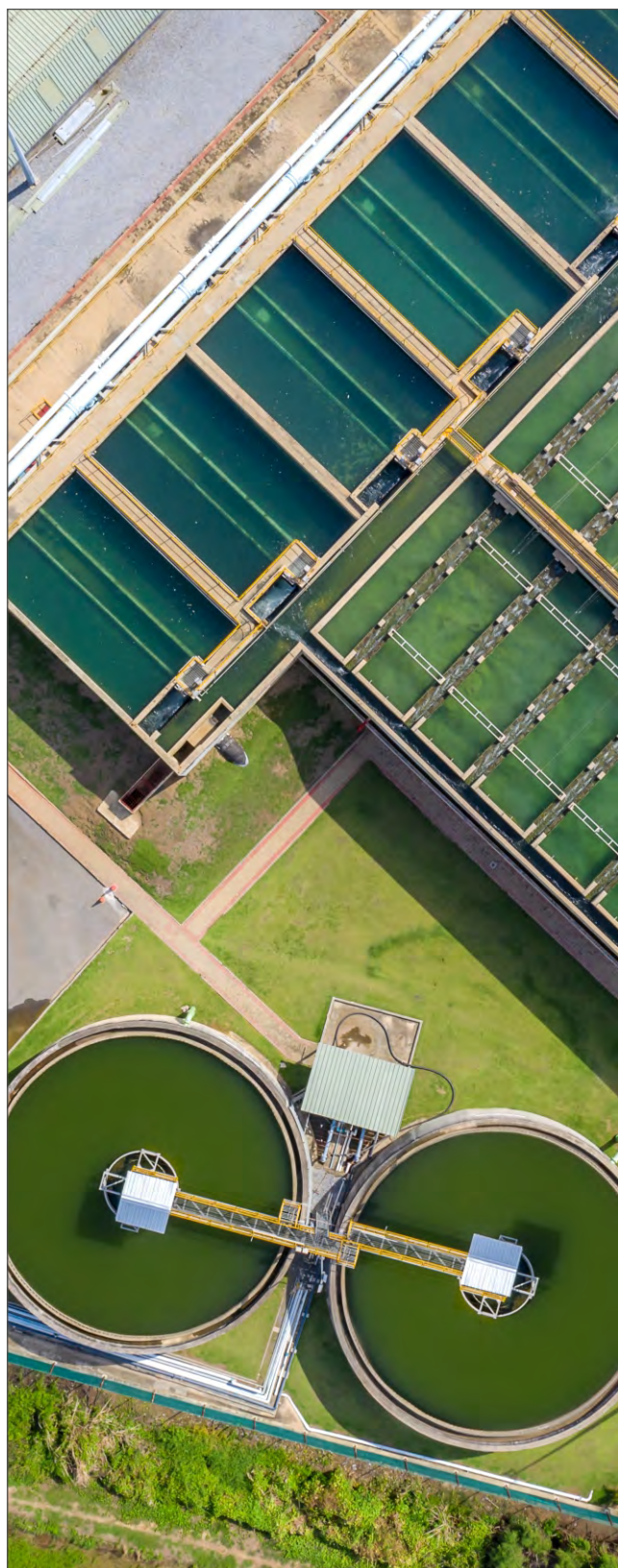


Wireless Monitoring of Flowmeter Data with RTrU™ 201



In a plant, the water purification process is well monitored and analysed. However, once the water is pushed out into the distribution system there is far less control / scrutiny. This is primarily because traditional methods of monitoring the water distribution infrastructure are difficult and expensive. However, with new technology it is possible to monitor remote water distribution system assets economically and conveniently. The convergence of wireless communications, robustly packaged RTUs, internet networking and powerful software analytics enables utility operators to analyse data and monitor system performance 24x7, under all weather conditions with minimal manpower.

Solution

The Forbes Marshall RTrU™201 remote terminal unit acts as a gateway connecting the control system to a cloud or on-premise server. The device collects data from the sensors monitoring target industrial process variables and transmits it back to a central station / master unit. It also collects information from the master unit and implements processes based on instructions received. The RTrU™201 is equipped with input and output channels and a communications port.

The Forbes Marshall RTrU™ 201 takes 4-20 mA or modbus inputs from plant/field instruments. This data is locally processed for various readings like average, min, max, totalisation etc. and sent to the Microcon+ DCS system. Alternatively, this data can be sent to a cloud server where data is processed according to customer needs and results are presented through web applications, mobile apps and reports. In this case, the RTrU™ 201 takes inputs from the flowmeter and sends the data to the cloud. This data can be monitored at a central location, through a mobile application or from a website / URL.

Information will be displayed at regular intervals of time as specified by the user. It is a completely modular system, customisable to user needs.

The RTrU™201 is secured in accordance with global cyber security standards and AES128 encryption for every message.

Benefits

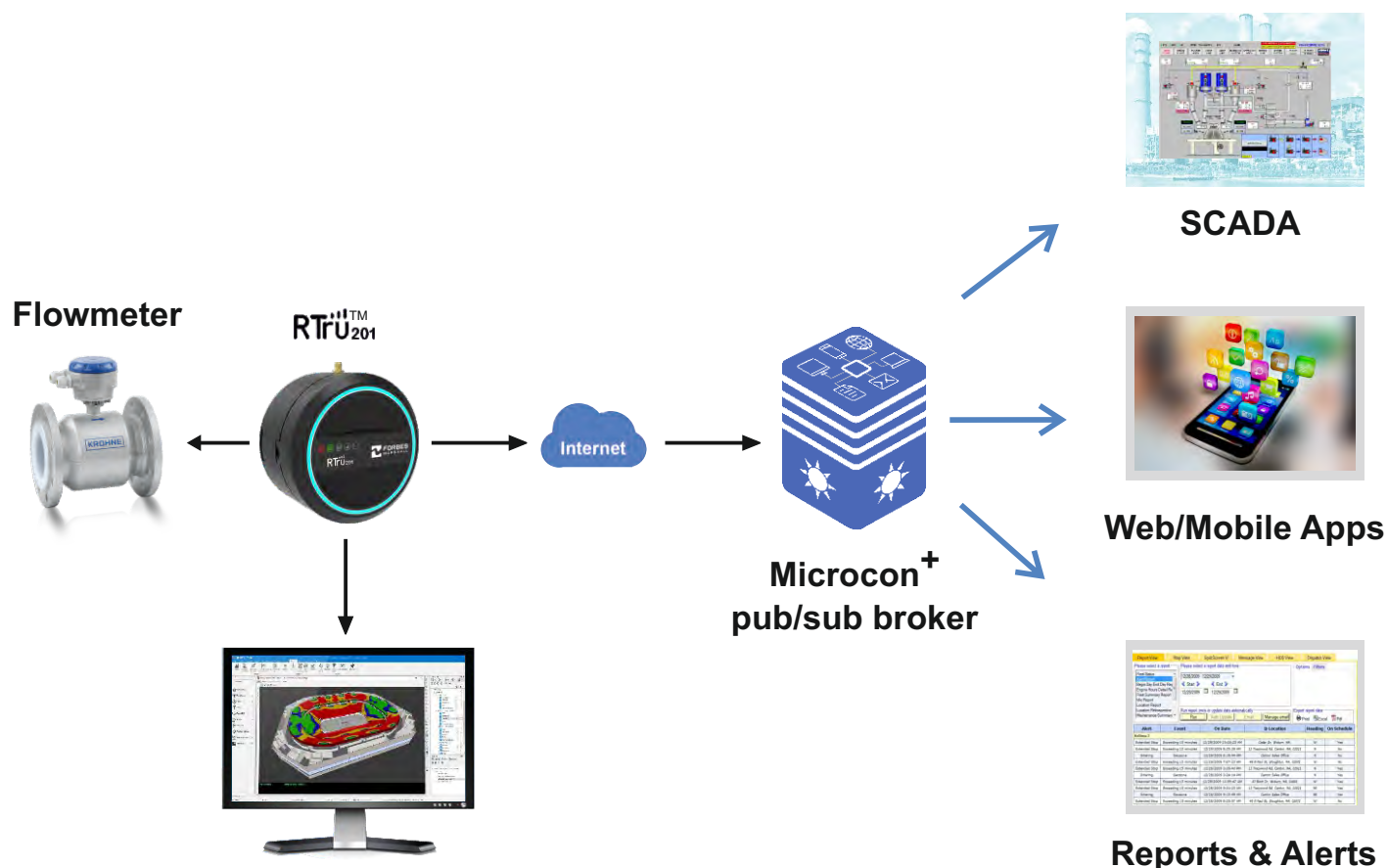
Constant monitoring of flow consumption for each user

Accurate maintenance of mass-balance

Increased savings due to significant reduction in NRW (Non Revenue Water)

Effective use of water saved

System Architecture



Advantages

- Comprehensive function management capabilities
- Early detection enabling proactive action due to high speed communication ability
- Built-in algorithms to measure, control and manage water use and consumption
- Real time monitoring of water quality parameters to ensure proper plant operation
- Flexible and scalable hardware for control and transfer of data from existing DCS and SCADA systems
- Robust protection against cyber security attacks
- Interconnection with various protocols and various modes of data storage



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