eBook



Flex Ground
POWER MISSION SUCCESS
for Ground Forces with True
Broadband Communications



# **Trapped by Current Connectivity Choices**

Today's ground military forces and humanitarian aid workers are familiar with conflict and the need to address crisis situations at a moment's notice, even in the most remote areas. The ability to send and receive communications is essential in determining mission success or failure. However, current offerings often fall short of today's requirements for ground communications. Options for ground forces miss the mark in the areas of:

### **PERFORMANCE:**

Low data-rate L-band and Ka-band communications offerings in the market today either fail to provide the data rates needed to meet high-speed voice, data, and video requirements or provide it cost-effectively, both of which are needed to help ground forces stay connected and make well-informed decisions in the field.

#### **EASE OF USE AND DEPLOYMENT:**

Forces in the field still depend on push-to-talk radios or low-bandwidth satellite communications in remote areas where coverage is lacking. Terminals are often large and bulky and require skilled users to deploy them.

### **AFFORDABILITY AND PRICING FLEXIBILITY:**

Currently, users must either buy full-time leases to have capacity available when and where they need it, or pay high per-minute rates.

#### **COVERAGE:**

Current networks offer a low-throughput, L-band or Ka-band network with no depth-of-coverage over any region. These systems lack resiliency which can result in ground forces losing coverage when it's needed.



# FlexGround Delivers

It's now possible to free yourself from the restraints of current connectivity challenges. Where other offerings fail to meet the mark, FlexGround delivers. Key features that distinguish FlexGround from current offerings include:

### **PORTABLE TERMINALS:**

Grab-and-go Comms-on-the-Pause and Manpack terminals make it easy for even the least experienced user to set up and achieve connectivity nearly instantaneously.

#### A HIGH-PERFORMANCE NETWORK:

With data rates of up to 10 Mbps x 3 Mbps, FlexGround is able to support the increasing need for high-performance video, voice, and data applications in ground user communications.

### **GLOBAL FLEXIBLE COVERAGE:**

The Intelsat network is comprised of satellite and terrestrial components that cover 90% of the world's population. FlexGround leverages the Intelsat Epic high-throughput satellite platform for worldwide coverage. With FlexGround, ground forces can depend on reliable, resilient coverage anytime, anywhere.

### A FLEXIBLE PRICING STRUCTURE:

Other offerings on the market today provide bandwidth that must be leased on a full-time basis to be ready for surges. FlexGround users can enjoy affordable pricing on their ground communications services with pay-as-you-go, monthly, unlimited, and pooling payment structures formulated to fit individual needs; on a regional or global basis. This is costly to maintain, considering bandwidth could sit idle for stretches of time if it is not needed.





# Operators Require a Best-in-Class Experience

As a complete, end-to-end global managed service, FlexGround enables always-on broadband capabilities worldwide with reliable satellite connectivity made simple for the user. FlexGround users can enjoy the following benefits of a managed service:

- **Ease of use.** Managed services provide a simpler, more flexible way to buy capacity on our existing network. And, users do not need satellite expertise to operate on the FlexGround network, as Intelsat General manages all of the satellite operations. Intelsat General has also taken on the work of pre-qualifying antenna terminals on the Flex network.
- Less risk. Intelsat General ensures the network operates the way it's supposed to, for FlexGround users. With 50+ years of experience in satellite communications, we're the leading experts in satcom network solutions.
- Lower capital expenditure. Creating a dedicated network takes significant time and capital. Intelsat General owns and operates the entire hub and infrastructure, resulting in peace of mind for users not interested in building out their own satellite and terrestrial infrastructure.
- No interoperability concerns. With an end-to-end managed service, users can rest assured that all equipment on the network is compatible. Intelsat General handles the set-up and ensures everything works properly.
- **Bandwidth when and where it's needed.** Intelsat General takes the guesswork out of bandwidth availability. FlexGround has dedicated global capacity for its users, meaning it's available whenever it's required.
- Capability to access HTS without having to purchase capacity on a spot-beam-by-spot-beam basis. FlexGround users experience instant access to the Intelsat Epic high-throughput satellite network made up of small, powerful spot beams. A managed network reduces the complexity of operating numerous spot beams covering large areas of ground.

# The Best in Class from Ground to Space

With ground, space, and network platform segments all managed by Intelsat General, FlexGround users can enjoy an increased level of security and coverage, with 24/7 support through the Intelsat General Secure Operations Center (ISOC).

### **Ground:**

The IntelsatOne terrestrial infrastructure works seamlessly with Intelsat satellite technology to support hybrid satellite and fiber connectivity. It is a fully redundant and diversified meshed network consisting of eight teleports located strategically across the globe, enjoying integrated connectivity with Intelsat Cloud partners.

### **Space:**

Intelsat General provides robust high-throughput and wide-beam global satellite coverage, with over 50 satellites in-orbit worldwide. These space assets are equipped with responsive capabilities to meet dynamic demands.

### **Network Platform:**

Both ground and space components make up an integrated ecosystem, providing the world's most extensive and secure communications network. This network platform allows for simplified satellite acquisition, seamless beam switching, rapid provisioning, and network transparency through the customer portal.



# Power Ground Missions with a Trusted Infrastructure

Security threats are often unpredictable, are increasingly sophisticated, and occur on a global scale. Secure communications are non-negotiable for forces on the ground. Existing L-band networks provide no depth-of-coverage over any region, making data susceptible to hostile jammers and other cybersecurity threats. Resiliency is paramount in contested environments.

Intelsat General provides the highest level of security in the commercial satellite industry, as the only satellite operator with 3rd party SOC compliance. Intelsat General meets and/or exceeds all cybersecurity standards set by the DoD. This means FlexGround users are able to access and send information with a network that provides greater interference mitigation and resiliency. Intelsat General maintains a centrally managed cyber-security program aligned with the NIST Risk Management Framework (RMF) to meet stringent customer requirements.

FlexGround users experience an added level of resiliency and security on the Intelsat Epic<sup>NG</sup> high-throughput satellite network. Intelsat Epic<sup>NG</sup> is a high-performing, resilient, and redundant network with enhanced anti-jamming capabilities helping to support military missions on land, at sea, and in the air.



With 24/7 network monitoring, carrier activation and troubleshooting, and call management, users can rest assured Intelsat General will be there for them when and where they need support. The Intelsat General team of specialists are trained to support satellite as well as terrestrial networks, and are adept at managing globally integrated networks for high-demand customers with a focus on maintaining customer anonymity.

# **Use Cases**

FlexGround is suited to support a range of ground forces, from humanitarian aid workers to soldiers in combat. Some applications of FlexGround services include:

## Early entry:

Forces entering harsh environments for the first time face challenges related to a lack of appropriate infrastructure and cell coverage. These challenges prevent them from being able to meet their broadband demands for voice, data, and video for operational requirements and force protection. FlexGround provides true broadband globally, allowing ground forces to remain connected

### **Humanitarian Assistance Disaster Relief (HADR):**

Communications infrastructure like terrestrial and cell phone towers is frequently destroyed when natural disasters occur. Restoring communications is one of the top priorities for first responders and affected people seeking to get in contact with loved ones or gather information. FlexGround allows humanitarian workers to restore communication and relay important information quickly.

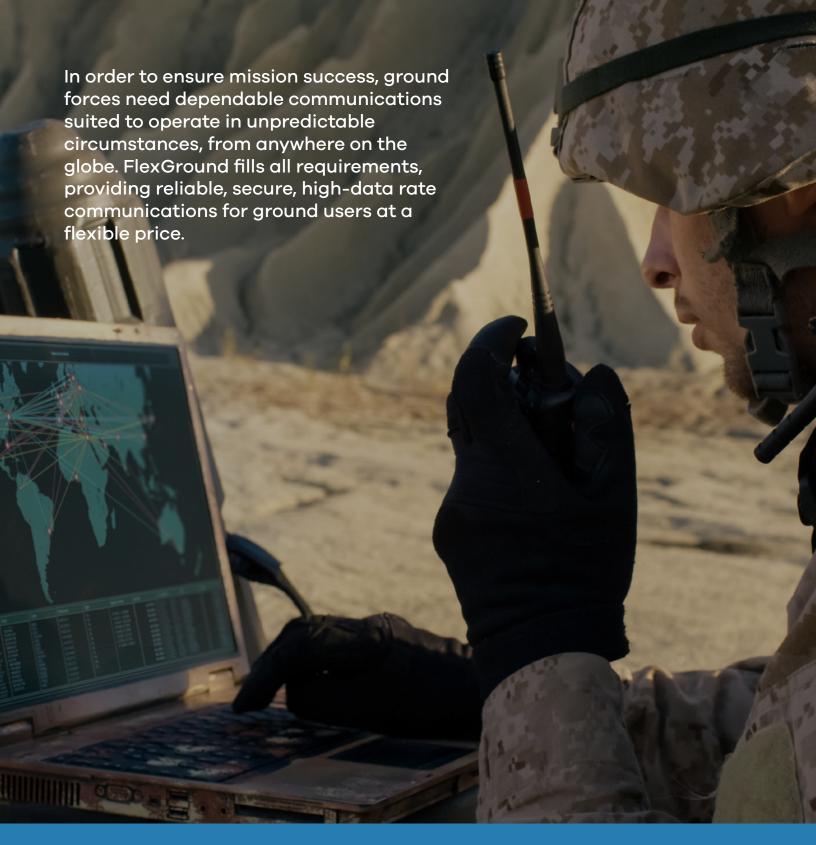
### Continuity of Operations (COOP):

In industries frequently facing uncertainty, organizations must be able to continue critical operations in a range of circumstances. Challenges arise when organizations face environments with inadequate bandwidth or vulnerability to terrestrial cuts. Satellite communications as an alternate, or complementary transport layer, is now within budget for users with FlexGround.

### Comms-on-the-Move (COTM):

Today's forces need to access and share information from wherever they are to maintain a tactical edge. Comms-on-the-Move platforms satisfy this broadband requirement by allowing users to access data, voice, and video applications while on-the-go.







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