

PSCC Subcommittee Study Group Meeting Minutes

Designation: P21		Name: System Architectures Supporting the Virtualization of Substation Protection and Control Applications			
Meeting Location: Teleconference		Meeting Time: 5:40 PM	Meeting Date: 2021/09/22	Minutes Revised:	Minutes Approved: 10/18/2021
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
Presiding Officer: Craig Preuss, Chair			Recorded by: Craig Preuss		Draft Number: N/A
Attendance:					
Name		Affiliation		Attending via Phone (P) / Web (W) or Local (L) M/CM/G	
Craig Preuss		Black & Veatch		W	M
Jean Raymond		Hydro Québec		W	M
Jeremy Slimmer		Ampirical		W	M
Madhab Paudel		Eaton		W	M
Arun Shrestha		IEEE		W	M
Scott Mix		PNNL		W	M
Shane Haveron		AMETEK		W	M
Chris Heron		Integrated Power Services		W	M
Dean Samara-Rubio		Intel		W	M
Farzad Khalilpour		SCE		W	M
Juan Placid		J J Power & Energy Inc.		W	M
Gayle Nelms		SEL		W	M
Jay Anderson		ComEd		W	M
Nathan Wallace		Cyberical		W	M
Eugenio Carvalheira		OMICRON		W	M
Prithpal Khajuria		Intel		W	M
Alex Apostolov		OMICRON		W	M
Andre Melo		Schneider Electric		W	M
Anthony Johnson		SCE		W	M
Anthony Sivesind		SRP		W	M
Austin Wade		SEL		W	M
Benton Vandiver		Hitachi Powergrids		W	M
Byungtae Jang, KR				W	M
Chris Huntley		SEL		W	M
Daqing Hou		SEL		W	M
Dennis Holstein		OPUS Consulting Group		W	M
Deryk Yuill		is5		W	M
Greg Zweigle		SEL		W	M
Jay Herman		EPRI		W	M
Jeff Pack		POWER Engineers		W	M
James Bougie		GPT		W	M
Jose Ruiz		Doble		W	M
Joshua Hughes		Patterson Power Engineers		W	M
Laurel Brandt		TVA		W	M

Luke Hebert	Cybirical	W	M
Mike Dood	SEL	W	M
Murty Yalla	Hubbell	W	M
Nirmal Nair		W	M
Priyanka Nadkar	SEL	W	M
Steve Klecker	MidAmerican	W	M
Thai Li	Hubbell	W	M
Thomas Rudolph	Schneider Electric	W	M
Wayne Stec	Distregen	W	M
Xavier Manel-la	Siemens	W	M
Mickey Schultz	Black & Veatch		M
Paul Myrda	EPRI		M
Veselin Skendzic	SEL		M
Fred Agyekum	SEL		M
Ibrahim Abdulhadi	University of Strathclyde, Glasgow		M
Charles Witham	Eaton		M
Florian Ainhirn	Versuchsanstalt für Hochspannungstechnik Graz GmbH High Voltage Test Laboratory Graz Ltd. TU Graz Graz University of Technology		M
Noor M Fadzli B Othman	Petronas		M
Prasad Shrawane	Greater Sudbury Hydro Inc.		M
Steven Blair	Synaptec		M
Zeus Xioco	SCE		M
Michael Thompson	SEL		M
Adam Caballero	Eaton		M
Ramakrishna Gokaraju	University of Saskatchewan		M
Daniel Ridenour	Dominion Energy		M
James Formea	Eaton		M
Mital Kanabar	GE Renewable Energy		M
Charles Adewole	ERL Phase Technologies		M
Chand Tailor	Eaton		M
David Dolezilek	SEL		M
Jean Raymond	Hydro Québec		M
Deepak Maragal	NYPA		M
Priyanka Nadkar	SEL		M
Jim Michaelis	Commonwealth Associates. Inc.		M
Sai Chandra Reddy Thota	Megger Ltd		M
Miguel Rios	Southern Company		M
Jesse Silva	SCE		M
Eric Thibodeau	Hydro Québec		M
M: Member CM: Corresponding Member G: Guest			

Item no.	Notes	Action by
CALL TO ORDER	Meeting was called to order by the chair at approximately 5:40 PM Eastern.	
INTRODUCTIONS AND QUORUM	Introductions were not undertaken, the participants list was used. Quorum does not apply to study group per IEEE-SA rules all attendees are considered voting members.	

Item no.	Notes	Action by
CALL FOR PATENTS	Pre-PAR patent slides were shown.	
IEEE-SA COPYRIGHT	IEEE-SA copyright slides shown.	
CHAIR'S REMARKS	General welcome given.	
AGENDA APPROVAL	Scott Mix motion to approve agenda, Mike Dood second. No objections or abstentions.	
APPROVAL OF PREVIOUS MINUTES	Scott Mix motion to approve August 23, 2021 meeting minutes, Thomas Rudolph second. No objections or abstentions. The chair announced the minutes approved and will email out to the participants.	Chair to distribute August 23 meeting minutes
ACTION ITEMS	Chair distributed May 5 meeting minutes. Chair distributed August 9 meeting minutes No feedback from Erin about setting up an iMeet site for P21 Nov 29 meeting to be cancelled by Chair – still on calendar. Prithpal helped coordinate Advantech presentation on Oct 4	
Regular Web Meetings	How much background / reference / presentation is needed EPRI (X) SCE (X) SRP (X) Intel (X) Advantech (Oct 4) with TTTech Industrial North America to be confirmed LF Energy SEAPATH project and CIGRE B5.60 (October 18) PSRC H45 PC37.300 (October 18) PSCCC S1 P1686??? PSRC H46 PC37.1.3??? PSRC H27 COMSET PC37.251??? PSCCC S7 ISO TS 23167, general cloud that is applicable Others??? Work started in May so, completion of work in November not realistic, goal to finish with report to P0 subcommittee in Jan 2022 Bi-weekly meetings will continue – Nov 29 will stay on the schedule, no objections	
Discussion	Definition of virtualization The decoupling of real-time protection, automation, and control software from its associated hardware. Available technology is based upon hypervisors, containers, and virtual machines. Hypervisors also virtualize the hardware.	
PRESENTATION	None	
ITEMS REPORTED OUT OF EXECUTIVE SESSION	There was no executive session.	
TIME OF FINAL ADJOURNMENT	The meeting was adjourned at approximately 5:40 PM Eastern.	

Item no.	Notes	Action by
NEXT FACE TO FACE MEETINGS	Web conferences October 4, October 18, Nov 1, Nov 15, Nov 29, Dec 13	
FUTURE MEETING ROOM REQUIREMENTS	N/A for room size, projector, conflicts.	