

Government Solutions Overview

Governments must respond to the needs of citizens at all times and in all places. And that requires a reliable and secure high-speed broadband platform that extends from urban centers to the outer edges of domestic borders and embassies abroad. Today, IP-based satellite communications plays a critical role in connecting government organizations to their citizens and advancing efforts from public safety and border control to distance learning and foreign affairs.

Satellite communications can establish an emergency response center for first responders to coordinate rescue efforts across government, civil and military organizations and provide the shared information necessary to minimize impact. Inter-agency cooperation is crucial in the most remote regions of a nation as well, particularly where the ability to expand broadband reach is critical to maintaining border control.

Internationally, satellite is pivotal for supporting diplomatic communications and ministries of foreign affairs. Nations can set up a private, global, terrestrial-grade network to connect all their embassies, supporting highly secure strategic information exchange and enabling broadband applications across every location.

Governments can also rely on satellite to maintain connectivity following a natural or man made disaster when terrestrial networks fail. They bridge the digital divide between urban and rural regions, and extend health and educational services to every citizen.

The iDirect Satellite Solution

iDirect's product line and ready-to-access functionality delivers a reliable, efficient and highly secure solution for any application, in any environment, fixed and mobile, both domestically and abroad. The iDirect Intelligent Platform™ is a single, unified, IP-based satellite communications architecture that enables seamless integration with existing infrastructure and allows for interoperability and-



iDirect's Intelligent Platform is a single, unified IP-based satellite architecture with built-in flexibility and functionality. It features:

- ◆ Fast, efficient and reliable broadband solutions for global or national connectivity requirements
- ◆ Universal hubs and line cards that can span up to five satellites in C-, Ku-, Ka- or X-band
- ◆ Solutions that can quickly deploy or easily move and reestablish connectivity
- ◆ Enhanced capabilities for IP system interoperability
- ◆ Compliance with military-grade security standards
- ◆ Fully integrated operating and management software

iDirect's broadband capabilities provide the connectivity for all voice, video and data communications and specialized applications globally for embassies, public safety and first responders alike.

communication with all IP-based devices, including those used by government agencies as well as public safety organizations and even other friendly governments.

iDirect's product line consists of a flexible, universal hub and line card system that can support C-, Ku-, Ka- and X- bands, as well as multiple topologies. It can connect up to five satellites, providing uniform connectivity to sites across multiple continents.

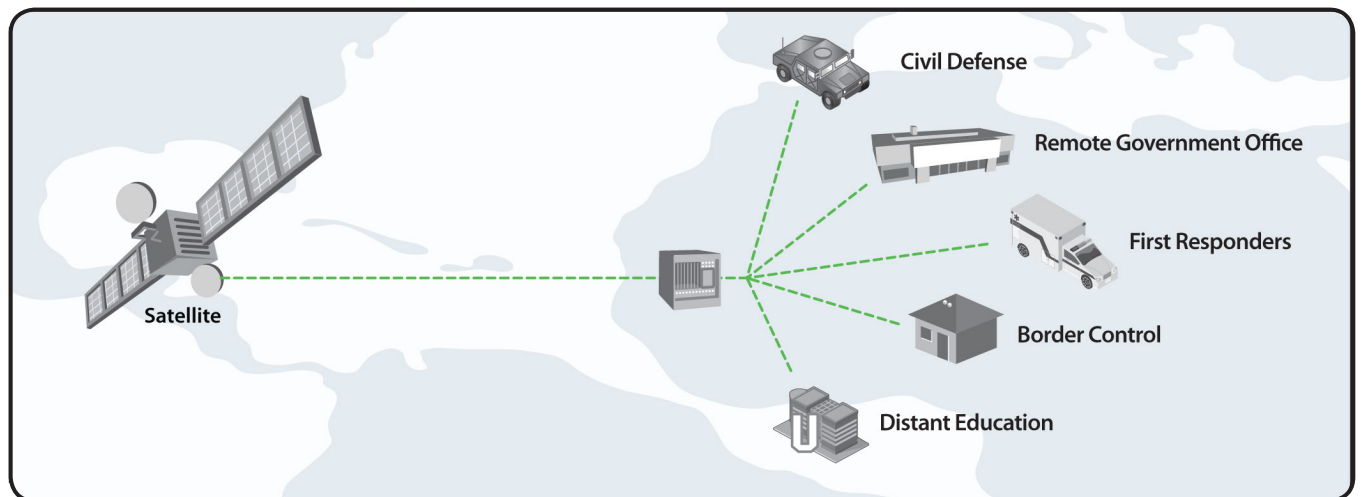
iDirect satellite remotes are engineered with versatile functionality and varying form factors to meet unique government application needs and industry-specific industrialized and security requirements. And fully integrated operating and management software provides the ability to centrally monitor, configure and control the entire satellite network.

Reliable and Efficient Communications

As government organizations share mission critical information, it's imperative that any given site on a network has sufficient bandwidth at any moment. The iDirect Platform is a shared, two-way communications system. Using Time Division Multiple Access (TDMA) on the inbound channel, the iDirect Platform can dynamically allocate bandwidth between sites from a shared pool based on real-time usage requirements.

iDirect's Evolution® DVB-S2 product line, designed for large outbound channels, produces major gains in data throughput. It is combined with Adaptive Coding and Modulation (ACM), which enables each satellite remote to maximize efficiency and availability by continually evaluating signal strength based on local weather and spectrum conditions to preserve throughput.

iDirect Network Architecture



The iDirect platform supports diverse applications and end users through a single hub.

To guarantee government agencies assured access to critical information, iDirect's Group Quality of Service (GQoS) technology prioritize bandwidth efficiently across different needs, ranging from first response applications and diplomatic intelligence to real-time tactical updates and border control, all over one network. Global government agencies with differing bandwidth requirements will have the capacity required for their unique departmental and application needs.

For more bandwidth intensive applications that require constant traffic volumes, such as might occur for a particular embassy during a time of political unrest, the iDirect platform offers the unique ability to switch to a dedicated Single Channel Per Carrier (SCPC) link on the return channel.

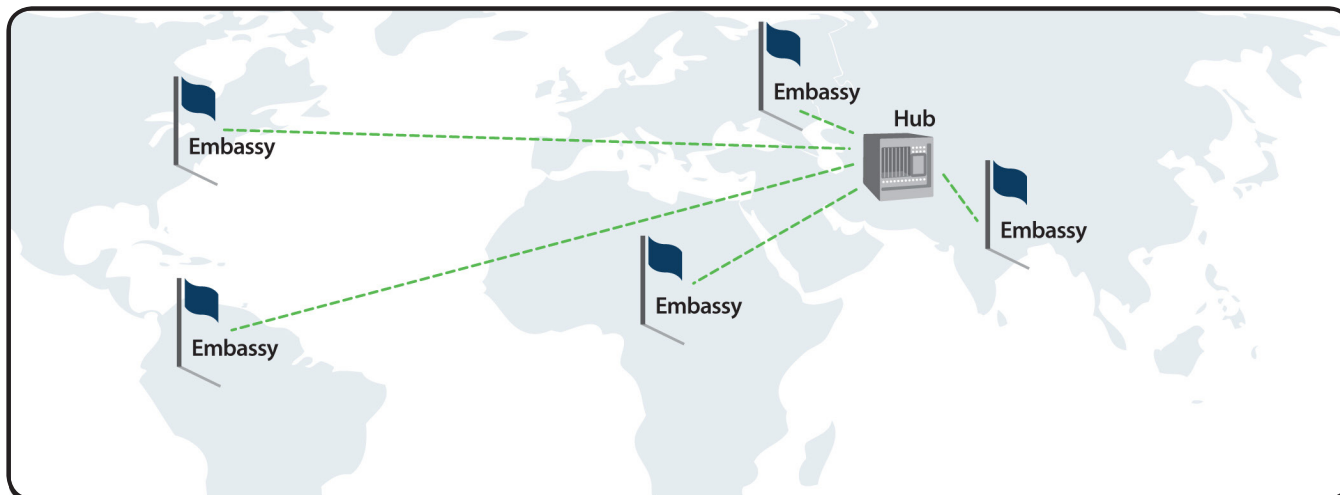
The iDirect platform provides increased reliability and maximum redundancy to the critical components of the

communications network. With its redundant hub and line card configurations and geo-redundant operations options, the iDirect platform can enable critical failover should an incident occur at the teleport or hub. In the case of an outage, iDirect's Global Network Management System (GNMS) can automatically perform a seamless switchover to a backup network within minutes.

Security

The security of any communications network is a top priority for government organizations, requiring the content sent to be highly protected for the success of operations and the safety of government and civil service personnel, as well as the general public. The iDirect platform features built-in AES encryption and supports military-grade encryption levels to protect critical information being transmitted over a satellite network from being intercepted.

Global Reach



Governments can extend embassy networks across continents, supporting private broadband communications.

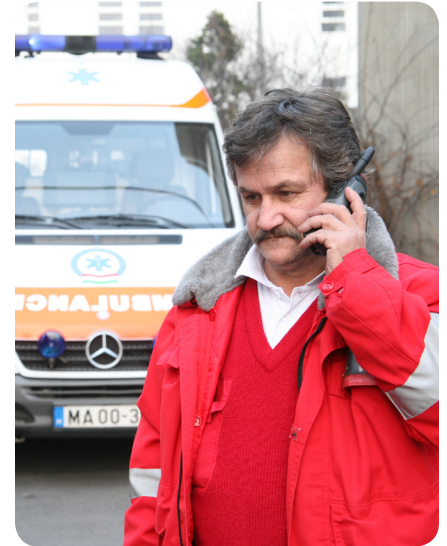
Mobile Operations

Effective emergency response, disaster relief and border control requires first responders to coordinate their efforts and exchange critical information in the field. Vehicles must be empowered to become mobile command centers, with access to real-time voice, video and data communications. iDirect's remote routers can be easily deployed in the field to support both Communications on the Pause and Communications on the Move. And remote router boards can also be integrated into third part systems, such as mobile fly-away units, to make satellite connectivity portable and deployable in any environment.

Network Management

The iDirect Platform delivers comprehensive network management software tools that enable operators and service providers, as well as government organizations themselves, to deploy, manage and optimize their networks.

An integral part of the Platform's architecture is iVantage™, a built-in network management system for centrally monitoring, configuring and controlling the entire satellite network. SatManage is a powerful extension to iVantage, taking NOC operations to an even higher standard of network performance and scalability. It features a sophisticated suite of Web-based software tools that delivers complete visibility into both real-time and historical data, automates trouble-shooting and fault management and integrates hybrid networks and NOC-based applications. SatManage also features intuitive customer management tools and portal interfaces that enhance communication, reporting and improve customer satisfaction.



The iDirect Platform enables governments to allocate bandwidth efficiently across multiple agencies, providing uniform broadband connectivity no matter where they are located.

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