



Satellite Solutions for FirstNet

You Are Not Prepared Until Your Communications Are

Critical SATCOM for FirstNet



“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. To help address this challenge, FirstNet brings a single, nationwide, interoperable LTE network designed specifically for to public safety.

Inmarsat Government is proud to be part of the AT&T team in support of FirstNet, providing resilient, highly secure satellite communications (SATCOM) for the country’s first responders as part of this nationwide mission-critical broadband network. 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 has proved essential during times of disaster due to its wide area coverage, rapid deployment, ubiquitous availability, reliability, high security/privacy and flexibility.

Reliable, Flexible SATCOM

Through Inmarsat Government, FirstNet 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 and Broadband Global Area Network (BGAN) 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 FirstNet responders highly reliable, commercial-off-the shelf as well as customized SATCOM solutions, backed by 24/7/365 customer support and network monitoring.



Mobile Satellite Services

L-band Solutions

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

- **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.

- **Inmarsat Broadband Global Area Network (BGAN)** service has emerged as the top choice for first responders for its reliability, ease of use and assembly. With 99.9% reliability, BGAN helps ensure 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 highly 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 is unavailable. Users can

also connect a tablet or computer to a private broadband network, with speeds up to 492 Kbps.

Vehicular Network Solutions

Vehicular Network Solutions (VNS) combine the best of LTE and satellite for true “go anywhere” vehicle connectivity. Built specifically for FirstNet users, it utilizes cellular or satellite backhaul to provide in-vehicle communications and/or extend a Wi-Fi “bubble” of connectivity to a small number of users outside the vehicle. It combines an off-the-shelf In-Vehicle Router system with multiple communication input capability and the ability to intelligently select between connectivity paths. One input slot is used for FirstNet cellular LTE and serves as the primary connection. The second input slot connects to Inmarsat's satellite network and is utilized whenever LTE coverage is unavailable or based on rules set by the user to reduce costs.





Reliable Communications for Unreliable Environments



IP-Based Voice & Data Communications

From hub-and-spoke to mesh topologies, Inmarsat Government has an unrivalled heritage of deploying IP-based SATCOM that encompasses full-scale satellite networks and redundant ground systems, optimized for FirstNet 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, helping

ensure that end-user applications perform consistently and reliably without intervention. We provision customized quality of service 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 FirstNet responders' unique needs. And then manage it completely from end-to-end, so FirstNet customers 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 highly 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. 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 helping ensure mission critical data flow even amid the major loss of infrastructure.

Inmarsat Government's transportable, on-the-move 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.

Why Choose FirstNet For Your SATCOM Needs?

HIGHLY RELIABLE NETWORK COVERAGE

Seamless, ubiquitous, rapidly scalable global connectivity, available across all FirstNet states and territories, including rural areas

TRUSTED SECURITY AND RESILIENCE

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

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 FirstNet Specific Needs.



	Satellite Phone	Mobile Satellite
Throughput	2.4Kbps	Up to 492Kbps (Standard IP)
Bandwidth	L-band	L-band
Applications	Voice, messaging, limited text emails	VNS, voice, email, internet, tracking, VTC, video for a single user

How to Buy Satellite Solutions for FirstNet

For existing FirstNet customers, please contact your FirstNet representative for a consultation on your SATCOM needs. Our subject matter specialists can meet with you to understand your requirements and budget and propose a variety of off-the-shelf or custom FirstNet SATCOM solutions that are available on your preferred purchasing/contracting vehicles.

For more information on SATCOM solutions for FirstNet, visit www.inmarsatgov.com/firstnet/ or call 703-673-4153.

About Inmarsat Government

The U.S. government 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 multiband network infrastructure, Inmarsat Government offers a suite of managed network services and end-to-end communication 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 Group Holdings Limited. For more information, please visit **www.inmarsatgov.com**.