Globalstar™

Putting Precision into Agriculture with Satellite Connectivity

Affordable, Accessible, and Reliable Connectivity Anywhere in the World

Few industries are better positioned to benefit from technology than agriculture. With assets and operations spread across thousands of acres, farmers and ranchers need a cost-effective, reliable way to keep an eye on things far beyond their line of sight. But connecting remote monitoring systems is a challenge, because farm country is one of the last places to have good mobile service.

Supporting Agricultural Solutions with Satellite Connectivity

Remote Asset Tracking

Farms and ranches span vast areas, often beyond the reach of cellular networks, making equipment and livestock tracking essential. Satellite-enabled asset monitoring provides continuous location updates, enhances operational efficiency, and ensures the security of valuable agricultural assets in remote locations.

Smart Irrigation & Water Management

Effective water management is critical for optimizing crop yields and conserving resources, particularly in drought-prone regions. Satellite-connected monitoring systems provide data on soil moisture, water flow, and irrigation system performance, allowing farmers to make data-driven decisions for sustainable agriculture.

Livestock Tracking

Monitoring the movement and health of livestock across large grazing lands can be challenging without reliable connectivity. Satellite-enabled tracking solutions allow farmers to pinpoint the location of animals, detect movement patterns, and receive alerts for potential threats or lost livestock, improving efficiency and animal safety.

Environmental Monitoring

Understanding climate conditions, soil quality, and environmental changes is essential for precision agriculture. Satellite-connected sensors enable tracking of weather patterns, temperature fluctuations, and soil conditions, helping farmers make informed decisions to enhance productivity and reduce environmental impact.

Supply Chain and Logistics Optimization

From farm to market, satellite connectivity ensures seamless tracking of agricultural goods in transit. This improves supply chain efficiency, reduces spoilage, and ensures timely deliveries.

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

This Globalstar satellite module employs a single-stack chip design to provide seamless connectivity with advanced capabilities to not only track and monitor data with reliable two-way connectivity, but action an auto-response if corrective countermeasures are required. The RM200M utilizes enhanced two-way functionality on Globalstar's LEO satellite network to provide ubiquitous, seamless coverage with low power, low latency, integrated GPS, Bluetooth® low energy, a 3D accelerometer and application processor. The RM200M Dev Kit includes RM200M module on a dev board with separate satellite and GPS patch antennas, all compatible with an Arduino Shield, to develop and test technology designs before committing them to hardware.

Integrity 150

Integrity 150 is a next-generation, solar-powered data transmitter and asset tracker that interfaces with industry-standard sensors over Bluetooth® and delivers Smart Data from the edge. Users can quickly program AI-enabled applications and computing solutions using the Edge Application Platform to process location and sensor data at the edge for low-cost Smart Data transmission. In addition, it delivers zero-maintenance ownership with the longest-lasting battery (10+ years) and shelf life available.

ST150M Modem Module and Developer Kit

The ST150M satellite modem module can be quickly and effectively integrated into technology to develop unlimited applications for a range of markets. Like the Integrity 150, the modem leverages industry leading BLE5, Nordic C, and comprehensive unified APIs, empowering rapid development and customization of firmware for more advanced smart data applications and enabling AI at the edge. In addition, the ST150M provides both wired and BLE access to the fully programmable 24 I/Os for interface with sensors and actuators.

Asset Tracking Solutions

Low power, long life and equipped to perform

SmartOne Solar

SmartOne Solar is the only solar-powered asset certified and standardized for use in hazardous environments. It's virtually maintenance-free, with up to 10 years of usable service for tracking and monitoring. It's easy to install and features a wide range of reporting capabilities.

SmartOne C

SmartOne C is the market's most affordable and feature-rich tracker for locating fixed and mobile assets and transmitting sensor data. Line or battery-powered, it is a small, easy-to-mount unit that is ideal for sending GPS coordinates at long intervals and configurable for various frequency rates.

SPOT Trace

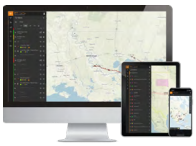
SPOT Trace is a small, discrete tracker that tracks mobile assets by providing location pings as often as every 2.5 minutes for display on a customizable user dashboard. This easy-to-use turnkey device offers simplified tracking at the lowest cost.

ST100 Modem Module and Developer Kit

ST100 gives developers a low-cost option for adding instant satellite communications capabilities to any OEM product and is suited for any market. Ultra-light weight and compact, the ST100 gives developers a low-cost option for adding reliable satellite transmitter capabilities to any OEM product in any market. Ideal for 3rd party rapid development, the ST100 can be used in a variety of simple tracking applications.

STX3 Modem Module and Developer Kit

Affordable pricing, low power consumption and its compact build make the STX3 satellite transmitter a highly efficient device ready for integration in a wide variety of applications. The smallest surface mountable satellite modem from Globalstar, ideal for remote sensing, tracking and monitoring applications. Increased reliability through multiple transmissions at a lower cost. This OEM satellite transmitter sends one-way data messages via the Globalstar Satellite Network when integrated into a tracking or monitoring device.



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.

The Simple Choice for Satellite Connectivity

Globalstar empowers its customers to connect, transmit, and communicate smarter – easily, quickly, securely, and affordably – offering reliable satellite and terrestrial connectivity services as an international telecom infrastructure provider. The Company's low Earth orbit (LEO) satellite constellation ensures secure data transmission for connecting and protecting assets, transmitting critical operational data, and saving lives for consumers, businesses, and government agencies across the globe. Globalstar's terrestrial spectrum, Band 53, and its 5G variant, n53, offer carriers, cable companies, and system integrators a versatile, fully licensed channel for private networks with a growing ecosystem to improve customer wireless connectivity, while Globalstar's XCOM RAN product offers significant capacity gains in dense wireless deployments. In addition to SPOT GPS messengers, Globalstar offers next-generation IoT hardware and software products for efficiently tracking and monitoring assets, processing smart data at the edge, and managing analytics with cloud-based telematics solutions to drive safety, productivity, and profitability.

For more information, visit www.globalstar.com.

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