



All-in-One Remote Monitoring Solution  
for Water network Management



## Next Generation Noise Logging Technology on Water Loss Management

*The importance of detecting and pinpointing the leak by continuous online monitoring of water flow & pressure in the water distribution network and installing a LoRa/NB-IOT acoustic datalogger.*



protection : IP68  
Diameter :  $\Phi 60\text{mm} \times 124\text{mm}$   
Housing material : PC & stainless steel  
Temperature :  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$   
Sensitivity :  $140\text{pC}/(\text{m}/\text{S}^2)$   
Communication : LoRa/NB-IoT  
Battery life :  $\geq 8$  years



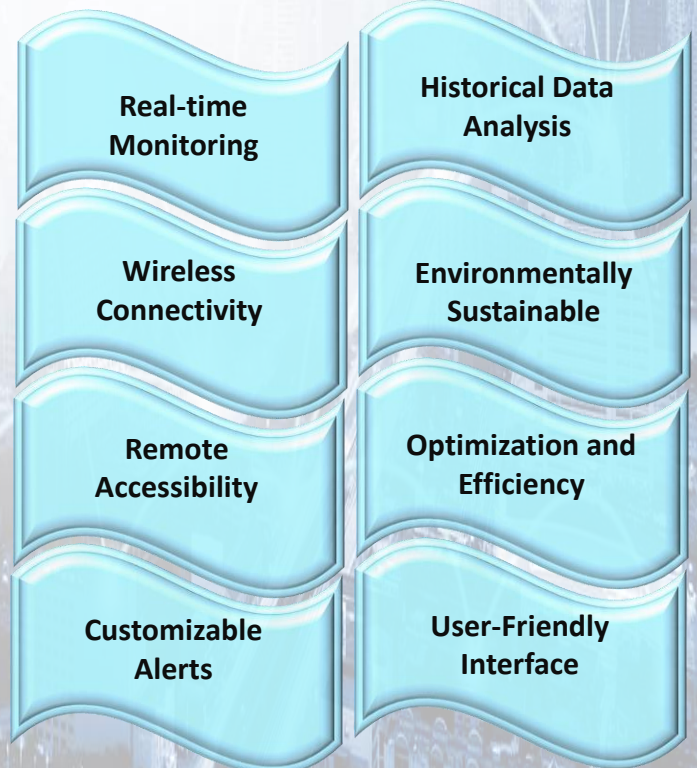
# Our Solution



Modbus-to-LoRaWAN converter with Externally powered 24VDC continuous, it serves as Modbus interface for the flowmeter and at the same time controls and monitors power to it. This connects to the FM converter via RS485 taking all the Modbus parameters and transmitting to a LoRaWAN gateway with backhaul 4G.

Central Controller, a crucial component in LoRaWAN infrastructure that manages and controls the network's functionality and connectivity. It acts as a central hub for handling device registration, data routing, and security protocols. The LNS plays a vital role in ensuring efficient and secure communication between LoRaWAN devices and the application servers.

Our proposed solution is to collect the status data from the Insertion flowmeter, pressure & Datalogger transmitter that support Modbus and send it to SCADA via Modbus-to-LoRaWAN converter and then LoRaWAN-to-4G Gateway.





## Available Data

LEAK DETECTION

WATER FLOW

WATER PRESSURE

SOLAR SYSTEM DATA

TEMPERATURE  
PANEL

BATTERY  
STATUS



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