Integrated Network Management and the Smart Grid

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- Four Main Points to Presentation:
  - Management is complex and is comprised of many parts that should be evaluated as an integrated whole.
  - To this point, that integrated analysis has not started in the SGIP - current work is focused on specific domains/technical areas.
  - What is needed is a practical, implementable example management architecture/approach for the Smart Grid.
  - A proposal for getting work done.

(Network) Management and the Smart Grid

- Management includes:
  - Protocols
  - Information/data models
  - Security and Security Management
  - Archival and storage of information
  - Movement of information across administrative boundaries.
  - Data distribution, collection, analysis, etc.
  - Operational policies (security and other)

Current SGIP Work is Focused

- On a data models for a particular domain.
- High-level abstractions for an overall architecture
- Protocols for various SDOs
- Security Architecture
- Domain-Specific issues

These are essential building blocks from which one might create a management environment but there is no integrated guidance - no roadmap or pan on how the pieces fit together for an effective operational system.

What is Needed

- A practical, implementable, example management architecture for the Smart Grid.
- This sample will not be the only possible way to build a management system from the building blocks the SGIP identifies, but it is a way to build such a system.

Initial Work Proposal for NM

- Background white paper on integration functions and why this is work necessary.
- Requirements analysis - what do the individual domains in the smart grid require from a management system and what is required of an integrated cross domain, national management infrastructure.
- Are there gaps in the core models, protocols, etc?
- Are there high-level architectural issues that emerge?
- What are proposed areas that require work.
- Define a reference architecture that does not dictate specific technologies but lists those available for a particular function. Sometimes there will be one, none or many.