Water Loss Management Solutions
smart stewardship

Water lost through broken or aging distribution pipes amounts to 20 percent, conservatively, for the water industry. Identifying and mitigating water loss represents the single greatest supply-side opportunity for water providers to conserve water, recover lost revenues and improve overall operational efficiency.

Globally, water providers face a host of challenges in the 21st century. Aging distribution infrastructure, rapid population growth, and environmental concerns and constraints rank among the highest. In drought-prone regions, unaccounted-for water threatens resource sustainability as well as the effectiveness of voluntary and mandatory conservation efforts. Even where water is plentiful, successful management of aging pipes and valves can achieve important benefits through increased efficiency and long-term revenue assurance.

smart pipeline

Service line breaks are responsible for a majority of water lost in the distribution system. Improving pipeline integrity monitoring can significantly reduce a utility’s overall unaccounted-for water, which in turn, allows water providers to eliminate needless treatment costs, defer capital expenditures for surplus production facilities, and recover the wholesale/retail value of water that can now be delivered.

State-of-the-art acoustic sensing technology represents a true breakthrough in supply-side preservation solutions for the water industry. By actually “listening” to the distribution system, an innovative combination of acoustic sensors, automated meter reading (AMR) technology and innovative data analysis software is revolutionizing water leak detection, pinpointing and mitigation.

patented technology

Itron’s suite of advanced leak detection systems provides enterprise solutions for pipeline management. Using patented acoustic technology and the Itron Water SaveSource™ or independent deployment of MLOG Radio, water providers can analyze vibration patterns from anywhere in the distribution system, using advanced signal processing to characterize sound patterns in the pipes over time—significantly improving their ability to proactively maintain critical water infrastructure.
Maximize revenue recovery with a smart grid of innovative acoustical sensors

MLOG is a network of intelligent, leak detecting sensors that integrate seamlessly with the Itron Water SaveSource to monitor the entire water distribution system. MLOG sensors analyze sound patterns in their environment, detecting new, evolving and pre-existing leaks automatically. Affordable and comprehensive, MLOG is a permanent automatic solution to reducing water loss and increasing pipeline integrity in every street and home. Around the clock, secure leak detection data is collected automatically by the Water SaveSource. With many advanced software features, the patented MLOG system detects and localizes leaks so utilities can optimize repair and remediation efforts (U.S. Patent No. 6,957,157).

MLOG Radio leak detection is a low-cost network of intelligent sensors that are permanently deployed throughout a distribution system. Utilizing the same advanced acoustic technology as the MLOG, they monitor for system leaks 365 days a year. The readings are collected by a handheld MLOG Controller either during normal monthly field visits for meter data collection, during walk-by or drive-by applications, or can be read independently. Once back at the utility, the Controller downloads the current readings into advanced analytical software.

Pinpoint leaks through strategic deployment of innovative leak sensors in a single overnight surveillance

ZCorr Digital Correlating Loggers provide breakthrough performance in surveying and pinpointing leaks over several miles of water distribution system pipe in a compact, cost-effective solution. ZCorr’s digital technology offers significant advantages over traditional loggers with its ability to create highly synchronized sound recordings of multiple leaks in a zone overnight in one step. After daytime retrieval of the loggers, ZCorr’s advanced signal processing software automatically pinpoints any leaks present. ZCorr technology is patent-protected (U.S. Patent No. 6,567,006).

Effective long-range integrity testing with state-of-the-art digital correlation

The latest version of the industry’s original digital correlator, DigiCorr combines technologically advanced sound processing, high-resolution data management and mapping with the industry’s easiest-to-use operator interface. Automatic leak frequency analysis (ALFA™) provides the exclusive ability to locate even the smallest of leaks on all pipe materials, even under the most extreme conditions. DigiCorr technology is patent protected (U.S. Patent No. 5,974,862).

Rugged, lightweight digital audio processing for buried water pipelines at your fingertips

DLD is the first true digital sound leak detector in the industry. Lightweight and simple to use, the LCD display presents visual cues of water leakage. Using dynamic range compression and digital precision, DLD easily identifies leaks that are undetectable by other leak detection technology on the market.
Itron Inc.

Itron is a leading technology provider and critical source of knowledge to the global energy and water industries. Itron operates in two divisions; as Itron in North America and as Actaris outside of North America. Our combined company is the world’s leading provider of metering, data collection and software solutions, with nearly 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water. Itron delivers industry leading solutions for electricity, gas and water meters; data collection and communication systems, including automated meter reading (AMR) and advanced metering infrastructure (AMI); meter data management and utility software applications; as well as comprehensive project management, installation, and consulting services.

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