Coordination of Synchrophasor Related Activities

IEEE PES PSRC C23

(last met virtually on January 13, 2021,
next PSRC meeting May 3-6)

Presented by:

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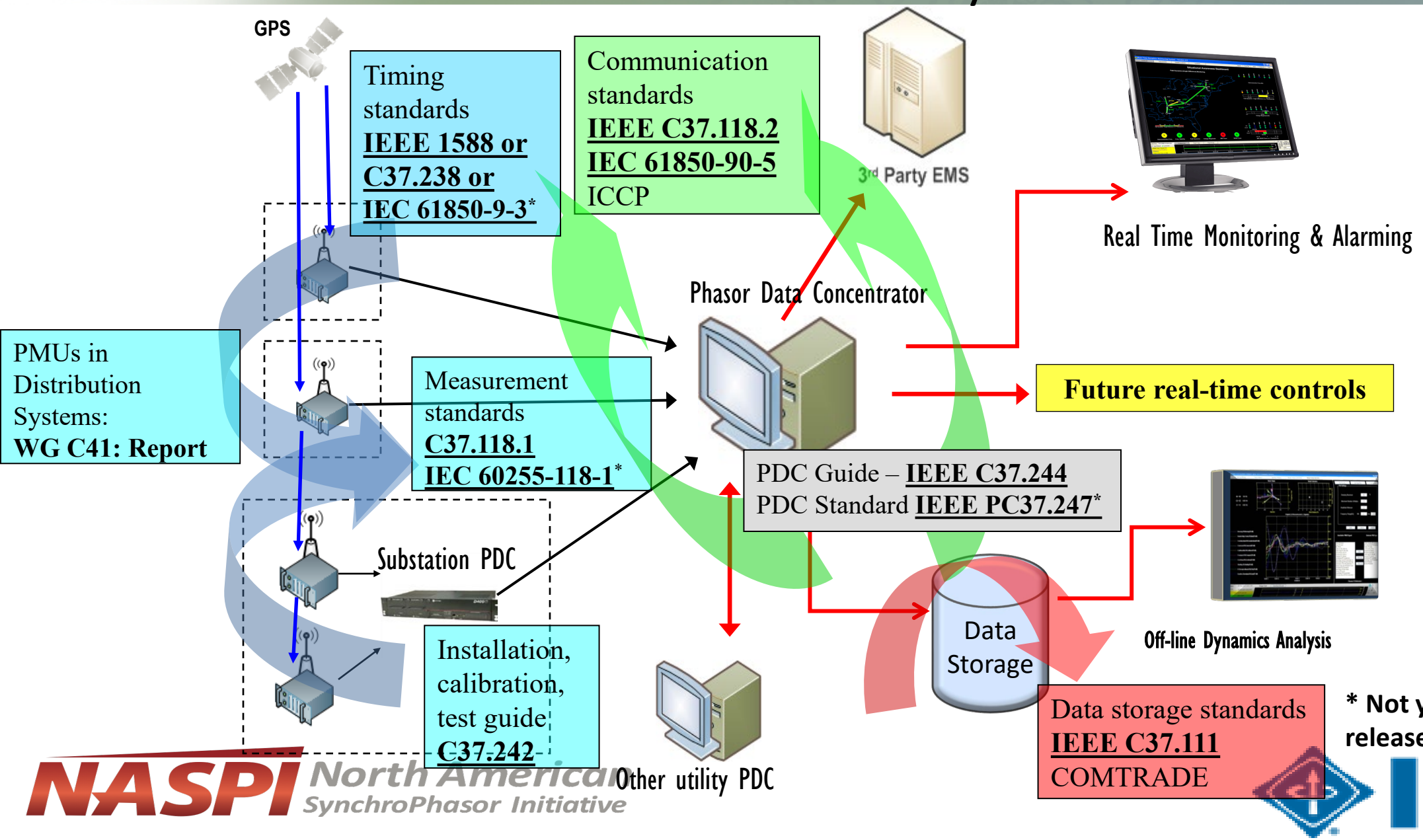
Chair

Phasor Measurement Systems



NASPI North American SynchroPhasor Initiative

IEEE

IEEE PES PSRC Activities

- C23: Coordination of Synchrophasor Related Activities
- C28: C37.242 IEEE Guide for Synchronizing, Calibration, Testing, and Installation of PMUs – Accepted by RevCom, now in final edit.
- H40 Databases used in Utility Automation Systems
- C41: Investigate Measurement Performance Requirements for PMUs in Distribution System Applications – Draft a report.
- C40: Summary C37.247 Standard for Phasor Data Concentrators
- H50: Requirements for Time Sources in Protection & Control Systems

IEEE PES PSCC activities

- P8: Recommended Mapping Approach between IEEE C37.118.2 and IEC 61850
  Available now at IEEE Resource Center
- P9: Revision of C37.118.2 Synchrophasor Data Transfer for Power Systems
- P10: IEEE Standard for Streaming Telemetry Transport Protocol (IEEE P2664)
- P16 P1864: Review by PSCC for Communications and Cyber Security Requirement
- S5: Revision of IEEE C37.240 Cyber Security Requirements for Power System Automation, Protection and Control Systems
- S8: P2658 Guide for Cybersecurity Testing in Electric Power Systems
- S15: Study Group for Security of IEC 61850 GOOSE and Sampled Measured Values

Other IEEE activities

- ICAP: IEEE Synchrophasor Conformity Assessment Program

NASPI past work

- CRSTT:
  - TRS & PNNL: Operational Use Cases for Time-Synchronized Measurements.
  - Using Synchrophasor Data to Determine Disturbance Location.
  - Using Synchrophasor Data for Oscillation Detection.
  - PMU versus SCADA Video Events Library.
  - Time synced measurements training for operators.
- DNMTT:
  - NASPInet 2.0 Architecture Guidance (led by PNNL's Dr. Taft)
  - Utility survey of those collecting PMUs for architecture structure and analytics interface.
- PSRVTT:
  - Categorizing Phasor Measurement Units by Application Data Requirements.
  - A Guide for PMU Installation, Commissioning and Maintenance.
- DisTT:
  - Synchronized Measurements and their Applications in Distribution Systems: an update
  - DG-Load Disaggregation Use Case
  - Equipment Health Diagnostics Use Case
  - Fault Location Use Case
  - Phase Identification Use Case
  - Wildfire mitigation webinar
- EATT:
  - Data Mining Techniques and Tools for Synchrophasor Data.
  - Integrating Synchrophasor Technology into Power System Protection Applications.
  - Phase Angle Calculations: Considerations and Use Cases.

NASPI current work

- CRSTT:
  - System Inertia Monitoring use case
  - Time synchronized measurements *simulation* training.
  - Coordination with DISTT.
  - Growing the membership.
- DNMTT:
  - Utility archive and network strategy report
  - Renewed focus on data exchange formats.
- DisTT:
  - Use Case documents development
    - with CRSTT.
  - Academic work -> live applications in the field
- EATT:
  - Model validation using synchrophasors white paper.
  - Focus Area Documents being used to develop Use Case Documents with the DisTT.
  - Growing the membership
- PSRVTT:
  - Survey of existing PMU applications
  - PMU Performance requirements for control applications
  - PMU Data Quality impacts on control applications
  - Survey of PMU connected instrument transformers

Discussions and new business

- Evangelos Farantatos will present PMU related activities at EPRI during our next meeting May2021
- Deepak Maragal asked if there was any installation of PMU using PTP and PPS. Allen to ask within NASPI
- Question: Is NASPI CRSTT thinking of any application for PMUs in the control room? For example, under oscillations conditions, what operator should do?

Thank you

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