

Kentrox and IBM: building intelligent communications sites

Site management, monitoring and control solutions for wireless and fixed line operators



Highlights:

- Provides complete visibility and control of network sites and all their systems
 - Reduces operating costs while improving energy efficiencies, reliability and security
 - Empowers the leap from efficiency to true optimization
 - Exemplifies IBM's Smarter Planet™ initiative
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The site management solution from Kentrox, Inc. automates the management of such network infrastructure locations as cell sites, substations and remote communication huts, together with their systems, while dramatically reducing operating expenses and improving network quality. Intelligent Site Operations (ISO) from IBM converts the collected real-time data into actionable information for continuous monitoring, management, and control of all physical and digital assets and operations.

Solution overview

As telephony, data and multimedia communications converge, fixed line and wireless service providers must deliver an expanding array of services and applications while minimizing overall network costs. Their ability to monitor and manage critical elements of network infrastructure effectively is important for any remote site – whether cell site, substation, roadside cabinet, hut or other facility.

It is common for operators to have a limited view of activities occurring at their sites. Their instrumentation provides minimal information about the status of these network facilities. For example, an alarm indicating a non-functioning generator typically won't indicate whether the equipment has been stolen, is out of fuel, or if the start battery is dead. Only an expensive site visit by a technician will reveal that key information and resolve it.

Other options are available. For nearly 45 years, Kentrox has provided the world's largest service providers with solutions that simplify network management and reduce operational costs. Today, Kentrox is a world-class innovator of site monitoring, management and control solutions that enable service providers to reduce network and operating costs while dramatically improving network performance. Customers include wireless and fixed line, telecommunications carriers, cable and broadband network providers, and utility companies.



The Kentrox site management solution provides complete visibility and control of network infrastructure sites and all of their systems. That includes a comprehensive view of network sites through customizable, web-based dashboards.

Virtually any type of system can be integrated with the vendor-neutral Kentrox solution for detailed surveillance, remote control and periodic maintenance automation. Among these are security and power systems, environmental equipment and conditions, backhaul circuits, local loop equipment, radios and antennas.

Customers can quickly meet or exceed cost-containment objectives by adopting this single system to monitor and manage all site elements. They avoid the needless expense of multiple implementation projects and management systems, as well as training and ramp-up cycles.

In addition, IBM regards Kentrox as a valued associate with its proven ability to provide instrumentation that drives efficiencies throughout network infrastructures.

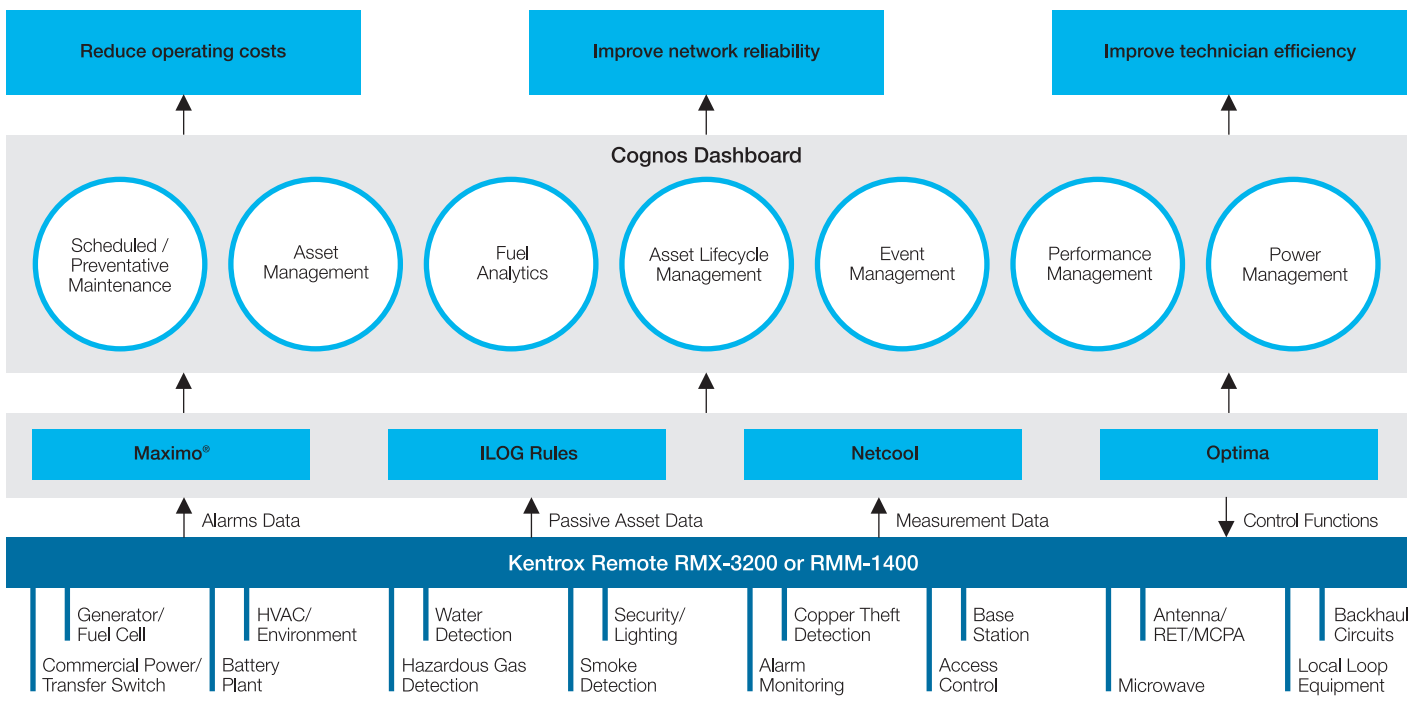
By integrating the collected data via its ISO capability and employing software products including Netcool® and Tivoli®, IBM enables communications facilities to make the crucial leap from common efficiency to genuine optimization. The correlation of both passive and active information among sites, and interconnection with IBM software, enables technicians and managers to respond intelligently to virtually any activity that might occur at a site.

Customer benefits from the Kentrox-IBM solution are profound. They include:

- Reduced operating costs
- Improved energy efficiencies
- Increased reliability and availability
- Improved security

The combined Kentrox-IBM solution also exemplifies the “three I’s” of IBM’s Smarter Planet initiative: It is instrumented (creating the ability to measure and analyze the precise condition of everything), it is interconnected (individuals, systems and objects can interact in new ways), and it is intelligent (people can use it to predict future events, and thus take appropriate advance action).

Intelligent Site Operations Solution architecture



Kentrox and IBM solution: a closer look

The Kentrox site management solution includes the Optima management system and the Remote suite of products. Optima provides a comprehensive view and control of network infrastructure sites and performance reporting so service providers can view trending and availability of their networks. Remote access, diagnostics and control capabilities eliminate truck rolls.

The Remote suite of products includes monitoring and control devices that provide IP management to remote sites and equipment. It allows site alarm monitoring, protocol conversion and equipment connectivity, acting as an intelligent extension of customers' Operations Support Systems (OSS). The Remote suite of products is designed to enhance network management strategy, reduce operational costs and improve operational efficiency with reduced truck rolls.

The Kentrox site management solution integrates with virtually any type of system to provide a high level of surveillance, remote control and periodic maintenance automation. Operators can significantly reduce site visits and enable technicians to resolve issues in half the time.

The Kentrox site monitoring, management and control solution can be used for many applications including the following:

- Power management
- Fuel management
- Environmental management
- Microwave site management
- Secure wireless management
- Site security management

The power management solution, for example, supports power that comes from many sources: commercial service, solar panels, generators (diesel or propane), batteries, wind turbines or hydrogen fuel cells. It enables service providers to understand the current health of monitored sites and choose the best equipment for future build-outs or site augmentation. It optimizes power consumption, reducing the total power and fuel consumption required to run the site successfully. The results of an optimized hybrid power management solution are reduced operating costs, enhanced equipment efficiency and HVAC utilization, and reduced fuel consumption. The automated maintenance work also increases the lifecycle of the equipment.

The environment management solution provides a full range of remote environmental monitoring and control features to ensure normal operation, provide notification of poor conditions, and enable remote management to reduce costly site visits. Required repairs or adjustments can be accomplished before service is affected, increasing site availability and reducing repair time.

The microwave site management solution enables service providers to monitor microwave sites remotely and manage critical site elements. This includes performance and fault management, alarm monitoring, and configuration management for microwave radios from any vendor.

The comprehensive fuel management solution from Kentrox enables service providers to reduce the number of physical site visits through its remote access capabilities which provide valuable information. Additionally, its alarm and report capabilities help manage fuel effectively.

Rely on Kentrox and IBM experience

Between them, Kentrox and IBM enjoy decades of experience providing the communications, hardware and software solutions that support service providers worldwide.

“Service providers are constantly seeking options to reduce operating costs while improving network availability. With Kentrox as the key enabler of the Intelligent Site Operations offering from IBM, our solution provides comprehensive site monitoring, management and control of critical network elements to improve service quality while reducing costs.”

– Rich Cremona, CEO, Kentrox, Inc.

Kentrox site management solution

- **Global applicability** – With more than one million products successfully deployed in carrier and enterprise networks worldwide, Kentrox provides operators with the benefits required to be successful, whether their sites are in hard to reach locations or on street corners.
- **Technology** – The comprehensive site management solution from Kentrox enables service providers to reduce network and operating costs while improving network performance.
- **Sector experience** – As a recognized innovator in site monitoring, management and control solutions, Kentrox is a trusted partner of network operators and enterprises.

IBM's Intelligent Site Operations

- **Flexibility** – ISO integrates data and systems across operations to help customers improve the availability of services, reduce operational expenses, increase revenue streams, and manage their energy and carbon footprint intelligently.
- **Versatility** – IBM provides an open, scalable, flexible, and service-oriented architecture (SOA)-based telecom industry framework. Horizontally integrated, it accelerates the end-to-end telecom service.
- **Global experience** – IBM has extensive experience in helping organizations throughout the world with its insights for their enterprise assets.

For more information

To learn more about IBM in CSP2/SPDE, contact your IBM sales rep or visit:

ibm.com/software/industry/telecommunications

To learn more about Kentrox, please visit:

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Route 100
Somers, NY 10589
U.S.A.

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