

PSCC Subcommittee SG 14 Meeting Minutes

Designation: SG 14		Name: Study Group for the use of HTTP and TLS for devices in Electric Power Systems			
Meeting Location: Virtual		Meeting Time: 11.30 CST	Meeting Date: 2021/01/11	Minutes Revised: 2021/05/03	Minutes Approved: 2021/05/03
PAR Output: N/A	PAR Output:	PAR Approval Date:	PAR Expiration Date:	Target Sponsor Ballot Date:	Target Completion Date:
Presiding Officer: Steven Kunsman Chair, Shashi Sastry Vice-chair			Recorded by: Shashi Sastry	Revision Number: 2.0	
Attendance:					
Name		Affiliation		Phone (P) / Web (W) / Local (L) M/CM/G	
Steven Kunsman		Hitachi ABB		W	M
Shashi Sastry		Hitachi ABB		W	M
James Formea		Eaton		W	M
Nicholas Kraemer		NuGrid Power		W	M
Shane Haveron		AMETEK Power Instruments		W	M
Jay Anderson		ComEd		W	M
Roman Graf		Buhler Group		W	M
Greg Zweigle (SEL)		SEL		W	M
Deryk Yuill		iS5 Communications		W	CM
Scott Mix		PNNL		W	M
Jeff Pack		Power Engineers Inc		W	CM
Herb Falk		UTB Consulting		W	M
Mike Dood		Schweitzer Engineering Labs		W	M
Marc Lacroix		Marc Lacroix		W	M
Jason Lombardo		S&C Electric Company		W	M
Karen Leggett Wyszczelski		Schweitzer Engineering Labs		W	M
Hani Al-Yousef		Eaton		W	M
Xiangyu Ding		Xiangyu Ding		W	M
Colin Gordon		SEL		W	M
James Bougie		James Bougie		W	M
Jackie Willson		Ameren		W	M
Maik Seewald		Cisco		W	M
Alex Apostolov		Omicron electronics		W	CM
Jesse Silva		Southern California Edison		W	M
Dennis Holstein		OPUS Consulting Group		W	M
Bharat Nalla		SEL		W	M
David Dolezilek		SEL		W	M
David Williams		FirstEnergy		W	M
M: Member CM: Corresponding Member G: Guest					

Item no.	Notes	Action by
CALL TO ORDER	Meeting was called to order at 11.30 CST	SK

Item no.	Notes	Action by
INTRODUCTIONS AND QUORUM	Total 24 attendees; Intro by Shashi.	Shashi
CHAIR'S REMARKS	First meeting to understand what is needed to advocate the use of secure communications especially the use of HTTPS, TLS. Should this be a report or a standard?	All
AGENDA	Purpose of this study group <ul style="list-style-type: none"> ■ Problem statement and challenges ■ Introduction of HTTP and TLS ■ Where, when and why they should be used ■ Assignment of S14 Study Group ■ Discussions & Next steps 	ALL
APPROVAL OF PREVIOUS MINUTES	None	NA
[AGENDA ITEM 1]	Brief overview of TLS and HTTPS and why these are important	Shashi Sastry
[DISCUSSION ITEM 1]	Issue with TLS – traffic inspection breaks mutual authentication at the application level. NERC CIP is working on recommendations for end-to-end encryption.	Herb Falk, Scott Mix
[DISCUSSION ITEM 2]	Use of encryption for Layer 2? NERC CIP doesn't mandate encryption inside the substation. 62351-6 allows this. Anything that crosses the light blue line is in plain text (picture in slide 8). This may change in future especially with hardware encryption capabilities.	Alex Apostolov, Herb Falk, Scott Mix
[DISCUSSION ITEM 3]	Encryption - Where and when does this needs to be considered. What does "Zero Trust" mean and how does this achieve the target? A tutorial or primer would be valuable.	Jay Anderson
[DISCUSSION ITEM 4]	HTTPS/3 is an upcoming standard. Should it be included?	Nicholas Kramer
[DISCUSSION ITEM 5]	A report can be turned into a presentation for the PAC World conference. Call for papers is out and Alex will forward to Steve.	Alex Apostolov
[DISCUSSION ITEM 6]	Responsible for including this in the roadmap. A few important points to consider: <ul style="list-style-type: none"> - HTTPS is important - TLS for non-HTTPS applications such as SCADA, MODBUS, DNP. - Include PKI certificate considerations (self-signed versus CA signed) - Focus on usability and interoperability (similar to the IPsec profiles). 	James Fornea
[DISCUSSION ITEM 6]	Take into consideration HTTPS/2 and RESTAPI	Scott Mix
ACTION	Add the following to this SG: Bharat Nalla, Scott Mix, Jay Anderson, Alex Apostolov	Steven/Shashi
CLOSING REMARKS/FINAL CONCLUSION	Run the SG for one more session to prepare a recommendation on moving to a TF to the S Subcommittee. The intent would be to create a TF focused on a report that is useful today in the OT community on when and where to use and also where not to use. There is a NERC and IEC movement around encryption and end-to-end authentication, the TF would then move into a WG to focus on a Guide or Recommended Practice and this would give NERC some time to solidify their movement.	Steven Kunsman (Action supported by Scott Mix and Alex Apostolov)
ITEMS REPORTED OUT OF EXECUTIVE SESSION		
TIME OF FINAL ADJOURNMENT	12.20 p.m. CST	

Item no.	Notes	Action by
NEXT VIRTUAL MEETINGS	May 2021	
FUTURE MEETING ROOM REQUIREMENTS	[Room Size][Projector][Conflicts] Room for 40, Computer Projector (when we meet in person)	