

PSCCC Subcommittee Meeting Minutes

Designation: PO	Name: PROTOCOLS AND COMMUNICATION ARCHITECTURE SUBCOMMITTEE			
Meeting Location: Las Vegas, NV – In-person and virtual	Meeting Time: 1:15 pm PDT	Meeting Date: 2023/05/10	Minutes Revised: YYYY/MM/DD	Minutes Approved: 2023/09/20
Presiding Officer(s): Tom Dahlin - Chair; Jim Michaelis - Vice Chair		Recorded by: Jim Michaelis	Draft Number: 1.0	
Attendance:				
Name		Affiliation	Phone (P) / Web (W) / Local (L)	M/CM/G
Anthony Johnson	SCE		L	M
Benton Vandiver	Hitachi Energy		L	M
Brittany Chapman	CAI Engineering		W	M
Chris Huntley	SEL		L	M
Craig Palmer	PowerComm Solutions		L	M
Craig Preuss	Black & Veatch		L	M
Dan Nordell	Xcel Energy			M
Dave McGuire	Hubbell-RFL		W	M
Ed Cenzone	SEL		W	M
Eric Thibodeau	Hydro Quebec		L	M
Eric Udren	Quanta Technology		L	M
Eugenio Carvalheira	Omicron			M
Galina Antonova	Hitachi Energy		W	M
James Bougie	Albireo Energy			M
James Formea	EATON		L	M
Jason Lombardo	S&C Electric Company		W	M
Jay Anderson	SEL		L	M
Jim Michaelis – Vice Chair	Commonwealth Associates, Inc.		L	M
Ken Fodero	SEL		L	M
Ken Martin	EPG		L	M
Mark Benou	Iniven		L	M
Mike Dood	SEL		L	M
Nathan Wallace	Cybrical		W	M
Nicholas Kraemer	NuGrid Power		L	M
Ron Farquharson	Mount Victoria Consulting Ltd			M
Ryan Newell	TRC		W	M
Scott Mix	PNNL		L	M
Shane Haveron	Ametek		L	M
TW Cease	Consultant			M
Tom Dahlin – Chair	SEL		L	M
Yi Hu	Quanta Technology		L	M
Andrew West			W	G
Byungtae Jang			W	G
Charles Pestell	Powell Ind		L	G

Colin Gordon	SEL	W	G
Daniel Freeman	Schneider Electric		G
David Dolezilek	SEL	L	G
Emmanuel Duvelson	Hubbell-RFL	L	G
Gayle Nelms	SEL	L	G
Hugo Monterrubio	Hubbell / Beckwith		G
J. Richie Carroll	GPA	L	G
Jay Herman	EPRI	W	G
Jeff Pack	Power Engineers	L	G
Justin Turner	GE		G
Mario Jardim	Schneider Electric	W	G
Markus Epting	S&C Electric		G
Priya Raghuraman	Siemens	L	G
Priyanka Nadkar	SEL		G
Tom Thompson	IEEE SA	L	G
Tony Bell	Ametek		G
M:Member G: Guest			

Minutes of meeting (continued)

Item no.	Notes	Action by
CALL TO ORDER	Meeting called to order at 1:15 PM PDT.	Tom Dahlin
INTRODUCTIONS AND QUORUM	Member roll call taken. A quorum was met. There were 26 of 40 members present. There were also 13 guests.	Tom Dahlin
AGENDA APPROVAL	The motion was passed. Motion: Eric Udren; Second: Scott Mix Approved - Yes (26).	Tom Dahlin
APPROVAL OF PREVIOUS MINUTES	The motion was passed. Motion: Scott Mix; Second: Ken Fodero Approved - Yes (26).	Tom Dahlin
CHAIR'S REMARKS	<p>Announcements</p> <p>Please submit your MemberPlanet Profile so we will be able to use this new system going forward. Hope to be using it by the fall meeting.</p> <p>If you need a PAR extension, please get it in / approved.</p> <p>RevCom submission by 05/19/2023, 08/11/2023, 10/16/2023 NesCom submission by 05/19/2023, 08/11/2023, 10/16/2023</p> <p>WG minutes, please get them in to Jim within 1 week after your meeting. If not, we cannot complete our SC report to the MC.</p>	Tom Dahlin
OLD BUSINESS	<p>P18 ownership of / lead committee for IEEE 2030 has been confirmed.</p> <p>Reminder that A1, Awards and Technical Paper Recognition Task Force, is looking for an "at large" volunteer from each subcommittee. The subcommittee chair and vice chair are automatically part of this committee, so it would increase the number of people each subcommittee provides from two to three. This is a commitment of three conference calls a year, usually a few weeks after each in person meeting.</p>	Tom Dahlin

Minutes of meeting (continued)

<p>NEW BUSINESS</p>	<p>P10WG with Ken Martin as chair would like to form a ballot pool for P2664. This is a proactive step Motion: Ken Martin; Second: Eric Thibodeau Approved - Yes (26).</p> <p>P10WG with Ken Martin as chair requested permission to submit P2664 for balloting after MEC review and resolution of any mandatory comments. Motion: Ken Martin; Second: Eric Thibodeau Approved - Yes (26).</p> <p>P12TF with Marc Benou as chair is requesting permission to distribute the Report on Analog Leased Line End-of-life and Migration Options to P0 SC members for review after minor editorial changes. Motion: Mark Benou Approved as a request to the chair – Email anticipated in a couple weeks.</p> <p>P18 with Anthony Johnson as chair requested input on proposed changes to their PAR Scope and Purpose. Through discussion, determined that a vote is not required, but soliciting input from P0. Text of the proposed revisions are included in the P18 Group Report, below.</p> <p>Liaison Report PSRC WG D47: Revision of C37.243 IEEE Guide for Application of Digital Line Current Differential Relays Using Digital Communication Tom Dahlin gave update. Continuing with revisions to the guide.</p> <p>Liaison Report PSRC WG H41: Revision of IEEE P1646 Standard for Power System Communication Delivery Time Performance Requirements Tom Dahlin gave update. Dave D chaired first meeting Resetting WG membership Discussed how to address tables in the specification</p> <p>Liaison Report P1547.10: Recommended Practice for Distributed Energy Resources (DER) Gateway Platforms Benton Vandiver gave update. Had kickoff meeting in Houston Just starting to define parts Broke scope into several parts to facilitate input</p>	<p>Tom Dahlin</p>
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Minutes of meeting (continued)

Item no.	Notes	Action by
REPORTS	Please include what you need for the next meeting (room size, sessions) and revision of the document (draft #); Requirements for Next Session (RNS).	
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>No meeting. In third recirculation. On RevCom Agenda Date: June 28, 2023.</p>	Chris Huntley
P2WG	<p>Electric Power Systems Communications – Distributed Network Protocol (DNP3)</p> <p>Chair: Ron Farquharson – Presented by VC Andrew West</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> <ul style="list-style-type: none"> • While a verbal update was presented the notes for these minutes were not provided to P0. <p>RNS: 25 people, 2 session, HDMI projector, WiFi, teleconferencing</p> <p>Conflicts: S5 – C37.240</p>	Andrew West
P3SG	<p>Exchanging Information Between Networks Implementing IEC 61850 and IEEE Std. 1815.1 (DNP3)</p> <p>Chair: Ron Farquharson</p> <p>(no meeting). P2WG took up this time slot.</p>	Ron Farquharson
P5WG	<p>Recommended Practice for Network Communications in Substations (Revision of IEEE P1615)</p> <p>Chair: James Bougie</p> <ul style="list-style-type: none"> • Follow up discussion on Terminal / Port servers (media converter) • Discussion on protocol conversion functions that might be associated with a media converter • Discussed Software Defined Networking (SDN) • Discussed likely need for a PAR extension <p>RNS: 20 people, 1 session, HDMI projector, WiFi</p> <p>Conflicts:</p>	James Bougie
P9WG	<p>Revision of C37.118.2</p> <p>Chair: Vasudev Gharpure</p> <p>Working on joint revision of C37.118.2 standard, (with C40 – C37.247)</p> <ul style="list-style-type: none"> • The work is complete with a ballot in February. Received 123 comments and have resolved 122 of them. Expect to complete this and go to recirculation ballot during June. 	Vasudev Gharpure

Minutes of meeting (continued)

<p>P10WG</p>	<p>IEEE Standard for Streaming Telemetry Transport Protocol Chair: Ken Martin</p> <ul style="list-style-type: none"> • The WG completed reviewing edits since the last meeting and began the process for MEC review and putting the document forward for balloting. • See P10 WG motions under New Business. <p>RNS: 20 people, 1 session, HDMI projector Conflicts: P9, C23, C46, C41, H50, PSRC-SC-C, PSCC SC-P</p>	<p>Ken Martin</p>
<p>P12TF</p>	<p>Analog Leased Line End of Life and Migration Chair: Marc Benou Draft 7.2</p> <ul style="list-style-type: none"> • IEEE has edited the report and returned it for approval. • Reference to a specific cellular offering and an alternative were discussed, deciding to remove specific references. • Permission will be requested to submit the report to the SC for review. Comments desired before the September meeting. • A task was assigned to clean up unused placeholders prior to submitting to the SC for review. <p>RNS: 20 people, 1 session, HDMI projector Conflicts: H32, P14, HTF49</p>	<p>Marc Benou</p>
<p>P13TF</p>	<p>Beginners guide to IEC61850 Chair: Eugenio Carvalheira – Presented by VC Nicholas Kraemer Draft 0.2</p> <ul style="list-style-type: none"> • Comments received on the networking basics section were reviewed and resolved. • A section on network addressing was added to the outline and volunteers were solicited. • Volunteers were recruited for writing assignments for some of the outstanding sections, and members were encouraged to provide initial review of the draft. <p>RNS: 30 people, 1 session, HDMI projector, WiFi Conflicts: H45, H27, H31, H30, H6, H44, TFH47,</p>	<p>Nicholas Kraemer</p>

Minutes of meeting (continued)

<p>P14WG</p>	<p>Review of C37.236, IEEE Guide for Power System Protective Relay Applications Over Digital Communication Channels Chair: Tom Dahlin Draft 5.0</p> <ul style="list-style-type: none"> • Reviewed changes made to Section by Ken Fodero. • Reviewed Section 5.2 definition of Dependability. Will reference the CIGRE definition. • Discussed Section 6.2.2.8 on Digital phone line (DDS), considering removing or changing it to historical • Reviewed Section 6 comments from Andre Melo. <p>RNS: 30 people, 1 session, HDMI projector Conflicts: P12, H41, H49, C1, C2, D47</p>	<p>Tom Dahlin</p>
<p>P15WG</p>	<p>Standard Profile for Communications with Distributed Energy Resources (DERs) using IEEE Std 1815 [Distributed Network Protocol (DNP3)] Chair: Eric Thibodeau</p> <ul style="list-style-type: none"> • The working group reviewed a proposed revised scope and purpose. Since the proposed changes do not increase the scope a PAR change will not be sought at this time. • DNP Users Group and MESA-DER presented their new MOU and are starting to discuss the shared copyright issue with the IEEE. • Since the last meeting, we were able to get MESA-DER people to join our group as corresponding members. Work on our draft continues during biweekly meetings. Their target is to have the document voted on at the September meeting to go to ballot. <p>RNS: 20 people, 1 session, HDMI projector, WiFi Conflicts: S1, P2, P3, K25</p>	<p>Eric Thibodeau</p>
<p>P16WG</p>	<p>P1854 Review by PSCC for Communications and Cybersecurity Requirements Chair: Jason Lombardo Joint work w/T&D and PSRC H53. Xiangyu Ding leads the joint work. Revision 20230111</p> <ul style="list-style-type: none"> • The draft P1854 document was reviewed, and the latest edits discussed. • Added section discussing benefits. • Several new writing assignments were volunteered for with several additional sections needing updates discussed. • Discussed need to bring the project to completion with the PAR expiring at the end of this year. <p>RNS: 20 people, 1 session, HDMI projector, WiFi, Conflicts: I31, H46</p>	<p>Jason Lombardo</p>

Minutes of meeting (continued)

<p>P18SG</p>	<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</p> <p>Revisions to the Scope and Purpose were requested by SC21. Most of the effort focused on the scope. Proposed updates follow with input requested from all PO.</p> <p>Proposed Scope Change: <i>This guide applies engineering principles to smart grid interoperability of electric power systems (including end use applications, sources, and loads) by defining the Smart Grid Interoperability Reference Model (SGIRM) and providing a knowledge base that addresses terminology, characteristics, and functional performance and evaluation criteria. A baseline interface model written in System Markup Language (SML) will be provided.</i></p> <p>Proposed Purpose Change: <i>The industry needs guidelines in understanding and defining smart grid interoperability of the electric power system with end-use applications and loads. In order to achieve seamless operation for electric generation, delivery, and end-use benefits to permit two-way power flow with communication and control the integration of energy technology and information and communications technology is necessary. Progress has been made in many areas that could provide a basis for updating the definition of Domains, Entities, Interfaces and Data Flows. An updated knowledge base is needed as a key element in grid architectural designs and operation to promote a more reliable and flexible electric power system, generation, delivery, and end-use benefits to permit two-way power flow with communication and control. Interconnection and intra-facing frameworks and strategies with design definitions are addressed in this guide, providing guidance in expanding the current knowledge base. This expanded knowledge is a key element in grid architectural designs and operation to promote a more reliable and flexible EPS.</i></p> <p>RNS: 25 people, 1 session, HDMI projector, WiFi Conflicts: S1</p>	<p>Anthony Johnson</p>
<p>P19WG</p>	<p>Working Group on Universal Utility Data Exchange (UUDEX) Chair: Scott Mix Draft 0, Edit 10</p> <p>The chair reviewed the current state of the draft UUDEX standard.</p> <ul style="list-style-type: none"> • Reviewed that status of the standard document development • Discussed the webinar on the IEEE Open Source Initiative • Discussed writing assignments from last meeting • Started making some high level decisions on areas needing trimming <p>RNS: 20 people, 1 session, HDMI projector, WiFi Conflicts: P20, P21</p>	<p>Scott Mix</p>

Minutes of meeting (continued)

<p>P20WG</p>	<p>Joint Revision of IEC 61850-9-3 Chair: Benton Vandiver Draft 5.0b rev 3</p> <p>Review of 9-3 draft v5.0b rev3 from the last DLMT mtg in April. Topics in discussion</p> <ul style="list-style-type: none"> • The WG is continuing to resolve details and WG member review comments to arrive at a consensus of the core requirements. • The last set of comments were addressed at this meeting and several sections still must be revised. • Three core assignments were made and members will provided those for the next DLMT meeting in two weeks. <p>RNS: 30 people, 1 session, HDMI Projector, WiFi Conflicts: H50, P19, P21</p>	<p>Benton Vandiver</p>
<p>P21SG</p>	<p>System architectures supporting the virtualization of substation protection and control applications Chairs: Craig Preuss</p> <ul style="list-style-type: none"> • P21/I49 met for the first time with 48 local attendees and approximately 14 remote attendees. Of those attendees, approximately 35 indicated interest in being members. • An open call for a volunteer to fill the Secretary position and Melvin Moncey Joseph from Black & Veatch volunteered. • The officers will poll the members to schedule the next virtual call where the future meeting schedule will be discussed. All meeting invitations will be sent to the complete roster for P21/I49. • The existing iMeet site for P21 will be reorganized to keep the P21 Study Group materials available but separate from the P21 Task Force materials. Membership from the P21 Study Group to the P21/I49 Task Force will be transitioned so that the iMeet site will become only accessible for the P21/I49 members. • The task force will use the PES Report Template for its deliverable. The plan is for the report to be delivered to the P0 and I Subcommittees for review on or before the September 2024 meeting. • The task force officers are still looking for another co-chair from the PSRC H Subcommittee. <p>RNS: 50 people, 1 session, HDMI projector, WiFi Conflicts: P19, P20</p>	<p>Craig Preuss</p>

Minutes of meeting (continued)

Item no.	Notes	Action by
TIME OF FINAL ADJOURNMENT	Adjourned at 1:55 pm PDT	Tom Dahlin
NEXT FACE TO FACE MEETINGS	September 2023 in Myrtle Beach, SC. In person / virtual meeting	Tom Dahlin
FUTURE MEETING ROOM REQUIREMENTS	For the next meeting we will need to meet for 1 session in a room for 40 people. We do not want to meet at the same time as the PSRC H SC or the PSCC S SC.	