









## 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
  - TSN TG Vice-Chair: Craig Gunther
  - TSN TG Secretary: Marina Gutiérrez
  - IEC/IEEE 60802 Joint Project Chair: Ludwig Winkel
  - IEC/IEEE 60802 Joint Project Secretary: Josef Dorr
- Nendica Chair: Roger Marks
- YANGsters Chair: Scott Mansfield
  - YANGsters Vice-Chair and Secretary: Stephan Kehrer
- Maintenance of Email exploder: Hal Keen and Mark Hantel
- Maintenance of website: Paul Unbehagen

## 3 Maintenance Task Group

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

- Minutes of the Maintenance TG meeting held 2020-12-02 12:02 PM - 2:20 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;c5d4b8dc.20>
- Minutes of the Maintenance TG meeting held 2020-12-16 12:02 PM - 1:06 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES:d047f3a6.20>

The table in section 1 reflects, for all meetings held in this session, the attendance and affiliation of participants who registered their attendance in IMAT.

**Call to order** Jan 19, 2021 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 TG Chair reminded participants that the following information was made available before the meeting:
  - The IEEE SA Copyright Policy slides,
  - The IEEE SA PatCom Patent Slides for Standards Development Meetings,
  - The IEEE SA slides regarding IEEE Codes of Ethics and Conduct, participation in the “individual process”, and dominance,
  - The decorum information, and
  - The reminder for participants to register their attendance in IMAT contained in “MEETING INTRODUCTION”  
<http://www.ieee802.org/1/files/public/templates/admin-WG+TG-intro-0720-v01.pdf> thereby providing the information on slides 2 and 5 of this presentation and made the Call for Potentially Essential Patents: there were no responses to this Call prior to the end of the session.

2. Approval of agenda. The TG chair presented the agenda in <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;7d465650.21>.

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

3. P802.1Q-Rev Status. The TG Chair presented “QRev Status” in “Maintenance Task Group Conference Call” <https://www.ieee802.org/1/files/public/docs2021/maint-congdon-concall-0121-v01.pdf>

**Disposition:** Mick Seaman, new P802.1Q-Rev editor, will edit future drafts with input from John Messenger, former P802.1Q-Rev editor, and from Johannes Specht on YANG updates.

4. PFC and MACSec Interpretation Issue. Brad Booth led a discussion of an interpretation issue with PFC implementation in the field. Booth displayed Figure 36-1 of IEEE Std 802.1Q-2018 to lead the discussion.

**Disposition:** Agreed (informally, none dissenting) that the issue is more complex than simply the layering of PFC and MACSec. Further discussion and presentation are required at a future Maintenance TG electronic meeting.

5. Deprecated Terminology Discussion. The 802.1 WG Chair led a discussion on the replacement of deprecated terms in 802.1 standards in the context of the following activities:

- The 802.1 WG Chair referenced the first December 2020 resolution in “IEEE SA STANDARDS BOARD RESOLUTIONS” <https://standards.ieee.org/about/sasb/resolutions.html> to discuss deprecated terminology.
- The 802.1 WG Chair referenced the P1588g PAR <https://development.standards.ieee.org/myproject-web/public/view.html#pardetail/8858> to discuss the scope of needed work in 802.1 standards.
- The 802.1 WG Chair led the drafting of “Liaison response to LS SP-201142 on Use of Inclusive Language in 3GPP specifications” <https://www.ieee802.org/1/files/public/docs2021/draft-liaison-response-3GPP-SP-201144-inclusive-language-0121-v03.pdf>. This drafting was in response to reviewed “LS on Use of Inclusive Language in 3GPP specifications” [https://www.ieee802.org/1/files/public/docs2021/liaison-3GPP-S2-201144\\_Inclusive\\_Language-0121.pdf](https://www.ieee802.org/1/files/public/docs2021/liaison-3GPP-S2-201144_Inclusive_Language-0121.pdf).
- The TG Chair had created a draft PAR for “IEEE Standard for Local and Metropolitan Area Networks—Timing and Synchronization for Time-Sensitive Applications Amendment: Master-slave optional alternative terminology” <https://www.ieee802.org/1/files/public/docs2021/dr-draft-PAR-0121-v01.pdf> that was reviewed during the meeting for consideration by the working group

**Disposition:**

- Agreed (informally, none dissenting) to initiate an ePoll authorizing the Maintenance TG to generate a PAR and CSD for pre-circulation to the EC for an amendment to IEEE Std 802.1AS-2020 to replace deprecated terminology with inclusive language. The resulting PAR/CSD would be submitted at the March 2021 plenary session.
- Agreed (informally, none dissenting) that the draft PAR and CSD are to be generated during the Feb 2, 2021 Maintenance TG electronic meeting.
- Agreed (informally, none dissenting) to determine, during PAR development, whether to replace the terms master/slave or to follow a process like what P1588g is proposing with optional alternative terminology.

- The IEEE SA Program Manager to confirm with editorial staff if a global replace editorial instruction is sufficient to make the changes, or whether each instance of terminology change requires individual editorial instruction.
  - Agreed (informally, none dissenting) to postpone to the March 2021 plenary session the development of individual liaison statements regarding deprecated terminology to IEEE 1588 and ITU-T Study Group 15.
  - Agreed (informally, none dissenting) to initiate an ePoll approving <https://www.ieee802.org/1/files/public/docs2021/draft-liaison-response-3GPP-SP-201144-inclusive-language-0121-v03.pdf> as a communication to 3GPP SA WG2, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
6. ACct Comment Resolution. James Gilb, P802.1ACct editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/ct-drafts/d0/802-1ACct-d0-2.pdf>.  
**Disposition:** The following comments were resolved: 1,2,4,5,7,8,10,11,12. Partial disposition: <https://www.ieee802.org/1/files/private/ct-drafts/d0/802-1ACct-d0-2-pdis-v01.pdf>.

15:58 ET recess

**Call to order** Jan 22, 2021 at 14:00 ET by Paul Congdon, IEEE 802.1 Maintenance TG Chair who presided and wrote the minutes.

7. Meeting introduction. The TG Chair announced that the meeting is subject to the Copyright Policy, Patent Policy and Participants Policy as read and displayed at the opening Maintenance TG meeting, and made the Call for Potentially Essential Patents: there were no responses to this Call prior to the end of the session.
8. Approval of agenda. The TG chair presented the agenda in <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;7d465650.21>.  
**Disposition:** The agenda was reviewed, discussed, and updated as recorded by these minutes.
9. SC6 Status. Karen Randall presented "ISO/IEC JTC1 SC6 STATUS January 2021" slides in "Maintenance Task Group Conference Call" <https://www.ieee802.org/1/files/public/docs2021/maint-congdon-concall-0121-v01.pdf>.  
**Disposition:** For information.
10. Liaisons:
- The TG Chair led the discussion and review of a draft response to [https://www.ieee802.org/1/files/public/docs2020/liaison-SG15-LS268-OTNT\\_standardization\\_workplan-920.zip](https://www.ieee802.org/1/files/public/docs2020/liaison-SG15-LS268-OTNT_standardization_workplan-920.zip).
  - Karen Randall led the discussion and review of a draft ISO/IEC SC6 ballot comment response to IEEE Std 802.1X-2020.
- Disposition:** Agreed (informally, none dissenting) to update the TSN diagram in the liaison response to [https://www.ieee802.org/1/files/public/docs2020/liaison-SG15-LS268-OTNT\\_standardization\\_workplan-920.zip](https://www.ieee802.org/1/files/public/docs2020/liaison-SG15-LS268-OTNT_standardization_workplan-920.zip) with a new version to be provided by the TSN TG Chair. Agreed (informally, none dissenting) to put both responses on the March 2021 plenary session agenda for 802.1 approval to send.
11. Maintenance item 0242: IEEE Std 802.1Qcp-2018: Collected issues on data consistency and others. Johannes Specht presented the table of YANG issues for maintenance item 0242 <https://www.802-1.org/items/357> and summarized the table of collected issues in <https://www.ieee802.org/1/files/public/docs2021/maint-specht-yang-comments-0121-v02.pdf>.  
**Disposition:** Agreed (informally, none dissenting) to create an individual maintenance item for the FDB per bridge component issue in clause 12 of IEEE Std 802.1Q-2018. Agreed (informally, none dissenting) to categorize the individual items listed in

<https://www.ieee802.org/1/files/public/docs2021/maint-specht-yang-comments-0121-v02.pdf> into specific maintenance items. 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'.

12. Maintenance Item 0278 review for AS-2020/Cor1. Geoff Garner, P802.1AS-2020/Cor1 editor, presented "Maintenance Item #278 – Input Needed" <https://www.ieee802.org/1/files/public/docs2021/as-garner-maintenance-item-278-input-needed-v00.pdf> to address maintenance item "0278: Inconsistent Clause 5 and PICS with respect to state machines" <https://www.802-1.org/items/393>  
**Disposition:** Agreed (informally, none dissenting) to not include maintenance item 0278 in the P802.1AS-2020/Cor1. 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. AS-2020/Cor1 Editor Update. Geoff Garner, P802.1AS-2020/Cor1 editor, presented <https://www.ieee802.org/1/files/private/as-2020-cor-1-drafts/802-1AS-Cor1-2021-d0-1.pdf>  
**Disposition:** Further draft to be prepared. Once the P802.1AS-2020/Cor1 PAR is approved by NesCom (anticipated on Jan 26, 2021) the initial WG ballot can be started on this further draft.
14. Any Other Business. No other business was discussed by the Maintenance TG in this session.
15. Future meetings. Agreed (informally, none dissenting) to hold a meeting on Feb 2, 2021 from 11:00 to 13:00 ET.

16:14 ET adjournment

## 4 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 2020-11-24 <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;ed391feb.20>
- Minutes of the Security TG meeting held 2020-12-15 13:00-15:00 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;96bc9203.20>
- Minutes of the Security TG meeting held 2021-01-12 13:00-13:53 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;c1f9ecad.21>

The table in section 1 reflects, for all meetings held in this session, the attendance and affiliation of participants who registered their attendance in IMAT.

The following list reflects additional attendance, in whole or part of a meeting, as noted on the Webex participants list. [IMAT does not allow participants who move between Task Group meetings running in parallel to register attendance in more than one meeting.]

Nakano, Hiroki	CAHI, Kyoto University	Mon AM
Seewald, Maik	Cisco Systems	Mon AM



**Call to order** Jan 18, 2021 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 Security TG Chair showed:
  - The IEEE SA Copyright Policy slides,
  - The IEEE SA PatCom Patent Slides for Standards Development Meetings,
  - The IEEE SA slides regarding IEEE Codes of Ethics and Conduct, participation in the “individual process”, and dominance,
  - The decorum information, and
  - The reminder for participants to register their attendance in IMAT contained in “MEETING INTRODUCTION”  
<http://www.ieee802.org/1/files/public/templates/admin-WG+TG-intro-0720-v01.pdf> thereby providing the information on slides 2 and 5 of this presentation, and made the Calls for Potentially Essential Patents at the beginning of this meeting and at the beginning of the Security TG meetings on Jan 20, 2021 and Jan 22, 2021 in this session: there were no responses to these Calls prior to the end of the session.
2. Approval of agenda. The Security TG Chair presented the agenda in <https://1.ieee802.org/january-2021-interim-security-agenda/>.  
**Disposition:** The agenda was reviewed, discussed and updated as recorded by these minutes.
3. Response to China NB comments on the pre-PDIS ballot of IEEE Std 802.1X-2020. Karen Randall, 802.1 Liaison Secretary, led a brief discussion of the proposed response to the Chinese (ISO) National Body comments on the pre-ballot of IEEE Std 802.1X-2020 [i.e. the ballot that approves sending the document for 90-day PDIS (Proposed Draft International Standard) under the PSDO (Partner Standards Developing Organization) agreement.  
**Disposition:** For further discussion in the Maintenance Task Group and the IEEE 802 ISO SC (Standing Committee) prior to final approval in the March 2021 plenary session.
4. PFC and MACsec. The Security TG Chair led a brief discussion on the relationship between PFC and MACsec following up on a request for clarification.  
**Disposition:** For further discussion in the Maintenance Task Group.
5. P802.1AEdk MAC Privacy protection - Draft development. Mick Seaman presented “Transmit selection and traffic shaping for Privacy Channels”  
<https://www.ieee802.org/1/files/public/docs2021/dk-seaman-txselection-and-shaping-0121-v00.pdf>.  
Discussion:
  - Need to understand how Privacy Channels work with existing 802.1Q transmission selection and shaping algorithms.
  - Do not want yet another transmission selection algorithm for 802.1Q.
  - Not clear how to specify yet; in the short term, focus on consequences.**Disposition:** For further discussion.

13:01 ET recess

**Call to order** Jan 20, 2021 at 11:00 ET by Mick Seaman, IEEE 802.1 Security TG Chair, who presided and wrote the minutes.

6. Liaison from the Wireless Broadband Alliance (WBA) on the use of 802.1AR. The Security TG Chair led a brief discussion of “Liaison Statement to IEEE 802.1 – Secure Device Onboarding using WBA OpenRoaming”  
<https://www.ieee802.org/1/files/public/docs2021/liaison-WBA-802.1AR-0121.pdf>.  
**Disposition:** Check informally with 802.11 members who have participated in past 802.1

Security TG discussions. Decide how to proceed in the March 2021 plenary session.

7. P802.1AEdk MAC Privacy protection - Draft development (cont.). Don Fedyk, P802.1AEdk Editor, presented "MAC Privacy Maximum Latency"

<https://www.ieee802.org/1/files/public/docs2021/dk-fedyk-dot1aedk-maximum-latency-0121-v00.pdf>.

Mick Seaman continued the presentation of "Transmit selection and traffic shaping for Privacy Channels"

<https://www.ieee802.org/1/files/public/docs2021/dk-seaman-txselection-and-shaping-0121-v00.pdf>.

Discussion:

- How do Privacy Channels work with existing transmission shaping and selection algorithms: strict priority, credit-based shaper, ETS, ATS and enhancements for scheduled traffic (transmission gates).
- An easy combination with strict/simple priority.
- Noted transmission gates are used in P802.1Qcz.
- Assume all traffic in a Privacy Channel is subject to the same transmission selection algorithm. Otherwise too complicated.
- ATS with higher priority in individual Privacy Frames is the simplest way of maintaining bounded per hop latency.
- For progressing Clause 20, look at/expand the functional blocks in Figure 20-1.

**Disposition:** For further discussion.

8. MACsec performance requirements. Rich Dubrawski presented "802.1AE-2018 SecY Delay" <https://www.ieee802.org/1/files/public/docs2021/ae-dubrawski-secy-delay-0121-v00.pdf>.

Discussion:

- Original performance parameters were from 2004 work.
- Need to cover speeds to 400 Gb/s.
- Packet data should not be revealed externally until ICV has been checked. Can result in additional component delay as checked packet is moved from constrained checking scope (system architecture dependent) and move time can be important at very high speed.
- Some knowledge of component delay is a factor in overall system delay, some bounds needed.
- At 1G and 10G (some) implementation focus has been more on variability/jitter than absolute delay as minimizing jitter is TSN friendly (particularly when supporting 802.1AS PTP).
- Worth consulting IEEE 802.1BA (see page 15).

**Disposition:** Anticipate future work.

15:18 ET recess

**Call to order** Jan 20, 2021 at 13:30 ET by Mick Seaman, IEEE 802.1 Security TG Chair.

9. P802.1AEdk MAC Privacy protection - Draft development (cont.). The Security TG Chair led a discussion of the next steps in the development of the draft.

Discussion:

- Further development/drafting of text for Clause 20 PrY Operation, as a foundation for drafting Clause 5 Conformance, taking into account the discussion during this meeting.

**Disposition:** Anticipated review of updated Clause 20 text in the next Security TG electronic meeting and the March 2021 plenary session.

10. Any Other Business. No other business was discussed by the Security TG in this session.

11. Future meetings. A Security TG electronic meeting will be scheduled for Feb 16, 2021 13:00 ET.

11:23 ET adjournment

## 5 Time-Sensitive Networking Task Group

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

- Minutes of the IEEE 802.1 TSN TG meeting held 2020-11-16 11:00 AM - 1:05 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=176430>.
- Minutes of the IEEE P802.1DG, meeting held 2020-11-17 9:00 AM - 10:38 AM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=155456>.
- Minutes of the IEEE 802.1 TSN TG meeting held 2020-11-23 11:00 AM - 1:05 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=187217>.
- Minutes of the IEEE 802.1 TSN TG meeting held 2020-11-30 11:00 AM - 1:25 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=213967>.
- Minutes of the IEEE P802.1DG, meeting held 2020-12-01 9:00 AM - 10:44 AM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=190524>.
- Minutes of the IEEE 802.1 TSN TG meeting held 2020-12-07 11:00 AM - 1:25 PM ET (revised) <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&D=0&P=216635>.
- Minutes of the IEEE P802.1DG, meeting held 2020-12-08 9:00 AM - 11:09 AM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=199490>.
- Minutes of the IEEE 802.1 TSN TG meeting held 2020-12-14 11:00 AM - 1:00 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=217980>.
- Minutes of the IEEE P802.1DG, meeting held 2020-12-15 9:00 AM - 11:08 AM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=208003>.
- Minutes of the IEEE 802.1 TSN TG meeting held 2020-12-21 11:00 AM - 1:16 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=219314>.
- Minutes of the IEEE 802.1 TSN TG meeting held 2021-01-04 11:00 AM - 12:02 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind21&L=STDS-802-1-MINUTES&P=3338>.

The table in section 1 reflects, for all meetings held in this session, the attendance and affiliation of participants who registered their attendance in IMAT.

The TSN TG and the IEC/IEEE 60802 Joint Project held joint meetings minuted in section 5.1.

**Call to order** Jan 18, 2021 at 11:30 ET by János Farkas, IEEE 802.1 TSN TG Chair, who presided. Marina Gutiérrez, IEEE 802.1 TSN TG Secretary, wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction. The TSN TG Chair showed:
  - The IEEE SA Copyright Policy slides,
  - The IEEE SA PatCom Patent Slides for Standards Development Meetings,
  - The IEEE SA slides regarding IEEE Codes of Ethics and Conduct, participation in the “individual process”, and dominance,
  - The decorum information, and
  - The reminder for participants to register their attendance in IMAT contained in “MEETING INTRODUCTION” <http://www.ieee802.org/1/files/public/templates/admin-WG+TG-intro-0720-v01.pdf> thereby providing the information on slides 2 and 5 of this presentation, and made the Call for

Potentially Essential Patents: there were no responses to this Call prior to the end of the session.

2. Approval of agenda. The TSN TG Chair presented the agenda in <https://1.ieee802.org/2021-01-interim-tsn-agenda/>.  
**Disposition:** The agenda was reviewed, discussed and agreed (informally, none dissenting) as presented.
  3. Glenn Parsons, IEEE 802.1 Working Group Chair, and Stefano Lassini, SAE AS-1A Avionic Networks Committee Chair, welcomed participants to the new P802.1DP project.  
**Disposition:** For information only.
  4. Jodi Haasz presented "IEEE/SAE Joint Development Agreement" <https://www.ieee802.org/1/files/public/docs2021/admin-ieee-sae-joint-development-agreement-0121-v01.pdf>.  
**Disposition:** Presentation discussed.
  5. The TSN TG Chair showed "Logistics Orientation" <https://www.ieee802.org/1/files/public/docs2020/admin-parsons-WG-logistics-orientation-1120.pdf>.  
**Disposition:** For information only.
  6. The TSN TG Chair and Abdul Jabbar led the discussion to choose the timeslot for future regular meetings.  
**Disposition:** Regular meetings will be held biweekly on Wednesdays from 10:00 to 12:00 ET.
  7. The TSN TG Chair presented a draft "Call for participation" for P802.1DP. <https://www.ieee802.org/1/files/public/docs2021/dp-draft-cfp-0121-v02.pdf>.  
**Disposition:** Presentation discussed.
  8. Brent Nelson presented "Introduction to Aerospace Networks and Requirements/Constraints" <https://www.ieee802.org/1/files/public/docs2021/dp-Nelson-aerospace-overview-0121-v01.pdf>.  
**Disposition:** Presentation discussed.
  9. Greg Scanlon presented "SAE AS6675 Use Case Summary" <https://www.ieee802.org/1/files/public/docs2021/dp-Scanlon-aerospace-use-case-summary-0121-v01.pdf>.  
**Disposition:** Presentation discussed.
  10. Jamie Zaehring presented "Aerospace Network Traffic Characterization" <https://www.ieee802.org/1/files/public/docs2021/dp-Zaehring-aerospace-network-traffic-characterization-0121-v01.pdf>.  
**Disposition:** Presentation discussed.
- 13:34 - 14:00 ET recess
11. The TSN TG Chair announced that the meeting is subject to the Copyright Policy, Patent Policy and Participants Policy as read and displayed as part of agenda item 1.
  12. Jordon Woods gave an update on the May 2021 interim session.  
**Disposition:** For information only.
  13. The TSN TG Chair presented "LS on Use of Inclusive Language in 3GPP specifications" [https://www.ieee802.org/1/files/public/docs2021/liaison-3GPP-S2-201144\\_Inclusive\\_Language-0121.pdf](https://www.ieee802.org/1/files/public/docs2021/liaison-3GPP-S2-201144_Inclusive_Language-0121.pdf).  
**Disposition:** Liaison discussed. Liaison response will be drafted during the Maintenance TG meeting on Jan 19, 2021.
  14. János Farkas led the drafting of <https://www.ieee802.org/1/files/public/docs2021/dq-cas-tspec-for-bursty-traffic-draft-PAR-0121-v01.pdf> and <https://www.ieee802.org/1/files/public/docs2021/dq-cas-tspec-for-bursty-traffic-draft-CSD-0121-v01.pdf>.

**Disposition:**

- Updated PAR: <https://www.ieee802.org/1/files/public/docs2021/dq-draft-PAR-0121-v01.pdf>
- Updated CSD: <https://www.ieee802.org/1/files/public/docs2021/dq-draft-CSD-0121-v01.pdf>

16:31 ET recess

**Call to order** Jan 19, 2021 at 09:00 ET by Craig Gunther, IEEE 802.1 TSN TG Vice-Chair, who presided. Marina Gutiérrez, IEEE 802.1 TSN TG Secretary, wrote the minutes.

15. The TSN TG Vice-Chair announced that the meeting is subject to the Copyright Policy, Patent Policy and Participants Policy as read and displayed as part of agenda item 1.
16. Max Turner presented “Text Proposal for a sub-Section of Section 12. and/or a new Annex on Redundancy in IEEE 802.1DG/D1.3”

<https://www.ieee802.org/1/files/public/docs2021/dg-turner-redundancy-0121-v01.pdf>.

**Disposition:** Presentation discussed.

17. Craig Gunther, P802.1DG editor, presented <https://www.ieee802.org/1/files/private/dg-drafts/d1/802-1DG-d1-3.pdf>.

**Disposition:** Presentation discussed.

11:00 - 11:30 ET recess

18. Stephan Kehrer, P802.1CBcv editor, presented “IEEE P802.1CBcv Editor’s Report for Draft D1.0 Ballot Comment Resolution (v1)”

<https://www.ieee802.org/1/files/public/docs2021/cv-kehrer-editors-report-d1-0-0121-v01.pdf> and led the resolution of comments received on

<https://www.ieee802.org/1/files/private/cv-drafts/d1/802-1CBcv-d1-0.pdf>.

- Stephan Kehrer presented “IEEE P802.1CBcv Stream identification-type and FRER sequence-recovery-algorithm” <https://www.ieee802.org/1/files/public/docs2021/cv-kehrer-YANG-identification-type-0121-v01.pdf> in support of a ballot comment.
- Don Fedyk presented “Comment on ieee802dot1CBcv.yang Structure and naming based on a Sample Operational Configuration” <https://www.ieee802.org/1/files/public/docs2021/cv-fedyk-dot1cb-yang-operational-comments-0121-v00.pdf> in support of a ballot comment.

**Disposition:** Ballot comments 5, 6, 7, 8, 9, 25, 36, 37, 39, 40, 41, 45, 46, 104, 109, 108 were discussed and resolved as documented in <https://www.ieee802.org/1/files/private/cv-drafts/d1/802-1CBcv-d1-0-pdis-v02.pdf>.

13:40 ET recess

**Call to order** Jan 20, 2021 at 09:00 ET by Craig Gunther, IEEE 802.1 TSN TG Vice-Chair, who presided. Marina Gutiérrez, IEEE 802.1 TSN TG Secretary, wrote the minutes.

19. The TSN TG Vice-Chair announced that the meeting is subject to the Copyright Policy, Patent Policy and Participants Policy as read and displayed as part of agenda item 1.

20. Scott Mansfield, P802.1ABcu editor, presented “IEEE P802.1ABcu Editor’s Report for Ballot Comment Resolution” <https://www.ieee802.org/1/files/public/docs2021/cu-mansfield-editors-report-d1-5-0121-v02.pdf> and led the resolution of comments received on <https://www.ieee802.org/1/files/private/abcu-drafts/d1/802-1ABcu-d1-5.pdf>.

**Disposition:** Continued later.

11:01 - 11:30 ET recess

21. Stephen Haddock, P802.1ABdh editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/dh-drafts/d0/802-1ABdh-d0-2.pdf>  
**Disposition:** Ballot comments were discussed and resolved as documented in <https://www.ieee802.org/1/files/private/dh-drafts/d0/802-1ABdh-d0-2-dis-v1.pdf>.  
Anticipated next: WG recirculation ballot.
23. Scott Mansfield, P802.1ABcu editor, continued the resolution of comments received on <https://www.ieee802.org/1/files/private/abcu-drafts/d1/802-1ABcu-d1-5.pdf>.  
**Disposition:** Ballot comments were discussed and resolved as documented in <https://www.ieee802.org/1/files/private/abcu-drafts/d1/802-1ABcu-d1-5-pdis-v02.pdf>.  
Anticipated next: WG recirculation ballot.

13:33 - 14:01 ET recess

23. Feng Chen, P802.1Qdd editor, presented “IEEE P802.1Qdd Resource Allocation Protocol (RAP) Editor’s Report for D0.4 Ballot Comment Resolution”  
<https://www.ieee802.org/1/files/public/docs2021/dd-chen-d0-4-editors-report-0121-v01.pdf>  
and led the resolution of comments received on <https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-4.pdf>.  
**Disposition:** Ballot comments 16, 20, 22, 6, 7, 8, 12, 14, 30 were discussed and resolved as documented in <https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-4-pdis-v02.pdf>.

16:05 ET recess

**Call to order** Jan 21, 2021 at 09:01 ET by János Farkas, IEEE 802.1 TSN TG Chair, who presided. Marina Gutiérrez, IEEE 802.1 TSN TG Secretary, wrote the minutes.

24. The TSN TG Chair announced that the meeting is subject to the Copyright Policy, Patent Policy and Participants Policy as read and displayed as part of agenda item 1.
25. Tongtong Wang, P802.1DF editor, presented “P802.1DF TSN Profile for Service Provider Networks Editor’s Report for D0.1 comment resolution”  
<https://www.ieee802.org/1/files/public/docs2021/df-wangtt-editors-report-0121-v01.pdf> and led the resolution of comments received on <https://www.ieee802.org/1/files/private/df-drafts/d0/802-1DF-d0-1.pdf>.  
**Disposition:** All ballot comments except 18, 20, 15, 16, 17, 27, 28, 30, 31, 34, 35, 36 were discussed and resolved as documented in <https://www.ieee802.org/1/files/private/df-drafts/d0/802-1DF-d0-1-pdis-v02.pdf>. The remaining comments will be accepted without discussion unless someone objects.

11:07 - 11:32 ET recess

26. Christophe Mangin, P802.1CBdb editor, presented “802.1CBdb/D1.1 Editor’s report for the 2<sup>nd</sup> WG ballot comments resolution” <https://www.ieee802.org/1/files/public/docs2021/db-mangin-d1-1-editors-report-0121-v01.pdf> and led the resolution of comments received on <https://www.ieee802.org/1/files/private/db-drafts/d1/802-1CBdb-d1-1.pdf>.  
**Disposition:** Ballot comments 1-6, 9-50 were discussed and resolved as documented in <https://www.ieee802.org/1/files/private/db-drafts/d1/802-1CBdb-d1-1-pdis-v02.pdf>.

13:45 ET recess

**Call to order** Jan 22, 2021 at 11:30 ET by János Farkas, IEEE 802.1 TSN TG Chair, who presided. Marina Gutiérrez, IEEE 802.1 TSN TG Secretary, wrote the minutes.

27. The TSN TG Chair announced that the meeting is subject to the Copyright Policy, Patent Policy and Participants Policy as read and displayed as part of agenda item 1.

28. Johannes Specht presented “Update on Cut-Through Forwarding (CTF)”  
<https://www.ieee802.org/1/files/public/docs2021/new-specht-cut-through-update-0121-v01.pdf>.

**Disposition:** Presentation was discussed.

29. Stephan Kehrer, P802.1CBcv editor, continued the resolution of comments received on  
<https://www.ieee802.org/1/files/private/cv-drafts/d1/802-1CBcv-d1-0.pdf>.

**Disposition:** Ballot comments 2, 3, 14, 15, 16, 19, 20, 33, 42, 47, 48, 53, 54, 81, 82, 95, 96, 97, 98, 99, 105 were discussed and resolved as documented in  
<https://www.ieee802.org/1/files/private/cv-drafts/d1/802-1CBcv-d1-0-pdis-v03.pdf>.

30. Any Other Business. No other business was discussed by the TSN TG in this session.

13:39 ET adjournment

## 5.1 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 2020-11-16 9:00 AM - 11:00 AM ET (revised) <https://listserv.ieee.org/cgi-bin/wa?A2=ind21&L=STDS-802-1-MINUTES&O=A&P=21401>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2020-11-23 9:00 AM - 11:00 AM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&O=A&P=184424>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2020-11-30 9:00 AM - 11:00 AM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&O=A&P=185362>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2020-12-07 9:00 AM - 11:00 AM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&O=A&P=204115>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2020-12-14 9:00 AM - 11:00 AM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&O=A&P=205055>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2020-12-21 9:00 AM - 11:05 AM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind21&L=STDS-802-1-MINUTES&O=A&P=23292>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2021-01-11 9:00 AM - 11:00 AM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind21&L=STDS-802-1-MINUTES&O=A&P=22351>
- Minutes of the IEC/IEEE 60802 Joint Project System Specification ad hoc meeting held 2020-11-11 11:00AM-12:00PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&O=A&P=172230>
- Minutes of the IEC/IEEE 60802 Joint Project System Specification ad hoc meeting held 2020-11-18 11:00 AM – 12:00 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&O=A&P=173107>

- Minutes of the IEC/IEEE 60802 Joint Project System Specification ad hoc meeting held 2020-12-02 11:00 AM – 12:00 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind21&L=STDS-802-1-MINUTES&O=A&P=10986>
- Minutes of the IEC/IEEE 60802 Joint Project System Specification ad hoc meeting held 2020-12-09 11:00 AM – 12:10 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind21&L=STDS-802-1-MINUTES&O=A&P=12088>
- Minutes of the IEC/IEEE 60802 Joint Project System Specification ad hoc meeting to be held 2020-12-16 11:00AM-12:00PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind21&L=STDS-802-1-MINUTES&O=A&P=13190>
- Minutes of the IEC/IEEE 60802 Joint Project System Specification ad hoc meeting held 2021-01-13 11:00 AM – 12:00 PM ET <https://listserv.ieee.org/cgi-bin/wa?A2=ind21&L=STDS-802-1-MINUTES&O=A&P=14071>

The table in section 1 reflects, for all meetings held in this session, the attendance and affiliation of participants who registered their attendance in IMAT.

**Call to order** Jan 18, 2021 at 9:00 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 (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 TG Chair showed:
  - The IEEE SA Copyright Policy slides,
  - The IEEE SA PatCom Patent Slides for Standards Development Meetings,
  - The IEEE SA slides regarding IEEE Codes of Ethics and Conduct, participation in the “individual process”, and dominance,
  - The decorum information, and
  - The reminder for participants to register their attendance in IMAT

contained in “MEETING INTRODUCTION”

<http://www.ieee802.org/1/files/public/templates/admin-WG+TG-intro-0720-v01.pdf> thereby providing the information on slides 2 and 5 of this presentation, and made the Call for Potentially Essential Patents: 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 [https://www.iec.ch/members\\_experts/tools/patents/patent\\_policy.htm](https://www.iec.ch/members_experts/tools/patents/patent_policy.htm) and copyright

[https://www.iec.ch/standardsdev/resources/draftingpublications/overview/rules\\_requirement/copyright.htm](https://www.iec.ch/standardsdev/resources/draftingpublications/overview/rules_requirement/copyright.htm) policies.

2. Approval of agenda. The 60802 Chair presented the agenda in [https://1.ieee802.org/2021-01-interim-tsn-agenda/#TSN\\_8211\\_IECIEEE\\_60802](https://1.ieee802.org/2021-01-interim-tsn-agenda/#TSN_8211_IECIEEE_60802).

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

3. Update on the IEC 61802 conformity assessment project. The 60802 Chair gave a verbal update on the IEC 61802 conformity assessment project. Four consortia are involved to sponsor an author; another consortium is interested to become a sponsor by contributions. Two author candidates are considered.

**Disposition:** For information.



4. Incoming liaison P2971 & P2972. The TG Chair presented the incoming liaison in [https://www.ieee802.org/1/files/private/liaisons/liaison-IEEE\\_P2971+P2972\\_introduction-0121.pdf](https://www.ieee802.org/1/files/private/liaisons/liaison-IEEE_P2971+P2972_introduction-0121.pdf).
  - The 60802 Chair explained that IEEE P2971 and IEEE P2972 are proposed by the IEEE Computer Society Smart Manufacturing Standards Committee (IEEE C/SM SC: <https://sagroups.ieee.org/smsc/>), chaired by Sha Wei, with proposed titles as follows:
    - P2971 “Standard for Test Requirements and Methods for Time Sensitive Networking Gateway in the Field of Industrial Internet of Things”.
    - P2972 “Standard for General Requirements of Gateway Supporting Time Sensitive Networking in Factory Environments”.
  - The P2971 PAR is approved and the P2972 PAR is on the Jan 26, 2021 NesCom agenda.
  - Both projects are proposed to be organized under Working Groups following the entity process. Participation in these projects is thus on an entity rather than individual basis.
  - Only a few other projects are in this new SM Standards Committee: P2934 (Standard for Logistics Operation Process in a Smart Factory), P2959 (Standard for Technical Requirements of Standard-Oriented Knowledge Graphs), P2671 (Standard for General Requirements of Online Detection Based on Machine Vision in Intelligent Manufacturing), and P2806 (System Architecture of Digital Representation for Physical Objects in Factory Environments).

**Disposition:** The IEC/IEEE 60802 Joint Project identified a number of inaccurate statements related to the 60802 project. The industry (and with that, 60802) is focused on converged technology to avoid gateways. If the P2972 project is approved during the NesCom meeting, then the 60802 Chair can work together with IEEE 802.1 management on “what coordination options” should be considered.
5. Editor’s report. Jordon Woods, 60802 Editor, presented “Editor’s Report 60802 Draft 1.2” <https://www.ieee802.org/1/files/public/docs2021/60802-woods-D1-2-update-0121-v03.pdf>

**Disposition:** For information.
6. Contributions to clauses 4.1 and 4.2: clean and redline. Jordon Woods, IEC/IEEE 60802 Editor, showed subclauses 4.1, 4.2 and 4.3 of <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-Steindl-Clause4-0121-v06-clean.pdf> and walked through the updated subclauses.

**Disposition:** More discussion needed. The IEC/IEEE 60802 Editor would rework the document based on the discussion. The reworked document can be discussed in another IEC/IEEE 60802 Joint Project meeting in this interim session.
7. IEC/IEEE 60802 D1.2 TG ballot comment resolution. Jordon Woods, IEC/IEEE 60802 Editor, continued the resolution of comments received on <http://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-2.pdf>.

**Disposition:** Ballot comments 412, 246, 154, 860 were resolved as documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-2-pdis-v23.pdf>.
8. Review of minutes. Draft minutes were reviewed under the lead of the 60802 Secretary.

11:00 ET recess

**Call to order** Jan 19, 2021 at 11:30 ET, by Janos Farkas, TG Chair, who presided with Ludwig Winkel, 60802 Chair. Josef Dorr, 60802 Secretary, wrote the minutes.

9. Meeting introduction and other administrative items. The TG Chair announced that the meeting is subject to the Copyright Policy, Patent Policy and Participants Policy as read and displayed as part of agenda item 1. The 60802 Chair explained that the IEC/IEEE 60802 Joint Project also follows the usual IEC patent and copyright policies.
  - Mark Hantel, IEC/IEEE 60802 Joint Project System Specification ad hoc Chair (System ad hoc Chair), proposed to move and extend the regular System ad hoc meetings from Wednesdays 11:00 – 12:00 ET to Fridays 9:00 – 11:00 ET starting from Jan 29, 2021: the IEC/IEEE 60802 Joint Project agreed (informally, none dissenting) to the proposal. During the meeting, the TG Chair updated the TSN calendar <https://1.ieee802.org/tsn/calendar/> accordingly.
10. Approval of agenda. The 60802 Chair presented the agenda in [https://1.ieee802.org/2021-01-interim-tsn-agenda/#TSN 8211 IECIEEE 60802-2](https://1.ieee802.org/2021-01-interim-tsn-agenda/#TSN_8211_IECIEEE_60802-2).  
**Disposition:** The agenda was reviewed, discussed, and agreed (informally, none dissenting) as presented.
11. Contribution on Traffic Type Classes. Jordon Woods, IEC/IEEE 60802 Editor, presented “Traffic-Type-Class Introduction” <https://www.ieee802.org/1/files/public/docs2021/60802-ademaj-contribution-traffic-type-classes-0121-v02.pdf>.  
**Disposition:** The presentation was discussed. Agreed (informally, none dissenting) that the two-step approach of the contribution (to first define industrial traffic-type-classes then relate industrial traffic types to these traffic-type-classes) is considered beneficial. During the discussion, comments were made and the IEC/IEEE 60802 Editor updated the 60802 draft accordingly.
12. IEC/IEEE 60802 D1.2 TG ballot comment resolution. Jordon Woods, IEC/IEEE 60802 Editor, continued the resolution of comments received on <http://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-2.pdf>.  
**Disposition:** Ballot comments 121, 750, 373, 1029 were resolved as documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-2-pdis-v23.pdf>.
13. Review of minutes. Draft minutes were reviewed under the lead of the 60802 Secretary.

13:30 ET recess

**Call to order** Jan 20, 2021 at 9:00 ET, by Ludwig Winkel, 60802 Chair, who presided with János Farkas, TG Chair. Josef Dorr, 60802 Secretary, wrote the minutes.

14. Meeting introduction. The TG Chair announced that the meeting is subject to the Copyright Policy, Patent Policy and Participants Policy as read and displayed as part of agenda item 1. The 60802 Chair explained that the IEC/IEEE 60802 Joint Project also follows the usual IEC patent and copyright policies.
15. Approval of agenda. The 60802 Chair presented the agenda in [https://1.ieee802.org/2021-01-interim-tsn-agenda/#TSN 8211 IECIEEE 60802-3](https://1.ieee802.org/2021-01-interim-tsn-agenda/#TSN_8211_IECIEEE_60802-3).  
**Disposition:** the agenda was reviewed, discussed, and agreed (informally, none dissenting) as presented.
16. IEC/IEEE 60802 D1.2 TG ballot comment resolution. Jordon Woods, IEC/IEEE 60802 Editor, continued the resolution of comments received on <http://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-2.pdf>.

- Rogue comment #1052 was added by the IEC/IEEE 60802 Editor during the meeting.

**Disposition:** Ballot comments 1029, 600, 73, 74, 266, 265, 668, 866, 957, 560, 71, 699, 700, 970, 76, 1052 were resolved as documented in

<https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-2-pdis-v23.pdf>.

11:00 – 11:30 ET recess

17. IEC/IEEE 60802 D1.2 TG ballot comment resolution. Jordon Woods, IEC/IEEE 60802 Editor, continued the resolution of comments received on

<http://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-2.pdf>.

- The IEC/IEEE 60802 Editor started drafting revised descriptions of industrial traffic types as preparation for the resolution of comments related to the traffic types subclauses.

**Disposition:** More discussion needed.

18. Review of minutes. This agenda item was skipped due to running out of time.

13:30 ET recess

**Call to order** Jan 21, 2021 at 09:00 ET by Ludwig Winkel, 60802 Chair, who presided. Josef Dorr, IEC/IEEE 60802 Joint Project Secretary, wrote the minutes.

19. Meeting introduction. The 60802 Chair announced that the meeting is subject to the Copyright Policy, Patent Policy and Participants Policy as read and displayed as part of agenda item 1. The 60802 Chair explained that the IEC/IEEE 60802 Joint Project also follows the usual IEC patent and copyright policies.

20. Approval of agenda. The 60802 Chair presented the agenda in [https://1.ieee802.org/2021-01-interim-tsn-agenda/#TSN 8211 IECIEEE 60802-4](https://1.ieee802.org/2021-01-interim-tsn-agenda/#TSN_8211_IECIEEE_60802-4).

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

21. IEC/IEEE 60802 D1.2 TG ballot comment resolution. Jordon Woods, IEC/IEEE 60802 Editor, continued the resolution of comments received on

<http://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-2.pdf>.

The IEC/IEEE 60802 Editor showed the updated revision of the “Traffic-Type-Class Introduction” presentation <https://www.ieee802.org/1/files/public/docs2021/60802-ademaj-contribution-traffic-type-classes-0121-v03-clean.pdf> with the updates discussed during the Jan 19, 2021 meeting.

The IEC/IEEE 60802 Editor continued drafting of revised descriptions of industrial traffic types as preparation for the resolution of comments related to the traffic types subclauses.

**Disposition:** More discussion needed.

11:00 – 11:30 ET recess

22. IEC/IEEE 60802 D1.2 TG ballot comment resolution. Jordon Woods, IEC/IEEE 60802 Editor, continued the resolution of comments received on

<http://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-2.pdf>.

The IEC/IEEE 60802 Editor finished the drafting of revised descriptions of industrial traffic types, started resolving related comments and started drafting the introductory sub-clause

of the industrial traffic types descriptions in preparation for the resolution of related comments.

**Disposition:** Ballot comments 267, 958, 419, 968, 967, 940, 77, 604, 969, 78, 268, 605, 269, 606, 974, 670, 607, 274, 701, 273, 272, 271, 975, 976, 978, 977, 981, 980, 275, 608, 103, 8, 276, 277, 979, 163, 278, 79, 609, 279, 371, 1032, 1031, 610, 611, 164, 280, 702, 281, 561, 104, 941, 944, 943, 612, 945, 9, 1033, 282, 946, 947, 613, 914, 915, 704, 424, 918, 283, 919, 284, 614, 425, 426, 986, 705, 285, 917, 10, 12, 11, 14, 13, 15, 16, 17, 19, 18, 381, 392, 393 were resolved as documented in

<https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-2-pdis-v23.pdf>.

23. Review of minutes. Draft minutes were reviewed at the end of the electronic meeting under the lead of the 60802 Secretary.

13:30 ET recess

**Call to order** Jan 22, 2021 at 09:00 ET by Ludwig Winkel, 60802 Chair, who presided with János Farkas, TG Chair. Josef Dorr, IEC/IEEE 60802 Joint Project Secretary, wrote the minutes.

24. Meeting introduction. The TG Chair announced that the meeting is subject to the Copyright Policy, Patent Policy and Participants Policy as read and displayed as part of agenda item 1. The 60802 Chair explained that the IEC/IEEE 60802 Joint Project also follows the usual IEC patent and copyright policies.

25. Approval of agenda. The 60802 Chair presented the agenda in [https://1.ieee802.org/2021-01-interim-tsn-agenda/#TSN\\_8211\\_IECIEEE\\_60802-5](https://1.ieee802.org/2021-01-interim-tsn-agenda/#TSN_8211_IECIEEE_60802-5), which is also available in <https://collaborate.iec.ch/#/pages/workspaces/677749/documents/138995/details/509906?onlyWithPreview=false&fileId=509906>.

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

26. CNC and CUC roles. Astrit Ademaj presented “On CNC/CUC” <https://www.ieee802.org/1/files/public/docs2021/dj-ademaj-cnc-cuc-roles-0121-v01.pdf>.

**Disposition:** More discussion needed.

27. CNC-CUC UNI Talker Requirements. This agenda item was skipped by lack of time.

28. IEC/IEEE 60802 D1.2 TG ballot comment resolution. Jordon Woods, IEC/IEEE 60802 Editor, continued the resolution of comments received on <http://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-2.pdf> and presented the revised traffic types subclauses which were drafted during the previous meetings: <https://www.ieee802.org/1/files/public/docs2021/60802-ademaj-contribution-traffic-type-classes-0121-v04-clean.pdf> and <https://www.ieee802.org/1/files/public/docs2021/60802-woods-Traffic-Type-Descriptions-0121-v01.pdf>.

**Disposition:** For information.

29. Review of minutes. Draft minutes were reviewed under the lead of the 60802 Chair.

30. Any Other Business. No other business was discussed by the IEC/IEEE 60802 Joint Project in this session.

11:00 ET adjournment

## 6 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 2020-11-19 09:00-10:00 AM ET  
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;6716e5d2.20>
- Minutes of the Nendica meeting held 2020-12-03 09:00-09:32 AM ET  
<https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&O=A&P=193498>
- Minutes of the Nendica meeting held 2020-12-17 09:00-10:15 ET  
<https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&O=A&P=211912>
- Minutes of the Nendica meeting held 2020-01-07 09:02-10:29 ET  
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;45f363a.21>
- Minutes of the Nendica meeting held 2020-01-14 09:00-10:16 ET  
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;a71ad4a1.21>

The table in section 1 reflects, for all meetings held in this session, the attendance and affiliation of participants who registered their attendance in IMAT.

**Call to order** Jan 22, 2021 at 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 Chair showed:
  - The IEEE SA Copyright Policy slides,
  - The Guidelines for IEEE SA Meetings slide,
  - The IEEE SA slides regarding IEEE Codes of Ethics and Conduct, participation in the “individual process”, and dominance,
  - The decorum information, and
  - The reminder for participants to register their attendance in IMAT

contained in “MEETING INTRODUCTION”

<http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0720-v01.pdf> thereby providing the information on slide 2 of this presentation.

2. Approval of agenda. The Chair presented the agenda in <https://mentor.ieee.org/802.1/dcn/21/1-21-0003-00-ICne-approved-agenda-of-the-nendica-meeting-of-2021-01-22.pdf>.

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

3. Update. The Nendica Chair reviewed the Nendica web site and the new documents available at the Nendica mentor server.

**Disposition:** No discussion.

4. Minutes. The Nendica Chair reviewed the draft “Minutes of the Nendica meeting held 2020-01-14 09:00-10:16 ET” <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;a71ad4a1.21>

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

5. Stream and Flow Interworking [SFI] Work Item. Roger Marks, SFI Editor, noted that SFI has not been meeting due to lack of contributions and that meetings will resume when contributions arise.
6. Data Center Networks [DCN] Work Item. Paul Congdon, DCN Editor, reviewed the pre-draft version of "IEEE 802 Nendica Report: Intelligent Lossless Data Center Networks" <https://mentor.ieee.org/802.1/dcn/20/1-20-0030-14-ICne.pdf> and led discussion regarding the readiness of the document for a Call for Comments.  
**Disposition:** Agreed (informally, none dissenting) that, before a Call for Comments, the pre-draft should be updated in the header to reflect its status, line numbers should be added, and the pages should be numbered in a single sequence.  
**Motion:** To adopt 802.1-20-0030-14, <<https://mentor.ieee.org/802.1/dcn/20/1-20-0030-14-ICne.pdf>> subject to changes agreed, as a Draft Nendica Report and issue a 30-day Call for Comments.  
Motion by Paul Congdon. Seconded by Ramesh Sivakolundu.  
Approved, unanimous consent.
7. Study Items.  
**Disposition:** No discussion.
8. Future Meetings. The Nendica Chair scheduled DCN meetings on alternate Thursdays 09:00 - 11:00 ET. However, the following meeting is Jan 28, 2021 which is too soon given that the Call for Comments will be underway.  
**Disposition:** The Jan 28, 2021 Nendica meeting is cancelled. The remaining meetings remain on the biweekly schedule. The meeting of Feb 11, 2021 will remain scheduled in case it may be useful, noting that it may be cancelled since the DCN Call for Comments will be in progress and noting that holidays will be underway for some participants. DCN comment resolution will be planned for the following meeting of Feb 25, 2021.
9. Any Other Business. No other business was discussed by Nendica in this session.

10:16 ET adjournment

## 7 YANGsters

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

- Minutes of the YANGsters meeting held 2020-11-17 10:06 AM – 11:05 AM ET  
<https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=178037>
- Minutes of the YANGsters meeting held 2020-11-24 10:00 AM – 11:08 AM ET  
<https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=181220>
- Minutes of the YANGsters meeting held 2020-12-01 10:00 AM – 11:03 AM ET  
<https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=192665>
- Minutes of the YANGsters meeting held 2020-12-15 10:00 AM – 10:46 AM ET  
<https://listserv.ieee.org/cgi-bin/wa?A2=ind20&L=STDS-802-1-MINUTES&P=209450>
- Subject: Minutes of the YANGsters meeting held 2020-12-22 10:00 – 11:00 ET  
<https://listserv.ieee.org/cgi-bin/wa?A2=ind21&L=STDS-802-1-MINUTES&P=37093>
- Minutes of the YANGsters meeting held 2021-01-12 10:00 AM – 11:03 AM ET  
<https://listserv.ieee.org/cgi-bin/wa?A2=ind21&L=STDS-802-1-MINUTES&P=7908>

The table in section 1 reflects, for all meetings held in this session, the attendance and affiliation of participants who registered their attendance in IMAT.

**Call to order** Jan 21, 2021 at 14:00 ET by Scott Mansfield, the YANGsters Chair, who presided. Stephan Kehrer, the YANGsters Secretary, wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction. The YANGsters Chair reminded participants that the following information was made available before the meeting
  - The IEEE SA Copyright Policy slides,
  - The Guidelines for IEEE SA Meetings slide,
  - The IEEE SA slides regarding IEEE Codes of Ethics and Conduct, participation in the “individual process”, and dominance,
  - The decorum information, and
  - The reminder for participants to register their attendance in IMAT contained in “MEETING INTRODUCTION”  
<http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0720-v01.pdf> thereby providing the information on slide 2 of this presentation.
2. Approval of agenda. The YANGsters Chair presented the agenda in <https://1.ieee802.org/january-2021-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 presented:
  - <https://1.ieee802.org/yangsters/>,
  - <https://1.ieee802.org/yangsters/yangsters-call-information/>,
  - <https://1.ieee802.org/category/yangsters-agenda/>, and
  - <https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/>.**Disposition:** For information.
4. 802f Update. Marc Holness presented “P802f YANG Data Model for Ethernets Updates”  
<https://www.ieee802.org/1/files/public/docs2021/802f-mholness-Update1-0121-v03.pdf>.
  - The background on the topic was provided.
  - Regular meetings are held with the RAC to resolve outstanding issues.
  - The current proposal under discussion includes:
    - Introducing four new fields in the Ethernets Public Listing called “friendly name”, “short description”, “last updated”, and “entity tag (SDO/SIG)”.
    - Adding enhancements to the Ethernets Public Listing’s search to provide a more flexible and robust search.
    - Clarifying how the new fields are managed.
  - Input on the topic can be sent to the YANGsters list and 802.1 Chair.**Disposition:** For information.
5. YANG Instance Examples. The YANGsters Chair presented <https://1.ieee802.org/yangsters/yang-instance-examples/>.
  - The information at <https://1.ieee802.org/yangsters/yang-instance-examples/> provides instance examples and guidance on how to use them in YANG related tools to verify YANG modules.
  - A request was made for those knowledgeable in the art to provide comments.**Disposition:** For information.
6. Meta-Data Review. The YANGsters Chair presented <https://1.ieee802.org/yangsters/yang-metadata/>.
  - As of Jan 21, 2021, 20 out of 39 files in the published tree of the YANG catalog GitHub repository are missing current metadata.
  - Four of the modules missing current metadata belong to IEEE 802.1.**Disposition:** agreed (informally, none dissenting) that metadata needs to be added to the IEEE 802.1 YANG modules that are missing it.

7. IEEE 802.1Q YANG discussion. Johannes Specht presented <https://www.ieee802.org/1/files/public/docs2021/maint-specht-yang-comments-0121-v02.pdf>.
- The document provided is an update to a previous contribution on the topic.
  - It includes color coding to indicate how the issues can potentially be handled (i.e. as smaller standalone corrections or as part of a larger remodeling effort of the bridge YANG module).
  - To progress maintenance item 0242 (<https://www.802-1.org/items/357>) a decision is required on the approach that would be taken to handle the issues pointed out.
  - It was pointed out that doing smaller standalone corrections for easy but relevant issues can be done, even if a larger remodeling of the modules is chosen as the long-term solution approach.
  - The following provide information on how this can be done in a backward compatible way: <https://tools.ietf.org/html/draft-ietf-netmod-yang-solutions-01>, <https://tools.ietf.org/html/draft-ietf-netmod-yang-module-versioning-01>, and <https://tools.ietf.org/html/draft-ietf-netmod-yang-module-versioning-01>.
- Disposition:** agreed (informally, none dissenting) that more discussion on how to proceed with the aforementioned maintenance item is required.
8. IETF VLAN Comments. The YANGsters chair presented “Sub-interface VLAN YANG Data Models” <https://www.ietf.org/archive/id/draft-ietf-netmod-sub-intf-vlan-model-07.txt>.
- A request was made in a previous YANGsters electronic meeting for those knowledgeable in the art to provide comments (as individuals) to help ensure the sub-interface information is accurate. This request was repeated.
- Disposition:** For information.
9. YANG Doctors Question. The YANGsters Chair presented the maintenance item at <https://www.802-1.org/items/420/requests/310/pre>.
- An email with questions on this maintenance item was sent to the YANG doctors.
  - The request on feedback from the YANG doctors will be sent again.
- Disposition:** For information
10. The YANGsters Chair led the discussion on “Guidelines for discussion”.
- Questions on guidelines and best practices to draft IEEE 802.1 YANG modules have been raised in the past and keep recurring, often in comment resolutions. The following items have been presented and discussed:
- MIB to YANG mapping
    - RFC 6643 provides information on the mapping from MIB to YANG.
  - Use of Types file
    - It was discussed if types defined in YANG modules should be split out into separate types files and under what conditions.
    - If a type is expected to be used by another module putting the types file in a separate file is a good idea.
    - If a type is only used within its own module it should be kept in the module itself.
    - “Don’t invent inheritance, discover it.”
    - Moving types from one YANG file into a types file at a later point in time can potentially cause issues when importing that type and should be avoided.
    - If moving a type is required, the type should be kept in the original file and deprecated in addition to moving it.
  - Guidelines for prefixing
    - Prefixes should be short but not incomprehensible.
    - Guidelines should help to have a common approach on module names and prefixes but following them should not be a hard requirement.



- Changing the prefixes of existing modules can be done in a backward compatible way (as pointed out in section 11 of RFC 7950).
- A discussion of “Style” was deferred by lack of time.
- A discussion of “Names and Abbreviations” was deferred by lack of time.

**Disposition:** Agreed (informally, none dissenting) that guidelines following the discussion on the YANGsters page would be helpful.

11. Update on Hot Issues was deferred by lack of time.
12. Next Calls was deferred by lack of time.
13. Any Other Business. No other business was discussed by YANGsters in this session.
14. Future meetings. Although not discussed, YANGsters meet next during the electronic meeting on Jan 26, 2021.

16:00 ET adjournment

## 8 ePolls

The ePolls in the following table were initiated during this interim session and all passed.

The results are also provided in “IEEE 802.1 WG January 2021 eMeetings” <https://www.ieee802.org/1/files/public/minutes/2021-01-WG-motions.pdf> and in “802.1 Motions for LMSC agenda, including supporting material” <https://www.ieee802.org/1/files/public/minutes/2021-02-exec-regular-motions.pdf>.

Start (ET)	ePoll Name	Topic	Document	End (ET)	Votes [A/D/-]
20-Jan-2021 00:00:00 ET	57 - P802.1ABdh WG ballot	802.1 authorizes Stephen Haddock, the Editor of P802.1ABdh Station and Media Access Control Connectivity Discovery -- Amendment: Support for Multiframe Protocol Data Units to prepare drafts for and conduct Working Group balloting. Proposed: Janos Farkas Second: Paul Congdon		30-Jan-2021 23:59:59 ET	54/0/0
19-Jan-2021 00:00:00 ET	54 - 802.1DP CFP	Approve the Call for Participation on the P802.1DP project in <a href="https://www.ieee802.org/1/files/public/docs2021/dp-draft-cfp-0121-v02.pdf">https://www.ieee802.org/1/files/public/docs2021/dp-draft-cfp-0121-v02.pdf</a> for release by IEEE SA, granting the IEEE 802.1 WG chair (or his delegate) editorial license. Moved: Janos Farkas Seconded: Jessy Rouyer	<a href="https://www.ieee802.org/1/files/public/docs2021/dp-draft-cfp-0121-v02.pdf">dp-draft-cfp-0121-v02.pdf</a>	29-Jan-2021 23:59:59 ET	59/0/0
19-Jan-2021 00:00:00 ET	55 - 3GPP SA2 liaison	Approve <a href="https://www.ieee802.org/1/files/public/docs2021/draft-liaison-response-3GPP-SP-201144-inclusive-language-0121-v03.pdf">https://www.ieee802.org/1/files/public/docs2021/draft-liaison-response-3GPP-SP-201144-inclusive-language-0121-v03.pdf</a> as a communication to 3GPP SA WG2, granting the IEEE 802.1 WG chair (or his delegate) editorial license. Proposed: Paul Congdon Second: Don Pannell		29-Jan-2021 23:59:59 ET	57/0/3

<p>19-Jan-2021 00:00:00 ET</p>	<p>56 - P802.1ASdr PAR</p>	<p>802.1 authorizes the Maintenance TG to generate PAR and CSD for pre-circulation to the EC for an amendment to IEEE Std 802.1AS to replace deprecated terminology with inclusive language. Moved: Paul Congdon Seconded: Don Pannell</p>		<p>29-Jan-2021 23:59:59 ET</p>	<p>57/2/1</p>
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## 9 Next Session

Mar 8-16, 2021 electronic plenary session.

Unapproved Draft