

IEEE 802.1 Working Group July 11-15, 2022 Plenary Session Montreal, QC, Canada (Hybrid) Session Minutes

The Working Group (WG) Chair, Glenn Parsons, presided and had requested that subgroup Chairs in remote attendance had on-site individuals acting on their behalf as needed to help conduct proceedings with both local and remote participants.
The Recording Secretary, Jessy Rouyer, wrote and/or edited the minutes in part based on input from subgroup Chairs and their Secretaries.

Note that, throughout this document, minuted/recorded inputs from any attendee can not/shall not be assumed to represent a position of their employer or affiliated organization. Discussion points captured do not necessarily reflect the views of the presenter, discussion leader or minute taker, and do not imply consensus unless that is explicitly minuted. The content of draft standards is determined by the ballot process; other formal decisions are the subject of Working Group motions.

1 Attendance and affiliation

The table in this section reflects the attendance (denoted by the ● symbol) and affiliation of all participants in all 802.1 WG and subgroup meetings held in this session.

			TSN - IEC/IEEE 60802, Fri Jul 15, 2022, 13:00 - 17:30 ET																															
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Last name	First name	Affiliation																																
Aboulmagd	Osama	Huawei*						●																										
Abuibaid	Mohammed	Carleton University	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Achemlal	Bouchra	IEEE member / Self Employed; Representing myself									●	●																						
Ahn	Woojin	Korea Railroad Research Institute		●	●	●					●	●													●									
Akizuki	katsuyuki	NEC Communication Systems, Ltd.						●																										

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Last name	First name	Affiliation																																							
Alexandris	Konstantinos	Huawei Technologies Duesseldorf GmbH																																							
Arrington	Arthur	Air Network Solutions																																							
Arunarathi	Venkat	Broadcom Corporation																																							
Assmann	Ralf	Marvell Semiconductor, Inc.																																							
Baggett	Tim	Microchip Technology, Inc.																																							
Bahn	Christy	IEEE STAFF																																							
Bao	Huajie	Huawei Technologies Co., Ltd																																							
Belliardi	Rudy	Schneider Electric																																							
Berens	Friedbert	FBConsulting Sarl																																							
Bierschenk	Jens	Robert Bosch GmbH																																							
Blendin	Jeremy	Intel Corporation*																																							
Bober	Lennert	Fraunhofer Heinrich-Hertz-Institute																																							
Bormann	Carsten	Universitat Bremen TZI																																							
Bottorff	Paul	Hewlett-Packard Development Company, L.P.																																							
Boyle	Vincent	NSA Center for Cybersecurity Standards																																							
Calvin	John	Keysight Technologies Inc																																							
Canchi	Radhakrishna	Kyocera International Inc																																							
Chen	Feng	Siemens AG																																							
Chen	Janet	Meta																																							
Chng	Shi Baw	BAWMAN LLC																																							
Choudhury	Abhijit	Broadcom Corporation																																							
Coelho	Rodrigo	Siemens AG																																							
Congdon	Paul	Congdon Consulting, LLC; Huawei Technologies Co., Ltd; Tallac Networks, Inc																																							
Dorr	Josef	Siemens AG																																							
Du	Zongpeng	China Mobile Limited																																							
Eastlake 3rd	Donald	Huawei R&D USA																																							
Engelmann	Anna	Volkswagen AG																																							
Enzinger	Thomas	B&R Industrial Automation GmbH																																							
Farkas	Janos	Ericsson AB																																							
Fedyk	Donald	LabN Consulting, L.L.C.																																							
Finn	Norman	Huawei Technologies Co., Ltd																																							
Fischer	Kai	Siemens AG																																							
Furch	Andreas	Siemens AG																																							
Garner	Geoffrey	Huawei Technologies Co., Ltd																																							
Gelish	Joseph	ANSI, SAE, NIST, DOE, ITS America																																							
Giguere	Bruno	Canoga Perkins																																							
Ghorab	Amir Hoseein	Carleton University																																							
Godfrey	Tim	Electric Power Research Institute, Inc. (EPRI)																																							
Gopal	Amrit	Ford Motor Company																																							
Goto	Fumihide	Denso																																							
Gravel	Mark	Hewlett Packard Enterprise																																							

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Last name	First name	Affiliation																				
Gu	Tao	Suzhou Centec Communications Co., Ltd.																				
Gubow	Martin	Keysight Technologies																				
Gunther	Craig	LabN Consulting, L.L.C.																				
Guthrie	Rebecca	NSA - CCSS																				
Gutierrez	Marina	RealTime-at-Work (RTaW)																				
Haasz	Jodi	IEEE Standards Association (IEEE-SA)																				
Haddock	Stephen	Stephen Haddock Consulting, LLC																				
Hamilton	Mark	CommScope/Ruckus																				
Han	Ruibao	China Mobile Communications Corporation (CMCC)																				
Handte	Thomas	Sony Corporation																				
Handziski	Vlado	R3 Solutions;R3 Solutions GmbH																				
Hanjin	Joh	KT Corp.																				
Hantel	Mark	Rockwell Automation																				
Hasegawa	Akio	Advanced Telecommunications Research Institute International (ATR)																				
Hernandez	Marco	National Institute of Information and Communications Technology (NICT)																				
Hirata	Masayuki	Osaka University																				
Hjortland	Haakon	Novelda AS																				
Holness	Marc	Ciena Corporation																				
Hopf	Daniel	Continental Automotive GmbH																				
Hormmeyer	Bernd	Phoenix Contact																				
hu	mark zhuomin	Aptiv																				
Hyeongho	Lee	Netvision Telecom																				
Itaya	Satoko	National Institute of Information and Communications Technology (NICT)																				
Ito	Yoshihiro	Nagoya Institute of Technology																				
Jabbar	Abdul	General Electric Company (GE)																				
Jenkins	Michael	NSA-CCSS																				
Jones	Chad	Cisco Systems, Inc.																				
Jones	Peter	Cisco Systems, Inc.																				
Juarez	Jorge	Fraunhofer IIS																				
Kaanane	Basma	University of Ottawa / Ericsson																				
Kehrer	Stephan	Hirschmann Automation and Control, Inc.																				
Kim	Minsoo	YRP International Alliance Institute																				
Kim	Yongbum	tenstorrent																				
Kishida	Akira	Nippon Telegraph and Telephone (NTT)*																				
Klamser	Oliver	Pilz GmbH & Co. KG																				
Kondo	Kenji	Yaskawa Electric Corp																				
Krieger	Ann	US Department of Defense																				
Kumari	Warren	Google																				
Lai	Gavin	Moxa Networking Co., Ltd.																				

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Lalitte	Vanessa	IEEE SA (Staff)																														
Lennartsson	Kent	Kvaser AB																														
Levy	Joseph	InterDigital, Inc.																														
Lim	Sang-Kyu	Electronics and Telecommunications Research Institute (ETRI)																														
Lopes	Joao	Qualcomm Incorporated																														
Lv	Lily	Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd																														
Mangin	Christophe	Mitsubishi Electric Corporation																														
Mansfield	Scott	Telefon AB LM Ericsson																														
Marks	Roger	EthAirNet Associates;Huawei																														
Matheus	Kirsten	BMW*																														
McCall	David	Intel Corporation																														
McIntosh	James	Microchip Technology, Inc.																														
McMillan	Larry	Western Digital Corporation																														
Mittelberger	Martin	Siemens AG																														
Montreuil	Leo	Broadcom Corporation																														
Myles	Andrew	Cisco Systems, Inc.																														
Nakano	Hiroki	CAHI Corporation; Kyoto University; National Institute of Information and Communications Technology (NICT)																														
Namvar	Nima	Charter Communications																														
Naves	Raphael	Dassault-aviation																														
Nikolich	Paul	SAMSUNG																														
Nomura	Takumi	Honda R&D																														
Noseworthy	Bob	University of New Hampshire InterOperability Laboratory (UNH-IOL)																														
Obradovic	Dragan	Siemens AG																														
Orlando	Christian	IEEE Standards Association (IEEE-SA)																														
Palmer	Clark	Meteorcomm LLC																														
Pannell	Donald	NXP Semiconductors																														
Parkholm	Ulf	Ericsson AB																														
Parsons	Glenn	Ericsson AB																														
Pfaff	Oliver	Siemens AG																														
Proell	Dieter	Siemens AG																														
Randall	Karen	Randall Consulting																														
Rasal	Abuzafor	Aptiv																														
Regan	James	UNH-IOL																														
Regev	Alon	Keysight Technologies																														
Reuss	Edward	None																														
Richardson	Michael	Sandelman Software Works Inc																														
Riegel	Maximilian	Nokia																														
Rodrigues	Silvana	Huawei Technologies Co., Ltd																														

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Rolfe	Benjamin	Blind Creek Associates																		
Rosdahl	Jon	Qualcomm Technologies, Inc.																		
Rouyer	Jessy	Nokia																		
Sand	Stephan	German Aerospace Center (DLR)																		
Sato	Atsushi	Yokogawa Electric Corporation																		
Schewe	Frank	Phoenix Contact																		
Seaman	Michael	Individual																		
Seewald	Maik	Cisco Systems, Inc.																		
Sikkink	Mark	HPE																		
Sivakolundu	Ramesh	Cisco Systems, Inc.																		
Sosack	Robert	Molex Incorporated																		
Specht	Johannes	Self; Analog Devices, Inc.; Mitsubishi Electric Corporation; Phoenix Contact GmbH & Co. KG; PROFIBUS Nutzerorganisation e.V.; Siemens AG; Texas Instruments, Inc.																		
Staengler	Ferenc	Kone																		
Stamenic	Nemanja	Siemens AG																		
Stanica	Marius	ABB AB																		
Stanley	Dorothy	Hewlett Packard Enterprise																		
Steindl	Guenter	Siemens AG																		
Stewart	Ethan	UNH-IOL																		
Stuebing	Gary	Cisco Systems, Inc.																		
Sydow	Carsten	Max Linear*																		
Takita	Daisuke	Mitsubishi Electric Corporation																		
Thompson	lance	ii-vi																		
Tse	Richard	Microchip Technology, Inc.																		
Turner	Max	Ethernovia, BMW, Ruetz System Solutions																		
Vakilian	Kambiz	Broadcom Corporation																		
Varga	Balazs	Ericsson AB																		
Venkatesan	Ganesh	Intel Corporation																		
Wang	Haojie	China Mobile Limited																		
Wang	Jing	China Mobile Limited																		
Wang	Tongtong	Huawei Technologies Co., Ltd																		
Wang	Xinyuan	Huawei Technologies Co., Ltd																		
Weber	Karl	Beckhoff Automation																		
Wessels	Leon	Uman Technologies ZA																		
Wilton	Robert	Cisco Systems, Inc.																		
Winkel	Ludwig	PNO e.V.																		
Woods	Jordon	Analog Devices Inc.																		
Xu	Dayin	Rockwell Automation																		
Yamaura	Takahiro	TOSHIBA Corporation																		
Yin	Yue	Huawei Technologies Co., Ltd																		

3 Opening Plenary Meeting

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

Call to order Jul 11, 2022 at 10:31 ET by the Chair who presided. The Recording Secretary wrote the minutes.

The Chair presented “Opening Plenary July 2022” finalized as <http://www.ieee802.org/1/files/public/minutes/2022-07-opening-plenary-slides.pdf>.

During this presentation, the Chair:

- Introduced the agendas on slide 2 that were tacitly approved.
- Provided electronic meeting guidelines (slide 3) and mixed mode guidelines (slides 4-6).
 - The Chair thanked Mohammed Abuibaid, Amir Hoseein Ghorab and Basma Kaanane for their help in running the meetings during this plenary session.
- Presented slide 7 thereby providing the following information:
 - 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.
- Showed IEEE SA Copyright Policy slides 8 and 9.
- Showed slides 10 through 14 (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;
 - Participants have a duty to inform the IEEE;
 - Ways to inform IEEE;
 - Other guidelines for IEEE Working Group 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”, i.e. provided 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 15 through 17 reproducing the IEEE SA slides 1 through 3 approved by SASB in June 2019 regarding IEEE Codes of Ethics and Conduct, participation in the “individual process”, and dominance, thereby conveying that:
 - Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct;
 - Participants in the IEEE-SA “individual process” shall act independently of others, including employers; and
 - IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints.
- Made subgroup announcements (slide 18) thereby reminding subgroup Chairs of their obligation to:
 - Remind participant at the start of the first subgroup meeting that the meeting is subject to the policies in “MEETING INTRODUCTION” presentations made available beforehand (as announced in the opening plenary meeting) and, in the case of a Task Group (TG), to make the “Call for Potentially Essential Patents” and minute any responses to it;
 - After any recess, announce that the meeting remains subject to the policies as read and displayed in the opening plenary meeting; and
 - At meeting start and after any recess, ask participants to record attendance in IMAT and, if unable to do so, to promptly provide their affiliation to the minute taker.
- Reviewed meeting decorum, including the policies on public reporting, and on photography or recording (slide 19).
- Asked participants to record attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker (slide 20).
- Reminded participants of the various plenary session registration fees applying and attendant registration details (slide 21).
- Shared food logistics (slide 22).
- Provided general information regarding and meeting contributions, minutes, schedule for all Working Groups, website, including a new requirement for meeting contributions to be uploaded 24 hours before presentation (slide 23).
- Introduced 802.1 officers and leadership (slide 24), including Johannes Specht as TSN TG Secretary
- Discussed 802.1 WG Process (slide 25) including the “New work” process as previously introduced and leveraging Nendica towards vetting all new 802.1 work.
- Provided an update on current joint development procedures (slide 26).
 - Abdul Jabbar provided a brief update on the joint development agreement for the IEEE P802.1DP / SAE AS6675 project.
- Reminded 802.1 voting members of their obligations regarding declaring affiliation(s) and employer(s) (slide 27), electronic ballots (ePolls) conducted between sessions (slide 28), requesting and retaining voting membership (slide 29), and responding to WG ballot series (including ePolls) as well as regarding the consequences of not responding to WG ballot series (including ePolls) (slide 30).
- Reviewed the list of 802.1 voters (slide 31), including information about individuals who may gain (slides 32 and 33), will lose (slide 34), may lose (slide 35) 802.1 voting membership.
- Reminded individual participants of 802.11 reciprocal credit, which was continued at this session (slide 36).
- Asked an overview of the ad hoc sessions held intersession be provided (slide 37).
 - Ludwig Winkel, IEC/IEEE 60802 Joint Project Chair, presented “60802 ad hoc meeting report 2022-06-13 to15 - Frankfurt” (slide 38).

- Introduced information about the Sep 2022 interim session (slide 39).
 - Abdul Jabbar provided a summary of the GE offer for that session (slide 40).
- Introduced information about the May 2023 interim session (slide 41).
 - The Executive Secretary provided a summary of the ABB offer for that session.
- Reviewed the schedule for future interim sessions and past interim sessions changed to electronic due to COVID-19 (slide 42):
 - May 18-22, 2020
 - Pasadena, CA, USA hosted by Ethernet Alliance (changed to electronic due to COVID-19)
 - September 21-25, 2020
 - Stuttgart, DE hosted by Hirschmann (changed to electronic due to COVID-19)
 - January 2021
 - Changed to electronic due to COVID-19
 - May 3-7, 2021
 - Santa Fe, NM, USA hosted by Analog Devices (changed to electronic due to COVID-19)
 - September 20-24, 2021
 - Stuttgart, DE hosted by Hirschmann (changed to electronic due to COVID-19)
 - January 17-21, 2022
 - Changed to electronic due to COVID-19
 - May 23-27, 2022
 - Santa Fe, NM, USA hosted by Analog Devices (changed to electronic due to COVID-19)
 - September 2022
 - Electronic meeting
 - January 2023
 - May 2023
 - Proposal for Helsinki, Finland
- Had the Executive Secretary review the schedule for future plenary sessions and past plenary sessions cancelled or changed to electronic due to COVID-19 (slide 43):
 - March 15-20, 2020 – Atlanta, GA, USA
 - Hilton Atlanta (cancelled due to COVID-19)
 - July 12-17, 2020 – Montreal, QC, Canada
 - Sheraton Montreal (changed to electronic due to COVID-19)
 - November 8-13, 2020 – Bangkok, Thailand
 - Bangkok Marriott Marquis Queen's Park (changed to electronic due to COVID-19)
 - March 14-19, 2021 – Denver, CO, USA
 - Hyatt Regency Denver (changed to electronic due to COVID-19)
 - July 11-16, 2021 – Madrid, Spain
 - Marriott Madrid Auditorium (changed to electronic due to COVID-19)
 - November 14-19, 2021 – Vancouver, BC, Canada
 - Hyatt Regency Vancouver (changed to electronic due to COVID-19)
 - March 13-18, 2022 – Orlando, FL, USA
 - Hilton Orlando Lake Buena Vista (changed to electronic due to COVID-19)
 - July 10-15, 2022 – Montreal, QC, Canada
 - Sheraton Le Centre Montreal
 - November 13-18, 2022 – Bangkok, Thailand
 - Marriott Marquis Queen's Park

- Had the Executive Secretary review the list of dates by which the decision to hold a future session would have to be made (slide 44):
 - Plenary sessions
 - November 13-18, 2022 – Bangkok Thailand
 - Latest decision date to avoid penalty: July 15 2022
 - Interim sessions
 - January & September 2023
 - Currently no offer to host – volunteers?
 - The Chair noted that 802.11 has a standing offer for 802.1 to join 802.11 interim sessions.
- Previewed the straw polls to be conducted during the 802.1 closing plenary meeting (slide 45):
 - 1. If the 2022 November Plenary Session is held in Bangkok, Thailand as an in-person only session, will you attend?
 - Yes/No
 - 2. If the 2022 November Plenary Session is held in Bangkok, Thailand as a mixed-mode session, will you attend:
 - Attend In-person
 - Attend Virtually (remotely)
 - Will not attend plenary
- Provided pointers to the LMSC schedule of EC/WG/TAG meetings to be held during this plenary session (slide 46).
- Reported the following items out of the 802 Executive Committee (EC) plenary session #130 (slide 47):
 - March 2024 – Paul Nikolich will not run for IEEE 802 chair
 - The 802 chair also appoints several EC positions
 - Anyone can be nominated. Interested? Contact Paul.
 - IEEE Xprize – [Energizing the Future](#)
 - Sustainable creation of 1,000 kWh for 10 days with \$4.5M prize
 - IEEE 2050 strategic plan – led by IEEE Technical Activities Board
 - Leadership workshop ([EC-22-95](#))
 - Strategic planning for IEEE 802 – no technical discussions
 - 802 Rules update ([EC-22-135](#))
 - Correct majority vs $\frac{3}{4}$ voting mistake
 - Draft sharing within 802 allowed with a new “Important Notice” section without
 - Future Venues (EC-22-137)
 - Future in person venues contracted into 2027, new venues on hold
 - Treasurer ([EC-22-134](#))
 - 2022 surplus projected at \$200k to restore reserves to ~\$1M
- Noted the “Mission and Purpose of the IEEE 802 LAN/MAN Standards Committee” for approval at the 802 closing plenary meeting (slide 48).
- Presented the schedule for the Jul 16, 2022 802 Executive Committee workshop (slide 49).
- Introduced IEEE SA staff supporting IEEE 802 (slide 50):
 - Jonathan Goldberg – IEEE 802 in-person lead
 - Jodi Haasz – IEEE 802 lead (remote)
 - Christian Orlando – IEEE 802.1 program manager
 - Vanessa Lalitte – IEEE SA program manager
 - Michelle Turner – Editor (remote)
 - Catherine Berger – Editor (remote)
 - Christy Bahn – IEEE 802 program manager (remote)

- Provided IEEE 802 program status pointers (slide 51).
- Conducted the following straw poll (slide 52):
 - If you will be at one of the three meetings on Friday (802 EC Closing Plenary, the 802.11 Closing Plenary or the 802.1 "IEC/IEEE 60802" meeting) will you participate (eat/drink) :
 - With breakfast? 38
 - with the AM Break? 39
 - with the PM Break? 27
- Provided information about public review (slide 53).
- Pointed out the 802.1 PARs, CSDs, PAR extensions (slide 54) and other 802 PAR and Endorsement Letter & ICAID (slide 55) that are up for vote or finalization during this IEEE 802 plenary session.
- Discussed the [802 technical plenary](#) to be held Jul 11, 2022 18:00-20:00 to raise awareness for the revision of IEEE Std 802 (slide 56).
- Introduced liaison resources (slide 57).
- Reviewed, with the Liaison Secretary's support, the set of new and previously-received incoming liaisons to be handled by specific subgroups as listed (slide 58).
- Summarized IETF coordination items (slide 59).
- Discussed promotion of the work of the WG (slide 60) and 802.1 public visibility messaging (slide 61).
- Summarized the various types of IEEE Awards encouraging nominations (slide 62).
- Invited all in-person 802.1 participants to join an 802.1 award reception to celebrate the 2020 IEEE SA Emerging Technology Award (slide 63).
- Provided the anticipation of next actions with respect to projects in the WG's current workload (slide 64).
- Showed the 802.1 plenary session electronic meeting schedule for this session, which was tacitly approved (slide 65).
- Listed 802.1 leadership and editors' meetings (slide 66).
- Reminded the Working Group of the logistics orientation information available <https://1.ieee802.org/orientation/> and of the possibility to practice the web-based voting tool to be used at the 802.1 closing plenary meeting (slide 67).
- Requested that subgroup agendas be presented (slide 68):
 - The Maintenance TG Chair presented the agenda on slide 69.
 - The Security TG Chair presented the agenda on slide 70.
 - The TSN TG Chair, IEC/IEEE 60802 Joint Project Chair, TSN TG Vice-Chair, and Abdul Jabbar as IEEE P802.1DP/SAE AS6675 joint project co-Chair presented the agenda on slide 71
 - The Nendica Chair presented the agenda on slide 72.
 - The YANGsters Chair presented the agenda on slide 73.
- Called for Any Other Business (slide 74).
 - No further business was discussed in this meeting.

12:40 ET recess

4 802 Technical Plenary

Between this session and the preceding session, the following 802 Technical Plenary meetings were held whose minutes are incorporated to these session minutes by reference as follows:

- None

Call to order Jul 11, 2022 at 18:04 ET by Glenn Parsons, IEEE 802.1 Chair, who presided. Jessy Rouyer, IEEE 802.1 Recording Secretary, wrote the minutes.

The table in section 1 reflects the attendance and affiliation of all participants in this meeting.

Agenda items and dispositions:

1. Meeting introduction and other administrative items.

1.1 Approval of agenda. The 802.1 Chair presented “Agenda: IEEE 802 Technical Plenary Meeting 2022-07-11” <https://1.ieee802.org/2022-07-technical-plenary-agenda/>.

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

1.2 Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of “MEETING INTRODUCTION” <http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf>.

The 802.1 Chair showed this presentation implicitly advising that the following, provided beforehand, applies:

- IEEE’s Patent Policy is described in Clause 6 of the IEEE SA Standards Board Bylaws;
- Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
- There may be Essential Patent Claims of which IEEE is not aware. Additionally, neither IEEE, the WG, nor the WG Chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- IEEE SA’s copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;
- Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy.

The 802.1 Chair made the Call for Potentially Essential Patents thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard: there were no responses to this Call prior to the end of the meeting.

The 802.1 Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

2. IEEE P802-REV.

2.1. Process plan. Paul Congdon presented “P802-REVC Project Logistics”

<https://www.ieee802.org/1/files/public/docs2022/802-rev-congdon-process-0722-v03.pdf>.

Discussion:

- To fit it in the existing process, non-802.1 802 WG Chairs could collect and submit to P802-REVC all P802-REVC WG (and possibly as a test TG) ballot comments received from their WGs.
- WGs would not need to take positions based on their comments (i.e., would not resolve these comments) but would pass them all for processing by the P802-REVC editor.
- The scope, with “The IEEE 802 architecture is defined” deleted, does not align with the title that retains “and Architecture”. The title could be changed based on P802-REVC comments.

Disposition: Agreed (informally, none dissenting) for non-802.1 802 WG Chairs to identify one or more participants from their WG to follow the P802-REVC project.

3. IEEE P802-REV.

- 3.1. Introduction. Glenn Parsons presented “Discussion about 802 architecture” <https://www.ieee802.org/1/files/public/docs2022/802-parsons-technical-plenary-discussion-0722.pdf>.

Discussion:

- Point of clarification on the difference between revision PAR and maintenance PAR. The former is a roll up of existing IEEE Std 802 amendments into base IEEE Std 802 while the latter would be rearchitecting/reorganizing IEEE Std 802. Depending on interest, a maintenance PAR(s) could be created (none exists yet) to include elements from other 802 standards.
- Two separate projects is an administrative goal unsupported by SA rules.
- Plan is for a roll up but amendment(s) can be created if more needs to be done.

Disposition: For information.

- 3.2. 802.1 WG. Mick Seaman presented “802.1 Architecture” <https://www.ieee802.org/1/files/public/docs2022/802-1-seaman-architecture-0722-v00.pdf>.

Discussion deferred to agenda item 3.6.

- 3.3. 802.3 WG. George Zimmerman presented “IEEE 802.3 Ethernet” https://ieee802.org/802_tutorials/2022_07/802d3_0722_architecture.pdf.

Discussion deferred to agenda item 3.6.

- 3.4. 802.11 WG. Dorothy Stanley presented “802.11 standard use of 802 architecture” <https://mentor.ieee.org/802.11/dcn/22/11-22-1017-00-0000-802-11-standard-use-of-802-architecture.pptx>.

Discussion deferred to agenda item 3.6.

- 3.5. 802.15 WG. Clint Powell and Ben Rolfe presented “802.15 Alignment w/802.1” <https://mentor.ieee.org/802.15/dcn/22/15-22-0376-00-0000-802-15-alignment-with-802-1.pptx>.

Discussion deferred to agenda item 3.6.

- 3.6. Discussion... The 802.1 Chair moderated discussion of agenda items 3.2 through 3.5.

Discussion:

- Presentations varied in how more or less focused they were on IEEE Std 802.
- MAC service is perhaps the standard 802 network defining feature. Some commonalities with IP in 802.15.

- WGs often use the same concepts but emphasize them in different ways (examples: use or non-use of LLC/standard 802 in other 802 standards than standard 802, demultiplexing on MAC service data, use of EtherTypes; 802.5 MAC address look up, 802.1AC note on link layer and LANs as subnetworks within the network layer). No desire for all WGs to use the exact same language. Multiple languages are fine.
- “Saying goodbye to LLC”
<https://www.ieee802.org/1/files/public/docs2020/maint-seaman-llc-goodbye-0720-v00.pdf>.
- Comments in P802-REVC ballots welcome to help determine whether to embrace diversity on how WGs use standard 802 or to assume a unifying architecture.
- In-field mix of Wi-Fi, Ethernet, and other technologies with different management/configurations. Looking for alignment but not for the sake of alignment. Make it easier to cross between the different technologies.
- Harmonious mix is the promise of an 802 network, and may or may not work. Do we want this to work generally or per application? Do we want to do it specifically or generally?
- Market cares that we deliver the service whether or not a given protocol relies on LLC or not.
- Comments in P802-REVC ballots welcome on the multiple languages, the desire to have end-to-end continuity, and whether this should be done in standard 802 or somewhere else.
- 802.1 to initiate a balloting process, starting with TG ballot then WG ballots.
- Submit comments in P802-REVC (as a roll up) to guide what will go in 802 amendment(s)?
 - Do we amend standard 802 in two years, or do we use two or more projects now? Comments welcome (perhaps separately from the roll up) since ELLA (focused on amending standard 802) has stalled in Nendica.
 - Need to focus on completing P802-REVC in two years. Current description is impacting our ability to understand each other. Differences in language.
 - Making standards 802 more than an overview (moving pieces around) is too much. Might entertain minor re-organization for clarity.
 - Standard 802 was originally standard 802.1 focused on architecture. The change to 802 architecture was done after SA ballot on standard 802.1. May explain poor fit.

Disposition: Agreed (informally, none dissenting) to (i) initiate the P802-REVC WG process with the various WG chairs collecting comments through their WG’s process, and submitting the comments to P802-REVC and (ii) poll for the best time for comments resolution.

4. Next meeting. The 802.1 Chair noted the next 802 technical plenary could be in Sep 2022 but more likely at the Nov 2022 plenary session.
5. Any other Business. No other business was discussed in this meeting.

19:48 ET adjournment

5 802.1/802.15 Joint Meeting

Between this session and the preceding session, the following 802.1/802.15 joint meetings were held whose minutes are incorporated to these session minutes by reference as follows:

- None

Call to order Jul 12, 2022 at 18:30 ET by Clint Powell, IEEE 802.15 Vice-Chair, who presided with Glenn Parsons, IEEE 802.1 Chair. Jessy Rouyer, IEEE 802.1 Recording Secretary, wrote the minutes.

The table in section 1 reflects the attendance and affiliation of all participants in this meeting.

Agenda items and dispositions:

1. Meeting introduction and other administrative items.

- 1.1. Meeting Introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <https://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf>.

The 802.1 Chair showed slides 1-8 of this presentation implicitly advising that the following, provided beforehand, applies:

- IEEE's Patent Policy is described in Clause 6 of the IEEE SA Standards Board Bylaws;
- Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
- There may be Essential Patent Claims of which IEEE is not aware. Additionally, neither IEEE, the WG, nor the WG Chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;
- Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy.

The 802.1 Chair made the Call for Potentially Essential Patents thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard: there were no responses to this Call prior to the end of the meeting.

- 1.2. Attendance. The 802.1 Chair asked all participants to record their attendance using either the 802.1 IMAT <https://imat.ieee.org/802.1/attendance-log?d=01/19/2022&p=3740500005&t=28800043> or the 802.15 IMAT <https://imat.ieee.org/sp7200043/attendance-log?p=3888500005&t=47600043>.
- 1.3. Approval of agenda. The 802.1 and 802.15 Chair presented the agenda at <https://1.ieee802.org/2022-07-plenary-joint-1-15-agenda/>.

Disposition: The agenda was reviewed, and agreed (informally, none dissenting) as reflected by these minutes.

2. 802.15.13.

2.1. Update. Lennert Bober, 802.15.13 Vice-Chair, presented “July follow up on joint discussion between IEEE P802.15.13 and 802.1”

<https://mentor.ieee.org/802.15/dcn/22/15-22-0394-01-0013-july-follow-up-on-joint-discussion-between-ieee-p802-15-13-and-802-1.pptx>.

Discussion:

- Two or three SA recirculation ballots expected for this first version of the standard.
- Nothing in the draft precluding implementation of TSN features in the future.
- Changes needed to support TSN: MAC service, 802.1Q feature(s), VLANs? Currently in SA ballot but made changes: (i) MAC structure broken up with headers (TDMA scheme with superframe), (ii) transport of MSDUs changed from frame format similar to 802.11's to encapsulating the whole MSDU together with addressing fields and the type/length field in the payload, (iii) 3 addresses in the MPDU impacting integration with generic network, (iv) handling of multicast addresses clarified (currently no multicast so broadcasting unicast or group addresses through the whole network). These 4 points/changes should allow adding TSN capabilities in the future.
- 802.15.13 split from 802.15.7 around 2016/2017, 90% of the former having since changed.

Disposition: TG3 would welcome 802.1 participants review of the 150-page P802.15.3 draft. Review could focus on the MAC service interface (e.g., is it sufficiently defined?). The next step would be to specify what the service interface is in 802.1AC.

- Degrees of freedom in configuring the path between talker and listener: further discussion needed.
- TSN used over 802.3 Ethernet but emerging interest in TSN over wireless, both 802.11 (TGbe) and 802.15. Different wireless PHYs would act differently from an 802.3 PHY. Assumption is that TSN is heterogeneous, with wired/wireless segments: further discussion needed on whether TSN needs changes for this.

3. 802.1 and 802.15 compatibility.

3.1. 802.15.4. The 802.15 Chair introduced Phil Beecher. At the 802 Technical Plenary, focus was on where 802.15 does not adhere to the 802.1 architecture and 802.1 security model rather than on where it does. Desire to produce, within a month, a presentation addressing 802.15's fit into the 802.1 architecture, how the 802.15 security model works, and discussing MAC and PHY layers, SAPs, how 802.15 uses 802.1 security (e.g., 802.15.9 maps to the 802.1 architecture for security).

Discussion:

- Architecture adherence as a start for provision/review in Aug 2022 or Sep 2022 time frame.
- Other 802.15 TG MACs/PHYs would also be good.
 - Start with 802.15.4 that is probably the most complete in terms of adherence then follow up with others in 4Q22.
 - Starting with 802.15.4, that represents 5B+ devices worldwide, covers a reasonable share and is also the most challenging.

Disposition: Agreed (informally, none dissenting) to target provision/review in Sep 2022 time frame of 802.15.4 architectural adherence to the 802.1 architecture and 802.1 security model.

- 3.2. Update of table mapping of 802.1 feature to 802.15 projects. Ben Rolfe presented slide 7 of “802 Technical Plenary Presentation | ---802.15 Alignment w/802.1---” <https://mentor.ieee.org/802.15/dcn/22/15-22-0376-00-0000-802-15-alignment-with-802-1.pptx>.

Discussion:

- Update of the matrix focused on 802.15.4 expected by Sep 2022 meetings.
- More work needed to identify features of interest (e.g., the SAP interface or security).
- Reference Model per 802.15 TG would be more useful than 802.15 RM.
 - 802.15.7-8-13 are busy, 802.15 has no draft yet, 802.15.8 has no participation.

Disposition: For information.

4. Next meeting.

Discussion:

- Need to understand what TG6 is looking for. Revision is planned that was going to be an amendment. Focused on BANs.

Disposition: Agreed (informally, none dissenting) to next meet during the Sep 2022 interim session.

5. Any other Business. No other business was discussed in this meeting.

19:19 ET adjournment

6 Maintenance Task Group

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

- Minutes of the Maintenance TG meeting held 2022-06-14 11:00 – 11:43 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;472488e0.22>
- Minutes of the Maintenance TG meeting held 2022-07-05 11:01 – 12:37 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;31e6d5f4.22>

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

Call to order July 12, 2022 at 8:00 ET by Paul Congdon, IEEE 802.1 Maintenance TG Chair (TG Chair), who presided and wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of “MEETING INTRODUCTION” <http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf>.

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

The TG Chair made the Calls for Potentially Essential Patents at the beginning of each TG meeting during this session thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard: there were no responses to these Calls prior to the end of the session.

The TG Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

2. Approval of agenda. The TG Chair presented the agenda in <https://1.ieee802.org/july-2022-plenary-session-electronic-maintenance-tg-agenda/>.

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

3. Review Plenary Motions. The TG Chair reviewed the proposed motions for the 802.1 closing plenary meeting in “Maintenance Motions”
<https://www.ieee802.org/1/files/public/docs2022/maint-congdon-draft-motions-0722-v02.pdf>.

Disposition: For information.

4. IEEE 802 PARs Under Consideration. The TG Chair asked the TG if any additional comments are available for the previously reviewed PARs under consideration
<https://www.ieee802.org/PARs.shtml>.

Disposition: No comments were suggested. No comments from 802.1 on the PARs under consideration.

5. 802.1ASdr Editor’s Verbal Update. Silvana Rodrigues, P802.1ASdr editor, gave a verbal update on the status of the project.

Disposition: For information. The related P1588g SA ballot closes on July 16, 2022. The corresponding draft looks stable and is expected to be approved. New terms proposed are TimeTransmitter for master and TimeReceiver for slave. The editor can create P802.1ASdr drafts once P1588g completes SA ballot.

6. SC6 Status. Karen Randall presented “ISO/IEC JTC1 SC6 STATUS July 2022” slides in “Maintenance Task Group Electronic Meetings”
<https://www.ieee802.org/1/files/public/docs2022/maint-congdon-em-0722-2-v01.pdf>.

Disposition: For information.

7. Liaisons. Karen Randall led the review of the liaison response to ISO/IEC JTC1 SC6 ballot comments and the ITU-T SG15 LS351: OTNT Standardization Work Plan Issue 30 from
<https://1.ieee802.org/liaisons/liaisonable/>.

Disposition: Reviewed and updated liaison responses finalized as:

- <https://www.ieee802.org/1/files/public/docs2022/liaison-SC6CommentResponseACct-0722.pdf>
- <https://www.ieee802.org/1/files/public/docs2022/liaison-SC6CommentResponse1BA-0722.pdf>
- <https://www.ieee802.org/1/files/public/docs2022/liaison-response-itu-t-sg15-otnt-swp-0722.pdf>.

8. P802-REVC Project Logistics. The TG Chair reviewed the project logistics for P802-REVC
<https://www.ieee802.org/1/files/public/docs2022/802-rev-congdon-process-0722-v01.pdf>.

Disposition: For information. A PAR modification is required to change the project title from “Overview and Architecture” to “Overview”. The TG Chair was asked to communicate with the Chairs of other 802 WGs to assign their delegates and assure they are on the Architecture email list. A Doodle poll to choose an appropriate time for comment resolution is to be sent to the Architecture email list. The EC email list is to be used to announce TG and WG balloting on the P802-REVC drafts.

9. P802-REVC/d0.1 draft review and status. James Gilb, P802-REVC editor, reviewed the contents and status of <https://www.ieee802.org/1/files/private/802-REVC-drafts/d0/P802-REVC-d0.1.pdf>.
Disposition: For information. The editor agreed to include a foreword to the draft that points out the changes made and describes the expectations for P802f. The next draft will be used to initiate TG balloting.
10. Document Vehicle Status. The TG Chair reviewed “Document Vehicle Status” slides in “Maintenance Task Group Electronic Meetings”
<https://www.ieee802.org/1/files/public/docs2022/maint-congdon-em-0722-2-v01.pdf>.
Disposition: For information. The TG Chair agreed to add P802.1ASdm to the list of document vehicles.
11. Existing Maintenance Items: The TG Chair led the discussion of the following existing maintenance items:
 - 0242: IEEE Std 802.1Qcp-2018: Collected issues on data consistency and others
 - 0248: Managed objects for ECP in 802.1Q-2018
 - 0314: network media and PHY
 - 0324: Use of Tick in List Execute state machine (802.1Q)
 - 0340: Misleading details on ATS MaxResidenceTime**Disposition:** Details for discussion on all items are logged in the IEEE 802.1 maintenance database at <https://www.802-1.org/home> where items progressed at the meeting can be reviewed by selecting ‘Meetings’.
12. Any Other Business. A new maintenance request is being prepared to address issues identified in P802.1Qdj.
13. Future meetings. Agreed (informally, none dissenting) to hold a maintenance electronic meeting to address maintenance requests 0324 and 0340. The date and time are to be defined.

9:35 ET adjournment

7 Security Task Group

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

- Minutes of the Security TG meeting held 2022-06-17 13:00 - 14:02 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;b9f78a5d.22&S=>
- Minutes of the Security TG meeting held 2022-06-07 11:00 - 13:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;164682a1.22&S=>
- Minutes of the Security TG meeting held 2022-06-03 13:02 - 15:08 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;e56baaf8.22&S=>
- Minutes of the Security TG meeting held 2022-05-24 11:04 - 13:08 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;1c7a532f.22&S=>

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

Call to order Monday July 11, 2022 at 13:40 ET by Mick Seaman, IEEE 802.1 Security TG Chair, who presided and wrote the minutes assisted by Karen Randall, Security TG Vice-Chair.

Agenda items and dispositions:

1. Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf>.

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

The Security TG Chair made the Calls for Potentially Essential Patents thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard: there were no responses to these Calls prior to the end of the session.

The Security TG Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

2. Approval of agenda. The Security TG Chair presented the agenda in <https://1.ieee802.org/july-2022-plenary-session-electronic-security-tg-agenda/>.

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

3. P802.1AEdk MAC Privacy protection. Mick Seaman, IEEE Std 802.1AE Editor, reviewed the results (<https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-1-pdis-v00.pdf>) of the WG recirculation ballot on <https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-1.pdf>. The ballot was "clean" – no Disapproves. Formal rejection of the (not Must Be Satisfied) editorial comments was suggested, with those to be noted in the Initial SA Ballot cover letter. An update to the MIB root and a correction of a typo in the MIB were also suggested. Comments 241, 244, 245, and 246 were shown, and the responses agreed (informally, none dissenting). A draft of the proposed Initial SA Ballot cover letter was shown: <https://www.ieee802.org/1/files/public/docs2022/dk-seaman-draft-sa-ballot-cover-letter-0722-v0.pdf>. Initial SA Ballot should be able to start once MEC (Mandatory Editorial Coordination) is complete. MEC can result in editorial changes and to the front matter (not formally part of the draft). There will also be changes to the cover pages for SA ballot. Noted in discussion that the statement in the front matter "IEEE Std 802.1AE is not intended for use with IEEE Std 802.11™ Wireless LAN Medium Access Control." which was felt to be unnecessarily restrictive (as per communication received by the Standards Board Secretary and discussed in the May 7, 2021 Security TG meeting) was changed in <https://www.ieee802.org/1/files/private/dk-drafts/d0/802-1AEdk-d0-8.pdf> (August 2021) to "MACsec is not intended as a substitute for the security mechanisms specified by IEEE Std 802.11™ Wireless LAN Medium Access Control."

Disposition: Agreed (informally, none dissenting) to propose (in the 802.1 closing plenary meeting) submitting P802.1AEdk/D2.1 to SA Ballot. The final disposition of WG ballot comments, as reviewed in the meeting, is at <https://www.ieee802.org/1/files/private/dk-drafts/d2/802-1AEdk-d2-1-dis.pdf>.

4. BBF liaison. Karen Randall, 802.1 WG Liaison Secretary, introduced a liaison from the BBF <https://www.ieee802.org/1/files/public/docs2022/liaison-BBF-1X-YANGmodel-0322.pdf>.

Disposition: Discussion to be continued.

18:00 ET Recess

Call to order Tuesday July 12, 2022 at 10:30 ET by Mick Seaman, IEEE 802.1 Security TG Chair.

5. P802.1Qdt Priority-based Flow Control Enhancements Lily Lv presented “PFC Enhancement Discussion—PFC Management”
<https://www.ieee802.org/1/files/public/docs2022/dt-lv-pfc-management-discussion-0722-v01.pdf>

Discussion:

- Locate management information chiefly in revised Clause 36 (Clause 12 is large, and additions need to stick to bare facts not exposition).
- State goals at beginning of 36.n subclause.
- Management to provide information on SecY transmit delay (worst case figures currently provided in 802.1AE will be over generous in many cases, but also subject to future upwards revision for very high link speeds).
- Definition of MBC bit unclear and requires review.

Disposition: Discussion to be continued.

12:30 ET recess

Call to order Wednesday July 13, 2022 at 9:15 ET by Karen Randall, IEEE 802.1 Security TG Vice Chair.

5. P802.1Qdt Priority-based Flow Control Enhancements (continued)

Discussion:

- MBC bit setting. Don't use to disable/enable protection of PFC.
- Noted that the Qdt project page on the 802.1 website is linked to both the Security TG and the TSN TG.

Disposition: Discussion to be continued. A motion to appoint Lily Lv as P802.1Qdt Editor with authorization to prepare drafts for TG balloting will be proposed during the 802.1 closing plenary meeting.

Recess 10:00 ET

Call to order Wednesday July 13, 2022 at 13:30 ET by Mick Seaman, IEEE 802.1 Security TG Chair.

6. Any Other Business - SHA-1 retirement. Karen Randall, IEEE 802.1 Security TG Vice Chair, showed the NIST page/request for Public Comments on FIPS 180-4, Secure Hash Standard (SHS): <https://csrc.nist.gov/News/2022/public-comments-requested-on-fips-180-4-shs>.

Discussion:

- NIST is planning to disallow the use of SHA-1 for all applications because of the increasing number and severity of cryptographic attacks and requests feedback on potential impacts and suggested timeline for transitioning. Information on comment and questions (and the deadline) is available on the web page.
- There is no use of SHA-1 in existing 802.1 standards.

7. BBF Liaison (continued)

Discussion:

- Liaison requests the addition of the addition of a “derived-from-or-self” statement (a yang-version 1.1 capability), effectively extending the scope of the “when” statement. The proposed change would allow 802.1X to be used with any interface type derived from ethernetCsmacd or ‘ptm’ (an interface type used by the BBF) thus allowing the BBF to add new interfaces to the “when” list by further derivation from those types.
- Not all ‘Ethernet-like’ interfaces are suitable for 802.1X support. In particular Link Aggregation (802.1AX) provides an Ethernet-like interface (when aggregating Ethernet links) but the links (rather than the aggregate) need to be individually authenticated/authorized (6.5 of 802.1X-2020).
- Note past discussion (still relevant) of the issues in “Support of P802.1Xck, and more, on non-IEEE 802- specified interfaces”
<https://www.ieee802.org/1/files/public/docs2017/xck-pauwels-PTM-interfaces-support-1117-v02.pdf> and its reference to draft-wilton-netmod-interface-properties-00 <https://www.ietf.org/archive/id/draft-wilton-netmod-interface-properties-00.txt>.
- Don’t want a blanket “derived from or self” from ethernetCsmacd. However (BBF is) free to derive from own type (ptm) – but note would/should assess whether the desirable properties are being followed and would that enable use of 802.1X.
- Note also draft-ietf-netmod-intf-ext-yang-10 (expired draft)
<https://datatracker.ietf.org/doc/pdf/draft-ietf-netmod-intf-ext-yang-10>.

Disposition: Discussion to be continued. Offline drafting of liaison response required.

15:37 ET adjournment

8 Time-Sensitive Networking Task Group

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

- Minutes of the IEEE 802.1 TSN TG meeting held 2022-05-16 11:00 - 13:05 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;9ee9517e.22&S=>
- Minutes of the IEEE 802.1 TSN TG meeting held 2022-05-23 11:00 - 13:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;2da93b5f.22&S=>
- Minutes of the IEEE 802.1 TSN TG meeting held 2022-06-13 11:00 - 12:47 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;e2bc1ab1.22&S=>
- Minutes of the IEEE 802.1 TSN TG meeting held 2022-06-20 11:00 - 13:05 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;6ffe9f5e.22&S=>
- Minutes of the IEEE 802.1 TSN TG meeting held 2022-06-27 11:00 - 13:09 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;859d32c5.22&S=>

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

- Minutes of the IEEE P802.1DG meeting held 2022-05-31 9:00 - 9:29 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;b38f6d17.22&S=>
- Minutes of the IEEE P802.1DG meeting held 2022-06-07 9:00 - 11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;60fac47c.22&S=>
- Minutes of the IEEE P802.1DG meeting held 2022-06-14 9:00 - 10:34 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;14f404c9.22&S=>
- Minutes of the IEEE P802.1DG meeting held 2022-06-21 9:02 - 9:52 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;71e6cf40.22&S=>

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

Minutes of the IEC/IEEE 60802 Joint Project electronic meetings are in section 8.1.

Minutes of the IEEE P802.1DP/SAE AS 6675 joint project electronic meeting are in section 8.2.

Call to order July 11, 08:00 ET by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf>.

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

- IEEE's Patent Policy is described in Clause 6 of the IEEE SA Standards Board Bylaws;
- Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
- There may be Essential Patent Claims of which IEEE is not aware. Additionally, neither IEEE, the WG, nor the WG Chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;
- Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy.

The Chair made the Calls for Potentially Essential Patents at the beginning of each TG meeting during this session thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard: there were no responses to these Calls prior to the end of the session.

The Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.

2. Approval of agenda. The Chair presented the agenda in <https://1.ieee802.org/2022-07-plenary-tsn-agenda/>
Disposition: The agenda was reviewed, discussed, and updated as recorded by these minutes.
3. Geoffrey Garner, P802.1ASdm Editor, presented “P802.1ASdm-Rev/D0.5 Editor’s Report, Proposed Comment Resolution for TG Ballot, Version 5” <https://www.ieee802.org/1/files/public/docs2022/dm-garner-d0-5-tg-ballot-editors-report-0322-v05.pdf> and led the resolution of comments received on <https://www.ieee802.org/1/files/private/asdm-drafts/d0/802-1ASdm-d0-5.pdf>.
Disposition: The comment resolution was concluded by resolving comments 56, 61 as documented in <https://www.ieee802.org/1/files/private/asdm-drafts/d0/802-1ASdm-d0-5-dis.pdf>.
4. Stephan Kehrer, P802.1Qdj Editor, presented “IEEE P802.1Qdj Editor’s Report for Draft D0.3 Ballot Comment Resolution (v1)” <https://www.ieee802.org/1/files/public/docs2022/dj-kehrer-editors-report-d0-3-0722-v01.pdf> and started the resolution of comments received on <https://www.ieee802.org/1/files/private/dj-drafts/d0/802-1Qdj-d0-3.pdf>.
Disposition: Comment 1 was resolved as documented in <https://www.ieee802.org/1/files/private/dj-drafts/d0/802-1Qdj-d0-3-pdis-v01.pdf>.

10:01 ET recess

Call to order July 11, 13:37 ET by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

5. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
6. Liaisons and communication. The Chair presented “ISO/IEC JTC 1/SC 6 N 17799 - Reports on Preliminary Work Item Deterministic Wireless Industrial Network, June 29, 2022” <https://www.ieee802.org/1/files/private/SC6/ISO-IECJTC1-SC6 N17799 Report on Preliminary Work Item-Deterministic Wireless Industrial Network.pdf>
Disposition: For information.
7. The Chair presented draft motions for 802.1 closing plenary approval.
Disposition: Draft motions reviewed for 802.1 closing plenary approval.
8. Abdul Jabbar presented “Credit Based Shaper Configuration YANG Model Requirement” <https://www.ieee802.org/1/files/public/docs2022/new-jabbar-YANG-for-CBS-0722-v01.pdf>.
Disposition: Presentation discussed.

15:00 – 15:30 ET recess

9. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.

10. Stephan Kehrer, P802.1Qdj Editor, presented “IEEE P802.1Qdj Editor’s Report for Draft D0.3 Ballot Comment Resolution (v1)” <https://www.ieee802.org/1/files/public/docs2022/dj-kehrer-editors-report-d0-3-0722-v01.pdf> and continued the resolution of comments received on <https://www.ieee802.org/1/files/private/dj-drafts/d0/802-1Qdj-d0-3.pdf>.
Disposition: Comment 65 was resolved as documented in <https://www.ieee802.org/1/files/private/dj-drafts/d0/802-1Qdj-d0-3-pdis-v01.pdf>.
11. Marc Holness, P802f Editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/802-f-drafts/d1/802f-d1-3.pdf>.
Disposition: Comments 2,3,4,5 were resolved as documented in the partial comment
Disposition: <https://www.ieee802.org/1/files/private/802-f-drafts/d1/802f-d1-3-dis-v02.pdf>.
12. Stephan Kehrer, P802.1Qdj Editor, continued the resolution of comments received on <https://www.ieee802.org/1/files/private/dj-drafts/d0/802-1Qdj-d0-3.pdf>.
Disposition: Comments 24,58,69 were resolved as documented in <https://www.ieee802.org/1/files/private/dj-drafts/d0/802-1Qdj-d0-3-pdis-v01.pdf>.
13. Johannes Specht presented “Cut-Through Forwarding (CTF) in Bridges and Bridged Network – Status of 802 Nendica/802.3 NEA joint meeting discussions”
<https://www.ieee802.org/1/files/public/docs2022/new-specht-ctf-status-0722-v01.pdf>.
Disposition: Presentation discussed.

17:50 ET recess

Call to order July 12, 10:31 ET by Craig Gunther, IEEE 802.1 TSN TG Vice-Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

14. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
15. Takumi Nomura presented “JASPAR Use Case ~ Effective Coexistence between AUTOSAR’s gPTP and IEEE 802.1DG ~”
<https://www.ieee802.org/1/files/public/docs2022/dg-Nomura-JASPAR-Use-Cases-0712-v05.pdf>.
Disposition: Presentation discussed.
16. Max Turner presented “Time Sync History of Time-Sync in Automotive and Aligning Time-Sync requirements between the Profiles Version 2”
<https://www.ieee802.org/1/files/public/docs2022/dg-Turner-ASprofiles-0522-v02.pdf>.
Disposition: Presentation discussed.

12:31 - 13:30 ET recess

17. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
18. Feng Chen, P802.1Qdd Editor, presented “IEEE P802.1Qdd Resource Allocation Protocol (RAP) Editor’s Report for D0.6 Ballot Comment Resolution”
<https://www.ieee802.org/1/files/public/docs2022/dd-chen-d0-6-editors-report-0722-v01.pdf> and started the resolution of comments received on <https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-6.pdf>.
Disposition: Comments 39, 41, 1, 2, 3, 4, 40, 42, 43, 76, 51, 52, 56 were resolved as documented in <https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-6-pdis-v02.pdf>.

15:30 ET recess

Call to order July 13, 10:31 ET by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

19. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
20. Norman Finn led the discussion of comments received on <https://www.ieee802.org/1/files/public/docs2022/dv-draft-PAR-0522-v01.pdf> and <https://www.ieee802.org/1/files/public/docs2022/dv-draft-CSD-0522-v01.pdf>.
Disposition: Comments resolved in <https://www.ieee802.org/1/files/public/docs2022/dv-PAR-CSD-comments-reponses-0722-v01.pdf>.
Updated PAR: <https://www.ieee802.org/1/files/public/docs2022/dv-PAR-0722-v01.pdf>.
Updated CSD: <https://www.ieee802.org/1/files/public/docs2022/dv-CSD-0722-v01.pdf>.
21. Norman Finn led the discussion of comments received on <https://www.ieee802.org/1/files/public/docs2022/dc-draft-PAR-extension-0522-v01.pdf>.
Disposition: Comments partially resolved in <https://www.ieee802.org/1/files/public/docs2022/dc-PAR-CSD-comments-responses-0722-v01.pdf>.
Updated PAR extension: <https://www.ieee802.org/1/files/public/docs2022/dc-PAR-extension-0722-v01.pdf>.
22. Paul Congdon led the discussion of comments received on <https://www.ieee802.org/1/files/public/docs2022/dw-draft-PAR-0522-v01.pdf> and <https://www.ieee802.org/1/files/public/docs2022/dw-draft-CSD-0522-v01.pdf>.
Disposition: Comments resolved in <https://www.ieee802.org/1/files/public/docs2022/dw-PAR-CSD-comments-responses-0722-v01.pdf>.
Updated PAR: <https://www.ieee802.org/1/files/public/docs2022/dw-PAR-0722-v01.pdf>.
Updated CSD: <https://www.ieee802.org/1/files/public/docs2022/dw-CSD-0722-v01.pdf>.
23. Paul Congdon led the discussion of comments received on <https://www.ieee802.org/1/files/public/docs2022/cz-draft-PAR-extension-0522-v01.pdf>.
Disposition: Comments resolved.
PAR extension: <https://www.ieee802.org/1/files/public/docs2022/cz-PAR-extension-0722-v01.pdf>.
24. Feng Chen, P802.1Qdd Editor, led the discussion of comments received on <https://www.ieee802.org/1/files/public/docs2022/dd-draft-PAR-extension-0522-v01.pdf>.
Disposition: Comments resolved in <https://www.ieee802.org/1/files/public/docs2022/dd-PAR-CSD-comments-responses-0722-v01.pdf>.
PAR extension: <https://www.ieee802.org/1/files/public/docs2022/dd-PAR-extension-0722-v01.pdf>.
25. Marina Gutierrez, P802.1Qcw Editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/cw-drafts/d1/802-1Qcw-d1-4.pdf>.
Disposition: The comment resolution was concluded by resolving comments 1-20 as documented in <https://www.ieee802.org/1/files/private/cw-drafts/d1/802-1Qcw-d1-4-dis-v00.pdf>.

12:40 - 13:38 ET recess

26. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
27. Paul Bottorff, P802.1Qcj Editor, started the resolution of comments received on <https://www.ieee802.org/1/files/private/cj-drafts/d1/802-1Qcj-d1-4.pdf>.
Disposition: Comments 18,49,43,9,51,39,37,26,44,46,4,45,34,28,29,23,8,9,10,11 were resolved as documented in <https://www.ieee802.org/1/files/private/cj-drafts/d1/802-1Qcj-d1-4-pdis-v03.pdf>.

15:27 – 16:00 ET recess

28. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
29. Hiroki Nakano, P802.1Qdq Editor, led the resolution of comments received on <https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-1.pdf>.
Disposition: The comment resolution was concluded by resolving all remaining comments.
Final disposition not available yet.
30. Paul Bottorff, P802.1Qcj Editor, continued the resolution of comments received on <https://www.ieee802.org/1/files/private/cj-drafts/d1/802-1Qcj-d1-4.pdf>.
Disposition: Comments 34,28,29 have been resolved as documented in the partial comment **Disposition:** <https://www.ieee802.org/1/files/private/cj-drafts/d1/802-1Qcj-d1-4-pdis-v03.pdf>.

18:08 ET recess

Call to order July 14, 08:00 ET by Craig Gunther, IEEE 802.1 TSN TG Vice-Chair (Chair), who presided. János Farkas, IEEE 802.1 TSN TG Chair (Secretary), wrote the minutes.

31. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
32. The Chair led the drafting of the “Liaison on Announce message to IEEE 1588 Working Group” finalized as <https://www.ieee802.org/1/files/public/docs2022/liaison-8021to1588-announce-message-0722-v01.pdf>.
Disposition: Liaison drafted.
33. Max Turner, P802.1DG Editor, presented “Base Profile”
<https://www.ieee802.org/1/files/private/dg-drafts/d1/dg-turner-cl15BaseProfile-0622-v03.pdf>.
Disposition: More discussion needed.

10:00 - 10:30 ET recess

34. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.

35. Jeremias Blendin presented “Source Flow Control Simulation Results” in <https://www.ieee802.org/1/files/public/docs2022/new-blendin-SFC-Simulation-Results-0722-v01.pdf>.
Disposition: Presentation discussed.
36. Norman Finn presented “Enhanced CQF and Stream Aggregation” in <https://www.ieee802.org/1/files/public/docs2022/dv-finn-CQF-stream-aggregation-v01.pdf>.
Disposition: Presentation discussed.
37. Konstantinos Alexandris presented “Extensions on the traffic specification and status for TSN UNI” in <https://www.ieee802.org/1/files/public/docs2022/new-alexandris-extension-traffic-specification-TSN-UNI-0722-v01.pdf>.
Disposition: Presentation discussed.

12:40 ET adjournment

8.1 IEC/IEEE 60802 Joint Project

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

- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2022-05-16 9:00 - 10:50 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;d3e1fc59.22&S=>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2022-05-27 9:00 - 11:00 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;2d03ef32.22&S=>
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2022-06-27 9:00 - 11:00 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;17d09321.22&S=>

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

- Minutes of the IEC/IEEE 60802 Joint Project meetings held during the 2022-06-13 – 2022-06-15 ad hoc session <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;87048872.22&S=>

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

Call to order Jul 12, 2022 at 16:00 ET by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair), who presided with János Farkas, IEEE 802.1 TSN TG Chair (TSN TG Chair). Josef Dorr, IEC/IEEE 60802 Joint Project Secretary (60802 Secretary), wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction and other administrative items. The 60802 Chair announced that the meeting is subject to the Policies mentioned in Opening Plenary and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

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 and copyright https://www.iec.ch/standardsdev/resources/draftingpublications/overview/rules_requirements/copyright.htm policies.

The 60802 Chair stated that based on the timeline presented at the Mar 2022 plenary session, four IEC/IEEE 60802-related motions had been prepared for the 802.1 closing plenary meeting:

- To forward a PAR modification (<https://www.ieee802.org/1/files/public/docs2022/60802-PAR-modification-0722-v01.pdf>) to NesCom;
- To forward a PAR extension (<https://www.ieee802.org/1/files/public/docs2022/60802-PAR-extension-0722-v01.pdf>) to NesCom;
- To approve a CSD modification <https://www.ieee802.org/1/files/public/docs2022/60802-CSD-modification-trk-0722-v01.pdf>;
- To authorize Jordon Woods, IEC/IEEE 60802 Joint Project Editor (60802 Editor) to start a WG-ballot; and
- To extend the Monday and Friday weekly calls.

Discussion of the prepared motions is possible for example during the “Editor’s report” agenda item.

2. Approval of agenda. The 60802 Chair presented the agenda in https://1.ieee802.org/2022-07-plenary-tsn-agenda/#TSN_8211_IECIEEE_60802.

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

3. Update on the IEC 61802 conformity assessment project. The 60802 Chair, Mark Hantel and David McCall provided an update. The setup of the Conformance Collaboration group to develop a conformance test plan for IEC/IEEE 60802 is now almost finished. A Steering Committee to coordinate the development of the test specification is to be created as a next step. Further information about the Conformance Collaboration can be found at <https://www.tiacc.net/>.

Disposition: For information.

4. Editor’s report. Jordon Woods, IEC/IEEE 60802 Joint Project Editor (60802 Editor), presented “Editor’s Report 60802 Draft 1.4” <https://www.ieee802.org/1/files/public/docs2022/60802-woods-D1-4-update-0722-v03.pdf>. The 60802 Editor thanked the 60802 Chair, IEC SC65C Secretary Valérie Demassieux, and Mark Hantel for their valuable help in the development of IEC/IEEE 60802 draft 1.4 <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4.pdf>.

The proposed motion for the 802.1 closing plenary meeting to allow progression to Working Group Ballot was discussed.

Disposition: For information.

5. New Simulation results for Base Case and Case 1 of the Time Sync Breakout held during the IEC/IEEE 60802 Ad Hoc Session. Geoffrey Garner presented in “New Simulation results for Base Case and Case 1 of the Time Sync Breakout Held during the IEC/IEEE 60802 Ad Hoc Session” <https://www.ieee802.org/1/files/public/docs2022/60802-garner-new-simul-results-base-case-case-1-of-June2022-ad-hoc-0722-v01.pdf> the single-replication results of two simulation cases, which were identified during the Jun 13-15, 2022 TSN TG ad hoc session on IEC/IEEE 60802 draft 1.4.

Disposition: Further investigation and more discussion are needed.

6. D1.4 TG ballot comment resolution. The 60802 Editor started the resolution of comments received on <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4.pdf>.

Disposition: Partial disposition.

- Ballot comment 27 was resolved.
- Ballot comment 312 was discussed but not resolved.
- The comment disposition is documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4-pdis-v04.pdf>.

18:00 ET recess

Call to order Jul 13, 2022 at 10:30 ET by Ludwig Winkel, 60802 Chair, who presided. Josef Dorr, 60802 Secretary, wrote the minutes.

7. Meeting introduction and other administrative items. The TSN TG Chair announced that the meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.
8. D1.4 TG ballot comment resolution. The 60802 Editor continued the resolution of comments received on <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4.pdf>.

Disposition: Partial disposition.

- Ballot comments 312, 377, 201, 14, 15, 57, 16, 48, 205, 58, 206, 49, 185, 59 were resolved.
- The comment disposition is documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4-pdis-v04.pdf>.

12:30 - 13:30 ET recess

9. Comments and their resolution to IEC/IEEE 60802 PAR and CSD modification and PAR extension. The TSN TG Chair presented “Resolution of Comments on Project Authorization Request (PAR) and Criteria for Standards Development (CSD) modification and extension” <https://www.ieee802.org/1/files/public/docs2022/60802-PAR-CSD-comments-response-0722-v01.pdf>.

Disposition: For information.

10. D1.4 TG ballot comment resolution. The 60802 Editor continued the resolution of comments received on <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4.pdf>.

Disposition: Partial disposition.

- Ballot comments 92, 148, 149, 143, 207, 379, 208, 380, 85, 212, 61, 65, 337, 338, 459 were resolved.
- The comment disposition is documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4-pdis-v04.pdf>.

15:30 - 16:00 ET recess

The 60802 Editor continued the resolution of comments received on <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4.pdf>.

Disposition: Partial disposition.

- Ballot comments 146, 91, 147, 460, 153, 168, 438, 258, 249, 170, 230, 171, 401 were resolved.
- Ballot comments 433, 75 were withdrawn.
- The comment disposition is documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4-pdis-v04.pdf>.

18:00 ET recess

Call to order Jul 14, 2022 at 10:30 ET by Ludwig Winkel, 60802 Chair, who presided. Josef Dorr, 60802 Secretary, wrote the minutes.

11. D1.4 TG ballot comment resolution. The 60802 Editor continued the resolution of comments received on <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4.pdf>.

Disposition: Partial disposition.

- Ballot comments 435, 434, 309, 307 were resolved.
- Ballot comment 308 was discussed but not resolved.
- The comment disposition is documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4-pdis-v04.pdf>.

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

Before adjournment, the 60802 Chair thanked the persons from Carleton University in Ottawa for their assistance on running the hybrid meetings.

17:30 ET adjournment

Call to order Jul 15, 2022 at 8:00 ET by Ludwig Winkel, IEC/IEEE 60802 Joint Project Chair (60802 Chair). Dieter Proell wrote the minutes.

13. Meeting introduction and other administrative items. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf>.

The 60802 Chair showed this presentation advising that the following, provided beforehand, applies:

- IEEE's Patent Policy is described in Clause 6 of the IEEE SA Standards Board Bylaws;
- Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
- There may be Essential Patent Claims of which IEEE is not aware. Additionally, neither IEEE, the WG, nor the WG Chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;

- Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy.

The 60802 Chair made the Call for Potentially Essential Patents thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard: there were no responses to this Call prior to the end of the meeting.

The 60802 Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

Future Meetings were discussed.

Disposition: Agreed (informally, none dissenting) to cancel the meetings on

- Monday Jul 18, 2022;
- Monday Jul 25, 2022;
- Friday Jul 29, 2022;
- Monday Sep 5, 2022.

14. Approval of agenda. The 60802 Chair presented the agenda in https://1.ieee802.org/2022-07-plenary-tsn-agenda/#TSN_8211_IECIEEE_60802-4.

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

15. Afterthoughts for D1.3/1.4 Security – Impact of TLSv1.3, Alternatives, Risk. Oliver Pfaff presented “Afterthoughts for D1.3/1.4 Security – Impact of TLSv1.3, Alternatives, Risk.”

Disposition: For information.

16. D1.4 TG ballot comment resolution. Jordon Woods, 60802 Editor, continued the resolution of comments received on <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4.pdf>.

Disposition: Partial disposition. Rogue comment 468 was created based on a received email. Ballot comments 468, 322, 44, 46, 155, 325 were resolved. The comment disposition is documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4-pdis-v04.pdf>.

10:00 - 10:30 ET recess

Jordon Woods, 60802 Editor, continued the resolution of comments received on <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4.pdf>.

Disposition: Partial disposition. Ballot comments 324, 160, 327, 328, 326, 161, 158, 369, 329, 372, 375, 184, 314, 315, 341, 342, 343, 344 were resolved. The comment disposition is documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4-pdis-v04.pdf>.

12:00 - 13:00 ET recess

17. Error sources on the transmit path of a sync message. Günter Steindl presented “Error sources on the transmit path of a sync message”

<https://www.ieee802.org/1/files/public/docs2022/60802-steindl-Sync-Error-Sources-v01.pdf>.

Disposition: The presentation is to be further elaborated (based on the previous presentation “Controller Design for ClockSlaves”

<https://www.ieee802.org/1/files/public/docs2022/60802-Obradovic-Controller-for->

[ClockSlaves-0622.pdf](#)) so that the presented model can be integrated into the synchronization simulation. More discussion is needed.

18. D1.4 TG ballot comment resolution. The 60802 Editor continued the resolution of comments received on <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4.pdf>.

Disposition: Partial disposition. Ballot comments 120, 405, 465, 261, 12 were resolved as documented in <https://www.ieee802.org/1/files/private/60802-drafts/d1/60802-d1-4-pdis-v04.pdf>.

19. Review of minutes. Draft minutes were reviewed under the lead of the minute taker.

17:30 ET adjournment

8.2 IEEE P802.1DP/SAE AS6675 joint project

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

- Minutes of the IEEE P802.1DP/SAE AS6675 meeting held 2022-06-22 10:00 - 12:03 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;280541f9.22&S=>
- Minutes of the IEEE P802.1DP/SAE AS6675 meeting held 2022-07-06 10:00 - 12:07 ET <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;f70c62e7.22&S=>

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

Call to order July 13, 2022 at 08:00 ET by János Farkas, IEEE 802.1 TSN TG Chair. Abdul Jabbar and János Farkas, IEEE P802.1DP/SAE AS6675 joint project co-Chairs, presided. Marina Gutiérrez, IEEE P802.1DP/SAE AS6675 Secretary, wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of “MEETING INTRODUCTION” <http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf>.

János Farkas, IEEE P802.1DP/SAE AS6675 co-Chair, announced that the meeting is subject to these Policies as read and displayed at the opening plenary meeting.

János Farkas, IEEE 802.1DP/SAE AS6675 co-Chair, asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

János Farkas, IEEE 802.1DP/SAE AS6675 co-Chair, explained that the IEEE P802.1DP/SAE AS6675 Joint Project also follows the usual SAE IP and copyright <https://www.sae.org/about/legal-policies/intellectual-property> policies.

2. Approval of agenda. János Farkas, IEEE 802.1DP/SAE AS6675 co-Chair, presented the agenda in https://1.ieee802.org/2022-07-plenary-tsn-agenda/#TSN_8211_P8021DPAS6675.

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

3. Marina Gutiérrez presented “Single-file configuration” <https://www.ieee802.org/1/files/public/docs2022/dp-gutierrez-singlefileconfiguration-0722-v01.pdf>.

Disposition: Presentation was discussed. More discussion is needed.

4. Abdul Jabbar presented “P802.DP Time Sync: Availability and Integrity for Aerospace”
<https://www.ieee802.org/1/files/public/docs2022/dp-jabbar-Time-Sync-Availability-Integrity-0722-v02.pdf>.

Disposition: Presentation was discussed. More discussion is needed.

10:03 ET recess

9 Nendica

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

- Minutes of the Nendica meeting held 2022-05-20 11:00-13:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-Minutes:9349579a.22>
- Minutes of the Nendica meeting held 2022-05-26 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-Minutes:2ebe3029.22>
- Minutes of the Nendica meeting held 2022-05-27 11:00-13:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-Minutes:6682fcef.22>
- Minutes of the Joint IEEE 802.1 Nendica / IEEE 802.3 NEA Ad hoc Meeting 01 June 2022
https://www.ieee802.org/3/ad_hoc/ngrates/public/calls/22_0601/minutes_nea_220601_approved.pdf
- Minutes of the Nendica meeting held 2022-06-02 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-Minutes:fcbaa858.22>
- Minutes of the Joint IEEE 802.1 Nendica / IEEE 802.3 NEA Ad hoc Meeting 08 June 2022
https://www.ieee802.org/3/ad_hoc/ngrates/public/calls/22_0608/minutes_nea_220608_unapproved.pdf
- Minutes of the Nendica meeting held 2022-06-09 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-Minutes:1c748fb3.22>
- Minutes of the Nendica meeting held 2022-06-16 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-Minutes:f798a561.22>
- Minutes of the Joint IEEE 802.1 Nendica / IEEE 802.3 NEA Ad hoc Meeting 22 June 2022
https://www.ieee802.org/3/ad_hoc/ngrates/public/calls/22_0622_CTF/minutes_nea_220622_CTF_unapproved.pdf
- Minutes of the Nendica meeting held 2022-06-23 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-Minutes:1149a435.22>
- Minutes of the Joint IEEE 802.1 Nendica / IEEE 802.3 NEA Ad hoc Meeting 29 June 2022
https://www.ieee802.org/3/ad_hoc/ngrates/public/calls/22_0629/-Minutes_nea_220629_unapproved.pdf
- Minutes of the Nendica meeting held 2022-06-30 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-Minutes:c32f713d.22>
- Minutes of the Nendica meeting held 2022-07-07 09:00-11:00 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-Minutes:937523b6.22>

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

Call to order Jul 12, 2022 19:34 ET by Jessy Rouyer, who presided as acting Chair. Roger Marks wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction and other administrative items. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0721-v01.pdf>. The acting Chair showed this presentation advising that the following applies:

- IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;
- Any material submitted during the Nendica meeting, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy.

The acting Chair reviewed the IEEE ICCOM requirements <https://1.ieee802.org/802-nendica/ieee-iccom-requirements/> and Nendica Procedures <https://1.ieee802.org/802-nendica/ieee-802-nendica-procedures/>.

The acting Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

2. Approval of agenda. The Mentor server document list was noted.
Disposition: The agenda was reviewed and agreed (informally, none dissenting) as <https://1.ieee802.org/802-nendica-agenda-2022-07-12/>.
3. CTF Study Item. Johannes Specht presented "CTF: Status of 802 Nendica/802.3 NEA joint meeting discussions (Rev. 1)" https://mentor.ieee.org/802.1/documents?is_group=ICne&is_year=2022&is_dcn=0036, summarized Jul 11, 2022 to the TSN Task Group. Discussions centered around options B and C of slide 7 and understanding the implications and variations of those. It was noted the discussion may continue on Jul 14, 2022, following recess. It was also noted that Nendica could make a recommendation for consideration by the 802.1 Working Group or its Task Groups which could be considered by 802.1 voting members, but motions would not be made on behalf of Nendica.
4. Future Meetings. The acting Chair noted the draft agenda of the Nendica meeting of Jul 14, 2022 08:00-10:00 ET <https://1.ieee802.org/802-nendica-agenda-2022-07-14> is available.
5. Any Other Business. No other business was discussed by Nendica in this meeting.

21:29 ET recess

Call to order Jul 14, 2022 08:05 ET by Jessy Rouyer, who presided as acting Chair. Roger Marks wrote the minutes.

6. Meeting introduction and other administrative items. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0721-v01.pdf>. The acting Chair showed this presentation advising that the following applies:

- IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;
- Any material submitted during the Nendica meeting, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy.

The acting Chair noted the IEEE ICCOM requirements <https://1.ieee802.org/802-nendica/ieee-iccom-requirements/> and Nendica Procedures <https://1.ieee802.org/802-nendica/ieee-802-nendica-procedures/>.

The acting Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

7. Approval of agenda. The Mentor server document list was noted.

Disposition: The agenda was reviewed and agreed (informally, none dissenting) as <https://1.ieee802.org/802-nendica-agenda-2022-07-14/>.

8. Minutes. The acting Chair reviewed the draft “Minutes of the Nendica meeting held 2022-07-07 09:00-11:00 ET” <https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;6a25e0b2.22>.

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

9. Update. Regarding Nendica issues at the 802.1 WG opening plenary meeting held July 11, 2022, the acting Chair noted that the Nendica Session Preview had been reported without comment.

Regarding the Nendica website, the acting Chair noted that a web page had been created for the CPF 12 Forwarding Study Item at <https://1.ieee802.org/nendica-cpf12/>.

Disposition: For information.

10. CPF 12 Forwarding Study Item. The Study Item leader presented “Proposal for Nendica Study Item: Forwarding of Fieldbus CPF 12 on 802.1 Bridges (Rev. 1)”

https://mentor.ieee.org/802.1/documents?is_group=lCne&is_year=2022&is_dcn=0032,

noting (per slide 2) that the term “CPF 12” had been introduced, with an explanation.

Discussion indicated that the Study Item should avoid overlapping activities in the IEC/IEEE 60802 project or outside IEEE 802.

11. ELLA Study Item. The 802.1 WG Chair summarized the IEEE 802 Technical Plenary meeting of July 11, 2022 <https://1.ieee802.org/2022-07-technical-plenary-agenda/>. He explained the intention for the meeting, and its focus on understanding the 802 architecture, and where it is specified, from the perspective of 802 WGs. He outlined several contributions presented during the meeting, including those addressing 802.1, 802.3, 802.11, and 802.15 WGs. He noted that the Compatibility requirements in the IEEE 802 criteria for standards development (CSD) might be clarified by detailing the requirements or consolidating them into a standard. He noted that common management or configuration had been discussed during the meeting. He noted that he would encourage participants to contribute comments to the IEEE Std 802 revision project even if outside the scope of a roll up project, with the intention that those comments could help outline the scope of the amendment process, even if they did not result in changes to the revision; he also noted that others felt such comments would extend the completion date for the project.

There was discussion of a possible renewal of the authorization granted in Mar 2022 for the 802.1 Maintenance Task Group to pre-submit a PAR or PARs to amend IEEE Std 802. An alternative proposal for a Study Group was discussed. It was suggested to defer a decision until at least Nov 2022, waiting to see if comments arising in the Revision ballot provide some direction.

Disposition: For information.

12. CTF Study Item. The Study Item leader reviewed “Cut-Through Forwarding (CTF) in Bridges and Bridged Network – Status of 802 Nendica/802.3 NEA joint meeting discussions” (Rev. 1)
https://mentor.ieee.org/802.1/documents?is_group=ICne&is_year=2022&is_dcn=0036 and led continuation of the discussion held before recess. Various options were discussed. The IEEE 802 Chair requested a brief report of the outcome of the Nendica/NEA joint meetings within about one day. The acting Chair indicated that he would work with the Nendica Chair to develop a slide.
Disposition: For information.
 13. Vetting and New Topics. No discussion.
 14. Nendica organization. The Nendica Chair reviewed “Nendica Status Report, July 2022” (Rev. 1)
https://mentor.ieee.org/802.1/documents?is_group=ICne&is_year=2022&is_dcn=0033, a draft report to the 802.1 WG closing plenary meeting. No comments were raised.
Disposition: It was agreed (informally, none dissenting) to approve the Report.
The acting Chair reviewed a draft motion:
802.1 authorizes Nendica to hold weekly electronic meetings each Thursday 09:00-11:00 ET starting July 21, 2022. Agenda to be announced subject to notice of at least 5 calendar days at the 802.1 Minutes email reflector.
 - Access and agenda information are provided on the calendar at <https://1.ieee802.org/802-nendica/>.**Disposition:** It was agreed (informally, none dissenting) to pass this motion to the 802.1 WG.
The acting Chair reviewed a draft motion:
802.1 authorizes Nendica to hold additional meetings as announced at least 10 days in advance.
 - Dates, times and agenda to be announced subject to notice of at least 10 days to the 802.1 Minutes email list
 - Access and agenda information are provided on the calendar at <https://1.ieee802.org/802-nendica/>.**Disposition:** It was agreed (informally, none dissenting) to pass this motion to the 802.1 WG.
 15. Future Meetings. It was noted that a Nendica meeting is tentatively scheduled for Jul 21, 2022 09:00-11:00 ET, presuming that the 802.1 WG authorizes the meeting and that business arises.
 16. Any Other Business. No other business was discussed by Nendica in this meeting.
- 10:00 ET adjournment

10 YANGsters

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

- Minutes of the YANGsters meeting held 2022-06-07 10:00 –10:45 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;1c101beb.22&S=>
- Minutes of the YANGsters meeting held 2022-06-21 10:01 –10:54 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;4e41ab14.22&S=>
- Minutes of the YANGsters meeting held 2022-07-05 10:00 –11:02 ET
<https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;6d244802.22&S=>

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

Call to order Jul 12, 2022, at 13:31 ET by Scott Mansfield, YANGsters Chair, who presided. Stephan Kehrer, YANGsters Secretary, wrote the minutes.

Agenda items and dispositions:

1. Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of “MEETING INTRODUCTION” <http://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0721-v01.pdf>.

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

The YANGsters Secretary asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

2. Approval of agenda. The YANGsters Chair presented the agenda in <https://1.ieee802.org/july-2022-plenary-session-electronic-yangsters-agenda/>.

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

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

Disposition: For information.

4. SIDs and Mega Range Discussion (IETF Experts Joining). Carsten Bormann presented “Core: CORECONF & SIDs” <https://www.ieee802.org/1/files/public/docs2022/yangsters-bormann-coreconf-0722-v01.pdf> and led the discussion.

- An overview was provided on how to use YANG identifiers when YANG is being encoded in constrained environments
- Two related documents were pointed out:
- “YANG Schema Item Identifier (YANG SID)” <https://datatracker.ietf.org/doc/draft-ietf-core-sid/> and
- “Encoding of Data Modeled with YANG in the Concise Binary Object Representation (CBOR)” <https://datatracker.ietf.org/doc/draft-ietf-core-yang-cbor/>.
- An overview of CORECONF and YANG SIDs was provided.
- CORECONF is a binary and concise representation of YANG data, using YANG/CBOR.
- YANG names often take up the bulk of NETCONF/RESTCONF transmission and processing.
- YANG SID is an unsigned 63-bit integer that is used to replace YANG names.
- It was asked how SID mega-ranges are allocated.
- This is planned to be done by IANA once the registry for this has been set up.
- pyang can be used to map SIDs to YANG names and create a corresponding SID file.
- The CBOR encoding of data modeled with YANG is described in <https://datatracker.ietf.org/doc/draft-ietf-core-yang-cbor/> and expected to be published as RFC 9254 <https://www.rfc-editor.org/rfc/authors/rfc9254.html>.

Disposition: Agreed (informally, none dissenting) that the possible request of a SID mega-range and usage of SIDs for IEEE 802.1 YANG modules should be discussed further.

5. Status: QRev update. There was nothing to discuss for P802.1Q-Rev.
6. Status: Qcz update. The YANGsters chair provided a summary of the topic.

- P802.1Qcz is in the final stages of editing
- The latest YANG modules need to be moved to <https://github.com/YangModels/yang/> once the editorial process has been finalized.

Disposition: For information.

7. Status: Qcj update. The YANGsters chair provided a summary of the topic.
- Currently no YANG modules exist for Provider Backbone Bridging in 802.1.
 - It is unclear how an LLDP extension for PBB can be provided, given that no YANG module is available that could be augmented with this.
 - YANG comments are planned to be discussed in P802.1Qcj ballot comment resolution.

Disposition: Agreed (informally, none dissenting) that a new amendment project for IEEE 802.1Q should provide currently missing YANG modules for existing functionality from IEEE 802.1Q.

9. Status: Qdj. The YANGsters chair provided a summary of the topic.
- The structure of the P802.1Qdj YANG module might need to be revisited at a later point, if it is not able to cover the requirements for access control that IEC/IEEE 60802 is discussing.

Disposition: For information.

10. ETSI ISG mWT liaison. Nader Zein provided an overview over the liaison <https://www.ieee802.org/1/files/public/docs2022/liaison-ETSI-mWT-YANGmodelsandPlugtest-0722.pdf> and led the discussion.
- An invitation to participate in the ETSI ISG mWT Plugtest event was made to IEEE 802.1 and its participants.
 - The event is currently focused on microwave and radio equipment.
 - A report on the plugtest is intended to be made available, once the event has ended.

Disposition: For information.

11. Instance Data Format Learnings. Discussion was deferred by lack of time.
12. Applying queueing mechanisms in YANG to non-bridges. Norman Finn introduced the topic.

Disposition: The topic was discussed. Agreed (informally, none dissenting) that further discussion is needed.

13. IEEE 802.1CS YANG. The YANGsters Chair introduced the topic and led the discussion.
- The YANG modules for IEEE 802.1CS have not yet been uploaded.
 - The published YANG for IEEE 802.1CS contains errors.
 - The YANG modules from published IEEE 802.1CS, containing the errors, need to be uploaded to the website.

Disposition: Agreed (informally, none dissenting) that a corrigendum for IEEE 802.1CS-2020 should correct the errors in the YANG modules.

14. Review of YANG issues from recent ballots. Discussion was deferred by lack of time.
15. Future meetings. A motion is planned for the 802.1 closing plenary meeting to request the continuation of the bi-weekly YANGsters electronic meetings. YANGsters' next electronic meeting is Jul 26, 2022.
- Information on YANGsters electronic meetings can be found at <https://1.ieee802.org/yangsters/yangsters-call-information/>.

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

15:44 ET adjournment

11 Closing Plenary Meeting

Call to order Jul 14, 2022 at 13:37 ET by the Chair who presided. The Recording Secretary wrote the minutes.

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

The Chair presented “Closing Plenary July 2022” finalized as <https://www.ieee802.org/1/files/public/minutes/2022-07-closing-plenary-slides.pdf>.

During this presentation, the Chair:

- Introduced the agenda on slide 2 that was tacitly approved.
- Announced that this closing plenary meeting remains subject to the IEEE SA Copyright Policies (slides 3 to 5), IEEE Patent Policy (slides 6 to 10) and IEEE SA Participation policies (slides 11 to 13) made available beforehand (as announced in the opening plenary meeting – see section 3) and made the “Call for Potentially Essential Patents”, i.e. provided 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, including the policies on public reporting, and on photography or recording (slide 14), and called for any members of the press (i.e., anyone reporting publicly on this meeting) who have not already announced themselves to announce their presence.
 - There were no responses to the call.
- Asked participants to record attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker (slide 15).
- Provided electronic (slide 16) and mixed mode meeting guidelines and related information (slide 17 to 19).
- Reminded participants of the various plenary session registration fees applying and attendant registration details (slide 20).
- Provided general information regarding meeting contributions, minutes, schedule for all Working Groups, website (slide 21).
- Recognized 802.1 officers and leadership (slide 22) and the editors of current projects (slide 23).
- Reminded participants and 802.1 voting members of obligations regarding 802.1 voting membership and how voting membership may be requested and retained (slide 24).
- Reminded 802.1 voting members of their obligations regarding responding to WG letter ballot series (WG ballots + E-Polls) as well as regarding the consequences of not responding to WG letter ballot series (slide 25).
- Reviewed the list of 802.1 voting members (slide 26), including information about individuals who gained (slide 27), may gain (slide 28), may lose (slide 29), or will lose (slide 30) 802.1 voting membership.
- Reminded individual participants of 802.11 reciprocal credit, which was continued at this session (slide 31).

- Prompted for reconsideration of the Sep 2022 interim session hosting offer from GE (slide 32) , summarizing it (slide 33), and conducting the following straw poll (slide 34):
 - 1. If the 2022 September Interim Session is held in Albany, NY, USA as a mixed-mode session, how will you attend:
 - Attend In-person $19 + 7 = 26$
 - Attend Virtually (remotely) $20 + 21 = 41$
 - Will not attend interim 2
 - Abstain 1
- Summarized a new possibility for the Jan 2023 interim session (slide 35), and the May 2023 interim session hosting offer from ABB (slide 36).
- Reviewed the schedule for future interim (slide 37) and plenary (slide 38) sessions, and summarized future session decision dates (slide 39), all of which remained unchanged from the opening plenary meeting except for the following:
 - Schedule for future interim sessions:
 - September 2022
 - (offer for Albany, NY, USA hosted by General Electric)
 - January 2023
 - (possibility to co-locate with 802 wireless in Baltimore, Maryland, USA)
 - May 2023 (proposal for Helsinki, Finland)
 - Future sessions decisions dates:
 - Interim sessions
 - January 2023
 - Currently working with Face to Face events to verify availability of enough meeting space to co-locate with 802 wireless
 - September 2023
 - Currently no offer to host – volunteers?
- Conducted the following EC straw polls (slides 40-41).
 - 1. If the 2022 November Plenary Session is held in Bangkok, Thailand as an in-person only session, will you attend?
 - Yes $27 + 9 = 36$
 - No $5 + 17 = 22$
 - Abstain $7 + 4 = 11$
 - 2. If the 2022 November Plenary Session is held in Bangkok, Thailand as a mixed-mode session, will you attend:
 - Attend In-person $29 + 5 = 34$
 - Attend Virtually (remotely) $6 + 22 = 28$
 - Will not attend plenary 0
 - Abstain $4 + 2 = 6$
 - 3. Of the attendees that were in Montreal in-person this week, who would like to return to the Montreal venue in the future?
 - In the room (y/n/a): 32, 1, 2

- Asked for participants to share their pros and cons of mixed mode, which were summarized as follows (slide 42):
 - Worked excellent (better than expected) with meeting computer & students
 - Audio was excellent, but maybe more mics
 - Continue mixed mode (Webex) for all in-person
 - Common queuing app may be useful
 - Controversial topics were difficult to resolve with remote attendees
 - Monitoring may be OK remote, but driving work benefits from in-person (but needs a critical mass)
 - In-person plenaries have long hours
- Summarized the outcome of the [802 technical plenary](#) meeting held this week and provided indication of a possible 802 technical plenary in Nov 2022 based on contributions (slide 43).
- Summarized liaison resources (slide 44) and the set of new and previously-received (slide 45) incoming liaisons, and lead the final review of draft liaison responses prepared and reviewed in 802.1 subgroups during this plenary session (slide 46).
- Discussed promotion of the work of the WG (slide 47).
- Requested that the subgroup Chairs provide reports on the activities of their subgroups (slide 48) during this plenary session (slide 49) (see individual subgroup minutes above for details) after showing the list of upcoming 802.1 leadership meetings (slide 50).
 - The YANGsters Chair presented the YANGsters report on slide 51.
 - The Maintenance TG Chair presented the report on slides 52-54.
 - The Security TG Chair presented the report on slide 55.
 - The IEC/IEEE 60802 Joint Project Chair, TSN TG Vice-Chair and TSN TG Chair presented the report on slide 56.
 - The Nendica Chair presented the report on slides 57-59.
- Provided guidance on using DirectVoteLive to vote on motions (slide 64).
 - 15:38 - 16:00 ET recess
- Provided the anticipation of next actions with respect to projects in the WG's current workload (slide 60).
- Provided an update on the timeline of 802.1Q revisions and amendments (slide 61)
- Pointed out the 802.1 PARs, CSDs, PAR Extensions (slide 62) and other 802 PARs, Endorsement Letter & ICAID (slide 63) that are up for vote or finalization during this IEEE 802 plenary session.
- Showed the 802.1 consent agenda items for the LMSC closing plenary meeting (slides 65-67).
- Conducted votes on the following motions (slides 68-122) that all passed unless indicated otherwise. (Supporting information is available in "Closing Plenary July 2022" finalized as <https://www.ieee802.org/1/files/public/minutes/2022-07-closing-plenary-slides.pdf>.)

**Motions for 802 EC
Consent Agenda
PARs to NesCom**

- Motion
 - Approve forwarding P802.1Qdv PAR documentation in <https://www.ieee802.org/1/files/public/docs2022/dv-PAR-0722-v01.pdf> to NesCom
 - Approve CSD documentation in <https://www.ieee802.org/1/files/public/docs2022/dv-CSD-0722-v01.pdf>
 - In the WG, Proposed: Norman Finn, Second: János Farkas
 - PAR (y/n/a): 36, 3, 4
 - CSD (y/n/a): 37, 2, 4
- Motion
 - Approve forwarding P802.1Qdw PAR documentation in <https://www.ieee802.org/1/files/public/docs2022/dw-PAR-0722-v01.pdf> to NesCom
 - Approve CSD documentation in <https://www.ieee802.org/1/files/public/docs2022/dw-CSD-0722-v01.pdf>
 - In the WG, Proposed: Paul Congdon, Second: Paul Bottorff
 - PAR (y/n/a): 39, 5, 6
 - CSD (y/n/a): 38, 5, 7
- Motion
 - Approve forwarding P60802 PAR modification documentation in <https://www.ieee802.org/1/files/public/docs2022/60802-PAR-modification-0722-v01.pdf> to NesCom
 - Approve CSD modification documentation in <https://www.ieee802.org/1/files/public/docs2022/60802-CSD-modification-0722-v01.pdf>
 - In the WG, Proposed: János Farkas, Second: Ludwig Winkel
 - PAR (y/n/a): 46, 1, 4
 - CSD (y/n/a): 46, 1, 4
- Motion
 - Approve forwarding P60802 PAR extension documentation in <https://www.ieee802.org/1/files/public/docs2022/60802-PAR-extension-0722-v01.pdf> to NesCom
 - Approve CSD documentation in <https://www.ieee802.org/1/files/public/docs2022/60802-CSD-modification-0722-v01.pdf>
 - In the WG, Proposed: János Farkas, Second: Ludwig Winkel
 - PAR (y/n/a): 45, 2, 5
 - CSD (y/n/a): 45, 2, 5
 - A motion to amend the preceding motion was proposed. The Chair asked for a detailed list of changes to be made to the preceding motion (no changes were provided) and for a seconder (none was identified).

- Motion
 - Approve forwarding P802.1CQ PAR extension documentation in <https://www.ieee802.org/1/files/public/docs2022/cq-PAR-extension-0722-v01.pdf> to NesCom
 - Approve (unmodified) CSD documentation in <https://mentor.ieee.org/802-ec/dcn/15/ec-15-0105-01-ACSD-802-1cq.pdf>
 - In the WG, Proposed: Roger Marks, Second: János Farkas
 - PAR (y/n/a): 41, 4, 6
 - CSD (y/n/a): 42, 4, 5
- Motion
 - Approve forwarding P802.1DC PAR extension documentation in <https://www.ieee802.org/1/files/public/docs2022/dc-PAR-extension-0722-v01.pdf> to NesCom
 - Approve (unmodified) CSD documentation in <https://mentor.ieee.org/802-ec/dcn/18/ec-18-0091-00-ACSD-802-1dc.pdf>
 - In the WG, Proposed: Norman Finn, Second: János Farkas
 - PAR (y/n/a): 38, 7, 7
 - CSD (y/n/a): 39, 6, 6
- Motion
 - Approve forwarding P802.1Qcz PAR extension documentation in <https://www.ieee802.org/1/files/public/docs2022/cz-PAR-extension-0722-v01.pdf> to NesCom
 - Approve (unmodified) CSD documentation in <https://mentor.ieee.org/802-ec/dcn/18/ec-18-0160-00-ACSD-802-1qcz.pdf>
 - In the WG, Proposed: Paul Congdon, Second: János Farkas
 - PAR (y/n/a): 45, 0, 7
 - CSD (y/n/a): 45, 0, 6
- Motion
 - Approve forwarding P802.1Qdd PAR extension documentation in <https://www.ieee802.org/1/files/public/docs2022/dd-PAR-extension-0722-v01.pdf> to NesCom
 - Approve (unmodified) CSD documentation in <https://mentor.ieee.org/802-ec/dcn/18/ec-18-0161-00-ACSD-802-1qdd.pdf>
 - In the WG, Proposed: Feng Chen, Second: János Farkas
 - PAR (y/n/a): 46, 3, 5
 - CSD (y/n/a): 46, 3, 4
- Motion
 - Approve forwarding P802.1CS-2020/Cor1 PAR documentation in <https://www.ieee802.org/1/files/public/docs2022/cs-cor1-PAR-0722-v01.pdf> to NesCom
 - No CSD; Maintenance PAR not intended to provide any new functionality
 - In the WG, Proposed: Paul Congdon, Second: Norm Finn
 - PAR (y/n/a): 44, 2, 4

**Motions for 802 EC
Consent Agenda
Drafts to SA Ballot**

- Motion
 - Approve sending P802.1AEdk D2.1 to Standards Association Ballot
 - Confirm the CSD for P802.1AEdk in <https://mentor.ieee.org/802-ec/dcn/19/ec-19-0218-00-ACSD-p802-1aedk.pdf>
 - In the WG, Proposed: Mick Seaman Second: Don Fedyk
 - Sending draft (y/n/a): 47, 0, 5
 - CSD (y/n/a): 46, 0, 5
- Motion
 - Conditionally approve sending P802f D2.0 to Standards Association ballot
 - Confirm the CSD for P802f in <https://mentor.ieee.org/802-ec/dcn/19/ec-19-0217-00-ACSD-p802f.pdf>
 - P802f D1.3 had 100% approval at the end of the last WG ballot
 - In the WG, Proposed: Marc Holness Second: János Farkas
 - Sending draft (y/n/a): 44, 2, 4
 - CSD (y/n/a): 42, 1, 5

**Motions for 802 EC
Consent Agenda
Drafts to RevCom**

- Motion
 - Approve sending P802.1Q-Rev D1.2 to RevCom
 - No CSD; Revision PAR not intended to provide any new functionality
 - In the WG, Proposed: Paul Congdon Second: Mick Seaman
 - Sending draft (y/n/a): 48, 2, 2

**Motions for 802 EC
Consent Agenda
Liaisons and external communications (ME)**

- Motion
 - Approve liaison of the following comment responses to ISO/IEC JTC1/SC6 under the PSDO agreement:
 - IEEE 802.1ACct-2021
 - <https://www.ieee802.org/1/files/public/docs2022/liaison-SC6CommentResponseACct-0722.pdf>
 - IEEE 802.1BA-2021
 - <https://www.ieee802.org/1/files/public/docs2022/liaison-SC6CommentResponse1BA-0722.pdf>
 - In the WG, Proposed: Paul Congdon Second: Karen Randall
 - Sending draft (y/n/a): 43, 1, 6

- Motion
 - Approve submission of the following draft(s) to ISO/IEC JTC1/SC6 for information under the PSDO agreement, once the SA Ballot starts
 - P802.1AEdk
 - P802f
 - P802.1Qcw
 - In the WG, Proposed: Paul Congdon Second: Karen Randall
 - Sending draft (y/n/a): 38, 2, 6
- Motion
 - Approve <https://www.ieee802.org/1/files/public/docs2022/liaison-response-itu-t-sg15-otnt-swp-0722.pdf> as communication to ITU-T SG15 on LS351: OTNT Standardization Work Plan Issue 30, 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: Karen Randall
 - Sending draft (y/n/a): 43, 1, 7

**Motions for 802 EC
Consent Agenda
Liaisons and external communications (II)**

- Motion
 - Approve sharing the latest revision of the P802f draft with the IETF Network Modeling (netmod) Working Group.
 - Proposed: János Farkas
 - Second: Stephan Kehrer
 - In the WG (y/n/a): 41, 2, 6
- Motion
 - Approve <https://www.ieee802.org/1/files/public/docs2022/liaison-8021to1588-announce-message-0722-v01.pdf> as communication to IEEE 1588, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
 - Proposed: Max Turner
 - Second: Craig Gunther
 - In the WG (y/n/a): 42, 1, 5

**Administrative
WG Motions**

- Motion
 - 802.1 approves the March 2022 (plenary) and May 2022 (interim) session minutes:
 - <https://www.ieee802.org/1/files/public/minutes/2022-03-minutes-v2.pdf>
 - <https://www.ieee802.org/1/files/public/minutes/2022-05-minutes-v2.pdf>
 - Proposed: Jessy Rouyer
 - Seconded: János Farkas
 - Approved by Acclamation

- Motion
 - 802.1 approves to hold an 802.1 interim session September 12-16, 2022 in Albany, NY, USA, hosted by General Electric.
 - Proposed: Stephan Kehrer
 - Second: Jessy Rouyer
 - In the WG (y/n/a): 42, 6, 5
- Motion
 - 802.1 approves to hold an 802.1 interim session January 15-20, 2023 in Baltimore, Maryland, USA co-located with 802 wireless
 - Proposed: Stephan Kehrer
 - Second: Jessy Rouyer
 - In the WG (y/n/a): 32, 13, 7
- Motion
 - 802.1 approves to hold an 802.1 interim session May 15-19, 2023 in Helsinki, Finland, hosted by ABB
 - Proposed: Stephan Kehrer
 - Second: Jessy Rouyer
 - In the WG (y/n/a): 37, 7, 6

**YANGsters
WG Motions**

- Motion
 - 802.1 authorizes the YANGsters subgroup to hold bi-weekly (every two weeks) electronic meetings on Tuesdays 10:00-11:00 ET starting July 26, 2022.
 - Agenda will be announced on the [802.1 Minutes email list](#) at least 5 calendar days before the electronic meeting.
 - Access information is posted on the <https://1.ieee802.org/yangsters/yangsters-call-information/> page and will be updated as necessary.
 - Proposed: Scott Mansfield
 - Second: Stephan Kehrer
 - In the WG (y/n/a): 45, 1, 2

**Maintenance TG
WG Motions**

- Motion
 - 802.1 authorizes the Maintenance TG to hold electronic meetings to address task group matters and progress resolution of maintenance items documented in the maintenance database (<https://1.ieee802.org/maintenance/database/>).
 - Additional dates/times to be announced subject to notice of at least 10 days to the [802.1 Minutes email list](#).
 - Proposed: Paul Congdon
 - Second: Jessy Rouyer
 - Approved by acclamation

- Motion
 - 802.1 authorizes James Gilb, the Editor of P802-REVc, Standard for Local and Metropolitan Area Networks: Overview and Architecture, to prepare drafts for and conduct Task Group and Working Group balloting.
 - Proposed: Paul Congdon
 - Second: János Farkas
 - In the WG (y/n/a): 42, 1, 4

**Security TG
WG Motions**

- Motion
 - 802.1 authorizes Lily Lv, the Editor of P802.1Qdt Bridges and Bridged Networks—Amendment: PFC Enhancements, to prepare drafts for and conduct Task Group balloting.
 - Proposed: Mick Seaman
 - Second: Paul Congdon
 - In the WG (y/n/a): 36, 4, 8
- Motion
 - 802.1 authorizes the Security Task Group to hold electronic meetings to progress P802.1AEdk, P802.1Qdt and Task Group matters arising:
 - Dates/times to be announced subject to notice of at least 10 days to the [802.1 Minutes email list](#)
 - Proposed: Mick Seaman
 - Second: Karen Randall
 - Approved by Acclamation

**TSN TG
WG Motions**

- Motion
 - 802.1 authorizes Jordon Woods, the Editor of IEC/IEEE P60802 Time-Sensitive Networking Profile for Industrial Automation to prepare drafts for and conduct Working Group balloting.
 - Proposed: János Farkas
 - Second: Ludwig Winkel
 - In the WG (y/n/a): 39, 3, 3
- Motion
 - 802.1 authorizes Stephan Kehrer, the Editor of P802Qdj Standard for Local and Metropolitan Area Networks: Bridges and Bridged Networks — Amendment: Configuration Enhancements for Time-Sensitive Networking to prepare drafts for and conduct Working Group balloting.
 - Proposed: János Farkas
 - Second: Ludwig Winkel
 - In the WG (y/n/a): 44, 1, 3
- Motion
 - 802.1 authorizes the TSN Task Group to hold a meeting on Monday November 14, 2022, prior to the IEEE 802.1 opening plenary meeting.
 - Proposed: János Farkas
 - Second: Craig Gunther
 - Approved by acclamation

- Motion
 - 802.1 authorizes the TSN Task Group to hold meetings together with IEC 65C/WG18 on Friday November 18, 2022 (after the IEEE 802.1 closing plenary meeting) to progress the IEC/IEEE 60802 Joint Project and other TSN TG work.
 - Proposed: János Farkas
 - Second: Ludwig Winkel
 - Approved by acclamation
- Motion
 - 802.1 authorizes the TSN Task Group to hold electronic meetings weekly on Mondays 11:00-13:00 ET starting July 18, 2022.
 - Agenda will be announced on the [802.1 Minutes email list](#) at least 5 calendar days before the electronic meeting.
 - Access information is posted on the <http://www.ieee802.org/1/tsn> page and will be updated as necessary.
 - Proposed: János Farkas
 - Second: Craig Gunther
 - Approved by acclamation
- Motion
 - 802.1 authorizes the TSN Task Group to hold additional electronic meetings as needed to progress the projects of the Task Group and Task Group matters arising.
 - Dates, times, and agenda to be announced subject to notice of at least 10 calendar days on the [802.1 Minutes email reflector](#).
 - Access information is posted on the <http://www.ieee802.org/1/tsn> page and will be updated as necessary.
 - Proposed: János Farkas
 - Second: Craig Gunther
 - Approved by acclamation
- Motion
 - 802.1 authorizes the TSN Task Group to hold weekly electronic meetings together with IEC 65C/WG18 to progress the work of the IEC/IEEE 60802 Joint Project on Mondays and Fridays 9:00-11:00 ET starting July 18, 2022.
 - Agenda will be announced on the [802.1 Minutes email list](#) at least 5 calendar days before the electronic meeting.
 - Access information is posted on the <http://www.ieee802.org/1/tsn> page and will be updated as necessary.
 - Proposed: János Farkas
 - Second: Ludwig Winkel
 - Approved by acclamation
- Motion
 - 802.1 authorizes the TSN Task Group to hold weekly electronic meetings to progress the P802.1DG project on Tuesdays 9:00-11:00 ET starting August 2, 2022.
 - Agenda will be announced on the [802.1 Minutes email list](#) at least 5 calendar days before the electronic meeting.
 - Access information is posted on the <http://www.ieee802.org/1/tsn> page and will be updated as necessary.
 - Proposed: Craig Gunther
 - Second: János Farkas
 - Approved by acclamation

- Motion
 - 802.1 authorizes the TSN Task Group to hold bi-weekly electronic meetings together with SAE AS6675 to progress the work of the P802.1DP / SAE AS6675 Joint Project on Wednesdays 10:00-12:00 ET starting July 20, 2022.
 - Agenda will be announced on the [802.1 Minutes email list](#) at least 5 calendar days before the electronic meeting.
 - Access information is posted on the <http://www.ieee802.org/1/tsn> page and will be updated as necessary.
 - Proposed: János Farkas
 - Second: Craig Gunther
 - Approved by acclamation
- Motion
 - 802.1 authorizes the TSN Task Group to hold an electronic meeting to discuss common TSN for converged networks 9:00-11:00 ET on October 12, 2022.
 - Agenda will be announced on the [802.1 Minutes email reflector](#). at least 10 calendar days before the electronic meeting.
 - Access information is posted on the <http://www.ieee802.org/1/tsn> page and will be updated as necessary.
 - Proposed: János Farkas
 - Second: Stephan Kehrer
 - Approved by acclamation

**Nendica
WG Motions**

- Motion
 - 802.1 authorizes Nendica to hold weekly electronic meetings each Thursday 09:00-11:00 ET starting July 21, 2022.
 - Agenda to be announced subject to notice of at least 5 calendar days at the [802.1 Minutes email list](#).
 - Access and agenda information are provided on the calendar at <https://1.ieee802.org/802-nendica/>.
 - Proposed: Paul Congdon
 - Second: Johannes Specht
 - Approved by acclamation
- Motion
 - 802.1 authorizes Nendica to hold additional meetings as announced at least 10 days in advance.
 - Dates, times and agenda to be announced subject to notice of at least 10 days to the [802.1 Minutes email list](#).
 - Access and agenda information are provided on the calendar at <https://1.ieee802.org/802-nendica/> .
 - Proposed: Jessy Rouyer
 - Second: Roger Marks
 - Approved by acclamation

- Motion
 - 802.1 authorizes the IEEE 802 Nendica to hold joint meetings with the 802.3 NEA to discuss cut-through forwarding.
 - Dates, times and agenda to be announced subject to notice of at least 10 days to the [802.1 Minutes email list](#) .
 - Access information is posted on the Nendica page and will be updated as necessary.
 - Proposed: Johannes Specht
 - Second: Paul Congdon
 - Approved by acclamation
- Called for Any Other Business (slide 123)
 - The following motion was proposed (slide 124):
 - 802.1 authorizes the TSN TG to generate PAR and CSD at the September 2022 interim session for pre-circulation to the EC for an IEEE 802.1 standard on Cut-Through Forwarding.
 - Proposed: Johannes Specht
 - Second: Jordon Woods
 - Discussion ensued followed by the following:
 - Move to call the question:
 - In the WG (y/n/a): 21, 16, 6
 - In the WG (y/n/a): 16, 23, 8
 - Motion fails.
 - The Nendica Chair reviewed and edited slide 2 of the 802 Chair-requested “Cut-Through Forwarding status update from Nendica perspective” finalized as <https://mentor.ieee.org/802.1/dcn/22/1-22-0037-00.pdf> and with edits also captured on slide 125.
 - No further business was discussed in this meeting.

19:06 ET adjournment

12 Next Session

Sep 12-16, 2022 hybrid interim session in Albany, NY, USA.