Data & Network Management Task Team

February 5th, 2009

Scottsdale, AZ

D&NMTT Charter

○ **Data & Network Management Task Team** – The scope of the Data and Network Management Task Team includes the development of the hardware and software requirements to collect and store the PMU data at a master storage site(s). The group is also responsible for defining the communications requirements from the PMU(s) or local storage site(s) to the master storage site(s), and development of future network **architecture** options.

Scottsdale Team Composition

1. Dave Anderson — Washington St. University
2. Dave Bakken — Washington St. University
3. J. Ritchie Carroll — TVA
4. Don Geiling — DOE NETL
5. Yi Hu — Quanta
6. Ken Martin — Quanta
7. Matt Donnelly — Quanta
8. Ken Hopkinson — Air Force Institute of Technology
9. Carl Hauser — Washington St. University
10. Reynaldo Nuqui — ABB
11. Scott Hilbelink — American Transmission Company
12. Matt Rhodes — SRP
13. Dave Norton — Entergy
14. Himanshu Khurana — UIUC
15. Jeff Dagle — PNNL
16. Sushil Cherian — Kalkitech

Task team leadership:

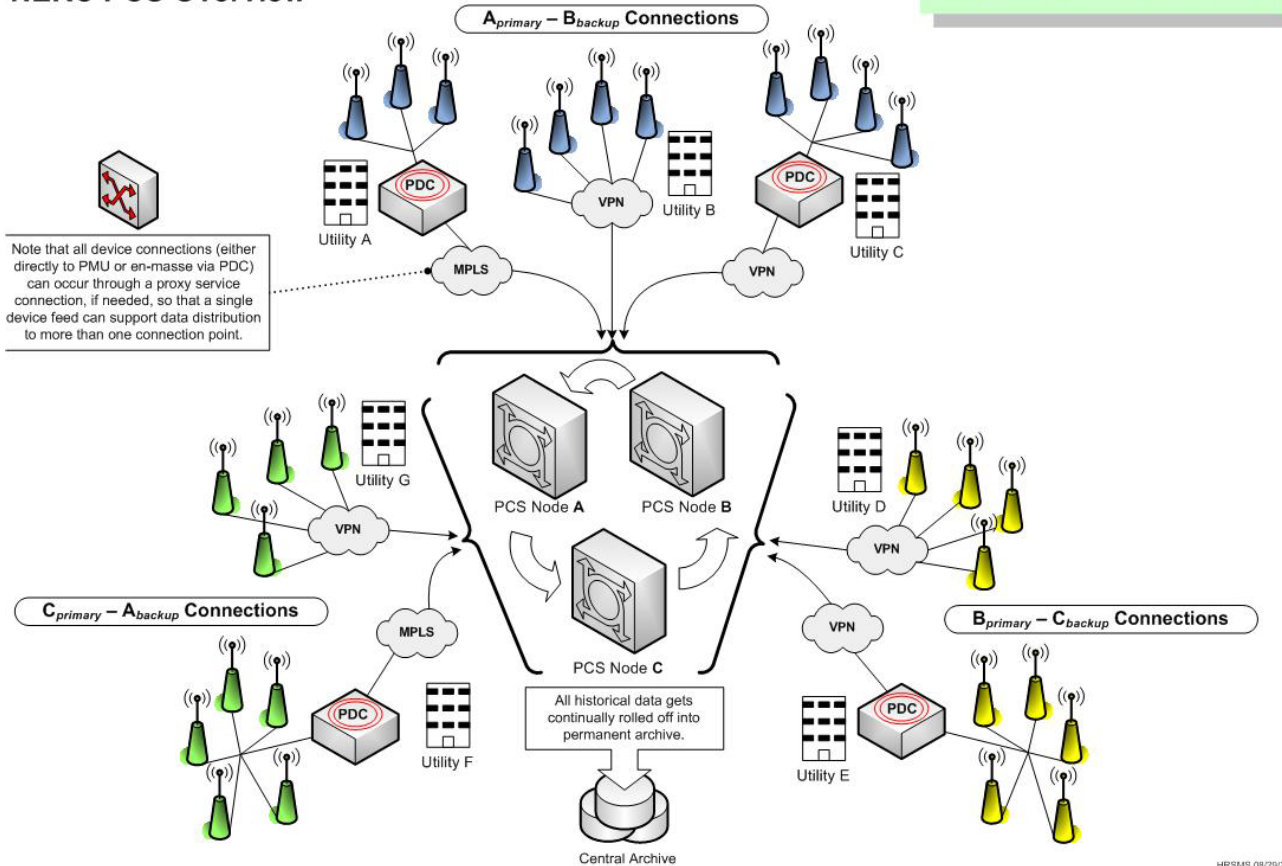| Name	Org	Email
Paul Myrda	EPRI	pmyrda@epri.com
Kris Koellner	SRP	kmkoelln@srpnet.com

TVA PCS

NERC PCS Overview

Design overview of a multi-node system where devices send their data to at least two homes
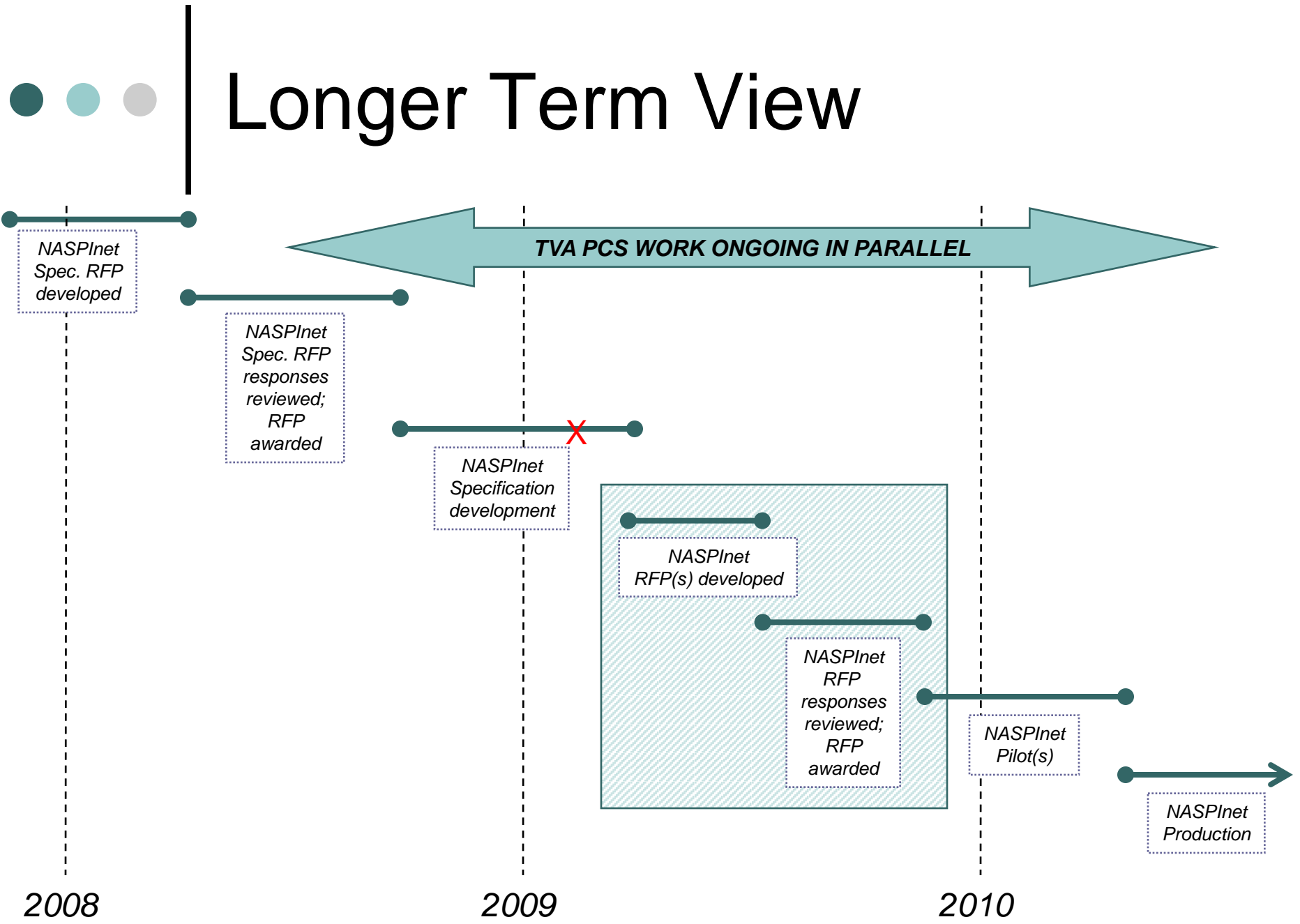
NASPInet Spec Update

- NASPInet specification RFP awarded by DOE/NETL to **Quanta** on 9/27/08

- Upcoming milestones:
  - Rough draft spec review   2/4/09
  - Valley Forge input gathering   2/10/09
  - Final draft specification due   3/27/09
  - NASPInet Review Team Call   3/30/09
  - NASPInet Review Team Call   4/20/09
  - Final delivery; end of contract   4/27/09

NASPInet Spec Top Issues

1. Data format for historical data – not constrained
   - Answer ID needs to match Question ID
   - Class (D) needs to be specified
2. Naming convention
   - Name service provides unique identifier – minimum 128 bit (GUID)
   - Meta data fields, incl. universal naming field (per outside directive)
   - Naming support down to the channel level, incl. digitals
3. Level of data granularity
   - Services will support signal level granularity
   - Data bus traffic will be C37.118 message format for streaming data
4. Security
   - CIP compliance
   - Must discern varied requirements across different classes
   - Access control vs. encryption

- Ensuring interoperability among vendor community, post-spec
- Quanta deliverable vs. next steps (pilot, procurement, etc.)
- Quantifying description of service classes (latency, availability, etc.)

Longer Term View

TVA PCS WORK ONGOING IN PARALLEL

NASPInet Spec. RFP developed

NASPInet Spec. RFP responses reviewed; RFP awarded

NASPInet Specification development

NASPInet RFP(s) developed

NASPInet RFP responses reviewed; RFP awarded

NASPInet Pilot(s)

NASPInet Production

2008

2009

2010

Ongoing action items

Task	Lead
1. NASPInet Draft Specification	Quanta/RFP Team/NETL
2. TVA PCS Work	Ritchie/Robertson/Trachian
3. NASPInet promotional article	Myrda

- What it is, why needed

4. Next generation PMU features	Khurana

- To feed into IEEE standards cycle

5. System conventions and utilities	Bakken

- Naming convention for example

6. System failure modes & effects analysis	Cherian

- What fails, why, and how to handle

7. Role of PDC in NASPInet	Chassin

- Compare/contrast with PG function

- DNMTT will be meeting via conference call to continue work on these items - **join us! Next call TBD.**

- http://www.naspi.org/meetings/dnmtt/dnmttmeetings.stm