ConsoleWorks
Cybersecurity | Operations Platform

Real-Time Monitoring and Compliance with ConsoleWorks

QUICK FACTS

INDUSTRY: Utilities

ANNUAL REVENUE: $15 Billion

SUBSCRIBERS: 3.6 Million

WEBSITE: www.comed.com

PRODUCT: ConsoleWorks

Commonwealth Edison (ComEd) is a division of Exelon Corporation, one of the nation's largest energy providers. Based in Chicago and serving the northern Illinois region, ComEd maintains an electrical transmission and distribution system of over 78,000 miles of power lines, providing electricity to more than 3.6 million customers. In 2001, Exelon initiated a comprehensive overhaul of their systems, the systems which provide control and continuous monitoring of the company's entire electric power grid to maintain an uninterrupted flow of power to ComeEd customers.

"ConsoleWorks gives us 24/7 proactive hardware and software monitoring while serving as the security piece of our NERC-CIP compliance practice." **- Shelly Barczak, Senior IT Analyst**

CHALLENGES

Comprehensive overhaul of ComEd's IT infrastructure to achieve better control and monitoring of the electric grid and customer energy flow by:
• Adding the capability to effectively monitor and manage ComEd's large IT infrastructure
• Giving the IT support team complete, secure, remote access to monitor and manage the system
• Seamlessly integrating with IT environments, both new and old
• Alerting IT Support Personnel to critical events before they develop into major problems

SOLUTIONS

This customer uses ConsoleWorks because it:
• Provides a complete overview of all system events and statuses in a single web page
• Scans ComEd's IT infrastructure, including network hardware, to monitor and evaluate performance and operations in real time
• Allows for programmed alert warnings, to page and email designated support teams when an event requires immediate attention.

BENEFITS

With ConsoleWorks, ComEd is able to:
• Dramatically improve their efficiency and system monitoring
• Centralize their logging and event reporting
• Proactively monitor hardware and software to allow team members to address events in the system before they become crises
• Meet regulatory NERC compliance with centralized logging and real-time response to events.

tdi technologies

Overhauling a Large IT Infrastructure with Critical Security Requirements

The ComEd Project was the first complete system replacement project among Exelon's multiple utility divisions. To manage and supply the project, Exelon devised a three-year plan, which included replacing ComEd's Energy Management System (EMS), Outage Management System (OUS), and Supervisory Control and Data Acquisition System (SCADA), as well as adding 140 new servers to its IT infrastructure.

These new servers would be a part of the larger IT infrastructure, and directly affect the delivery of power to ComEd's service area. Therefore, one of the most crucial elements in the system overhaul was adding the capability to effectively monitor and manage, as well as secure, the infrastructure as a whole.

Exelon needed a solution to seamlessly integrate with the IT environments, both new and existing. ComEd's IT support team needed complete, secure access from remote locations with real -time visibility to monitor and manage the system at all times. Furthermore, they needed an alert system for critical events— ranging from disc failures, disc errors, high CPU utilization, router and switch problems, to computer and network failures— to allow ComEd to take corrective action before such events developed into major problems, problems that could result in IT failures or potential failures in the electric grid.

Deploying ConsoleWorks to Improve Integration and Security

To integrate the most secure and effective monitoring and management technology into ComEd's new system, Exelon selected ConsoleWorks from TDi Technologies.

Shelly Barczak, Senior IT Analyst for Exelon and a member of the project team since its inception in 2002, worked with TDi Technologies to install ConsoleWorks. "This is the solution that was recommended, and ComEd strongly agreed after talking with other utilities that had great success with ConsoleWorks," she said.

ConsoleWorks scans ComEd's entire IT infrastructure in real time, including network hardware, to monitor and evaluate performance and operations in every area. Support team members now access the system through a standard Web browser as part of standard daily operations.

Dramatic Improvements in Efficiency and Systems Monitoring

A single Web page provides a complete overview of all system event and statuses, allowing team members to review flagged events and take action as needed. Alert warnings are programmed to page and email designated support teams when an event requires immediate attention.

According to Barczak, ConsoleWorks has resulted in dramatic improvements in efficiency and systems monitoring. Prior to ConsoleWorks, if her team was working in the primary system, they might not be aware of problems with backup systems or secondary hardware until it was too late.

"ConsoleWorks allowed us to centralize our logging and event reporting, 24/7, and automate the monitoring and checking of the same logs so as not to miss event advisories. In the past, someone would have to look at logs to determine if there was a problem, or we simply would not have known the problem was there," she said.

Proactive Hardware and Software Monitoring

Since the installation, Barczak has been impressed with ConsoleWorks' performance, noting that its "proactive hardware and software monitoring work very well" and allow her team to address events throughout the system before they develop into crises.

Barczak also praised TDi Technologies and its level of support and customer service throughout the project. After initially bringing ConsoleWorks online, TDi worked with ComEd to find the right balance between meeting their monitoring needs and maintaining the robustness of the system.

"We had turned on all of the scans for all the windows and all the servers," said Barczak. "TDi Technologies gave us suggestions to minimize or streamline our scans, and prioritize their importance in order to optimize performance. They were very courteous and helpful, and very quick to find solutions whenever we called."

The Advantage of Compliance

ConsoleWorks also helps boost compliance initiatives at Exelon. "We are implementing ConsoleWorks as the security piece of our NERC compliance," said Barczak. ConsoleWorks supports regulatory compliance by providing centralized logging and real-time response to events.