infraray

Reference Project

Berliner Wasserbetriebe

Mayor Utility Saves 90% on Service Costs

Infraray BICS monitors, secures, and automates both IT and industrial infrastructure

Initial Situation

Berliner Wasserbetriebe delivers fresh, safe water to 3.9 million people. When the utility needed security for its IT network, Infraray Business Infrastructure Control Solution (BICS) solved the problem. BICS then extended to automate operations with centralized control of the utility's industrial infrastructure. The results: productivity of operating staff multiplied 4x and service costs lowered by 90%.

Challenge: Secure all devices and machinery linked to the IT network and SCADA gateway

To meet the mounting threat to critical industrial control systems (ICSs), Berliner Wasserbetriebe - which delivers S3 billion gallons of water yearly over 5,000 miles of pipe – took action to protect and automate its IT network, plus thousands of industrial devices linked via SCADA gateways located at all of its nine waterworks, eight pumping stations, and over 20 booster stations.

Solution: Real-time discovery and security on a single pane of glass

Berliner Wasserbetriebe needed a solution that was able to identify and manage every router, switch, and endpoint from any manufacturer.

Benefits: Fast payback and ongoing command of the infrastructure

- ✓ Manage both IT and SCADA infrastructure on central consoles

- ✓ Control access to all ports and real-time identification of all new endpoints

- ✓ Consolidate network data with single CMDB with granular information on every device and connection for both the IT and operations infrastructures

- ✓ Simple management of both MAC-based and 802.1X device authorization, in a single system

- ✓ Identical operator interface for both the IT network and SCADA-connected devices

- ✓ Staff at a single data center monitors and centrally controls all IT and SCADA-linked infrastructure

- ✓ Policy-based automation of a wide range of machinery and functions

- ✓ 7S% fewer staff needed to operate all water-handling machinery

- ✓ 90% fewer service calls, due to self-healing and early breakdown detection

It also required:

- ✓ Real-time visibility of all endpoints, uplinks
- ✓ Robust network infrastructure security
- ✓ Full visualization of all water supply processes
- ✓ Easy integration with its SCADA gateways
- ✓ Reduction in oprational expenses (TCO)
- ✓ High return on investment (ROI)

After a one-week Proof of Concept, the utility decided on Infraray Business Infrastructure Control Solution (BICS) with SCADA, in part because it would also centralize control of its 1,000 wells, filters, and 100-plus water pumps that must work in coordination - while fulfilling security requirements, on a single pane glass.

Solution: The only option for complex heterogeneous infrastructure

Most IT operations management (ITOM) solutions for network security and control could only manage the products of one specific vendor. Infraray stood out with its ability to detect, monitor, and manage every router, switch, and endpoint from every manufacturer. Only Infraray could provide real-time visibility of all endpoints and uplinks, and integrate smoothly with the CA Spectrum management console.

Implementation: BICS, SCADA, and CMDB integration

Within one day of installation, BICS discovered all routers, switches, and endpoint devices. It took just two days to configure BICS for the SCADA interface, and less than three weeks to integrate with the utility's preexisting CMDB, CA Spectrum, which BICS' virtual CMDB now keeps complete and up to date.

Outcome: Critical infrastructure protected, major operational benefits, and high ROI and lower TCO

With BICS, the utility quickly established single-console control of all network ports, routers, and switches. BICS now detects, authorizes, and secures every endpoint on the IT network – and it does much more. Its automated self-healing capability has cut service technician costs by 90%.

On an identical screen and interface, operators now also protect and control water pumps, vents, and even data center HVAC and doors. If a pump or related machinery stops working, BICS can attempt a restart, and instantly send alerts to designated personnel if the self-service attempt fails.

"Our Auconet infrastructure control boosts our security, cuts our service costs dramatically, and gets our machinery back online faster, in many cases without operator intervention!"

Michael Böttcher, IT Security Engineer, Water Supply Control System, Berliner Wasserbetriebe

During eight years of smooth operation, BICS delivered an annual ROI of over 25%. During this time period, the number of employees needed to manage and sustain all water supply operations for Berliner Wasserbetriebe has been reduced from 170 to 40.

Get in touch with us!

Infraray
Stromstraße 5
10555 Berlin / Germany

Tel. +49 (0) 30 254 690-0
Fax: +49 (0) 30 254 690-199
info@infraray.com

Berlin | Brussels | Calgary | Cologne | Madrid | Milano | Munich | London | Neustadt | Paris | Stockholm |Vienna | Washington D.C. | Zurich