

IoT

Remote Monitoring for Water Treatment Plant

Solution & Device Design

Data Analytics

Dashboards

Integration with Open Source M2M Platform



Integra Micro Software Services

About Client

Our customer is a pioneer for water treatment in India and is one of the leading, well established organizations in water and environment management, with a strong international presence. They have well over a 1000 employees – comprising of multi-disciplinary teams of highly experienced professional managers, technologists and scientists, supported by a widespread infrastructure, delivering total water treatment solutions for literally every market.

Existing Scenario

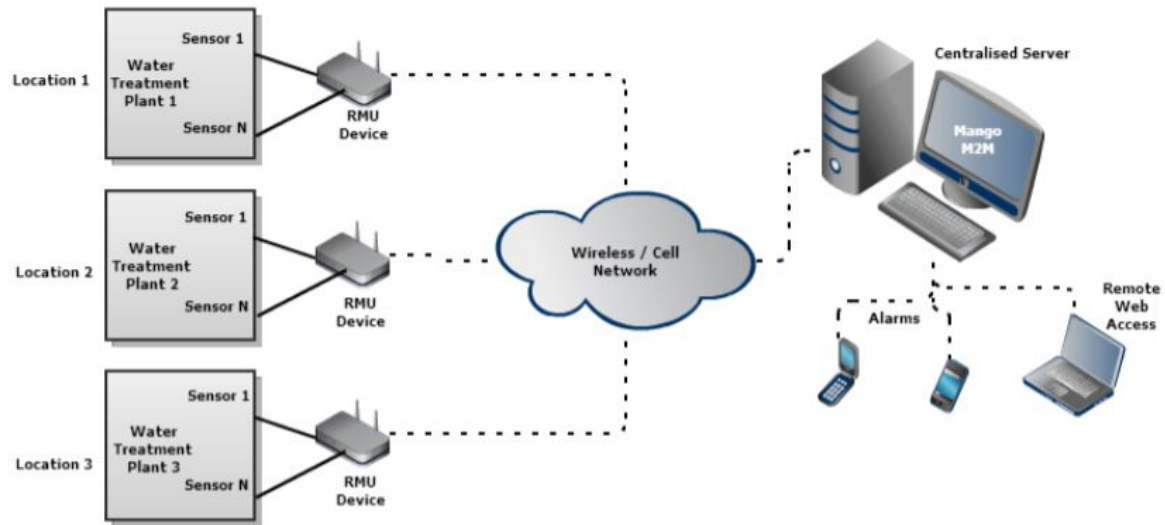
- The customer had set up water treatment plants for varied industries wherein water is an important ingredient for production. They are also involved in the maintenance and upkeep of these water treatment plants, the quality of water being supplied from these plants being extremely important and business critical.
- The customer has collaborated with varied other suppliers and have designed developed sensors / meters and varied other analog and digital devices for measuring multiple attributes of water.
- In the current setup, people will have to physically visit each one of these plants and measure and monitor these attributes. Data is collated over a period of time across multiple such plants for further analysis, comparison and action. This was an extremely time consuming and laborious process.
- The customer needed a mechanism wherein these attributes were measured and collected in real time automatically, enabling a faster turnaround time on analysis, preventive and corrective actions.

Our Solution

- Integra designed and developed a comprehensive solution to cater to the same.
- Integra designed a device to which multiple (types) of sensors could be connected. Values from the sensors were read at a fixed configurable frequency, processed and transmitted via GPRS to a centralized Linux server.
- On this server, we had setup and configured an open source M2M platform called MANGO. Values from varied sensors were stored on this platform/database for further analysis and action. Integra further built an application on this platform, with multiple reports both tabular and graphical for the user's perusal.
- Individual sensors could be configured to have an upper and lower threshold value. If the current reading exceeded these thresholds, alarms of multiple types could be triggered to configurable stakeholders.

Salient Features

- Squirrel-9 board (ARM9 - Linux) device with 7 analog channels (opto isolated - industry standard 4- 20mA current loop) and 20 digital channels (potential free contacts NC / NO)
- GPRS Modem (Using TCP/IP data connectivity) inclusive of antenna
- On board memory - SD Card/NAND
- RS232 port for local configuration.
- Has capability to store the captured data locally and send it to the server at a later scheduled time.
- Had provision for a 2-3 line display, keypad, GPS module
- Provision for packaging with IP65 rating



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Shorten the development life cycle

For more information, reach us at enquiry@integramicro.com or integramicroservices.com/contact



Integra is a leading provider of software services specialising in BPM, FinTech, IoT, Mobile Communications and Enterprise Mobility. With a strong track record across these domains, proven expertise and knowledge, we are an ideal partner for technology and solutions development.

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