

Intelligent Urban Water Supply Testbed Insight

Featured Resources: [Industrial Internet Reference Architecture \(IIRA\)](#)
[Industrial Internet Connectivity Framework \(IICF\)](#)
[Industrial Internet Security Framework \(IISF\)](#)

RESULTS

- Enhances efficiency of water supply operations and reduces water delivery energy consumption up to 30%
- Connected to 2,500 water pumps in 100 municipalities
- Monitor water quality and receive an alert if the quality is degraded
- Increases public safety and quality & availability of water supply

The Challenge

- Dramatic population growth
- Substandard drinking water quality
- Lack of visibility into operations and assets
- Improve water delivery processes, decrease operational costs, protect the environment and enhance public safety.

The Solution

Apply an industrial internet technology system that integrates urban water supply assets, information systems and business processes to deliver safe, quality water to residents with high reliability and efficiency; benefiting society, businesses and environment.

Key Insights

- The IIC's [Industrial Internet Reference Architecture \(IIRA\)](#) and [Industrial Internet Connectivity Framework \(IICF\)](#) provided good guidance in designing the testbed system.
- The testbed architectures were based on the IIRA and successfully enabled intelligent urban water supply operations.
- Security is complex and of the utmost importance when it comes to systems involving essential infrastructure such as water supply. The [Industrial Internet Security Framework \(IISF\)](#) provided essential guidance, in terms of analyzing security requirements, assessing threats and building security models to prevent the threats.

Team

- Thingswise, LLC
- Water and Process Group (WPG)
- CAICT

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