# IEEE 802.1 Working Group January 16-20, 2023 Interim Session Baltimore, MD, USA (Mixed Mode) Session Minutes

The Working Group (WG) Chair, Glenn Parsons, presided and had requested that subgroup Chairs in remote attendance had on-site individuals acting on their behalf as needed to help conduct proceedings with both 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.

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<sup>(\*)</sup> Last name, first name and affiliation possibly incorrect as derived from Webex access information or otherwise, and 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: Paul Congdon
- Security TG Chair: Mick Seaman
  - Security TG Vice-Chair: Karen Randall
- TSN TG Chair: János Farkas
  - o TSN TG Vice-Chair: Craig Gunther
  - o TSN TG Secretary: Johannes Specht
  - IEC/IEEE 60802 Joint Project Chair: Ludwig Winkel
  - o IEC/IEEE 60802 Joint Project Secretary: Josef Dorr
  - o IEEE P802.1DP/SAE AS6675 joint project co-Chairs: Abdul Jabbar & János Farkas
  - o IEEE P802.1DP/SAE AS6675 joint project Secretary: Marina Gutiérrez
- Nendica Chair: Roger Marks
- YANGsters Chair: Scott Mansfield
  - o 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, the following 802.1/802.15 joint meetings were held whose minutes are incorporated to these session minutes by reference as follows:

None

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 Jan 17, 2023 are on page 6 of "802.15 WG & CAC Minutes January 2023 Hybrid Mtg" <a href="https://mentor.ieee.org/802.15/dcn/23/15-23-0039-00-0000-802-15-wg-cac-min-jan-2023-hybrid-interim.docx">https://mentor.ieee.org/802.15/dcn/23/15-23-0039-00-0000-802-15-wg-cac-min-jan-2023-hybrid-interim.docx</a>.

# 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 2022-11-30 11:01 11:13 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;18bc1c1a.22
- Minutes of the Maintenance TG meeting held 2022-12-14 11:04 12:53 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;6a57129.22

See section 1 for attendance and affiliation information.

**Call to order** Jan 16, 2023 at 9:06 ET by Paul Congdon, IEEE 802.1 Maintenance TG Chair who presided and wrote the minutes.

Agenda items and dispositions:

 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" <a href="http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf">http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf</a>.

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.

- Approval of agenda. The Maintenance TG chair presented the agenda in <a href="https://1.ieee802.org/january-2023-interim-session-maintenance-tg-agenda/">https://1.ieee802.org/january-2023-interim-session-maintenance-tg-agenda/</a>
   Disposition: The agenda was reviewed, discussed, and agreed (informally, none dissenting) as presented.
- 3. P802.1CS/Cor1 PAR modification. The Maintenance TG chair led the drafting of changes to the PAR in "P802.1CS/Cor1 PAR modification" of "Maintenance Task Group Hybrid Meeting" <a href="https://www.ieee802.org/1/files/public/docs2023/maint-congdon-hy-0123-1-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/maint-congdon-hy-0123-1-v02.pdf</a>.

**Disposition:** Draft PAR modification <a href="https://www.ieee802.org/1/files/public/docs2023/maint-draft-cs-2020-cor1-PAR-modification-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/maint-draft-cs-2020-cor1-PAR-modification-0123-v01.pdf</a>.

10:06 ET recess

**Call to order** Jan 17, 2023 at 8:00 ET by Paul Congdon, IEEE 802.1 Maintenance TG Chair who presided and wrote the minutes.

The Maintenance TG 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 minute taker.

P802-REVc Draft 0.3 Review. James Gilb, P802-REVc editor, led an informal review of <a href="https://www.ieee802.org/1/files/private/802-REVc-drafts/d0/P802-REVc-d0-3.pdf">https://www.ieee802.org/1/files/private/802-REVc-d0-3.pdf</a>, and of its comparison <a href="https://www.ieee802.org/1/files/private/802-REVc-drafts/d0/P802-REVc-d0-3-compare.pdf">https://www.ieee802.org/1/files/private/802-REVc-drafts/d0/P802-REVc-d0-3-compare.pdf</a> with <a href="https://www.ieee802.org/1/files/private/802-REVc-drafts/d0/P802-REVc-d0-3-d0.2.pdf">https://www.ieee802.org/1/files/private/802-REVc-drafts/d0/P802-REVc-d0-3-compare.pdf</a>
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**Disposition:** The following updates to the reviewed draft were identified to be included in draft 1.0 for Working Group ballot:

- The title of 802.1Q in the draft is incorrect. It should be "IEEE Standard for Local and metropolitan area networks—Bridges and Bridged Networks";
- Add change bars to figures in the draft for modified figures;
- Revert to using both Universal and Global terminology as appropriate. The usage should be "universally administered" and "globally unique".
- The current draft indicates that Mick Seaman is the Maintenance TG chair. This needs to be changed to Paul Congdon.
- SC6 Status. The Maintenance TG chair presented "ISO/IEC JTC1 SC6 STATUS January 2023" slides in "Maintenance Task Group Hybrid Meeting" <a href="https://www.ieee802.org/1/files/public/docs2023/maint-congdon-hy-0123-1-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/maint-congdon-hy-0123-1-v02.pdf</a>.
   Disposition: For information.

#### 8:56 ET recess

**Call to order** Jan 17, 2023 at 9:00 ET by Paul Congdon, IEEE 802.1 Maintenance TG Chair who presided and wrote the minutes.

The Maintenance TG 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 minute taker.

- P802.1ASdr/d1.0 Comment Resolution. Silvana Rodrigues, P802.1ASdr editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dr-drafts/d1/802-1ASdr-d1-0.pdf">https://www.ieee802.org/1/files/private/dr-drafts/d1/802-1ASdr-d1-0.pdf</a>:
  - **Disposition:** Partial comment resolution. Comments 5, 14, 15 and 22 were resolved as documented in <a href="https://www.ieee802.org/1/files/private/dr-drafts/d1/802.1ASdr-d1-0-pdis-v00.pdf">https://www.ieee802.org/1/files/private/dr-drafts/d1/802.1ASdr-d1-0-pdis-v00.pdf</a>.
- 7. Comments on IETF draft-ietf-intarea-rfc7042bis-01. The Maintenance TG chair led the review and drafting of comments on <a href="https://datatracker.ietf.org/doc/draft-ietf-intarea-rfc7042bis/">https://datatracker.ietf.org/doc/draft-ietf-intarea-rfc7042bis/</a>.

**Disposition:** Comments and suggested edits were drafted in <a href="https://www.ieee802.org/1/files/public/docs2023/maint-comments-draft-ietf-intarea-rfc7042bis-01-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/maint-comments-draft-ietf-intarea-rfc7042bis-01-0123-v01.pdf</a>. A future Maintenance TG meeting will draft a liaison letter and have the most recent marked-up draft sent to the IETF.

- 8. Any Other Business. None discussed.
- 9. Future meetings. It was agreed to hold an electronic meeting on Jan 31, 2023, 11:00 ET with tentative agenda <a href="https://1.ieee802.org/maintenance-tg-electronic-meeting-agenda-january-31-2023-11-am-et/">https://1.ieee802.org/maintenance-tg-electronic-meeting-agenda-january-31-2023-11-am-et/</a>.

#### 10:06 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 2022-12-13 11:00 12:31 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;7bec7d33.23&S=
- Minutes of the Security TG meeting held 2022-12-20 13:04 15:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;b6cfa54d.23&S=

See section 1 for attendance and affiliation information.

**Call to order** Jan 18, 2023 at 10:32 ET by Mick Seaman, IEEE 802.1 Security TG Chair, who presided and wrote the minutes.

Agenda items and dispositions:

 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:

- IEEEs 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.

Approval of agenda. The Security TG Chair presented the agenda in <a href="https://1.ieee802.org/january-2023-interim-session-security-tg-agenda/">https://1.ieee802.org/january-2023-interim-session-security-tg-agenda/</a>
 Disposition: the agenda was reviewed, discussed and updated as recorded by these minutes.

- 3. P802.1Qdt Priority-based Flow Control Enhancements
  - 3.1 PAR and CSD modification. The 802.1 Working Group closing plenary meeting had agreed that this interim session would draft a PAR and CSD modification to relax the requirement to use PTP timing for basis of headroom determination [see the Security TG minutes for the September 2022 interim session and subsequent meetings for technical rationale]. This meeting would draft updates for review by the TSN TG, prior to pre-submission to the 802 EC for new PARs and PAR changes under the usual 30-day rule.

Lily Lv, P802.1Qdt Editor, presented "Qdt PAR & CSD Modification" <a href="https://www.ieee802.org/1/files/public/docs2023/dt-lv-PAR-CSD-Modification-Suppotive-Material-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dt-lv-PAR-CSD-Modification-Suppotive-Material-0123-v01.pdf</a> for discussion.

**Disposition:** Updates to the PAR and CSD as agreed (informally, none dissenting) in discussion are captured in the updated presentation <a href="https://www.ieee802.org/1/files/public/docs2023/dt-lv-PAR-CSD-Modification-Suppotive-Material-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/dt-lv-PAR-CSD-Modification-Suppotive-Material-0123-v02.pdf</a>.

The PAR and CSD as updated at the closing of the interim session are recorded in <a href="https://www.ieee802.org/1/files/public/docs2023/dt-draft-PAR-modification-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dt-draft-PAR-modification-0123-v01.pdf</a> and <a href="https://www.ieee802.org/1/files/public/docs2023/dt-draft-CSD-modification-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dt-draft-CSD-modification-0123-v01.pdf</a>.

3.2 Draft development. Lily Lv, P802.1Qdt Editor, presented <a href="https://www.ieee802.org/1/files/public/docs2023/dt-lv-PFC-management-objects-0123-v1.pdf">https://www.ieee802.org/1/files/public/docs2023/dt-lv-PFC-management-objects-0123-v1.pdf</a>. This presentation described proposed management objects, their organization, and their relationship to proposed state machines for the PFC Pause Receiver and for Headroom Measurement.

#### Discussion:

- Important not to let packet formats and perceived encoding efficiencies drive the protocol design.
- In the general case, any headroom mechanism could be used that measures the delay(s) between reference points and provides an additional compensation factor that accounts for the difference in delay between those reference points and the PFC recognition and data transmission queuing points.

#### 12:28 ET recess

**Call to order** Jan 18, 2023 at 13:34 ET by the Security TG Chair, who presided and wrote the minutes.

P802.1Qdt draft development discussion continued:

 The effort, implementation cost, and purpose of statistic gathering and retention requires careful consideration. For example, networks that use PFC to avoid frame loss will not work well if there is frame loss for other reasons. So counting lost frames for headroom delay measurement is unlikely to yield useful results.

**Disposition:** Discussion to be continued.

4. P802.1AEdk MAC Privacy protection. Mick Seaman, Security TG Chair, reported on the current state of the SA recirculation ballot. The Security TG had completed review of the ballot comments on <a href="https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-2.pdf">https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-2.pdf</a>, but the new Disapprove voter with the out of scope comments had been invited to join the meeting should they wish to discuss further.

**Disposition:** No further discussion in this meeting; however, the voter responded prior to the end of the session withdrawing the comments.

- 5. Quantum Key Distribution Potential 802.1X amendment. Mick Seaman presented "802.1X MKA PSKs 1 out-of-band key distribution" <a href="https://www.ieee802.org/1/files/public/docs2022/x-seaman-psks-1222-v0.pdf">https://www.ieee802.org/1/files/public/docs2022/x-seaman-psks-1222-v0.pdf</a> setting out a choice of potential standardization options. Glenn Parsons, 802.1 Working Group Chair, reported that the ITU had established a Joint Coordination Activity on Quantum Key Distribution Network (JCA-QKDN). Disposition: Discussion to be continued.
- 6. 802.1AR Signature Suites for 60802/Industrial Automation. Mick Seaman, 802.1 Security TG Chair, noted that the IEC/IEEE 60802 Joint Project would be discussing 802.1AR Signature Suites in this interim session.
- 7. BBF Liaison. Mick Seaman, 802.1 Security TG Chair, reported that YANGsters and this TG appeared to be in agreement as to the content of the response to the incoming BBF liaison in <a href="https://www.ieee802.org/1/files/public/docs2022/liaison-BBF-1X-YANGmodel-0322.pdf">https://www.ieee802.org/1/files/public/docs2022/liaison-BBF-1X-YANGmodel-0322.pdf</a>, but a response has not yet been drafted.
  - **Disposition:** Response to be created for discussion prior to, and agreement at, the March 2023 802.1 plenary session.
- 8. A.O.B (Any other business). No other business was discussed at this session.
- 9. Future meetings. An electronic (Webex) meeting will be held Tuesday Feb 14, 2023 11:00 ET, for P802.1Qdt draft development.

Additional electronic meetings may be held prior to the March 2023 802.1 plenary session to address P802.1Qdt, the BBF liaison, and potential QKD standardization relative to 802.1X.

The Security TG will meet during the March 2023 802 plenary session in Atlanta, GA, USA.

15:00 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 TSN TG meeting held 2022-11-28, 11:00 12:02 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;b068912f.23&S=
- Minutes of the TSN TG meeting held 2022-12-19, 11:00 13:03 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;febfbb9d.23&S=
- Minutes of the TSN TG meeting held 2022-01-09, 11:00 12:58 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;cf2ced34.23&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 2022-11-29, 09:00 - 10:33 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;8aa7a12b.22&S=

See section 1 for attendance and affiliation information.

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** Jan 16, 2023 8:00 ET 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:

 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" <a href="http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf">http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf</a>.

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.

Stephan Kehrer, P802.1Qdj editor, presented an editor's report on P802.1Qdj <a href="https://www.ieee802.org/1/files/public/docs2023/dj-kehrer-editors-report-d1-0-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dj-kehrer-editors-report-d1-0-0123-v01.pdf</a> and led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0.pdf">https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0.pdf</a>.
 Disposition: Comments 1-3, 24, 71, 72, 125 and 138 resolved as documented in <a href="https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0-pdis-v02.pdf">https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0-pdis-v02.pdf</a>.

9:05 ET recess

**Call to order** Jan 16, 2023 13:30 ET by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

3. 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.

4. David McCall presented individual proposals for modifying P802.1ASdm PAR <a href="https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-PAR-modification-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-PAR-modification-0123-v01.pdf</a> and CSD <a href="https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-CSD-modification-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-CSD-modification-0123-v01.pdf</a> and led the P802.1ASdm PAR and CSD modification.

- Updated PAR modification: <a href="https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-PAR-modification-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-PAR-modification-0123-v02.pdf</a>.
- Updated CSD modification: <a href="https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-CSD-modification-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-CSD-modification-0123-v02.pdf</a>.

#### 15:34 - 16:02 ET recess

Disposition:

- Duncan Ho presented "IEEE 802.11 WLAN Working Group Liaison Communication -- Liaison communication to the IEEE 802.1 Working Group" <a href="https://www.ieee802.org/1/files/public/docs2022/liaison-80211-TSNsupport 1222.pdf">https://www.ieee802.org/1/files/public/docs2022/liaison-80211-TSNsupport 1222.pdf</a>.
   Disposition: Liaison discussed. Further discussion needed.
- 6. Johannes Specht presented "Cut-Through Forwarding (CTF) status update" <a href="https://www.ieee802.org/1/files/public/docs2023/du-specht-ctfstatus-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/du-specht-ctfstatus-0123-v01.pdf</a>. **Disposition:** Presentation discussed. Further discussion needed.
- Geoffrey Garner presented "P802.1ASdm/D1.0 Status of Draft Revision 2" <a href="https://www.ieee802.org/1/files/public/docs2023/dm-garner-status-of-d1-0-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/dm-garner-status-of-d1-0-0123-v02.pdf</a>.

   Disposition: Presentation discussed. Further discussion needed.
- Stephan Kehrer, P802.1Qdj editor, continued the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0.pdf">https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0.pdf</a>.
   Disposition: Comments 8, 19, 20 and 63 resolved as documented in <a href="https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0-pdis-v02.pdf">https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0-pdis-v02.pdf</a>.
- 9. Rodrigo Ferreira Coelho presented "Qdj Draft 1.0 Comments Rationale & Proposed Solutions" <a href="https://www.ieee802.org/1/files/public/docs2023/dj-coelho-d10-comments-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/dj-coelho-d10-comments-0123-v02.pdf</a>.

**Disposition:** Presentation discussed. Further discussion needed.

#### 18:00 ET recess

**Call to order** Jan 17, 2023 10:30 ET by Craig Gunther, IEEE 802.1 TSN TG Vice-Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 10. 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.
- 11. Max Turner presented "IEEE P802.1DG General update and future schedule planning 2023-01-17 IEEE 802.1 Interim Meeting"

https://www.ieee802.org/1/files/public/docs2023/dg-turner-update-0123-v01.pdf.

**Disposition:** Presentation discussed. Further discussion needed.

#### 12:05 ET recess

**Call to order** Jan 17, 2023 13:30 ET by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 12. 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.
- 13. Roger Marks presented "Multicast Applications of P802.1CQ BARC Address Blocks v00: 2023-01-17" <a href="https://www.ieee802.org/1/files/public/docs2023/cq-Marks-multicast-use-case-0123-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/cq-Marks-multicast-use-case-0123-v00.pdf</a>.

**Disposition:** Presentation discussed. Further discussion needed.

- 14. Hiroki Nakano presented "Report from P802.1Qdq Editor The current status" <a href="https://www.ieee802.org/1/files/public/docs2023/dq-cas-report-from-editor-0123-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/dq-cas-report-from-editor-0123-v00.pdf</a> as a proposed resolution to comment #4 on the current draft of P802.1Qdq. <a href="Disposition">Disposition</a>: Presentation discussed. Resolution of comment 4 on <a href="https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-2.pdf">https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-2.pdf</a> documented in <a href="https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-2-dis-v01.pdf">https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-2-dis-v01.pdf</a>.
- 15. Toru Osuga presented "P802.1Qdq Text Improvement" https://www.ieee802.org/1/files/public/docs2023/dq-osuga-qdq-text-improvement-0123-v01.pdf.

**Disposition:** Presentation discussed. Further discussion needed.

15:30 ET recess

**Call to order** Jan 18, 2023 13:30 ET by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 16. 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.
- Paul Bottorff, P802.1Qcj editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/cj-drafts/d2/802-1Qcj-d2-0.pdf">https://www.ieee802.org/1/files/private/cj-drafts/d2/802-1Qcj-d2-0.pdf</a>.
   Disposition: Partial disposition: <a href="https://www.ieee802.org/1/files/private/cj-drafts/d2/802-1Qcj-d2-0-pdis-v2.pdf">https://www.ieee802.org/1/files/private/cj-drafts/d2/802-1Qcj-d2-0-pdis-v2.pdf</a>.

15:30 - 16:00 ET recess

18. Johannes Specht presented individual proposals for P802.1DU PAR <a href="https://www.ieee802.org/1/files/public/docs2023/du-specht-CTF-draft-PAR-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/du-specht-CTF-draft-PAR-0123-v01.pdf</a> and CSD <a href="https://www.ieee802.org/1/files/public/docs2023/du-specht-CTF-draft-CSD-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/du-specht-CTF-draft-CSD-0123-v01.pdf</a> and led the P802.1DU PAR and CSD development.

#### **Disposition:**

- Updated PAR: <a href="https://www.ieee802.org/1/files/public/docs2023/du-specht-CTF-draft-PAR-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/du-specht-CTF-draft-PAR-0123-v02.pdf</a>.
- Updated CSD: <a href="https://www.ieee802.org/1/files/public/docs2023/du-specht-CTF-draft-CSD-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/du-specht-CTF-draft-CSD-0123-v02.pdf</a>.

18:00 ET recess

**Call to order** Jan 19, 2023 8:00 ET by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided, and documented and provided input for the minutes. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 19. 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.
- 20. Konstantinos Alexandris presented "Extensions on the traffic specification TSN UNI and new project proposal discussion" <a href="https://www.ieee802.org/1/files/public/docs2023/new-alexandris-extensions-TSN-UNI-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/new-alexandris-extensions-TSN-UNI-0123-v02.pdf</a>.
  - **Disposition:** Presentation discussed. Further discussion needed.
- 21. Marina Gutiérrez, P802.1Qcw editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/cw-drafts/d2/802-1Qcw-d2-0.pdf">https://www.ieee802.org/1/files/private/cw-drafts/d2/802-1Qcw-d2-0.pdf</a>.
  Disposition: Comments 1-11,13-15,17 and 18 resolved as documented in <a href="https://www.ieee802.org/1/files/private/cw-drafts/d2/802-1Qcw-d2-0-pdis-v01.pdf">https://www.ieee802.org/1/files/private/cw-drafts/d2/802-1Qcw-d2-0-pdis-v01.pdf</a>.

10:00 ET recess

**Call to order** Jan 19, 2023 10:30 ET by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 22. 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.
- 23. Abdul Jabbar presented "Proposal to Host IEEE 802.1 Sept 2023 Interim Session" <a href="https://www.ieee802.org/1/files/public/docs2023/admin-jabbar-sep-2023-interim-proposal-0123.pdf">https://www.ieee802.org/1/files/public/docs2023/admin-jabbar-sep-2023-interim-proposal-0123.pdf</a>.

**Disposition:** Presentation discussed. Further discussion needed.

24. The Chair led the modification of the P802.1ASdm PAR <a href="https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-PAR-modification-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-PAR-modification-0123-v02.pdf</a> modification-0123-v02.pdf.

#### Disposition:

- Updated PAR modification: <a href="https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-PAR-modification-0123-v03.pdf">https://www.ieee802.org/1/files/public/docs2023/dm-McCall-draft-PAR-modification-0123-v03.pdf</a>.
- 25. Lily Lv presented individual proposals for modifying P802.1Qdt PAR

  <a href="https://www.ieee802.org/1/files/public/docs2023/dt-lv-draft-PAR-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dt-lv-draft-PAR-0123-v01.pdf</a> and CSD

  <a href="https://www.ieee802.org/1/files/public/docs2023/dt-lv-draft-CSD-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dt-lv-draft-CSD-0123-v01.pdf</a>, led the

  P802.1Qdt PAR and CSD modifications, and presented "Qdt PAR&CSD Modification"

  <a href="https://www.ieee802.org/1/files/public/docs2023/dt-lv-PAR-CSD-Modification-Suppotive-Material-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dt-lv-PAR-CSD-Modification-Suppotive-Material-0123-v01.pdf</a>.

#### **Disposition:**

- Updated PAR modification: <a href="https://www.ieee802.org/1/files/public/docs2023/dt-draft-PAR-modification-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dt-draft-PAR-modification-0123-v01.pdf</a>
- Updated CSD modification: <a href="https://www.ieee802.org/1/files/public/docs2023/dt-draft-CSD-modification-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dt-draft-CSD-modification-0123-v01.pdf</a>.
- 26. Abdul Jabbar led the development of the P802.1Qdx PAR <a href="https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-PAR-0123-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-PAR-0123-v00.pdf</a> and CSD <a href="https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-CSD-0123-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-CSD-0123-v00.pdf</a>. Disposition: PAR and CSD drafts discussed. Further discussion needed.

#### 12:30 ET recess

**Call to order** Jan 19, 2023 13:30 ET by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 27. 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.
- 28. Paul Congdon, P802.1Qcz editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/cz-drafts/d2/802-1Qcz-d2-4.pdf">https://www.ieee802.org/1/files/private/cz-drafts/d2/802-1Qcz-d2-4.pdf</a>.
  Disposition: Comments 1, 2 and 4 resolved as documented in <a href="http://www.ieee802.org/1/files/private/cz-drafts/d2/802-1Qcz-d2-4-pdis-v02.pdf">http://www.ieee802.org/1/files/private/cz-drafts/d2/802-1Qcz-d2-4-pdis-v02.pdf</a>.
- 29. Yizhou Li presented "P802.1Qdv contribution on Cycle ID and PAR Modification Discussion" <a href="https://www.ieee802.org/1/files/public/docs2023/dv-yizhou-cycle-id-and-PAR-modification-discussion-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dv-yizhou-cycle-id-and-PAR-modification-discussion-0123-v01.pdf</a>.
  - **Disposition:** Presentation discussed. Further discussion needed.
- 30. Norman Finn presented "Proposed text for Local and metropolitan area networks—Bridges and Bridged Networks Amendment: Enhancements to Cyclic Queuing and Forwarding" <a href="https://www.ieee802.org/1/files/public/docs2023/dv-finn-proposed-text-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/dv-finn-proposed-text-0123-v02.pdf</a>. **Disposition:** Presentation discussed. Further discussion needed.

#### 15:32 - 16:00 ET recess

31. Jeremias Blendin presented "Source Flow Control Design: Management P802.1Qdw contribution" <a href="https://www.ieee802.org/1/files/public/docs2023/dw-blendin-mgmt-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dw-blendin-mgmt-0123-v01.pdf</a>.

**Disposition:** Presentation discussed. Further discussion needed.

- 32. Paul Congdon presented "DCBX for SFC" <a href="https://www.ieee802.org/1/files/public/docs2023/dw-congdon-dcbx-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dw-congdon-dcbx-0123-v01.pdf</a>: **Disposition:** Presentation discussed. Further discussion needed.
- Marina Gutiérrez, P802.1Qcw editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/cw-drafts/d2/802-1Qcw-d2-0.pdf">https://www.ieee802.org/1/files/private/cw-drafts/d2/802-1Qcw-d2-0.pdf</a>.
   Disposition: Comments 12, 16 and 19-28 resolved as documented in <a href="https://www.ieee802.org/1/files/private/cw-drafts/d2/802-1Qcw-d2-0-pdis-v02.pdf">https://www.ieee802.org/1/files/private/cw-drafts/d2/802-1Qcw-d2-0-pdis-v02.pdf</a>.

#### 18:00 ET recess

**Call to order** Jan 20, 2023 08:00 ET by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 34. 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.
- 35. The Chair led the development of the P802.1Qdx PAR

  <a href="https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-PAR-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-PAR-0123-v01.pdf</a> and CSD <a href="https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-CSD-0123-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-CSD-0123-v00.pdf</a>.

  <a href="https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-CSD-0123-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-CSD-0123-v00.pdf</a>.
- 36. Stephan Kehrer, P802.1Qdj editor led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0.pdf">https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0.pdf</a>. **Disposition:** Resolved comments included in the disposition of agenda item 38 below.

10:00 ET recess

**Call to order** Jan 20, 2023 12:30 ET by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 37. 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.
- 38. Stephan Kehrer, P802.1Qdj editor led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0.pdf">https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0.pdf</a>. **Disposition:** Comments 4, 16, 25, 27, 32, 35, 39, 41, 50-53, 74, 91, 98, 101, 104, 109, 111, 112, 129-132, 134, 140 and 142-173 resolved as documented in <a href="https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0-pdis-v02.pdf">https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-0-pdis-v02.pdf</a>.

17:00 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 2022-11-28 9:00 11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;69717508.22&S=
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2023-01-09 9:00 10:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;a8b1139e.23&S=

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

- Minutes of the IEC/IEEE 60802 Joint Project Time Sync Ad Hoc meeting held 2022-12-02 9:00 - 11:00 ET <a href="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;e49567c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;e49567c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;e49567c0.23&S=</a>
- Minutes of the IEC/IEEE 60802 Joint Project Time Sync Ad Hoc meeting held 2022-12-16 9:00 - 11:00 ET <a href="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;fa7aa988.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;fa7aa988.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;fa7aa988.23&S=</a>
- Minutes of the IEC/IEEE 60802 Joint Project Time Sync Ad Hoc meeting held 2023-01-13 9:00 - 11:00 ET <a href="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;bb3fa0c0.23&S

See section 1 for attendance and affiliation information.

**Call to order** Jan 16, 2023 at 10:30 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:

 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" <a href="http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf">http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf</a>.

The 60802 Chair announced that the meeting is subject to these Policies as read and displayed at the opening plenary meeting.

The 60802 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 60802 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 60802 Chair explained that the IEC/IEEE 60802 Joint Project also follows the usual IEC patent <a href="https://www.iec.ch/members">https://www.iec.ch/members</a> experts/tools/patents/patent policy.htm and copyright

https://www.iec.ch/standardsdev/resources/draftingpublications/overview/rules requirements/copyright.htm policies.

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 <a href="https://1.ieee802.org/2023-01-interim-tsn-agenda/#TSN-8211">https://1.ieee802.org/2023-01-interim-tsn-agenda/#TSN-8211</a> IECIEEE 60802.
  - **Disposition:** The agenda was reviewed, discussed, and updated as recorded by these minutes.
- Update on the IEC 61802 conformity assessment project. Mark Hantel provided an update. The TIACC (TSN Industrial Automation Conformance Collaboration) Steering Committee has started work to form a Technical Working Group. Participation in TIACC is possible via the participating organizations (<a href="https://www.tiacc.net/">https://www.tiacc.net/</a>).
   Disposition: For information.
- Editor's report. Jordon Woods, IEC/IEEE 60802 Joint Project Editor (60802 Editor), presented "Editor's Report 60802 Draft 2.0" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-woods-D2-0-update-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-woods-D2-0-update-0123-v02.pdf</a>.
   Disposition: For information.
- 5. Status update on time sync ad hoc. David McCall presented "60802 Time Sync Update" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-McCall-Time-Sync-Update-16-Jan-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-McCall-Time-Sync-Update-16-Jan-0123-v01.pdf</a>. The presentation was discussed. A run of the Monte Carlo simulation in parallel to the presentation showed that the algorithm effectiveness (slide 11 of the presentation) did not change with a maximum residence time of 15 ms.
  Disposition: For information. Discussion of the proposed modifications to the P802.1ASdm PAR and CSD was scheduled for the TSN TG meeting to be held Jan 16, 2023 13:30 15:30 ET.

#### 12:30 ET recess

**Call to order** Jan 17, 2023 at 13:30 ET by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair), who presided. Josef Dorr, IEC/IEEE 60802 Joint Project Secretary (60802 Secretary), wrote the minutes.

- 6. 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.
- 7. YANG Augmentations. Martin Mittelberger presented "YANG Augmentations for IEC/IEEE 60802" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-Mittelberger-YANG-Augmentations-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-Mittelberger-YANG-Augmentations-0123-v01.pdf</a>. The presentation was discussed. The proposed augmentations should be reviewed by the IEC/IEEE Joint Project in detail to be further discussed in a future IEC/IEEE 60802 meeting.

  Disposition: More discussion is needed.
- 8. Time Sync Configuration. Martin Mittelberger presented "Time Sync Configuration for IEC/IEEE 60802" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-Mittelberger-Time-Sync-Configuration-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-Mittelberger-Time-Sync-Configuration-0123-v02.pdf</a>. The presentation was discussed. It was proposed to add a gPTP domain with BMCA controlled synchronization tree, and a PTP Relay Instance to the configuration example to further justify the selection of YANG elements. Disposition: The presentation could not be finished by lack of time. The presentation was scheduled to be continued during the IEC/IEEE 60802 Joint Project meeting to be held Jan 18, 2023 10:30 12:30 ET. More discussion is needed.

#### 15:30 ET recess

**Call to order** Jan 18, 2023 at 10:30 ET by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair), who presided. Josef Dorr, IEC/IEEE 60802 Joint Project Secretary (60802 Secretary), wrote the minutes.

- 9. 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.
- 10. VID/FID/MSTID and I2vlan ietf interface configuration. Josef Dorr presented "60802 VID/FID/MSTID Configuration and I2vlan Interface Names" <a href="https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-Dorr-vid-fid-mstid-I2vlan-0123-v01.pdf">https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-Dorr-vid-fid-mstid-I2vlan-0123-v01.pdf</a>.
  - **Disposition:** Agreed (informally, non-dissenting) to include this textual contribution into the next 60802 draft.
- 11. Time Sync Configuration. Martin Mittelberger continued the presentation of "Time Sync Configuration for IEC/IEEE 60802" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-Mittelberger-Time-Sync-Configuration-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-Mittelberger-Time-Sync-Configuration-0123-v02.pdf</a>. It was explained that the contribution is intended to help in the selection of mandatory YANG elements and in identifying missing objects.

**Disposition:** More discussion is needed.

11:55 - 13:30 ET recess

- 12. Missing MSTP YANG. Josef Dorr presented "IEC/IEEE 60802: Missing MSTP YANG" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-dorr-MSTP-Config-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-dorr-MSTP-Config-0123-v01.pdf</a>. <a href="Disposition">Disposition</a>: The TSN TG is to discuss the open issues described in the presentation and whether a project for developing the MSTP YANG should be initiated. More discussion is needed.
- 13. Expected Contributions. Jordon Woods presented the list of expected contributions in "Editor's Report 60802 Draft 2.0" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-woods-D2-0-update-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-woods-D2-0-update-0123-v02.pdf</a>. How to fill the gaps for the next draft was discussed. The following contributions are expected to fill the gaps for the next draft:
  - Security:
    - All contributions of the presented list.
  - Time synchronization:
    - A textual contribution describing a clock servo.
    - An informative annex describing the results of the Time Sync ad hoc including the relevant algorithms.
  - Digital Data Sheet:
    - An initial textual contribution for balloting.

Filling the blanks for global time remains a gap.

**Disposition:** More discussion is needed.

15:30 ET recess

**Call to order** Jan 19, 2023 at 13:30 ET by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair), who presided. Josef Dorr, IEC/IEEE 60802 Joint Project Secretary (60802 Secretary), wrote the minutes.

- 14. 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.
- 15. DevID Signature Suites for IEC/IEEE 60802. Kai Fischer presented "Secure Device Identity Profile for TSN-IA: DevID Signature Suites" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-Pfaff-et-al-Secure-Device-Identity-Profile-0123-v06.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-Pfaff-et-al-Secure-Device-Identity-Profile-0123-v06.pdf</a>.

**Disposition:** The IEC/IEEE 60802 Joint Project agreed (informally, none dissenting) on the following answers to the questions asked in the presentation:

- Number of required "DevID Signature Suites": 1
- Name and description of the required "DevID Signature Suite": ECDSA P-256/SHA-256
- Number of optional "DevID Signature Suites": 3
- Name and description of the required "DevID Signature Suites": ECDSA P-521/SHA-512, EdDSA instance Ed25519, EdDSA instance Ed448

A textual contribution based on the presentation and the agreed answers is expected for the next draft. More discussion is needed.

15:10 – 16:00 ET recess

16. NRR Algorithm & Simulation. David McCall presented "60802 Time Synchronization – NRR Tracking & Error Compensation: 1-hop Model; Piece-wise Linear Clock Drift" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-McCall-NRR-Tracking-and-Compensation-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-McCall-NRR-Tracking-and-Compensation-0123-v01.pdf</a>. The presented algorithm and simulation model were explained in detail and discussed.

**Disposition:** The presentation could not be finished by lack out of time. The presentation was scheduled to be continued during the IEC/IEEE 60802 Joint Project meeting to be held Jan 20, 2023. More discussion is needed. Startup requirements have to be determined.

18:00 ET recess

**Call to order** Jan 20, 2023 at 10:30 ET by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair), who presided. Josef Dorr, IEC/IEEE 60802 Joint Project Secretary (60802 Secretary), wrote the minutes.

- 17. 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.
- 18. Organizational topics. The 60802 Chair drafted "IEC/IEEE 60802 timeline update rev 8, 2023-01-20" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-Winkel-timeline-0123-v8.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-Winkel-timeline-0123-v8.pdf</a> showing the proposed timeline for future 60802 drafts. The IEC/IEEE 60802 Joint Project agreed (informally, none dissenting) to proceed with working group balloting with the next draft and to have IEC CD (Committee Draft) in parallel.
  Disposition: For information.
- 11:30 14:45 ET recess (including 12:30 14:30 ET TSN TG meeting)
- 19. NRR Algorithm & Simulation. David McCall continued the presentation of "60802 Time Synchronization NRR Tracking & Error Compensation: 1-hop Model; Piece-wise Linear Clock Drift" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-McCall-NRR-Tracking-and-Compensation-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-McCall-NRR-Tracking-and-Compensation-0123-v01.pdf</a>.

**Disposition:** More discussion is needed.

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

16:45 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 AS 6675 whose minutes are incorporated to these session minutes by reference as follows:

None

See section 1 for attendance and affiliation information.

**Call to order** Jan 18, 2023 at 8:02 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:

 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" <a href="http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf">http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf</a>.

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 TSN TG 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 <a href="https://www.sae.org/about/legal-policies/intellectual-property">https://www.sae.org/about/legal-policies/intellectual-property</a> policies.

2. Approval of agenda. János Farkas, IEEE P802.1DP/SAE AS6675 co-Chair, presented the agenda in <a href="https://1.ieee802.org/2023-01-interim-tsn-agenda/#TSN">https://1.ieee802.org/2023-01-interim-tsn-agenda/#TSN</a> 8211 P8021DPAS6675.

**Disposition:** The agenda was reviewed, discussed and agreed (informally, none dissenting) as presented. and updated as recorded by these minutes.

- 3. Abdul Jabbar, IEEE P802.1DP/SAE AS6675 editor, presented "P802.1DP Status" <a href="https://www.ieee802.org/1/files/public/docs2023/dp-jabbar-status-overview-0123-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/dp-jabbar-status-overview-0123-v00.pdf</a>. **Disposition:** Presentation was discussed. More discussion is needed.
- 4. Abdul Jabbar, IEEE P802.1DP/SAE AS6675 editor, presented "P802.1DP Monitoring and Management" <a href="https://www.ieee802.org/1/files/public/docs2023/dp-jabbar-monitoring-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dp-jabbar-monitoring-0123-v01.pdf</a>.

**Disposition:** Presentation was discussed. More discussion is needed.

5. Abdul Jabbar, IEEE P802.1DP/SAE AS6675 editor, presented "Aerospace Stream Isolation Proposal" <a href="https://www.ieee802.org/1/files/public/docs2022/dp-jabbar-stream-isolation-proposal-1122-v01.pdf">https://www.ieee802.org/1/files/public/docs2022/dp-jabbar-stream-isolation-proposal-1122-v01.pdf</a>.

**Disposition:** Presentation was discussed. More discussion is needed.

6. Abdul Jabbar, IEEE P802.1DP/SAE AS6675 editor, presented "Credit Based Shaper Configuration: YANG Model Proposal" <a href="https://www.ieee802.org/1/files/public/docs2022/dp-markham-CBS-YANG-Model-1122-v01.pdf">https://www.ieee802.org/1/files/public/docs2022/dp-markham-CBS-YANG-Model-1122-v01.pdf</a>.

During the discussion, the following documents were shown:

- "IEC/IEEE 60802 Optional Feature FQTSS or CBS?" <a href="https://www.ieee802.org/1/files/public/docs2022/dp-markham-CBS-YANG-Model-1122-v01.pdf">https://www.ieee802.org/1/files/public/docs2022/dp-markham-CBS-YANG-Model-1122-v01.pdf</a>.
- "P802.1Qdx PAR proposal" <a href="https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-PAR-0123-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-PAR-0123-v00.pdf</a>.
- "P802.1Qdx CSD proposal" <a href="https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-CSD-0123-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/dx-jabbar-draft-CSD-0123-v00.pdf</a>.

**Disposition:** Presentation was discussed. More discussion is needed.

- 7. Abdul Jabbar led the discussion on the definition of Availability.
  - During the discussion, the following web-page was shown: https://resilinets.org/definitions.html#Availability

**Disposition:** More discussion is needed.

9:53 ET recess

## 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 2022-12-01 09:00-11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;50d0cf41.22
- Minutes of the Nendica meeting held 2022-12-08 09:00-11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;dee1fc35.22
- Minutes of the Nendica meeting held 2022-12-15 09:00-11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;eab4cc92.22
- Minutes of the Nendica meeting held 2023-01-12 09:00-11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;2208e7c0.23

See section 1 for attendance and affiliation information.

**Call to order** Jan 17, 2023 19:30 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" <a href="http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0721-v01.pdf">http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0721-v01.pdf</a>. 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 Nendica Chair presented the draft agenda. **Disposition:** The agenda was reviewed and agreed (informally, none dissenting) as https://l.ieee802.org/802-nendica-agenda-2023-01-17/.
- 3. CTF Study Item. Johannes Specht presented aspects of "CTF PAR input" (Rev. 2) <a href="https://mentor.ieee.org/802.1/documents?is\_group=ICne&is\_year=2022&is\_dcn=0055">https://mentor.ieee.org/802.1/documents?is\_group=ICne&is\_year=2022&is\_dcn=0055</a> and "CTF CSD input" (Rev. 1) <a href="https://mentor.ieee.org/802.1/documents?is\_group=ICne&is\_year=2022&is\_dcn=0056">https://mentor.ieee.org/802.1/documents?is\_group=ICne&is\_year=2022&is\_dcn=0056</a>. Revisions to these contributions were discussed, with the understanding that revised versions would be presented to the 802.1 TSN TG the following day. <a href="https://pisco.icea.org/10.25">Disposition:</a> For information.
- 4. Future Meetings. The Nendica Chair noted that the draft agenda of the Nendica meeting of Jan 19, 2023 8:00-10:00 ET <a href="https://1.ieee802.org/802-nendica-agenda-2023-01-19">https://1.ieee802.org/802-nendica-agenda-2023-01-19</a> was available
- 5. Any Other Business. No other business was discussed by Nendica in this meeting.

21:30 ET recess

**Call to order** January 19, 2023 08:02 ET by Roger Marks, Nendica Chair, who presided and wrote the minutes.

Agenda items and dispositions:

- 6. 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" "<a href="http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0721-v01.pdf">http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0721-v01.pdf</a>". 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.

- 7. Approval of agenda. The Nendica Chair presented the draft agenda. **Disposition:** The agenda was reviewed and agreed (informally, none dissenting) as https://l.ieee802.org/802-nendica-agenda-2023-01-19/.
- 8. Minutes. The Nendica Chair reviewed the draft "Minutes of the Nendica meeting held 2022-01-12 09:00-11:00 ET" <a href="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES:2208e7c0.23">https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES:2208e7c0.23</a>.

**Disposition:** It was agreed (informally, none dissenting) to approve the minutes.

- 9. Update. No discussion.
- 10. Nendica organization. No discussion.
- 11. CTF Study Item. Johannes Specht, CTF Study Item lead, reported that the 802.1 TSN TG had yesterday agreed on a CTF PAR and CSD for pre-circulation toward IEEE 802's Mar 2023 plenary session. He would post versions to the Nendica mentor web server. Nendica discussed the value of planning a Nendica meeting on the Tuesday evening of the Mar 2023 802.1 plenary session, where comments on the CTF PAR and CSD could be reviewed, following the deadline for transmittal of such comments (Tuesday Jan 17, 2023 18:30 ET), with the idea that such discussions could aid the TSN TG in the development of responses, due by Wednesday Jan 18, 2023 18:30 ET.

**Disposition:** For information.

- 12. CPF12 Study Item. Huajie Bao presented "Brief Introduction of Nendica Study Item Report (Forwarding of Fieldbus CPF 12 on 802.1 Bridges)" (Rev. 3) <a href="https://mentor.ieee.org/802.1/documents?is\_group=ICne&is\_year=2022&is\_dcn=0052">https://mentor.ieee.org/802.1/documents?is\_group=ICne&is\_year=2022&is\_dcn=0052</a>. **Disposition:** For information.
- 13. ELLA Study Item. No discussion.
- 14. Vetting and New Topics. No discussion.
- 15. Future Meetings. After discussion, it was agreed (informally, none dissenting) to cancel the tentative Nendica meeting of Jan 26, 2023 and to plan the next meeting for Feb 2, 2023. The draft agenda will be posted as <a href="https://l.ieee802.org/802-nendica-agenda-2023-02-02">https://l.ieee802.org/802-nendica-agenda-2023-02-02</a> and may be revised six days before the scheduled meeting. Those intending a contribution were encouraged to notify the Chair before then.
- 16. Any Other Business. No other business was discussed by Nendica in this meeting.

8:55 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 2022-12-06 10:03 –10:35 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;ca9ec595.22&S=
- Minutes of the YANGsters meeting held 2022-12-20 10:00 –11:00 ET (revised)
   <a href="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;18e314ca.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;18e314ca.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;18e314ca.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;18e314ca.23&S=</a>
- Minutes of the YANGsters meeting held 2023-01-03 10:00 –11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;6779f34d.23&S=

See section 1 for attendance and affiliation information.

**Call to order** Jan 17, 2023, at 16:00 ET by Scott Mansfield, YANGsters Chair, who presided. Stephan Kehrer, YANGsters Secretary, wrote the minutes.

Agenda items and dispositions:

 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" <a href="http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0721-v01.pdf">http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0721-v01.pdf</a>.

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.
- Approval of agenda. The YANGsters Chair presented the agenda in <a href="https://1.ieee802.org/january-2023-interim-session-baltimore-md-usa-yangsters-agenda/">https://1.ieee802.org/january-2023-interim-session-baltimore-md-usa-yangsters-agenda/</a>.
   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/,
  - https://1.ieee802.org/yangsters/yangsters-call-information/, and
  - https://1.ieee802.org/category/yangsters-agenda/.

**Disposition:** For information.

- 4. Achievements since last Plenary meeting. The YANGsters Chair presented the topic.
  - "git repo for IEEE 802.1"
     <u>https://www.ieee802.org/1/files/public/docs2023/yangsters-smansfield-git-repo-0123-v01.pdf.</u>
  - The process for working with YANG files, using the repository, was presented and discussed.

**Disposition:** For information.

- 5. Status of YANG Projects. The YANGsters Chair presented the topic by showing the YANG status tracker <a href="https://www.ieee802.org/1/files/public/docs2023/yangsters-smansfield-yang-status-tracker-0123-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/yangsters-smansfield-yang-status-tracker-0123-v01.pdf</a>.
  - The status tracker provides an overview of all YANG files in active projects and shows conflicts where several projects concurrently modify the same YANG file.

#### **Disposition:** For information.

- Use of deprecate (Qcw YANG example). The YANGsters Chair presented the topic by showing "YANG Status Statement" <a href="https://www.ieee802.org/1/files/public/docs2023/yangsters-smansfield-yang-status-statement-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/yangsters-smansfield-yang-status-statement-v01.pdf</a>.
  - It was suggested to provide a guideline supplying information on how long an object that has been marked as "deprecated" will stay in that state before becoming "obsolete".
  - It was suggested that updating "revision" statements to get them in the correct chronological order should be considered an editorial change than can be done in the pre-publication process.

#### **Disposition:** For information.

- 7. YANG Instance File for 60802 IA-Station. Martin Mittelberger presented the topic by showing "YANG Instance File for 60802 IA-Station" <a href="https://www.ieee802.org/1/files/public/docs2023/yangsters-Mittelberger-60802-instance-file-0123-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/yangsters-Mittelberger-60802-instance-file-0123-v02.pdf</a>.
  - The question was raised if it is possible to create skeleton XML files that only
    contain mandatory leaves. It appears that this is currently not possible with the
    options provided by pyang.

#### **Disposition:** For information.

- 8. Open Discussion: What is new, upcoming, or topics that need investigation in the YANG area?
  - It was requested to discuss the "IEC 61360-4 IEC/SC 3D Common Data Dictionary" and "ECLASS" relationship with YANG in a future meeting.
- 9. Future meetings. The next YANGsters meeting is planned for Jan 31, 2023.
  - Information on YANGsters electronic meetings can be found at https://1.ieee802.org/yangsters/yangsters-call-information/.
- 10. Any Other Business. No other business was discussed by YANGsters in this session.

17:26 ET adjournment

## 9 Next Session

Mar 13-17, 2023 mixed mode plenary session in Atlanta, GA, USA.