



Data & Network Management Task Team Report Out

Co-Chairs:

Dan Brancaccio, BRIDGE Energy Group

James McNierney, NYISO

April 26, 2018

Albuquerque, NM



D&NMTT Breakout

- Update on DOE Grant STTP – J. Ritchie Carrol (GPA)
- Real-time Cyber-Physical Co-simulation of Synchronphasor-based Systems
Coupled with Communication Network Emulation:
Vahid Jalili-Marandi &
Thomas Kirk, OPAL –RT; Jason Protacio,
SCALABLE Network Technologies
- DNMTT Business

Schedule and Deliverables

Deliverables

1.0 Project Governance

- 1.1 Update PMP (D1)
- 1.2 Update Data Management Plan
- 1.3 Establish Contracts
- 1.4 Manage Project and Submit Reports

2.0 Protocol Specification

- 2.1 Define Requirements
- 2.2 Create Initial Design (M1)
- 2.3 Release ASP Specification (D2 - M2)

3.0 Alpha Software Development

- 3.1 Develop Alpha APIs
- 3.2 Develop Alpha Tool Kit (D3)
- 3.3 Release Alpha Versions (M3)

4.0 Incorporate the ASP APIs into Tool Suites

- 4.1 Incorporate Alpha ASP into EPG Tools
- 4.2 Incorporate Alpha ASP in WSU Tools
- 4.3 Bench Test EPG and WSU Tools

5.0 Demonstrations and Final ASP Specification

- 5.1 Develop EPG Tool Demo Plan (D4)
- 5.2 Develop WSU Too Demo Plan
- 5.3 Conduct Demo & Publish Results (D5-M4)
- 5.4 Publish Ver 1.0 API with Documentation (D6 - M5)

| ASP Project Timeline | | | | | | | |
|------------------------------------|---------|---------|---------|------------------------------------|---------|---------|---------|
| Period 1 (April 2017 - March 2018) | | | | Period 2 (April 2018 - March 2019) | | | |
| 1 Qtr | 2 Qtr | 3 Qtr | 4 Qtr | 1 Qtr | 2 Qtr | 3 Qtr | 4 Qtr |
| May-Jul | Aug-Oct | Nov-Jan | Feb-Apr | May-Jul | Aug-Oct | Nov-Jan | May-Jul |
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April 2018

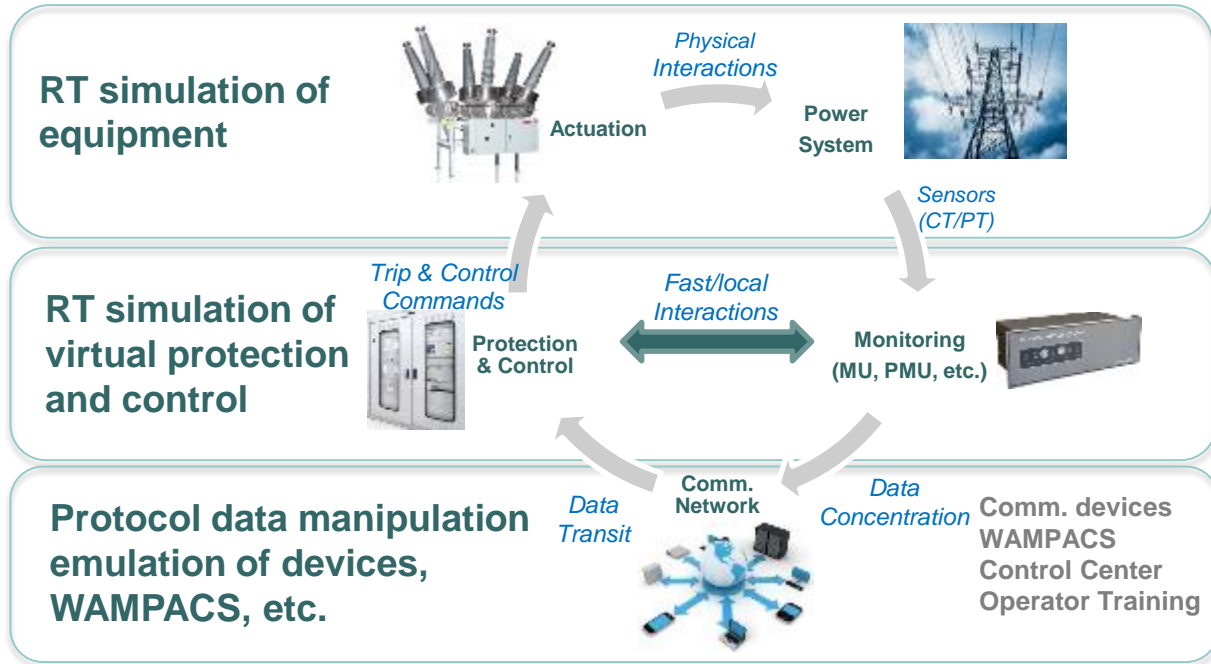


STTP

- Some vendors already implementing protocol
- Others to follow soon
- On track to schedule

OPAL-RT

RTS for test & study of power grid's layers



HIL
AN and DI values

- Comm. Protocols
- IEC61850 SV
 - IEC61850 GOOSE
 - DNP3
 - MODBUS
 - OPC-UA
 - ...

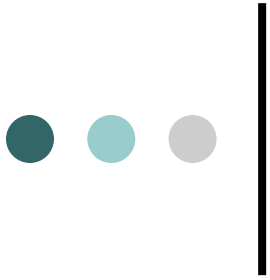




D&NMTT Breakout

○ **DNMTT Business**

- Compile a listing of the minimal data elements that could be used to provide contextual data for PMUs as a registry export to facilitate the exchange of Synchrophasor data between organizations
- Develop a paper describing issues with existing synchrophasor data communication protocols and how STTP may address them
- Develop a paper reviewing architectures that could improve synchrophasor data sharing



Thank you for participating!