerning a meeting prior to the IEEE 802.1 opening plenary meeting and a meeting after the IEEE 802.1 closing plenary meeting during the plenary meeting week.
Disposition: Proposed ePoll motions discussed. Anticipated next: ePoll
4. Stephan Kehrer presented “IEEE P802.1Qdj | Update on draft d0.3” <https://www.ieee802.org/1/files/public/docs2022/dj-kehrer-P8021Qdj-d0-3-update-0522-v01.pdf>.
Disposition: Presentation discussed.
5. Rodrigo F. Coelho presented “Accounting for multiple CUCs and CNCs (and their capabilities and quantities) in YANG module ieee802-dot1dj-tsn-config-uni” <https://www.ieee802.org/1/files/public/docs2022/dj-coelho-yang-many-cncs-and-cucs-0522-v02.pdf>.
Disposition: Presentation discussed.
6. Rodrigo F. Coelho presented “Capability Models for Nodes and Dynamic Behavior of CNCs & CUCs” <https://www.ieee802.org/1/files/public/docs2022/dj-coelho-need-for-ES-capabilities-model-0522-v02.pdf>.
Disposition: Presentation discussed.

13:30 ET recess

Call to order May 09, 2022 at 14:00 ET by János Farkas, IEEE 802.1 TSN TG Chair, who presided. Christian Boiger, IEEE 802.1 TSN TG Secretary, wrote the minutes.

7. The TSN TG Chair announced that the meeting remains subject to the Policies mentioned in agenda item 1.
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.
8. Norman Finn led the review of the draft PAR <https://www.ieee802.org/1/files/public/docs2022/dv-finn-enhanced-CQF-draft-PAR-0422-v02.pdf> and draft CSD <https://www.ieee802.org/1/files/public/docs2022/new-finn-CQF-enhancements-CSD-0322-v02.pdf> on Enhancements to Cyclic Queuing and Forwarding.
Disposition: More discussion needed.

9. Johannes Specht presented “Cut-Through Forwarding (CTF) in Bridges and Bridged Network – Status Update –“ <https://www.ieee802.org/1/files/public/docs2022/du-specht-ctf-status-0522-v01.pdf>.

Disposition: More discussion needed.

10. The TSN TG Chair presented a proposed ePoll motion to hold an electronic meeting to generate a PAR and CSD for pre-circulation to the EC for an IEEE 802.1 standard on Cut-Through Forwarding.

Disposition: Proposed ePoll motion discussed and updated. Anticipated next: ePoll

16:00 ET recess

Call to order May 10, 2022 at 09:00 ET by Craig Gunther, IEEE 802.1 TSN TG Vice-Chair, who presided. Christian Boiger, IEEE 802.1 TSN TG Secretary, wrote the minutes.

11. The TSN TG Vice-Chair announced that the meeting remains subject to the Policies mentioned in agenda item 1.

The TSN TG Vice-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.

12. Approval of agenda. The TSN TG Vice-Chair presented the agenda in <https://1.ieee802.org/2022-05-interim-tsn-agenda/>.

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

13. Max Turner, IEEE 802.1DG editor, presented “Time Sync | History of Time-Sync in Automotive and Aligning Time-Sync requirements between the Profiles | Version 1” <https://www.ieee802.org/1/files/public/docs2022/dg-Turner-ASprofiles-0522-v01.pdf>

Disposition: Presentation discussed. More discussion needed.

11:02 ET recess

Call to order May 11, 2022 at 09:01 ET by János Farkas, IEEE 802.1 TSN TG Chair, who presided. Christian Boiger, IEEE 802.1 TSN TG Secretary, wrote the minutes.

14. The TSN TG Chair announced that the meeting remains subject to the Policies mentioned in agenda item 1.

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.

15. Paul Congdon led the review of the draft PAR <https://www.ieee802.org/1/files/public/docs2022/dw-congdon-draft-PAR-0522-v02.pdf> and draft CSD <https://www.ieee802.org/1/files/public/docs2022/dw-congdon-draft-CSD-0522-v01.docx> on Source Flow Control.

Disposition: Updated PAR: <https://www.ieee802.org/1/files/public/docs2022/dw-draft-PAR-0522-v01.pdf>. Updated CSD: <https://www.ieee802.org/1/files/public/docs2022/dw-draft-CSD-0522-v01.pdf>.

16. The TSN TG Chair led the review of the P802.1CQ PAR extension request <https://www.ieee802.org/1/files/public/docs2022/cq-draft-PAR-extension-0522-v00.pdf>.

Disposition: Updated PAR extension request: <https://www.ieee802.org/1/files/public/docs2022/cq-draft-PAR-extension-0522-v01.pdf>.

17. The TSN TG Chair led the review of the P802.1DC PAR extension request
<https://www.ieee802.org/1/files/public/docs2022/dc-draft-PAR-extension-0522-v00.pdf>.
Disposition: Updated PAR extension request:
<https://www.ieee802.org/1/files/public/docs2022/dc-draft-PAR-extension-0522-v01.pdf>.
18. The TSN TG Chair led the review of the P802.1Qcz PAR extension request
<https://www.ieee802.org/1/files/public/docs2022/cz-draft-PAR-extension-0522-v00.pdf>.
Disposition: Updated PAR extension request:
<https://www.ieee802.org/1/files/public/docs2022/cz-draft-PAR-extension-0522-v01.pdf>.
19. The TSN TG Chair led the review of the P802.1Qdd PAR extension request
<https://www.ieee802.org/1/files/public/docs2022/dd-draft-PAR-extension-0522-v00.pdf>.
Disposition: Updated PAR extension request:
<https://www.ieee802.org/1/files/public/docs2022/dd-draft-PAR-extension-0522-v01.pdf>.
20. Norman Finn continued leading the review of the draft PAR
<https://www.ieee802.org/1/files/public/docs2022/dv-finn-enhanced-CQF-draft-PAR-0422-v02.pdf> and draft <https://www.ieee802.org/1/files/public/docs2022/new-finn-CQF-enhancements-CSD-0322-v02.pdf> on Enhancements to Cyclic Queuing and Forwarding.
Disposition: Updated PAR: <https://www.ieee802.org/1/files/public/docs2022/dv-draft-PAR-0522-v01.pdf>. Updated CSD: <https://www.ieee802.org/1/files/public/docs2022/dv-draft-CSD-0522-v01.pdf>.

10:38 ET recess

Call to order May 11, 2022 at 14:30 ET by János Farkas, IEEE 802.1 TSN TG Chair, who presided. Christian Boiger, IEEE 802.1 TSN TG Secretary, wrote the minutes.

21. The TSN TG Chair announced that the meeting remains subject to the Policies mentioned in agenda item 1.
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.
22. Geoffrey Garner, P802.1ASdm editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/asdm-drafts/d0/802-1ASdm-d0-5.pdf>.
Disposition: Partial disposition. Comments 5, 8, 10, 19, 76, 63, 58, 60, 11, 93, 95 discussed and resolved as documented in <https://www.ieee802.org/1/files/private/asdm-drafts/d0/802-1ASdm-d0-5-pdis-v04.pdf>.

16:40 ET recess

Call to order May 12, 2022 at 09:00 ET by János Farkas, IEEE 802.1 TSN TG Chair, who presided. Christian Boiger, IEEE 802.1 TSN TG Secretary, wrote the minutes.

23. The TSN TG Chair announced that the meeting remains subject to the Policies mentioned in agenda item 1.
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.
24. Marc Holness, P802f editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/802-f-drafts/d1/802f-d1-2.pdf>.
Disposition: Partial disposition. Comments 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 108

discussed and resolved as documented in <https://www.ieee802.org/1/files/private/802-f-drafts/d1/802f-d1-2-pdis-v03.pdf>.

11:07 ET recess

Call to order May 12, 2022 at 14:00 ET by Craig Gunther, IEEE 802.1 TSN TG Vice-Chair, who presided. Christian Boiger, IEEE 802.1 TSN TG Secretary, wrote the minutes.

25. The TSN TG Vice-Chair announced that the meeting remains subject to the Policies mentioned in agenda item 1.

The TSN TG Vice-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.

26. Max Turner, P802.1DG editor, presented “Time Sync | History of Time-Sync in Automotive and Aligning Time-Sync requirements between the Profiles | Version 2”

<https://www.ieee802.org/1/files/public/docs2022/dg-Turner-ASprofiles-0522-v02.pdf> and

slide 17 of “REVIEW OF TIME REDUNDANCY IN AUTOMOTIVE”

<https://www.ieee802.org/1/files/public/docs2022/dm-turner-ASredundancy-0322-v01.pdf>.

Disposition: Presentations discussed. More discussion needed.

16:03 ET recess

Call to order May 13, 2022 at 09:00 ET by Craig Gunther, IEEE 802.1 TSN TG Vice-Chair, who presided. Christian Boiger, IEEE 802.1 TSN TG Secretary, wrote the minutes.

27. The TSN TG Vice-Chair announced that the meeting remains subject to the Policies mentioned in agenda item 1.

The TSN TG Vice-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.

28. Hiroki Nakano, P802.1Qdq editor, presented “P802.1Qdq/D0.1 Editor’s Report”

<https://www.ieee802.org/1/files/public/docs2022/dq-cas-editors-report-d0-1-0522.pdf> and

led the resolution of comments received on <https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-1.pdf>.

Disposition: Partial disposition. Comments 55, 42, 5, 7 discussed and resolved as documented in <https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-1-pdis-v01.pdf>.

29. Feng Chen, P802.1Qdd editor, presented <https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-6.pdf>.

Disposition: For information. Anticipated next: Task Group ballot.

30. Alexej Grigorjew presented “Measurement Points for Worst-Case Per-Hop Latency

Computation” <https://www.ieee802.org/1/files/public/docs2022/dd-grigorjew-measurement-points-0522-v01.pdf>.

Disposition: Presentation discussed. Updated presentation:

<https://www.ieee802.org/1/files/public/docs2022/dd-grigorjew-measurement-points-0522-v02.pdf>

31. Jeremias Blendin presented “Source Flow Control Simulation Results | Fairness and Performance” <https://www.ieee802.org/1/files/public/docs2022/new-blendin-SFC-sim-0522-v01.pdf>.

Disposition: Presentation discussed. More discussion needed.

11:04 ET recess

Call to order May 13, 2022 at 11:30 ET by János Farkas, IEEE 802.1 TSN TG Chair, who presided. Christian Boiger, IEEE 802.1 TSN TG Secretary, wrote the minutes.

32. The TSN TG Chair announced that the meeting remains subject to the Policies mentioned in agenda item 1.

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.

33. Rodney Cummings, P802.1ASdn editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/asdn-drafts/d0/802-1ASdn-d0-1.pdf>.

Disposition: Partial disposition. Comment 30 discussed and resolved as documented in <https://www.ieee802.org/1/files/private/asdn-drafts/d0/802-1ASdn-d0-1-pdis-v01.pdf>.

13:32 ET 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 2022-03-18 9:00 - 11:35 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;52aa3c44.22&S=>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2022-03-21 9:00 - 11:35 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;7c609e24.22&S=>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2022-03-28 9:00 - 11:35 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;7c609e24.22&S=>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2022-04-01 9:00 - 11:00 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;2361f598.22&S=>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2022-04-04 9:00 - 11:00 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;f60ffce7.22&S=>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2022-04-08 9:00 - 9:40 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;b6a6de72.22&S=>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2022-05-06 9:00 - 10:50 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;490705f9.22&S=>

The table in section 1 reflects the attendance and affiliation of all participants in all 802.1 WG and subgroup meetings held in this session.

Call to order May 09, 2022 at 09:00 ET by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair), who presided with János Farkas, IEEE 802.1 TSN TG Chair (TSN TG Chair). Josef Dorr, 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 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 TSN TG 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.

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.

The TSN TG Chair explained that the IEC/IEEE 60802 Joint Project also follows the usual IEC patent https://www.iec.ch/members_experts/tools/patents/patent_policy.htm and copyright https://www.iec.ch/standardsdev/resources/draftingpublications/overview/rules_requirements/copyright.htm policies.

2. Approval of agenda. The 60802 Chair presented the agenda in https://1.ieee802.org/2022-05-interim-tsn-agenda/#TSN_8211_IECIEEE_60802.

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

3. Editor's report.

- Jordon Woods, IEC/IEEE 60802 Joint Project Editor (60802 Editor), presented "Editor's Report 60802 Draft 1.3" <https://www.ieee802.org/1/files/public/docs2022/60802-woods-D1-3-update-0522-v01.pdf> including a list of expected and committed contributions for the next IEC/IEEE 60802 draft 1.4.
- The 60802 Chair presented "Updated IEC/IEEE 60802 timeline" <https://www.ieee802.org/1/files/public/docs2022/60802-winkel-timeline-0522-v01.pdf>.

Disposition: For information.

4. Secure Device Identity Profile for TSN-IA. Oliver Pfaff presented "'Secure Device Identity' Profile for TSN-IA" <https://www.ieee802.org/1/files/public/docs2022/60802-Pfaff-et-al-Secure-Device-Identity-Profile-0522-v03.pdf>.

Disposition: A textual contribution is expected for thorough review as the next step. "Integration of Secure Device Identity into IEC/IEEE 60802" is expected after IEC/IEEE 60802 draft 1.4. More discussion is needed.

5. IEC/IEEE 60802 D1.3 TG ballot comment resolution. The 60802 Editor continued the resolution of comments received on <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-3.pdf>.

Disposition: Partial disposition.

- Ballot comments 729, 732, 447, 103 were resolved.
- The comment dispositions are documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-3-dis-v01.pdf>.

6. Review of minutes. The minutes were reviewed under the lead of the 60802 Secretary.

11:05 ET recess

Call to order May 10, 2022 at 11:30 ET by Ludwig Winkel, 60802 Chair, who presided with Janos Farkas, TSN TG Chair. Josef Dorr, 60802 Secretary, wrote the minutes.

7. Meeting introduction and other administrative items. The TSN TG 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.

8. Reconciliation of YANG descriptions. Josef Dorr presented the textual contribution “Reconciliation of IEC/IEEE 60802 YANG subclauses and contributions”
<https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-Dorr-YANG-reconciled-0522-v01.pdf>.

Disposition: Discussion of subclause 6.7.4.4 “Spanning Tree, VLAN and TE-MSTID configuration” is to be continued in the May 13, 2022 meeting of the session.

9. D1.3 TG ballot comment resolution. The IEC/IEEE 60802 Editor continued the resolution of comments received on <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-3.pdf>.

Disposition: Partial disposition.

- Ballot comments 208, 679, 236, 381 were resolved.
- The comment dispositions are documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-3-dis-v01.pdf>.

13:30 ET recess

Call to order May 11, 2022 at 9:00 ET by Ludwig Winkel, 60802 Chair, who presided. Josef Dorr, 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. Topology discovery and verification. Josef Dorr presented the textual contribution “Proposal for an update of subclause 6.8 Topology discovery”
<https://www.ieee802.org/1/files/public/docs2022/60802-Dorr-LLDP-0522-v01.pdf>.

Disposition: An updated revision of the contribution addressing comments from the discussion is expected. More discussion is needed.

12. D1.3 TG ballot comment resolution. The 60802 Editor continued the resolution of comments received on <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-3.pdf>.

Disposition: Partial disposition.

- Ballot comments 317, 235, 891 were resolved.
- The comment dispositions are documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-3-dis-v01.pdf>.

13. Review of minutes. The minutes were reviewed under the lead of the 60802 Secretary.

11:00 ET recess

Call to order May 12, 2022 at 11:30 ET by Ludwig Winkel, 60802 Chair, who presided with János Farkas, TSN TG Chair. Dieter Pröll wrote the minutes.

14. Meeting introduction and other administrative items. The TSN TG 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.
15. IEC/IEEE 60802 PAR extension. János Farkas presented and led the discussion on the 60802 PAR extension draft in <https://www.ieee802.org/1/files/public/docs2022/60802-draft-PAR-extension-0522-v01.pdf>.
Disposition: Agreed (informally, none dissenting) to request IEC/IEEE 60802 PAR extension as given in the PAR extension draft.
16. Digital Data Sheet. Günter Steindl presented “Result of 60802 digital data sheet discussion” <https://www.ieee802.org/1/files/public/docs2022/60802-Steindl-DigitalDataSheet-0522-v02.pdf>.
Disposition: Presentation discussed.
17. IEC/IEEE 60802 PAR modification. János Farkas presented and led the discussion on the IEC/IEEE 60802 PAR modification draft in <https://www.ieee802.org/1/files/public/docs2022/60802-farkas-draft-PAR-modification-0522-v02.pdf> and on the IEC/IEEE 60802 CSD modification draft in <https://www.ieee802.org/1/files/public/docs2022/60802-farkas-draft-CSD-modification-0522-v02.pdf>.
Disposition: Agreed (informally, none dissenting) to request approvals of the drafted IEC/IEEE 60802 PAR and CSD modifications. The usage of the term “This standard” is to be clarified with the IEC central office.

14:00 ET recess

Call to order May 13, 2022 at 9:00 ET by Ludwig Winkel, 60802 Chair, who presided with János Farkas, TSN TG Chair. Josef Dorr, 60802 Secretary, wrote the minutes.

18. 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.
19. TE-MSTID and RSTP (MSTP). János Farkas presented “Consistent VID to MSTID Allocation” <https://www.ieee802.org/1/files/public/docs2022/60802-farkas-consistent-VID-to-MSTID-allocation-0522-v01.pdf> and led the discussion about subclause 6.7.4.4 “Spanning Tree, VLAN and TE-MSTID configuration” of the textual contribution <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-Dorr-YANG-reconciled-0522-v01.pdf>, which was already started in the May 10, 2022 meeting.
Disposition: Agreed (informally, none dissenting) to include subclause 6.7.4.4 in the next IEC/IEEE 60802 draft for balloting.
20. Time Synchronization Contribution. Günter Steindl presented the textual contribution “IEC/IEEE 60802 time synchronization contribution” <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-Steindl-time-synchronization-contribution-0522-v01.pdf>.
Disposition: The presentation could not be finished by lack of time. It is expected to be continued in a weekly IEC/IEEE 60802 Joint Project electronic meeting. More discussion is needed.
21. Review of minutes. The minutes were reviewed under the lead of the 60802 Secretary.

11:00 ET 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 AS6675 whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the IEEE P802.1DP/SAE AS6675 meeting held 2022-03-30 10:00 - 12:05 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;61a91a81.22&S=>
- Minutes of the IEEE P802.1DP/SAE AS6675 meeting held 2022-04-13 10:00 - 11:20 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;30d17bef.22&S=>

The table in section 1 reflects the attendance and affiliation of all participants in all 802.1 WG and subgroup meetings held in this session.

Call to order May 11, 2022 at 12:00 ET by János Farkas, IEEE 802.1 TSN TG Chair. Abdul Jabbar and János Farkas, IEEE P802.1DP/SAE AS6675 joint project co-Chairs, presided. Marina Gutiérrez, IEEE P802.1DP/SAE AS6675 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>.

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, 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.

János Farkas, IEEE P802.1DP/SAE AS6675 co-Chair, explained that the IEEE P802.1DP/SAE AS6675 Joint Project also follows the usual SAE IP and copyright <https://www.sae.org/about/legal-policies/intellectual-property> policies.

2. Approval of agenda. János Farkas, IEEE P802.1DP/SAE AS6675 co-Chair, presented the agenda in https://1.ieee802.org/2022-05-interim-tsn-agenda/#TSN_8211_P8021DPAS6675.

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

3. Abdul Jabbar presented "P802.1DP Stream Isolation" <https://www.ieee802.org/1/files/public/docs2022/dp-jabbar-stream-isolation-0522-v01.pdf>.

Disposition: Presentation was discussed. More discussion is needed.

4. Abdul Jabbar presented "P802.1DP Configuration Open Topics" <https://www.ieee802.org/1/files/public/docs2022/dp-jabbar-configuration-open-topics-0522-v01.pdf>.

Disposition: Presentation was discussed. More discussion is needed.

14:05 ET 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 2022-03-24 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;37f4702a.22>
- Minutes of the Nendica meeting held 2022-03-31 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;544b316d.22>
- Minutes of the Nendica meeting held 2022-04-07 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;3c33310b.22>
- Minutes of the Nendica meeting held 2022-04-14 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bc5be281.22>
- Minutes of the Joint IEEE 802 Nendica / IEEE 802.3 NEA Ad hoc Meeting held 2022-04-20 12:00-13:00 ET
https://www.ieee802.org/3/ad_hoc/ngrates/public/calls/22_0420/minutes_nea_220420_approved.pdf
- Minutes of the Nendica meeting held 2022-04-21 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;fdd64a31.22>
- Minutes of the Nendica/NEA Joint Ad Hoc on Cut-Through Forwarding meeting held 2022-04-27 12:00-13:00 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;844e7066.22>
- Minutes of the Nendica meeting held 2022-04-28 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;deb31b17.22>
- Minutes of the Nendica/NEA Joint Ad Hoc on Cut-Through Forwarding meeting held 2022-05-04 12:00-13:00 ET
https://www.ieee802.org/3/ad_hoc/ngrates/public/calls/22_0504/index.html
- Minutes of the Nendica meeting held 2022-05-05 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;24cb7290.22>

The table in section 1 reflects the attendance and affiliation of all participants in all 802.1 WG and subgroup meetings held in this session.

Call to order May 12, 2022 09:00 ET by Roger Marks, Nendica Chair, who presided and wrote the minutes.

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-prePAR-intro-0721-v01.pdf>”. The Nendica Chair showed this presentation advising that the following applies:

- 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 Nendica 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-2022-05-12/>.
3. Minutes. The Nendica Chair reviewed the draft “Minutes of the Nendica meeting held 2022-05-05 09:00-11:00 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;24cb7290.22>.
Disposition: It was agreed (informally, none dissenting) to approve the minutes as presented.
4. Update.
No discussion.
5. Nendica organization. The Nendica Chair noted that ICom staff, noting the IC Status Report” (Rev. 3) https://mentor.ieee.org/802.1/documents?is_group=ICne&is_year=2022&is_dcn=0013, had requested that Marks present the “pre-PAR discussions” issue of Slide 4 during a separate agenda item during the ICom meeting of May 31. Marks had agreed.
6. CTF Study Item.
Johannes Specht summarized “Cut-Through Forwarding (CTF) in Bridges and Bridged Network – IEEE 802.1 TSN Activity –” https://mentor.ieee.org/802.1/documents?is_group=ICne&is_year=2022&is_dcn=0023, regarding his presentation to the 802.1 TSN TG meeting of May 9, 2022. Specht had summarized the activities and progress of the joint Nendica/NEA ad hoc meeting on CTF. The 802.1 WG would consider a decision, by ePoll, on whether the TSN TG would meet on June 9, 2022 to consider a revised PAR and CSD for a standard on Cut-Through Forwarding.
Roger Marks presented “Proposals for CTF Ad Hoc Progress” (Rev. 4) https://mentor.ieee.org/802.1/documents?is_group=ICne&is_year=2022&is_dcn=0010, emphasizing the new slides 10-13. Discussions followed, particularly regarding the proposed look-ahead indication, until time expired.
Disposition: Further CTF discussion is expected at the additional May 20, 2022 and May 27, 2022 Nendica meetings focused on CTF.
7. ELLA Study Item. No time was available for this topic.
8. Vetting and New Topics. No contributions.
9. Future Meetings. The next Nendica meeting is scheduled for May 19, 2022 09:00-11:00 ET. The tentative agenda for that meeting is at <https://1.ieee802.org/802-nendica-agenda-2022-05-19/>. Those seeking agenda time should notify the Nendica Chair at least six days in advance.
In addition to subsequent weekly meetings, Nendica ad hoc meetings are scheduled and announced for May 20, 2022 11:00-13:00 ET and May 27, 2022 11:00-13:00 ET.
A joint Nendica/NEA ad hoc meeting on CTF is tentatively scheduled for June 1, 2022, 12:00-13:00 ET but will not be announced until after confirmation by NEA, with a decision expected on May 19, 2022.
10. Any Other Business. No other business was discussed by Nendica in this session.

11:03 ET 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 2022-03-29 10:00 –10:47 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;780ceada.22&S=>
- Minutes of the YANGsters meeting held 2022-04-12 10:00 –10:50 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;c0083c2.22&S=>
- Minutes of the YANGsters meeting held 2022-04-26 10:03 –10:50 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;828835ea.22&S=>

The table in section 1 reflects the attendance and affiliation of all participants in all 802.1 WG and subgroup meetings held in this session.

Call to order May 12, 2022 at 14:00 ET 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 and IEEE SA Copyright and Participation Policies were provided beforehand as part of “MEETING INTRODUCTION” <http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0721-v01.pdf>.

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

- 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-2022-interim-session-electronic-yangsters-agenda/>.

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

3. Introduction to YANGsters. The YANGsters Chair introduced YANGsters by presenting:
 - <https://1.ieee802.org/yangsters/>, and
 - <https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/>.

Disposition: For information.

4. Update on YANG Projects: Qcw-QRev issue. The YANGsters Chair presented “Qcw related Maintenance Items” <https://www.ieee802.org/1/files/public/docs2022/yangsters-smansfield-yang-rollups-0522-v01.pdf> and led the discussion.
 - Currently no revision control system is being leveraged to manage the merging of different YANG “branches” as YANG projects are completed.
 - P802.1Qcw implements the two maintenance items 0246 (<https://www.802-1.org/items/380>) and 0230 (<https://www.802-1.org/items/346>) in YANG modules that are also modified in P802.1Q-Rev, `ieee802-dot1q-bridge.yang` and `ieee802-dot1q-pb.yang`.

Disposition: Agreed (informally, none dissenting) that YANGsters suggest to let P802.1Q-Rev finish, then rebase ieee802-dot1q-bridge.yang and ieee802-dot1q-pb.yang in P802.1Qcw on the published versions from P802.1Q-Rev to implement the maintenance items.

5. Update on YANG Projects: IEEE P802f YANG Update. The YANGsters Chair presented the topic and led the discussion.

- Further discussion on P802f is planned for a future meeting of the TSN TG.

Disposition: For information.

6. Instance file for VLAN Configuration update and discussion. Martin Mittelberger presented “YANG Instances” <https://www.ieee802.org/1/files/public/docs2022/yangsters-mittelberger-YANG-instances-0522-v01.pdf> and led the discussion.

- An example structure of devices was presented and the YANG instances for this example were described.
- It was pointed out that the instance data in the example is in the “operational” view, including a lot of information that is filled in by the system and does not have to be configured. This makes the example hard to follow.
- It was suggested to use the “configuration” view instead to reduce the information presented in the example.

Disposition: Agreed (informally, none dissenting) that a next step could be to validate the instance data file.

7. Q Clause Numbering (review QRev and the other Q derivatives). Paul Congdon presented the topic.

- An overview of the process to assign and ensure consistency for the clause numbers in 802.1Q was given.
- The clause numbers used in 802.1Q are maintained in a spreadsheet to ensure they are correct, consistent, and that new clause numbers are correctly allocated.

Disposition: Agreed (informally, none dissenting) that making the information in the spreadsheet available to the editors for information would be helpful.

8. Results of Qdj YANG discussion topics: Transaction Locking and Use of RPCs to alleviate model locking concern. Stephan Kehrer provided an update on the topic.

- The topic was discussed in the YANGsters meeting on Apr 26, 2022 <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;828835ea.22&S=>.
- No update is available on the topic.
- A discussion with the IETF YANG Doctors on the topic is suggested to get further information.

Disposition: For information.

9. Results of Qdj YANG discussion topics: Role-based security of Instances. Stephan Kehrer presented the topic and led the discussion.

- It is possible to provide role-based access at an instance level, using the NETCONF Access Control Model (NACM).
- The YANG model in P802.1Qdj is planned to have a structure that will allow a TSN profile, e.g., IEC/IEEE 60802, to use NACM to provide role-based security on an instance level.
- A presentation is planned for a future YANGsters session to provide further information on how role-based security of instances and multi-tenant capability can be achieved using NACM.

Disposition: Agreed (informally, none dissenting) that more discussion is required.

10. Open Discussion: What is new, upcoming, or topics that need investigation in the YANG area? The YANGsters Chair provided an overview of new and upcoming topics.

- IETF 114 is being held Jul 23–29, 2022. The work on YANG packaging <https://datatracker.ietf.org/meeting/113/materials/slides-113-netmod-3-yang-packages-00> and life cycle <https://datatracker.ietf.org/meeting/113/materials/slides-113-netmod-2-yang-versioning-update-overview-00> is planned to be continued during that meeting.

Disposition: For information.

11. Topics deferred to a future meeting:

- Updated Guidelines
- Handling of Instance Testing
- YANG Git Repository

12. Weekly Call Agenda Requests and Open Issues

- Create list of items that need to be covered on bi-weekly electronic meetings.

13. Any Other Business. No other business was discussed by YANGsters in this session.

15:41 ET adjournment

9 Next Session

Jul 11-15, 2022 hybrid plenary session in Montreal, Quebec, Canada.