ChoiceConnect™

Changing the way utilities think about advanced meter data collection

THE BENEFITS OF CHOICECONNECT

With ChoiceConnect, utilities benefit through:

» The capacity to concurrently read electric, gas and water endpoints and enhanced monitoring systems with the same collection system

» A sensible, blended approach to deploy handheld or mobile systems and/or fixed network systems to meet operational needs

» Collection of data logging information with mobile or fixed network systems and the operational advantages gained with daily or hourly meter data

» Migration to more advanced data collection systems, such as hand-held to fixed network, whenever and wherever business objectives demand, without stranding field assets

» Lower operations and maintenance costs due to deployment flexibility, low cost per point, reduced field service visits and tamper analytics

» Mitigation of future risks with a proven technology platform that can easily extend data collection capabilities for increased operational efficiencies as business cases evolve

» Extending the data collection capabilities beyond the meter with enhanced monitoring technologies

» Transmission of meter data to in-home displays, empowering consumers to make informed decision about energy and water usage

» Enhanced security with authentication and encryption

WHY

» Demand for energy and water will increase by over 50% in the next 15 years, while additional generation or supply is unavailable or slow to come online

» Operational and environmental constraints are impacting the bottom line, or are mandating business transformation

» Delivery and distribution infrastructure—built decades ago—is burdened by demand it wasn't designed for and is overdue for an upgrade

Despite these acute challenges, energy and water utilities are expected to continue to deliver reliable service to their customers, now and into the future. Utilities rely on technology to help manage their issues, but each utility has its own time frame and specific challenges; "one-size-fits-all" technology is not the answer.
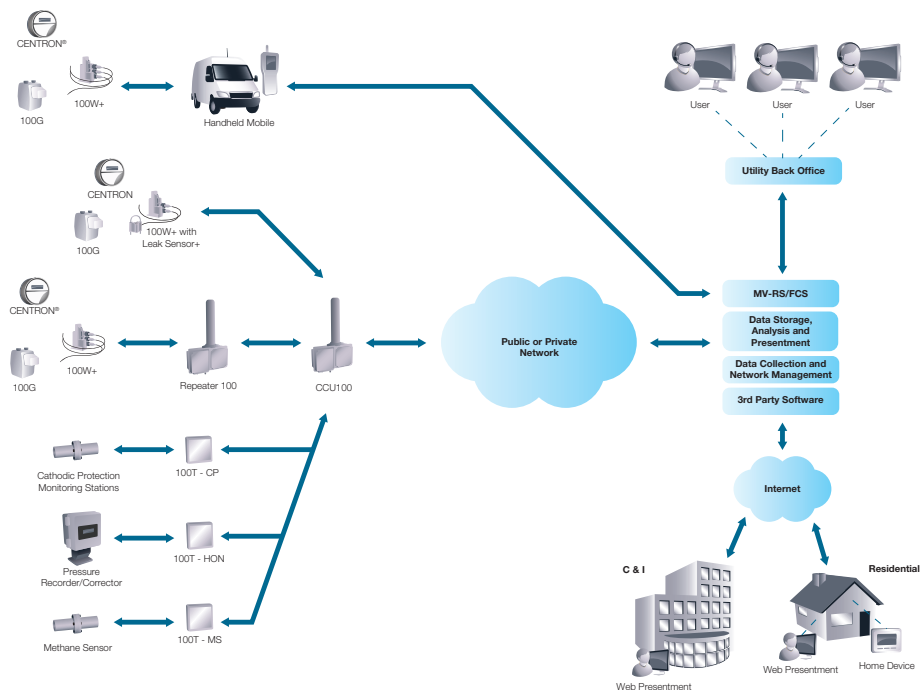
Energy and water utilities face a broad range of business challenges, from commodity supply and price pressures to rising operational costs and aging infrastructures. ChoiceConnect offers system flexibility and technology innovation to help utilities sustain and optimize energy and water delivery management.

WHAT

Realizing the broad business challenges and varying data collection needs of our customers, Itron developed ChoiceConnect, an adaptable and advanced metering and telemetry technology for the utility industry. ChoiceConnect is changing energy and water utilities' operations, asset management and engagement with customers as they discover benefits that are reshaping their businesses.

ChoiceConnect is a suite of data collection technologies—handheld, mobile, fixed network and enhanced monitoring systems—all built on Itron's proven 900 MHz ERT® platform for an array of flexible meter reading options. ChoiceConnect can be deployed in the right combination, at the right cost, based upon specific needs with the option to transition to a more advanced collection system when business requirements change—all while retaining the same electric, gas and water endpoints in the field.

ChoiceConnect 100 Architecture

100W+ Water Endpoint

100G DLN ERT Module

HOW

ChoiceConnect offers energy and water utilities a wide array of operational, customer service and asset management benefits because of the advanced capabilities provided by its suite of products.
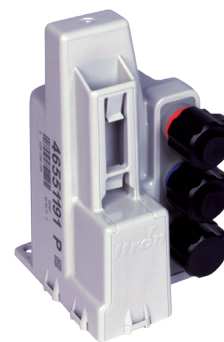
Endpoints

The power of ChoiceConnect starts with electricity, gas and water endpoints, such as the HP CENTRON, 100G and 100W+. These are coupled with the enhanced data collection systems that utilize Itron's proven ERT technology to communicate data to the utility. Our radio-based 900 MHz endpoints for electric, gas and water utilities are offered with different power levels and communication options to meet specific deployment requirements. The 100G and 100W+ also feature optional enhanced security with the addition of authentication and encryption. Accurate and cost-effective, ChoiceConnect endpoints offer proven reliability with an unmatched 20 year battery life and are rugged enough to withstand even the harshest environments. ChoiceConnect endpoints are easy to install and compatible with all leading water and gas meter manufacturers.

Leveraging our communication technologies, we extend the value of data collection out into utilities' distribution systems, integrating with acoustic sensors
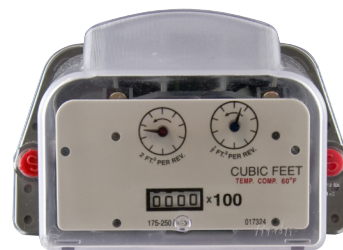
for proactive leak detection. Our 100T series for gas utilities remotely monitors for line pressure and temperature, cathodic protection and methane leaks for preemptive maintenance and enhanced safety. Our Leak Sensor+ for water utilities acoustically monitors for leaks, protecting water revenue and catching small leaks before they become costly mains breaks.

Fixed Network Collector CCU 100

The CCU 100 (also known as a collector) is the main collection point for the ChoiceConnect Fixed Network and reads data from Itron electricity meters, gas and water endpoints. The CCU 100 gathers consumption, daily or hourly meter reads, and other information from endpoints and communicates it back to the utility over a public or private network. When used with the Fixed Network Repeater 100 the coverage territory per CCU 100 is extended. It also manages the collection, processing and storage of endpoint data and can support two-way functionality to the endpoint. Equipped with a backup battery, the CCU100's adaptable design allows for a wide range of installation options, utilizing either AC, DC or solar power.

CENTRON C1SR Electricity Meter

CCU 100

Fixed Network Repeater 100

Repeaters add communication reliability and redundancy between endpoints and collectors. Installed on towers, buildings, poles or other structures, the Repeater 100 collects meter data from Itron electricity meters, gas and waterERT modules and relays it to collectors within the network. This makes the ChoiceConnect 100 Fixed Network cost-effective and reliable.

Itron Network Software

The Itron Network Software manages the network operations and performance. It controls collection system operation, including processing and storing reads along with exporting data to external applications. The Network Software also offers advanced capabilities and integration with a meter data management system to enable end-to-end system functionality. A graphical user interface provides easy access to the system, allowing operators to monitor functions, configure collectors, generate reports and view service territory maps and export files.

Mobile & Handheld Collectors

Itron's handheld and mobile solutions combine accuracy and mobility to facilitate the efficient collection of consumption and interval data along with tamper information from ChoiceConnect endpoints. Several options are available to meet a utility's specific business case.

» Mobile Collection System enables up to 100,000 in route and out of route meter reads per day

» Mobile Collector Lite allows utilities to collect up to 10,000 reads daily

» The FC300 Handheld computer can collect up to 1000 reads a day

With millions of endpoints already under ChoiceConnect solutions, many utilities are already well-positioned to take advantage of the wide range of mobile or handheld reading functionality.

Itron Handheld and Mobile Meter Data Collection Software

ChoiceConnect includes two choices of software for handheld and mobile meter data collection. These include the popular MV-RS and Field Collection System (FCS) applications. These feature rich software applications allow the utility to easily manage routes, assignments and data collected using handhelds and mobile collectors. Commonly used interfaces allow these systems to be easily integrated with customer information and billing systems and meter data management systems.

Meter Data Management System

Meter Data Management is a data repository that can integrate MV-RS, FCS and the Network Software data with analytical applications. This integration supports a true end-to-end AMI solution, as well as other business processes, including data collection, data validation and estimation, data management and calculations. Usage and variance reports offer comparative assessments of current and historic consumption to address customer issues. Trending reports spotlight usage patterns to better understand who is using how much and when. Web presentment tools empower customers to understand their water usage and support conservation.

MC3 Mobile Collection Unit

FC300 Handheld Computer

Meter Data Management Software