

CUSTOMER SUCCESS STORY

CUSTOMER: INDIANA MUNICIPAL POWER AGENCY (IMPA)
INDUSTRY: UTILITIES
REGION: INDIANA, UNITED STATES
PRODUCT: iDS3-S

THE CHALLENGE

Indiana Municipal Power Agency (IMPA), a wholesale electric power provider, purchases some of its power from Duke Energy. In turn, IMPA uses this power to supply its 61-member consortium. Until last year, IMPA and Duke Energy were able to separately poll power meters responsible for monitoring generation and grid load at interchange metering locations. This was done via a single cellular modem on a public IP network. IMPA requires hourly polling to collect generation, load and utilization information for energy market accountability. In order to comply with NERC/CIP requirements, Duke changed to a private IP scheme for the interchange metering network. This change required IMPA to have their own cellular access to the meter. This modification required an industrial-rated networking device with a wide operational temperature range (-40°C to +85°C) that was capable of passing serial traffic from the single meter and ethernet traffic from the two cellular modems.

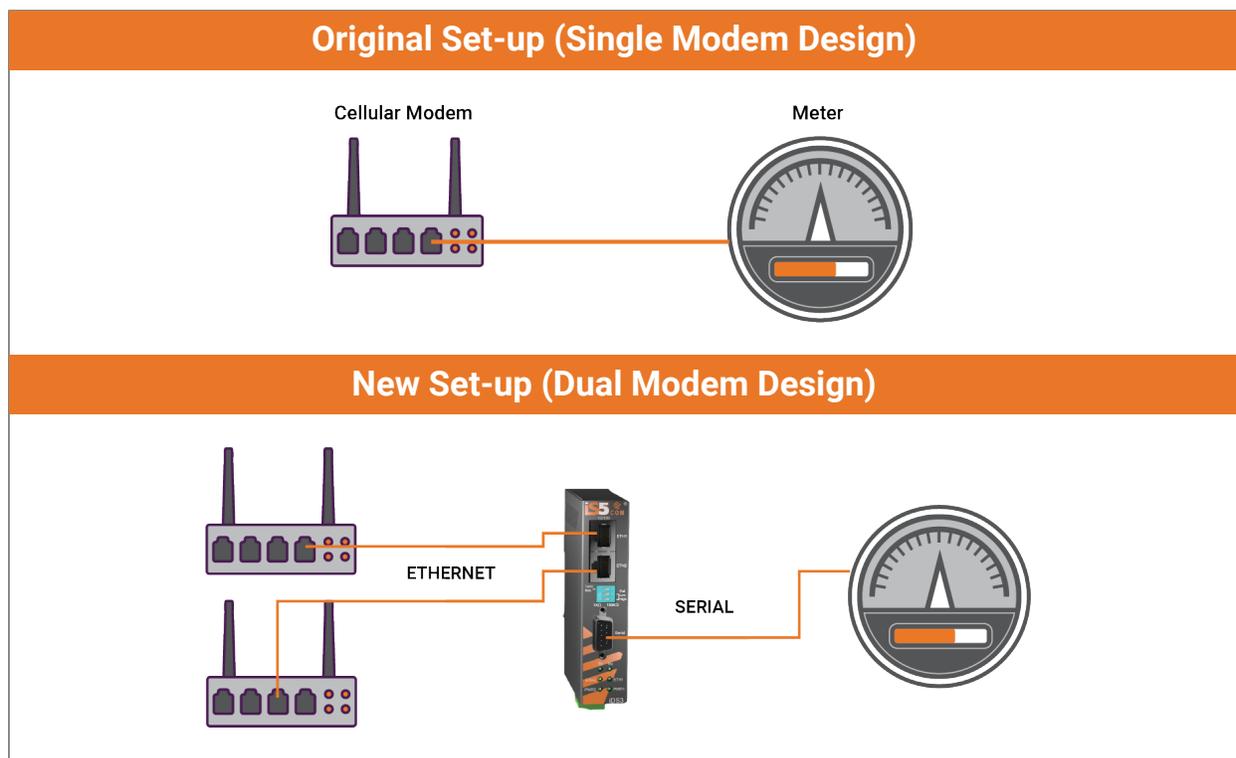
THE SOLUTION

To solve the problem, an iS5 Communications' industrial-rated, din-rail mount, iDS3-S serial device server was installed at each interchange metering location. The iDS3-S serial device server is equipped with a single RS232/422/485 serial port and two LAN Ethernet ports. The device facilitates two-way communications between the TCP/IP networks of the cellular modems (one for IMPA and one for Duke Energy) and the serial protocols of the power meter at each interchange metering location. With this implementation, both Duke Energy and IMPA receive interchange metering load data for their energy management systems independent of each other.

Key time-saving benefits were realized during the iDS3-S commissioning process through the management interface's intuitive configuration wizard and the use of scripts. This process provided a consistent method to configure the devices and helped minimize errors during the setup. Another benefit of the deployed iS5Com solution was a noticeable performance increase over the prior network set up.

BENEFITS

- **100% visibility** to meter data that feeds into IMPA's energy management system independently of Duke Energy.
- **100% accessibility** by IMPA to the power meter through the iDS3-S serial device server.
- **100% reliability** of the utility grade hardened iDS3-S device will provide long term performance at interchange metering locations where temperature extremes are a key factor.
- **Easy to Use** iDS3-S Management application interface wizard simplifies large network rollouts with minimal site visits. Future configuration changes, if necessary, can be done remotely and on a large scale through the use of scripts.
- **Secure remote access** to the iDS3-S device configuration is facilitated through HTTPS and SSH.



Mitch Reeves, Metering and Safety Manager, IMPA: "We are very pleased with the performance of the iDS3-S. The iDS3-S outperforms our expectations. The operating temperature range makes it a one device solution for multiple environmental condition scenarios. I will be recommending this product."



ABOUT INDIANA MUNICIPAL POWER AGENCY (IMPA)

IMPA was formed so its member utilities could share power resources, allowing cities and towns to provide electricity more economically to their customers. The Agency began operations as a “joint action agency” in 1983 with 26 members. As individual utilities, IMPA members had limited access to power supply options. By purchasing power from IMPA, instead of purchasing or generating it themselves, IMPA members found they could save money and keep electric costs as low as possible.

IMPA is governed by its members. Member utilities purchase their power requirements from IMPA and deliver that power to the residents and companies in their service territories. Altogether, IMPA members deliver electric service to over 330,000 individuals throughout Indiana and Ohio. IMPA’s diverse power portfolio includes a mix of the Agency’s own generating capacity and some purchased power. IMPA’s active management of power costs and service quality has made it into one of the country’s most competitive power providers.

ABOUT iS5 COMMUNICATIONS INC.

iS5 Communications Inc. (“iS5Com”) is a global provider of integrated services and solutions, and manufacturer of intelligent Industrial Ethernet products. Our products are designed to meet the stringent demand requirements of utility sub-stations, roadside transportation, rail, and industrial applications. iS5Com’s services and products are key enablers of advanced technology implementation such as the Smart Grid, Intelligent Transportation Systems, Intelligent Oil Field, and Internet of Things. All products have the ability to transmit data efficiently without the loss of any packets under harsh environments and EMI conditions.



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