Milesight's Innovative Water Metering Solutions for Efficient Resource Management

Milesight Helps to Promote Sustainable Water Use, Streamlining Utility Operations, and offering Accurate Measurement for Informed Decision-Making

Location: Noida, India

Milesight Partner	Location	Number of Devices Deployed	Applications
Tynatech Ingenious Private Limited	Noida, India	UC501*18+UG67*3	Smart Metering Solution Water Use Optimization Efficient Resource Allocation

Background

Water metering solutions have evolved from traditional models to advanced, intelligent systems, creating a profound impact on water management practices. This exploration delves into the multifaceted benefits that these modern water metering solutions bring, contributing to sustainable resource utilization and enhanced efficiency.

While advanced water metering solutions hold great promise for revolutionizing water management, their implementation comes with a set of challenges that require careful consideration. This exploration delves into the hurdles and complexities faced when integrating these solutions, shedding light on the path to overcoming obstacles and maximizing their potential.

- Smart Metering Solution
- Water Use Optimization
- Efficient Resource Allocation

Challenges

Ensuring Precise Measurement

Finding an efficient way to detect and calculate room usage in real-time can help organizations analyze room utilization, identify trends, and make data-driven decisions regarding resource allocation and space planning.

Rural and Remote Deployments

Deploying advanced water metering solutions in rural or remote areas can be logistically challenging. Factors such as limited connectivity, sparse infrastructure, and accessibility issues pose obstacles that need to be addressed to ensure equitable access to the benefits of these technologies.

Technological Integration

Integrating advanced water metering solutions with existing infrastructure and legacy systems can be a complex task. Ensuring compatibility and interoperability with diverse technologies may pose challenges, requiring careful planning to avoid disruptions during the implementation process.

Balancing Cost with Long-Term Gains

The adoption of advanced water metering solutions often requires a significant upfront investment in both hardware and software. Municipalities, utilities, and consumers may face challenges in balancing these initial costs with the long-term benefits these solutions bring to the table.

Solution

This project was meant to automate the water meter reading procedure using LoRaWAN® technology. The legacy system were using manual procedure to take the readings of water meter every 6 hours for 26 water meters installed at various locations within the Industrial Plant. The present project implementation has helped the company to achieve fully automated system using internal network and application server to gather all the data of water utilisation and show it on the dashboard.

The project requirement was a new implentation of LoRaWAN-based water metering solution where new water meters were being installed. The meters were based on Modbus RS485 and MASIBUS protocols, the data of which was required to be sent to the central control room at 15 min interval. The challenges of the project involved siting of the UC501 controllers so that regular lighting and solar energy power could be used. Next challenge was to find out the water meters registers which were transmitting the data so that the same could be extracted by the UC501. Lastly, the visibility of the data on the Network server, application server, database management and Dashboard display were to be configured to the utmost satisfaction of the customer.

Tynatech, Milesight's partner, is an Internet of Things Solution Provider. They have specialisation in LoRaWAN®-based networks with a dedicated hardware and a software team to look after the implementation of LoRWAN-based networks. Tynatech till date has provided solutions for Water Metering, Water leakage detection, Electricity metering and Asset tracking to our clients in India. In this particular project, three to four water meters were integrated to one UC501, hence making and effective way for implementation of the automated water metering.

Milesight has been a great game changer towards implementation of LoRaWAN®-based setup in India. The products have been working since last two months without any shortcomings. The UC501 controller has been providing data to the gateway UG67 in a very efficiency manner and gateways have also been responding very efficiently using PoE power supply. The Solution has been providing the customer utmost satisfaction. Now the Customer has asked us to look for the similar installations in other plants in India. They are running eight plants in India.

The legacy system used manpower for reading of the water data. The readings were error prone due to human error as the person never visited the site as the same time and had varied data. Hence the analysis of the water consumption data was getting transmitted with an error. However, after the implentation of LoRaWAN® based Water metering project at the plant, the data is fully automated and they are able to achieve the data automatically and even the same can be filtered out as per the requirement. The human angle in the data reading as also data entry have been removed and they are able to effectively use the water consumption data for their reports.

Results

Resource Conservation

Real-time insights into water consumption patterns encourage responsible water use. By promoting awareness and consciousness, advanced metering solutions contribute to broader sustainability goals, helping to conserve water as a finite and essential resource.

Efficient Resource Allocation

Accurate measurements and timely interventions result in cost savings for both consumers and utilities. By minimizing water loss, reducing energy consumption, and optimizing maintenance efforts, advanced water metering solutions contribute to a more cost-effective and sustainable water supply infrastructure.

Regulatory Compliance

Advanced water metering solutions assist utilities in meeting regulatory standards and environmental benchmarks. By ensuring accurate measurement and promoting responsible water use, these solutions contribute to compliance with water conservation regulations and environmental sustainability goals.

Discover More about Milesight Product

Why Choose Milesight

Customer chose Milesight product due to the product price and quality as well as the flexibility to communicate and send data to third party cloud system, i.e Azure. No limitation in terms of connectivity and data transfer.

"We are thrilled with the LoRaWAN® based automated water metering system provided by Tynatech with equipment from Milesight. We have been able to achieve what we had thought of during conceptualisation. We would like to thank Tynatech and Milesight for the same."

P&G

TYNATECH

"Milesight & Tynatech I am writing to express my sincere gratitude and appreciation for the outstanding equipment and service provided by Milesight. As a valued customer, I have had the pleasure of experiencing their exceptional commitment to fast supply of materials and unparalleled technical support. Milesight has consistently gone above and beyond to meet our supply needs, ensuring that we receive our materials promptly and efficiently. Moreover, Milesight's technical support team has been an invaluable resource to our organization. Whenever we've encountered challenges or required assistance with their products, their support team has been readily available to provide expert guidance and solutions. In addition to their exceptional service, the quality of Milesight's products is top-notch. Their innovative technologies and reliable hardware have significantly enhanced the efficiency and effectiveness of our projects. We have complete confidence in the durability and performance of Milesight products, making them our preferred choice in the industry. Thank you, Milesight, for your unwavering commitment to excellence!

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