

# Aclara Solutions



Create Your Intelligent Infrastructure™

The utility communications technologies  
and services of Aclara.





The Aclara® brand represents the industry's leading technologies for providing device networking, data-value management, and customer communications to water, gas, and electric utilities globally. Over 500 utilities worldwide rely on proven Aclara solutions to connect with their customers.

Aclara integrates the strengths of the industry's most proven advanced-metering infrastructure solutions – the Aclara STAR® network system, Aclara's TWACS® technology, and Aclara's meter data management and smart consumer engagement software – to meet the needs of our utility clients.

Aclara solutions will help you enhance your communications, increase customer satisfaction, and create a unique vision for your utility. Beyond AMI technologies, our solutions include the tools to implement strategies for utility networking, demand response, outage assessment, distribution automation, prepayment options, energy efficiency, and resource conservation.

Look to Aclara for the tools, the innovation, and the knowledge to make the most of your utility systems, maximize your resources, and realize the power of data and a true communication network.



## Aclara STAR Network

The foundation of the flexible Aclara STAR Network System is a uniquely designed Meter Transmission Unit (MTU) that reads the utility meter. MTUs operate on a schedule specified by the utility and can transmit multiple readings per hour.

Gas and water units are mounted near or on the meter, and are powered by a permanent, lithium-ion battery that guarantees trouble-free operation for up to 20 years, depending on how often the unit communicates. Electric MTUs integrate with the meter and offer a battery backup that ensures continuous receipt of data from the meter during outages.

MTUs transfer data over secure, licensed 450- to 470-MHz radio frequencies to data collector units (DCUs) positioned strategically throughout the utility's service area. DCUs use a variety of backhaul options to transfer data to the utility — radio and cellular signals, fiber-optics, Ethernet, and Wi-Fi. Robust system architecture ensures no missed readings and guarantees security and revenue protection.

Within the utility, the system's network control computer (NCC) provides user-friendly access to usage data through a Web browser-based interface. Utilities can also integrate the NCC database with other applications such as billing programs or data-management systems. If the STAR Network system is configured for two-way communications, the utility also can send data to the meter.

## Aclara TWACS Technology

Aclara TWACS technology is a powerful system that employs existing powerlines to deliver extensive and reliable AMI. The TWACS solution is proven today, with over 340 electric utilities relying on it for two-way communications, system monitoring, and remote operation.

TWACS technology effectively reads electric meters and facilitates additional services such as load control and demand response. Innovative meter endpoint devices, or transponders, are the front-line components of TWACS technology.

TWACS-enabled, single- and poly-phase endpoints are flexible and can be programmed to meet the requirements of electric utilities for multi-channel interval data. Substation communications equipment ensures maximum throughput of metering data via parallel communications and message processing. A variety of backhaul options convey endpoint data to the utility.

Utilities can use Web browser-based or command-line software options for analyzing data. TWACS applications also are available for outage management, demand response, and load control. In addition, TWACS supports prepaid metering, remote connect and disconnect options, short-hop wireless solutions for reading gas and water meters, and an in-home display for direct communication with consumers.

## Utility Data Management

Aclara Software® solutions support existing billing and metering infrastructures, allowing utilities and their customers to better manage energy-driven transactions and decision-making. They add value across the enterprise, addressing meter and energy data management, distribution asset planning and analysis, revenue management and protection, customer care, and resource management.

Over 100 major energy and water organizations worldwide rely on Aclara Software to reduce capital and operating costs, increase customer satisfaction, and provide the foundation for efficiency and resource management programs.

Aclara's enterprise-wide approach creates the infrastructure necessary to manage AMI, meter data, and utility assets. With proven-at-scale solutions, Aclara provides a data structure flexible enough to meet the needs of today and tomorrow. Our collection of powerful operational efficiency solutions helps our clients leverage critical data assets.

From an end-use customer perspective, Aclara Software does much more than simply present data. Our customer care solutions help utility customers understand their bills, utility rates, and efficiency options, delivering content and analytics that give customers more control of their resource usage.





Aclara integrates advanced, proven AMI technologies to capture, analyze, and apply utility data to meet the demands of today—and tomorrow.

**Reduce distribution costs** with scalable and automated meter reading, outage management, service quality, and power-restoration capabilities.

**Enhance customer engagement** with the immediate data that provides customers the information they need to understand and make energy decisions.

**Lower operating costs** with tools to plan and optimize investments in maintenance and capital upgrades.

**Create demand-side resources** to develop and expand the utility's ability to serve customers and manage usage efficiently.

**Support sustainability efforts** to protect our environment and conserve our natural resources.



**Aclara**

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