REMOTELY MONITORED WATER MANAGEMENT SYSTEM

SUMMARY

Efficient water management is becoming a more and more discussed topic at various levels because of humanitarian, ecological and economic reasons. Optimized and safe handling of drinking water is an obligation that needs to be carried out by operators, investors, sanitary equipment installers, planners, and facility managers. Contaminated water could cause much harm, and the supervisors are trying to reduce such risks by all means. Besides, cutting reckless waste of water in public restrooms could help save significant amounts for water, heating, and servicing bills.

CHALLENGE

Ensuring the hygiene of water and optimizing its use is not an easy task, especially in large properties with multiple sanitary units. The question is, how is it possible to warrant that the water systems are operating hygienically? And what is the best way of detecting any problems and required maintenance work productively and economically? Large structures require automation and remote management system to be monitored efficiently.
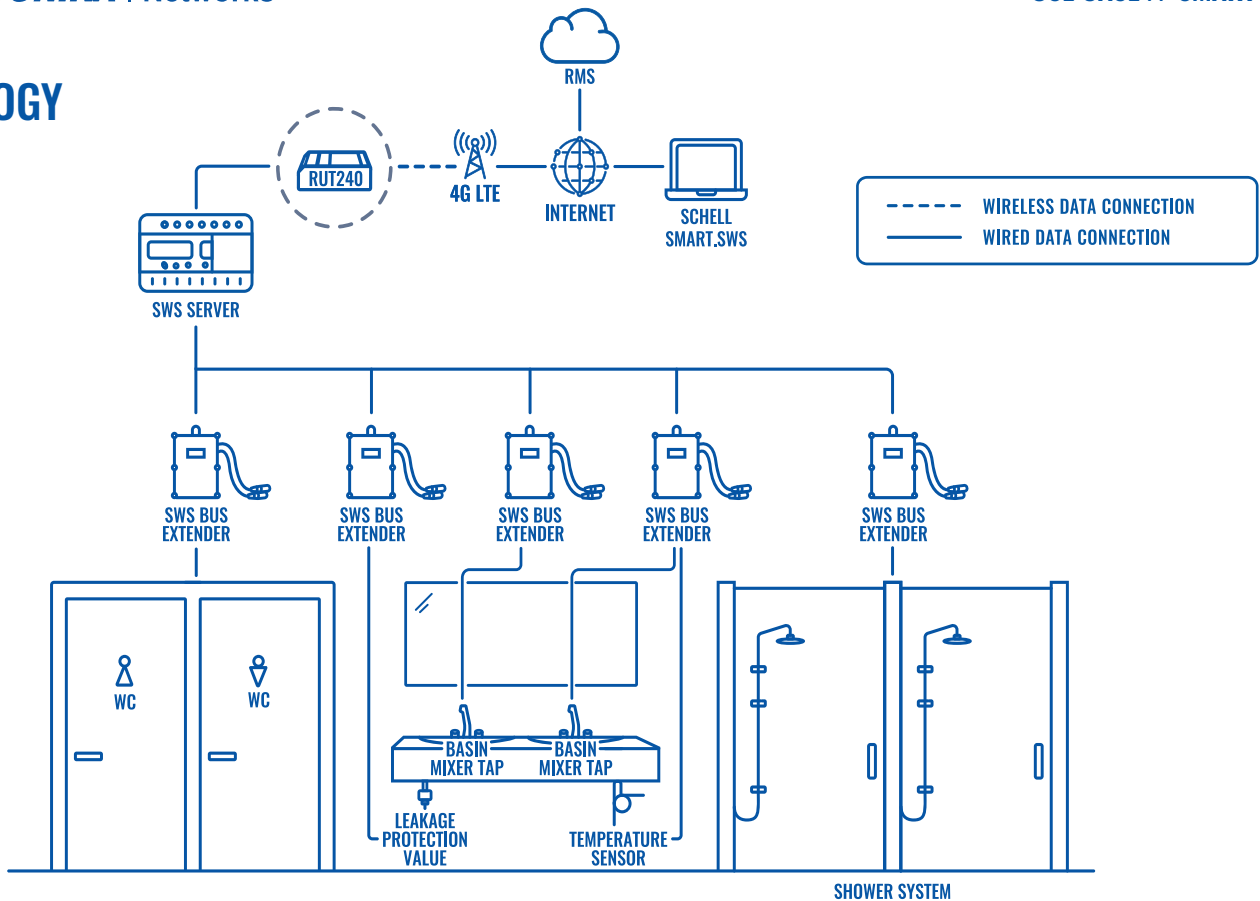
PARTNERS - SCHELL

SCHELL is one of the world's leading manufacturers of fittings for building installation, continuously investing in innovative German-made products and services for more than 80 years. In addition to their extensive product range of regulating angle valves and device connection fittings, they provide sanitary systems for public restrooms.

SOLUTION

SCHELL SWS is the first water management system offering intelligent networking and control for fittings using Teltonika Networks RUT240 cellular router. The system can control SCHELL electronic washbasin, shower, WC, and urinal fittings. Installations connect into a network with the corresponding bus extenders, allowing up to 64 subscribers. Gateways integrate this system into the existing building automation system, where RUT240 provides unbreakable network connectivity with auto-failover for backup. This device is perfect for the solution because of connection reliability, compact size, simple integration, and support of various industrial networking protocols for secure data transfer.

TOPOLOGY

RMS

RUT240

4G LTE

INTERNET

SCHELL SMART.SWS

SWS SERVER

- - - - WIRELESS DATA CONNECTION
———— WIRED DATA CONNECTION

SWS BUS EXTENDER

SWS BUS EXTENDER

SWS BUS EXTENDER

SWS BUS EXTENDER

SWS BUS EXTENDER

WC

WC

BASIN MIXER TAP

BASIN MIXER TAP

LEAKAGE PROTECTION VALUE

TEMPERATURE SENSOR

SHOWER SYSTEM

The centrally controlled system maintains water quality in large buildings via fittings and sensors. Operating parameters, like temperatures, or the start and end of a stagnation flush, can be read and evaluated using a data protocol.

SMART.SWS ensures that users across buildings always have an eye on the systems. Via remote access, it is possible to learn about the water consumption or the status of the intended operation at any time. Besides, with the help of a unified control system, it is possible to remotely set up the antibacterial high-temperature flush at a preferable time, or turn-off the water supply outside specific hours altogether. In summary, the online service enables uncomplicated, fast, and location-independent management and resource optimization.

BENEFITS

• Efficiency - data-driven automation ensures the highest possible water hygiene, automated optimal flushing, and centrally controlled thermal disinfection.
• Reduced costs - come as a result of energetic and economic optimization through targeted control of water volumes.
• Remote management - central control of multiple objects and parameters from any location.
• Plug-n-play - the system comes with all the necessary components enabling quick integration and preventing incorrect orders.

WHY TELTONIKA NETWORKS?

According to SCHELL, their main reasons for choosing Teltonika Networks devices were the very good value for money and remote management possibility. RUT240 is a reliable product ensuring uninterrupted connectivity, allowing them to supervise their systems 24/7. Another benefit is not being tied up to a specific Internet Service Provider and keeping their flexibility.