# IEC 61850 2019 IOP Meeting Minutes (2019-03-19)

## Agenda

* WebSite – under construction (<http://iec61850.ucaiug.org/2019IOP-Charlotte/default.aspx>)

Currently it is not restricted. So not fully functional. People need to send me their UCAIug IDs.

If you don’t have a UCAID, go to <http://www.ucaiug.org/default.aspx> and Register for an ID.

Discussion of changing site technology – Going to continue to use Sharepoint.

* Cost discussion
	+ Received EPRI costs 2019-03-18. Working on putting costs together.
	+ One or two people for participant fees?
* Testing Areas and assignments of lead responsibilities (National Grid to Provide Test Cases)
	+ PTP issues
		- Configuration selection not changing clock domain. – use IEC 61850-9-3 domain for integrated application.
		- Transparent clocks not putting information into the correct TLV- National to provide a write-up for group review.
		- Others.
* Need to start test case review
	+ Integrated Application – looking for volunteers: Dustin, Al (national grid), Herb, Joel
	+ Security – looking for volunteers. Add: Mark from Copadata, GPM .
* EDF/Hydro-Quebec OpenSource SCL Validation Tool to be added as validation checker.
	+ Add as forth validation tool.
	+ Add some discussion of validation tools in Boot Camp.
* Next Meeting – April 2nd same time slot US. Will specify UTC.

### Other information

* EPRI Site “Export” Procedure
* Heads-up: CIM and OpenFMB will be having IOPs at the same time in a different building.

### Dates

* September 21-22 Training Boot Camp
* September 23-27 Actual Testing
* September 20-22 Setup
* Charlotte, EPRI facility
* Tentative date for payment to participate as a vendor: mid-May/June as the drop dead.
Tentative date for payment for witnesses/individuals: mid-July.

Cost goes up after deadline dates.

### Previous Issues

Need to address issues encountered with Last IOP

* ICD SCL file validity

Testing to be performed mid-June.
Test import into SCTs.
Follow-up after test being run to review results and determine ETA for corrections.

Submitted ICDs shall have a declaration of what the device is intended to provide in the integrated application.

Keep everything open as much as possible. Have a sharepoint directory for testing of ICDs. – Herb to get procedure/directory set up.
* System Engineering

Address assignments prior to – Lets discuss with tool vendors. IP Addresses for sure. R-GOOSE/R-SV need assignments. VLANs are part of the overall system design.

Preliminary SCD targeted for mid-August. Without IP and GOOSE/SV address assignment.
 Paul and Christoph.

Final SCD Expect to be complete September 21st.

* General marketing communication and expectation settings of witnesses.
	+ Appoint a Witness Coordinator – Joel Greene, Herb Falk, Al and Mark Thompson (National Grid).
* Define scope of the IOP
* Prioritization of testing
* Network engineering and deployment

Network setup for the integrated application: September 20th.
* Allocation of Control Blocks/Subscriptions for Reports and DataSet Content design needs to be addressed.
	+ Signal Mappings
	+ SSD file
* Cyber-Security organization
	+ Ralph, Scott, Herb, Joel
* Resource limitation by vendors – number of participants and devices.
	+ Lower cost may equate to more participants.
	+ Suggestion would be to include 2 people for participant fee.
* Observer usage and training
* Test case details
* Visa letters – Herb
* Reach out to local universities – UNC Charlotte, UNC, Freedom Center, Duke, NC State, Clemson

### Some thoughts for Testing:

* Should reuse the SLD and application that was attempted in 2017- agreed
	+ 2 substations
	+ 1 control center
	+ Morph integrated application to make use of BAPs under development.
* Continuing from 2017 testing:
	+ Cyber Security (MMS, GOOSE, SV, R-GOOSE, R-SV Security, firewalls, RBAC, ACL, Event Logging) testing
	+ SCL Engineering
	+ Integrated Application
* New Areas of testing
	+ Had proposal from Hydro Quebec about DA/Telecom?
	+ CIM/61850 Harmonization
	+ R-GOOSE/R-SV as part of integrated application – might need a separate area
	+ PTP as part of integrated application
	+ 90-4 testing of SCL for communication topology – switch and router configuration?
	Need to check that SCTs support it.
	+ SED exchange between SCT.
	+ 7-420 Testing (DER)
* Areas we don’t need separate testing areas
	+ R-GOOSE/R-SV - still might need a separate area depending upon number of participants and network design.
	+ PTP – Need to discuss with ComEd and requesting utility.
* Areas for Separate Testing
	+ SED Exchanges – Christoph to lead
	+ SCL Validation- Bruce to lead
	+ Security (clustered but as part of the Integrated App).
	+ Leap Second Testing (maybe) – all participants to evaluate if they desire to test their devices and applications. If interested, send Herb and email.

### Boot Camp:

* Targeted to witnesses of the IOP
* Major topics
	+ Introduction to IEC 61850 – Christoph (lead)
	+ Utility Business Case – (e.g. ConED, SCE, StateGrid, AEP, RTE)
	+ SCL Engineering (of the IOP) – Sterin (lead)- to coordinate with Helinks (2.5 hours)
		- Concepts
		- Show re-arrangement of current engineering processes
		- Small substation design hands-on for people that bring laptops (1 hour)
		- OSMOSE project feedback (lower priority)
	+ Network design – Herb (lead)
		- Based upon Integrated Application design
		- Debugging PRP and HSR
	+ Integrated Application Introduction
	+ Maintenance and Testing Isolation – Jun (lead)
		- Concepts
		- Linkage of Concepts in the standard to the demo
		- Demo
	+ Security – Scott (lead) – Steve Kunsman to give.
	+ CIM/IEC 61850 Harmonization – Herb (lead)
	+ Overview of recent changes (standards update) – Christoph to give
		- 61869-9 instead of 9-2LE (legacy) – Karen Leggett
		- New Tissue Process
	+ Futures:
		- System Management – Aurelie (lead)
	+ UCA Conformance Testing Update – Herb
		- End-of-Life Edition 1 Conformance Testing
		- ITCA progress – certification bodies
		- Status of conformance test development
* Presenters (planning board consensus 7/7):
	+ Utility – UCA Members (1)
	+ Utility – non-UCA Members (2)
	+ Vendors/Consultants – UCA Members (3)
	+ Vendors/Consultants – non-UCA members (5)
	+ Other organization – UCA Members (4)
	+ Other organization – non-UCA Members (4)
	+ Regulatory Entities – (e.g. NERC) (1)