IEEE Power System Communication & Cybersecurity Committee

CYBERSECURITY SUBCOMMITTEE – S0

Chair: Steven Kunsman
Vice chair: Jim Bougie

S0 website: http://sites.ieee.org/pes-pscc/cybersecurity-subcommittee-s0/

AGENDA/Minutes – January 16, 2019, Garden Grove, CA

1. Introductions
2. Count of S0 members for quorum – S0 had 24 attendees with 11 of 18 members present – quorum achieved.

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Affiliation</th>
<th>Role</th>
<th>Comment (WG/TF/SG Membership)</th>
<th>2019/01/16</th>
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3. Approval of September Minutes of Meeting – minutes approved.

4. Subcommittee membership, requirements, and signup list
   a. Requirements for SC membership
      i. Be a member of IEEE PES
      ii. Be an active member of S SC working group(s)
      iii. Be willing to regularly attend and participate in the S SC

5. Working Group, Task Force and Study Group Minutes (will be posted online)
   a. Summary minutes to be provided to SC officers after your meeting.
   b. Detailed minutes to be provided to SC officers within 2 weeks after your group meeting.


**WG S1: Revision of IEEE 1686 IED Cybersecurity Capabilities**

**Chair:** Marc Lacroix  **Vice-chair:** Éric Thibodeau
**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.

**Summary:**

The S1 WG meeting was held on Monday, January 14 with 26 attendees (13 members). The goal of this meeting was to continue working on the revision of IEEE 1686 standard. The working group is revising the existing IEEE 1686 standard to integrate the latest cybersecurity technologies in order to defines the functions and features to be provided in IEDs to support cybersecurity programs.

Next Meeting Requirements: [Room Size=40][Projector=Yes][Telecom=No][Conflicts= all S]

**WG S2: P1711.1 Serial SCADA Protection Protocol (SSPP)**

**Chair:** Ed Cenzon

**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.

**Summary:**

<Need Mike's Summary>

Next Meeting Requirements: [Room Size=20][Projector=Yes][Telecom=No][Conflicts= all S]

**WG S3: P2030.102.1 Standard for Interoperability of IPSEC Utilized within Utility Control Systems**

**Chair:** Jim Bougie **Vice-chair:** Marc Lacroix **Secretary:** James Formea

**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.

**Summary:**

7 of 10 members present and 15 guests. Proposal to try to create a new draft by the May meeting, and then get MEC review done by the September meeting. Then can decide in September whether or not to request a PAR extension.

Next Meeting Requirements: [Room Size=25][Projector=Yes][Telecom=Yes][Conflicts= all S, H38, H40, H50]

**WG S4: P1711.2 Trial-Use Standard for Secure SCADA Communications Protocol (SSCP)**

**Chair:** Scott Mix

**Scope:** This trial use 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.

**Summary:**

WG S4 met on Thursday 1/16 at 11:00 AM with 4 members and 10 guests. Quorum was not achieved. It was announced that the PAR extension to 12/2020 was approved. The initial ballot completed on 12.18 with 90% approval, and 75 comments. The chair presented an initial comment response for a majority of the comments.
The chair has a goal of resolving all the remaining comments, and proceeding with the second round ballot in time to be in comment resolution at the May meeting. Several teleconference meetings and email votes will be conducted to accomplish this.

Next Meeting Requirements: [Room Size=25][Projector=Yes][Telecom=No][Conflicts= all S, P10]

**WG S5: Revision of IEEE C37.240 Cybersecurity Requirements for Power System Automation, Protection and Control Systems**

**Chair:** Steve Kunsman  **Vice-chair:** TW Cease

**Scope:** Revision of IEEE C37.240 to include 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.

**Summary:**

- As many new participants, the group focused on the review the security requirements and features as they map to the NERC CIP requirements
- Section 6 of the document contribution by Chris Huntley was presented
- Writing assignments have been slow to be complete and need to place a priority make progress towards the completed standard.

Next Meeting Requirements: [Room Size=40][Projector=Yes][Telecom=Yes][Conflicts= all S, P10, H22]

**TF S6: IoT for connected home - Communication and cybersecurity requirements**

**Chair:** Marc Lacroix  **Vice-chair:** James Formea

**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.

**Summary:**

The latest version is being reviewed will be uploaded to iMeet after this meeting. Note: the chair has been the only contributor to the document to date.

The chair presented an overview of the structure and format of the document. The chair then walked through some key sections of the report in more detail.

Next Meeting Requirements: [Room Size=40][Projector=Yes][Telecom=No][Conflicts= all S activities]

**WG S7: Cyber Services and Cybersecurity Function Designations**

**Chair:** Nathan Wallace  **Vice-chair:** Mike Dood

**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.

**Summary:**

- PAR Submitted
- First meeting as Working Group
- Reviewed S4x19 ICS conference slides
- Formalizing list of cyber services and cybersecurity functions that will be covered in the standard

Next Meeting Requirements: [Room Size=20][Projector=Yes] [Telecom=Yes] [Conflicts= all S, P11]

| WG S8: P2658 Guide for Cybersecurity Testing in Electric Power Systems |
|---------------------------|-----------------|----------------|
| **Chair:** Nathan Wallace | **Vice-chair:** Deepak Maragel |
| **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. |

**Summary:**
- Third Meeting as Working Group
- Have solid outline for Guide document
- Reviewed S4x19 ICS conference slides

Next Meeting Requirements: [Room Size=20][Projector=Yes] [Telecom=No] [Conflicts= all S, P11]

| SG S9: Study Group on Utility IT-OT Cybersecurity challenges in roles and terminology |
|-----------------------------|-----------------|----------------|
| **Chair:** Steve Kunsman | **Vice-chair:** Brian Smith |
| **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 |

**Summary:**
- Third and final meeting as Study Group
- Two of SCE’s IT cyber security attend and validated the need for IT-OT security. There challenge is finding the time to support activities like S9.
- SG decided to move into a TF. Theo Laughner will lead the new task force commencing in May 2019.

Next Meeting Requirements: [Room Size=40][Projector=Yes][Telecom=Yes][Conflicts= all S activities]

| SG S10: Challenges on Analyzing and Implementing Cybersecurity Standards and Best Practices |
|-----------------------------|-----------------|----------------|
| **Chair:** Nathan Wallace | **Vice-chair:** James Formea |
| **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. |

**Summary:**
- Updated Title and Scope description
- Scope to focus on small utilities, municipalities, and co-ops
- Will conduct a survey via PSCCC’s website and working on question pool via iMeet.

Next Meeting Requirements: [Room Size=20][Projector=Yes] [Telecom=No][Conflicts= all S, P11]

| TF S11: Task Force on Roadmap Development of Cyber Security Services standard document |
|-----------------------------|-----------------|----------------|
| **Chair:** Theo Laughner | **Vice-chair:** Ralph Mackiewicz |
| **Scope:** Develop a roadmap for activities that S Subcommittee should undertake related to communication security issues. |

**Summary:**
• Inaugural meeting on 1/15/2019 at 11 am with 18 attendees.
• Activity Summary -
  o Change Name of Task Force - “Roadmap Development TF for S0 Subcommittee”
  o Reviewed list of topics to be included in a survey for prioritization.
  o Will schedule conference call for mid-March to finalize topics.
  o Survey to launch May 2019.

Next Meeting Requirements: [Room Size=25][Projector=Yes][Telecom=No][Conflicts= all S, H44, C28, P11]

NEW SG S12: Study Group Virtual IED cyber security requirements

Chair: Marc Lacroix Vice-chair: Bill Dickerson
Scope: TBD by SG in May 2019

Next Meeting Requirements: [Room Size=25][Projector=Yes][Telecom=No][Conflicts= all S]

7. Old Business
   a.

8. New Business
   a. New Study Groups to explore:
      i. SG S9 Study Group on Utility IT-OT Cybersecurity challenges in roles and terminology request to move forward as a Task Force. Theo Laughner to chair this new group. Tony Johnson will check with SCE IT cybersecurity to vice-chair.
         Decision: S0 SC approved the TF S9 to proceed
      ii. SG S12 on Virtual IED requirements and to evaluate whether the requirements need to be included into an IEEE 1686-1 or another standard. Marc Lacroix will chair, Bill Dickerson vice-chair
         Decision: S0 SC approved SG S12 to proceed
   b. Other items

9. Announcements:
   a. Thank you to Farel Becker who has been our S0 secretary. He has taken a new role and will no longer be able to attend PSCC.
   b. We need our OT participants to engage the IT organization and inform of our activities.
   c. Second IEEE Utilities Cybersecurity Workshop is being planned. Intent is to host the workshop in Atlanta adjacent to the December NERC
CIPC meeting. If interested in participating, please contact Steve Kunsman.

d. Chairs must provide an updated roster with the meeting within 2 weeks.

e. WG, TF, SG Chairs to provide your 2018 group highlight of accomplishments by January 24, 2019. Subcommittee chairs need to summarize for PSCC officers by January 31, 2019.

f. All S groups PAR, Assignments must be voted on by the Main Committee.

10. Adjourn`