

Seasonal Water Usage

Major Water Utility Significantly Reduces Water Leaks

The Need

One of Australia's largest water utilities needed to conduct a specialised study to observe the seasonal patterns of domestic water usage, a sample size of 2,000 households was selected. Their logged water usage data was to be correlated with customer usage diaries, both of which were then fed into their analytics modelling.

These insights would be used for the planning and execution of future infrastructure projects, and to truly get an understanding of domestic water usage patterns and behaviour.

The study required very high frequency (every 10 seconds) data sampling of water usage for two-week periods, repeated four times each year (once per season) for five years. Outside the study periods, the data collection would revert back to collecting normal data samples at a lower frequency.

The Solution

The Captis Pulse was chosen for this task as it allowed the water utility to interface to the existing installed mechanical meters, because it has high frequency sampling capabilities and a long battery life, and for its IoT cellular technology. The Captis range was also selected for its configuration Over The Air (OTA) capabilities, enabling the utility to remotely reconfigure their devices each quarter to perform high the frequency data logging required for the study sample periods.

The water usage data is being used to fine tune assumptions and cost estimates when planning for future requirements. The data provides justification for major infrastructure decisions, including the size and specifications of the water assets selected for new developments and the timing of major capital works such as desalination plants.

An unexpected result of this study is that the Captis has helped this water utility to identify substantial water loss due to leaks on customers' premises. They are now able to work with their customers to address leaks, saving water and improving customer service and satisfaction. The utility is now expanding the functionality of their Captis devices to include ambient air temperature monitoring, allowing them to better understand consumption habits by correlating water usage data with daily and seasonal temperature data.



**HUNDREDS OF
WATER LEAKS DETECTED**



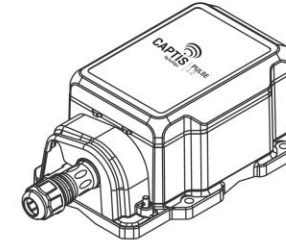
**PROACTIVE
CUSTOMER SERVICE**

Solution & Application



Captis Pulse

2000 Captis Pulse were installed across household's existing infrastructure, with data feeding back every 10 seconds



Captis Device

The cost-effective device was chosen thanks to its long battery life and its ease of installation on existing meters

Remote Access

The NB-IoT cellular technology enabled data to be transmitted from any location easily and reliably



Rugged Hardware

The IP68 rated enclosure can withstand extreme temperatures, weather events and water ingress



Multi Sensor Interface

Chosen for its multi sensor interface that can connect to existing infrastructure such as legacy water meters



Data Logging with Captis Cloud

Data logged in a central hub with pre-defined rules and alarms to ensure real-time data and accuracy