Miele

Wireless Gateways Help Danish Self-Service Laundries Run Smoothly - A Sierra Wireless® Remote Monitoring Solution



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CUSTOMER CRITICAL CHALLENGE

- Installing or rerouting DSL lines usually requires a trained technician

SOLUTION

- Wireless industrial gateways mean easier installation and reliable connectivity

BENEFITS

- Miele enjoys stable connectivity, even underground, using Sierra Wireless

cellular gateways

In Denmark, the widely-known home-appliance maker Miele operates self-servicelaundries on privately run public-housing estates. Residents use specially issued cardsto operate Miele machines, which are connected to a proprietary system for billing.Miele counts on Sierra Wireless gateways for fast setup and reliable performance.

There are more than 3,500 on-site laundry facilities in Denmark’s social-housingestates. Connecting these facilities to the Internet creates opportunities for automatedbilling and other features, like advance reservations and electronic messaging, but DSLcan be complicated and time-consuming to install. Estate managers typically need thehelp of a trained technician, sent from the telco provider, and that can make it harder toget a laundry connected.

Switching from DSL to cellular let Miele simplify installation while still offering a servicethat meets their strict requirements for quality. Sierra Wireless’ gateways provideexceptionally reliable operation, even underground, and offer key benefits in terms ofspeed, stability, and installation time. Denmark’s social-housing estate managers nowhave just one contact for the entire deployment, and can be confident they’ve chosen acost-effective solution that will run smoothly for years to come.

Business Challenge

For more than 30 years in Denmark, the internationally recognized German appliancemakerMiele has addressed a niche market in public housing, offering privately run“social-housing” estates a way to install and operate self-service laundries that useMiele washers and dryers.

Miele began equipping these laundries with Internet connectivity in the mid-1990s,and started using online connections to process machine-transmitted data. Theearliest installations used low-speed analog connections, but when DSL becameavailable, Miele took advantage of the higher bandwidth to enhance their service.Estate managers could track usage more accurately, in real time, and residents,equipped with a password and username, could go online to view availability, makereservations in advance, and receive text messages when loads were done.

Adding DSL improved Miele’s offering, but the initial installation wasn’t always easy.Estate managers had to deal with two suppliers – Miele for the laundry equipment,and the telco company for DSL service. Even if DSL was already available onsite,routing wires to the laundry facility usually meant

scheduling a trained technician fromthe telco company, and bringing connectivity to the basement – where many laundriesare located – only made things harder.

By 2011, Miele was looking for a better way to provide connected laundry services.They wanted faster, easier installation, and wanted to save their customers fromhaving to work with more than one company for setup and maintenance. They thoughtgoing wireless would be great, but weren’t sure they could find a cellular technologythat worked reliably in underground locations.

Sierra Wireless Gateway Solution

As a leader in domestic appliances, with a century-long reputation for quality, Mielecould hardly afford to install a wireless solution that didn’t live up to their brandpromise of “Immer besser” (“Always better”). It took some hunting to find the rightsolution.

Many social-housing estates have their self-service laundries in the basement, eitherpartly or entirely underground, and that can be a serious issue for cellular connectivity.Coverage can be extremely limited, and basement locations often have just one smallwindow where an antenna might be able to find and keep a signal.

Added to this is the fact that most laundries are available for residents to use roundthe-clock, every day of the year. Any wireless solution had to provide the same kind of24/7 connectivity. A lapse in service would mean higher costs and inconvenient delays,since connectivity issues would likely require bringing in a technician.

Miele’s search for a stable wireless solution led them to DeltaM2M, one of SierraWireless’s leading partners in the Nordic region. Working closely with DeltaM2M’smanaging director, Torben Deleuran, Miele evaluated the Raven XE wireless cellulargateway, which was, at the time, a best-in-class solution for device connectivity. Theirtests showed that the Raven XE could get and maintain a cellular signal where othergateways couldn’t, even underground.

Miele now had a wireless solution that provided the consistent, reliable performancethey needed, and they began the transition from fixed-line DSL to cellular. Thechangeover simplified installation and created a closed system that Miele could controlmore fully. Partnering with Telenor, a multinational telecom company headquarteredin Norway, Miele began supplying their customers with everything needed forconnectivity, including the SIM card. Estate managers now had a single contact for theentire service – washers, dryers, connectivity, control application, and user interface.

The switch to cellular was a success, and Miele’s Raven XE installations are still goingstrong, even today. In 2013, though, when Sierra Wireless announced the upcomingretirement of the Raven series, and introduced the next generation product, Mieledidn’t hesitate. They were so impressed with Sierra Wireless as a technology partner– and with DeltaM2M as a provider of local logistics and pre- and post-sales support– that Miele immediately began working on a new design, based on an even smaller,higher-performing gateway.

Miele made a quick transition to the new gateway, and took advantage of the changeto improve their design. The gateway offers a more comprehensive set of configurableoptions, so DeltaM2M and Miele were able to fine-tune operation and make theservice more flexible. DeltaM2M ran extensive tests with multiple antennas andselected the one best suited to Miele’s requirements. DeltaM2M also recommendeda larger antenna, to be mounted externally, for use in especially challenging locations.If the gateway has trouble finding a signal in a given laundry location, Miele can mountthe more powerful external antenna and establish a better connection.

Results

Close collaboration between DeltaM2M and Miele resulted in a wireless solution thathas been running smoothly for many years. DeltaM2M continues to support Miele,checking and prepping every Sierra Wireless unit before it goes into Miele’s stock. Theyupgrade each gateway with the latest firmware, and test it with Miele’s chosen SIMcards. They then pack the gateway with a mounting bracket and antenna, so Mieletechnicians can take just one item off the shelf, take it to the installation site, and haveexactly what they need to connect to power and a LAN cable.

The compact form factor enabled easier integration into the laundry setup, whilesupport for always-on availability, with persistent connectivity, ensured continuousoperation. The gateway could find and maintain a strong signal just about anywhere,including basements, and that meant more of Miele’s clients could transition from DSLto cellular.

Later, as the Raven XE neared retirement, Miele made a smooth transition to thenew gateway. While other companies might have seen the end of a product line as anopportunity to evaluate other technologies from other suppliers, Miele had no doubts.From their point of view, Sierra Wireless already offered the best options available, sothere was no need to start over with another vendor. Also, the fact that Sierra Wirelesshad well-established relationships with local partners, such as DeltaM2M, made thedecision even easier.

In fact, upgrading to the new gateway helped Miele improve what was alreadya successful solution. Of the more than 100 housing associations that use theMiele service to operate more than 750 laundries, only two facilities, located deepunderground, have needed to keep a DSL connection. The rest have been able todeploy cellular connectivity using Sierra Wireless technology.

Miele’s proprietary control system is configured to ping a laundry every 15 minutes,and will reset automatically if it can’t connect to the gateway. Thus far, however, thathasn’t been an issue. Miele’s setup has proven itself to be remarkably stable, with anerror rate so low that it’s essentially zero.