



Vienna Cyber Security Week 2018

Protecting Critical Energy Infrastructure



Cyber Security Standards for Critical Energy Infrastructures

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Wilhelm Wimmreuter
InCharge Systems, Inc.
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Cyber Security Standards in Critical Energy Infrastructure

- **Overcome the Race between different Standards**

Can standards bodies overcome the different goals of centralised-legacy and distributed-network standards?

Standard Organizations on the Move:

State Regulators: FERC, FTC, ... deregulated markets

Standard Bodies: ITU, IETF, ... adopted regulation & new technology.

Industry Forums: ATIS, ... try to fill the missing link(s)

David Isenberg's "**The Rise of the Stupid Network**" 1997, is reality and must be considered by all business operations using the Cyber-Space.



Challenges & Opportunities

Building Standards for Critical Infrastructure

Challenges

- Transition from Human-Control through Closed-Central-Control towards Open-Distributed-Network-Control and Operation
- From Trust-by-Wire to Trust-by-Authentication
- Standards, Policy, Production and Operations have different goals and likely stick to their legacy practises

Opportunities

- Overcome the difference between centralised, closed and distributed open network standards
- Network-independent authentication migrates life-time-responsibility and cost to the principal - user/employee
- Increase Security by simplifying policies and operations
e.g.: Re-use secure credentials of principals PKI tokens



Stakeholders their Interactions / Influences for the Transition of Standards

State Regulators

- Federal Energy Regulatory Commissions, Government, etc.
- They Deregulated but execution & policies are still on the move.

