Smart Grid Cyber Security Issues

Dec 2, 2009

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Takeaways

- IT and electric grid community can learn from each other
- Information sharing is lacking
- Standards & jurisdiction

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Reality in Securing Grid vs IT

- Safety, reliability, resilience are primary goal
  - Consequence of failure can be more severe
- Long-term transition from legacy to “smart”
- Most of grid is publicly-accessible
  - Plan for breaches
- Perception differences
  - Culture of “security through obscurity”
  - Suspicion of IT community
- The smart grid is young

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Strategies to Bridge the Gap

- Education
  - IT security strategies have been honed over decades
  - Similar requirements: resilience, privacy, authentication
  - Smart Grid ≠ Internet
- Apply standards & best practices to secure the grid
- Data Center experience can help utilities manage and secure massive increase in data

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Cyber Security Information Sharing

- Stakeholder communication is ad hoc today
- Public/Private partnership is key
- Information Clearinghouse – where housed TBD…
  - Proactive & reactive information sharing needs
  - Sharing of standards & best practices
  - Search for similarities - for 3,000+ smaller utilities
  - Sharing of views on vulnerabilities, threats, consequences

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Jurisdictional Issues – Innovation Key

- Currently - No single end-to-end enforcement body
  - FERC/NERC regulates bulk power (transmission & some gen)
  - 51 PUCs/PSCs regulate distribution
  - NARUC recognizes cyber security and privacy needs
  - DHS Sector Coordinating Councils
- Focus on standards for all stakeholders is preferred
- Balance between comprehensive and pragmatic
- Key – ability to innovate in technology, process and people
  - Today’s threat or vulnerability is certainly not tomorrows

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