The 10th Annual Monitoring and Situational Awareness Technical Conference – Session 3

Post Pandemic --- New Normal in Energy Management Systems

NERC EMS Working Group
October 20, 2022

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- Moderator
  - Dwayne Fewless, *ReliabilityFirst*

- Panelist:
  - Manu Parashar, *GE*
  - Ernst Scholtz, *Hitachi Energy*
  - Roopa Akkala, Sanjay Agarwal, Eric Sortomme, *OSI*
  - Ravi Pradhan, *Siemens*

Dwayne Fewless is currently a Principal Analyst in Operational Analysis & Awareness Department and previously held the position of Reliability Consultant in the Entity Engagement Department at ReliabilityFirst.

Dwayne has over 16 years of utility industry experience working in Transmission Operations as a System Operator at Wolverine Power and as a Technical Trainer at MISO and ITC.

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Manu Parashar is the Product Director for WAMS (Wide Area Management Systems) and Advanced EMS at GE Digital. Prior to this he was the Services Director managing the Applications Engineering team across WAMS, Market Applications and Generation.

Manu received his BS, MS, and PhD degrees in Electrical Engineering from Cornell University, Ithaca, NY, in 1997, 1999, and 2003, respectively.

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Ernst Scholtz is head of Product Management overseeing the direction of the Network Manager product line with products for Generation, Transmission, Distribution, and power-based deregulated Energy Markets at Hitachi Energy's Network Control business.

Ernst's interests are in the areas of systems, control, software, and finance with a focus on applications in power systems, and industrial processes.

Ernst received his B.Eng. and M.Eng. from the University of Pretoria (South Africa) and his Ph.D. from the Massachusetts Institute of Technology, all in Electrical Engineering with a control and power system focus.

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Roopa Akkala received Bachelors in Electrical and Electronics Engineer from JNTU University, India in 2008 and Masters in Electrical Engineering from Univ of Missouri Kansas City in 2010 with an emphasis on Power System Analysis & Design. She worked as a research engineer at QM Power (a startup company) and developed motor prototypes for DOE (Department of Energy) and is currently the Director of Power Systems Engineering at OSI dealing with Transmission Product Delivery. She has been with OSI for 12 years.

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Sanjay Agarwal is a Principal Consultant in Product Management department at Open Systems International Inc., Minneapolis U.S.A and is the product manager for Generation and Market suite of applications. He has a Master of Business Administration degree in Finance from University of Houston, Texas and Master of Electrical Engineering degree in Power/Control system from Auburn University in Alabama. With more than 30 years of experience in SCADA/EMS industry, both on the vendor and utility side of the business, Sanjay's passion continues to be generation and power markets operations.

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Eric Sortomme received a B.Sc. degree in electrical engineering from Brigham Young University, Provo, UT, in 2007 and the Ph.D. degree from the University of Washington, Seattle, in 2011 with a research emphasis in renewable energy and DERs. His employment experience includes Puget Sound Energy and Alstom Grid, Redmond, WA. He has authored or coauthored a plethora of technical publications and has three issued patents related to EV charging. Dr. Eric Sortomme (Dr. DERMS) is currently the Product Manager of Smart Grid and DERMS at OSI.

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Ravi Das Pradhan is Vice President, Portfolio Management, for Siemens Grid Software, Grid Control in Minneapolis. With over 25 years' experience building and integrating grid control systems, electricity market systems and other operational IT systems, Ravi is part of the Siemens Grid Software's Grid Control unit and is responsible for selecting and implementing the appropriate technologies and products for Siemens Grid Control software solutions.

Ravi earned his B.S. in Computer Science from Purdue University in West Lafayette, Indiana.

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- What tools or processes do you recommend for backup when primary EMS functionality tools (such as SE or RTCA) fail?

- What recommendations do you have for detecting the *bad data* or *stale data* from external areas?

  - Dedicated application for pre-processing?

  - Configuration, setting?

  - Training workshop for knowledge transferring?

- The complexity of the power system is growing currently.
  - What recommendations do you have for customers to integrate renewable resources (like Solar, Storage, etc.) into EMS?
  - What challenges are you facing to handle high penetration of renewal resources in EMS, especially in AGC, state estimation, or real time contingency analysis?
  - Insight about AGC response to fast/speedy storage or different types of renewal resources

- Can you share the roadmap to support the cloud computing?
- What is the biggest challenge so far?

- Moderator
  - Dwayne Fewless, *ReliabilityFirst*

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- Topics
  - Situational Awareness
  - Renewable
  - Cloud Computing

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- Date/Time: Thursday, September 22, 2022
- Analysis of EMS Event Outages
  - Wei Qiu, NERC
- NERC BPSA 2022 Physical Security Overview
  - Tony Burt, NERC
- Lessons Leaned and Best Practices - EMS Pausing during Database Deployment
  - Wei Qiu, NERC
  - Kyle Rogers and Adam Wortz, OSI

* Presentations and recording will be posted soon.

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- Date/Time: Thursday, October 6, 2022
- Frequency Response Monitoring and Mitigation
  - Raja Thappetaobula, RC West
- ERCOT Real-time Assessment Activity Summary
  - Karthik Gopinath, ERCOT
- Cloud Computing
  - Larry Collier and Wei Qiu, NERC
  - Maggy Powell, AMAZON AWS

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Thank You and See you Next Year !

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