Managing NERC Compliance with Microsoft Solutions

Responding to New Challenges

After the major terrorist attack in 2001, North American politicians and regulators have come to believe that North American utility companies' infrastructures have large bullseyes on them. After all, they power two of the largest economies in the world.

Sensing these threats, in 2005 the U.S. Congress gave the North American Electric Reliability Corporation (NERC) legal authority to develop and enforce mandatory reliability standards for the bulk power system in the United States, with some reach into complying provinces in Canada.

NERC now sets official reliability standards and also certifies system operators, analyzes system disturbances and conducts periodic reliability assessments and readiness evaluations.

Evolving Guidelines Require New Solutions

NERC's new guidelines require utilities to work continuously to protect themselves from cyber threats.

Keeping pace with the NERC requirements will entail a great deal of work. To prove the point, just think of the job ahead, securing all the differing communications to assets connected to the grid: there are untold numbers and variations of SCADA, control room devices, power plants, substations, and meters just to name a few examples.

## Automating Compliance with Microsoft Partner Solutions

Thankfully utilities can now leverage the NERC compliance information system, a powerful new class of software solutions offered by Microsoft and its partners specifically designed to help ensure compliance with NERC regulations.

Microsoft's partner solutions – including those from Ember, AUS-Flexnova, OSIsoft, and SUBNET – incorporate a range of automated collaboration, tracking and quality assurance features, from role

assignments and security protections to logs, monitoring, alerts and monthly tracking.

In general the solutions enable companies to take an enterprise approach to compliance by capturing the entire range of activities that comprise the organization's efforts to meet or exceed regulators expectations.

For instance, the solutions allow automation of each step of a required NERC quarterly report so that no steps are missed and the report is submitted accurately and on time. Administrators can use software to assign roles, and monitor progress and responses based on particular responsibilities within the organization.
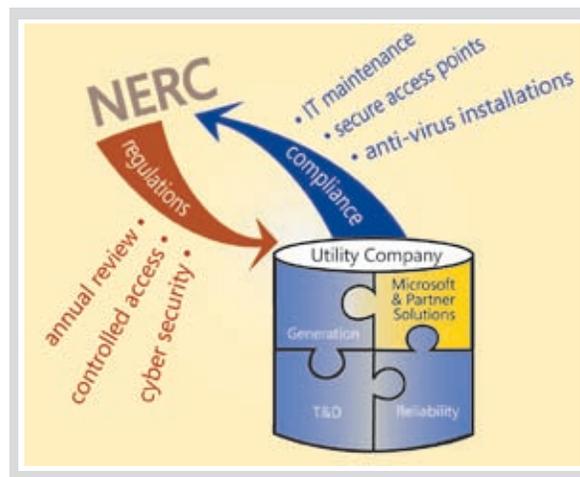
Microsoft solutions enable a utility company to capture the entire range of activities that comprise the organization's effort to meet or exceed regulators' expectations.

Using security features built into Microsoft Windows Vista and Microsoft Office programs, the partners' software solutions automate manual processes for managing compliance, responsibility, accountability and audit-readiness. They come pre-loaded with all NERC and applicable regional standards, requirements and measures, to expedite utilities' understanding and adaptation to the requirements.

Other partner solutions offer a single view of utilities' entire security profile or create secure connections between field devices like relays, meters and equipment monitors, to the different utility business intelligence systems like historians, asset and outage management systems, over the various communication networks of fiber, leased-line, wireless and dial-up.

Anticipate Changes

NERC's Critical Infrastructure Protection (CIP) standards will evolve over time, long after their release in January 2009. Utilities will face continuing pressures to develop procedures and adapt systems that enable complete compliance.

Benefits of Microsoft-based NERC Compliance Software Solutions

- Ability to manage all reliability related standards (NERC, RRO, ISO, Internal)
- Enables proactive planning and delegation of tasks
- Leverages proven off-the-shelf technology platform (SharePoint)
- Manage compliance, accountability and audit-readiness of an electric utility's various legal entities
- Online, real-time reporting and statistics on all compliance management data
- Operational risk management through dashboards, KPIs and notification of key personnel
- Pre-loaded NERC, CIP and applicable regional standards
- Rapid deployment within and across operating units
- Reasonable investment in terms of cost and effort required
- Role-based views with user-friendly interfaces
- Secure documents, data and processes according to the FERC standards of conduct.

Microsoft Technologies Offering Features for NERC Compliance

Microsoft SQL Server 2008

- SQL Server delivers on Microsoft's data platform vision by helping organizations manage any data, any place, any time
- Enables data store from structured, semi-structured, and unstructured documents directly within the database
- Delivers a rich set of integrated services that enable you to do more with your data such as query, search, synchronize, report, and analyze
- Data can be stored and accessed in your largest servers within the data center all the way down to desktops and mobile devices, enabling you to have control over your data no matter where it is stored.

Microsoft Office 2007 System

- Built-in compliance features enable organizations to address regulatory requirements without adversely affecting employee productivity
- Provides document and records management, versioning control, workflow processes, and auditing capabilities within the familiar environment of Microsoft Office
- Encryption capabilities enable access securities
- Full-featured development platform for NERC-specific requirements
- Includes desktop programs such as Microsoft Office 2007 and server-based systems including: Live Communications Server, PerformancePoint Server, Project Portfolio Server, Project Server, SharePoint Server.

Integrated Risk & Compliance Reporting Solutions from Microsoft

Microsoft Forefront

- This family of business security products helps provide greater protection and control over the security of your network infrastructure. Microsoft Forefront's products easily integrate with each other, with your organization's IT infrastructure, and can be supplemented through interoperable third-party solutions, enabling end-to-end, defense-in-depth security solutions.

Microsoft Terminal Services

- Terminal Services in Windows Server provides new options for application deployment, more efficient access to data over low band-width, reuse of older hardware, remote management, and other tasks.

Windows Vista

- Provides more protection against the latest generation of security threats
- Provides efficient centralized management of security features
- Built-in system integrity assurance helps prevent data from being compromised
- Protects data on company PCs from unauthorized access should they be lost or stolen.

Microsoft Windows® Server & Active Directory

- A central component of the Windows platform, Active Directory service provides the means to manage the identities and relationships that make up network environments. Windows Server makes Active Directory simpler to manage, easing migration and deployment.

About Microsoft's Worldwide Utilities Group

www.microsoft.com/utilities

Microsoft's Worldwide Utilities Group offers platform and partner solutions that empower utilities to thrive in today's market-driven environment by optimizing their business operations in customer care, generation, trading and risk management, transmission and distribution, regulatory compliance and enterprise services. For more information, contact your local Microsoft sales representative or visit **www.microsoft.com/utilities.**

Microsoft Partners Offering NERC Compliance Solutions