

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: 2021/05/03	Minutes Revised: 2021/05/10	Minutes Approved: 2021/09/20
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	Draft Number: 1.0	
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
Jack Chang		Hitachi ABB		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
Ryan Newell		TRC		W	M
Jason Lombardo		S&C Electric Company		W	M
Karen Leggett Wyszczelski		Schweitzer Engineering Labs		W	M
Theo Laughner		Powergrid-rx		W	M
Joe Xavier		ABB		W	M
Colin Gordon		SEL		W	M
Steven Blair		Synapt		W	M
Jackie Wilson		Ameren		W	M
Eric Thibodeau		Hydro Quebec		W	M
Gayle Nelms		Schweitzer Engineering Labs		W	CM
Jesse Silva		Southern California Edison		W	M
Craig Preuss		Black & Veatch		W	M
David Dolezilek		Schweitzer Engineering Labs		W	M
Jalal Gohari		WSP		W	M
M: Member CM: Corresponding Member G: Guest					

Item no.	Notes	Action by
CALL TO ORDER	Meeting was called to order at 11.34 CST	SK
INTRODUCTIONS AND QUORUM	Total 24 attendees; Brief intro by Steven & Shashi.	Steve & Shashi
CHAIR'S REMARKS	Second meeting to discuss the report goals, topics to cover, and identify use cases at a high level for the use of secure communications - HTTPS, TLS.	All
AGENDA	<ul style="list-style-type: none"> ▪ Brief introductions ▪ Outcome of the last meeting ▪ Review of assignments and scope ▪ Report outline ▪ Next steps 	ALL
APPROVAL OF PREVIOUS MINUTES	Approved with the following minor corrections: <ul style="list-style-type: none"> ▪ Everyone is a member ▪ Nicholas Kraemer appears twice ▪ Colin Gordon is associated with SEL 	ALL
[AGENDA ITEM 1]	Outcome of the last meeting: <ul style="list-style-type: none"> ▪ Agreed to 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 ▪ TF initial focus on developing a report would allow NERC & IEC to solidify encryption and end-to-end authentication developments <ul style="list-style-type: none"> ○ TF can recommend moving to a WG focusing on either a Guide or Recommended Practice when the report is complete 	Steven Kunsman
[DISCUSSION ITEM 1]	Can this report be completed quickly? <ul style="list-style-type: none"> ▪ We can use existing recommendations from the enterprise IT area however needs to be pertinent to our use cases (Shashi). ▪ We can't get ahead of NERC, IEC, and IEEE efforts. Coordination required. And speed is essential as well (Steve). ▪ Emphasis the requirements for coordination going back to the Sub-C and Committee (Craig). 	Craig Preuss
[DISCUSSION ITEM 2]	<ul style="list-style-type: none"> ▪ Differences in TLS 1.2 and 1.3 for authentication and non-encrypting ciphers due to privacy concerns. Makes edge inspection and end-to-end tunnelling very difficult. ▪ Renegotiation of symmetric keys with session negotiation could break the connection and may affect the application. 	Herb Falk
[DISCUSSION ITEM 3]	This report could assist with the work on untrusted/zero trust and virtualization efforts if this report was published quickly.	Scott Mix
[DISCUSSION ITEM 4]	Comparison of TLS versions to be included in report to illustrate differences and the requirements for different use cases.	Shane Haveron

Item no.	Notes	Action by
[DISCUSSION ITEM 5]	The rest of the discussions resulted in following report outline: <ul style="list-style-type: none"> • Develop a report on the implementation of TLS for usage in legacy (e.g. SCADA) and emerging (e.g. DER) power system applications Document the existing use cases including HTTPS, legacy end points, long standing point-to-point connections, short term point-to-point connections Identify the barriers to successful implementation Identify inappropriate uses and why is very relevant Identify the various configuration options (e.g. TLS v1.2 vs v1.3, PKI and certificate management) Document the existing cypher suites and the impact of interoperability issues leveraging the IEC 62351 development Note: deferring the inclusion of quantum resistant cypher suites from this report	James Formea, Theo, Scott Mix, Herb Falk, Shane Haveron, Craig Preuss, Jesse Silva
ACTION	<ul style="list-style-type: none"> - In summary going back to the Sub-C and Committee, emphasis the requirements for coordination with NERC and IEC. - SG approved the motion to request S0 SC approval to move S14 into a Task Force. The request was made to S0 officer to discuss the above proposal under SC New Items. 	Steven Kunsman
CLOSING REMARKS/FINAL CONCLUSION	Chair: Shashi Sastry Vice Chair: Colin Gordon (note: volunteered for VC via email post meeting)	Steven Kunsman
ITEMS REPORTED OUT OF EXECUTIVE SESSION		
TIME OF FINAL ADJOURNMENT	12.20 p.m. CST	
NEXT VIRTUAL MEETINGS	September 2021	
FUTURE MEETING ROOM REQUIREMENTS	[Room Size][Projector][Conflicts] Room for 30, Webex, Computer Projector (when we meet in person)	