NASPI Working Group Meeting Control Room Solutions Task Team (CRSTT) Monthly Meeting

Presenters: Mike Cassiadoro and Jim Kleitsch November 18, 2015



Agenda

- I. Introductions
- II. Review Presentations from Oct. 2015 NASPI Work Group Meeting CRSTT Breakout Session.
- III. Provide Status Update on CRSTT Focus Area Documents
- IV. Review Enhanced State Estimation Survey Questions
- V. Establish CRSTT Goals for 2016
- VI. Adjourn

Agenda Item II

The following presentations were delivered during the CRSTT breakout session and are posted on the NASPI website:

- Commonwealth Edison Synchrophasor Research and Education at ComEd – Dave Schooley (ComEd)
- Peak Reliability Peak RC Experience with Forced Oscillation Detection – James O'Brien (Peak RC)
- PJM Interconnection PMU Simulator Tool for Operator Training on Oscillation Detection – Emanuel Bernabeu (PJM)

NOTE: A separate presentation was provided for the *Using Synchrophasor Data for Phase Angle Monitoring* paper status update. This presentation is posted on the NASPI website as well.

Focus Area Documents – Status Update

- 1. System Islanding Detection and Blackstart Restoration Posted 6/12/2015
 - ➤ (Kleitsch ATC, Cassiadoro TRS)
- 2. Using Synchrophasor Data for Voltage Stability Assessment Posted 11/9/2015
 - (Farantatos EPRI, Vaiman V&R Energy)
- 3. Using Synchrophasor Data for Phase Angle Monitoring ETC 12/31/2015
 - (Cassiadoro TRS, Chanoski NERC, Nuthalapati ERCOT)
- 4. Enhanced State Estimation
 - Linear State Estimation (Jones, Thomas Dominion Virginia Power)
 - Hybrid State Estimation (Frankeny MISO, Vaiman V&R Energy)
- Oscillation Detection
 - (Dyer EPG, Blevins and Rjagopalan ERCOT, Patel EPRI)

Focus Area Docs – Status Update (Cont.)

- 6. Determining Disturbance Locations
 - (Dyer EPG, Zweigle SEL Inc., Cassiadoro TRS)
- 7. Using Synchrophasor Data to Monitor Reactive Power Balancing
 - (Cassiadoro TRS, SCE –A.J, Peak RC Zhang)

Enhanced State Estimation Survey

Discuss issuing a survey to electric utilities and grid operators with the following questions:

- 1. Do you use synchrophasor data for State Estimation?
- 2. What is the down sample rate for the synchrophasor data that is used for State Estimation?
- 3. How many PMU signals do you use for State Estimation?
- 4. How many SCADA measurements do you use for State Estimation?
- 5. Do you run Linear or Hybrid State Estimation? If Yes, how frequently do you run it?

CRSTT Goals for 2016

Discuss CRSTT goals for 2016, which may include:

- 1. Prioritize and complete remaining focus area documents
- 2. Develop operational use case summary documents to support NASPI technical papers
- 3. Create additional video event files for use cases and simulated events (includes data sharing)
- 4. Gather operator feedback on synchrophasor applications (best practices)
- 5. Identify available training materials

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Next CRSTT Conference Call: December 16, 2015

Next NASPI Work Group Meeting: March 2016