

IEEE Power System Communication & Cybersecurity Committee

CYBER SECURITY SUBCOMMITTEE – S0

Chair: Steven Kunsman

Vice chair, Jim Bougie

Secretary: Farel Becker

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

AGENDA/Minutes – Sept 13, 2017, Phoenix, AZ

1. Introductions

Subcommittee met with 14 attendees of which 7 of 10 members were present. A quorum was achieved.

Name	Company	S0 Member or Guest
Farel Becker	Siemens	M
Steve Kunsman	ABB	M
Anthony Johnson	SCE	M
Marc Lacroix	EMCREY Canada	M
Eric Thibodeau	Gentec	M
Nathan Wallace	Ampirical	M
TW Cease	Consultant	M

2. Approval of May Minutes of Meeting

3. 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

4. Group Minutes (will be posted online)
 - a. Summary minutes to be provided to SC officers after your group meeting.
 - b. Detailed minutes to be provided to SC officers within 2 weeks after your group meeting.

CYBERSECURITY SUBCOMMITTEE (SO)

Scope

1. Studying and reviewing engineering (including information technology and operation technology), operational, and testing aspects of cybersecurity related to the Electric Power System.
2. Developing and maintaining related standards, recommended practices and guides for such aspects.
3. Coordinating with other technical committees, groups, societies and associations as required.
4. Preparing and arranging for publication technical reports related to the Subcommittee's scope.

Officers

Roster

Meeting Minutes

Working Groups and Task Forces

Recent Work

Links & Resources

May 2017 Albuquerque, NM

-Working Group: S4 – Standard P1711.2 Secure SCADA Communications Protocol

- [05/08/2017 Meeting Notes](#)

-Task Force: S5 – Extensions to Cyber Security requirements for substation P&C systems

- [05/09/2017 Presentation](#)
- [05/09/2017 Meeting Notes](#)

-Study Group: S6 – IoT for connected home Communication and cybersecurity requirements

- [05/10/2017 Presentation](#)
- [05/10/2017 Meeting Notes](#)

5. S SC Working Group/Study Group/Task Force Summary / Status (details in group minutes)

TF S1: 1686

Chair: Marc Lacroix

Scope: The task force will revise the existing IEEE 1686 standard to integrate the latest cybersecurity technologies in order to define the functions and features to be provided in IEDs to support cybersecurity programs.

Status: TF met to review the need to start the revision of IEEE 1686. TF generated interest in proceeding to a WG for January meeting.

Meeting minutes: <http://sites.ieee.org/pes-pscc/s1-sept-2017-minutes/>

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

Chair: David Whitehead

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.

Status: Draft standard is being finalized and proceed to MEC review. WG vote and proceed to ballot. Plan is to be in ballot resolution by January 2018. WG PAR completion is Dec 2017 so PAR extension will be required and must be submitted by October 26th.

Meeting minutes:

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

Chair: Jim Bougie (acting for Sept was 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.

Status: Feedback from IEC TC57 WG15 comments were addressed. PAR needs to be revised as well deadline extended.

Meeting minutes: <http://sites.ieee.org/pes-pscc/s3-sept-2017-minutes/>

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

Chair: Mark Hadley

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.

Status: Draft standard was sent to MEC for review but has not progressed. Plan to create ballot pool and be ready for resolution by January 2018. WG PAR completion is Dec 2017 so extension submission is required prior to October 26th.

TF S5: Cyber Security Requirements for Power System Automation, Protection and Control Systems

Chair: Steve Kunsman

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.

Status: Task force revised the PAR and plans to submit by October 26th for IEEE SA approval. Gap sessions were described to start the building the understanding. S5 should be transitioned to a WG by the January meeting.

Meeting minutes: <http://sites.ieee.org/pes-pscc/s5-sept-2017-minutes/>

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

Chair: Marc Lacroix

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.

Status: Moved from SG to TF and the group has started work on producing the report. James Formea has been appointed as vice-chair.

Meeting minutes: <http://sites.ieee.org/pes-pscc/s6-sept-2017-minutes/>

TF S7: Electrical Power System Cyber Device Function Numbers, Acronyms, and Designations

Chair: Nathan Wallace

Scope:

Status: TF creation approved by PSCC S0 Subcommittee and will meet at the January 2018 IEEE JTC.

New Idea presentation: <http://sites.ieee.org/pes-pscc/s7-sept-2017-presentation/>

TF S8: Testing Power System Cybersecurity Controls

Chair: Nathan Wallace

Scope:

Status: TF creation approved by PSCC S0 Subcommittee and will meet at the January 2018 IEEE JTC.

New Idea presentation: <http://sites.ieee.org/pes-pscc/s8-sept-2017-presentation/>

6. Old Business

7. New Business

- a. Announcement of IEEE Cyber Security Workshop to be held adjacent to the December NERC CIPC meeting in Atlanta
 - i. Additional information will be sent via email to the members and guest. The conference is just after the NERC CIPC conference specifically designed to bring more attendees to both.

- b. In S4, Rich Corrigan discussed SSP21 as an open source code led by California Energy Systems for the 21st Century (CES21). The group agreed to review this topic and make a presentation next meeting and it would fall under the new work of the 1711 general document activity.
 - i. Scott Mix mentioned that considerable grant money available.
- c. Macrc Lacroix has requested for SC vote on S1 to move from TF to WG and submit PAR.
 - i. This request was approved
- d. Presentation by Nathan Wallace on new task force for “Testing/commissioning of protective cyber controls and measures”
 - i. SC vote on new work to form a task force was approved
 - ii. If this a protection and control application (H subcommittee) or a requirement? There might be an opportunity for a joint WG with H subcommittee of the PSRC.
 - iii. Recommend to drop the protective and see if this would fit as part of C37.240 to fill a performance testing of a system.
 - iv. CW wanted to recommend penetration testing.
 - v. Scott Mix suggested to add pre-commission testing and pressure testing.
- e. Presentation by Nathan Wallace on new task force for “Cyber Function Codes”
 - i. SC vote on new work
 - ii. Vote was approved to form a task force
- f. Other items
 - i.

8. Adjourn