



Mission Ready Satellite IoT Solutions for **Military & Defense**

**Trusted Satellite Connectivity.
Proven Tactical Advantage.**

At Ground Control, we provide secure, field-tested satellite IoT and tracking technologies that help military, government, and defense organizations maintain full operational awareness in any environment.

Whether you're operating at the tactical edge, managing BVLOS drone missions, or maintaining connectivity in GPS or network-denied regions, Ground Control delivers reliable, resilient, and secure communications when and where it matters most.









Gain the Advantage with Multiple Satellite IoT Applications

Satellite IoT solutions empower defense forces with real-time tracking, assured positioning, secure messaging, and remote sensor integration, no matter how remote or hostile the environment. Working with trusted satellite network operators including Iridium and Viasat, Ground Control's family of military-grade devices ensures operational continuity, enhances decision making, and delivers tactical superiority across the entire battlespace.



Upgrade your military operations with satellite connectivity and empower your units with:



-  Personnel tracking in covert, high risk, or humanitarian missions
-  Drone telemetry and control for ISR, logistics, and activity coordination
-  Vehicle tracking and fleet logistics in remote or hostile environments
-  Situational awareness for border security, peacekeeping, or disaster relief
-  Real time command and telemetry for special operations
-  A-PNT capability to maintain mission continuity if GPS is jammed

Across all operational environments



Aircraft



Unmanned Vehicles



Squad Members



Naval Vessels

RockSTAR APNT

Assured PNT and Tactical Communication for Defense and Security Operations

RockSTAR APNT is a rugged, handheld Assured Positioning, Navigation, and Timing (A-PNT) device ideal for dismounted units, security teams, and high risk missions in GPS-denied or spoofed environments. It leverages the Iridium satellite network, delivering a one way PNT signal up to 1,000x stronger than GPS, helping maintain continuous location and timing awareness when GPS fails.

Designed to perform in demanding field conditions, RockSTAR APNT is a trusted tool for maintaining operational awareness, force tracking, and synchronized mission execution, regardless of geography or interference.



Ideal for: **Special forces, remote patrols, covert teams, GPS-denied operations.**



Assured PNT Capability

Delivers location and timing data when GPS signals are unavailable, spoofed, or jammed, using Iridium's signal - up to 1,000x stronger than GPS - for far greater resistance to interference.



Secure Iridium Communication

Two way data transmission over a globally available satellite network with no reliance on vulnerable terrestrial infrastructure.



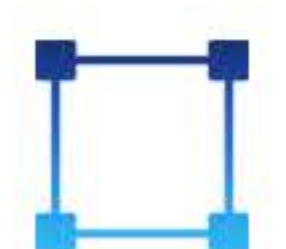
Accurate Position Tracking

Sends precise location, speed, heading, and time data to command centers for live tracking and after-action review.



Field Deployable & Portable

Handheld and lightweight, ideal for dismounted units, reconnaissance patrols, and covert operations.



Geofencing & Alerting

Set custom operational boundaries and receive instant breach alerts - ideal for base perimeter defense or personnel protection.



RockSTAR APNT and its ecosystem are critical enablers of mission success in contested, complex, and communication-denied environments.

RockBLOCK APNT

Vehicle Mounted Assured PNT for Convoy, Maritime, and Mobile Command Operations

RockBLOCK APNT delivers A-PNT capabilities for vehicles, maritime platforms, and mobile command units operating in GNSS contested environments. Designed for integration into tactical mobility platforms, it ensures uninterrupted situational awareness, two way message payloads of up to 100 KB, and timing synchronization in the face of GPS jamming or spoofing.

Built utilizing the global Iridium PNT service, RockBLOCK APNT delivers secure, low latency position and status reporting across operational theaters, keeping convoys connected and commanders informed, even in disconnected or hostile zones.



Ideal for: **Armored vehicles, navy boats, humanitarian convoys, mobile headquarters.**



Cryptographic Satellite Communications

Secure and resilient Iridium PNT service ensures communication continuity in denied, disrupted, or degraded environments.



Vehicle Based Assured PNT

Provides persistent and tamper resistant navigation and timing for onboard systems when GNSS signals are unreliable or compromised.



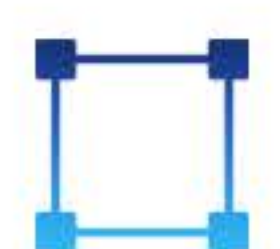
Real-Time Convoy Tracking

Reports position, speed, heading, and timing, ideal for convoy control, mobile HQs, and maritime operations.



Hard Mounted Integration

IP66 rated and vibration tested, RockBLOCK APNT is designed for permanent installation on armored vehicles, tactical trucks, boats, and shelters.



Geo Zone Alerts & Monitoring

Supports complex geofencing and automated alerts for boundary breaches, route deviations, or loss of contact.



RockBLOCK APNT is the ideal solution for modern military mobility tracking and communication. Combining hardened satellite connectivity with trusted APNT to secure every mission, vehicle, and operator in the operational environment.

RockREMOTE Rugged

Resilient Connectivity and Compute Power

RockREMOTE Rugged provides a hardened, hybrid communication gateway with Iridium Certus 100 satellite and 4G LTE connectivity, enabling reliable data, telemetry, and video backhaul from anywhere on the planet.

With its IP67-rated enclosure, support for custom applications, and seamless integration into existing tactical networks, RockREMOTE Rugged is ideally suited to remote surveillance, unattended ground systems, and autonomous ISR platforms. Whether used for video monitoring, remote command execution, or system health reporting, it delivers operational confidence.



Ideal for: **Field surveillance, command posts, autonomous vehicles, border security.**



Ruggedized for Harsh Environments

Built into a sealed IP67 enclosure, RockREMOTE Rugged is dustproof, waterproof, and vibration resistant, enabling reliable deployment in desert, arctic, jungle, or maritime conditions without requiring additional protection.



Hybrid Connectivity

Satellite + LTE: Combines Iridium Certus 100 with 4G LTE (Cat 4) connectivity, giving operators the ability to route data cost effectively over cellular where available, while maintaining guaranteed satellite fallback in disconnected or contested environments.



Edge Processing with Docker & Python Support

Run custom Docker containers or Python scripts directly on the device, enabling data filtering, protocol translation, logic execution, or onboard analytics. Ideal for reducing bandwidth or operating autonomously when disconnected from command centers.



Remote Video Surveillance Capable

Supports low bandwidth video streaming via optimized protocols, making it possible to transmit footage from unattended remote cameras over satellite. Particularly suited to border security, critical infrastructure protection, and covert observation posts.



Secure Networking with Firewall, VPN & NAT

Includes a fully configurable Linux-based firewall, support for VPN tunneling (IPsec, GRE, etc.), and network address translation, allowing for secure, encrypted links into tactical networks and command systems.



Multi-Interface Integration for Tactical Systems

Provides Ethernet, serial, USB, and digital I/O for connecting to sensors, PTZ cameras, telemetry units, and control systems. A built-in GNSS receiver supports accurate location tracking, and optional Wi-Fi offers local access for field teams.



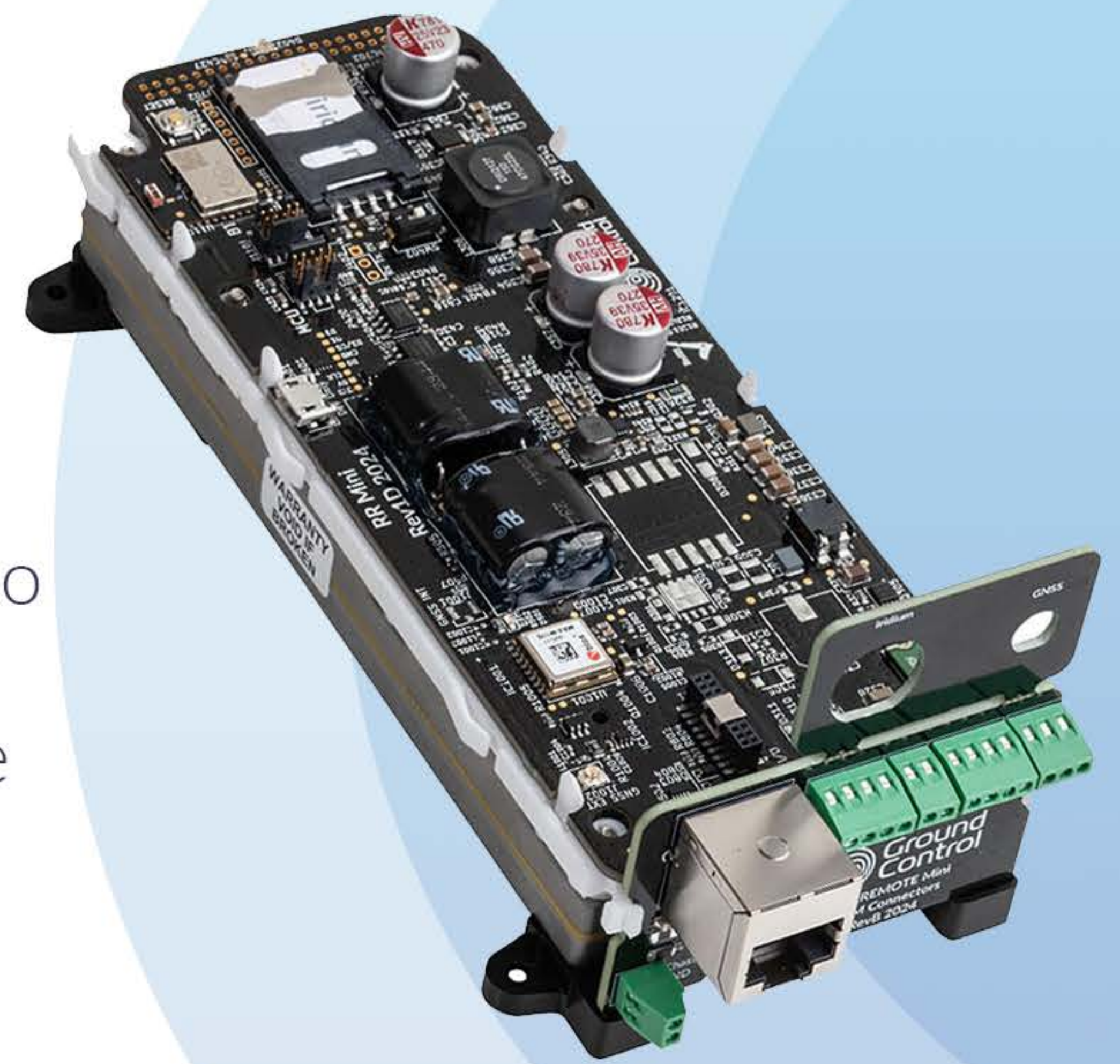
RockREMOTE Rugged delivers mission-critical, secure, and resilient connectivity and processing power, built to withstand the harshest environments and keep your defense operations connected and in control.

RockREMOTE Mini OEM

Secure Satellite Communications for UAVs, Field Sensors, and Tactical Surveillance

RockREMOTE Mini OEM brings global Iridium satellite connectivity to unmanned systems, field deployed sensors, and remote surveillance platforms. Designed for installation within your enclosure, this device ensures real-time tracking, data transmission, and command/control continuity.

RockREMOTE Mini OEM is compact and lightweight, ideal for integration into ISR drones, tactical UAVs, or embedded sensor networks.



Ideal for: **Tactical drones, remote sensors, portable systems, UAV payloads.**



BVLOS Satellite Connectivity

Provides global Beyond Visual Line of Sight (BVLOS) command and telemetry for UAVs, UGVs, and field-deployed sensors using Iridium Certus 100. Suitable for remote and infrastructure limited areas.



Encrypted Communications

Supports encrypted communications through VPN tunneling (e.g., IPsec), and secure routing via Cloudloop or third party platforms.



Compact OEM Design

With a board-only design measuring just 103 x 59 x 20 mm, and weighing ~160g, RockREMOTE Mini OEM is ideal for SWaP-constrained platforms such as tactical UAVs, unattended sensors, or man-portable systems.



Flexible Interfaces for Tactical System Integration

Features serial, Ethernet, and GPIO connectivity, making it easy to integrate with UAV autopilots, UGV control systems, ISR payloads, or other field deployed sensors. The built-in GNSS receiver provides reliable positioning for situational awareness.



Remote Monitoring and Management via Cloudloop

Integrates with Cloudloop, enabling secure remote monitoring, SIM/device management, and data access, supporting distributed deployments without local infrastructure.



From remote UAV control to field sensor integration, **RockREMOTE Mini OEM** delivers compact, secure, and flexible satellite connectivity built for the demands of modern defense operations, wherever the mission goes.

RockSTAR

Reliable, Global Two Way Satellite Tracking and Messaging in the Palm of Your Hand

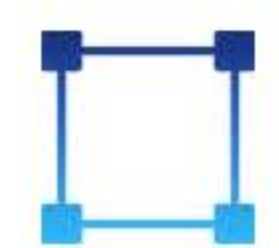
RockSTAR is a trusted handheld solution for military personnel who need reliable, real-time tracking and two way messaging anywhere on Earth. Designed for ease of use and maximum endurance, it transmits positions, status updates, and short messages via the Iridium satellite network, with no dependence on cellular coverage.

Its exceptional battery life, rugged construction, and compact form factor make it ideal for dismounted troops, special forces, and remote deployments. Whether used for personnel accountability, patrol tracking, or emergency response, RockSTAR keeps command informed and operators connected.



Global Two-Way Satellite Messaging

Enables short, secure two way messaging over the Iridium network, independent of local infrastructure; perfect for remote deployments or denied areas.



Live Position Tracking & Geofencing

Transmits GPS positions at configurable intervals and supports location-based alerts, ideal for patrol monitoring, blue force tracking, or area based triggers.



Exceptional Battery Life

Offers up to 12 months of operation on a single charge in low frequency tracking mode, ensuring long term use in the field without recharge logistics.



Emergency Alerting

Dedicated physical alert button instantly notifies command of emergencies, including last known location and optional custom message.



Rugged, Field-Proven Design

Built to withstand shock, dust, water, and extreme temperatures, RockSTAR is ready for the demands of expeditionary and tactical operations.



Simple, Secure Configuration

Fully configurable via USB or Bluetooth with optional PIN protection. Easily integrated into secure workflows via Cloudloop for monitoring and management.



RockSTAR provides reliable, long duration tracking and two way satellite messaging for personnel operating in remote or hostile environments, offering commanders visibility, accountability, and peace of mind without relying on local infrastructure.

RockSTAR Burst

Silent, Receive-Only Satellite Pager for Covert Communication

RockSTAR Burst is a rugged, handheld pager that silently receives one way satellite messages from the Iridium Burst® network. It's built for teams that need global communication without giving away their position - perfect for covert operations, disaster response, and high risk missions where silence is critical.

With zero RF transmissions, RockSTAR Burst leaves no detectable signature. Messages are received securely, displayed on a bright OLED screen, and stored for later reference. The device works anywhere on Earth, in all weather, and even through partial obstructions, so teams stay informed no matter how remote the mission.



Ideal for: **Special forces, remote patrols, covert teams.**



Silent operation:

RockSTAR Burst is receive-only, meaning it never transmits, ensuring there is no RF signature to detect or trace.



Global coverage:

Operates anywhere on Earth using the Iridium Burst® network, including polar regions and remote oceans.



Secure message delivery:

Messages are transmitted to the device using cryptographic techniques, protecting operational information from interception. SOS button can be used to instantly wipe all content if required



Rugged and weatherproof:

Built to IP67 and MIL-STD-810G standards, the device withstands harsh environmental conditions including water immersion, dust, vibration, and shock.



Extended battery life:

Delivers 25 - 35 hours of continuous use on a single charge, supporting extended field operations without resupply.



Easy to use in the field:

Features a bright OLED display and simple controls for quick reading of messages, even in low light or challenging environments.



RockSTAR Burst delivers mission critical information without compromise, keeping teams connected, informed, and undetected.

Vehicle Mounted Satellite Internet

In addition to our Rock-series devices, Ground Control partners with Kymeta and OneWeb to deliver end to end mobile satellite broadband solutions:



Kymeta Peregrine (for maritime) & Hawk (for land) terminals for high throughput, low latency connectivity on the move.



OneWeb LEO services for resilient global coverage, optimized for data intensive operations.



Competitive airtime packages tailored to defense requirements, with flexible term lengths and priority network access.



These partnerships ensure your teams have both mission critical tracking and the broadband bandwidth needed for real time video, large file transfers, and IP-based communications, anywhere in the world.

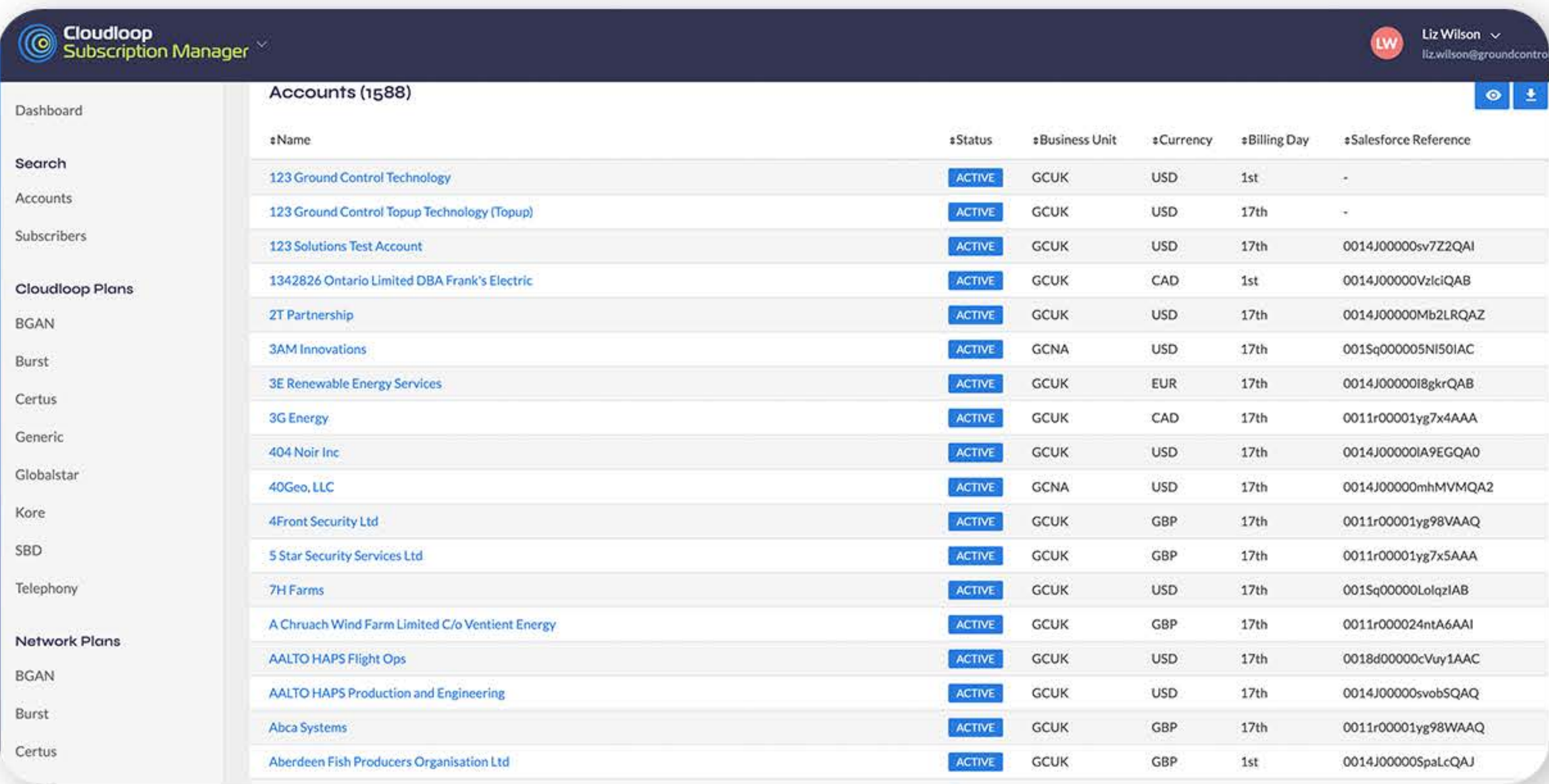


Coordination And Control Powered By Cloudloop

In addition to military grade satellite-enabled devices, equip your defense operations with Cloudloop - Ground Control’s secure, globally scalable IoT platform designed for secure data transfer, asset tracking and management.

Cloudloop provides military grade management and data infrastructure for Rock devices, usable entirely via APIs to support secure, automated command and control. You're in control of your data, and can configure what information is visible by user, account or device. This includes removing all location data.

Cloudloop Subscription Manager



The screenshot shows the 'Accounts (1688)' section of the Cloudloop Subscription Manager. The interface includes a sidebar with navigation options like Dashboard, Search, Accounts, Subscribers, Cloudloop Plans, and Network Plans. The main area displays a table of accounts with columns for Name, Status, Business Unit, Currency, Billing Day, and Salesforce Reference. All accounts listed are in an 'ACTIVE' status.

#Name	#Status	#Business Unit	#Currency	#Billing Day	#Salesforce Reference
123 Ground Control Technology	ACTIVE	GCUK	USD	1st	-
123 Ground Control Topup Technology (Topup)	ACTIVE	GCUK	USD	17th	-
123 Solutions Test Account	ACTIVE	GCUK	USD	17th	0014J00000v7ZZQAI
1342826 Ontario Limited DBA Frank's Electric	ACTIVE	GCUK	CAD	1st	0014J00000VclQAB
27 Partnership	ACTIVE	GCUK	USD	17th	0014J00000MbZLRQAZ
3AM Innovations	ACTIVE	GCNA	USD	17th	0015q000005N50IAC
3E Renewable Energy Services	ACTIVE	GCUK	EUR	17th	0014J00000I8gkQAB
3G Energy	ACTIVE	GCUK	CAD	17th	0011r00001yg7x4AAA
404 Noir Inc	ACTIVE	GCUK	USD	17th	0014J00000IA9EGQAQ
40Geo, LLC	ACTIVE	GCNA	USD	17th	0014J00000mhMVMQA2
4Front Security Ltd	ACTIVE	GCUK	GBP	17th	0011r00001yg9BVAQAQ
5 Star Security Services Ltd	ACTIVE	GCUK	GBP	17th	0011r00001yg7x5SAAA
7H Farms	ACTIVE	GCUK	USD	17th	0015q00000LolpziAB
A Chruach Wind Farm Limited C/o Ventient Energy	ACTIVE	GCUK	GBP	17th	0011r000024ntA6AAAI
AALTO HAPS Flight Ops	ACTIVE	GCUK	USD	17th	0018d00000cVuy1AAC
AALTO HAPS Production and Engineering	ACTIVE	GCUK	USD	17th	0014J00000vob8SQAQ
Abca Systems	ACTIVE	GCUK	GBP	17th	0011r00001yg9BVAQAQ
Aberdeen Fish Producers Organisation Ltd	ACTIVE	GCUK	GBP	1st	0014J00000SpaLcQAJ

Control airtime and costs across your entire device estate, in real time.

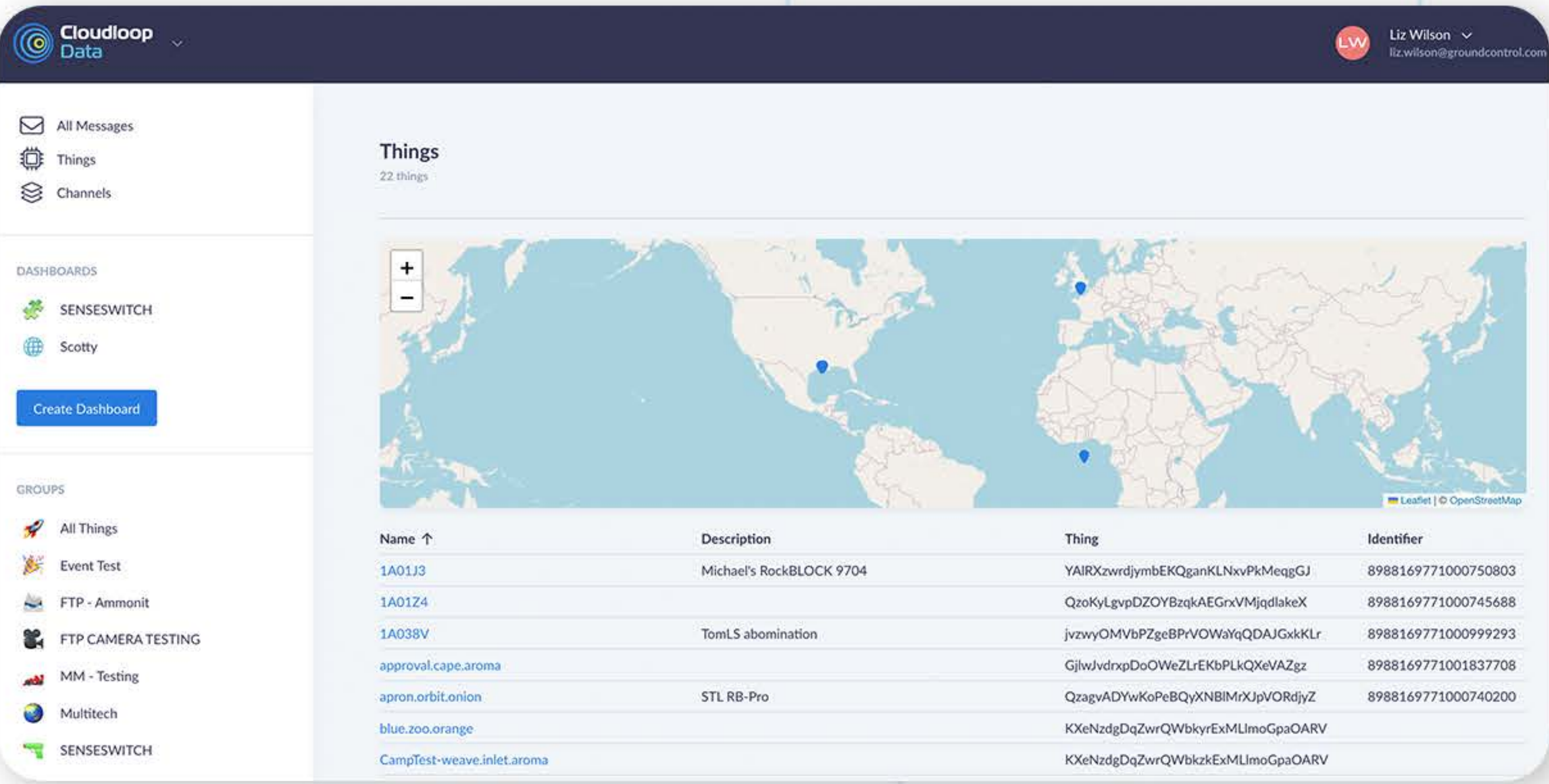
Activate, suspend, or terminate SIMs remotely across satellite and cellular networks

Monitor data usage and transmission frequency to align with mission needs

Assign naming conventions, cost codes, or unit designations for easy tracking

APIs allow full subscription control from military billing or logistics platforms

Cloudloop Data



The screenshot shows the 'Things' section of the Cloudloop Data interface. It features a sidebar with navigation options like All Messages, Things, Channels, DASHBOARDS, and GROUPS. The main area displays a world map with several location pins and a table of 'Things' with columns for Name, Description, Thing, and Identifier.

Name ↑	Description	Thing	Identifier
1A01J3	Michael's RockBLOCK 9704	YAIRXewrdjymbEKQanKLNvPvMeqgGJ	8988169771000750803
1A01Z4		QzoKyLgvpDZOYBsqAEGrxVMjgdIakeX	8988169771000745688
1A038V	TomLS abomination	jvzwvQMvtpZgeBPvOVWqQDAJGxkKLr	8988169771000999293
approval.cape.aroma		GjwJvdrxpDoOWeZLrEKsPLQXvAZsz	8988169771001837708
apron.orbit.anion	STL RB-Pro	QzsgvADYhwKvPeBQyXNBIMXjpvVORdijZ	8988169771000740200
blue.zoo.orange		KXenZsdgDqZwrQWbkyrExMLlmoGpsQARV	
CampTest-weave.inlet.aroma		KXenZsdgDqZwrQWbkyrExMLlmoGpsQARV	

Secure, reliable delivery of field data from device to HQ.

View raw and decoded messages sent via Iridium Messaging Transport or Short Burst Data

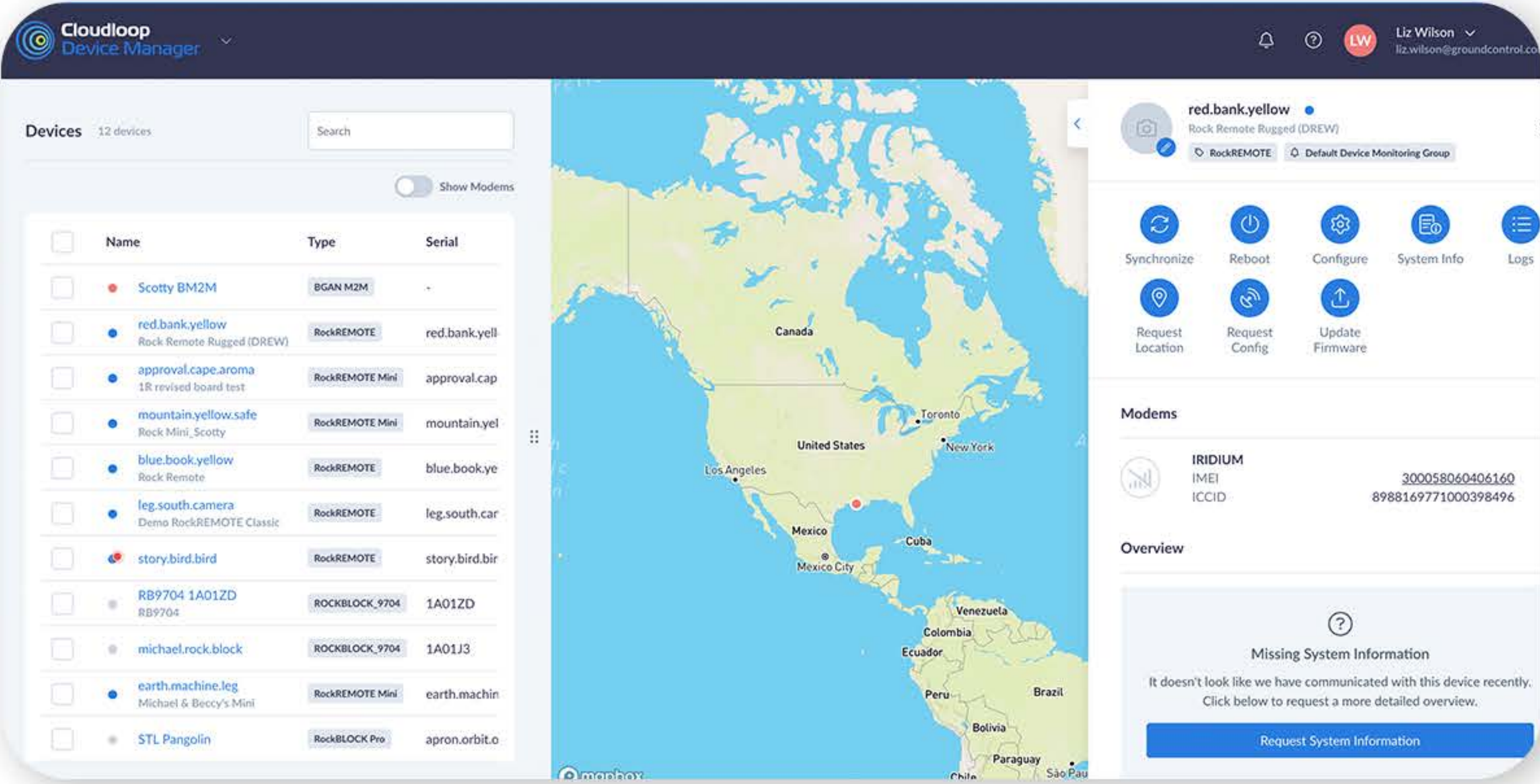
Integrate with secure systems via REST API, webhook, or MQTT

Access timestamps, delivery status, and searchable message history

Route or store data based on device ID and application logic

Coordination And Control Powered By Cloudloop

Cloudloop Device Manager



Manage deployed hardware securely, from field sensors to vehicle comms units.

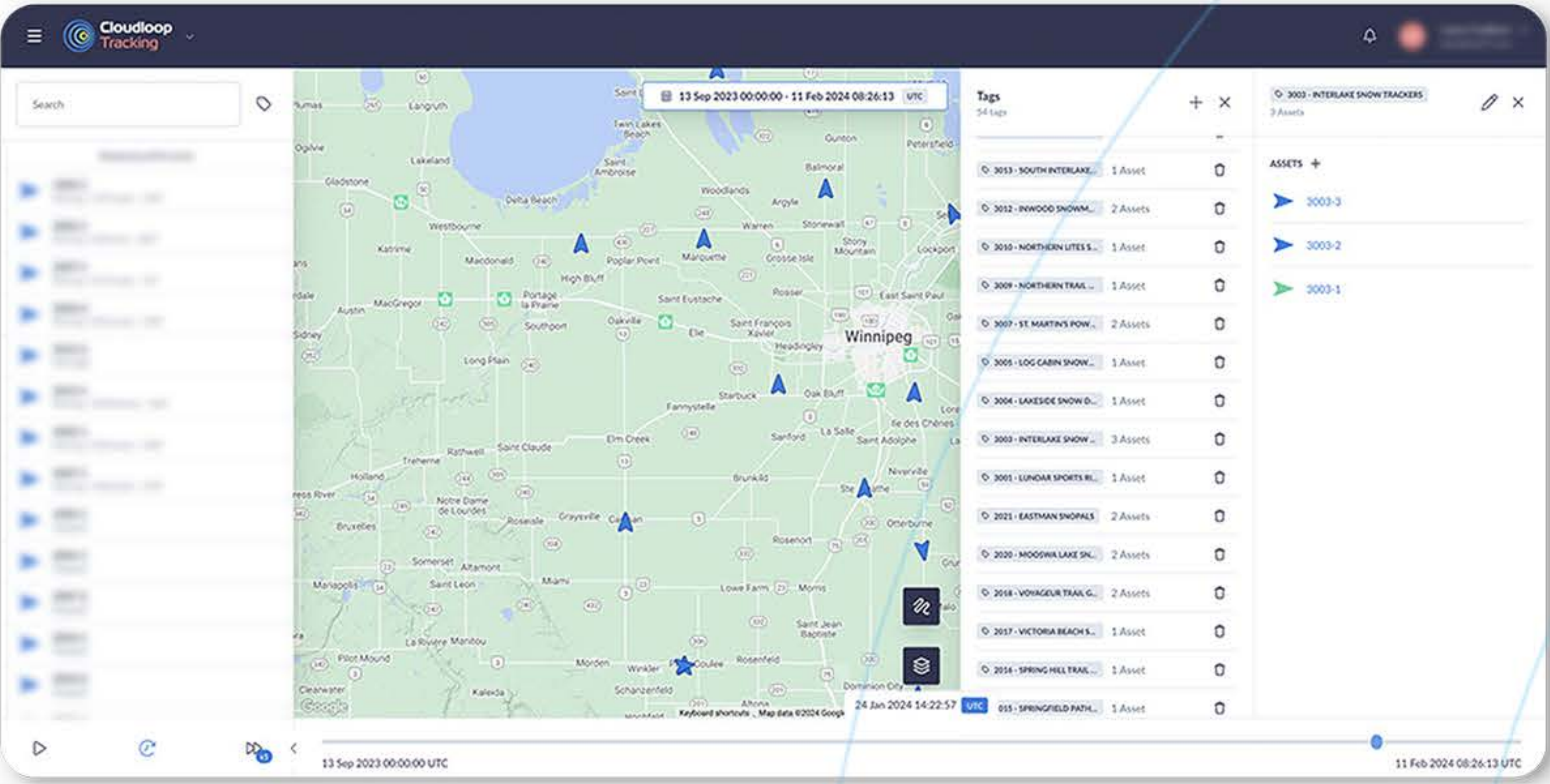
Remotely monitor and manage RockREMOTE devices in the field

View signal strength, transmission logs, and device status

Schedule reboots or configuration changes without physical access

Full API access for automated monitoring and remote diagnostics

Cloudloop Tracking



Maintain full visibility of personnel, vehicles and unmanned assets.

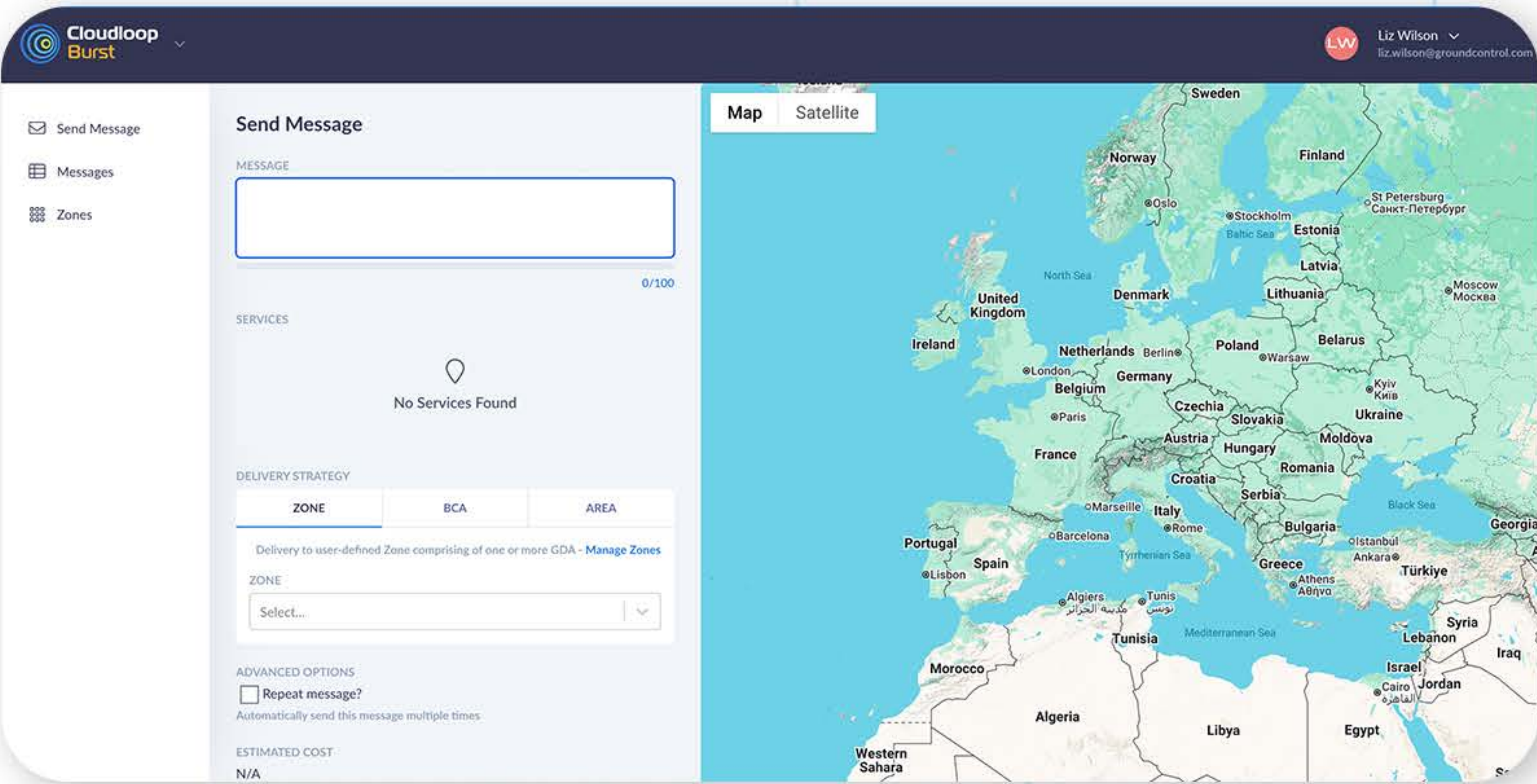
View live and historical tracking for RockSTAR, RockREMOTE, and RockBLOCK devices

Set up geofences, movement alerts, and mission-specific tracking zones

Integrate seamlessly into command systems via API for operational picture overlays

Access secure map views, breadcrumbs, and audit trails to support decision making

Cloudloop Burst (For RockSTAR Burst only)



Covert, one way paging and location reporting, with full operational control from a secure browser interface or API.

Send brief messages and mission instructions to RockSTAR Burst devices

Queue, prioritize, and time-delay messages for stealth or synchronization

Can schedule repeat messages at configurable intervals to give best chance of delivery

Fully API accessible for integration with command & control systems

Partner With Us To Improve Mission Success

For over 20 years, we've partnered with defense forces, government agencies, and security contractors to deliver resilient, secure, and interoperable communications, even where GPS and cellular connectivity fails.

Operating at the intersection of tactical mobility, IoT, and global connectivity, our solutions are trusted by militaries, NGOs, and peacekeeping forces across the globe for situational awareness, asset tracking, and operational continuity in the most remote and hostile locations.

Our key credentials for your military organization:



Proven Defense Partner

Over two decades supporting NATO aligned militaries, national security agencies, and humanitarian deployments worldwide.



Global Coverage

Achieve reliable, truly global connectivity via the Iridium satellite network with no black spots - ideal for remote or contested regions.



Flexible Integration

Utilize modular hardware and open APIs for seamless integration with your C2, GIS, fleet, and battlefield management systems.



Military-Grade Security

Be assured with secure two way communications, audit trails, and military grade device design for the ultimate robustness in the field.

Cloudloop

Remote Asset Management

Gain full visibility and control over deployed assets via Cloudloop. Monitor devices in real time, manage usage and receive alerts all from a secure, centralized interface.



Devices Built for Tactical Precision

Get equipped with communication solutions when GPS and GNSS navigation is denied and maintain mission course.

Join Forces with a Proven Technology Partner



Whether you're modernizing your command infrastructure, supporting reconnaissance and surveillance, or deploying forces in denied areas, Ground Control delivers dependable connectivity and control for mission critical operations.

Connect with us today to discuss procurement, integration, or deployment support.

Call: +44 (0)1452 751940 (UK) | +1 (805) 783-4600 (USA)

Visit: groundcontrol.com

Contact: hello@groundcontrol.com