



beta systems



## Major utility company saves a significant proportion of service costs

Infraray secures and automates both IT and OT with connection to the industrial infrastructure

### Initial Situation

Berliner Wasserbetriebe delivers fresh, safe water to 3.9 million people. When the utility company 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 were lowered rapidly.

**“ Our Infraray 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

### Benefits: Fast payback and ongoing command of the infrastructure

- Manage IT infrastructure on a central console
- Control access to all ports and real-time identification of all new endpoints
- Consolidate network data with a 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 the IT network
- Staff at a single data center monitors and centrally controls all IT infrastructure
- Policy-based automation of a wide range of machinery and functions
- Significant fewer staff needed to operate all waterhandling machinery
- Considerable fewer service calls, due to self-healing and early breakdown detection



## Challenge: Secure all Devices and Machinery linked to the IT network and SCADA gateway

To meet the mounting threat to critical industrial control systems (ICSSs), Berliner Wasserbetriebe – which delivers over 3 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 central user interface

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

It also required:

- Real-time visibility of all endpoints, uplinks
- Robust network infrastructure security
- Easy integration with its SCADA gateways
- Reduction in operational 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 connection and monitoring of the SCADA gateways for controlling the security requirements.

## 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. Within just two days, BICS was ready to monitor the gateways (Windows computers) into the SCADA network. The integration into the existing CMDB was completed in less than three weeks, ensuring that the virtual CMDB from BICS remains complete and up to date at all times.

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

With BICS, the technical service team quickly established single-console control over all network ports, routers, and switches. BICS now detects, authorizes, and secures every endpoint on the IT network – and does much more. Its automated self-healing capability has significantly reduced service technician costs.

BICS is successfully used by water companies and makes a significant contribution to the efficient management and security of the water supply.