CUSTOMER CRITICAL CHALLENGE
- To build a greener, “smarter” energy grid to serve more customers more efficiently
- To serve the global, low-cost, and high-volume smart residential meter market

SOLUTION
- Sierra Wireless® AirPrime® embedded wireless module
- Embedded Application Framework with M2M-specific Open AT OS, software libraries and integrated development environment

BENEFITS
- Reliability and longevity
- Interoperability with carriers and markets worldwide
- Fast time-to-market

BACKGROUND
EDMI is a global market leader in innovative energy metering products, smart metering infrastructure and energy management systems. Headquartered in Singapore, the company serves a large and growing customer base in Europe, Asia, Australasia, the Middle East and Africa.
“Smart metering projects around the world are all different, and each utility has specific requirements,” explains Lees. “The fact that we have the option to add intelligence in the AirPrime module gives us a lot of flexibility.”

Graeme Lees
Chief Operating Officer
EDMI

**Business challenge**

EDMI’s energy supplier customers are investing in automated metering infrastructure (AMI) technologies to build a greener, “smarter” energy grid. With real-time power grid visibility all the way to the meter, utilities can optimize energy distribution, take action to shift demand loads and, ultimately, serve more customers more efficiently.

EDMI recognizes the potential of AMI to transform the industry and are extending the company’s leadership to emerging “smart grid” technologies. To accomplish this, however, EDMI must address the demanding requirements of always-on, industrial-grade metering communications. The company believes that cellular connectivity can provide an ideal solution for many deployments.

Building effective cellular communications for a global customer base, however, can be challenging. Different markets use different communications protocols and have unique certification requirements.

“In many ways, the hardest part of an AMI project is communications,” says Lees. “We have years of expertise building industry-leading metering systems, but we find ourselves spending much of our time focusing on communications. We need a trusted industry partner who can provide reliable, flexible communications modules that can perform anywhere in the world.”

**Sierra Wireless AirPrime Solution**

The company chose the AirPrime module to support its new Mk7B smart single-phase electronic revenue meter.

EDMI is targeting the Mk7B to serve the global, low-cost and high-volume smart residential meter market. The solution includes an integrated, modular pod-based communication system, with cellular connectivity provided by the AirPrime module. The embedded SIM module combines a compact, ruggedized design with full AMI functionality, as well as an optional ZigBee RF interface to connect a remote display channel. The solution allows EDMI to provide a cost-effective point-to-point wireless connection that can be remotely managed, upgraded and configured over the air, simplifying maintenance in the field.

“The AirPrime has all the features and reliability we want, but the biggest advantage is that it’s built for a long-term strategy,” says Lees. “We know we will be able to work with this module for many years to come.”
EDMI has also partnered with Sierra Wireless for the EWM100 Advanced GSM/GPRS Modem for Smart Metering Applications. Built with the AirPrime WMP100, the plug-and-play modem provides an ideal “in-meter” communications platform for AMI. The solution combines industrial-grade specifications, low power consumption and remote manageability in a standards-based package that interoperates with a wide range of meter technologies.

In February 2011, EDMI and Sierra Wireless won the GSMA Global Mobile Award for Best Mobile Innovation for Utilities at the Mobile World Congress in Barcelona for the product.

The Sierra Wireless AirPrime modules feature an Embedded Application Framework (EAF) which includes an operating system (Open AT®) designed specifically for machine-to-machine (M2M) communications. The EAF allows EDMI to build application processing into the module if they choose, and to customize the modem for diverse market needs. Recently, EDMI used this capability to comply with a set of unique protocol specifications for a customer in Southeast Asia.

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Results

Today, Sierra Wireless is playing an important role in helping EDMI build a new generation of innovative smart metering solutions. The AirPrime embedded modules benefit EDMI by providing:

- Long life span, with the ability to remain online for 10 years or longer
- Industrial-grade specifications to meet extreme environmental conditions of high temperatures, shock, corrosion, vibration and humidity
- Embedded SIMs to provide a more robust and durable solution
- Simplified maintenance: remote management and configuration over the air
- Plug-and-play interoperability to easily integrate with a broad range of meter technologies
- Standards-based design to ensure support for changing metering equipment over time

To find out more about Sierra Wireless Energy Solutions, please visit: www.sierrawireless.com/energy

About Sierra Wireless

Sierra Wireless is building the Internet of Things with intelligent wireless solutions that empower organizations to innovate in the connected world. We offer the industry’s most comprehensive portfolio of 2G, 3G, and 4G embedded modules and gateways, seamlessly integrated with our secure cloud and connectivity services. OEMs and enterprises worldwide trust our innovative solutions to get their connected products and services to market faster. Sierra Wireless has more than 950 employees globally and operates R&D centers in North America, Europe, and Asia.

For more information, visit www.sierrawireless.com.