



Aclara RF™ Network for Water Utilities

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The Aclara RF Network for water utilities offers fixed network, two-way AMI communications that go beyond AMR by securely and accurately reading water meters electronically – without meter readers, drive-by vehicles, or handhelds. Our solution provides hourly, time-stamped, and time-synchronized meter readings that can help large and small water utilities improve their business operations.

The Aclara RF Network's AMI radio topology consists of three components:

- Meter Transmission Unit (MTU)
- Data Collector Unit (DCU)
- AclaraONE® (One Network for Everyone)

SERIES 3400 WATER METER TRANSMISSION UNIT (MTU)

At the heart of the Aclara RF Network for water utilities is the series 3400 MTU. It provides the water utility with accurate, and timely meter reading data to support revenue management by reducing reading and billing errors, and is tested compatible with virtually all AMI-ready water meters available in North America. The series 3400 MTU provides a complete system read with all the necessary information to reconcile the amount of water entering the system to the billable water that is consumed, thus identifying the probability of system leaks.

DATA COLLECTION UNITS (DCU)

The DCU will help utility staff maintain the reliability of aging infrastructure and improve efficiency and capacity through enhanced asset management, monitoring, and timely communication.

The DCU transmits and receives data over individual 450 to 470 MHz radio frequencies. Powered by a solar panel or AC power supply (with on-board battery backup), the DCU time stamps, processes, and stores diagnostic information and data collected from MTUs.

DCUs decode and error-check the received data before storing it in local memory, as well as transmitting data for further processing to the AclaraONE headend software and sends commands and alerts back out to the MTUs. DCUs can use a variety of backhaul communications technologies such as cellular, Ethernet, and fiber optic.

DCUs are installed throughout the service territory on a wide variety of assets, including municipal and utility building roofs, water or other towers, street lights, and utility poles. One Aclara RF Network DCU can support tens of thousands of meters in a typical urban area.

ACLARAONE® HEADEND SOFTWARE

AclaraONE is a powerful headend software platform that enables Aclara's communications technology and adds comprehensive solutions to transform business operations, increase efficiencies, reduce costs, and increase customer satisfaction. Built to provide actionable insights and provide the situational awareness required to handle growing distribution challenges, AclaraONE allows water utilities to securely, reliably, and efficiently operate their distribution networks.

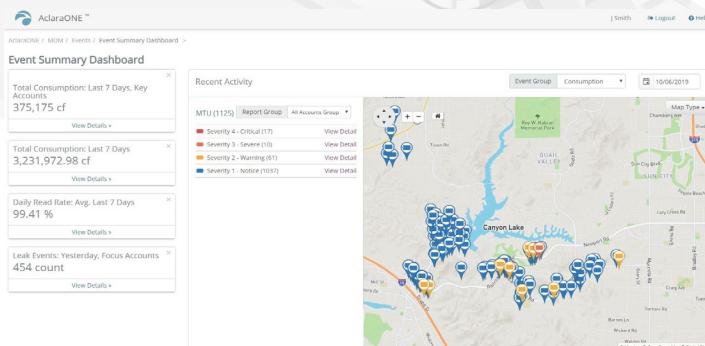


Fig. 1 – AclaraONE platform

From meter to cash, network management, distribution operations, sensors, analytics, installation services, and consumer engagement, AclaraONE delivers a broad set of functionalities utilities require to monitor, optimize, and improve the operation of their infrastructures. Operating as a single platform for networks ranging in size from a few hundred meters to millions of meters, AclaraONE also integrates smart infrastructure solution applications so network operators can react faster and more effectively while managing their distribution network.

The AclaraONE platform supports the complete lifecycle of an advanced metering infrastructure network through a headend that:

- Handles device installation, network messaging, and device management and control. It supports secure roles-based access, including single-sign-on, user authentication, and integration with Microsoft Active Directory®, so network messaging on the AclaraONE platform is reliable, robust, and secure.
- Drives persistent consumer engagement leading to higher customer satisfaction scores and increases program adoption rates. with our Aclara Adaptive Consumer Engagement (ACE®) platform. The Aclara ACE customer portal is adaptable and flexible enough to mold solutions to meet your utility's needs, whether you want to deploy a behavioral program, showcase AMI data, redefine your customer's digital experience, inform users with advanced load-disaggregation models, or leverage alerts to keep customers engaged.
- Engages your customers online, on their tablets, or through their mobile device with our full suite of Aclara ACE features, thanks to our modern, responsive web design. Provide your customers with 24x7 access to billing, consumption, and conservation tools to drive customer self-service through our My Bills, My Usage, and My Savings modules.

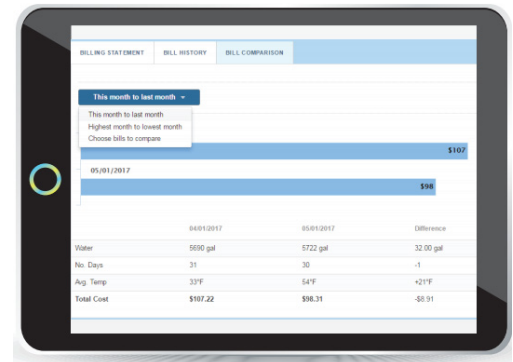


Fig. 2 – 24x7 access to Aclara ACE features online, on your tablet, or mobile device.

VALUE ADDED APPLICATIONS

The Aclara RF Network can do far more than read water meters. Adding the ZoneScan acoustic leak detection system – which uses the same communication network and headend software – to identify and locate leaks in water distribution systems can drastically reduce non-revenue water and extend the life of aging infrastructures. Pressure monitoring and sewer overflow applications also leverage the already installed network to give deep near-real-time insights into operation of a water network.



BENEFITS OF THE ACLARA RF NETWORK

For more than 20 years water utilities have chosen the Aclara RF Network, and for good reason. Utilities value Aclara's integrated solution suite, which can take the utility from meter reading to customer service to analytics and beyond. Meter shop managers and information technologists appreciate the RF Network's flexible and elegant design and easy scalability. A long track record of innovation driven by changing customer needs and enhanced features – while not stranding previously installed hardware – keeps Aclara at the leading edge of AMI solutions. High levels of redundancy, resiliency, and superior RF performance due to the underlying 450-470 MHz communications frequencies lead to the best-read success rates in the industry and a long-term deployment that just works.

ACLARA'S RF NETWORK IS A PROVEN AMI TECHNOLOGY DESIGNED TO MEET TODAY AND TOMMORROW'S NEEDS:

- **Reduce distribution** costs with scalable and automated meter reading, distribution management, and service quality.
- **Enhance consumer engagement** with immediate data that provides customers the information they need to understand and make consumption decisions.
- **Lower operating costs** with tools to plan and optimize investments in maintenance and capital upgrades.
- **Create a data-driven solution** to develop and expand the utility's ability to serve customers.
- **Support sustainability efforts** to protect our environment and conserve our natural resources.