

PSCC Subcommittee Meeting Minutes

Designation: P0	Name: PROTOCOLS AND COMMUNICATION ARCHITECTURE SUBCOMMITTEE			
Meeting Location: Virtual WebEx	Meeting Time: 09:30am CDT	Meeting Date: 2021/09/24	Minutes Revised: 2021/10/06	Minutes Approved: 2022/01/12
Presiding Officer(s): Benton Vandiver - Chair; Tom Dahlin - Vice Chair		Recorded by: Tom Dahlin	Draft Number: 1.0	

Attendance:

Name	Affiliation	Phone (P) / Web (W) / Local (L)	M/CM/G
Anthony Johnson	SCE	W	M
Benton Vandiver – Chair	Hitachi ABB Power Grids	W	M
Chris Huntley	SEL	W	M
Craig Palmer	PowerComm Solutions	W	M
Craig Preuss	Black & Veatch	W	M
Dan Nordell		W	M
Dave McGuire	Hubbell-RFL	W	M
Dennis Holstein	OCG	W	M
Didier Giarratano	Schneider Electric	W	M
Eric Thibodeau	Hydro Quebec	W	M
Galina Antonova	Hitachi ABB Power Grids	W	M
James Bougie	Global Power Technologies	W	M
James Formea	EATON	W	M
Ken Fodero	SEL	W	M
Ken Martin	EPG	W	M
Marc Benou	Iniven	W	M
Mike Dood	SEL	W	M
Nicholas Kraemer	NuGrid Power	W	M
Ryan Newell	TRC	W	M
Scott Mix	PNNL	W	M
Shane Haveron	Ametek	W	M
TW Cease	Consultant	W	M
Tom Dahlin – Vice Chair	SEL	W	M
Vasudev Gharpure	Quanta Technology	W	M
Yi Hu	Quanta Technology	W	M
Allen Goldstein	NIST	W	G
Andre Smit	Siemens	W	G
Bharat Nalla	SEL	W	G
Brendan Gates	TRC	W	G
David Dolezilek	SEL	W	G
Deryk Yuill	iS5	W	G
Eugenio Carvalheira	Omicron	W	G
Farnoosh Rahmatian	NuGrid Power	W	G
Farzad Khalilpour-SCE	SCE	W	G
Gayle Nelms	SEL	W	G
Hugo Monterrubio	IEEE	W	G
Jalal Gohari	WSP	W	G

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Minutes of meeting (continued)

Item no.	Notes	Action by
CALL TO ORDER		BV
INTRODUCTIONS AND QUORUM	Member roll call taken. A quorum was met. There were 25 of 36 members present.	BV
AGENDA APPROVAL	The motion was passed. Motion – Scott Mix. Second – Tony Johnson Approved -Yes (25).	BV
APPROVAL OF PREVIOUS MINUTES	The motion was passed. Motion – Scott Mix. Second – Eric Thibodeau Approved -Yes (25).	BV
CHAIR'S REMARKS	<p>Announcements RevCom/NesCom submission by 10/18</p> <p>Membership: Withdrawn: Kevin Easley (May) Welcome: Nathan Wallace Nicholas Kraemer Shane Haveron New Invite: Eugenio Carvalheira Brittany Chapman</p> <p>Two members will be contacted for their intention to continue their membership.</p> <p>WG minutes, PLEASE, get them in to Tom within 1 week after your meeting. If not, we cannot complete our SC report to the MC.</p>	BV
REPORTS	Please include what you need for the next meeting (room size, sessions) and revision of the document (draft #); Requirements for Next Session (RNS).	

Minutes of meeting (continued)

Item no.	Notes	Action by
P1WG	<p>Standard Profile for Use of IEEE 1588 Precision Time Protocol in Power System Applications. Amendment 1: Adding a TLV to indicate the latest IERS-specified UTC Leap Second Event</p> <p>Chair: Chris Huntley</p> <p>The P1 PAR is to add a TLV to the 1588 Power Profile to facilitate its use after the loss of GPS; this is aligned with the 2020 Executive Order 13905 for resilient PNT. The draft TLV from two years ago achieved a 100% IEEE-SA ballot early last year, but unfortunately has still not been published. This meeting was required by IEEE-SA as our use of email to approve the SA-ballot comments-disposition file did not receive the allegedly required 100% return rate.</p> <p>Further Meetings are now required to address comments from the ballot to reach a resolution.</p> <p>RNS: 20 people, 1 session, HDMI projector, WiFi, teleconferencing</p> <p>Conflicts: P12, P14, H41 and H49</p>	Chris Huntley
P2WG	<p>Electric Power Systems Communications – Distributed Network Protocol (DNP3)</p> <p>Chair: Ron Farquharson</p> <p>P2 is focused on 1815 (DNP3) – and collaborating with the DNP Technical Committee to develop the next release of 1815. The last release was 1815-2012. Met in a double session.</p> <p>Continuing to work on the standard.</p> <p>RNS: 20 people, 1 session, HDMI projector, WiFi, teleconferencing</p> <p>Conflicts: S5 – C37.240</p>	Ron Farquharson
P3SG	<p>Exchanging Information Between Networks Implementing IEC 61850 and IEEE Std. 1815.1 (DNP3)</p> <p>Chair: Ron Farquharson</p> <p>DID NOT MEET. P2WG took up this time slot.</p> <p>RNS: 25 people, 1 session, HDMI projector, WiFi, teleconferencing</p> <p>Conflicts: S5 – C37.240</p>	Ron Farquharson
P5WG	<p>Recommended Practice for Network Communications in Substations (Revision of IEEE P1615)</p> <p>Chair: James Bougie</p> <p>Jim gave an introduction on the effort with an emphasis on the need to fill in gaps that were identified in balloting process. Some of the topics that members brought up were:</p> <ul style="list-style-type: none"> - IPV4 versus IPV6 - Wireless - SDN - Serial (keeping it or not) - Power Line Carrier - AMI <p>Jim is going to contact Kevin to get the comments from the balloting on the current document to identify the gaps that we need to work on.</p> <p>RNS: 20 people, 1 session, HDMI projector, WiFi</p> <p>Conflicts:</p>	James Bougie

Minutes of meeting (continued)

P6WG	<p>Configuring Ethernet LAN Infrastructure Chair: Eric Udren DID NOT MEET. RNS: No need for meeting in January. Conflicts: N/A</p>	Eric Udren
P8TF	<p>Recommended Mapping Approach between IEEE C37.118.2 and IEC 61850 Chair: Yi Hu Chair briefly reviewed the assignment of the WG, and the two activities since January 2021 meeting: 1) A presentation about the PES-TR74 was made at NASPI meeting in April 2021 by Yi Hu and Ken Martin; and 2) A paper has been accepted by APC World 2021 virtual conference and included in the conference proceedings.</p> <p>After the review, Chair discussed the intention to make a formal request to P subcommittee to disband the task force as it has completed the assigned work. A call to all in attendance was made to see if anyone is interested to submit the paper to other conferences, and no one had expressed any interest of doing so.</p> <p>Chair made a formal request at the P subcommittee meeting to disband the task force. Motion – Yi Hu. Second – Mike Dood Approved -Yes (25).</p>	Yi Hu
P9WG	<p>Revision of C37.118.2 Chair: Vasudev Gharpure The working group is nearing completion and has been meeting virtually and creating a working document. A summary major changes proposed was presented. Jeff Dagle raised a question about the elimination of CRC affecting serial communications. The chair will discuss the question with the working group. Roger Whittaker asked if he could proceed with the definitions checking with IEEE dictionary. The chair agreed that he could proceed. PAR extension to December 2022. RNS: 20 people, 1 session, HDMI Projector Conflicts: C40, C23, C28, C41, P10</p>	Vasudev Gharpure
P10WG	<p>IEEE Standard for Streaming Telemetry Transport Protocol Chair: Ken Martin Draft 2.83 The Chair reviewed the current draft of the standard and the project status. We are making steady progress on most sections, but we still have some significant work to do in several clauses. We hope to get the clauses fully drafted by the JCTM in January so we can form the balloting pool. We reviewed the spreadsheet that Vasudev and Jean-Sebastien drafted for protocol comparison in Annex F. The comparison seems too high level to be very helpful, so Vasudev will add some further material to make it more thorough. The WG will need to review the added notes and make recommendations for further development. We reviewed a number of edits in the draft and approved changes in several sections. The WG was undecided on the best terminology for describing the connections used for command-response vs the exchange of data. This discussion revealed the basic misunderstanding about subscriptions: whether the STTP connection supported multiple simultaneous subscriptions or not. It was decided to table the issue for further discussion. Scott will draw up diagrams of the process for discussion. RNS: 20 people, 1 session, HDMI projector Conflicts: P9, C23, C28, C41, PSRC SC-C, PSCC SC-P</p>	Ken Martin

Minutes of meeting (continued)

P11TF	<p>Report on Cloud Computing, uses and Requirements of Electric Power Utilities</p> <p>Chair: T.W. Cease</p> <p>DID NOT MEET.</p> <p>RNS: 25 people, 1 session, HDMI Projector</p> <p>Conflicts:</p>	T.W. Cease
P12TF	<p>Analog Leased Line End of Life and Migration Report</p> <p>Chair: Marc Benou</p> <p>Since no writing assignments were handed in since May, we reviewed what assignments were due.</p> <p>All writing assignments regarding the new section 4, available leased channel types, should try to imbed the advantages and disadvantages of each type of technology in the write-up, rather than add it at the end of the sub-section or main section.</p> <p>Expect to have all previous assignments submitted prior to the next meeting.</p> <p>RNS: 20 people, 1 session, HDMI Projector</p> <p>Conflicts: H32, P14, H49</p>	Marc Benou
P13TF	<p>Beginners guide to IEC 61850</p> <p>Chair: Eugenio Carvalheira</p> <p>The TF approved minutes of May 05 meeting. We refined the scope and document outline. We had discussions on how to address the different IEC 61850 standard revisions (Ed.1 versus Ed.2 features) within the report. We recruited additional volunteers for initial writing assignments.</p> <p>RNS: 30+ people, 1 session, HDMI projector, WiFi</p> <p>Conflicts: H45, H27, H31, H30, H6, H44, TFH47,</p>	Eugenio Carvalheira
P14WG	<p>Review of C37.236, IEEE Guide for Power System Protective Relay Applications Over Digital Communication Channels</p> <p>Chair: Tom Dahlin</p> <p>The section regarding Private Cellular Network was reviewed. Thomas Rudolph suggested we add R-Goose.</p> <p>The section regarding GOOSE over cellular for Protection Applications was reviewed. David Dolezilek suggested adding a section regarding using a unique VLAN per message.</p> <p>Table of contents was discussed, and a revised layout was presented to the group. Consensus is that the revised table of contents is an improvement which includes combining some previous sections under a new subtitle for 'wireless communications.</p> <p>RNS: 20 people, 1 session, HDMI projector</p> <p>Conflicts: P12, H42, H41, H49</p>	Tom Dahlin
P15WG	<p>Standard Profile for Communications with Distributed Energy Resources (DERs) using IEEE Std 1815 [Distributed Network Protocol (DNP3)]</p> <p>Chair: Eric Thibodeau</p> <p>Since the last meeting, we setup our iMeetCentral space and assigned review tasks to our members. No reviews received yet, but we asked all to complete their duty before October 22. We plan a meeting at the start of November to start going through comments. The work to turn out the AN into a draft will start this Fall, either by the IEEE SA editorial team, or a voluntary on our group.</p> <p>RNS: 25 people, 1 session, HDMI projector, WiFi</p> <p>Conflicts: S1, P2, P3, K25</p>	Eric Thibodeau

Minutes of meeting (continued)

P16WG	<p>P1854 Review by PSCC for Communications and Cybersecurity Requirements Chair: Jason Lombardo DID NOT MEET. Will be holding a joint session for both P16 and H53 during the PSCC/PSRC meetings. RNS: 20 people, 1 session, HDMI projector, WiFi, Conflicts: I31, H46</p>	Jason Lombardo
P18SG	<p>Guide for Smart Grid Interoperability of Energy Technology and Information Technology Operation with the Electric Power System (EPS), End-Use Applications, and Loads Chair: Anthony Johnson Tony described the Smart Grid Interoperability Reference Model (SGIRM) and the extended interface diagram that has been developed. In addition to the introduction of DER, the extended interface diagrams and labelling of each interface is the contribution of the revision to P2030. Discussion took place in regards to both the security and interoperability of SGIRM. RNS: 25 people, 1 session, HDMI projector, Conflicts: S13</p>	Anthony Johnson
P19SG	<p>Study Group on Universal Utility Data Exchange (UUDEx) Chair: Scott Mix The chair reviewed the current state of the Study Group report, touching on the updates that have been made during the last few meetings. Several questions from attendees were discussed related to aspects of this report and the potential communication standard being studied. The specific motion to request a PAR and have this Study Group converted into a Working Group were reviewed. Wording of the motion was revised to include the specific dates (standard completed in September 2023 with balloting and final approval in 2024) in the motion itself. Upon motion by Dennis Holstein, seconded by Nathan Wallace, the motion was approved without objection. Based on the PAR request going to P0 later this week, it is anticipated that the Working Group should be authorized by SA at their October meeting. Based on that expectation the Chair expects to hold a virtual meeting in November to review the outline and prepare for the first "in person" Working Group meeting in January. RNS: 20 people, 1 session, HDMI projector, Conflicts:</p>	Scott Mix
P20SG	<p>Joint Revision of IEC 61850-9-3 Chair: Benton Vandiver Establish the DLMT from IEC and IEEE members. All P20 WG Members are part of the DLMT. IEC list provided by Hubert Kirmann Review of approved PAR – Scope and Need. 5.2 Scope of proposed standard: This standard specifies a precision time protocol (PTP) profile of IEEE 1588-2019 applicable to power utility automation that allows complying with the highest synchronization classes of IEC 61850-5 and IEC 61869-9. 5.5 Need for the Project: Changes and clarifications need to be incorporated in the joint revision of the standard to be aligned with IEEE 1588-2019 and other industry profiles. Group discussion on scope and what is expected, document access was reviewed and will be provided by download link until iMeet workspace is ready. RNS: 30 people, 1 session, HDMI Projector Conflicts: H50</p>	Benton Vandiver

Minutes of meeting (continued)

P21SG	<p>System architectures supporting the virtualization of substation protection and control applications</p> <p>Chair: Craig Preuss</p> <p>P21 investigating the need for a standard on System Architectures Supporting the Virtualization of Substation Protection and Control Applications. We met with 42 in attendance. Action items were reviewed, minutes approved, and future presentations discussed. IEC 23167, "Information technology - Cloud computing - Common technologies and techniques", was discussed as a standard of interest to the study group's assignment. A definition of virtualization was constructed. Future study group meetings will be held as web conferences on October 4, October 18, Nov 1, Nov 15, Nov 29, and Dec 13. Final report to P0 subcommittee is expected to be made at the January 2022 JTCM.</p>	Craig Preuss

Minutes of meeting (continued)

Item no.	Notes	Action by
OLD BUSINESS	None.	
NEW BUSINESS	The P19 PAR request to have the Study Group converted into a Working Group was reviewed. The SC reviewed and discussed the Scope and Purpose and after lengthy debate determined there were items of concern. The SC voted to extend the SG charter to address these items and re-submit the PAR for approval at the January meeting.	BV
TIME OF FINAL ADJOURNMENT	10:45 am CDT. Motion – Tony Johnson. Second – Yi Hu Approved -Yes (25).	TD
NEXT FACE TO FACE MEETINGS	January 2022 JTCM in person / virtual meeting	BV
FUTURE MEETING ROOM REQUIREMENTS	For the next meeting we will need to meet for 1 session in a room for 50 people. We do not want to meet at the same time as the PSRC H SC or the PSCCC S SC.	