Industrial IoT Services

Driving productivity gains, cost savings and safety across operations



THE CRITICAL COMMUNICATIONS COMPANY



A well-designed IoT system reduces downtime, increases the productivity of assets, protects against damage and theft, prevents injury and loss of life, and improves environmental compliance. Turning knowledge into business rules helps to expedite and standardize response to problems. With real-time big data analytics, operators can diagnose local problems and operate equipment remotely. IoT systems also allow on-site crews to handle higher workloads without additional personnel and can often help reduce remote staff and crew levels overall.

Speedcast brings comprehensive IoT solutions to maritime, energy, mining, telecom, government and humanitarian organizations that need to reach beyond the edge of fiber and cellular networks to serve remote sites around the world.

IoT solutions are complex. Success depends on marshalling the right technologies, partners and communications solutions to meet each customer's unique needs. Speedcast delivers IoT solutions for organizations whose operations take them to the farthest reaches of the world.



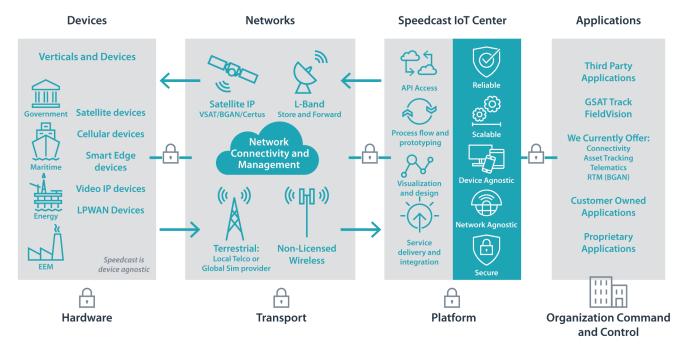
THE SPEEDCAST ADVANTAGE

- Comprehensive IoT solutions beyond fiber and cellular networks.
- Network agnostic providing a wide range of L-band Mobile Satellite Services (MSS), including Iridium, Inmarsat, Globalstar, Thuraya and Orbcomm.
- Delivering an end-to-end managed solution from devices, networks and platform to custom applications.
- As an Advanced Amazon Web Services (AWS)
 Consulting Partner and a prime systems integrator,
 Speedcast's team of cloud experts can help customers to design, implement, migrate, deploy and maintain cloud-based solutions.
- To ensure an effortless IoT deployment process,
 Speedcast works with customers side by side to
 fulfill complex regulatory requirements of
 different countries.

Contact a Speedcast Sales Representative or email info@speedcast.com for more information.

END-TO-END IOT SOLUTIONS

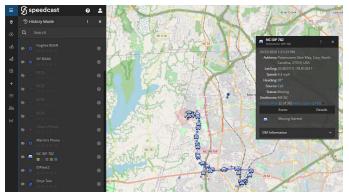
Speedcast leverages its comprehensive global communication network to deliver end-to-end managed solutions. The high-availability network service supports fully integrated IoT capabilities to deliver more value and insights, enabling customers to act quickly and make informed decisions about their operations and their workforce.



- Devices from best-of-breed technology partners: sensing, tracking, communication, remote-control and edge server technologies, and using Wi-Fi, LoRA, Bluetooth, commercial or private LTE, microwave, and satellite for local connectivity.
- Speedcast IoT Center, deployed on AWS, receives data from all connectivity paths and manages service delivery, integration, process flow, security and API access, including remote operation. A single dashboard simplifies connectivity, provisioning and device management and allows you to select the most reliable and least expensive connectivity options from a single intuitive graphical user interface.
- Speedcast GSAT Track, an online application that aggregates status and location data from connected devices anywhere in the world, is used to manage health and safety, track assets and monitor vehicle telemetry. Features include automatic alerting to preprogrammed change and a Lone Worker app for check-in, SOS alerting, geofence entry/exit notifications and more.
- Custom Applications running on-network or in the cloud, from your IT department and cloud service companies, support specialized operational needs and provide analytics and big data analysis.



Speedcast IoT Center Dashboard



Speedcast GSAT Track Dashboard

IOT CUSTOMER CASE STUDIES

Speedcast delivers IoT solutions for companies and organizations whose operations take them to the farthest reaches of the world.



Predictive Maintenance

For a major manufacturer, Speedcast provides the data network that backhauls sensor data from industrial compressors in the field to company headquarters, where data analytics predicts and schedules maintenance to minimize downtime and costs. When a single pump failure at a remote site can cost \$100,000 to \$300,000 per day in lost production, payback comes fast.

Smart Surveillance

For a major oil-field services company, an IoT solution provides realtime monitoring of employees and Man Down capabilities, geofencing and telematics on heavy equipment. Altogether, the system has identified bottlenecks in operations, increased uptime, reduced theft and improved safety — and boosted continuity of operations as well as crew morale.

Process Improvement

A comprehensive IoT deployment for fracking substantially increased efficiency by tracking and analyzing every phase of operations: when sand arrives, how much is used, where trucks are located, wear and tear on engines and compressors, and much more. Experts estimate that IoT-based automation has the potential to contribute to 80% of the tasks executed at the well site today.



Protecting Cargo

One of the world's biggest shipping lines has equipped its refrigerated shipping containers with sensors to monitor temperature 24/7. The containers transmit data over wireless connections to an onboard server, which aggregates and forwards it via satellite to the Speedcast IoT Center and then to the customer application. The continuous, detailed data about conditions in the container provide savings on potential rebates, which can run into the millions each year.



Personnel Safety

A major NGO uses IoT to monitor and maintain communication with 3,700 emergency vehicles, including vehicle tracking and driver identification, Controller Area Network (CAN bus) integration for telematics, display screens for messaging and a driver panic button. The system enables route tracking and timing on stops, deters theft and ensures immediate notification of personnel danger.



Centralizing Operations

An Energy company with rigs at sea and on land across multiple regions in the Middle East, Africa and Asia set a goal of centralizing operations management to gain a 360-degree view. Achieving that goal required a large-scale IoT deployment at the wellheads and extremely reliable data connectivity. The result was a 30% reduction in total production costs.

Environmental Monitoring

For a Water and Energy technology company, Speedcast provides data streams from offshore platforms during drilling and production to monitor the quality of surrounding water. Real-time analysis of the data alerts crews to respond to negative changes before they must force a cutback in production rates that impact profitability.



More Efficient Maintenance

For a major resources operation, Speedcast tracks the location and movement of tens of thousands of customer assets. GPS coordinates and CANBUS telematic readings are parsed by the Speedcast IoT Center and integrated into customer applications running on AWS. Improved maintenance efficiency based on actual run times has reduced downtime by 30%–50% while location data has increased operational efficiency and reduced capital expense.