GELSENWASSER AG

Shortest Path Bridging helps utility company comply with regulations for critical infrastructures.

> "Alcatel-Lucent Enterprise technologies enhance the security and flexibility of our network, reduce configuration complexity and help us fully comply with regulatory requirements."
>
> Klaus Dellhofen, Group Leader of Network Technology & Cybersecurity, GELSENWASSER AG

GELSENWASSER AG is a public utility and infrastructure company based in Germany. It provides water, gas, electricity and wastewater services. The company also offers customized solutions for infrastructure, renewable energies, digital networks and community development. Working with over 80 partner companies, GELSENWASSER AG delivers all these services from one source.

CHALLENGES

GELSENWASSER AG is considered a critical infrastructure, which means it must follow strict security and protection guidelines. For example, it must ensure its services do not interfere with each other in uncontrolled ways. Its networks must be well-organized and easy to manage and maintain at all times. To support this, the company uses consistent technologies and communication protocols. GELSENWASSER AG also needs to have backup routes for data traffic to keep systems running smoothly and reduce delays. A redundant, optimized selection of data traffic routes must be available to ensure the shortest possible convergence times. As the Internet of Things (IoT) continues to grow, the network must also be highly scalable. This helps avoid adding unnecessary features, protocols or complexities.

ACTION

Using Shortest Path Bridging (SPB), a unified, highly scalable technology for Layer 2 and 3 VPNs was put in place. The solution can handle the increasing demands of the Internet of Things (IoT). SPB keeps services securely separated in isolated containers and allows new services to be quickly and flexibly deployed across different locations using edge-only provisioning. It supports cross-network L2 VPNs, and can share routing information without needing complex protocols like Open Shortest Path First (OSPF) and Border Gateway Protocol (BGP). This reduces the amount of IT training needs. Even when using different transmission methods—like microwave links, fiber optics, or IPsec VPNs—SPB works as a unified communication protocol, making system setup much simpler.

PRODUCTS AND SERVICES

Alcatel-Lucent OmniSwitch® 6860E Stackable LAN switches
Alcatel-Lucent OmniSwitch® 6900 LAN and data center switches

RESULTS

Technical Benefits

- Secure separation of services in isolated containers

- Flexible and fast deployment of new services through edge-only provisioning

- Exchange of routing information via SPB as a replacement for OSPF or BGP, without adding protocol complexity

- Cross-media communications protocol for different transmission technologies

Financial Benefits

- Reduced training requirements for IT

- Future-proof thanks to modern, flexible, highly scalable components

User Experience Benefits

- Compliance with the operational and security requirements for critical infrastructures

- Higher performance, resulting in improved usability of business-critical applications

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Customer Story

MARKET: ENERGY & UTILITIES	COUNTRY: GERMANY	COMPANY:
IMPLEMENTED: 2023	NUMBER OF USERS: 1,840	GELSENWASSER AG