Viasat**ᴍ**
+Inmarsat

INMARSAT

GLOBALXPRESS

GLOBAL. MOBILE. TRUSTED.

DELIVERING SEAMLESS CONNECTIVITY WORLDWIDE

In operation worldwide since 2015, Global Xpress is the first and only end-to-end high-throughput commercial Ka-band network from a single operator that meets current and future mobile, interoperable communications requirements anywhere, anytime.

Today's highly mobile government users demand uninterrupted secure, robust connectivity that travels with them, no matter where they go. These users are not concerned with how it works, but that it works at all times no matter the circumstance.

As a long-standing trusted partner of the U.S. government, Inmarsat has a unique understanding of its customers' challenges and how they operate. Worldwide coverage, reliability, information assurance and the ability to redeploy easily anywhere, anytime are the prerequisites for mission success. And it must be done cost-effectively within today's budget-constrained environment.

That is why we designed Global Xpress as a seamless, global, assured and affordable wideband service. It is purpose-built for government users that require ubiquitous worldwide mobility delivered under a single subscription.

SUPERIOR CAPABILITY, PORTABILITY, FLEXIBILITY AND RESILIENCE

No more guessing when and where coverage will be required under historical government acquisition and use of commercial SATCOM through leasing of spectrum (MHz) that provides inadequate connectivity to data-intensive missions. Global Xpress avoids this guesswork by delivering guaranteed data rates to satisfy demands at a moment's notice, worldwide, not merely Megahertz of spectrum. With universal coverage under a single subscription, users get what they need, wherever they are.

Global Xpress is an end-to-end robust network owned and managed by Inmarsat — SATCOM as a Service. This "always on" network provides the ability to roam – land, sea or air – without the roaming charges. Users simply plug in and are on the network, no matter where around the world.

THE GLOBAL XPRESS NETWORK

Behind today's Global Xpress lies the I-5 satellite constellation supported by a global, fully redundant ground infrastructure and easy-to-use, deployable terminals type-approved. It is a platform that will adapt to the demands of evolving, mobile operations like yours — for years to come — and we continue to invest ahead of the need with technology advancements, enhanced capabilities and encryption. Our SATCOM as a Service business model allows for rapid delivery of proven technology that covers satellites, ground infrastructure and terminals. Further, Global Xpress technology innovation is backwards compatible with existing terminals, meaning current customers will benefit automatically from future service enhancements. This on-going innovation provides a fast, cost-effective solution to the U.S. government's critical need for resilience, speed and agility to ensure mission success today and in the future.

The I-6 satellites feature both a Global Xpress (Ka-band) and ELERA (L-band) payload to power enhanced capabilities, coverage and capacity for our global mobility government customers. The first I-6 satellite launched in December 2021. The second satellite launched on February 17, 2023. F1 will begin offering services in Q2 2023; F2 in mid-2024. The advanced Ka-band payload will add further depth to Global Xpress coverage, delivering

greater capacity in regions with the highest demand and will support a new generation of capabilities for the 5G era, from advanced global safety services and very low-cost mobile services to high definition streaming.

The next generation of Global Xpress, GX7, 8 & 9 satellites are scheduled to start launch before the end of 2025. These satellites will once again provide ground-breaking innovation to anticipate and match accelerating worldwide demand for government mobile connectivity. It redefines our renowned global mobile communications and seamlessly integrates increased diversity, redundancy, interoperability and resilience to a government architecture without additional infrastructure investment from end users.

Backed by the most advanced cybersecurity features of any global network, the next phase of the Global Xpress evolution will deliver dynamically-formed beams that enable agile and precise allocation of ultra high-power capacity over high-demand areas and allow for superior interference resistance. This innovative software-defined global architecture with GEO satellites has flexible payloads that can be relocated when and where required across the geostationary arc and connect to any Inmarsat software-defined ground network node, enabling higher throughput speeds and flexible and dynamic capacity scaling based on user-specific resource demands.

In addition, the Global Xpress network is expanding into the Arctic region. Two satellites in HEO orbit will provide continuous coverage above 65N, in partnership with governments. GX10 will launch and enter initial service in the first half of 2024 and will meet rapidly growing demand among government customers for seamless high-speed mobile broadband services in the Arctic and throughout the world. Importantly, these payloads will provide mil-Ka capacity complementing military satellite resources, cost effectively for optimal redundancy, protection, scalability and global portability.

ESSENTIAL QUALITIES OF GLOBAL XPRESS

SEAMLESS WORLDWIDE MOBILITY

Global Xpress is designed for global mobility with the space and ground segment elements that provide globally available and seamless connectivity through a network of advanced communications satellites in Geosynchronous Equatorial Orbit (GEO).

CONSISTENT CONNECTIVITY

The Global Xpress network takes advantage of its uniform worldwide seamless spot beam architecture for maximum mobility. When there are demand surges, Global Xpress directs its steerable beams for additional capacity. And when Global Xpress is complemented by L-band services in a hybrid format, users benefit from even greater resilience and frequency diversity.

RELIABLE SERVICE

Inmarsat sets the gold standard for safety services, and quality of service is fundamental to our business. We offer the only commercial network from a single operator that combine the best mobile technologies in Ka-band and L-band, and underpins them with a global, fully redundant ground infrastructure.

RESILIENT ARCHITECTURE

Resilience and redundancy aspects are embedded within the design of every Inmarsat satellite with full flexibility to manage and reallocate beams for optimization of global and mobile network coverage. Each satellite is supported by fully redundant Satellite Access Stations (SAS) interconnected through a resilient global ground network and connected to robust Points of Presence, as well as customer-designated, secure "meet-me" points. The end-to-end architecture is designed to meet safety of life and mission assurance needs, delivering the highest network availability demanded by government users.

INTEROPERABILITY

Global Xpress provides resilient, flexible and scalable alternatives for U.S. government, complementing MILSATCOM systems. Users leverage our services for core functions, while seamlessly integrating with MILSATCOM to address any remaining gaps for optimal redundancy, diversity, protection, scalability and global portability – the ultimate resiliency approach.

INTEROPERABLE WITH MIL KA

Inmarsat's high-capacity steerable beams operating in the military Ka-band allow authorized military users to access reliable and highly available wideband capacity as part of their own independent network. Military Ka-band (Mil-Ka) beams operate in loopback or connect into Inmarsat or government-owned Satellite Access Stations. Users access our military wideband capacity with terminals that are fully compatible with military satellite systems, such as the Wideband Global SATCOM (WGS) system, to fulfill their requirements and enhance their flexibility of operations cost-effectively.

On land, in the air or at sea, Department of Defense users can steer this interoperable capacity anywhere within the field of view of each satellite to complement WGS coverage. They can connect their existing WGS-certified terminals to a government-defined location, or through secure Inmarsat-provided enclaves into their preferred Point of Presence. With Global Xpress, military users get assured redundancy, diversity, protection, scalability and global portability – the ultimate resilience approach.

GX1-10 KA-BAND COVERAGE AND SERVICES (2025+)

We build and manage the global network infrastructure for you. Inmarsat-owned and managed redundant systems – satellites, ground infrastructure – as well as type-approved terminals are always evolving. Without any capital investment on their part, users benefit from always-on access to rapid, reliable, worldwide satellite connectivity and managed services.

GX1-10B | Not Covered
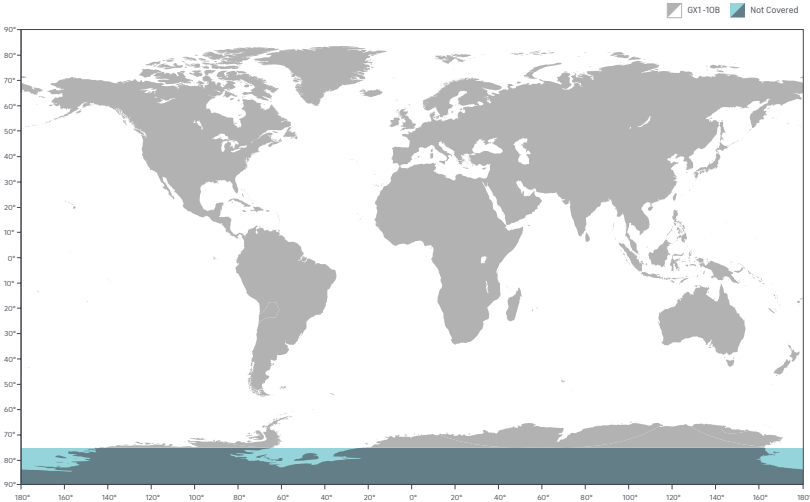
SIMPLIFIED USER EXPERIENCE

Users benefit from BGAN-style ease of operation – now available in wideband VSAT – enabling high-throughput applications, such as high-speed internet, live full-motion video and video teleconferencing. And they subscribe to always-on services available globally, a true global roaming service with assured quality.

EASY-TO-USE TERMINALS

A broad selection of compact and affordable type-approved terminals is available in mobile, portable and fixed formats from industry-leading manufacturers for land, aero and maritime environments in both commercial and military form factors. With one-touch commissioning, operation is as simple as a cell phone — turn it on, and you are connected. This removes the manual network commissioning processes required for traditional VSAT systems.

CYBERSECURITY BEST PRACTICES

Global Xpress provides reliable assured access that is built to meet cybersecurity best practices with support from a dedicated cybersecurity team. Global Xpress commercial services and infrastructure are designed to meet the National Institute of Standards and Technology (NIST) 800-53 Low Impact category controls. Military authorized users have the option to field specific technology and equipment in Global Xpress secure enclaves built at Inmarsat's Satellite Access Stations (SAS) placed in NATO and Five Eyes nations. The Global Xpress secure enclaves and network are able to meet the NIST 800-53 High Impact category controls.

GLOBAL XPRESS - THE ULTIMATE RESILIENCE APPROACH

- Worldwide wideband coverage
- Redundant ground infrastructure
- Seamless mobile roaming
- Interoperable with Mil-Ka systems
- Steerable beams for flexible network capacity
- Smaller, easy to use terminals
- Simplified user experience
- Customized solutions

GOVERNMENT MOBILE SOLUTIONS

- Manned/unmanned Airborne Intelligence, Surveillance and Reconnaissance (ISR)
- Government maritime
- Comms on the move
- Operational theatre backhaul
- Tactical communications
- Command and Control (C2)
- Situational awareness
- Battlefield information systems
- Broadband IP network interconnectivity
- Emergency response
- Disaster recovery

END-TO-END MANAGED SOLUTION

Inmarsat-owned and managed end-to-end wideband capabilities include robust space, ground and terminal segments, at a much more affordable cost and much faster rate than allowed by the current government acquisition model of buying many regions of MHz (often redundant for coverage flexibility) and separate inefficiently used ground infrastructure. This frees up military members from administering disparate networks, allowing them to focus on critical warfighting operations, while maintaining full mission effectiveness through guaranteed service levels.

inmarsatgov.com/capabilities/global-xpress/