

CASE STUDY



Bringing Remote Sites Within Reach for Electra Networks

The Challenge

To connect Electra Network's industrial power monitoring solution for remote sites.

The Westbase.io Solution

Westbase.io provided a Sierra Wireless AirLink router for:

- + Persistent and reliable cellular connectivity
- + Secure VPN capabilities
- + Remote troubleshooting
- + Customised alerting and actions through AAF
- + Real-time monitoring
- + Easy and rapid deployment of the solution

The Results

- + The Electra Networks solution removes the need for engineer site visits to check or cycle power, reducing operational costs
- + Decreased time to resolution by enabling remote troubleshooting when there is a problem, either power or network based
- + Reduced time spent on power issues means optimised engineer time
- + Increased efficiency as the new solution ensures the correct engineer skill set is deployed
- + Potential to expand the solution to other industry applications

Keeping Remote Sites Online

Some of Electra Network's largest clients have widespread locations, many of which are remote and unmanned. In these more isolated locations it's often not possible to reset core equipment after a power disruption until an engineer conducts a manual site check. Not only are these engineer visits both costly and resource hungry, but waiting for a physical site check may also result in a significant delay between the power outage happening and its impact being resolved. This means that services supplied by clients can be compromised, and their reliability and reputation brought into question. Such situations also cause a resource strain as the company can't plan for unexpected failures.

The Electra Networks Concept

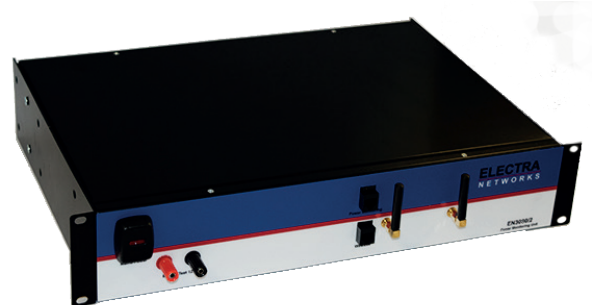
Electra Networks wanted to create a single hardware solution that could monitor the power status and other key elements of core equipment at remote sites, and send an alert to a central location if an outage occurred. This would minimise time-to-resolution and network downtime, as well as remove the need for manual site power checks. The goal was to enhance availability of their customers' networks.

Electra Networks was formed with the goal of delivering high quality, cost effective and imaginative IT and Telecommunication solutions; and with successful products and services spanning multiple applications and markets, the company has become a leading systems integration specialist in this sector.

Getting the Solution Right: The Considerations

In identifying the right hardware solution Electra Networks wanted to build something that would:

- + Be connected easily to the primary networking hardware so that its power status and other elements could be monitored
- + Be resilient, with power backup and intelligent selection of communications and network options
- + Deliver a low total cost of ownership due to easy remote monitoring and management of the solution itself, as well as the equipment it would be connected to



Cellular was selected as the connectivity source for the new power monitoring unit, due to its high availability and simple setup capabilities. When selecting the cellular solution Electra Networks needed a small footprint device that could be easily contained in the wider unit, which could be powered from an independent battery source. The cellular device would also need to be high performing, hard wearing, and provide persistent and reliable connectivity.

After considerable market and product research Electra Networks decided upon an Sierra Wireless AirLink device, supplied and delivered by Westbase.io, as it met all of their requirements as well as providing some additional functionality.

Sierra's AirLink Management Service (ALMS) was then selected to enable the remote monitoring and management of the AirLink device itself. ALMS and its developer kit, the Aleos Application Framework, also meant that event notifications for power disruptions could be built and customised very easily on the device itself – saving the need for additional software or hardware to make the solution work as required.

Electra Networks additionally opted for an extended warranty period, taking the standard warranty from 3 to 5 years to match the expected life cycle of the overall unit.

Remote Power Monitoring and Management with Electra Networks' "PM3000"

The Sierra Wireless AirLink device formed part of Electra Networks' final "PM3000", the new power monitoring solution which would address their clients' need for early detection and prompt resolution of power loss at remote sites. The PM3000 detects power outages by monitoring the digital I/O; detecting power outages the instant a voltage input is no longer present. The outage triggers an automatic message, sent via the AirLink device and cellular network, back to the client's central team, alerting them to the problem – perfectly meeting Electra Networks' concept idea.

In addition, the VPN capabilities of the AirLink device also means that the PM3000 can be used for out-of-band management, enabling central IT teams to securely connect to the remote equipment, via the cellular network and AirLink device, in order to trigger power cycles and troubleshoot other network issues.



"Being able to decrease the time to resolution for power issues at remote sites through the PM3000 has dramatically improved operational efficiency for our clients," said Iain Brotherston, Managing Director at Electra Networks, "The reliable connectivity of the Sierra Wireless AirLink device has been critical to its success, and the efficient distribution by Westbase.io has allowed our timescales to be met without a hitch."

The Electra Networks PM3000 solution with cellular connectivity has been deployed across numerous remote locations in the UK, Ireland and mainland Europe – from off-shore islets to remote countryside locations. Clients have reported significant benefits since its implementation:

- + Removes the need for engineer site visits to check or cycle power, reducing operational costs
- + Decreases time to resolution by enabling remote troubleshooting when there is a problem, either power or network based, improving the Quality of Service
- + Reduces time spent on power issues to optimise engineer time
- + Ensures the correct engineer skill set is deployed where issues cannot be fixed remotely – increasing efficiency

Broadening the Solution for Tomorrow

Although launched today as a power monitoring solution, the PM3000 is ideal for almost any situation where a business wants to reduce its engineer visiting time and truck rolls to remote locations – and can be implemented as a remote monitoring and management solution across any number of industry applications. The successful rollout of the PM3000 to-date has therefore resulted in Electra Networks now consulting with Westbase.io on how to maximise the opportunities and benefits that the PM3000 can provide.

"The Electra Networks solution demonstrates how operational efficiency can be transformed through efficient and effective power monitoring. Their solution's success demonstrates that in the 21st century there's no need for remote sites to be out of reach and out of touch."

- Lee Garrett, Technical Lead at Westbase.io

If you have any questions about this case study, or the solution and products involved, then please contact Westbase.io:



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