

Always-On Satellite IoT for Oil and Gas: Reliable Connectivity Where Cellular Can't Reach

Affordable, Accessible, and Reliable Connectivity Anywhere in the World

Satellite connectivity enables reliable monitoring and communication across remote oil and gas operations, ensuring continuous visibility of assets, infrastructure, and field activity where terrestrial networks are unavailable or unreliable. Additionally, with two-way communications, operators can move beyond passive monitoring to actively manage operations, sending commands, adjusting configurations, and respond to issues in real time to improve safety, efficiency, and control.

Supporting Oil and Gas Solutions with Satellite Connectivity



Remote Asset Tracking

Businesses operating in remote oil fields, wind farms, and gas pipelines require seamless tracking solutions beyond cellular coverage. Satellite-enabled asset monitoring ensures location tracking, operational efficiency, and security for critical equipment, vehicles, and personnel in harsh environments.



Worker Safety

Workers inspecting power lines and infrastructure in remote areas require reliable communication and emergency response capabilities. Satellite-enabled devices provide location tracking, SOS emergency alerts, and continuous connectivity, to support personnel, as well as lone worker safety regulatory compliance.



Protecting Pipelines

Pipeline operators must ensure infrastructure integrity and regulatory compliance across thousands of miles of buried pipelines at risk of corrosion. Remote monitoring solutions provide automated, data on cathodic protection systems, reducing costly field inspections and improving predictive maintenance.



Safety and Compliance

Regulatory compliance requires constant critical infrastructure monitoring, but many resource-rich areas lack power and cellular coverage. Satellite-connected alarm systems deliver instant alerts for environmental hazards, leaks, and equipment failures, helping companies maintain safety and compliance.



Tank Monitoring

Oil production and drilling operations rely on precise fluid level monitoring for critical chemicals and resources. Satellite-connected sensors enable remote tracking of tank levels, eliminating manual checks and ensuring efficient inventory management across geographically dispersed sites.

Delivering Value Across Your Operations: How Globalstar Does It

Our Realm Enablement Suite is the infrastructure for transmitting smart data from edge to endpoint. The low-code Edge Application Platform is the key to unlocking the unlimited capabilities of these rugged, reliable devices in the field and slashing hundreds of hours of development time for new products.

The architecture is comprised of:

- **Application Layer**

The base applications that run the RM200M, Integrity 150 and ST150M, as well as Bluetooth® services, are open to developers for integration with their software, including theft alert, messaging, tracking, and auto-response.

- **Unified API Layer**

Application program interfaces (APIs) enable your custom applications to immediately access the full capabilities of devices, including sensor support, without additional coding.

- **Library Layer**

Globalstar offers an extensive base library that can grow through our GitHub community with sensors measuring temperature, humidity, magnetic fields, angular position, motion, proximity, and other metrics.

- **Hardware Application Layer**

Hardware interfaces allow full driver/hardware abstraction within Realm devices to simplify and speed development.

Realm Edge Solutions

Devices and Modules



RM200M Two-Way Modem Module and Developer Kit

Enables continuous visibility and real-time control through reliable two-way satellite connectivity. The develop kit streamlines integration and deployment, allowing teams to quickly implement solutions that improve responsiveness, reduce field intervention, and scale with operational needs.



Integrity 150

Delivers reliable asset visibility across remote oil and gas operations, helping teams maintain awareness of critical infrastructure without increasing field workload. Designed for long-term, low-maintenance deployments, it supports more efficient operations by reducing manual checks, improving response times, and extending monitoring into coverage-limited environments.

Asset Tracking Solutions

Low power, long life and equipped to perform



SmartOne Solar

Delivers continuous asset tracking and monitoring without the need for battery replacement, making it ideal for long-term deployment in remote oil and gas environments. Its solar-powered design supports reliable visibility across infrastructure and mobile assets while reducing maintenance requirements and total cost of ownership.



SmartOne C

Provides dependable asset tracking in remote and infrastructure-limited environments, enabling continuous visibility across fixed and mobile oil and gas assets. Designed for long-life, battery-powered operation, it supports efficient monitoring while reducing the need for frequent maintenance or field intervention.



SPOT Trace®

Provides simple, reliable tracking for smaller or mobile assets, enabling continuous visibility across equipment that moves between jobsites or remote locations. Helps reduce loss, improve recovery, and maintain awareness without adding complexity to day-to-day operations.



STX3 Modem Module and Developer Kit

Enables low-power, cost-effective satellite connectivity for large-scale remote monitoring, supporting simple data transmission from distributed assets and sensors. Paired with the develop kit, it allows teams to quickly build and deploy solutions that extend visibility while minimizing power consumption and operational overhead.



Digital Mapping

Digital mapping that turns GPS location and data from the field into actionable visual intelligence. It provides high visibility of all in-field resources, geofencing that can trigger alerts to atypical changes, and advanced reporting capabilities.

Remote and Lone Worker Safety Solutions



SPOT X®

SPOT X Two-Way GPS Messengers connect to your smart phone via Bluetooth® wireless technology through the SPOT X app to access your contacts and communicate easily with colleagues. Users can check-in with managers, colleagues and family, or communicate directly with 24/7 search and rescue services in the event of an emergency.



SPOT Gen4™

Small, rugged, and easy to use, the SPOT Gen4 provides a simple turn-key communication option for remote and lone workers. Inexpensive and reliable, the Gen4 allows users the ability to report locations using pre-set messaging for check-in and have access to an SOS button to signal the need for emergency assistance.



SPOT 360°®

SPOT 360° is a compact, two-way satellite communicator designed to keep teams connected, visible, and protected even beyond cellular coverage. Combining messaging, GPS tracking, and emergency response in a single rugged device with up to 30 days of battery life*, 2x competitors, it's easy to deploy across individuals or entire teams while reducing downtime and maintenance.

The Simple Choice for Satellite Connectivity

Eliminate manual checks for streamlined operations backed by powerful devices, hardware, and reliable connectivity.

[Schedule a 15-minute consult](#) with a Globalstar expert.

For more information, visit www.globalstar.com.