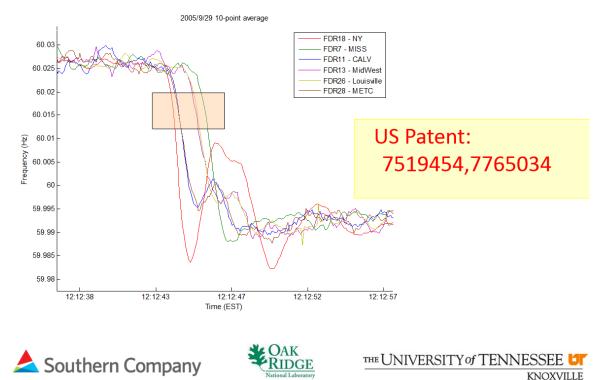
NASPI Working Group Meeting Control Room Solutions Task Team (CRSTT) Report Out

3/23/2017



Meeting Highlights

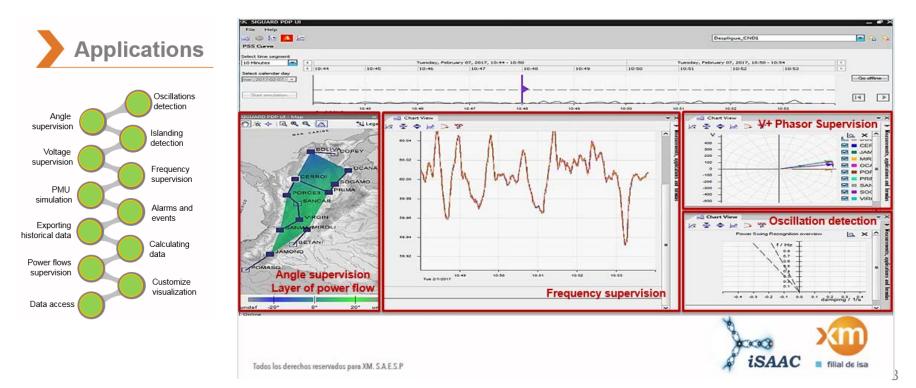
- Shih-Min Hsu from Southern Company reviewed the work they've down with UT Knoxville on event location for generator trips.
- Compared location results on known events using frequency versus phase angle data for the analysis
- Next steps include line trip detection and location based on phase angles and potential move from FDRs to PMUs



On-line Event Location

Meeting Highlights (cont'd)

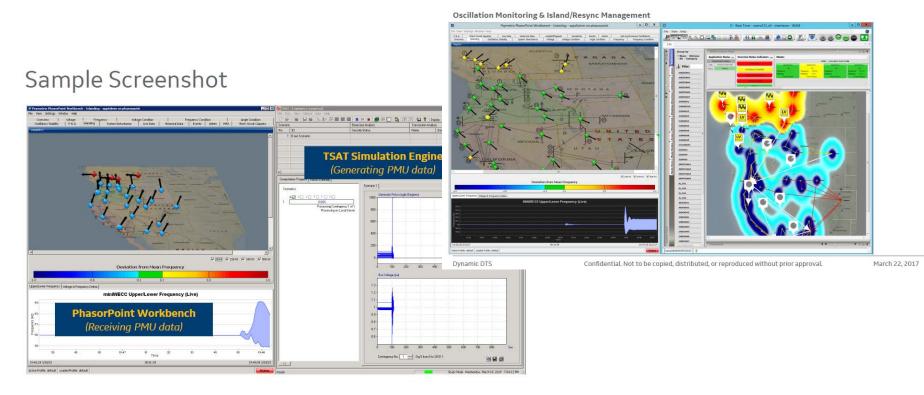
- William Eduardo Amador Araujo from XM / the Colombian Power System Operator discussed the implementation of Synchrophasor Technology at their new Control Center
- Started working with synchrophasor technology in the 2007 time frame.
- New control center in 2017 and synchrophasor applications will be part of their implementation



Meeting Highlights (cont'd)

- Krish Srinivasan from GE reviewed their Hybrid WAMS and EMS Operator **Training Simulator**
- He also demonstrated the operation of their integrated training simulator which allowed PMU playback as well as interactive system response using TSAT playback.

WAMS Applications



CRSTT Business

- NDR went over the document he's been working on related to oscillation detection using synchrophasor data.
 - He surveyed the industry and received 17 responses with requirements for the tools they are using as well as screen captures of the different implementations where applicable.
 - He's also requesting videos showing the use of the applications.
 - We plan to gather team feedback, update as needed, and post it to the NASPI web site prior to the September meeting
- We discussed the value of Use Case documents and agreed to continue down that path. Recommendation to start with easy things like data plotting to help gain confidence in the technology and gain ops support. This could become a task force project but for now there was no strong push to do away with the task force structure. We will continue to evaluate as we move forward on our work plan.
- We discussed the potential change from two meetings to one meeting in 2018 or 2019. Several members of the group were on board with moving to 1 meeting. There was also concern expressed about one longer meeting as three days of high tech is tough to absorb (my words forgive me) Other options could be to keep two meetings but be open to web hosted meetings instead of face to face to minimize travel costs, allow more flexibility in scheduling. Some concerns about not being able to go back to two if one isn't enough.

CRSTT – Primary Contacts

Name: Michael Cassiadoro

Email: mcassiadoro@totalreliabilitysolutions.com

Phone: 360-836-9008

Name: Jim Kleitsch

Email: jkleitsch@atcllc.com

Phone: 608-877-8102