

CLIENT


“No two businesses are the same. One reason we partnered with Losant is the flexibility it gives us to customize both the data manipulation and delivery to our end users. Providing a bespoke smart interface to our customers makes the application of their data more valuable.”

RICHARD WILDMAN
CO-FOUNDER

INDUSTRY

AGRICULTURE

THE SOLUTION

Knode founder Richard Wildman was aware of the increased time pressure on his family farm and was looking for ways to reduce the daily operational burden, including the ability to remotely manage the water supply.

After learning that Internet of Things (IoT) network technology could collect data from multiple sources and deliver it over long distances, he created Knode. Knode uses sensors, the Sigfox low power wide area network (LPWAN) and the Losant Enterprise IoT platform.

ABOUT LOSANT

Losant is an Enterprise Internet of Things Platform that enables building real-time connected solutions.

- Accelerate the creation of connected IoT solutions
- Enhance the customer experience with real-time data
- Provide enterprises with a secure and scalable foundation
- Integrate new and existing network and hardware systems
- Customize options to fit the needs of any business

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CUSTOMER OVERVIEW

Established in 2017, Knode is a tech start-up that integrates new and emerging IoT technology for New Zealand businesses and consumers to monitor their critical assets. Knode enables its customers to collect, store, analyze, display and transfer data related to their infrastructure. Information can be consumed on demand, or proactively through conditional user alerts.

THE PROBLEM

A farm can't function without water. In order for a farmer to keep an eye on supply, water tanks, troughs and pumps must be checked at every opportunity. If not monitored, thousands of dollars can be lost in revenue, electricity and wasted water if a leak develops on the property's supply infrastructure.

For instance, if a farm developed a leak at a water trough fed by two water tanks containing 50,000 liters each, the supply could be drained in less than eight hours. It could take 1-2 days for the system to restore itself during which time, animals could go for an extended period without a sufficient water supply. If a herd of milking cows are restricted from their daily required water intake, this can have a negative impact on the animals and the subsequent days' total milk production.

THE BRIEFING

Flow meters were installed on each of the animal water distribution lines and tank level indicators on the Wildman family farm. These were then connected with telemetry hardware communicating with the Sigfox low power wide area network (LPWAN) gateways and the data was manipulated through workflows on the Losant IoT platform.

“Losant was the about the third [platform] we trialed. We found it to be really user-friendly. [It's] a straightforward and easy to use IoT platform which allows us to continue to build on our offering and meet the needs of our customers.”

THE RESULTS

The dashboards provide a time-series graph of water flow rates, daily consumption metrics and storage tank levels. The workflows incorporate basic and advanced leak detection principles with an alert condition triggering email and SMS notifications. Reporting of the water supply over time is also included which helps with compliance and gives a deeper insight into the seasonal changes on farm.

THE NEXT OBJECTIVE

Having proven its water solution in farming, Knode is expanding its horizons. The company continues to test new use cases on farm and applies IoT technology across other industries with a focus on asset location and monitoring resources such as water and power.

