Empowering Heavy Equipment Telematics: How Quake Global and Soracom Partnered to Deliver Next-Gen IoT Solutions

Overview

- A premier Japanese construction machinery manufacturer upgraded their telematics using Quake Global and Soracom's joint IoT solution.
- The system delivers real-time engine monitoring, GPS tracking, and remote diagnostics via global IoT connectivity.
- Early results include faster service response, streamlined operations, and consideration for wider deployment.

Rethinking Telematics for a Global, Mobile Fleet

In the construction equipment industry, operational efficiency depends on visibility – knowing where assets are, how they're performing, and when they need service. For one leading Japanese construction machinery manufacturer, outdated telematics systems were making visibility across a growing fleet of excavators deployed around the world virtually impossible.

Searching for the upgraded approach necessary to maintain their expansive fleet, the company looked to Quake Global, whose robust QConnect Telematics device provided the rugged machine-to-machine (M2M) communication solution to this remote management issue. When combined with Soracom's secure, global IoT connectivity, the collaboration resulted in a next-generation telematics platform that combines real-time fleet data with cloud-based accessibility, all built to perform in remote, high-demand environments.

Solution: Quake's telematics system integrated with Global Connectivity

"The compact, feature-rich, and highly reliable QConnect mobile telecommunication gateway, paired with Soracom's secure global connectivity, enables our customers to rapidly and efficiently install telecommunication solutions on mobile assets or upgrade their existing telematics systems with an add-on unit tailored for real-world conditions," said Polina Braunstein, CEO of Quake Global

Bridging Data Gaps with Cloud-Connected Telematics:

Before implementing this new system, the manufacturer relied on legacy telematics that offered limited insight into engine performance and usage. This made it difficult to manage preventive maintenance or respond quickly to customer issues, meaning technicians often arrived unsure of a machine's status – increasing downtime and service inefficiencies.

When connected to Soracom's global cellular IoT platform, the QConnect gateway provides uninterrupted communication with deployed devices in virtually any location. Real-time engine data, GPS tracking, and motion detection data are transmitted securely to the cloud, where operations teams can access and act on the information remotely.

What sets this deployment apart is the flexibility built into the system. Reporting intervals and data transmission frequencies can be adjusted remotely via Soracom's cloud platform, ensuring cost efficiency when machines are idle and high-frequency monitoring when in use.

A Seamless Path from Prototype to Production

Integration with the manufacturer's existing fleet management tools was accomplished through APIs, enabling centralized dashboards and faster response cycles. Field technicians can now run remote diagnostics, determine equipment status before dispatch, and ensure they arrive prepared. GPS tracking streamlines navigation, eliminating delays in locating machines – even on vast or off-grid job sites.

This combination of visibility and control has already improved response times, minimized machine downtime, and allowed the customer to standardize diagnostics and maintenance across sites.

Key advantages of the joint solution include:

- **Real-time monitoring** of engine start/stop events, usage hours, and location data
- **Remote configuration and activation** via cloud-based controls
- **Automated alerts** triggered by movement or abnormal activity
- **API integration** for centralized data handling
- **Optimized data usage,** adaptable to operational needs

Designed for Real-World Conditions, Built for Scale

The collaboration didn't just deliver on performance, it also accelerated speed to market. The manufacturer was able to move from prototype to mass production in a compressed timeframe, supported by Quake's Linux-based development environment and Soracom's easy-to-integrate cloud platform.

"Our goal is to help innovators deploy and scale smart, secure IoT solutions, even in the most remote or demanding environments," said Takashi Serizawa, Head of Europe Region for Soracom. "This collaboration with Quake and the customer reflects exactly that mission."

Encouraged by early results, the manufacturer is now exploring how this solution could be extended to other equipment models and markets worldwide.

Smarter Equipment Starts with Smarter Connectivity

This case illustrates how combining rugged hardware, intelligent software, and global IoT connectivity can modernize fleet operations and unlock new levels of efficiency. With Quake Global and Soracom, this construction manufacturer gained not just a telematics upgrade, but a future-ready platform for smart, scalable machine management.

About Quake Global

Quake Global, Inc. designs and manufactures industrial machine-to-machine (M2M) devices for asset tracking and monitoring using satellite, cellular, GPS, RFID and other technologies for a wide range of markets, including heavy equipment, transportation, energy, healthcare and other segments, and serves such customers as Sumitomo, Komatsu, Volvo, Caterpillar, Hyundai, Doosan, John Deere and many others.

QConnect™

- ULTRA-COMPACT RUGGED GLOBAL CELLULAR MODEM
- Customize your needs with the global, IP67 rugged and programmable QConnect solves your telematics problems even in the toughest environments, that includes LTE / GPS / Wi-Fi / BLE / Ethernet.