



Indian Gas Company Leverages DESKVUE to Optimize Processes

BACKGROUND

A leading natural gas distribution company's key priorities include operational efficiency, safety compliance, real-time monitoring, and data-driven decision-making, ensuring uninterrupted gas distribution to residential, commercial, and industrial customers in India. Minimal downtime and quick responsiveness to anomalies is critical in this sector.

A system integrator was tasked with facilitating networking, installation, and interior setup to create a fully functional control room, providing seamless integration of the SCADA system and Black Box Emerald® complete control solutions.

CHALLENGE

The company faced significant challenges in monitoring and collecting data from their gas stations. The previous system lacked centralized data monitoring and access. Server rooms and operator stations were physically separated, which limited operators' ability to respond to system anomalies effectively, leading to operational inefficiencies, delayed decision-making, and increased costs due to manual interventions.

Key requirements/evaluation factors for the new solution included centralized real-time data collection and monitoring; secure, remote access to servers across floors; integration with high-resolution video walls for efficient visualization of data trends and alerts; and scalability for future IoT and predictive maintenance initiatives.

SOLUTION

Black Box implemented a complete control system as the core of its control room operations. This cutting-edge, Linux® based Emerald DESKVUE solution supports simultaneous access to up to 16 servers, including virtual machines (VMs), RDP sessions, PCoIP endpoints, and physical servers. Emerald DESKVUE enhances flexibility and operational efficiency by allowing operators to manage multiple systems through a single, unified user interface for secure, high-performance remote access. The system is scalable and futureproof and complies with cybersecurity standards.

The solution's capability to integrate virtual and physical systems and provide seamless server access was pivotal in transforming the gas company's control room operations.

With the new system, all server types are integrated into one streamlined workflow, reducing complexity and improving operator response times. Operator setups are optimized for productivity and ease of use, supporting efficient multitasking.

The new workflow enabled SCADA servers to collect and process data in real-time. Operators on the 3rd floor can now access these servers on the 1st floor via KVMoIP endpoints. Paired with a video wall, the control system enables real-time monitoring of SCADA metrics and alerts, critical for decision-making. The video wall displays critical system metrics, alerts, and trends for enhanced decision-making. Emerald DESKVUE drives the video wall for a 6x3 matrix.

This installation is part of the gas company's broader initiative to modernize their infrastructure, integrate IoT capabilities, and leverage predictive analytics for operational efficiency and safety enhancements.

RESULTS

Now, operators can seamlessly manage up to 16 servers, including virtual and physical systems, saving time and effort. Real-time data visualization via the video wall improves anomaly detection and responsiveness. Systems experience reduced downtime, and optimized workflows lower overall costs. The system's flexibility supports future expansion.

The integration of SCADA and Black Box Emerald DESKVUE resolved the gas company's challenges by centralizing control, improving monitoring capabilities, and ensuring secure server access.

Black Box and the system integrator offered excellent support throughout implementation, ensuring a smooth transition. The gas company plans to extend this infrastructure to another control room.

A gas company representative commented, "We are pleased that the Emerald complete control system greatly improved our processes, and the support from Black Box was second-to-none."



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