

IoT Devices

Integrate and use IoT data with device and network agnostic data management

The Problem

The Internet of Things (IoT) represents the next generation of data capture. The use of IoT devices is expanding and developing at a rapid rate, providing water corporations opportunities to explore seemingly limitless innovations and information from a wide range and variety of devices such as digital meters and acoustic listening. The challenge is to manage the data provided by these devices without building technical debt in siloed data repositories that are difficult to access and fully leverage.

The application developed demonstrates that IoT data (regardless of vendor or network) could be assimilated into the PI System and value added by validating and analysing data, displaying it to users and creating alerts based on the data they provided.

The GTS Application

As an example, we have used digital meters to demonstrate the solution's capability. In this case they were connected to the Sigfox network and data was pulled from the Sigfox database. Some basic analysis was used to identify unusual water consumption and raise alerts; and consumption data was displayed on a map.

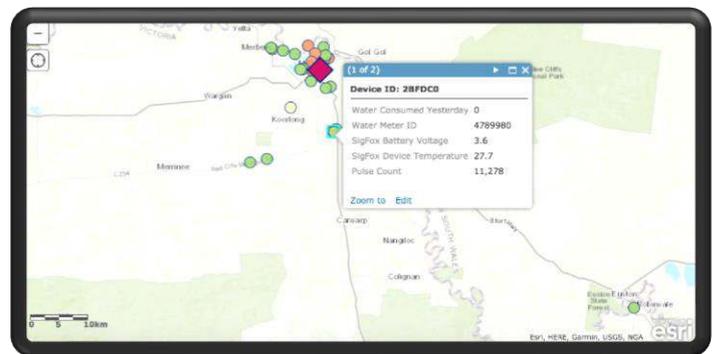
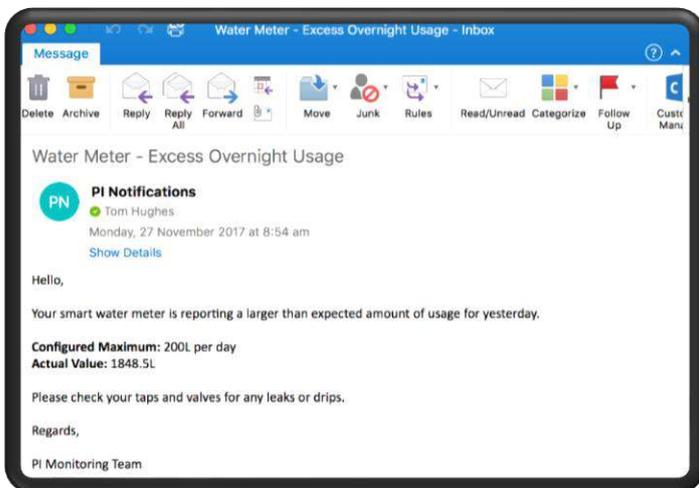
The Benefits

In the use case it demonstrated the need for manual meter reads is removed by using digital meters. It also showed the potential to deliver useful services to the public (such as raising alerts on unusual usage patterns and avoiding bill shock by providing current consumption data).

More broadly it demonstrates efficiencies for managing IoT data. The application exhibits data merging into an improved data model, and providing simplifying analysis, visualisation and even integration with other systems.

Data is not inaccessible and siloed, nor does it build technical debt, but is instead aggregated and centralised for easy access and consumption by staff. Regardless of device and network IoT data can be managed in standard way and effortlessly consumed by people, processes, and systems.

This simple use case barely touched the surface of the potential of what GTS's IoT Application has to offer.



The solution originally developed for the IWN trial provides a platform to collect, organise, analyse, visualise and raise alerts on the data provided from any device on any network.

