PSCCC Subcommittee Working Group P19 Meeting Minutes

Designation: P19	Name: Working Group on Universal Utility Data Exchange (UUDEX)				

Meeting Location: Myrtle Beach, SC / Web-conference	Meeting Time: 10:42 AM EDT	Meeting Date: 2023/09/19	Minutes Revised: 2024/01/09		Minutes Approved: 2024/01/09
PAR Output: n/a	PAR Output: n/a	PAR Approval Date: 2022/03/24	PAR Expiration Date: 2026/12/31	Target Sponsor Ballot Date: 2023/09/30	Target Completion Date: 2025/12/31

Presiding Officer: Scott Mix, Chair		Recorded by: Jim Michaelis, Vice-Chair	Draft Number: n/a

Attendance:

Name	Affiliation	Attending via Phone (P) / Web (W) or Local (L)	M/NVM/G
Scott Mix	PNNL	L	M
Jim Michaelis	Commonwealth Associates, Inc.	L	M
Jim Bougie	Albireo Energy	L	M
Mike Dood	SEL		M
James Formea	Eaton	L	M
Jeff Pack	Power Engineers		M
Eric Thibodeau	Hydro Quebec	L	M
Mark Adamiak	Adamiak Consulting	L	NVM
J Richie Carroll	GPA	L	NVM
Larry Collier	NERC		NVM
Peiman Dadkhah	NuGrid Power		NVM
Dan Goodlett	NERC		NVM
Tom Hofstetter	NERC – retired		NVM
Ali Ipakchi	OATI		NVM
Anthony Johnson	SCE	L	NVM
Theo Laughner	Lifescale Analytics	W	NVM
Deepak Maragal	Eureka Power Solutions, LLC		NVM
Craig Rieger	INL		NVM
Nathan Wallace	Cybirical	W	NVM
Rajkumar (Raj) Anumasula	Grid India		G
Eugenio Carvauteira	Omicron	L	G
Ed Cenzon	SEL	W	G
Markus Epting	S&C Electric	L	G
Shane Haveron	Ametek Power Instruments		G
Yi Hu	Quanta Technology		G
Byungtae Jang	KEPCO		G
Steven Kunsman	Hitachi Energy	W	G
Gayle Nelms	SEL	W	G
Tom Thompson	IEEE	L	G

M:Member
NVM: Non-Voting Member
G: Guest

Item no.	Notes	Action by
CALL TO ORDER	The chair called this meeting of the P19 Working Group to order at 10:42 AM EDT	Chair
INTRODUCTIONS AND QUORUM	This meeting of the P19 Working Group was welcomed by Scott, who reported that Tom Hofstetter asked to change from Member to Non-Voting Member status due to his recent retirement, so membership stands at 7. Attendee introductions were made, with 5 Members, 5 Non-Voting Members, and 6 Guests. The quorum was met.	Chair
AGENDA APPROVAL	Agenda for the meeting was reviewed, motion to approve by Eric Thibodeau, second by Jim Bougie, passed without objection.	Chair
APPROVAL OF PREVIOUS MINUTES	Meeting minutes from the May meeting were reviewed, motion to approve by Jim Bougie, second by James Formea, passed without objection. Meeting notes from the June virtual meeting were reviewed, but as an informal meeting no approval is needed. These will still be posted to the iMeet site.	Chair
CALL FOR PATENTS	Post-par patent slides were shown.	Chair
Review of Copyright	IEEE SA copyright policy slides were reviewed.	Chair
Review of Behavior	IEEE SA participant behavior policy slides were reviewed.	Chair

Old Business	Scott reiterated his request for members to review and comment on the current draft UUDEX standard and Nathan reported that he is about three quarters through with running markups that he will upload to iMeet when he is done.
	
	Reviewed US Centric and Overkill topics which were discussed during the June virtual meeting. Draft decisions from that meeting need to be formalized by the larger group. Specific recommendations include:
	• Leave the NERC functions in the document, presented with specific language on being informative only.
	   o Provides an example that has wide use in the US.
	   o The types of functions are universal regardless of jurisdiction.
	• Remove the Reliability Coordination Information System (RCIS) entry.
	   o This is a niche application even in the US (20 to 50 of 3000 or so utility entities are using it).
	   o A PNNL sponsor had wanted it included, so it stays in that document.
	• DOE-417 incident reporting will also be removed.
	   o This is DOE-417 centric disturbance and outage reporting.
	   o It was suggested that we come up with a more generic disturbance and outage incident reporting information model to include as an example.
	• EOP-004 and CIP-008 reporting will be removed.
	   o Both are very US centric.
	   o Collapse into a more generic model or rely on the separately documented STICS or physical security reporting models.
	• Annex N which was a procedure for vetting personnel at US industries to determine whether they should participate in a UUDEX exchange or not will be left in as informative.
	   o An example of how someone might go through and determine whether to grant certificates for a UUDEX instance.
		Chair

Item no.	Notes	Action by

Old Business (cont.)	Some Overkill topics discussed included:
	• Quality and validity codes in Clause 24.
	   o Still need to do some work on that.
	   o There are a lot of quality codes which were initially pulled in from many sources.
	   o Deepak was looking at some additional elements in the distribution CIM, so we may be able to use some of that work to mitigate need for as many quality codes.
	   o We did not reach a conclusion on these items.
	• Compression algorithms.
	   o While originally ten or fifteen algorithms were brought into the document, the differences were very minor.
	   o Decided to just support two closely related algorithms, GZip and Zlib.
	• Encoding algorithms.
	   o Compared BASE64 and BASE85.
	   o Decided to only support BASE64.
	      ▪ BASE85 is marginally more efficient.
	      ▪ BASE64 is ubiquitous and sufficiently efficient for this standard's needs.
	• All US Centric or Overkill items that are proposed to be removed from the IEEE standard will remain in the PNNL source documents and be available should someone desire to extend UUDEX to include one.
	
	• Several additional items were raised for consideration during the call.
	   o IEEE 1159.3 PQ Diff
	   o COMTRADE (and COMFEED, etc.)
	   o REST interface explanation from IEEE 2030.5.
	      ▪ Would need to get permission from 2030.5 to use.
	      ▪ Probably would go in an informational annex.
	• Had a little discussion on the IEEE Open-Source Project.
	   o Scott was recently involved in some test use of the IEEE Open-Source Initiative.
	   o At least for now plans to minimize our use of that product at least until it attains a more mature status.
	   o We definitely want to have the JSON schemas and some sample JSON files available in a machine-readable form.
	      ▪ If that forces the use of Open-Source Project then that may be the only thing we move to that system.
	      ▪ If we can just post them on the standards download page that is probably better.
	
	• Review of open writing assignments.
	   o Mark Adamiak writing use cases for control.
	      ▪ Submitted half a dozen use cases.
	         • Format for use cases in document initiated by PNNL is less a use case and more of an information exchange flow with the use case embedded.
	         • Reviewed an example existing use case.
	         • Asked question to the working group as to whether this format is acceptable to the group.
		Chair

Item no.	Notes	Action by

Old Business (cont.)	▪ At minimum at least two control use cases.
	    • Unicast such as for breaker control.
	    • Multicast such as for regulator control.
	▪ Proposing to refer to these as suggested control.
	    • Publish a request for control.
	    • The recipient must subscribe to that request.
	    • Then the recipient / subscriber must decide whether it will implement the action.
	    • Looking at using prioritized message Qs with control in highest, so it will be seen first by subscriber – making control as responsive as possible within publish - subscribe.
	o Deepak agreed to review existing power measurement structures for missing components.
	    ▪ Expectation that at least distribution is missing.
	    ▪ Had a couple power engineers with working knowledge of CIM extract pieces they thought were appropriate, but not sure of status on this task.
	o Tony investigated SCE to CalFire interface.
	    ▪ This was a pilot project which was not successful.
	    ▪ The team was disbanded, and Tony has not been able to find anyone still familiar with what was tried.
	    ▪ Punt on this one and work on connecting with other PSAP type entities.
	o Scott has been looking at DER information exchange.
	    ▪ Added a PNNL sample to iMeet.
	    ▪ Example standard format for wrapping XML statement into JSON.
	    ▪ Example used a 2030.5 XML statement in sample.
	o Theo agreed to help with UML drawings.
	    ▪ At this point still waiting to identify what elements are missing and need to be added.
	    ▪ EAS files (UML source) from original PNNL work have been uploaded to iMeet.
	    ▪ Scott and Theo to coordinate offline.
	o Nathan agreed to work on JSON schemas.
	    ▪ Only schema in the UUDEX document currently is for physical security incident reporting.
	    ▪ Have example JSON documents for everything, but not the schemas that relate to them.
	    ▪ Per Theo, open API specification has a mechanism for defining both rest end points and the payload associated with these, this might be a helpful tool.
	    ▪ Nathan raised idea of using something like Open AI as a tool in developing the schemas.
	    ▪ Look at scheduling a meeting between Scott, Nathan, and Theo to discuss this development.
	    ▪ Schemas need to be machine readable and posted in a place where they are accessible in real time, which does not look like the IEEE Open Source system will work.
		Chair

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Old Business (cont.)	• Side discussion on handling diagrams which will be part of the UUDEX or other documents.
	   o There have been issues with updating past standards where the diagrams in the standard are not editable.
	   o For PSCCC, it is expected that the working group will live on past publication of the standard so the iMeet site will continue to exist for storing files.
	   o All source Visio and raw UML files (Enterprise Architect) have been uploaded to the iMeet site.
	   o Question for Tom as to whether this is the final resting place for these types of files or if IEEE SA has a repository.
	     ▪ Some files may be available, but it could be hit or miss.
	     ▪ Encouragement to IEEE SA that having a repository for original editable source files for documents.
		Chair

New Business	Strong encouragement to voting and non-voting members to be reviewing the document and providing comments and markups. Probably best to send comments to Scott for incorporation into the online document. James Formea asked for additional discussion on the US Centric topics that were recommended for removal at the June virtual meeting. • Documentation from this further discussion was added to the appropriate sections, above.	Chair
Upcoming meetings	The next three in-person meetings will be: • JTCM January 7-11, 2024 in New Orleans, LA • Spring meeting May 13-16, 2024 in Buffalo, NY • Fall meeting September 9-12, 2024 in Scottsdale, AZ	
ITEMS REPORTED OUT OF EXECUTIVE SESSION	n/a	
TIME OF FINAL ADJOURNMENT	11:45 AM EDT	
NEXT FACE TO FACE MEETINGS	JTCM and PSRC/PSCCC Meetings January 7-11, 2024, scheduled in person and hybrid in New Orleans, LA.	
FUTURE MEETING ROOM REQUIREMENTS	Room Size for 20, Projector, web conference support, avoid P20 and P21	