

# CriticalRiver Transforms EWA's Utility Infrastructure with Smart Metering Integration



## The Customer

The Electricity and Water Authority (EWA) is Bahrain's national utility provider, responsible for delivering reliable electricity and water services. It plays a key role in the country's urban and economic development by modernizing infrastructure, enhancing energy efficiency, and adhering to global standards.

## Impact Delivered

- 50% reduction in complaint resolution time
- 40% increase in team collaboration
- 30% improvement in reporting accuracy

## The Challenge

- Integrating Oracle Utilities Advanced Metering Solution (AMS) with multiple smart meter head-end systems (Landis+Gyr, SEP2W, and IZAR@NET) using Oracle SOA Suite and Smart Grid Gateway.
- Enabling real-time device command processing, alarms, and event handling for:
  - 150,000 meters on Landis+Gyr GridStream
  - 283,000 meters on SEP2W
  - 240,000 meters on IZAR@NET
- Developing a custom interface using Oracle SOA Suite for smooth communication between Oracle AMS and smart meters.
- Configuring Oracle AMS to align with EWA's business processes.
- Integrating Oracle AMS with Oracle CIS for enhanced customer service.

## Solution Components

Oracle Utilities Advanced Metering Solution, Oracle Smart Grid Gateway (SGG), Oracle SOA Suite

## The Solution

CriticalRiver used Oracle SOA Suite, designing and developing interfaces to integrate Oracle AMS with multiple smart meter head-end systems via Oracle Smart Grid Gateway (SGG), ensuring real-time data synchronization with Oracle CIS. The solution enabled:

- Automated enriched meter data processing – Uploading measurements, processing alarms, and handling metering commands (Remote Connect/Disconnect, Device Commissioning, On-Demand Read, etc.).
- Seamless system customization – Enhancing Oracle AMS and Oracle CIS to improve operational efficiency.
- Reliable deployment – Achieving a successful Go-Live followed by two years of post-Go-Live support for stability and improvements.

## The Results

- Real-time communication for 673,000+ smart meters, providing system wide operational data acquisition and systems control.
- Enhanced customer experience with access to detailed smart metering data.
- Faster, more accurate service request handling, boosting operational efficiency.
- Improved monitoring and troubleshooting with streamlined device communication.
- Stable, optimized system with two years of post-Go-Live support to ensure stability and continuous improvements.