

Next-Generation Satellite IoT and Voice Connectivity for Emergency & Rescue

One unified network for IoT/M2M and voice —
an accessible, easy-to-use solution for emergency services everywhere.

Satellite services are uniquely reliable and an invaluable tool for emergency responders during disaster relief. They also aid humanitarian organisations and repair crews during disaster management and recovery. Meeting the industry's need for reliable, low-cost connectivity for a mass number of end-users in a given region, HiSKY's unified network — offering both IoT/M2M and voice communication — has become an accessible, easy-to-use solution for emergency services everywhere. HiSKY's unique technology enables transmission of all needed data on Ka/Ku-band frequencies over GEO satellites.



FEATURES

What the network enables

- ▶ On-the-move communication.
- ▶ Voice and chat from any smart device or LMR/DMR/P25 device.
- ▶ Fleet management services including routing, tracking and SOS alerts.
- ▶ Online vehicle telemetry for real-time files and report logs.
- ▶ Simultaneous mass network connectivity over Ka/Ku band.

What HiSKY offers

A unified network offering both IoT/M2M and voice communication — reliable, low-cost connectivity for a mass number of end-users in a given region, with all needed data transmitted on Ka/Ku-band frequencies over GEO satellites.

Terminal — Smartellite™ Dynamic, Ku/Ka

Service — Satellite voice + IoT over GEO

Management — Space Control (NMS)

Optional dual-mode connectivity — satellite & LTE. An external LTE router lets the same terminal fall back to the cellular network where it exists, and stay on satellite where it does not.

AGILE NETWORK

Open architecture. Any device, any application.

HiSKY's open architecture enables easy integration with any device or application provider that suits your business needs, and integrates with any existing network to complement your coverage in all rural areas around the world.

User-side component

Terminals receiving data from the end-user device or application.

- ▶ Smartellite™ Dynamic terminal
- ▶ External LTE router — optional dual-mode satellite & LTE

Satellite component

Based on the satellite provider and the required operational coverage.

- ▶ HiSKY-supported satellites
- ▶ Teleport
- ▶ HiSKY HUB modem and packet processor

Management component

Data routing divided into network management and application data.

- ▶ Space Control (NMS) — network telematics; deployment depends on user requirements and network size
- ▶ Client servers — user data telematics for control, analysis and management of assets

LMR/DMR/P25 INTEGRATION

Fielded radios, carried over satellite

The LMR/DMR/P25 user device interfaces with a dedicated RF relay box, via a wired or wireless connection. The RF relay box converts the received RF signal into digital data, which the HiSKY terminal transmits over GEO Ka/Ku-band satellite to the end-user operations centre. All technologies and modules required for this solution are fully developed and manufactured in-house.

Direct radio

The UHF/VHF radio connects to the RF relay box at the Smartellite™ terminal.

- ▶ Smartellite™ terminal + RF relay box
- ▶ HiSKY-supported satellites and teleport
- ▶ HiSKY HUB modem and packet processor

Relay station

The terminal and RF relay box extend the client radio network over satellite.

- ▶ Relay station with Smartellite™ terminal
- ▶ PIB into the client radio network

Remote control

Configuration and control of user terminals and HUBs from the operations centre.

- ▶ Space Control (NMS)
- ▶ Client radio network operations centre

HiSKY SYSTEM

Terminal, HUB, management. One unified system.

SMARTELLITE™ FAMILY

Smartellite™ Dynamic Ku/Ka band



A state-of-the-art, electronically steerable phased-array antenna locates the satellite automatically in milliseconds, with a built-in modem for low-to-medium data rates and fast acquisition. Also designed to meet the requirements of LEO satellites — a future-proofed solution.

INTEGRATION

RF relay box LMR/DMR/P25

Converts the UHF/VHF radio signal to digital data for the Smartellite™ terminal — wired or wireless. Developed and manufactured in-house.

NETWORK MANAGEMENT

Space Control NMS



All Smartellite™ terminals are fully monitored by our cloud-based / on-premises management platform. Developed in-house, it gives partners everything needed to manage their global HiSKY networks — configuration, monitoring, reporting, analysis, billing and more.