Communications Investment Strategy for Utilities
Connected Grid Network Architecture Services develop converged IP backbone for smart grid, business services.

Industry: Electric Utilities
Location: United States

Business Impact:
Benefits delivered by the Cisco solution include:
• Decrease in complexity of smart grid network
• Optimization of capital (CAPEX) and operating expense (OPEX) investments
• Cost reduction
• Alignment with proven trends in operational efficiency

Business Challenge
Utilities are in the process of introducing many new smart grid Capabilities, including Phasor Management Units (PMUs) for better Wide Area Management, Distribution Automation (DA) solutions for improved grid reliability, and Automated Metering Infrastructure (AMI) to give customers greater control over energy usage and costs. Each of these initiatives requires robust wide-area telecom networks. Traditional telecom investments in utilities approached this expansion on an as-needed basis, resulting in network and operations silos.

By themselves, no single business unit can justify the most advanced telecom solution and tends to favor overlays. Separate networks result in inefficiencies, shortcuts, security risks, and lack innovation. When information is in silos, data management is cumbersome, and business process improvements are hindered. Transforming the grid requires new systems (power and telecom) and new administrative skills. Relying on yesterday’s solutions does not produce the results that utility executives expect. Cisco believes that strategic investment advantage is only possible through strategic architectures.

Solution and Results
Cisco® Connected Grid Services provides:
• Proven methodical process to strategically design a unified network, with a standards-based, secure management architecture
• Packet-based communications technologies
• Smart grid applications implemented through industry-proven Multi-Protocol Label Switching (MPLS) solutions
• Virtualization technology that provides each utility domain relative autonomy
• Utilization of the same network that supports enormous amounts of metering data without adversely affecting either business process
• Optimized CAPEX and OPEX investments
• Overall cost reduction

Cisco Connected Grid Services
Designing and implementing MPLS is more challenging than traditional networks. However, the Cisco Advanced Service organization provides premier expertise in unifying network strategies through MPLS. Cisco has already helped many enterprises deploy and operationalize the most complex MPLS networks.

Cisco Connected Grid Services includes comprehensive network planning, design, implementation, and operation. One, several, or the entire suite of services can be chosen. Cisco Connected Grid Services can meet each business unit’s smart grid needs using a single network for a fraction of the cost.

“Our partnership with Cisco enabled development of a modular approach and convergence of services onto a common IP infrastructure, which helps us optimize OPEX and meet new business challenges.”

Director
Electric Utilities Company