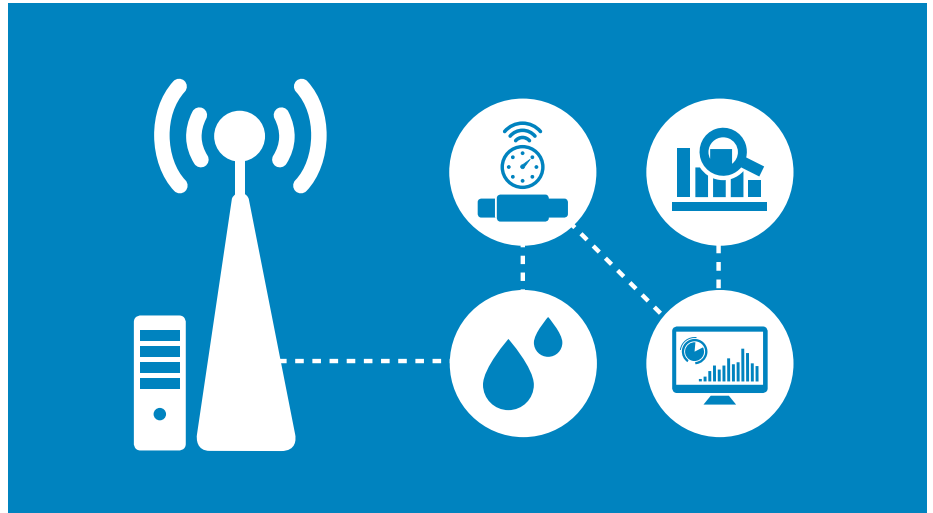




Thames Water

THAMES WATER WERE ABLE TO REDUCE WATER USAGE BY 13% AND INCREASE OVERALL CUSTOMER SATISFACTION BY INSTALLING A SMART WATER SOLUTION ON THE SENSUS FLEXNET® COMMUNICATIONS NETWORK

A quarter of all water lost is due to customer leaks



CHALLENGE

Address and reduce London and the South East of England's predicted water shortfall

SOLUTION

Deploy FlexNet to deliver accurate daily data reads to address water loss and empower customers' usage

RESULTS

With Sensus smart meters, Thames reported 13% less water usage

Thames Water is the UK's largest water and wastewater services provider. Their initial focus, when considering a smart water network was to increase the accuracy of the water balance and gain a comprehensive understanding of where the network losses were occurring. Smart networks enable better monitoring of the entire water network, which results in more accurate leak detection.

London and the South East of England are considered severely water-stressed locations, so one of the fundamental reasons Thames chose to install a smart communications system was to address and reduce predicted shortfall; taking into account supply and demand, the current forecast is that by 2020, 133 million litres of water will be consumed per day, and by 2040 the number will rise significantly to 414 million.

Using FlexNet® to deliver accurate and daily data reads from the entire network, not only helps Thames address water loss, but also empowers their customers by enabling them to take control of their water usage.



London's population is set to increase by approximately 2 million over the next 25 years and as a result, forecasts predict a shortfall in supply of over 414 million litres per day

The billing system also shows significant improvement as it is based on actual readings, instead of an estimation based on the size of the property. The comprehensive data that is collected daily helps the utility identify customer water supply problems such as continuous use -which not only can serve to indicate wastage or leakage, but helps the utility rectify the issue quickly.

Throughout the smart metering trial and consequent programme, ensuring customer satisfaction was always a key factor for Thames. Due to this, a door to door campaign was engineered, as well as one to one consultations, in order to explain the importance of water efficiency and how to better conserve this precious resource. Smart meters not only help the utility to pinpoint the exact location of issues within the network, but equally as important, they empower the customer. On the whole, the entire programme impacts the environment in a positive manner.

The UK is the only developed country that does not have a full water metering plan in place, and with the average Thames customer using 1/3 more water than they did 30 years ago, it is necessary to have a successful smart metering programme.

Sensus offers an end-to-end smart water solution that delivers data captured across the FlexNet® fixed network system. In 2014, Thames Water examined the different technology options available on the market and opted to implement the comprehensive package from Sensus. The benefits of implementing the Sensus smart network solution with cutting edge technology, a back office system to manage data and a 15 year asset life outweighed the initial investment needed to put it into place.

Implementing a smart water network is a proactive way of future-proofing the supply of water that is so heavily in demand. By combining the meters with two-way communications on the Sensus FlexNet® network, Thames will:

- Improve billing: customers only pay for what they use, making the billing system fairer
- Conserve water: water metres enable customers to better understand their water consumption; Thames has reported that those already on metres use 13% less water
- Online usage reports: customers can monitor usage online and know exactly how much water they use
- Identify issues: leaks and pipe ruptures can be identified, located and remedied a lot faster
- Defer capital investment of elevated usage and encourages them to repair the issue.



"Installing water meters is important, not just because they give our customers greater control over their water use, but also for the environment, as climate change and population put ever increasing pressure on our water resources. We also believe meters are the fairest way to pay because you pay for what you use, value what you pay for, and so tend to use water more efficiently."

MARK COOPER *Thames Water Head of Metering*

Results

Following the installation of the Sensus FlexNet® two-way communication system, results showed that on average, usage was down by 13%. 99%+ first time connectivity and coverage is essential to deliver near real-time data in order to accurately measure the meter transmissions. It ensures all endpoints are fully accounted

for, which in turn increases overall efficiency. Sensus' use of sensors within Thames Water's network will enhance the water system operation, as pressure and temperature can also be monitored, which gives a better view of the overall network performance and how to make improvements.

ABOUT SENSUS

Sensus, a Xylem brand, helps water utilities, energy providers and cities do more with their infrastructure to improve quality of life in their communities. We enable our customers to reach farther by responding to evolving business needs with innovation in communications technologies, advanced metrology, data analytics and services.