PSCC Subcommittee Meeting Minutes

Designation: P0	Name: PROTOCOLS AND COMMUNICATION ARCHITECTURE SUBCOMMITTEE				
Meeting Location: Hybrid – In-person and virtual Teams		Meeting Time: 4:00 pm PST	Meeting Date: 2022/01/12	Minutes Revised: 2022/01/25	Minutes Approved: 2022/05/11
Presiding Officer(s): Benton Vandiver - Chair; Tom Dahlin - Vice Chair			Recorded by: Tom Dahlin		Draft Number: 1.1

Attendance:26 members / 14 guests. Quorum met 26 of 38

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
Brittany Chapman	CAI Engineering	W	M
Chris Huntley	SEL	W	M
Craig Palmer	PowerComm Solutions	W	M
Craig Preuss	Black & Veatch	W	M
Dan Nordell	Xcel Energy	W	M
Dave McGuire	Hubbell-RFL	W	M
Dennis Holstein	OCG	W	M
Eric Thibodeau	Hydro Quebec	W	M
Galina Antonova	Hitachi ABB Power Grids	W	M
Herb Falk	OTB Consulting Services	W	M
James Bougie	Albireo Energy	W	M
James Formea	EATON	W	M
Ken Fodero	SEL	W	M
Ken Martin	EPG	W	M
Marc Benou	Iniven	W	M
Nicholas Kraemer	NuGrid Power	W	M
Ron Farquharson	Mount Victoria Consulting Ltd	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
Ajit		W	G
Brian Seal		W	G
Bruce Muschlitz	Novatech Automation	W	G
Byungtae Jang		W	G
Erin E Morales	IEEE	W	G
Gayle Nelms	SEL	W	G
Gene Henneberg	NV Energy	W	G
Jay Anderson	ComEd	W	G
Jay Herman	EPRI	W	G
Jeff Pack	Power Engineers	W	G
Jens Boemer	SCC21 Standards Coordinator	W	G
Jim Michaelis	CAI Engineering	W	G
Karen Wyszczelski	SEL	W	G
Manish Patel	Southern Company	W	G

M:Member
CM: Corresponding Member

Item no.	Notes	Action by
CALL TO ORDER		BV
INTRODUCTIONS AND QUORUM	Member roll call taken. A quorum was met. There were 26 of 38 members present.	BV
AGENDA APPROVAL	The motion was passed. Motion – Scott Mix. Second – Tony Johnson Approved -Yes (26).	BV
APPROVAL OF PREVIOUS MINUTES	The motion was passed. Motion – Tony Johnson. Second – Ken Fodero Approved -Yes (26).	BV
CHAIR'S REMARKS	**Announcements** RevCom submission by 02/06/2022 NesCom submission by 02/11/2022 **Membership:** Welcome:　　　Eugenio Carvalheira 　　　　　　　Brittany Chapman 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.	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).	

Item no.	Notes	Action by
P1WG	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 Chair: Chris Huntley Draft 2.4h was presented. The Questions file submitted by several Members was opened. The first question asked was what the disposition of the existing C37.238 – 2017 standard would be if the Amendment was approved. Per the IEEE-SA rep in attendance, if the Amendment was approved with the proposed TLV included as Mandatory, then the base Standard would be updated as a whole as C37.238 – 2017, and any device claiming compliance to C37.238 – 2017 would not be compliant. A reference was made to IEEE 1547.1 (2003) and IEEE 1547.1a (2015). Following this, extended discussions were held on this topic, as well as the differences between a corrigendum vs an amendment. Discussion to be continued at the next meeting, including the option to make the TLV Optional and add PICS statement. RNS: 20 people, 1 session, HDMI projector, WiFi, teleconferencing Conflicts: P12, P14, H41 and H49	Chris Huntley
P2WG	Electric Power Systems Communications – Distributed Network Protocol (DNP3) Chair: Ron Farquharson 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. Great progress with the work of updating the 1815 standard involving years of work by the DNP-UG Tech Committee. Some sections have been completely written. The full draft (except for Clause 7 – cyber security) is estimated by the end of Q2 2022 but this has not been confirmed. RNS: 20 people, 1 session, HDMI projector, WiFi, teleconferencing Conflicts: S5 – C37.240	Ron Farquharson
P3SG	Exchanging Information Between Networks Implementing IEC 61850 and IEEE Std. 1815.1 (DNP3) Chair: Ron Farquharson DID NOT MEET. P2WG took up this time slot. Completed a Report focused on IEEE 1815.1 for mapping between IEEE 1815 (DNP) and IEC 61850	Ron Farquharson
P5WG	Recommended Practice for Network Communications in Substations (Revision of IEEE P1615) Chair: James Bougie We need to add more discussion for the newer technologies, more specifically wireless and optical. We had a discussion on including Bluetooth. Mike Dood will attempt to add some information on Bluetooth. We had a discussion on moving the serial connections to the Appendix but it was decided to keep in the main body. We will create 2 separate chapters breaking physical media and protocols into their own chapters We are going to add the OSI model. This is for discussions on different protocols and their media (Profibus, Modbus plus, etc.). We will add information on incorporating older legacy protocols to newer networks. Will be adding newer technologies that are not included yet. We will be adding latency, performance criteria, determinism, etc. Will add network types (Public, private, Combined, VPN, IPV4 vs IPV6, SDN, PLC, AMI – Mesh). RNS: 20 people, 1 session, HDMI projector, WiFi Conflicts:	James Bougie

P8TF	Recommended Mapping Approach between IEEE C37.118.2 and IEC 61850 Chair: Yi Hu DID NOT MEET. Report finished and approved, completed PPT/Paper for conferences and magazines. Working group was disbanded in September 2021 meeting.	Yi Hu
P9WG	Revision of C37.118.2 Chair: Vasudev Gharpure Working on joint revision of C37.118.2 standard, (with C40 – C37.247) PAR extension to December 2022. RNS: 20 people, 1 session, HDMI Projector Conflicts: C40, C23, C28, C41, P10	Vasudev Gharpure
P10WG	IEEE Standard for Streaming Telemetry Transport Protocol Chair: Ken Martin Draft 2.83-12 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 will not request forming the ballot pool at this meeting (January) but will check with PSCCC leadership to find what we need to form the pool with a target for the May meeting. Given the current progress, that will be good timing for the draft development. Scott implemented the edits that the WG decided to make at the last meeting. The WG went through and accepted these changes with discussion and a few more word changes. Most of the changes were accepted up to 5.4.6. Some issues still remain, and assignments were made for these issues. RNS: 20 people, 1 session, HDMI projector Conflicts: P9, C23, C46, C41, H50, PSRC-SC-C, PSCC SC-P	Ken Martin
P12TF	Analog Leased Line End of Life and Migration Report Chair: Marc Benou The latest writing assignments were reviewed and compared to the anything that existed in the sections that already had existing content. The new sections were highlighted in blue to differentiate them from the old content. Assignments were made to make changes to the reviewed sections as we went through the document. Marc will send the latest version of the Draft, 5.1, to the group that incorporates the changes made during the meeting. RNS: 20 people, 1 session, HDMI Projector Conflicts: H32, P14, HTF49	Marc Benou
P13TF	Beginners guide to IEC 61850 Chair: Eugenio Carvalheira P13 met on Wednesday January 12 at 8:00 AM PST with 13 members and 10 guests. Some members joined late, and we were unable to make quorum at the time of check. Title and scope are stable. We refined the document outline and added sections on network design, sample protocol applications, and interfacing with non 61850 devices. We recruited additional volunteers and one new member for writing assignments. Approximately half the document has been assigned. Brittany Chapman presented an initial assignment on the history of 61850.RNS: 30+ people, 1 session, HDMI projector, WiFi Conflicts: H45, H27, H31, H30, H6, H44, TFH47,	Eugenio Carvalheira

P14WG	Review of C37.236, IEEE Guide for Power System Protective Relay Applications Over Digital Communication Channels Chair: Tom Dahlin Chair was unable to attend. Dave McGuire (Vice-Chair) ran the meeting. Quorum was achieved with 7 of 13 members meeting. Reviewed Section 6.5.1.3 - Use of VLANs for Goose traffic & 6.5.1.4 Signal Exchange SLA Based on International Standards The new table of contents was reviewed. Chris Huntley would like the group to review/revise the sections on wireless and cellular. RNS: 20 people, 1 session, HDMI projector Conflicts: P12, H42, H41, H49	Tom Dahlin
P15WG	Standard Profile for Communications with Distributed Energy Resources (DERs) using IEEE Std 1815 [Distributed Network Protocol (DNP3)] Chair: Eric Thibodeau P15 met on Monday 1:00 PM PST with 3 members out of 8. Quorum was not met. 4 corresponding members and 4 guests were also present. Since the last meeting, we got one member that volunteered to turn the AN into a draft. Work has started on this. We got 2 comment sheets on the current DNP3 for DER app note; 6 others are still due. We will schedule meetings on January 31 and February 14 to start review the comments that come in and work to integrate them in the draft. RNS: 25 people, 1 session, HDMI projector, WiFi Conflicts: S1, P2, P3, K25	Eric Thibodeau
P16WG	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. The revised PAR Scope of P1854 was read to the working group. Xiangyu explained that new changes involve communication, control and cybersecurity where PSRC and PSCCC members hold expertise. Jason provided an update to the team on the work that the T&D committee have done on the guide. T&D has completed their updates to address ballot comments, waiting for PSRC and PSCCC to complete updates. Ding explained the comment that T&D would like for PSRC to address, which was related to definition and use of the term "RTU" in the guide. Jason explained a task assigned to PSCCC which is to expand on the discussion of communication and wireless communication technology in the existing guide. When asked about interest level, two attendees' express interests in reviewing the latest version of the guide. Anyone interested in taking writing assignment is asked to reach out to Ding or Jason. RNS: 20 people, 1 session, HDMI projector, WiFi, Conflicts: I31, H46	Jason Lombardo

P18SG	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 had a competing meeting within SCE and was unable to host the P18 meeting. This is a joint Working Group with SCC21 for revision of IEEE 2030. We are still looking for additional participants in the main work group. RNS: 25 people, 1 session, HDMI projector, Conflicts: S1	Anthony Johnson
P19SG	Study Group on Universal Utility Data Exchange (UUDEX) Chair: Scott Mix Universal Utility Data Exchange (UUDEX)" PAR language was approved by SC and the MC, will be submitted by Scott Q1 2022. WG will be formed upon approval. The chair reviewed the current state of the PNNL development on this standard protocol. PNNL has finalized revisions to the standard as a starting point document set. PNNL has also published the reference code to a public GitHub repository. RNS: 20 people, 1 session, HDMI projector, Conflicts: P20	Scott Mix
P20SG	Joint Revision of IEC 61850-9-3 Chair: Benton Vandiver Review of 9-3 draft v2.1 from the last DLMT mtg. Topics in discussion ATOI TLV requirements – reviewed Bruce led offline discussion and report on the 12.3 section. Many comments and notes were generated relating to need of the TLV and use cases. The intent of the TLV is to provide UTC local time capability and leap second handling. And provide a mechanism for C37.118 usage in a PTP domain. Application of the TLV was discussed for GM / BC / and Slave clocks. There is no consensus at this time and further investigation is required. Other topics of the v2.1 draft discussed were focused on comments to the draft by Harsh. This included questions on timeAccuracy, clockClass and inaccuracy definitions from the previous version to the current draft based on the new version of 1588:2019. These had been vetted numerous times before but revisited again here. RNS: 30 people, 1 session, HDMI Projector Conflicts: H50	Benton Vandiver
P21SG	System architectures supporting the virtualization of substation protection and control applications Chair: Craig Preuss P21 met with approximately 6 in-person attendees and 25 remote attendees. We reviewed the work completed to date and the schedule for future presentations. Our next virtual meeting will be held on Jan 31 and that meeting will commence a series of bi-weekly meetings to finish our work in time for the May 2022 PSCCC meetings.	Craig Preuss

Item no.	Notes	Action by
OLD BUSINESS	The P19SG PAR request for Universal Utility Data Exchange (UUDEX)" PAR language was approved by SC. Motion – Scott Mix. Second – Craig Preuss. Approved -Yes (25). Opposed – Galina Antonova (1)	
NEW BUSINESS	Jens Boemer (SCC21 Standards Coordinator) Joint Sponsorship proposal (with T&D, PSRC, and ED&PG) (see Jens Presentation) P1547 revision (Draft PAR from Dave Narang to review) Propose to MC to appoint a Liaison to the 1547 revision work Motion – Ken Martin. Second – Brittany Chapman. Approved -Yes (26). P1547.10 (DER Gateway) (Draft PAR for new project to review from Jens Boemer) Combined with P1547 revision recommendation.	BV
TIME OF FINAL ADJOURNMENT	5:33 am PST. Motion – Ken Martin. Second – Scott Mix Approved -Yes (26).	TD
NEXT FACE TO FACE MEETINGS	May 2022 in Reno, NV. 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.	