

# NASPI Panel Discussion: Synchronized Measurements from Disparate Sources

NASPI WORK GROUP MEETING OCTOBER 2019

# Synchronized Measurements – Connecting synchrophasors with worldly sources

## IMPORTANT INITIATING QUESTIONS (BUT NOT ALL INCLUSIVE!)

- Logistics of collecting/accessing time-synchronized data, such as synchrophasors, with non-synchronized data sources such as relays, DFRs, Power Quality, lightning strike data, etc.

## IMPORTANT QUESTIONS

- How can disparate sources of data be collected or accessed? Does central storage of different data or linked access to multiple databases make more sense? Are there other options?
- How can we resolve the synchronization of data from disparate sources? Are there options other than time-based?

## PANELIST: Michael Anderson, PingThings, Inc., USA

Dr. Michael Andersen received his PhD in Computer Science from the University of California, Berkeley. His research has focused on cost effective storage and analysis of petabyte scale time series data, especially high frequency data. He joined Ping Things as CTO to continue the development and commercialization of the technologies that came out of this research, such as BTrDB.



## PANELIST: Kevin Jones, Dominion

Kevin Jones received his Ph.D. in electrical engineering from Virginia Polytechnic Institute and State University in 2013 as a Harry Lynde Bradley Fellow. He developed the open source linear state estimator, accelerating commercialization of LSE technology in the industry. Kevin also created the ANalysis On DEMand (ANODE) Platform at Dominion for increasing the analytic throughput of transmission outage planning analysis by several orders of magnitude.

Kevin also led the initiative to deploy Dominion's cloud-based big-data analytics platform, the PingThings PredictiveGrid, for synchrophasor analytic use case development. Kevin's work experience includes time at Blue Ridge Energy, ExxonMobil, and most recently at Dominion Energy where he currently leads the Engineering Analytics & Modeling team within Electric Transmission.



# PANELIST: Paul Myrda, EPRI

Paul Myrda is a Sr. Program Manager with the Electric Power Research Institute working in the Power Delivery and Utilization Sector. Currently he is program manager for the Transmission Operations. In this role Paul oversees research activities related to Grid Operations including situational awareness, voltage control, restoration operational planning and monitoring and control.

Paul has been part of the NASPI leadership. He is also involved in cyber security activities as an External Advisory Board (EAB) member of the Cyber Resilient Energy Delivery Consortium (CREDC). He also represents EPRI on the Industrial Advisory Board for the Center for Ultra-Wide-Area Resilient Electric Energy Transmission Networks (CURENT).

Previously, Paul was Director of Operations and Chief Technologist overseeing planning and asset management functions for Trans-Elect's operating companies. He championed an innovative protection and control system upgrade project for the Michigan Electric Transmission Company an affiliate of Trans-Elect. This project fully leveraged the capability of IEC 61850, physical security, telecommunications and data warehousing technologies using EPRI's Common Information Model.

Paul has over 35 years of experience including leading edge technology implementations. His diverse background includes planning, engineering, information systems and project management. He has an MBA from Kellogg (2000) and MSEE and BSEE from Illinois Institute of Technology (1980 and 1977, respectively). He is a licensed professional engineer in Illinois, member of CIGRE and Senior Member of the IEEE.



## PANELIST: Greg Zweigle, SEL

Greg Zweigle serves as a Schweitzer Engineering Laboratories Fellow Engineer and leads a research team developing wide-area power system analysis and control solutions.

Greg holds a Ph.D. in electrical engineering and computer science, a master of science degree in physical chemistry, and a master of science degree in electrical engineering, all from Washington State University. He also has a bachelor of science degree in physics from Northwest Nazarene University. Greg is a senior member of the IEEE.

