



PSCC Subcommittee S0 Meeting Minutes

Designation: S0	Name: PSCC Cybersecurity Subcommittee Meeting
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Meeting Location: Denver, CO USA and WebEx	Meeting Time: 2:45 PM	Meeting Date: 2019/09/18	Minutes Revised: [YYYY/MM/DD]	Minutes Approved: [2020/01/15]
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PAR Output: N/A	PAR Output: N/A	PAR Approval Date: N/a	PAR Expiration Date: N/a	Target Sponsor Ballot Date: N/A	Target Completion Date: N/a
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Presiding Officer: Steven Kunsman – Chair	Recorded by: James Formea	Draft Number: 1.0
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Attendance:			
Name	Affiliation	Attending via Phone (P) / Web (W) or Local (L)	M/CM/G

Steven Kunsman	ABB	L	M
James Bougie	GPT		M
TW Cease	Consultant	L	M
Ed Cenzon	SEL	L	M
Bill Dickerson	Arbiter	L	M
Mike Dood	SEL	L	M
Herb Falk	Outside the Box Consulting		M
James Formea	Eaton	L	M
Didier Giarratano	Schnieder	W	M
Chris Huntley	SEL	L	M
Tony Johnson	SCE	L	M
Marc Lacroix	EMCREY Canada	L	M
Theo Laughner	Powergrid-RX	W	M
Ralph Mackiewicz	Sisco	L	M
Deepak Maragal	NYPA		M
Scott Mix	PNNL	L	M
Ryan Newell	TRC		M
Craig Preuss	B&V	L	M
Eric Thibodeau	Gentec	L	M
Nathan Wallace	Ampirical	W	M
Shane Haveron	Ametek	W	M
Jason Allnut	IEEE	L	G
Nicholas Kraemer	Nugrid Power	L	G
Jeff Shiles	SCE	L	G
Jeff Pack	Power Engineers	L	G
Steve Mark	SEL	L	G
Kevin Easley	NEI	L	G
Kaushal Patel	Amped I	L	G
Mario Jardim	Schneider Electric	L	G
Dan Ransom	General Electric	L	G
Hugo Monterrubio	Beckwith	L	G
Ashley Moran	IEEE SA	L	G

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John Stewart	EPRI	L	G
Michael Doak	Mitsubishi Electric Power	L	G
Murty Yalla	Beckwith	L	G
Tom McDermott	PNNL	L	G
M: Member CM: Corresponding Member G: Guest			

Item no.	Notes	Action by
CALL TO ORDER	Called to order at 2:46 PM.	
INTRODUCTIONS AND QUORUM	Introductions were conducted in the room and on the phone. Quorum Achieved: Yes! (15 of 21 members)	
CALL FOR PATENTS	N/A Not a standards meeting	
CHAIR'S REMARKS	The chair welcomed the participants to SC meeting.	
AGENDA APPROVAL	Agenda: <ol style="list-style-type: none"> 1. Introduction 2. Roll Call/Quorum 3. Approval of Agenda 4. Approval of Previous Minutes 5. S0 Group Minutes and Roster Reminder 6. S0 SC Working Group/Study Group/Task Force Summary & Status 7. Old Business 8. New Business 9. Announcements 10. Adjournment Mix motioned to approved the agenda as prepared; Johnson seconded. No dissent; the agenda was approved.	
APPROVAL OF PREVIOUS MINUTES	May 2019 meeting minutes were briefly reviewed. Preuss motioned to approve the minutes as prepared; Dood seconded. No dissent; minutes were approved.	
S0 Group Minutes and Roster Reminder	a) Summary minutes to be provided to SC officers immediately after this meeting. b) Detailed minutes to be provided to SC officers within 2 weeks after your group meeting.	
S0 SC Working Group/Study Group/Task Force Summary & Status		

Item no.	Notes	Action by
<p>WG S1</p>	<p>Revision of IEEE 1686 IED Cyber Security Capabilities Chair: Marc Lacroix Vice-chair: Éric Thibodeau</p> <p>Scope: The standard defines the functions and features to be provided in intelligent electronic devices (IEDs) to accommodate cybersecurity programs. The standard addresses security regarding the access, operation, configuration, firmware revision and data retrieval from an IED. Confidentiality, integrity and availability of external interfaces of the IED is also addressed.</p> <p>Status: S1 meeting met on Monday morning and started with a procedural glitch. When looking for quorum, not all the members raised their hand and the meeting was declared unofficial. The outline of 1686 was modified to add the requirements for certificate-based authentication and IEDs lifecycle. No comments were received from North America. We need feedback to continue and complete the job. The document will be modified with the comments received during the meeting. We will continue the work with virtual meetings.</p> <p>Next Meeting Requirements: [Room Size=30] [Projector=Yes][Telecom=No][Conflicts= all S]</p>	
<p>WG S2</p>	<p>P1711.1 Serial SCADA Protection Protocol (SSPP) P1711 - Standard for a Cryptographic Protocol for Electric Power System (EPS) Communications Links Chair: Ed Cenzone</p> <p>Scope: This standard defines the Substation Serial Protection Protocol (SSPP), a cryptographic protocol to provide integrity, and optional confidentiality, for cyber security of substation serial links. It does not address specific applications or hardware implementations, and is independent of the underlying communications protocol.</p> <p>Status: WG S2 did not have quorum at the time roll was called, so was not able to conduct business requiring votes. The chair confirmed with other subject matter experts/prior participants that SGP-1 is functionally equivalent with SSPP so it will replace SGP-1 throughout 1711.1. It was discussed to revise the PAR to remove references to “Substations”. The 1711 draft does have informative text, and it may be appropriate that 1711 doesn’t have any normative text. Chair will work with IEEE-SA to understand the options, and the chair took the action to improve the informative text and provide the drafts to members via iMeetCentral.</p> <p>Next Meeting Requirements: [Room Size=25] [Projector=Yes][Telecom=Yes][Conflicts= all S]</p>	

Item no.	Notes	Action by
WG S3	<p>P2030.102.1 Standard for Interoperability of IPSEC Utilized within Utility Control Systems</p> <p>Chair: Jim Bougie Vice-chair: Marc Lacroix Secretary: James Fornea</p> <p>Scope: This standard specifies requirements for interoperability of devices utilized within utility control systems which implement the Internet Protocol Security (IPsec) protocol suite within an IPv4 environment.</p> <p>Status: WG is finishing their work on the standard and has requested a PAR extension to complete the document.</p> <p>Next Meeting Requirements: [Room Size=25] [Projector=Yes][Telecom=Yes][Conflicts= all S]</p>	
WG S4	<p>P1711.2 Standard for Secure SCADA Communications Protocol (SSCP)</p> <p>Chair: Scott Mix Vice-chair: Mark Hadley Secretary: James Fornea</p> <p>Scope: This standard defines a cryptographic protocol to provide integrity with optional confidentiality for cyber security of substation serial links. It does not address specific applications or hardware implementations and is independent of the underlying communications protocol.</p> <p>Status: SSCP Standard 1711.2 finalized comment resolution and went through 2 recirculation ballots between May and this week, with an additional round of comments resolved via email discussions in between.</p> <p>The last recirculation ballot completed at midnight on Saturday 9/14, with no remaining negative votes with comments.</p> <p>Standard passed and was submitted on Monday for the RevCom meeting in November.</p> <p>Next Meeting Requirements: Will not meet</p>	

Item no.	Notes	Action by
WG S5	<p>Revision of IEEE C37.240 Cybersecurity Requirements for Power System Automation, Protection and Control Systems</p> <p>Chair: Steve Kunsman Vice-chair: TW Cease</p> <p>Scope: Revision of IEEE C37.240 to included new technical requirements for power system cyber security. Based on sound engineering practices, requirements can be applied to achieve high levels of cyber security of automation, protection and control systems independent of voltage level or criticality of cyber assets.</p> <p>Status: The WG met to continue working on their first draft. The September meeting focused on the review of the draft document and the potential of restructuring the sections for better usability to the CIS 20 cyber security controls. Work will continue with remote session with a goal to have the draft finalized by January's meeting.</p> <p>Next Meeting Requirements: [Room Size=40] [Projector=Yes][Telecom=Yes][Conflicts= all S, H22, PSCCC A1]</p>	
TF S6	<p>IoT for connected home - Communication and cybersecurity requirements</p> <p>Chair: Marc Lacroix Vice-chair: James Formea</p> <p>Scope: To produce a report that describes the different use cases that make use of the Connected Homes concept, presents a security risk analysis and propose requirements for telecommunication (Volume, frequency, speed) and cybersecurity. Guidelines for utilities experts will be listed.</p> <p>Status: The meeting was held on Tuesday morning with 7 members and 8 guesses. The quorum was not met. During the meeting, we reviewed the existing document that is in its final stage of development. We are waiting for a contribution from another IEEE group. The document will be circulated, and virtual meetings organized if needed. Orientation are needed for next step.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Transform the report to a standard • Publish paper • Present to other IEEE working groups • Conference papers <p>Next Meeting Requirements: [Room Size=40] [Projector=Yes][Telecom=Yes][Conflicts= all S]</p>	

Item no.	Notes	Action by
<p>WG S7</p>	<p>P2808 Cyber Services and Cybersecurity Function Designations</p> <p>Chair: Nathan Wallace Vice-chair: Mike Dood</p> <p>Scope: This working group explores the need for and creation of cyber device function numbers, acronyms, and designations for cyber devices and functions used in electrical power systems. This work focuses on identifying and providing a means for documenting enabled cyber related services and cybersecurity functions and measures.</p> <p>Status: The WG met with a quorum achieved. The group reviewed the scope and concept on naming conventions and agreed that C37.2 number convention should not be utilized. The designation will focus on a structured and intuitive naming concept for the cybersecurity functions and services.</p> <p>Next Meeting Requirements: [Room Size=40] [Projector=Yes][Telecom=Yes][Conflicts= all S]</p>	
<p>WG S8</p>	<p>P2658 Guide for Cybersecurity Testing in Electric Power Systems</p> <p>Chair: Nathan Wallace Vice-chair: Deepak Maragal</p> <p>Scope: This task force explores the need for and creation of policies and procedures for the testing and commissioning of cybersecurity controls and measures used in electrical power systems.</p> <p>Status: The WG met with a quorum achieved. The group reviewed all the different types of cybersecurity testing and proposed the creation of an umbrella standard 2658 with additional standards developed later (2658.1, 2658.2, etc.) for each type of test.</p> <p>Next Meeting Requirements: [Room Size=40] [Projector=Yes][Telecom=Yes][Conflicts= all S]</p>	
<p>TF S9</p>	<p>Task Force on Utility IT-OT Cybersecurity challenges in roles and terminology</p> <p>Chair: Theo Laughner Vice-chair: Brian Smith</p> <p>Scope: Assess the IT-OT challenge in Utility Cybersecurity roles. Determine if a Task Force is required to create a report to assist in building organizational understanding and collaboration</p> <p>Status: Task Force achieved a quorum. WAPA IT Security person participated as guest. Discussed the IT/OT Challenges and Opportunities for Utilities. The group worked on outline development with points recorded by the Chair in a slide deck based on the 5 pillars identified in the NIST framework: Identify, Protect, Detect, Respond, Recover.</p> <p>Next Meeting Requirements: [Room Size=40] [Projector=Yes][Telecom=Yes][Conflicts= all S, H44, H6, H27,H40]</p>	

Item no.	Notes	Action by
<p>SG S10 TF S10</p>	<p>Challenges on Analyzing and Implementing Cybersecurity Standards and Best Practices</p> <p>SG Chair: Nathan Wallace Vice-chair: James Formea</p> <p>TF Chair: Jeff Pack Vice-chair: Steve Mark</p> <p>Scope: Assess the challenge in utilities & municipalities with limited resources on the applicability and relevance of the cybersecurity standards and create a report to assist summarizing the relevant cybersecurity standards.</p> <p>Status: The study group is moving into a task force with Jeff Pack & Steve Mark leading the effort. The group will focus on developing a report of best practices for small utilities.</p> <p>Next Meeting Requirements: [Room Size=40] [Projector=Yes][Telecom=No][Conflicts= all S]</p>	
<p>TF S11</p>	<p>Task Force on Roadmap Development of Cyber Security Services standard document</p> <p>Chair: Theo Laughner Vice-chair: Ralph Mackiewicz</p> <p>Scope: Develop a roadmap for activities that S Subcommittee should undertake related to communication security issues.</p> <p>Status: The group is in the process to develop and execute an industry survey to prioritize topics of interest to S0 and the community it serves. Based on survey results and member input, the TF will develop a prioritized roadmap that recommends specific activities for IEEE PSCC S0. The output of the TF will be a report on roadmap to PSCC S0 for implementation</p> <p>Next Meeting Requirements: [Room Size=40] [Projector=Yes][Telecom=Yes][Conflicts= all S, H6, H27, H40, H44, H45]</p>	
<p>SG S12</p>	<p>IED Virtualization</p> <p>Disbanded and did not meet. This work has been integrated into S1 IEEE 1686.</p>	
<p>WG S13</p>	<p>Review 1547.3 Guide for Cybersecurity of DERs Interface with Electric Power Systems</p> <p>Chair: Anthony Johnson Vice-chair: Benjamin Kazimier</p> <p>Scope: Review the proposed SCC21 PAR for IEEE 1547.3 and make recommendations on how to proceed.</p> <p>Status: The Study Group met to discuss the SCC21 proposed PAR for IEEE 1547.3 and make a recommendation on how to coordinate. The desire is for the PSCC to form a Work Group to jointly develop 1547.3 with SCC21. WG approval is pending PSCC Main Committee approval.</p> <p>Next Meeting Requirements: [Room Size=30] [Projector=Yes][Telecom=Yes][Conflicts= all S, K10, P15, H22]</p>	

Item no.	Notes	Action by
Old Business	Signup123 will be rolled out in the next months. All S groups will be required to manage group rosters via this tool.	
New Business	<ul style="list-style-type: none"> a. S10 Study Group recommendation <ul style="list-style-type: none"> i. Nathan Wallace made a motion to form a TF to produce a report. Officer volunteers have been identified. James Formea seconded the motion. A voice vote was called with no dissent. Motion carried; SG S10 will transition to TF S10. b. S13 Study Group recommendation <ul style="list-style-type: none"> i. Tony Johnson made a motion to form a new Working Group, WG S13, to establish joint sponsorship for the IEEE 1547.3 revision project currently being sponsored by SCC-21. Officer volunteers have been identified. The motion was seconded by Craig Preuss. A voice vote was called with no dissent. Motion carried; WG S13 will be established to work jointly with SCC-21 on revision of IEEE 1547.3. c. S3 PAR extension <ul style="list-style-type: none"> i. Marc Lacroix made a motion to grant permission to the S3 chair to pursue a PAR extension for P2030.102.1. The motion was seconded by Thibodeau. A voice vote was called with no dissent; motion carried to approve the submission of a PAR extension (already submitted by the WG chair). d. Hugo introduced an updated WG matrix format and explained the reason for requesting the information to keep a historical record of activities, allow recognition through awards, etc. 	
Announcements:	<ul style="list-style-type: none"> a. PNNL presentation on DOE project "Cyber Security for Distance Protection" will be meeting tonight at 7:00-9:00PM in Mattie Silks b. The second IEEE Utilities Cybersecurity Workshop is being planned. The workshop will be held in Atlanta adjacent to the December NERC CIPC meeting. c. Chairs must provide an updated roster with the meeting minutes within 2 weeks d. A question was raised regarding preparing for PSCCC participation at other IEEE meetings/events. In the past this was not done due to the short notice. Perhaps the PSCCC should consider starting to plan for the PES general meeting now if the same opportunity exists. An additional question was raised regarding the group's ability to procure a branded table skirt for similar events. 	

Minutes of meeting (continued)

Item no.	Notes	Action by
ITEMS REPORTED OUT OF EXECUTIVE SESSION	N/A	
TIME OF FINAL ADJOURNMENT	Scott Mix motioned to adjourn; seconded by Ed Cenzon, No dissent. Meeting adjourned at 4:07 PM.	
NEXT FACE TO FACE MEETINGS	January 2020 in Jacksonville, FL	
FUTURE MEETING ROOM REQUIREMENTS	[Room Size=40][Projector=YES][Conflicts=H SC, P SC]	

