NASPI North American SynchroPhasor Initiative

Distribution Task Team (DisTT) Conference Call Minutes
December 15, 2016 10-11 am PT
Sascha Von Meier (vonmeier@berkeley.edu), Lead
Teresa Carlon (teresa.carlon@pnnl.gov), Support
Email list address: naspi-taskteam-distribution@lyris.pnnl.gov

Attendees
Roll call – see list below.

Action Items
- Start here -
- **All**; Sascha would like volunteers to help write the multiple DisTT white papers. Please send Sascha an email if you have the expertise and time to help make this DisTT product a success!
- **All**; if you have any other technical areas that you feel the DisTT should focus on please send an email to Sascha.
- **All**; Homework for DisTT members: think of at least one example of what insight we are asking to obtain from a PMU measurement, in the context of some distribution related use case. This should be relatable to the "Data Requirements" section of each Use Case paper (even if we don't immediately feel certain about how the desired insight translates into a specific data requirement, we need to make explicit any open questions). Follow-up discussion on this topic should go on agenda for next call.

Ongoing Business
- Harold's presentation titled "Measurement as a Fitting Problem."
    - When fitting three parameters of the curve model, we need only 3 samples per interval that we assume to be periodic (i.e. per cycle), but we need to know the precise time at which these samples were taken. Time stamps from GPS or other available clocks should be more than adequate in this context.
    - The customary interpretation of PMU data made sense in a context where voltage and frequency are relatively stable over time, but many distribution phenomena of interest involve situations with transients where frequency or rms magnitude may not be well defined.
    - Understanding measurement as a fitting problem will support a robust interpretation of PMU data for the distribution context.
- Emma summarized GMLC and Sensing & Measurement Project; if available, Tom Rizy may join next call to discuss input on Task 4 and upcoming workshops.
- All are invited to provide feedback and comment on Use Case papers.
- Alex McEachern also on agenda for next call.

Next Call
- Tentatively scheduled for Thurs, Jan 19, 10-11 PST.

Reference Material
Topics of ongoing work for this group include:
- Present practices, research, state of the art and challenges with distribution PMUs
- Distribution PMU applications and use cases

- Theoretical aspects of PMU measurements
- Technical requirements and specifications for distribution PMUs

Draft white paper outline (Google docs).

Table: Data Requirements

CRSTT Reference - NASPI Diagnosing Equipment Health and Mis-operations with PMU Data and the event summary table.

<u>Attendees</u>

Alex Fluek
Emma Stewart
Farnoosh Rahmatian
Harold Kirkham
Merwin Brown
Reza Arghandeh
Sascha von Meier
Subbu Sankaran
Sumit Paudyal
Teresa Carlon
Yi Hu