inmarsat
government

Satellite Communications (SATCOM) for First Responders

You Are Not Prepared Until Your Communications Are

Critical SATCOM for First Responders

"First in/Last out" easy-to-use, reliable and interoperable satellite connectivity – there for you when and where you need it.

Today, first responders rely upon more than 10,000 separate, incompatible and often proprietary radio networks to communicate with each other during emergencies. Sometimes it is hard, or even impossible, for public safety to connect and work together to save lives.

Inmarsat Government is proud to serve the public safety community, providing resilient, secure satellite communications (SATCOM) for our country's first responders. With a rich heritage of enabling critical safety around the globe, Inmarsat is the market leader in providing reliable communications that enable interoperability among public safety personnel.

When a natural or man-made disaster strikes, existing access and core infrastructure may be damaged or destroyed. So, to maintain critical connectivity, new infrastructure must be rapidly deployed and integrated with undamaged resources still in place. Inmarsat Government SATCOM solutions have proved essential during times of disaster due to its wide area coverage, rapid deployment, ubiquitous availability, reliability, security/privacy and flexibility.

Reliable, Flexible SATCOM

Through Inmarsat Government, first responders acquire instant voice and data services in narrowband and wideband in critically-hit areas where other communication options are not available. This is accomplished by using a wide range of dependable equipment that is as simple and easy to use as a cell phone, and often small and light enough to store in a backpack. Subsequently, our satellite phones, Broadband Global Area Network (BGAN), Global Xpress and fixed satellite services prove themselves – over and over again – as irreplaceable in delivering unique critical capabilities to emergency responders and public safety organizations, augmenting and integrating with existing networks into a hybrid capability.

Equipped with global high-throughput satellites and associated ground and terrestrial infrastructure, Inmarsat Government offers first responders highly reliable, commercial-off-the shelf as well as customized SATCOM solutions, backed by 24/7/365 customer support and network monitoring.

L-band Mobile Satellite Services

Our L-band Mobile Satellite Services (MSS) are easy to use and operate, while delivering reliable connectivity minutes after disaster strikes.

Satellite phones

Satellite phones are one of the most important tools in any public safety's arsenal for disaster recovery and remote communications. We offer the leading satellite phones available today. These include both traditional voice-calling phone devices as well as small, cellphone-sized data terminals for narrowband data which can be used for email or other low-bandwidth applications.

Broadband Global Area Network (BGAN)

BGAN service has emerged as the top choice for first responders for its reliability and ease-of-use and assembly. With 99.9% reliability, BGAN ensures that large volumes of critical data — be it voice, video, text or images — goes to where it is needed, as quickly as possible. BGAN terminals are small enough to quickly pack, transport and set up literally in minutes, anywhere you go — a key "first in" capability during the first 24 hours on the scene. First responders with no specialist training can establish secure VPN and connect a remote outpost or field office or set up a local Wi-Fi hotspot. Users can conveniently connect existing cell phones to one of Inmarsat's many satellite terminal offerings via Wi-Fi or Bluetooth to support voice and data connectivity where traditional cellular coverage in unavailable. Users can also connect a tablet or computer to a private broadband network, with speeds up to 492 Kbps. Faster speeds are possible with VSAT or a vehicle-mounted dish. Maritime (FleetBroadband) and aviation (SwiftBroadband) variants are available for communications-on-the-move platforms, built to those missions-specific requirements.

Satellite Push To Talk

Satellite Push To Talk (PTT) turns traditional land mobile radio (LMR), satellite, cellular and internet networks

into a closed managed Wide Area Network (WAN), with beyond line-of-sight (BLOS) communications. This vehicle-mountable solution uses satellite to extend the range of existing radio PTT networks. Using a BGAN terminal, PTT traffic is intelligently routed across the radio network or over a satellite link. It extends existing radio capabilities to hybrid data networks such as cellular, and supplements them with Inmarsat's satellite network when no coverage is present. This resilient hybrid system establishes seamless voice communications in any situation. With no user intervention required, the system automatically routes voice and data traffic via the least expensive and most reliable network available. The combination of satellite and terrestrial networks ensures that mobile assets are always connected, whether servicing equipment in the field, protecting borders or saving lives after a disaster.

VSAT Satellite Solutions

Once the emergency response and relief mission expand, connectivity must naturally increase to support bandwidth-demanding communications. That is when first responders turn to very small aperture terminal (VSAT) delivered by Inmarsat Government to meet the expanding and increasing needs of their mission.

Global Xpress

Inmarsat Global Xpress, the first and only end-to-end commercial Ka-band network from a single operator available today – delivers universal high-throughput in a VSAT form, yet with Inmarsat's renowned ease-of-use and always-on reliable capability. Only a Global Xpress terminal and standard monthly subscription are required to connect anywhere in the world at any time, and then transmit and receive large data such as that from high-speed Internet and video streaming. From the moment the transit case is opened, connectivity is established in under seven minutes with minimal operator interaction. Once online, committed information rates (CIR) with 99.5% availability pave the way for mission success. Offered as a managed service everywhere – SATCOM as a Service – it includes the space, ground and terminal segments as a robust and resilient end-to-end capability. SATCOM as a Service delivers an "always-on" network and the ability to roam – no matter where – without the roaming charges. Simply plug in, and you are on the network.

Multi-band Solutions

Inmarsat Government offers full-spectrum L, Ka, Ku, C and X-band services with redundant terrestrial connectivity to its private multiprotocol label switching (MPLS) backbone, enabling private and

secure reach back to service-specific processing centers and delivery nodes, as well as standard Internet access. Inmarsat Government's full lifecycle management includes requirements, architecture, testing, configuration, information assurance (IA) accreditation, quality control and 24/7/365 U.S.-based network and technical support. These solutions are delivered via tactical and strategic SATCOM terminals and self-contained ruggedized units that can facilitate mission-critical reach-back, whether fixed or transportable and feature-fixed, and self-pointing antenna technology which is 100% independent of local terrestrial, cellular and electrical infrastructure.

Reliable Communications for Unreliable Environments

IP-based Voice & Data Communications

From hub-and-spoke to mesh topologies, Inmarsat Government has an unrivaled heritage of deploying IP-based SATCOM that encompasses full-scale satellite networks and redundant ground systems, optimized for first responder customers.

Across our private MPLS backbone to the remote edge, we design IP addressing constructs for the IP equipment, including satellite modems, convergence routers, switches and firewalls. We work with our customers and allocate IP addressing schemes based on their needs and manage their allocation through the network. The native capabilities of our global satellite infrastructure and MPLS backbone enable complete portability of IP addresses assigned to any given remote satellite modem, allowing for seamless transition between satellite access stations. As a remote terminal roams from region to region, its IP configuration stays the same, ensuring that end-user applications perform consistently and reliability without intervention. We provision customized Quality of Service (QoS) profiles across our MPLS network to maintain the highest level of IP service performance.

End-to-End Managed SATCOM

It is not just the components that distinguish Inmarsat Government managed network services. It is the way Inmarsat Government custom-designs the network for first responders' unique needs. And then manage it completely from end-to-end, so users can rest assured about security and reliability.

Inmarsat Government's end-to-end proven communication solutions encompass the design, implementation and lifecycle management of a scalable, hybrid satellite and terrestrial communication network that delivers secure, reliable IP connectivity and configurable bandwidth to support your applications and services. The network incorporates Inmarsat's platform and redundant terrestrial private line connections into a global MPLS backbone, including integrated terminal hardware, network operations software, installation and ongoing operations support. By working with Inmarsat Government, you will have single-source access to our integrated and scalable network hardware and services anywhere in the world. Our Network Operations Center team is U.S.-based, certified and cleared and available 24/7/365 with just one phone call. Our massive network and expertise enable us to offer flexible solutions designed to your needs, cost-effectively with highly-available data, voice and video communications —

providing greater resilience and ensuring mission critical data flow even amid the major loss of infrastructure.

Pay Only for the Access You Need

All Inmarsat Government SATCOM solutions are available via various prepaid rate plans for each device. First responder customers only pay for the access they need via pre-planned, pre-activated services anywhere — a true global roaming service with assured quality.

Inmarsat Government's transportable, on-the-move and fixed communication products are built to meet the demands of the world's harshest and most remote environments, with each one expertly integrated into your custom solution. The upshot: Wherever your mission takes you, you can take us.

Inmarsat Government is ready to meet your connectivity needs:

HIGHLY RELIABLE NETWORK COVERAGE
Seamless, ubiquitous, rapidly scalable global connectivity, available globally and across all U.S. states and territories, including rural areas

TRUSTED SECURITY AND RESILIENCY
Built-in security helps resist physical and cyber threats; reliable SATCOM augmented and integrated with existing networks

PUBLIC SAFETY APPS
Highly secure applications built for first responders' needs, delivered via ease-to-use, simple to install, compact mobile terminals

DEDICATED SUPPORT
24/7/365 U.S.-based support operation center staffed with highly trained professionals experienced in emergency communications

AFFORDABLE PLANS WITH ADVANCED FEATURES
Only pay for the access you need via pre-paid, pre-activated rate plans for each device — a true global roaming service with assured quality

Broad selection of SATCOM solutions for specific needs.

From narrowband to wideband

	Satellite Phone	Mobile Satellite	Global Xpress	Fixed Satellite
Throughput	2.4Kbps	Up to 800Kbps	~ 300Mbps	~ 20Mbps
Bandwidth	L-band	L-band	Ka-band	Ka-, Ku-, C-band
Applications	Voice, messaging, limited text emails	Voice, email, internet, tracking, VTC, video for a single user	Trunking, mobile backhaul, internet, VTC, video for multiple users	Voice, email, internet, VTC, video for multiple users
Number of Users	1	1-3 *	3-20 *	3-10 *

* Number of useres depends on the type of terminal.

To Learn More

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About the Inmarsat Government

The U.S. government and first responder community has relied on, and trusted, Inmarsat satellite services since 1979. Inmarsat Government continues to deliver the world's most advanced global, mobile satellite communication services to U.S. defense, intelligence, homeland security, public safety and civilian agencies, with highly reliable, secure and affordable connectivity. Built with government users in mind, Inmarsat Government provides resilient, flexible capabilities to augment government satellite resources, anytime, anywhere. Leveraging an industry-leading scalable multi-band network infrastructure, Inmarsat Government offers a suite of custom-designed managed network services and end-to-end solutions to support users on land, at sea and in the air, even in the world's most remote regions. Headquartered in Reston, VA, Inmarsat Government is a wholly-owned subsidiary of Inmarsat plc. For more information, please visit **inmarsatgov.com**.