CASE STUDY

CLEMENT ACOUSTICS: SECURE REMOTE CONNECTIVITY FOR SPECIALIST MONITORING SYSTEMS

CLEMENT ACOUSTICS

Clement Acoustics designs, deploys, and supports specialist noise, dust, and vibration monitoring systems across construction, infrastructure, and environmental monitoring projects throughout the UK. These monitoring systems are often installed on live construction sites and other temporary locations where fixed-line connectivity is unavailable or impractical.

Reliable, secure remote access to devices and data is therefore essential to maintaining service continuity, meeting client expectations, and maintaining consistent access to accurate monitoring data.

The Challenge: reliable and secure access in temporary environments

Much of Clement Acoustics' monitoring equipment is designed for specialist measurement. Many devices rely on serial interfaces or local storage such as SD cards, rather than native internet connectivity. On construction sites, however, contractors increasingly require continuous remote access to monitoring data throughout the lifespan of a project.

Historically, enabling this access was complex, inconsistent, and expensive. Manufacturer-specific add-ons and hosted platforms often required data to be relayed through third-party cloud services before reaching Clement Acoustics' own systems.

Andy Thomas, Director, Clement Acoustics

From a networking perspective, secure inbound access was particularly challenging. Traditional approaches using public static IPs and open ports raised security concerns and required careful configuration to avoid exposing devices to the public internet. Andy Thomas, Director, Clement Acoustics, explains:

"We needed a way to get data directly from the site to our own servers. Static IPs and open ports work in theory, but from a security point of view they're not ideal."

A simpler model using managed mobile connectivity

Clement Acoustics adopted Spitfire's multi-network IoT SIMs to provide resilient cellular connectivity across UK locations. These SIMs operate via a dual IMSI profile, helping to prioritise low latency on sites where coverage can be unpredictable.

These SIMs are either installed directly into monitoring devices or into preconfigured industrial Teltonika 4G routers. These routers are supplied ready to deploy, removing the need for on-site configuration and ensuring a consistent setup across projects.

Engineers can connect securely to device web interfaces for monitoring and diagnostics without relying on customer networks or third-party IT access.

Security by design with Spitfire's managed VPN

All remote access is delivered through Spitfire's managed VPN and private core network, providing fixed private addressing without exposing devices to the public internet.

For Clement Acoustics, this removed the need to design and maintain their own security controls around mobile connectivity.

"The VPN just works," says Andy Thomas. "You don't really need to think about it. We can remotely access devices, open SSH if we need to, or connect directly for diagnostics, without worrying about whether we're creating a security risk. That freedom saves a huge amount of time."

Cost efficiency and operational independence

A major driver for the move to Spitfire was cost control. Manufacturer-hosted platforms often bundle connectivity, hosting, and access into bespoke subscriptions, leaving little flexibility and limited pricing transparency.

By transmitting data directly from site to their own servers using Spitfire SIMs, Clement Acoustics has removed unnecessary intermediaries and reduced ongoing costs. "We're no longer tied into a manufacturer's subscription model," Andy Thomas explains,

"We pay for the data transmission we actually use, rather than inflated rates wrapped up in a proprietary service. It gives us independence and control over our own systems."

Spitfire's private network and VPN-based approach delivers the benefits traditionally associated with fixed IP solutions, without the cost and complexity of public static addressing.

Supporting growth and day-to-day operations

With Spitfire managing connectivity, SIM provisioning, and support, Clement Acoustics has established a consistent operational model that scales with demand.

Engineers can remotely:

- Verify system status
- Retrieve live and historical monitoring data
- Diagnose faults
- Support commissioning and configuration changes

Clement Acoustics has benefited from Spitfire's personalised customer service and responsiveness. Andy Thomas expands:

"They've been great to work with. When we needed SIMs urgently, it was as simple as picking them up directly. That level of support really matters when you're dealing with live sites."

Clement Acoustics now actively promotes Spitfire connectivity across new deployments wherever mobile access is required.

By combining resilient mobile connectivity with secure private access, Spitfire is enabling Clement Acoustics to deliver reliable, compliant monitoring services in some of the UK's most challenging construction, environmental, and industrial environments.

clement acoustics

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