

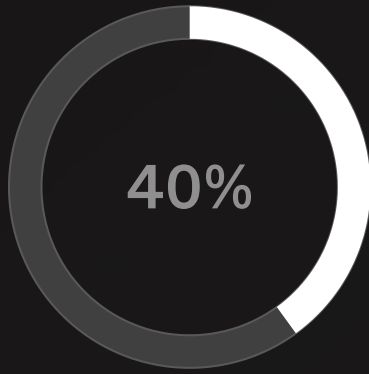
Smart Metering with IoT & LoRaWAN

Transforming Utility Management for the Digital Age



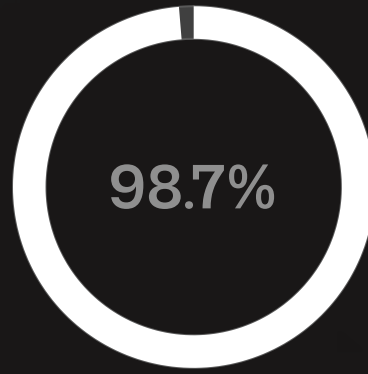
The Future of Resource Management Is Here

For decades, utilities have relied on outdated metering systems requiring manual readings, leading to inefficiencies, inaccuracies, and customer dissatisfaction. Today's digital transformation demands a better approach.



Reduction in operational costs

Achieved by utilities implementing smart metering solutions



Reading accuracy

Compared to 92% with traditional manual meter reading



Real-time monitoring

Enabling immediate detection of leaks, theft, and system anomalies

Understanding LoRaWAN Technology

LoRaWAN (Long Range Wide Area Network) provides the ideal infrastructure for smart metering applications, combining extensive coverage with minimal power requirements and robust security.



Long Range

Single gateway coverage extends up to 10 miles in urban areas and 30+ miles in rural settings, dramatically reducing infrastructure costs



Low Power

Meters operate for 10+ years on a single battery, eliminating frequent maintenance requirements and reducing total cost of ownership



Scalable

A single gateway can support thousands of connected devices, making it ideal for dense urban deployments and future expansion

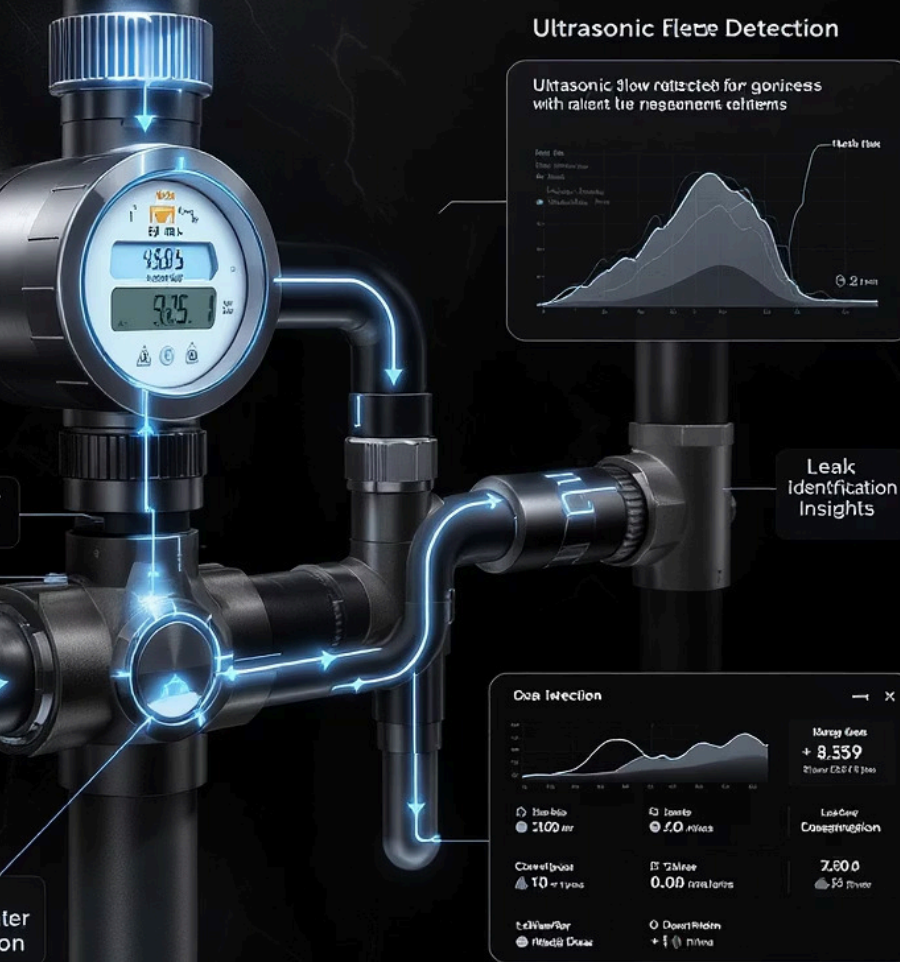


Secure

End-to-end AES-128 encryption and mutual authentication protocols protect sensitive utility data and customer information

ADVANCED WATER METERING

Ultrasonic flow detection in waste in final use, and overall this means a complete solution, tailored to meet the specific needs of the water utility.



Smart Water Meters

Our advanced water metering solutions provide unprecedented visibility into consumption patterns, enabling conservation initiatives and rapid leak detection.



Ultrasonic Technology

No moving parts means higher accuracy, longer lifespan, and detection of flow rates as low as 0.5 litres per hour



Leak Detection

Proprietary algorithms identify even small leaks by analysing consumption patterns, potentially saving millions of gallons annually



Consumption Insights

Granular data enables identification of high usage periods and opportunities for conservation programmes

Comprehensive Smart Metering Portfolio

Our integrated ecosystem provides end-to-end solutions for all utility types, ensuring seamless deployment and interoperability across resource monitoring systems.



Electricity Meters

- Time-of-use billing capabilities
- Power quality monitoring
- Remote connect/disconnect
- Tamper detection algorithms



Gas Meters

- Intrinsically safe design
- Temperature compensation
- Automatic shutoff valves
- Consumption pattern analysis



Heat Meters

- Precision temperature differential
- Chilled water monitoring
- BTU calculation accuracy
- District system integration

Application Areas

Our smart metering solutions deliver tangible benefits across diverse environments, from individual residences to complex industrial facilities.



Residential Buildings

Individual unit submetering enables fair billing practices and encourages resource conservation through personalised consumption insights and alerts



Commercial Complexes

Multi-tenant billing and allocation simplifies property management whilst providing granular data for sustainability initiatives and LEED certification



Industrial Facilities

Process-specific monitoring identifies efficiency opportunities and enables cost allocation to specific departments or production lines

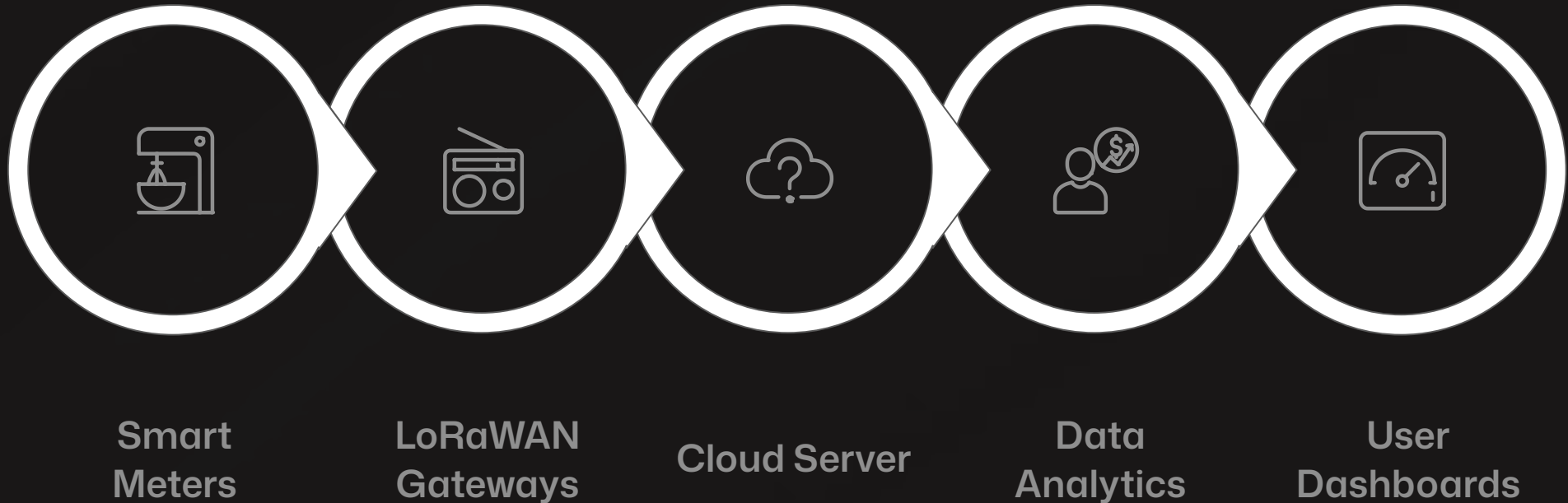


Government Infrastructure

Public building monitoring supports sustainability goals and provides transparency for taxpayer-funded resource consumption

System Architecture

Our end-to-end solution seamlessly connects smart meters to actionable insights through secure, reliable infrastructure designed for maximum uptime.



The architecture employs redundant systems with 99.99% uptime guarantee and end-to-end encryption at every transmission point. Our gateways feature automatic failover protection, whilst the cloud platform utilises geographically distributed data centres for maximum reliability.

Key Benefits for Utilities and Municipalities



Automated Readings

Eliminate manual reading costs and human error whilst increasing reading frequency from monthly to hourly or even real-time



Reduced Operational Costs

Lower expenses through workforce optimisation, vehicle fleet reduction, and decreased administrative overhead



Anomaly Detection

Identify leaks, theft, and unusual consumption patterns before they become major issues or revenue losses



Billing Transparency

Provide customers with detailed consumption data and eliminate estimated bills, reducing disputes and improving satisfaction



Regulatory Compliance

Meet increasingly stringent reporting requirements with automated data collection and auditable records



Environmental Impact

Support conservation initiatives through detailed consumption data and leak prevention programmes

Implementation Success: Dubai Utility Authority

Dubai Utility Authority smart metering deployment across the emirate



"The LoRaWAN smart meter rollout has been a game-changer for our utility operations, reducing water losses by 20% and enhancing customer satisfaction significantly."

— Fatima Al Hashemi, Chief Digital Officer

Challenge

High water demand and distribution losses in a rapidly growing city

Solution

Deployment of 450 smart water meters with LoRaWAN connectivity across Dubai

Results

annual operational savings, 20% reduction in water loss, and 40% fewer billing disputes

Transform Your Utility Infrastructure Today

The future of resource management is digital, data-driven, and focused on efficiency. Our smart metering solutions with LoRaWAN technology provide the foundation for this transformation.

01

Schedule a Consultation

Meet with our technical experts to discuss your specific requirements and challenges

02

Receive Custom Proposal

We'll develop a tailored implementation plan including ROI analysis and deployment timeline

03

Pilot Deployment

Test our solution in a limited area to validate performance and integration capabilities

04

Full Implementation

Roll out the complete solution with our experienced project management team

Contact us: solutions@nextgenutilities.com | +44 (0)20 7946 0800