

# Smart Water Metering Solutions



### **Connecting** Every Drop.

Councils and water utilities across Australia are adopting smart water metering technology to combat the strain of growing populations, deteriorating water infrastructure and the need for improved water management.

Implementing this innovative technology enables a new approach to managing water; from implementing conservation programs to dealing with unbilled consumption, physical losses, and new regulations – all of which impact the ability to better manage the supply and demand for the consumers.

Itron is one of the world's largest companies focused on the management of water and energy resources globally. Itron, together with their local Australian partner All Valve Industries, have the industry expertise to help solve these challenges.





### Who We Are.

Itron is a publicly traded company that is dedicated to the resourceful use of energy and water. Since being established in 1977, Itron has been a leading technology and service provider, helping global utilities manage resources responsibly and efficiently. Itron's broad product portfolio includes electricity, gas, water and thermal energy measurement devices and control technology; communications systems; software; as well as managed and consulting services.

In the early 1980s, Itron pioneered and developed the first broadly adopted automatic meter reading (AMR) systems, which consisted of utility field workers using portable, radio-equipped computers. With Itron's strong focus on research and development, they continue to provide the best-in-class smart water solutions.

200M+ communication modules deployed

#### 8,000+

customers in more than

#### Itrón Engage™

All Valve Industries is a leading specialist importer and distributor of valves, metering and associated products for pressure, flow, temperature, environmental control, measurement, and monitoring systems. All Valve Industries has a long-standing reputation for providing unrivalled industry knowledge and support for the manufacturing partners that they proudly represent, including Itron's world leading solutions for smart metering, data collection and utility software systems. As an Itron preferred Channel Partner, All Valve Industries delivers smart meters and systems for some of Australia's largest water authorities, including Sydney Water and Queensland Urban Utilities, as well as many regional NSW councils and a vast network of plumbing merchants.











### Why Smart Metering?

Transitioning your water meter fleet into communication data points with Itron's smart metering technology will enable accurate, timely meter readings and the collection of extensive meteorology data from your water meters, through walk-by/drive-by or fixed networks systems.

Tackling challenges such as inaccessible meter locations or employee safety, Itron's flexible metering solutions are a perfect fit for utilities, cities, and regional towns in search of a balance between operational efficiency and swift return on investment.

#### Benefits of Smart Metering Data:

- Assist in identifying and reducing non-revenue water and network losses.
- Monitoring of water use and consumption patterns can assist with planning for new infrastructure and capital expenditure.
- Accurate and timely data collection and customer billing.
- Increase revenue with accurate readings and identification of leaks, backflow, tampering or water theft.
- Ability to offer a customer web portal to view data consumption.

#### Automated Meter Reading in Australia.

In Australia, Itron has been implementing AMR solutions for over 25 years. The first AMR network was deployed in Kalgoorlie with Water Corporation in 2005 by Itron (then Actaris) and is still in operation today. Since then, Itron has implemented many large technology deployments for high rise, hard to read locations and regions where daily and hourly water metering data is crucial in providing information to protect and preserve the dwindling water supplies.

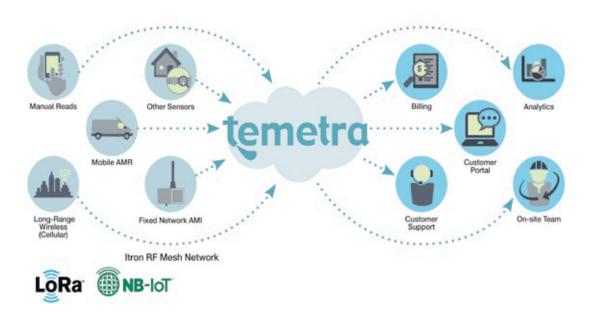
To date, Itron has worked with all of the largest water utilities across Australia, including Sydney Water, WA Water Corporation, Greater Western Water and Yarra Valley Water with Itron's solutions and smart water technologies. This is indicative that Itron has delivered on their promise and commitment to innovate and deliver the best-in-class smart water solutions.



# Introducing Temetra

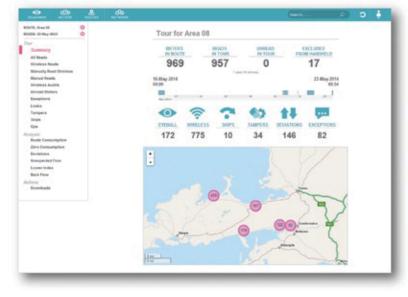
#### A complete, cutting-edge mobile data collection package in the cloud.

Temetra is Itron's unified software for water management that provides a high functionality, cost-effective solution for data collection and data management. It supports multiple network technologies and protocols, ensuring flexibility for meters, backend systems, and communication technology. The network technology supported includes walk-by, drive-by and fixed network. Temetra is used for data collection of over 1.5 million water meters in Australia today.



Using Temetra, you will be able to unify, validate, store, manage, and visualize metering data, device events and alarms, and data collection routes. You will benefit from the ease of integration with other systems in your domain such as work order management, billing systems or BI/BA systems. Combined with Itron's analytical software, Water Operation Management (WOM), you will accelerate your ROI plans by deploying NRW, leak management, meter replacing planning and other operational efficiency use cases. In addition, consumers can benefit from tracking their water consumption information with the help of the Temetra online customer portal.

Built as a cloud-based solution from the ground up, Temetra is designed with a focus to give utilities and regional councils interoperability on all levels, from meters to network selection through to integration with utility systems.



# Itron

# **Benefits of Temetra:** systems. billing validation.

**lemetra**® Cloud-based Mobile Meter Data Collection and Management

- Unified system provides a single interface for the utility for data collection & management
- Supports walk-by / drive-by and fixed network data collection for most brands of water meters.
- Provides monitoring, visualization, and analysis of metering data to detect anomalies such as unusual water usage.
- Easy integration upstream with the utility and billing
- Long term data storage (and disaster recovery), data and
- Online customer portal.
- Enables the easy transition from walk-by/drive-by to fixed network systems.
- Ensures flexibility at the device, network, and systems level.

#### See the separate Temetra brochure for more information

## **Devices** and **Collection** Methods

#### Walk by / Drive by



- A walk-by or drive-by system offers an easy and low-cost deployment of a basic smart metering system.
- Utilising communication modules like the Cyble AnyQuest enables walk-by / drive-by reads to collect index value readings as well as other smart metering data.
- Utilising the Temetra software provides easy meter management, route creation and data management.
- A walk-by or drive-by system is best suited for small water meter deployments.



Install water meters within your premises

**Engage RF Reader** and walk by your meters

Upload data to cloud from Handheld Device

**Receive report** file and export to billing program

# **Devices** and **Collection** Methods

#### **Radio Networks – LoRaWAN**

- LoRaWAN is generally a suitable network for a smart water metering system due to its lower deployment cost and longer battery life
- Water meters with LoRaWAN communication modules connect to gateways installed within close proximity. There are various types of gateways available for indoor or outdoor use to suit the required installation.
- LoRaWAN offers flexible deployment options and is suitable for all areas including rural, remote or metro areas. The gateway can use cellular or satellite networks to provide coverage, even where traditional Telcos might not be able to cover.
- Utilises a global open standard technology which opens opportunities for smart monitoring of other assets and operations including public bin management, car parks, environmental sensors and much more.
- Gateways require a 240VAC GPO and are ideally installed on council property/assets.

#### Itron Water Meter with Cyble 5A

The Cyble 5A communication module is a unique solution helping utilities engage in the ongoing digitalization of their water distribution networks. Designed to transform mechanical meters into communication data points, Cyble 5A enables IoT data collection using LoRaWAN (AS923) allowing for improved billing efficiency, customer service and more. Its patented technology ensures a perfect correlation between the mechanical meter register and the digital index for sustained accuracy.

It is easy to connect through a clip-on design with no wiring or wall mounting required. Cyble 5A is compact with an integrated antenna allowing for use in a wide range of existing meter installations. It is compatible with Itron's Cyble-ready range of mechanical water meters.

#### Itron Water Meter with Cyble AnyQuest

The Cyble AnyQuest is compatible with all Itron water meters from DN15 to DN150 and provides powerful smart functions including daily 24-hourly index readings, alarms for leakage, backflow or tampering, end of life battery alerts, as well as water intelligence alarms for meter sizing, overflows or blockages.

The Cyble AnyQuest has been specifically developed for walk-by or drive-by applications, featuring exceptionally fast and reliable communication with the ability to obtain water meter readings in just a few seconds, thereby allowing for drive-by collection of data.

The electronic unit is encapsulated and rated to IP68 to protect it from harsh environmental and water immersion effects.











#### Devices and Collection Methods

#### **Radio Networks – NB-IoT**



- NB-IoT utilizes individual data connections to the cellular network, similar to that of a mobile phone.
- Excellent coverage of metro and regional areas in Australia with around 4 million sq km coverage for NB-IoT.
- NB-IoT enables meter reads from hard to access water meters, as well as remote reads which is ideal for monitoring commercial water users.
- The NB-IoT network has been adopted into the 5G family of technologies which ensures the long-term future of the technology.

#### Itron Intelis™ wSource™ Water Meter

Intelis<sup>™</sup> wSource<sup>™</sup> is a smart water meter with integrated communication intended for use in residential areas. Leveraging ultrasonic technology, Intelis wSource is engineered to maintain the highest level of accuracy over its entire lifetime and generate extensive data from the water network. Enabled with a low-to-no maintenance solid-state mechanism with field-tested robustness, Intelis wSource is setting the stage for new standards of metrology excellence in harsh environmental conditions and charting the course for more efficient Non-Revenue Water initiatives.

Intelis wSource introduces new levels of expectations in metrology accuracy. Sole meter MID-certified for R1000, Intelis wSource establishes a new standard in precision for measuring water consumption at low flows and new norms of transparency for customer billing.

Intelis wSource with cellular connectivity will be commercially available from the second half of 2023.



Intelis™ wSource™

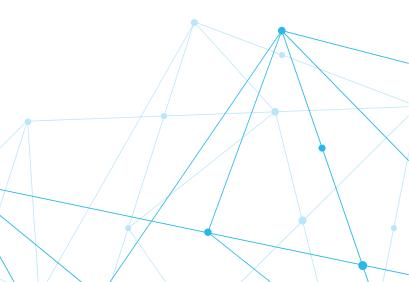
# Implementing a **Smart Metering Solution**

Transitioning to a smart water metering solution may seem like a daunting task, however, with the expertise from Itron and All Valve Industries, the implementation of this technology will be easy and stress-free.

Whether you require a complete roll-out across your entire fleet or prefer the modular approach to the upgrade of your water distribution network, we can tailor the solution to meet your business needs and budget.

Many councils elect to roll out a smart metering system over time as older meters are replaced, or where monitoring selected meters such as high volumes users, new developments, hard to access meters, etc, which will deliver the return of investments in a shorter period of time.

Contact us to discover how we can support you in your journey to a smart metering solution.



Our promise to you is:

- Quality Meters
- Reliable Solutions
- On time delivery
- Fixed Prices
- Successful Installation
- Continual Support



#### **CONTACT US**

#### ALL VALVE INDUSTRIES

All Valve Industries is an Itron Advanced Channel Partner. This recognises the partner as having the necessary experience to support customers and deliver Itron's products and solutions with exceptional performance.

In addition, All Valve Industries' well established distribution channel provides efficient delivery service, as well as local support for Itron's product portfolio.



#### **ITRON PARTNER**



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