

Sigfox Smart Water Meter Lid



APPLICATION DOMAIN

The Smart Water Meter Lid is designed to remotely read pulse enabled water meters for daily consumption data. The telemetry unit is an integral part of the lid, where it is protected from the elements. In this location, the antenna is also protected from water ingress or tampering. The device is designed with ease of installation in mind, which reduces the need for labour-intensive deployment costs. On the data side, we have developed an extremely efficient algorithm to analyze consumption patterns at the edge, leading to years of service from the integrated batteries. Utilities are able to provide their customers with high-resolution water usage readings as well as respond to leaks in near real-time. They can effectively analyze the total water network consumption data by zone by zone to quickly identify and repair leaks.

FEATURES

Integrated lid simple to install on new or existing meters
Compatible with any pulse-based residential water meter

Measures:

- Consumption,
- Tampering, and
- Leak detection

Provides actionable visibility of data for customers and councils

TECHNICAL SPECIFICATIONS

Radio: Sigfox

CASE STUDY: TAURANGA CITY COUNCIL RESIDENTIAL SMART METER TRIAL



Tauranga is one of New Zealand's fastest growing cities. Like all growing cities, consideration must be given to the cost of the implementation and maintenance of infrastructure services to ensure they provide the best long-term value for money. Tauranga City Council is proactive in seeking out and trialling innovative technologies that have the potential to improve the management of valuable resources like drinking water.

The implementation of water meters in 2002 was recognized as an effective way to manage consumption through awareness of water usage. However, the meters required manual reading which was limited to 4 times per year. This service didn't allow the council to understand the performance of the utility in real-time.

The idea that all water meters could be connected on a new low cost, low power network appealed to the council as they could potentially realize their desire to efficiently manage and measure water consumption across the city in near real-time. This would enable them to identify how the water was being distributed, where the demand is, where bottlenecks are and importantly where any network leaks may be present. The added benefit is the improved service delivered by the council to the residents of the city by providing insight to daily consumption data and actionable leak detection services.

The Sigfox smart water meter lid has been on trial at various locations around the city since December 2017. The unique design specifically addressed the challenges faced with interfacing with and reading a wide range of meters and in a wide range of conditions. The smart lids are delivering valuable data, enabling the council to analyze the possibilities the service can bring to the people of Tauranga in the future.

