

Mark Hantel Email Maintenance and
IEC/IEEE 60802 Joint Project Website Maintenance

Paul Unbehagen Website Maintenance

Hal Keen Email Maintenance

3 Opening Plenary Meeting

The Chair, Glenn Parsons, presided.

The Recording Secretary, Jessy Rouyer, wrote the minutes.

Attendance is in section 1.

Monday November 11, 2019

10:31 AM (call to order by the Chair)

The Chair presented the *Opening Agenda* slides finalized as
<http://www.ieee802.org/1/files/public/minutes/2019-11-opening-plenary-slides.pdf>.

During this presentation, the Chair:

- Thanked John Messenger and Jessy Rouyer who received a round of applause for their acting Chair and acting Vice-Chair roles, respectively, during the Chair's second unanticipated absence (slide 2).
- Introduced the agendas on slide 3 that were approved.
- Presented slides 4 through 8 (reproducing slides 0 through 4 of the IEEE-SA PatCom Patent Slides for Standards Development Meetings, separately available at <http://standards.ieee.org/about/sasb/patcom/materials.html>).

The Chair:

- Presented information on these slides including:
 - Instructions for the WG Chair (and sub group Chairs);
 - Participants have a duty to inform the IEEE;
 - Ways to inform IEEE;
 - Other guidelines for IEEE WG meetings; and
 - Patent-related information.
- Advised WG attendees that:
 - 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.
- Made the "Call for Potentially Essential Patents" thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard.
 - There were no responses to the call.
- Presented slides 9 through 11 on the IEEE SA Copyright Policy and advised the standards development group participants that:
 - 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.
- Reminded 802.1 TG Chairs of their daily obligations (per slide 12) with respect to presenting the IEEE-SA PatCom Patent Slides for Standards Development Meetings and making the “Call for Potentially Essential Patents”.
- Presented slides 13 through 15 reproducing slides 1 through 3 approved by SASB in June 2019 conveying that:
 - Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct (slide 13);
 - Participants in the IEEE-SA “individual process” shall act independently of others, including employers (slide 14); and
 - IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints (slide 15).
- Reviewed general administrative information including:
 - Meeting “Decorum” or rules, including the policies on public reporting, and on photography or recording (slide 16);
 - The Chair called for any members of the press (i.e., anyone reporting publicly on this meeting) to announce their presence.
 - There were no responses to the call.
 - Hotel and meeting room security (slide 17);
 - General information on 802.1 (slide 18), including information on 802 newcomers orientation available at <https://mentor.ieee.org/802-ec/dcn/19/ec-19-0098-01-00EC.pdf>, 802.1 newcomers orientation available at <http://www.ieee802.org/1/files/public/docs2018/tsn-farkas-intro-0318-v01.pdf>, <http://www.ieee802.org/1/files/public/docs2018/detnet-tsn-farkas-tsn-overview-1118-v01.pdf>, and <http://www.ieee802.org/1/files/public/docs2018/detnet-tsn-farkas-tsn-basic-concepts-1118-v01.pdf>, how to access session minutes and schedule, a reminder that contributions are to be uploaded before presentation, and how to report meeting attendance;
 - Session logistics (slide 19) including the following counts:
 - Friday breakfast: 49
 - Friday lunch: 41
 - Friday afternoon break: 35
- Introduced 802.1 officers who received a round of applause, and provided 802.1 website information (slide 20).
- Reminded 802.1 voting members of their obligations regarding affiliation declaration (slide 21), voting membership (slide 22), and responding to WG ballots and E-Polls, as well as regarding the consequences of not responding to WG ballots and E-Polls (slide 23).
- Reviewed the list of 802.1 voters (slide 24), including information about individuals who have lost (slide 25), will lose (slide 26), may gain (slides 27 and 28) or lose (slide 29) 802.1 voting membership.
- Reminded individual participants of 802.11 reciprocal credit, which was continued at this meeting (slide 30).
- Provided an update on the 802.1 website at <http://1.ieee802.org> (slide 31).
- Reviewed the schedule for future interim sessions (slide 32):
 - January 20-24, 2020 (workshop January 25, 2020) in Geneva, Switzerland
 - May 18-20, 2020 in Pasadena, CA, USA
 - Greg McSorley presented *IEEE 802.1/802.3 Joint Interim Session* <http://ieee802.org/1/files/public/docs2019/admin-kennedy-EAMay2020Announcement-0919-v01.pdf>.

- September 21-25, 2020 in Stuttgart, Germany
 - Stephan Kehrer presented *IEEE 802.1 Interim meeting proposal Stuttgart, Germany* <http://ieee802.org/1/files/public/docs2019/admin-kehrer-sep2020-interim-proposal-1119-v01.pdf>.
- 2021 proposals welcome
- Reviewed information on the January 2020 interim session and workshop to be held in Geneva, Switzerland (slides 33-34).
- Reviewed the schedule for future plenary sessions (slide 35):
 - March 15-20, 2020 in Atlanta, GA, USA
 - July 12-17, 2020 in Montreal, QC, Canada
 - November 8-13, 2020 in Bangkok, Thailand
 - March 14-19, 2021 in Denver, CO, USA
 - July 11-16, 2021 in Madrid, Spain (to be confirmed)
 - November 14-19, 2021 in Vancouver, Canada
- Reminded that 802 elections take place in March 2020 (slide 36).
 - Individuals wishing to run for elected or appointed positions were invited to talk to currently elected or appointed individuals for further details.
 - The current 802 Chair, 802.1 Chair and 802.1 Vice Chair are planning to stand for re-election.
- Reported the following items out of the 802 Executive Committee (EC) executive session (slide 37):
 - SA staff are available this week
 - Jodi Haasz (802.1 program manager) and Catherine Berger (802.1 editorial)
 - 802 leadership in SASB & BOG
 - 40th Anniversary of IEEE 802 – March 2020 ([EC-19-194](#))
 - Public outreach: web site, videos, article placements, marketing ads
 - Georgia Aquarium social event
 - 802 Task Force
 - Agenda: Tools & Framemaker licenses
 - December teleconference
 - P&P, OM & CG change proposals (EC-19-183)
 - Update Standards Committee P&P
 - Venues (EC-19-193)
 - Treasurer ([EC-19-186](#))
 - Reserves \$1.2m, rising slowly
 - \$300k loss in Vienna
 - This meeting: less than 700 registrations, anticipate \$100k loss.
- Provided updates on terminology (slide 38), electronic meeting tools (slide 39), and myProject (slide 40).
- Reviewed the list of 802 EC meetings to be held this week (slide 41).
- Provided and discussed an update on the IEEE Open Source offering (slide 42).
- Provided information about public review (slide 43) and about the following email ballots (ePoll) since the last plenary session (slide 44):
 - None.
- Pointed out PARs, PAR modifications, and CSDs up for vote at this IEEE 802 plenary session (slides 45-47), including discussion of P802f liability concerns (slide 46).
- Introduced the 802 Industry Connections activity (slide 48) and the Monday tutorials (none) at this 802 plenary session (slide 49).
- Reviewed the list of liaisons within 802 (joint and standing committee meetings, YANGsters) for which meetings were to be held during this 802 plenary session (slide 50).
- Reviewed the list of liaisons incoming to 802.1 to be handled by the TSN TG and Maintenance TG (slide 51), and potential 802.1 outgoing liaisons (slide 52).

- Provided the anticipation of next actions with respect to projects in the WG's current workload (slide 53) and discussed promotion of the work of the WG (slide 54).
 - János Farkas presented on TSN/A Conference 2019 (slide 55).
 - Jim Lawlis discussed the IEEE-SA Ethernet & IP – Automotive Technology Day held September 24-25, 2019.
 - Bob Noseworthy presented on IEEE 802 promotion at ISPCS 2019 (slide 56).
- Discussed the preparation of Standards Project Awards (slide 57).
- Summarized the list of anticipated motions for EC Consent Agenda (slides 58-59).
- Showed the 802.1 plenary schedule for this session, which was tacitly approved (slide 60).
- Listed 802.1 management meetings (slide 61).
- Requested that sub group agendas be presented (slide 62):
 - The YANGsters Vice Chair, Stephan Kehrer, presented the agenda on slide 63.
 - The Security TG Chair, Mick Seaman, presented the agenda on slide 64.
 - The TSN TG Chair, János Farkas, and the IEC/IEEE 60802 Joint Project Chair, Ludwig Winkel, presented the agenda on slide 65.
 - The Maintenance TG Chair, Paul Congdon, presented the agenda on slide 66.
 - The Nendica Chair, Roger Marks, presented the agenda on slide 67 and schedule on slide 68.
- Called for Any Other Business (slide 69).
 - No further business was discussed in this meeting.

12:31 PM adjournment

4 Maintenance Task Group

Minutes of TG conference calls are available at <https://1.ieee802.org/maintenance/>.

The Maintenance Task Group Chair, Paul Congdon, presided and wrote the minutes.

Attendance is in section 1.

Tuesday 12 November 2019

8:02 AM call to order by the TG Chair

At the beginning of the meeting the TG Chair presented the IEEE-SA Copyright Policy slides <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/copyright-policy-WG-meetings.potx>, and the IEEE-SA PatCom Patent Slides for Standards Development Meetings <https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf>, the IEEE 802 Participation slide <https://mentor.ieee.org/802-ec/dcn/17/ec-17-0093-05-0PNP-ieee-802-participation-slide-ppt.ppt>, and made the Call for Potentially Essential Patents. There were no responses to the call prior to the end of the meeting.

The TG Chair:

- Introduced the agenda per *Maintenance Task Group Meeting November 12, 2019 Agenda* in <http://www.ieee802.org/1/files/public/docs2019/maint-congdon-session-1119-v01.pdf> that was approved.
- Presented *Document Vehicles -Status Update* in <http://www.ieee802.org/1/files/public/docs2019/maint-congdon-session-1119-v01.pdf>.
- Led the discussion of open and new maintenance items.
 - [0243](#) – Maintenance request on IEEE 802.1Q
 - [0244](#) – Minor maintenance item for 802.1Q

- [0245](#) – Another small maintenance item for 802.1Q-2018
- [0246](#) – IEEE Std 802.1Q-2018: Color-aware flow meters are color-blind

Disposition: Details for discussion on all new items were 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'.

- Led the discussion on:
 - *LS on OTNT Standardization Work Plan*
http://www.ieee802.org/1/files/public/docs2019/liaison-SG15-LS216-OTNT_standardization_workplan-1019.zip
 - Jodi Haasz's *Attachment 1*
<http://www.ieee802.org/1/files/public/docs2019/maint-haasz-itu-roadmap-report-1109-v01.pdf> prepared to be part of the *Liaison Statement to TU-T JCA IMT-2020*

Disposition: The WG Chair requested the Maintenance TG Chair to produce liaison responses and attach the response documents. Motions were added to the EC consent agenda to forward those liaison responses. The liaison responses, including the response documents, were finalized as *Liaison Statement to ITU-T SG15 OTNT* <http://www.ieee802.org/1/files/public/docs2019/liaison-response-SG15-OTNT-1119-v01.pdf> and *Liaison Statement to ITU-T JCA IMT-2020* <http://www.ieee802.org/1/files/public/docs2019/liaison-ITU-T-JCA-IMT-2020-1119-v01.pdf>.

Karen Randall presented *ISO/IEC JTC1 SC6 Status* in <http://www.ieee802.org/1/files/public/docs2019/maint-congdon-session-1119-v01.pdf>.

Disposition: None.

James Glib led a discussion on *P802.1ACct* <https://1.ieee802.org/maintenance/802-1acct/>.

Disposition: James Glib, P802.1ACct editor, has created an initial draft of the amendment. A link to the draft was not available but the editor will work with the TG Chair to put the draft into the relevant locations on the 802.1 repository and launch an initial Task Group ballot.

Roger Marks presented *Clarifying EPD and LPD* <http://www.ieee802.org/1/files/public/docs2019/maint-Marks-Finn-epd-lpd-1119-copyright.pdf>.

Disposition: The scope of changes required to clarify the EPD and LPD confusion is likely beyond what can be covered by a maintenance item(s). There may be some small bugs that can be fixed in IEEE Std 802, IEEE Std 802.1AC, IEEE Std 802.1Q and/or IEEE Std 802.11 as forthcoming maintenance items, but to completely satisfy a clarification to the confusion, revision or amendment projects may be needed.

Future meetings/teleconferences

The TG intends to hold teleconferences on Tuesday January 14, 2020 and Tuesday March 10, 2020 at 8:00 AM Pacific, unless cancelled prior to the call.

The TG meets face-to-face next at the January 2020 interim session.

Any Other Business

No further business was discussed in this meeting.

10:05 AM adjournment

Post-meeting, the TG Chair provided meeting slides updated based on discussion in <http://www.ieee802.org/1/files/public/docs2019/maint-congdon-session-1119-v02.pdf>. The TG website at <http://www.ieee802.org/1/maint.html> provides further details and discussion.

5 Security Task Group

Minutes of TG conference calls are available at <https://1.ieee802.org/security/security-task-group-minutes/>.

The Security Task Group Chair, Mick Seaman, presided and wrote the minutes.

Attendance is in section 1 and also included the following participation:

- Eric Gray, Ericsson [Monday PM, Tuesday AM, PM, Wednesday AM, PM]
- Mick Seaman, Individual [Monday PM, Tuesday AM (part), PM, Wednesday AM (part), PM]

At the beginning of the TG meeting on Monday, the TG Chair presented the IEEE-SA PatCom Patent Slides for Standards Development Meetings <https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf>, the IEEE 802 Participation slide <https://mentor.ieee.org/802-ec/dcn/17/ec-17-0093-05-0PNP-ieee-802-participation-slide-ppt.ppt>, the IEEE-SA Copyright Policy slides <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/copyright-policy-WG-meetings.potx> and made the “Call for Potentially Essential Patents”. At the beginning of the TG meetings on Tuesday and Wednesday, the TG Chair announced that the meetings were subject to the Patent Policy as read and displayed at the opening of Monday's TG meeting. There were no responses to the calls prior to the end of the week's meetings.

The draft agenda posted on the 802.1 website prior to the meeting was reviewed by the TG Chair during the WG opening plenary on Monday morning (slide 64 in <http://www.ieee802.org/1/files/public/minutes/2019-11-opening-plenary-slides.pdf>).

1. P802.1X-Rev Port-Based Network Access Control - Revision Draft 1.5, Standards Association (Sponsor) recirculation ballot resolution
2. P802.1AE-2018-Cor1
3. MAC Privacy protection (proposed P802.1AEdk)
4. P802E Privacy (Recommended Practice ... for 802...), D1.6 Working Group recirculation ballot resolution
5. A.O.B
6. Future meetings/teleconferences

Monday 11 November 2019

1:35 PM call to order by the TG Chair

P802.1X-Rev D1.5 SA recirculation ballot resolution

Mick Seaman, P802.1X-Rev Editor, presented the disposition <http://www.ieee802.org/1/files/private/x-rev-drafts/d1/802-1X-Rev-d1-5-sponsor-recirc-dis.pdf> of comments received on <http://www.ieee802.org/1/files/private/x-rev-drafts/d1/802-1X-rev-d1-5.pdf>. The ballot had passed with 100% approval and 84% response rate.

Disposition: The meeting agreed (informally, none dissenting) to proceed to RevCom without further changes to D1.5 or to the disposition of comments. Editorial comments would be passed to the IEEE editor.

[On Friday November 15, 2019, the EC approved progression to RevCom.]

P802.1AE-2018-Cor1 D1.0 Working ballot resolution

Mick Seaman, P802.1AE-2018-Cor1 Editor, presented the disposition <http://www.ieee802.org/1/files/private/ae-2018-cor-1-drafts/d1/802-1AE-2018-Cor1-d1-0-dis.pdf> of comments received on <http://www.ieee802.org/1/files/private/ae-2018-cor-1-drafts/d1/802-1AE-2018-Cor1-d1-0.pdf>. The ballot had passed with 100% approval and 84% response rate. This disposition captured the results of the discussion in the Edinburgh, September 2019, interim session.

Disposition: The meeting agreed (informally, none dissenting) to proceed to SA ballot without further changes to D1.0 or to the disposition of comments.

[On Friday November 15, 2019, the EC approved progression to SA ballot]

MAC Privacy protection

The TG Chair led a discussion of frame packing, individual frame fragmentation and reassembly aimed at increasing mutual understanding of the problem space.

Don Fedyk presented *Frame Format for IEEE 802.1AEdk MACsec Privacy* <http://www.ieee802.org/1/files/public/docs2019/dk-fedyk-dot1aedk-dataformat-discussion-1105-v01.pdf>.

- Discussion started.
- **3:10 – 3:35 PM recess**
- Discussion continued. Noted: some advantage to the modified proposal (slide 9, more fragments per frame); attempt to reduce impact on QoS; detailed description of transmission (packing, fragmentation) and reception (unpacking, reassembly) processes beyond implicit (not always clear) indications in format required to assess benefits; not a lot of enthusiasm for alternative (slide 11); is to use terminology that requires development (slide 13), 'tunnel' already overused, MSDU already used as MAC Service Data Unit in 802.1, 'chunk' seems a promising term (at least in informal discussion) for an entire packet or the fragment of a packet contained in a 'superframe' (MAC Privacy PDU – MPPDU –, there may be a better informal term).

Disposition: Continued later.

4:50 PM recess

Tuesday 12 November 2019

10:30 AM call to order by the TG Chair

P802E Privacy D1.6 Working Group recirculation ballot resolution

Jerome Henry, P802E Editor, led a discussion of the proposed disposition <http://www.ieee802.org/1/files/private/802-e-drafts/d1/802E-d1-6-pdis2.pdf> of comments received on <http://www.ieee802.org/1/files/private/802-e-drafts/d1/802E-d1-6.pdf>, continuing the October 30, 2019 teleconference discussion.

- **11:40 AM: in the temporary absence of the TG Chair, Karen Randall presided.**

Disposition: The meeting agreed (informally, none dissenting) to proceed to SA (sponsor) ballot. Final disposition recorded in <http://www.ieee802.org/1/files/private/802-e-drafts/d1/802E-d1-6-dis.pdf>.

[On Friday November 15, 2019, the EC approved progression to SA ballot]

MAC Privacy protection

Don Fedyk led a continuation of Monday afternoon's discussion.

- **12:30 – 2:00 PM recess, after which the TG Chair presided**
- Discussion continued.
- **3:00 – 3:30 PM recess**
- Discussion continued.
- The diagrams in *Aggregation Discussion* <http://www.ieee802.org/1/files/public/docs2019/dk-fedyk-dot1aedk-aggregation-discussion-1119-v01.pdf> were developed during discussion.

Disposition: Further discussion needed. A full survey of options and any preliminary decisions would be undertaken after PAR approval.

A.O.B: MKA Key Server changes

The TG chair led a brief discussion of a potential modification to the 802.1X MKA CP state machine conditions (802.1X subclause 12.4). The desire, raised in discussion in past meetings, was to minimize disruption in a group CA when a higher-priority Key Server takes over (particularly when that Key Server system has been restored following a failure). A difficulty is distinguishing that case from a group merge where some signaling to upper layers via `controlledPortEnabled = FALSE` (thus blipping `MAC_Operational`) is desirable to avoid the instant creation of a hard loop. It may be possible to limit the duration of the disruption by changing the `RETIRE.chgdConnect` transition to `CHANGE` to require a newSAK to already have been distributed if the only reason for that transition is a change in Key Server. Assuming all existing CA participants receive the newSAK transmission, that would allow each to rapidly transition `CHANGE-SECURED-RECEIVING-READY-TRANSMIT-TRANSMITTING` with no external dependencies thus reducing the `MAC_Operational` blip for each participant to the minimum required by that participant for internal protocol stack communication.

Disposition: Further discussion needed. Formal presentation and analysis required.

A.O.B: MKA scaling and new environments

The TG chair led a brief discussion of comments on other aspects of MKA, arising from the prior discussion. While the introduction of multiple SCs per SecY was intended to address the need for strict replay/order protection for preemption (two SCs required) or common service provider service level distinctions (two or three SCs required) it had led to a demand for the support of eight SCs per SecY, with a very large number of SecYs per system and hence a requirement for many MKA instances and a high processing load for MKA ICV generation and verification. Some reduction in this load was desired. Separately the use of MACsec on high delay (extra-terrestrial) links was noted, with some desire for timeout value adjustment.

Disposition: Further study needed. Formal input required.

5:25 PM recess

Wednesday 13 November 2019

10:35 AM call to order by the TG Chair

MAC Privacy protection

The TG chair led the resolution of comments received from 802.3, 802.11, and IEEE Staff on the draft PAR <http://www.ieee802.org/1/files/public/docs2019/dk-security-mac-privacy-PAR-0919-v02.pdf> for P802.1AEdk. No comments were received on the draft CSD

<http://www.ieee802.org/1/files/public/docs2019/dk-security-mac-privacy-CSD-0919-v00.pdf> for P802.1AEdk.

Disposition: Comments and responses discussed and recorded in *P802.1AEdk Media Access Control (MAC) Security Amendment 4 : MAC Privacy protection*

<http://www.ieee802.org/1/files/public/docs2019/dk-PAR-CSD-comments-1119-v00.pdf>.

- Updated PAR, including changes requested by IEEE Staff (downloaded copy as provided by MyProject): <http://www.ieee802.org/1/files/public/docs2019/dk-security-mac-privacy-PAR-0919-v03.pdf>
- CSD (unchanged but file renamed to match prior EC consent agenda submittal): <http://www.ieee802.org/1/files/public/docs2019/dk-security-mac-privacy-CSD-0919-v01.pdf>

[On Friday November 15, 2019, the EC approved submission of the PAR to NesCom.]

11.40 AM: in the temporary absence of the TG Chair, Karen Randall presided.

MAC Privacy protection

Don Fedyk led a continuation of Tuesday afternoon's discussion.

Disposition: Continued later.

12:30 PM – 1:35 PM recess

The diagrams in IEEE 802.1AEdk Datapath Discussion

<http://www.ieee802.org/1/files/public/docs2019/dk-fedyk-ieee802-dot1ae-datapath-traffic-class-1119-v00.pdf> continued to be developed during discussion.

Disposition: Further discussion needed.

Future meetings/teleconferences

Agreed (informally, none dissenting) to hold teleconferences for progression of work as identified during this session and to address TG matters arising, subject to the usual required notice. P802E SA initial ballot processing will be addressed by teleconference, with further SA recirculation ballots as necessary.

The TG will meet during the January 2020 interim session.

2:25 PM adjournment

6 Time-Sensitive Networking Task Group

Minutes of TG conference calls are available at <https://1.ieee802.org/tsn-calls/>.

The Time-Sensitive Networking (TSN) Task Group Chair, János Farkas, presided.

The TG Secretary, Marina Gutiérrez, wrote the minutes.

Attendance is in section 1.

At the beginning of the meetings on Monday, Tuesday, Wednesday, Thursday, and Friday the TG Chair or TG Vice-Chair presented <http://www.ieee802.org/1/files/public/docs2019/admin-farkas-TSN-meeting-intro-1119-v01.pdf> (reproducing the IEEE-SA Copyright Policy slides <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/copyright-policy-WG-meetings.potx>, the IEEE-SA PatCom Patent Slides for Standards Development Meetings

<https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf>, the IEEE 802 Participation slide (<https://mentor.ieee.org/802-ec/dcn/17/ec-17-0093-05-0PNP-ieee-802-participation-slide-ppt.ppt>) and made the Call for Potentially Essential Patents. There were no responses to the calls prior to the end of the week's session.

Monday 11 November 2019

8:03 AM call to order by the TG Chair

The TG Chair presented the agenda in <https://1.ieee802.org/november-2019-plenary-session-in-waikoloa-hi-usa-tsn-tg-agenda/>.

Disposition: The agenda was reviewed, discussed and approved.

Geoff Garner, P802.1AS-Rev editor, presented *P802.1AS-Rev/D8.3 Editor's Report* <http://www.ieee802.org/1/files/public/docs2019/as-garner-802-1AS-Rev-d8-3-sponsor-recirc-ballot-editors-report-1119-v00.pdf> and led the resolution of comments received on <http://www.ieee802.org/1/files/private/as-rev-drafts/d8/802-1AS-rev-d8-3.pdf>.

Disposition: Ballot comments discussed. Disposition recorded in <http://www.ieee802.org/1/files/private/as-rev-drafts/d8/802-1AS-Rev-d8-3-dis-v00.pdf>.

Johannes Specht, P802.1Qcr editor, led the resolution of comments received on <http://www.ieee802.org/1/files/private/cr-drafts/d1/802-1Qcr-d1-3.pdf>.

Disposition: Continued later.

10:03 AM recess

1:31 PM call to order by the TG Chair

János Farkas led the review of the draft PAR <https://mentor.ieee.org/802-ec/dcn/19/ec-19-0160-00-00EC-ieee-p802-3cx-draft-par-response.pdf> and CSD <https://mentor.ieee.org/802-ec/dcn/19/ec-19-0161-00-00EC-ieee-p802-3cx-draft-csd-response.pdf> for P802.3cx.

Disposition: PAR and CSD discussed. Continued later.

3:03 – 3:41 PM recess

Johannes Specht, with the remote participation of P802.1Qcx editor Marc Holness, led the resolution of comments received on <http://www.ieee802.org/1/files/private/cx-drafts/d1/802-1Qcx-d1-5.pdf>.

Disposition: Ballot comments discussed. Disposition recorded in <http://www.ieee802.org/1/files/private/cx-drafts/d1/802-1Qcx-d1-5-dis-v02.pdf>.

Josef Dorr and Karl Weber presented *LNI 4.0 TSN Testbed Update of Stream Reservation Approach* <http://www.ieee802.org/1/files/public/docs2019/new-Dorr-LNI40-1119-v01.pdf>.

Disposition: Presentation discussed. Further discussion needed.

The TG Chair presented draft responses to *LS on clarification on synchronization requirements applicable in IEEE 802.1CM and CPRI related documents*

<http://www.ieee802.org/1/files/public/docs2019/liaison-sg15-LS187-clarification-on-sync-requirements-0719.pdf>.

Disposition: Liaison discussed and draft responses reviewed for 802.1 closing plenary approval.

The TG Chair presented the draft response to *LS/r on Coordination of Ethernet information and data modelling work (reply to IEEE802.1-LS48)*

<http://www.ieee802.org/1/files/public/docs2019/liaison-SG15-LS217-modelling-1119.pdf>.

Disposition: Continued later.

The TG Chair presented draft motions for 802.1 closing plenary approval.

Disposition: Draft motions reviewed for 802.1 closing plenary approval.

6:03 PM recess

Tuesday 12 November 2019

10:35 AM call to order by the TG Chair

The TG Chair continued leading the review of the draft PAR [https://mentor.ieee.org/802-](https://mentor.ieee.org/802-ec/dcn/19/ec-19-0160-00-00EC-ieee-p802-3cx-draft-par-response.pdf)

[ec/dcn/19/ec-19-0160-00-00EC-ieee-p802-3cx-draft-par-response.pdf](https://mentor.ieee.org/802-ec/dcn/19/ec-19-0161-00-00EC-ieee-p802-3cx-draft-csd-response.pdf) and CSD

<https://mentor.ieee.org/802-ec/dcn/19/ec-19-0161-00-00EC-ieee-p802-3cx-draft-csd-response.pdf> for P802.3cx.

Disposition: PAR and CSD discussed. 802.1 comments recorded in *Comments on P802.3cx PAR & CSD* <http://www.ieee802.org/1/files/public/docs2019/admin-PAR-comments-802-3cx-1119-v01.pdf>.

Johannes Specht, P802.1Qcr editor, led the resolution of comments received on

<http://www.ieee802.org/1/files/private/cr-drafts/d1/802-1Qcr-d1-3.pdf>.

Disposition: Ballot comments discussed. Disposition recorded in <http://www.ieee802.org/1/files/private/cr-drafts/d1/802-1Qcr-d1-3-dis-v02.pdf>.

12:25 – 1:43 PM recess

Norman Finn, P802.1CS editor, led the resolution of comments received on

<http://www.ieee802.org/1/files/private/cs-drafts/d2/802-1CS-d2-3.pdf>.

Disposition: Ballot comments discussed. Disposition recorded in <http://www.ieee802.org/1/files/private/cs-drafts/d2/802-1CS-d2-3-dis.pdf>.

3:04 – 3:35 PM recess

The TG Chair continued presenting the draft response to *LS/r on Coordination of Ethernet information and data modelling work (reply to IEEE802.1-LS48)*

<http://www.ieee802.org/1/files/public/docs2019/liaison-SG15-LS217-modelling-1119.pdf>.

Disposition: Liaison discussed and draft response reviewed for 802.1 closing plenary approval.

The TG Chair presented a draft call for participation on IEEE P802.1ABdh.

Disposition: Draft call for participation reviewed for 802.1 closing plenary approval.

The TG Chair presented draft motions for 802.1 closing plenary approval.

Disposition: Draft motions reviewed for 802.1 closing plenary approval.

Craig Gunther, P802.1DG editor, presented draft liaisons to AUTOSAR, Avnu and JASPAR.

Disposition: Draft liaisons reviewed. Continued later.

Christophe Mangin, P802.1CBdb editor, presented *802.1CBdb/D0.3 Editor's report for 3rd TG ballot comments resolution* <http://ieee802.org/1/files/public/docs2019/db-mangin-d0-3-editors-report-1119-v01.pdf> and led the resolution of comments received on <http://www.ieee802.org/1/files/private/db-drafts/d0/802-1CBdb-d0-3.pdf>.
Disposition: Ballots comments discussed. Disposition recorded in <http://www.ieee802.org/1/files/private/db-drafts/d0/802-1CBdb-d0-3-dis-v01.pdf>.

Mark Hantel presented *TSN Domain Proposal for 802.1Qdj* <http://www.ieee802.org/1/files/public/docs2019/dj-Hantel-TSN-Domain-Proposal-1119-v03.pdf>.
Disposition: Presentation discussed. Related to ongoing project. Discussion continued Friday.

6:00 PM recess

Wednesday 13 November 2019

8:00 AM call to order by the TG Chair and the IEC/IEEE 60802 Joint Project Chair

Minutes of this meeting, a joint meeting of the TSN TG and IEC/IEEE 60802 Joint Project, are provided in section 6.1.

10:00 AM recess

Following recess, the TSN TG split into two tracks A and B throughout Thursday: minutes of track A are provided in section 6.1 and minutes of track B follow.

10:37 AM call to order by the TG Vice-Chair

Norman Finn, P802.1CS editor, led the resolution of comments received on the draft PAR modification <http://www.ieee802.org/1/files/public/docs2019/cs-PAR-modification-draft-0919-v01.pdf>.
Disposition: Comments and responses discussed and recorded in *Comments on P802.1CS PAR modification* <http://www.ieee802.org/1/files/public/docs2019/cs-PAR-modification-comments-1119-v01.pdf>.

Stephan Kehrer led the resolution of comments received on the draft PAR <http://www.ieee802.org/1/files/public/docs2019/802F-draft-PAR-0919-v00.pdf> and CSD <http://www.ieee802.org/1/files/public/docs2019/802F-draft-CSD-0919-v00.pdf> for P802F.

Disposition: Comments discussed.

- Updated PAR: <http://www.ieee802.org/1/files/public/docs2019/cs-PAR-modification-0919-v01.pdf>
- CSD unmodified.

Norman Finn, P802.1DC editor, led the resolution of comments received on <http://www.ieee802.org/1/files/private/dc-drafts/d1/802-1DC-d1-1.pdf>.

Disposition: Ballot comments discussed. Disposition recorded in <http://www.ieee802.org/1/files/private/dc-drafts/d1/802-1DC-d1-1-dis.pdf>.

12:12 – 1:00 PM recess

Feng Chen, P802.1Qdd editor, presented *IEEE P802.1Qdd Resource Allocation Protocol (RAP) Editor's Report for D0.1 Ballot Comment Resolution* <http://www.ieee802.org/1/files/public/docs2019/dd-chen-qdd-d0-1-editors-report-1119-v01.pdf> and led the resolution of comments received on <http://www.ieee802.org/1/files/private/dd->

[drafts/d0/802-1Qdd-d0-1.pdf](#).

Disposition: Ballot comments discussed. Intermediate disposition recorded in <http://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-1-pdis-v02.pdf>.

3:01 – 3:32 PM recess

Roger Marks, P802.1CQ editor, presented *P802.1CQ Discussion*

<http://www.ieee802.org/1/files/public/docs2019/cq-Marks-Oliva-update-2019-11-13-1119.pdf>.

Disposition: Presentation discussed. Related to ongoing project.

Antonio de la Oliva presented *IEEE 802.1CQ State Machine*

<http://www.ieee802.org/1/files/public/docs2019/cq-aoliva-statemachineexplanation-1119-v1.pdf>,

Proposal for Adding the document with DCN omniran-18-0071-01-CQ00 to IEEE

802.1CQ as Appendix <http://www.ieee802.org/1/files/public/docs2019/cq-aoliva-PALMAPAD-1119-v1.pdf> and *IEEE 802.1CQ PALMA State Machine Proposal*

<http://www.ieee802.org/1/files/public/docs2019/cq-aoliva-statemachine-1119-v1.pdf>.

Disposition: Presentations discussed. Related to ongoing project.

Stephan Kehrer, P802.1CBcv editor, presented *IEEE P802.1CBcv - FRER YANG Data Model and Management Information Base Module Editor's report on D0.1: November 2019*

<http://www.ieee802.org/1/files/public/docs2019/cv-kehrer-editors-report-1119-v01.pdf>.

Disposition: For information only. Related to ongoing project.

Paul Congdon, P802.1Qcz editor, presented *P802.1Qcz D0.4*

<http://www.ieee802.org/1/files/public/docs2019/cz-congdon-d0-4-status-1119-v02.pdf>.

Disposition: Presentation discussed. Related to ongoing project.

Norman Finn presented *Multiple Cyclic Queuing and Forwarding*

<http://www.ieee802.org/1/files/public/docs2019/df-finn-multiple-CQF-0919-v02.pdf>.

Disposition: Presentation discussed. Related to ongoing project.

5:47 PM recess

Thursday 14 November 2019

8:02 AM call to order by the TG Vice Chair

Craig Gunther, P802.1DG editor, continued presenting draft liaisons to AUTOSAR, Avnu and JASPAR.

Disposition: Draft liaisons reviewed for 802.1 closing plenary approval.

Craig Gunther, P802.1DG editor, presented *P802.1DG/D1.1 Editor's Report for*

Ballot Comment Resolution <http://www.ieee802.org/1/files/public/docs2019/dg-cgunther-editors-report-d1-1-1119-v01.pdf> and led the resolution of comments received on

<http://www.ieee802.org/1/files/private/dg-drafts/d1/802-1DG-d1-1.pdf>.

- Comment resolution started.
- **10:08 – 10:35 AM recess**
- Comment resolution continued.

Disposition: Ballot comments discussed. Disposition recorded in

<http://www.ieee802.org/1/files/private/dg-drafts/d1/802-1DG-d1-1-pdis-v02.pdf>.

Takumi Nomura, Hideki Gotoh and Yoshihiro Ito presented *Overview of TSN use cases*

<http://www.ieee802.org/1/files/public/docs2019/dg-nomura-UseCases-1119-v02.pdf>.

Disposition: Presentation discussed. Related to ongoing project.

Nader Zein presented *Configuration for Scheduling of Time-sensitive and Bursty Traffic (STSBT) in TSN – Summary* <http://www.ieee802.org/1/files/public/docs2019/new-ZeinMaruhashi-Summary-Configuration-for-Scheduling-of-Time-sensitive-and-Bursty-Traffic-in-TSN-1119-v01.pdf>.

Disposition: Presentation discussed.

12:41 PM adjournment

Friday 15 November 2019

8:00 AM call to order by the TG Chair and the IEC/IEEE 60802 Joint Project Chair

Minutes of this meeting, a joint meeting of the TSN TG and IEC/IEEE 60802 Joint Project, are provided in section 6.1.

6:00 PM adjournment

6.1 IEC/IEEE 60802 Joint Project

Ludwig Winkel, IEC WG9/PT60802 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair), and János Farkas, IEEE 802.1 TSN Task Group Chair (TG Chair), presided. Josef Dorr, IEC/IEEE 60802 Joint Project Secretary (60802 Secretary) wrote the minutes.

At the beginning of the meetings on each day:

- The IEEE-SA Copyright Policy slides <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/copyright-policy-WG-meetings.potx>, the IEEE-SA PatCom Patent Slides for Standards Development Meetings <https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf> and the IEEE 802 Participation slide <https://mentor.ieee.org/802-ec/dcn/17/ec-17-0093-05-0PNP-ieee-802-participation-slide-ppt.ppt> were presented.
- The Call for Potentially Essential Patents was made. There were no responses to the calls prior to the end of the week's meetings.
- The IEC WG9/PT60802 Convenor reminded the IEC participants that patent rules similar to those of IEEE-SA apply in IEC, reminded all that patents required for use of the IEC/IEEE 60802 profile must be announced to IEC and IEEE and made available using the IEC licensing form, and reminded that presentations shall not have copyright marks or confidentiality information.
- The agenda and the expected results of the day were reviewed and approved. The final agenda is in <https://1.ieee802.org/november-2019-plenary-session-in-waikoloa-hi-usa-tsn-tg-agenda/>.

Draft minutes were reviewed at the end of the week's meetings under the lead of the 60802 Secretary.

Wednesday 13 November 2019

8:00 AM call to order by the TG Chair and the 60802 Chair

The TSN TG and IEC/IEEE 60802 Joint Project had a joint meeting.

The TG Chair and the 60802 Chair:

- Welcomed the participants of the IEC/IEEE 60802 Joint Project, a joint effort of the:
 - IEC 65C WG9/PT 60802 (TSN) Project Team, led by Ludwig Winkel;and

- IEEE 802.1 Time-Sensitive Networking Task Group, led by the TG Chair.
- Provided information about internet access, lunch, attendance log to the IEC/IEEE 60802 Joint Project.

The 60802 Chair proposed to continue aligning IEC/IEEE 60802 Joint Project meetings with IEEE 802.1 meetings, starting Wednesday and ending Friday during IEEE 802.1 sessions. The meeting agreed (none dissenting) to the proposal.

Mark Hantel reported on the IEC/IEEE 60802 Conformity Assessment (CA) status and activities: the next meeting will be held December 9-11, 2019 in Frankfurt, Germany.

Jordon Woods, 60802 editor, presented *Editor's Report 60802 Draft 1.1* <http://www.ieee802.org/1/files/public/docs2019/60802-woods-D1-1-update-1119-v00.pdf>. The comments from the IEC review were not yet included in the comment database and in the editor's report.

Jordon Woods, 60802 editor, led the resolution of comments received on <http://ieee802.org/1/files/private/60802-drafts/d1/60802-d1-1.pdf>.

Disposition: Continued later.

10:00 – 10:30 AM recess

The IEC/IEEE 60802 Joint Project met separately from the TSN TG until Friday.

Günter Steindl provided an overview of the results of the IEC/IEEE 60802 ad hoc meeting held 6:00 – 8:00 PM on November 11, 2019 to further develop *Conformance Class* <http://www.ieee802.org/1/files/public/docs2019/60802-Steindl-et-al-ExampleSelection-1119-v13.pdf> as a contribution to the 60802 profile.

Disposition: Contribution discussed. Further discussion needed.

Jordon Woods, 60802 editor, continued the resolution of comments received on <http://ieee802.org/1/files/private/60802-drafts/d1/60802-d1-1.pdf>.

- Radhakrishna Canchi presented *Measuring Time Error* http://www.chronos.co.uk/files/pdfs/itsf/2014/Day3/1310-tommycook_calnex.pdf as a contribution to the resolution of comment 400.

Disposition: Continued later.

11:57 – 1:00 PM recess

Jordon Woods, 60802 editor, continued the resolution of comments received on <http://ieee802.org/1/files/private/60802-drafts/d1/60802-d1-1.pdf>.

Disposition: Continued later.

Rodney Cummings presented *Proposal for Hot Standby in IEEE 802.1AS* <http://www.ieee802.org/1/files/public/docs2019/new-cummings-hot-standby-proposal-1119-v00.pdf>.

Disposition: Presentation discussed. A motion for 802.1 to authorize the January 2020 Interim to generate PAR and CSD for pre-circulation to the EC for an amendment to IEEE 802.1AS to specify hot standby redundancy will be moved at the 802.1 closing plenary.

Jordon Woods, 60802 editor, continued the resolution of comments received on <http://ieee802.org/1/files/private/60802-drafts/d1/60802-d1-1.pdf>.

Disposition: Continued later.

3:00 – 3:30 PM recess

Astrit Ademaj and Günter Steindl presented *Redundant Clock Synchronization*
<http://www.ieee802.org/1/files/public/docs2019/60802-Ademaj-et-al-Redundant-Clocks-1119-v6.pdf>.

Disposition: Presentation discussed. Further discussion needed.

Jordon Woods, 60802 editor, continued the resolution of comments received on
<http://ieee802.org/1/files/private/60802-drafts/d1/60802-d1-1.pdf>.

Disposition: Continued later.

5:36 PM recess

Thursday 14 November 2019

8:00 AM call to order by the TG Chair and the 60802 Chair, 10:00 – 10:30 AM recess

Mark Hantel presented *60802 Conformance Class B Requirements*
<http://www.ieee802.org/1/files/public/docs2019/60802-Hantel-Conformance-Class-B-1119-v02.pdf>, which was based on his comments 267 and 275 on
<http://ieee802.org/1/files/private/60802-drafts/d1/60802-d1-1.pdf>.

Disposition: Presentation discussed. Further discussion needed.

Jordon Woods, 60802 editor, continued the resolution of comments received on
<http://ieee802.org/1/files/private/60802-drafts/d1/60802-d1-1.pdf>.

Disposition: Continued later.

The TG Chair presented a draft response finalized as
<http://www.ieee802.org/1/files/public/docs2019/liaison-response-LNI-4-0-draft-sharing-1119-v01.pdf> to the LNI 4.0 liaison *Re: Liaison with LNI 4.0: draft sharing IEEE 802.1 WG and LNI 4.0* http://www.ieee802.org/1/files/public/docs2019/liaison-LNI-draft_sharing-1019.pdf.

Disposition: Liaison discussed and draft response reviewed for 802.1 closing plenary approval.

Jordon Woods, 60802 editor, continued the resolution of comments received on
<http://ieee802.org/1/files/private/60802-drafts/d1/60802-d1-1.pdf>.

Disposition: Continued later.

12:31 PM recess

Friday 15 November 2019

8:00 AM call to order by the TG Chair and the 60802 Chair, 10:00 – 10:30 AM recess

The TSN TG and IEC/IEEE 60802 Joint Project had a joint meeting.

The TG Chair and the 60802 Chair summarized the work performed so far in this session.

Maik Seewald presented IEC TC57 *TR IEC 61850-90-13 Deterministic Networking*
<http://www.ieee802.org/1/files/public/docs2019/60802-Seewald-LiaisonTC57IEC61850-1119-v00.pdf>.

Disposition: None.

Mark Hantel led the discussion on *TSN Domain Proposal for 802.1Qdj* <http://www.ieee802.org/1/files/public/docs2019/dj-Hantel-TSN-Domain-Proposal-1119-v03.pdf> presented Tuesday in the TSN TG meeting.

Disposition: Further discussion needed.

Jordon Woods, 60802 editor, presented and updated the list of gaps in Annex Z <http://ieee802.org/1/files/private/60802-drafts/d1/60802-d1-1.pdf> then continued the resolution of comments received on <http://ieee802.org/1/files/private/60802-drafts/d1/60802-d1-1.pdf>.

- **11:51 AM – 12:50 PM recess**
- Comment resolution continued.
- **2:57 – 3:30 PM recess**
- Comment resolution continued.

Disposition: Ballot comments discussed. Disposition recorded in <http://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-1-pdis-v02.pdf>. Comment resolution will be continued in the next teleconference.

Josef Dorr presented *LNI 4.0 TSN Testbed Update of Stream Reservation Approach* <http://www.ieee802.org/1/files/public/docs2019/new-Dorr-LNI40-1119-v03.pdf>.

Disposition: Presentation discussed.

Future teleconferences

The next teleconferences will be held November 25, 2019 and December 9, 2019. Other teleconferences preceding the January 2019 interim session are cancelled.

Any Other Business

No further business was discussed in this session.

6:00 PM adjournment

7 Nendica

Minutes of Nendica conference calls are available at <https://1.ieee802.org/802-nendica/>.

The IEEE 802 Network Enhancements for the Next Decade Industry Connections Activity (Nendica) Chair, Roger Marks, presided. Roger Marks wrote the minutes, incorporating detailed minutes recorded by Guido Hiertz at the November 12, 2019 meeting.

Attendance is in section 1 and also included the following remote participation (affiliation as understood by the Nendica Chair):

- Liang Guo, CAICT
- Jun Liu, Cisco
- Sun Liyang, Huawei
- Lily Lyu, Huawei
- Wei Qui, Huawei
- Lukas Wüsteney, Hirschmann
- Xiang Yu, Huawei
- Yin Yue, Huawei

Tuesday 12 November 2019

7:30 PM call to order by the Nendica Chair

The Nendica Chair reminded the meeting of the no-recording policy as stated in <https://standards.ieee.org/about/policies/opman/sect5.html> and presented the IEEE-SA Guidelines for IEEE-SA Meetings <https://development.standards.ieee.org/myproject/Public/mytools/mob/preparslides.pdf>, the IEEE-SA Participation slides <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/Participant-Behavior-Individual-Method.pdf>, the IEEE 802 Participation slide <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180.pdf>, and IEEE ICCOM requirements <https://1.ieee802.org/802-nendica/ieee-iccom-requirements/>.

The Nendica Chair presented *IEEE 802 Nendica Procedures* <https://1.ieee802.org/802-nendica/ieee-802-nendica-procedures/>.

Agenda Approval

The Nendica Chair presented the draft agenda made previously available.

Disposition: The agenda was reviewed, discussed and approved, as recorded in *Approved Nendica Agenda: 2019-11-12/14* <https://mentor.ieee.org/802.1/dcn/19/1-19-0086-00-ICne.pdf>.

Update

The Nendica Chair:

- Showed the Nendica webpage <https://1.ieee802.org/802-nendica/> (including the new Work Item Schedule <https://1.ieee802.org/nendica-schedule/>), the Nendica Mentor server https://mentor.ieee.org/802.1/documents?is_group=ICne hosting documents to be discussed, and how to record attendance on IMAT <https://imat.ieee.org/>. Upon request by an attendee, the Chair briefly reviewed the Nendica scope per <https://standards.ieee.org/content/dam/ieee-standards/standards/web/governance/iccom/IC17-001-IE.pdf>.
-
- Presented *IEEE 802 “Network Enhancements for the Next Decade” Industry Connections Activity (Nendica): Meeting Overview, 2019-11* <https://mentor.ieee.org/802.1/dcn/19/1-19-0078-00-ICne.pdf>. No comments ensued.

Review of Minutes

The Nendica Chair reviewed the minutes of the September 16/19, 2019 meetings <https://mentor.ieee.org/802.1/dcn/19/1-19-0078-00-ICne.pdf>.

Disposition: No comments were raised.

The Nendica Chair reviewed *Draft Minutes of the Nendica Meeting of 2019-10-31* <https://mentor.ieee.org/802.1/dcn/19/1-19-0074-00-ICne.docx>.

Disposition: Draft minutes approved by unanimous consent.

Flexible Factory IoT: Use Cases and Communication Requirements for Wired and Wireless Bridged Networks (FFIoT)

Nader Zein, FFIoT editor, presented slide 7 of *IEEE 802 “Network Enhancements for the Next Decade” Industry Connections Activity (Nendica): Status Report* <https://mentor.ieee.org/802.1/dcn/19/1-19-0078-00-ICne.pdf>, reporting the achievements and

activities related to the Flexible Factory IoT report. Nader Zein also reviewed the history and milestones of the project per the *Nendica Work Item Schedule* <https://1.ieee802.org/nendica-schedule/>.

Disposition: The following motion was presented:

- **Motion:**
 - To introduce the following motion to the IEEE 802.1 WG: 'To confirm the approval of IEEE 802.1.19-0026-03-ICne ("Flexible Factory IoT...") as a Nendica Report and process it for publication, subject to editorial revision.'
 - Moved by Nader Zein, seconded by Paul Congdon
 - Yes: 16, No: 0, Abstain: 0
 - The Chair announced that the motion was Approved.

Potential new Work Item topics

The Nendica Chair noted that he is a co-author of the next contribution on the agenda and would therefore recuse himself from the Chair position during that presentation and discussion. The Chair appointed Guido Hiertz as Acting Chair for that topic.

Antonio Oliva presented *Deterministic WLAN: A problem of scheduling and identifiers* <https://mentor.ieee.org/802.1/dcn/19/1-19-0079-00-ICne.pdf>. Discussion followed.

Disposition: Presentation discussed. The following straw poll was conducted:

- "Should Nendica initiate a study item work on deterministic wireless?"
- Yes: 5, No: 0, Abstain: 10

Those interested in the topic are welcome to communicate with the contributors.

The Nendica Chair resumed chairing the meeting.

Study Item: Managed LAN as a Service [MLaaS]

Wei Qiu presented *Use Cases and Requirements for Managed LAN as a Service (MLaaS)* <https://mentor.ieee.org/802.1/dcn/19/1-19-0082-00-ICne.pptx>.

Disposition: Further discussion needed. Those interested in the topic are welcome to communicate with the contributors.

Work Item Followup: Lossless Data Center Networks

Jun Liu presented *Lossless Network* <https://mentor.ieee.org/802.1/dcn/19/1-19-0080-00-ICne.pptx>. [Note: It was subsequently noted that the contribution was Previously Published per the IEEE SA Copyright Policy.]

10:00 PM recess

Thursday 14 November 2019

08:04 AM call to order by the Nendica Chair

A WebEx teleconference call was opened. Local participants were encouraged to log their attendance on IMAT. Remote participants were encouraged to log their attendance on a separate system.

The Nendica Chair reminded the group of the IEEE-SA Guidelines for IEEE-SA Meetings, the IEEE-SA Participation slides, and the IEEE ICCOM requirements.

The Nendica Chair noted some minor updates proposed to the agenda agreed on Tuesday.
Disposition: The revised agenda was approved.

Work Item follow up: Lossless Data Center Networks

Liyang (Marcus) Sun presented, remotely on behalf of Guo Liang, *Update: Lossless Networks in ODCC* <https://mentor.ieee.org/802.1/dcn/19/802.1-19-0077-00-ICne.pptx>.

Qingchun Song presented *RoCE Network Proposal* <https://mentor.ieee.org/802.1/dcn/19/802.1-19-0081-00-ICne.pptx>.

Liyang (Marcus) Sun presented remotely *Introduction of a Potential New Work Item for Data Center Network* <https://mentor.ieee.org/802.1/dcn/19/802.1-19-0076-02-ICne.pptx>, which had previously been presented on the teleconference held October 31, 2019.

Disposition: Considering the four contributions on Lossless Data Center Networks, further contributions are expected toward the suggestion made in the last of these, to “propose a new work item of ILLDCN at the appropriate time” where ILLDCN is an abbreviation of “Intelligent Lossless Data Center Network.” Those interested in the topic are welcome to communicate with the contributors.

New Topic

Yolanda (Xiang) Yu presented *High Performance Computing Ethernet* <https://mentor.ieee.org/802.1/dcn/19/802.1-19-0083-01-ICne.pdf>.

Disposition: Those interested in the topic are welcome to communicate with the contributor. The Chair noted that further discussions should coordinate with the IEEE 802.3 Working Group regarding Ethernet-related topics.

Procedures

The Nendica Chair reviewed proposed revisions to the *IEEE 802 Nendica Report Development Process*, as indicated in additions then shown in red at <https://1.ieee802.org/802-nendica/ieee-802-nendica-procedures/>.

Disposition: No comments were raised. The following motion was presented:

- **Motion:**
 - To adopt the amendments to the IEEE 802 Nendica Report Development Process, as indicated in red.
 - Moved by Congdon, seconded by Zein
 - Yes:9, No: 0, Abstain: 0
 - The Chair announced that the motion was Approved.

[Note: the linked webpage was updated post-meeting. The red indications are retained in *IEEE 802 Nendica Report Development Process* <https://mentor.ieee.org/802.1/dcn/19/1-19-0085-00-ICne.docx>.]

Future Meetings

Nendica will meet during the 802.1 January 2020 interim session in Geneva, Switzerland.

The meeting agreed (none dissenting) to schedule a teleconference on December 12, 2019 at 9:00 AM US Eastern Time. The Chair will indicate to the organizers of the 802 Wireless Interim (of January 13, 2020 in Irvine, CA, USA) that Nendica may meet for two hours during that

session, with decision to cancel that meeting possible during the teleconference of December 12, 2019.

Any Other Business

The Nendica Chair thanked the participants and particularly Guido Hiertz for recording the minutes on Tuesday evening and standing in as Acting Chair for a time.

No further business was discussed in this session.

09:54 AM adjournment

8 YANGsters

Minutes of YANGsters conference calls are available at <https://1.ieee802.org/yangsters/>.

The YANGsters Vice-Chair and Secretary, Stephan Kehrer, presided as acting YANGsters Chair and wrote the minutes.

Attendance is in section 1.

Tuesday 12 November 2019

6:05 PM call to order by the acting YANGsters Chair

The acting YANGsters Chair presented the IEEE-SA PatCom Patent Slides for Standards Development Meetings <https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf>, the IEEE 802 Participation slide <https://mentor.ieee.org/802-ec/dcn/17/ec-17-0093-05-OPNP-ieee-802-participation-slide-ppt.ppt>, and made the “Call for Potentially Essential Patents”. There were no responses to the call prior to the end of the week’s meeting.

The acting YANGsters Chair presented the agenda in <http://www.ieee802.org/1/files/public/docs2019/yangsters-smansfield-meeting-29-agenda-1119-v03.pdf>.

- An additional topic was raised on the existence of an open maintenance item (<https://www.802-1.org/items/357>) concerning a collection of YANG related issues in IEEE Std 802.1Qcp-2018.
- Due to the heavy workload on YANGsters the suggestion was made to the group to have teleconferences weekly instead of monthly.

Disposition: The agenda was reviewed, discussed and approved.

The acting YANGsters Chair gave an introduction on *IEEE EtherTypes*. The 802.1 Chair summarized the results of the offline discussions that have taken place since the September 2019 interim session with IEEE Staff and IEEE Legal as well as with the RAC Chair. The RAC Chair provided additional information on that.

YANGsters then discussed the P802f PAR and CSD in light of this information and discussed the disposition of comments on the P802f PAR and CSD from 802.3 and 802.11 in anticipation of further discussion in the TSN TG the following day.

Disposition: Responses to the comments on the P802f PAR and CSD from 802.3 and 802.11 will be worded according to the discussions of this YANGsters meeting. The P802f PAR needs to reflect and highlight that a close interaction of 802.1 and the RAC is needed for the project.

The acting YANGsters Chair provided an overview on the topic of *Units* in IEEE 802.1 YANG modules. Currently there is no unified way defined in 802.1 to describe units in YANG modules. A list needs to be provided to editors that would give information and guidance on units and should be used in 802.1 YANG modules. This should be generated in coordination with IEEE editorial staff.

Disposition: YANGsters will provide information in the YANGsters guidelines on how to express units and what unit names are to be used.

The acting YANGsters Chair provided a *Meta Data Update*. When a YANG module is put into the “published” branch the following information has to be provided:

- maturity level
- document name
- reference
- module classification

Disposition: The proper metadata will be added once the document has been published. This will be done in coordination with Mark Ellison and Scott Mansfield.

The acting YANGsters Chair postponed the *Discussion on Constraint Checking* to the next teleconference by lack of time.

Disposition: None.

The acting YANGsters Chair presented a draft motion requesting new teleconferences. The motion text was updated to reflect the earlier decision to hold teleconferences weekly instead of monthly for the time being.

Disposition: Updated motion reviewed for 802.1 closing plenary approval.

Any Other Business

The discussion on the topic of an open maintenance item related to YANG was postponed to one of the next YANGsters teleconferences by lack of time.

7:45 PM adjournment

9 Closing Plenary Meeting

The Chair, Glenn Parsons, presided.

The Recording Secretary, Jessy Rouyer, wrote the minutes.

Attendance is in section 1.

Thursday July 18, 2019

1:30 PM (call to order by the Chair)

The Chair presented the *Closing Agenda* slides finalized as

<http://www.ieee802.org/1/files/public/minutes/2019-11-closing-plenary-slides.pdf>.

During this presentation, the Chair:

- Recommended the use of <http://join.me/ieee802.1> for those far from the podium (slide 2).
- Introduced the agenda (slide 3), which was approved, and the schedule (slide 4).
- Showed slides 5 through 9 (reproducing slides 0 through 4 of the IEEE-SA PatCom Patent Slides for Standards Development Meetings, separately available at

<http://standards.ieee.org/about/sasb/patcom/materials.html>):

The Chair:

- Presented information on these slides including:
 - Instructions for the WG Chair (and TG Chairs);
 - Participants have a duty to inform the IEEE;
 - Ways to inform IEEE;
 - Other guidelines for IEEE WG meetings; and
 - Patent-related information.
- Advised WG attendees that:
 - 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.
- Made the "Call for Potentially Essential Patents" thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard.
 - There were no responses to the call.
- Reviewed meeting "Decorum" or rules, including the policies on public reporting, and on photography or recording (slide 8);
 - The Chair called for any members of the press (i.e., anyone reporting publicly on this meeting) to announce their presence.
 - There were no responses to the call.
- Presented slides 10 through 12 on the IEEE SA Copyright Policy and advised the standards development group participants that:
 - 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.
- Presented slides 13 through 15 reproducing slides 1 through 3 approved by SASB in June 2019 conveying that:
 - Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct (slide 13);
 - Participants in the IEEE-SA "individual process" shall act independently of others, including employers (slide 14); and
 - IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints (slide 15).
- Reviewed meeting "Decorum" or rules, including the policies on public reporting, and on photography or recording (slide 16).
 - The Chair called for any members of the press (i.e., anyone reporting publicly on this meeting) to announce their presence.
 - There were no responses to the call.
- Showed the list of 802.1 Officers (slide 17) that remained unchanged from the opening plenary except for the following:
 - Karen Randall was appointed Security TG Vice-Chair and received a round of applause.
- Reminded 802.1 voting members of their obligations regarding affiliation declaration (slide 18).

- Reviewed the list of 802.1 voters (slide 19), including information about individuals who gained (slide 20), may gain (slide 21), may lose (slide 22), will lose (slide 23) 802.1 voting membership.
- Reminded individual participants of 802.11 reciprocal credit, which was continued at this meeting (slide 24).
- Reviewed the schedule for future interim sessions (slide 25), which remained unchanged from the opening plenary meeting except for the addition of the following 2021 proposals:
 - September 2021 in York, UK (with 802.3)
 - May 2021 in Albuquerque, NM, USA or Santa Fe, NM USA.
- Reviewed updated information on the January 2020 interim session and workshop to be held in Geneva, Switzerland (slides 26-27).
- Reviewed the schedule for future 802.1 plenary sessions (slide 28), which remained unchanged from the opening plenary meeting.
- Conducted the plenary survey (slide 29):
 - Would you like to come back to this venue? (Do you like this venue?)
 - Yes: 35 No: 21
- Reminded that 802 elections take place in March 2020 (slide 30).
 - Individuals wishing to run for elected or appointed positions were invited to talk to currently elected or appointed individuals for further details.
 - The current 802 Chair, 802.1 Chair and 802.1 Vice Chair are planning to stand for re-election.
- Introduced 802 Standing Committees (SCs) reports (slide 31):
 - The Chair reported that the IETF SC that did not meet.
 - [JTC1 SC](#). No report was provided other than through the linked document.
 - [ITU SC](#). No report was provided other than through the linked document.
 - The Chair reported that the 802 Task Force did not meet.
- Reviewed the WG's current workload (slide 32).
- Requested that the sub group Chairs provide reports on the activities of their sub groups (slide 33) (see individual sub group minutes above for details):
 - The Maintenance TG Chair, Paul Congdon, presented the report on slides 34-36.
 - The Security TG Chair, Mick Seaman, presented the report on slide 37.
 - The Chair requested editors remind their Chairs of the need for MEC ahead of time.
 - The Vice-Chair reminded of the need to request formation of the ballot pool.
 - The acting YANGsters Chair, Stephan Kehrer, presented the YANGsters report on slides 38-39.
 - The Nendica Chair, Roger Marks, presented the report on slides 39-41.
 - The Chair recommended HPC Ethernet be brought to the attention of 802.3.
 - The TSN TG Chair, János Farkas, the IEC/IEEE 60802 Joint Project Chair, Ludwig Winkel, and the TSN TG Vice-Chair, Craig Gunther, presented the report on slide 42.
- Backtracked to slide 29 and conducted the following straw polls:
 - Did you go to the Social? Yes: 45 No: 11
 - Did you like the Social? Yes: 42 No: 3
- Presented or asked (slide 43) for brief presentations of draft outgoing liaisons (slide 46), some of which were in response to the incoming liaisons of slide 44.
 - The Chair presented the draft responses to:
 - ITU-T SG15 on OTNT Standardization workplan
 - ITU-T JCA IMT-2020 on roadmap
 - The TSN TG Chair presented the draft responses to:
 - ITU-T Q14/15 – Coordination on information and data modelling with comments on 802.1Q
 - ITU-T SG15 and CPRI Cooperation on Fronthaul Sync Requirements
 - ITU-T SG15 on 802.1CMde draft sharing

- The TSN TG Chair presented the eblast on the P802.1ABdh project
- The TSN TG Chair presented the draft response to LNI 4.0 on draft sharing
- The TSN TG Vice-Chair presented the draft liaisons to:
 - Avnu alliance on Automotive
 - AUTOSAR on P802.1DG
 - JASPAR on P802.1DG

2:59 – 3:20 PM recess

The Chair:

- Resumed presentation of the *Closing Agenda* slides finalized as <http://www.ieee802.org/1/files/public/minutes/2019-11-closing-plenary-slides.pdf> at slide 47.
- Showed the *802.1 consent agenda items for LMSC Closing Plenary* (slides 48-50).
- Conducted votes on the following motions (slides 51-118) that all passed unless otherwise indicated. (Supporting information is available in *Closing Agenda* slides finalized as <http://www.ieee802.org/1/files/public/minutes/2019-11-closing-plenary-slides.pdf>.)
 - 802.1 consent agenda items for LMSC Closing Plenary
 - Motion
 - Approve forwarding P802.1CS PAR modification in <http://www.ieee802.org/1/files/public/docs2019/cs-PAR-modification-0919-v01.pdf> to NesCom
 - Approve (unmodified) CSD documentation in <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0215-00-ACSD-802-1cs.pdf>
 - In the WG, Proposed: Norman Finn, Second: Steve Haddock
 - PAR (y/n/a): 38, 0, 2
 - CSD (y/n/a): 40, 0, 0
 - In EC, mover: Glenn Parsons, Second: Roger Marks
 - (y/n/a): <y>, <n>, <a>
 - Motion
 - Approve forwarding P802f PAR documentation in <http://www.ieee802.org/1/files/public/docs2019/802f-PAR-1119-v01.pdf> to NesCom
 - Approve CSD documentation in <http://www.ieee802.org/1/files/public/docs2019/802f-CSD-1119-v01.pdf>
 - In the WG, Proposed: Stephan Kehrer, Second: Mick Seaman
 - PAR (y/n/a): 41, 0, 2
 - CSD (y/n/a): 41, 0, 1
 - In EC, mover: Glenn Parsons, Second: Roger Marks
 - (y/n/a): <y>, <n>, <a>
 - Motion
 - Approve forwarding P802.1AEdk PAR documentation in <http://www.ieee802.org/1/files/public/docs2019/dk-security-mac-privacy-PAR-0919-v03.pdf> to NesCom
 - Approve CSD documentation in <http://www.ieee802.org/1/files/public/docs2019/dk-security-mac-privacy-CSD-0919-v01.pdf>
 - In the WG, Proposed: Mick Seaman Second: Don Fedyk
 - PAR (y/n/a): 42, 0, 2
 - CSD (y/n/a): 42, 0, 0
 - In the EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y> , <n> , <a>

- Consent Agenda drafts to SA ballot
 - Motion
 - Approve sending P802.1CMde D2.0 to Standards Association ballot
 - Confirm the CSD for P802.1CMde in <https://mentor.ieee.org/802-ec/dcn/18/ec-18-0240-00-ACSD-p802-1cmde.pdf>
 - In the WG, Proposed: János Farkas, Second: Jessy Rouyer
 - Sending draft (y/n/a): 43, 0, 1
 - CSD (y/n/a): 45, 0, 0
 - In EC, mover: Glenn Parsons, Second: Roger Marks
 - (y/n/a): <y>, <n>, <a>
 - Motion
 - Approve sending P802.1Qcr D2.0 to Standards Association ballot
 - Confirm the CSD for P802.1Qcr in <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0056-00-ACSD-802-1qcr.pdf>
 - In the WG, Proposed: Mike Potts Second: Craig Gunther
 - Sending draft (y/n/a): 42, 0, 2
 - CSD (y/n/a): 45, 0, 1
 - In EC, mover: Glenn Parsons, Second: Roger Marks
 - (y/n/a): <y>, <n>, <a>
 - Motion
 - Conditionally approve sending P802.1Qcx D2.0 to Standards Association ballot
 - Confirm the CSD for P802.1Qcx in <https://mentor.ieee.org/802-ec/dcn/17/ec-17-0159-00-ACSD-802-1qcx.pdf>
 - In the WG, Proposed: John Messenger Second: Jessy Rouyer
 - Sending draft (y/n/a): 45, 0, 3
 - CSD (y/n/a): 47, 0, 1
 - In EC, mover: Glenn Parsons, Second: Roger Marks
 - (y/n/a): <y>, <n>, <a>
 - Motion
 - Approve sending P802.1AE-2018-Cor1-D1.0 to Standards Association Ballot [Maintenance PAR, no CSD]
 - IEEE Std 802.1AE-2018 Media Access Control (MAC) Security
 - In the WG, Proposed: Mick Seaman Second: Don Fedyk
 - Sending draft (y/n/a): 48, 0, 1
 - In the EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y>, <n>, <a>
 - Motion
 - Approve sending P802E-D1.6 to Standards Association Ballot
 - P802E Recommended Practice for Privacy Considerations for IEEE 802 Technologies
 - Confirm the CSD for P802E in <https://mentor.ieee.org/privecsq/dcn/15/privecsq-15-0029-00-0000-privacy-ec-sg-csd-proposal.docx>
 - In the WG, Proposed: Mick Seaman Second: Don Fedyk
 - Sending draft (y/n/a): 42, 0, 5
 - CSD: 40, 0, 6
 - In the EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y>, <n>, <a>

- Consent Agenda Drafts to RevCom
 - Motion
 - Approve sending P802.1AX-Rev to RevCom
 - Note: there are no CSD for this maintenance project
 - P802.1AX-Rev D2.1 had 100% approval at the end of the last Standards Association recirculation ballot
 - In the WG, Proposed: János Farkas, Second: Steve Haddock
 - Sending draft (y/n/a): 48, 0, 1
 - In the EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y> , <n> , <a>
 - Motion
 - Approve sending P802.1AS-Rev to RevCom
 - Approve CSD documentation in <https://mentor.ieee.org/802-ec/dcn/18/ec-18-0243-00-ACSD-p802-1as.pdf>
 - P802.1AS-Rev D8.3 had 100% approval at the end of the last Standards Association recirculation ballot
 - In the WG, Proposed: Geoff Garner, Second: János Farkas
 - Sending draft (y/n/a): 48, 0, 1
 - CSD (y/n/a): 47, 0, 1
 - In the EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y> , <n> , <a>
 - Motion
 - Approve sending P802.1X-Rev-D1.5 to RevCom [Maintenance PAR, no CSD]
 - IEEE Std 802.1X Port-Based Network Access Control
 - P802.1X-Rev-D1.5 had 100% approval at the end of the last Standards Association recirculation ballot
 - In the WG, Proposed: Mick Seaman Second: Don Fedyk
 - Sending draft (y/n/a): 46, 0, 2
 - In the EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y> , <n> , <a>
- Consent Agenda Liaisons and external communications
 - Motion
 - Approve <http://www.ieee802.org/1/files/public/docs2019/liaison-response-SG15-LS187-clarifications-on-fronthaul-sync-requirements-1119-v01.pdf> as communication to ITU-T SG15 and CPRI Cooperation, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
 - This approval is under LMSC OM “Procedure for public statements to government bodies”
 - In the WG (y/n/a): 44, 0, 2
 - Proposed: János Farkas, Second: Jessy Rouyer
 - In EC, mover: Glenn Parsons, Second: Roger Marks
 - (y/n/a): <y> , <n> , <a>
 - Motion
 - Approve <http://www.ieee802.org/1/files/public/docs2019/liaison-response-SG15-LS187-CMde-draft-sharing-1119-v01.pdf> as communication to ITU-T SG15, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
 - This approval is under LMSC OM “Procedure for public statements to government bodies”
 - In the WG (y/n/a): 43, 0, 2
 - Proposed: János Farkas, Second: Jessy Rouyer
 - In EC, mover: Glenn Parsons, Second: Roger Marks

- (y/n/a): <y>,<n>,<a>
- Motion
 - Approve <http://ieee802.org/1/files/public/docs2019/liaison-response-SG15-OTNT-1119-v01.pdf> as communication to ITU-T SG15 on OTNT Standardization workplan, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
 - This approval is under LMSC OM “Procedure for public statements to government bodies”
 - In the WG, Proposed: Paul Congdon Second: János Farkas
 - Sending draft (y/n/a): 45, 0, 3
 - In EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y>,<n>,<a>
- Motion
 - Approve <http://ieee802.org/1/files/public/docs2019/liaison-ITU-T-JCA-IMT-2020-1119-v01.pdf> as communication to ITU-T JCA IMT-2020, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
 - This approval is under LMSC OM “Procedure for public statements to government bodies”
 - In the WG, Proposed: Paul Congdon Second: János Farkas
 - Sending draft (y/n/a): 45, 0, 1
 - In EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y>,<n>,<a>
- Motion
 - Approve the eblast on the P802.1ABdh project in <http://ieee802.org/1/files/public/docs2019/dh-draft-cfp-1119-v01.pdf> , to be released with editorial changes as deemed necessary
 - In the WG (y/n/a): 45, 0, 1
 - Proposed: Craig Gunther Second: János Farkas
 - In EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y>,<n>,<a>
- Motion
 - Approve submission of the following standard(s) to ISO/IEC JTC1/SC6 for adoption under the PSDO agreement, once approved and published.
 - IEEE 802.1AS
 - IEEE 802.1AX
 - In the WG, Proposed: Paul Congdon Second: János Farkas
 - Sending draft (y/n/a): 46, 0, 1
 - In EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y>,<n>,<a>
- Motion
 - Approve submission of the following draft(s) to ISO/IEC JTC1/SC6 for information under the PSDO agreement
 - P802.1CMde
 - In the WG, Proposed: Paul Congdon Second: János Farkas
 - Sending draft (y/n/a): 46, 0, 1
 - In EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y>,<n>,<a>

- EC regular agenda motions – 802.1 Motions for LMSC agenda, including supporting material – External Communications (ME)
 - Motion
 - Approve <http://www.ieee802.org/1/files/public/docs2019/liaison-response-SG15-LS217-modelling-1119-v01.pdf> as communication to ITU-T SG15, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
 - This approval is under LMSC OM “Procedure for public statements to government bodies”
 - In the WG (y/n/a): 47, 0, 0
 - Proposed: Norm Finn, Second: Karl Weber
 - In EC, mover: Glenn Parsons Second: Roger Marks
 - (y/n/a): <y>, <n>, <a>
- 802.1 Internal motions
 - Motion
 - 802.1 approves the July 2019 (Plenary) and September 2019 (Interims) minutes:
 - <http://www.ieee802.org/1/files/public/minutes/2019-07-minutes-v2.pdf>
 - <http://www.ieee802.org/1/files/public/minutes/2019-09-minutes-v2.pdf>
 - <http://www.ieee802.org/1/files/public/minutes/2019-09-23-TSN-minutes-v1.pdf>
 - Proposed: Jessy Rouyer
 - Seconded: Marina Gutiérrez
 - Approved by Acclamation
 - Motion
 - 802.1 approves the IEC/IEEE 60802 Joint Project minutes for March 2019 (Plenary), May 2019 (Interim), July 2019 (Plenary) and September 2019 (Interim):
 - <http://www.ieee802.org/1/files/public/60802/2019-03-60802-minutes-v1.pdf>
 - <http://www.ieee802.org/1/files/public/60802/2019-05-60802-meeting-v1.pdf>
 - <http://www.ieee802.org/1/files/public/60802/2019-07-60802-meeting-v1.pdf>
 - <http://www.ieee802.org/1/files/public/60802/2019-09-60802-meeting-v2.pdf>
 - Proposed: Jessy Rouyer Seconded: János Farkas
 - Approved by Acclamation
 - Motion
 - 802.1 approves to hold an 802.1 interim session September 21-25, 2020 in Stuttgart, Germany hosted by Hirschmann Automation and Control GmbH
 - Proposal in <http://www.ieee802.org/1/files/public/docs2019/admin-kehrer-sep2020-interim-proposal-1119-v01.pdf>
 - Proposed: Stephan Kehrer Seconded: Jessy Rouyer
 - Yes: 43 No: 0 Abstain: 3
- Nendica motions
 - Motion
 - 802.1 confirms the approval of “Flexible Factory IoT: Use Cases and Communication Requirements for Wired and Wireless Bridged Networks” ([802.1.19-0026-03-ICne](#)) as a Nendica Report.
 - Upon approval it will be processed by IEEE-SA editorial staff for publication, subject to editorial revision.
 - Moved: Roger Marks
 - Second: Nader Zein
 - Motion Withdrawn

- Maintenance TG motions
 - Motion
 - 802.1 authorizes the Maintenance TG to hold teleconferences on 14th January 2020 and 10th March 2020 at 11am EST if necessary. Access information will be posted to the 802.1 reflector in advance.
 - Proposed: Paul Congdon
 - Second: Jessy Rouyer
 - Approved by acclamation
- Security TG motions
 - Motion
 - Authorize the editor of P802.1AEdk, Don Fedyk, to prepare drafts for Task Group balloting following approval of the PAR
 - Proposed: Mick Seaman Second: Randy Kelsey
 - For: 45 Against: 0 Abstain: 1
 - Motion
 - Authorize the Security Task Group to hold teleconferences to progress P802E, P802.1AEdk MACsec Privacy Protection and task group matters arising:
 - Dates/times to be announced subject to notice of at least 10 days to the 802.1 email exploder
 - Proposed: Mick Seaman Second: Don Fedyk
 - Approve by acclamation
- TSN TG motions
 - Motion
 - 802.1 authorizes Scott Fincher, the Editor of P802.1Qcj Bridges and Bridged Networks — Amendment: Automatic Attachment to Provider Bridged Networks to prepare drafts for and conduct Working Group balloting.
 - Proposed: János Farkas
 - Second: Craig Gunther
 - In the WG (y/n/a): 45, 0, 1
 - Motion
 - 802.1 authorizes Norman Finn, the Editor of P802.1DC QoS Provision by Network Systems to prepare drafts for and conduct Working Group balloting.
 - Proposed: Norm Finn
 - Second: Ludwig Winkel
 - In the WG (y/n/a): 20, 6, 20
 - Motion passes
 - Motion
 - 802.1 authorizes Stephan Kehrer, the Editor of P802.1Qdj Bridges and Bridged Networks Amendment: Configuration Enhancements for Time-Sensitive Networking to prepare drafts for and conduct Task Group balloting.
 - Proposed: János Farkas
 - Second: Craig Gunther
 - In the WG (y/n/a): 44, 0, 3
 - Motion
 - 802.1 authorizes the January 2020 Interim to generate PAR and CSD for pre-circulation to the EC for an amendment to IEEE 802.1AS to specify hot standby redundancy.
 - Proposed: Rodney Cummings
 - Second: János Farkas
 - In the WG (y/n/a): 45, 0, 2

- Motion
 - 802.1 authorizes the January 2020 Interim to generate PAR and CSD for pre-circulation to the EC for an amendment to IEEE 802.1Q to add specification in support of the configuration for Scheduling of Time-Sensitive and Bursty Traffic (STSBT) operation.
 - Proposed: Nader Zein
 - Second: Kenichi Maruhashi
 - In the WG (y/n/a): 12, 22, 9
 - Motion fails
- Motion
 - 802.1 authorizes the TSN Task Group to hold pre-meeting on the Monday morning of the March 2020 Plenary session.
 - Proposed: János Farkas
 - Second: Don Pannell
 - Approve by acclamation
- Motion
 - 802.1 authorizes the TSN Task Group to hold an Interim meeting on March 20, 2020 (i.e., the Friday after the IEEE 802.1 Closing Plenary) together with IEC 65C/WG9 to progress the IEC/IEEE 60802 Joint Project and other TSN TG work.
 - Proposed: János Farkas
 - Second: Ludwig Winkel
 - Approve by acclamation
- Motion
 - 802.1 authorizes the TSN Task Group to hold teleconferences weekly on Mondays from 11AM (US-Eastern) to 1PM (US-Eastern).
 - Access information is posted on the <http://www.ieee802.org/1/tsn> page and will be updated as necessary.
 - Agenda will be announced on the 802.1 email reflector at least 5 days before the call.
 - Proposed: János Farkas
 - Second: Mark Hantel
 - Approve by acclamation
- Motion
 - 802.1 authorizes the TSN Task Group to hold bi-weekly teleconferences together with IEC 65C/MT9 to progress the IEC/IEEE 60802 Joint Project on Mondays from 9AM (US-Eastern) to 11AM (US-Eastern); starting with November 25, 2019.
 - Access information is posted on the <http://www.ieee802.org/1/tsn> page and will be updated as necessary.
 - Agenda will be announced on the 802.1 email reflector at least 5 days before the call.
 - Proposed: János Farkas
 - Second: Ludwig Winkel
 - Approve by acclamation
- Motion
 - 802.1 authorizes the TSN Task Group to hold bi-weekly teleconferences to progress the P802.1DG project on Tuesdays from 9AM (US-Eastern) to 10AM (US-Eastern) starting with November 26, 2019.
 - Access information is posted on the <http://www.ieee802.org/1/tsn> page and will be updated as necessary.

- Agenda will be announced on the 802.1 email reflector at least 5 days before the call.
- Proposed: Don Pannell
- Second: János Farkas
- Approve by acclamation
- Motion
 - 802.1 authorizes weekly teleconferences for the YANGsters group on Tuesdays from 10AM (US-Eastern) to 11AM (US-Eastern).
 - Access information is posted on the <https://1.ieee802.org/yangsters/yangsters-call-information/> page and will be updated as necessary.
 - Proposed: Stephan Kehrer
 - Second: János Farkas
 - Approve by acclamation
- Motion
 - Approve <http://www.ieee802.org/1/files/public/docs2019/liaison-Avnu-Automotive-1119-v01.pdf> as communication to Avnu Alliance, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
 - Proposed: Mike Potts
 - Second: János Farkas
 - In the WG (y/n/a): 39, 0, 2
- Motion
 - Approve <http://www.ieee802.org/1/files/public/docs2019/liaison-AUTOSAR-1119-v01.pdf> as communication to AUTOSAR, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
 - Proposed: Don Pannell
 - Second: János Farkas
 - In the WG (y/n/a): 38, 0, 2
- Motion
 - Approve <http://www.ieee802.org/1/files/public/docs2019/liaison-JASPAR-1119-v01.pdf> as communication to JASPAR, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
 - Proposed: Mike Potts
 - Second: János Farkas
 - In the WG (y/n/a): 38, 0, 2
- Motion
 - Approve <http://www.ieee802.org/1/files/public/docs2019/liaison-response-LNI-4-0-draft-sharing-1119-v01.pdf> as communication to LNI 4.0, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
 - Proposed: Josef Dorr
 - Second: Jordon Woods
 - In the WG (y/n/a): 37, 0, 3
- Any Other Business?
 - Motion
 - Authorize Nendica to hold teleconferences to progress work items and matters arising:
 - Dates/times to be announced subject to notice of at least 10 days to the 802.1 email exploder and website
 - Proposed: Roger Marks Second: Don Pannell
 - Approve by acclamation

- The Chair conducted a straw poll indicating 6 participants favoring a May 2021 interim in Albuquerque, NM, USA and 18 participants favoring that interim to be held in Santa Fe, NM USA.

5:58 PM adjournment

10 Next Session

January 20-24, 2020, Geneva, Switzerland (followed by January 25 workshop with IEEE 802.3 and ITU-T SG15).

DRAFT