MOBILE ROUTER FOR SUSTAINABLE WATER MANAGEMENT

HIGHLIGHTS

✓ SCHELL GmbH partnered with Teltonika to implement an advanced water management system, enhancing drinking water hygiene in large-scale facilities like schools and hospitals.

✓ The Teltonika RUT241 mobile router was selected for its reliable 4G LTE connectivity and automatic WAN failover, ensuring uninterrupted data transmission from various electronic fittings.

✓ The cellular router's dual RJ45 ports enable seamless integration through bus extenders, supporting up to 64 devices.

THE CHALLENGE – ENSURING WATER HYGIENE AND EFFICIENCY IN LARGE-SCALE FACILITIES

Maintaining optimal water hygiene and efficiency is paramount in facilities like schools and hospitals, where the health and well-being of occupants are critical. These large-scale establishments often have complex water systems with numerous sanitary appliances distributed across various buildings and floors.

Ensuring consistent water quality, preventing stagnation, and promptly addressing leaks or malfunctions are crucial for preventing the spread of waterborne illnesses and ensuring a safe environment. Traditional methods of water management, which rely heavily on manual inspections and interventions, can be time-consuming, costly, and inefficient in such large entities.

The lack of real-time data and remote monitoring capabilities can lead to delays in identifying and addressing water hygiene issues, potentially compromising the health and safety of students, patients, and staff. So, to fully realize the potential of a comprehensive water management system, reliable and uninterrupted connectivity is crucial.

Consistent data transmission and remote access capabilities are essential for real-time monitoring, prompt response to issues, and effective preventative maintenance. Without the right networking device, the system's ability to optimize water usage, ensure hygiene, and guarantee safety may be compromised.

TOPOLOGY
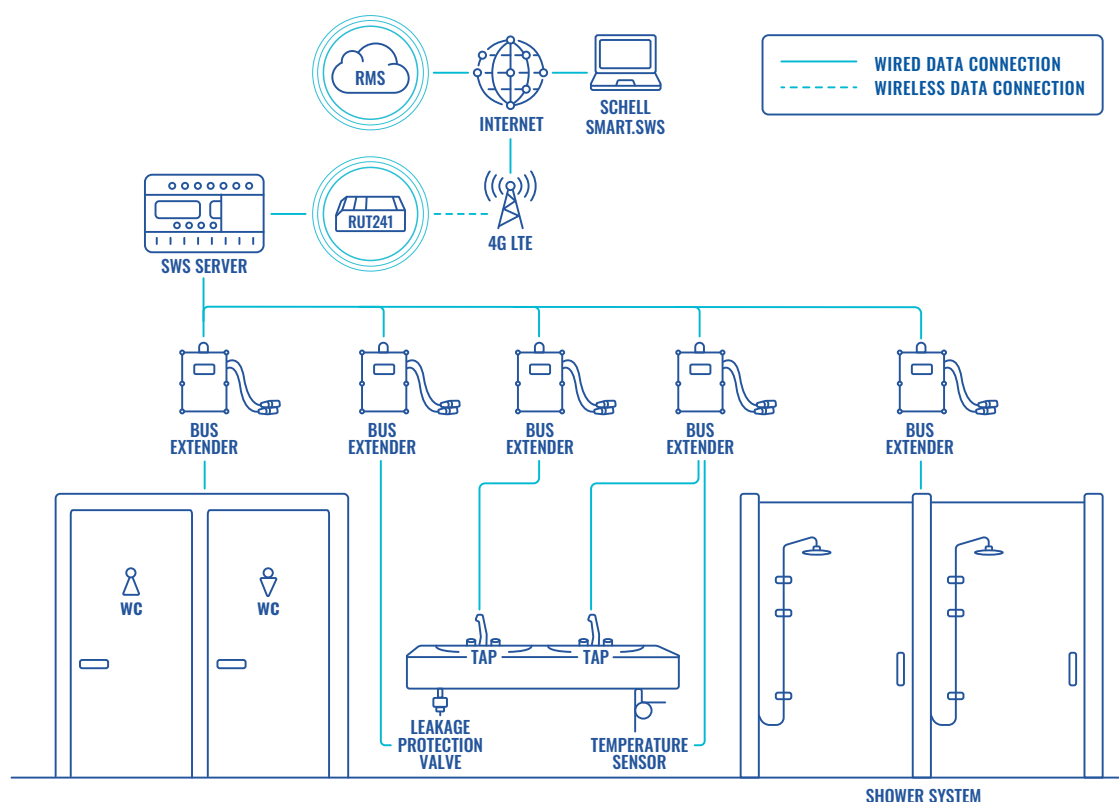
THE SOLUTION – SEAMLESS CONNECTIVITY FOR ADVANCED WATER MANAGEMENT

SCHELL's SWS Water Management System, in conjunction with Teltonika's RUT241 industrial mobile router, offers a comprehensive solution for addressing the water management challenges in schools and hospitals. The system connects a sophisticated network of electronic fittings, such as basins, showers, WCs, and urinals, enabling comprehensive remote monitoring and control over various parameters including water usage, temperature, and hygiene levels.

These electronic fittings are interconnected through SWS bus extenders to facilitate seamless communication within the network for up to 64 devices. This network also incorporates crucial components like temperature sensors, providing real-time monitoring of water temperature, and leakage protection valves, acting to prevent potential water damage.

At the heart of this network lies the SWS server, responsible for collecting and processing data from all connected devices. The server connects to the Teltonika RUT241 mobile router via an RJ45 port, ensuring reliable operation of the system. It provides robust 4G connectivity with automatic WAN failover, guaranteeing uninterrupted data transmission even in the event of a primary network connection failure.

The continuous flow of data to the SWS server via the RUT241 mobile router allows facility managers to gain valuable insights into water usage patterns, enabling them to proactively detect leaks and receive immediate alerts for any anomalies that may arise.

Moreover, the system empowers remote configuration and control of various water-related functions, such as automated flushing cycles and temperature adjustments, which contribute to optimizing water usage and preventing stagnation, a critical factor in maintaining water hygiene.

Further enhancing the system's efficiency and ease of management is the integration of the RUT241 mobile router with Teltonika's [Remote Management System (RMS)](#). This capability grants authorised personnel remote access to the router and connected devices, enabling remote management, troubleshooting, and maintenance, thereby minimising the need for on-site interventions and significantly reducing operational costs.

In essence, the SCHELL SWS Water Management System, empowered by real-time data, remote monitoring capabilities, and automation control functions, provides schools and hospitals with the tools to proactively manage their water systems, ensuring optimal hygiene, efficiency, and safety for all occupants.

Ready to experience the benefits of advanced industrial connectivity in your solutions? Contact us via the button below to discuss your options!