NATIONAL NARROWBAND NETWORK Co.

Intelligent water networks - genius

"Frequent metering and the ability to control sensors centrally will become critical to the success of utilities in the near future. Automated meters simplify and reduce the costs of meter reading, make usage information available to the consumer so they can make more informed decisions, and support better management of scarce resources."

Rob Zagarella,
Founder and CEO, NNNCo

The Internet of Things (IoT) creates a fundamental shift in managing water distribution, billing and infrastructure. Utilities can better leverage their capital investment, improve operational efficiency and reduce ongoing costs. By enabling more frequent metering and the ability to control devices / sensors centrally, IoT enables water utilities to be more agile, flexible and efficient through:

- Accurate and timely information for billing and customer feedback
- Remote identification of water pressure drops across the water network
- Cost effective metering and meter reading solutions.
- Proactive repair of leaks and fixing pipe failures or damage before they affect customers
- Lower costs associated with pipe repairs and damage to property
- Reduced pressure on water supplies and helping save water loss
- Sharing data across the water network for collaborative decision making
- Future proofing water meters

Smart water needs an intelligent IoT network

A broad based network is key for IoT to operate reliably and cost effectively across multiple geographies and conditions.

By providing reliable two-way communication at a low cost, the network transforms passive assets such as meters into active assets.

NNNCo has taken the lead in Australia and implemented LoRaWAN global standard technology together with world-leading solutions and local innovations to make a national, open, cost-effective network a reality for a wide range of IoT applications.

NNNCo – Australia's narrowband network

NNNCo is Australia's LoRaWAN network operator, dedicated to building and operating Australia's narrowband network for IoT. We're working with some of the world's leading water and energy utilities, technology providers and innovators to roll out large-scale, carrier-grade network solutions.

As Australia's Long Range Wide Area Network (LoRaWAN) operator, our vision is to support the rapid and collaborative growth of IoT in Australia by providing an end-to-end, low-cost, reliable and secure eco-system that:

- Supports more effective operation of infrastructure and services
- Enables innovation across industries as diverse as agriculture, logistics, manufacturing and health
- Shares information that can make people's lives safer, healthier and easier

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Australia's Narrowband Network

The LoRaWAN standards for low cost, low power networks deliver immediate advantages for utilities over other communications methods. LoRaWAN standards are mature across most functions with strong, relevant capabilities including:

Long range
Essential to support very large distribution areas such as utilities networks

Low power
Battery-powered devices with a battery life of several years

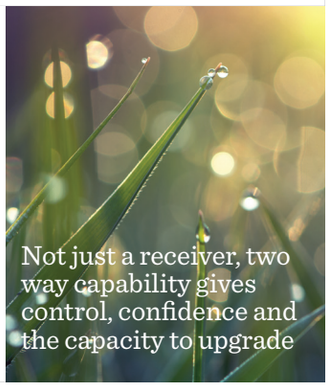
Low cost
Low lifetime and installation cost for devices / sensors containing the compact module from Murata

Open
Open standards enable the network to connect to others over time and build an ecosystem rather than a silo solution

Secure
Very strong privacy and security enables companies to meet the most stringent government, regulatory and customer-based guaranteed service levels

Reliable
A resilient Radio Frequency modulation scheme offers reliable coverage for remote locations, tall buildings and deep basements

Two way
- Verifies device operation
- Transmits control signals to remote devices
- Device configuration management
- Remote update firmware



The proof is in the pilot

Pilots undertaken with water and utilities prove NNNCo's ability to use LoRaWAN in the field for specific, often complex requirements:

- Meter reading and reporting;
- Fault finding & Infrastructure health assessment;
- Big data collection, gives utilities a broader and deeper view of their water network; and
- Open standard supports multiple 3rd party meters and collar for previous generation models.

Prototype functions in the field have confirmed the performance of LoRaWAN networks in a range of geographic circumstances; coverage information that proves the performance of technology and forecasting tools; development of devices for testing by the utilities; 15+ years battery life in devices; and reduced cost of operation compared to legacy metering systems.

Building an intelligent water network?

If your organisation is interested in participating, visit us at
nnnco.com.au