NASPI Data and Archive Workshop 4/15/2019

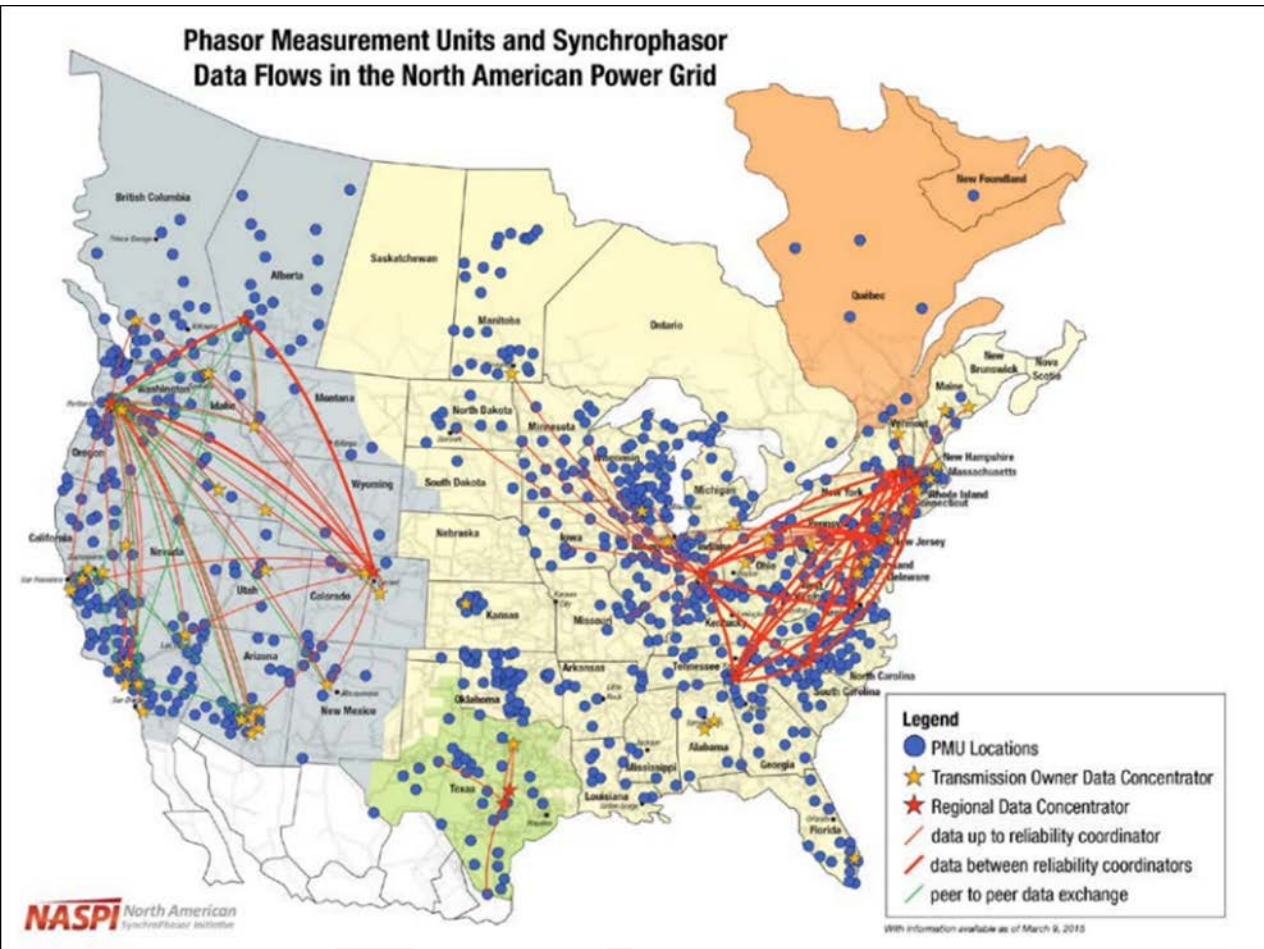Data and Network Task Team (D&NMTT)

QUANTA
TECHNOLOGY

Introduction

- 2006 – Eastern Interconnection Phasor Project renamed to the North American SynchroPhasor Initiative (NASPI). NERC began funding the project and hosting meetings

- Fewer than 200 research-grade PMUs on the grid

- 175 members total, 50 members attended meetings

- 2014 – U.S. DOE began funding NASPI, EPRI to host work group meetings

- 1700 production-grade PMUs in service

- 1400 members total, 200+ attendees per meeting

- **Vision** – Improve power system reliability through wide-area measurement, monitoring and control.

- **Mission** – Create a robust, widely available and secure synchronized data measurement infrastructure for the interconnected North American electric power system with associated analysis and monitoring tools for better planning and operation, and improved reliability.

Phasor Measurement Units and Synchrophasor Data Flows in the North American Power Grid

Legend
- ● PMU Locations
- ★ Transmission Owner Data Concentrator
- ★ Regional Data Concentrator
- / data up to reliability coordinator
- / data between reliability coordinators
- / peer to peer data exchange

Major PMU Instillations in North America

ATC	102
CCET (ERCOT)	45
Duke Carolinas	104
Entergy	49
FPL	45
ISO-NE	77
MISO	365
NYISO	48
PJM	314
WECC	522
North America (Total)	>1,671

QUANTA TECHNOLOGY

Introduction Dan Brancaccio (5)   1:00 pm

Synchrophasor standards updates   30 minutes

    01 IEEE C37.118 -2011.2 P9 update Dan Brancaccio (10)

    02 IEC 61850-90-5 update Yi Hu (10)

    03 STTP update Ritchie Carroll (10)

    04 New PDC Standard Harold Kirkham (10)

Communication architectures (15) Dan Brancaccio

    05 CIP compliance and synchrophasor data (5)

    06 EPG Techniques to fill in missing data (10) Frank Carrera

Archive strategies Mathew Rhodes 140 minutes   1:50 pm

    07 Use cases (10)

        PRC-002-2 Dan Brancaccio

        MOD 26 & MOD 27 Dan Brancaccio

    08 Ritchie Carrol, GPA (10)

    09 Sean Murphy, PingThings (10)

    10 SEL SynchroWAVe - Jared B., Greg Zweigle combined with (10)

        SRPs strategy with SynchroWAVe Matthew Rhodes (10)

    Break (10)   2:40 pm

11 Tony Farris, BPA (10)

12 Kevin Jones, Dominion (10)

13 Tom Anderson, SAS – (10)

14 Viktor Litvinov, GRT (10)

15 EPG – (10) Frank Carrera

16 Dan Brancaccio (Quanta) example architectures (10)

Questions (30) 3:40 pm

Communication issues 15 minutes Dan Brancaccio (Time permitting) 4:00 pm

17 Troubleshooting

Dashboards

Business processes

18 Conformity assessment program (1588) – Terry Jones

19 Naming Conventions Dan Brancaccio 10 minutes (Time permitting)

Wide area

Local