

**Customer Name:**

Leesburg, VA

Utility Type:

Municipal Water

Deployed:

Water AMI

A growing town of over 38,000 located 45 miles from Washington D.C., Leesburg is the seat of government for Loudoun County.

The Town of Leesburg, VA Improves Efficiency and Reduces Unaccounted-for Water

Problem

Reducing the amount of unaccounted-for water in Leesburg, a high-growth town located west of the nation's capital. Improving the system for handling increased numbers of water and sewer connections, which went up 10 percent-per-year between 2000 and 2005.

Solution

Leesburg deployed a STAR® Network system for meter reading, replacing a touch-read system. The system employs 450 to 470 MHz radio frequency signals to transmit meter data from the meter to data collection units (DCUs). The data collectors send the readings twice a day to the utility via cellular phone. Leesburg installed 14 DCUs, primarily mounted on the tops of buildings, and installed meter transmission units (MTUs) in meter pits, which were retrofitted with composite lids to ensure RF propagation. To extend battery life, transmissions are programmed to come back to the utility two times a day. However, these two readings carry hourly consumption data that is accurate to the nearest 10 gallons.

Results

Since its installation in 2004, fixed-network metering has helped Leesburg reduce unaccounted-for water from 15 percent to seven percent. The system provides daily data that allows the town to identify service-line breaks where water use increases suddenly and remains elevated as well as intermittent usage spikes that may indicate equipment problems such as an open flapper valve in a toilet. When a potential service-line break or intermittent leak is identified, the town proactively contacts the customer either by letter or by leaving a door hanger.

Leesburg conservatively estimates that if fixed-network meter-reading has contributed just 10 percent to the city's reduction in unaccounted-for water, the town will collect approximately \$500,000 more per year in previously lost revenue. This means that the system paid for itself in less than five years.

What's more, despite its growth over the past decade, the town has not had to increase headcount to cover meter-reading as well as water and sewer connections.



“Unaccounted-for water equals water treatment costs you paid for but didn't recover. It's equal to revenue lost, and any utility could benefit financially by reducing it.”

—Randy Shoemaker, Utilities Director,
Leesburg, Virginia
