NERC’s Vision – Synchro Phasor Technology

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Recognition by NERC

- NERC involvement
  - Early involvement in concert with WECC
  - Installation of data concentrator at TVA in the Eastern Interconnection

- Value to the industry
  - Diverging phase angles on the afternoon of August 14, 2003 in post blackout analysis – could have provided operational insight
  - Possibility of expanded role of synchro phasor technology into other advanced applications
    - Operational monitoring – frequency, phase angle, etc.
    - Intelligent and adaptive islanding
    - Inter area oscillations
    - Smart Grid applications
    - Event analysis
Present Day Involvement

- Supporting the NASPI community
  - NASPI meetings provide forum for the advancement of the technology
  - NASPI executive steering group
  - Allocation of budget dollars

- Coordination with DOE and Smart Grid Investment Grants

- Supporting underlying infrastructure through contract with Grid Protection Alliance
  - Phasor measuring unit (PMU registry)
  - Data concentrator test bench
  - Development of communication gateways via NAPSInet protocol concepts
Future Directions

- Transfer technology into operational environments
  - Incubate not operate – 5 year plan with Grid Protection Alliance
  - Industry funded based on value in technology and related tools
  - Possible need for standards – IEEE, NERC, others
    - Data requirements, communications, etc.
Conclusions

- Synchro Phasor technology has the potential to change the control room operational environment like no other technology since implementation of state estimator technology.

- NERC is very supportive and sees great benefit in the broad application of the technology within the next ten years.