NASPI North American SynchroPhasor Initiative

Control Room Solutions Task Team Breakout Session

October 18, 2022

Agenda

- Kevin Ostash (MH) – MH WAMS Roadmap
- Mike Nugent (SPP) - Data Quality Monitoring at SPP
- Jim Kleitsch - NERC SMWG oscillation request process short overview
- CRSTT business (Jim, Cody, Mike)
  - Review Mission Statement and update as needed
  - Review, discuss, and update Work Plan for 2022/2023
- Open Mic….

Kevin and Mike's Presentations

NERC SMWG Oscillation Data Requests

- The NERC Synchronized Measurement Work Group [SMWG] is working to collect data on oscillation events
- Analyzing actual events and providing feedback to the industry on lessons learned, recurring issues to watch out for, etc.. will help maintain system reliability

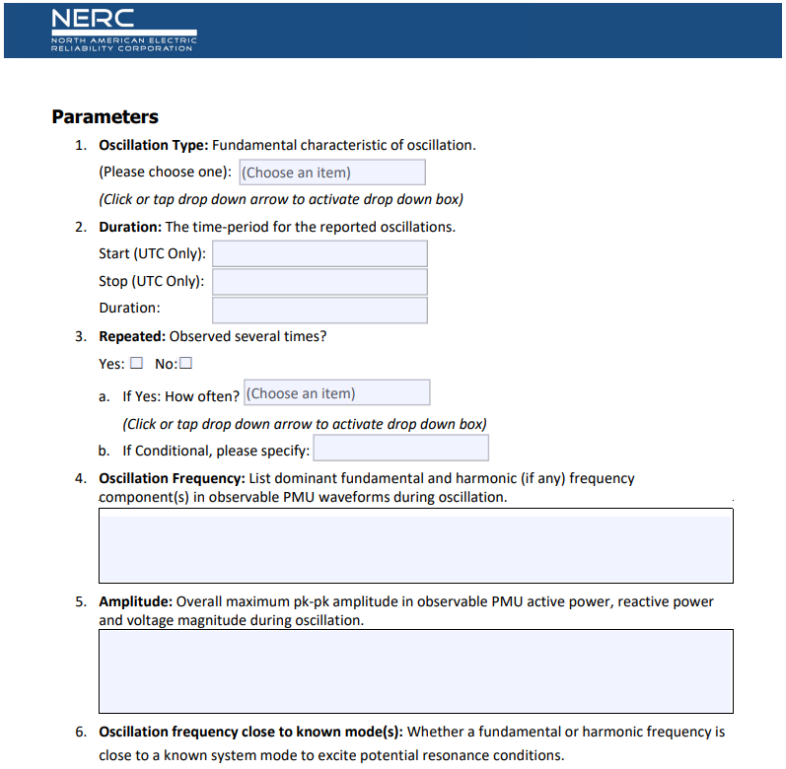
NERC SMWG Oscillation Data Requests (continued)

- The submittal form is being reviewed and will be available soon.

  SMWG Oscillation Report (nerc.com)

- If you have an event you think is worth sharing enter as much data as you can and submit.
- An SMWG core team will review the data, reach out for more data if needed, and will work with the submitter to develop a summary that can be shared with the industry

NERC SMWG Oscillation Data Requests (continued)



NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Parameters

1. **Oscillation Type:** Fundamental characteristic of oscillation.
   (Please choose one): (Choose an item)
   (Click or tap drop down arrow to activate drop down box)
2. **Duration:** The time-period for the reported oscillations.
   Start (UTC Only):
   Stop (UTC Only):
   Duration:
3. **Repeated:** Observed several times?
   Yes: ☐ No:☐
   a. If Yes: How often? (Choose an item)
      (Click or tap drop down arrow to activate drop down box)
   b. If Conditional, please specify:
4. **Oscillation Frequency:** List dominant fundamental and harmonic (if any) frequency component(s) in observable PMU waveforms during oscillation.
5. **Amplitude:** Overall maximum pk-pk amplitude in observable PMU active power, reactive power and voltage magnitude during oscillation.
6. **Oscillation frequency close to known mode(s):** Whether a fundamental or harmonic frequency is close to a known system mode to excite potential resonance conditions.

- If you can't answer everything SMWG will work with you to get the needed information
- More to come at Thursday's SMWG

CRSTT Mission Statement

- Review to make sure we're in agreement with the reason our group exists

Our mission:

The NASPI Control Room Solution Task Team's mission is to work collectively with other NASPI task teams to advance the use of real-time synchrophasor applications for the purpose of improving control room operations and grid reliability. The CRSTT will use its experience and regional diversity to provide advice, direction, support and guidance to NASPI stakeholders and other organizations involved in the development and implementation of real-time synchrophasor applications.

CRSTT Work Plan

- Review to make sure we're in agreement with group priorities.

This team's priorities are to:

1. Work directly with grid operators and electric utilities to identify and help resolve issues that are impeding the implementation of synchrophasor-based applications in the Operations Horizon.
2. Develop documentation that defines the safety, reliability and economic benefits that synchronized measurement technology provides.
3. Recognize and share industry best practices.
4. Support the design, development and delivery of synchronized measurement application training for end users.
5. Promote operational event analysis to demonstrate the value of synchronized measurement technology.

CRSTT Work Plan (continued)

- Review to make sure we're in agreement with group goals.

This team's goals are to:

1. Develop a series of operational use cases that define how grid operators and electric utilities can use synchronized measurement data to provide operational value.
2. Create additional video event files for use cases and simulated events.
3. Gather operator feedback on synchronized measurement applications (best practices).
4. Support the design, development and delivery of synchronized measurement-related training for operations staff.
5. Develop a series of Lessons Learned documents related to the use of synchronized measurement technology in the operations environment.
6. Draft new and update existing focus area documents as the need arises.

CRSTT Work Plan (continued)

- Planned Activities

4.1 Use Case Summary Documents

CRSTT members will work with grid operators, electric utilities, vendors and research institutions to develop operational use cases that demonstrate the various ways in which synchronized measurement data is being used to provide operational value.

4.2 Video Event Library

CRSTT members will continue working with grid operators, electric utilities and vendors to build a library of video events that demonstrate the value synchronized measurement data provides when analyzing events that impact the electric power system. Existing videos are posted on the CRSTT page of the NASPI website.

4.3 Focus Area Documents

CRSTT members will continue to draft new focus area documents and update existing documents as the need arises. The most recent version of each completed paper can be found on the CRSTT page of the NASPI website.

4.4 Industry Outreach

The CRSTT will continue to coordinate with other NASPI task teams and industry bodies to advance the deployment and use of this new technology and help gain user acceptance of synchronized measurement applications.

CRSTT will focus its efforts on coordinating and forging working relationships with the NERC Operating Reliability Subcommittee (ORS), NERC Synchronized Measurement Working Group (SMWG), WECC Joint Synchronized Information Subcommittee (JSIS), the PMU Subgroup of the IEEE Power & Energy Society (PES) Cascading Failure Working Group (CFWG), and each of the Independent System Operators (ISO) and Regional Transmission Organizations (RTO) functioning within North America.

Open Mic

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