

SMART GRID SECURITY SYMPOSIUM - PANEL DISCUSSION

Panagiotis Paschalidis

Vienna – March 13 & 14th, 2017

One concept does not fit all.

Security needs a holistic approach.

- “Simple” top-down or bottom-up approaches are projections of centralized (“traditional” critical infrastructures) vs. decentralized (market & free agent-driven/commercial) architectures.
- The centrally organized grid is currently transforming towards decentralized, customer centric energy architectures with high amount of renewable energy sources changing the points of interest as well as the information and energy gradients within the grid.
- The applied security concepts are being transformed accordingly.
- In the foreseeable future both architectural concepts will be in place to a balance point that is still far from having converged. It is unlikely that the resulting architectures will be completely free from hierarchy and layered control levels.
- Towards ensuring secure systems, we need security integrated both on element-basis as well as top-down high level control mechanisms that have the overview and can step in when critical situations arise.
- We need to learn our lessons from both worlds (analysis and synthesis).
 - Element level security, open designs and systems, security integration already in the design phase, virtualization,
 - Standardization & certification, overarching incident management for critical incidents, aggregation processes