inmarsat

EMERGENCY
RESPONSE

INMARSAT GLOBAL GOVERNMENT
COMMUNICATIONS MADE CERTAIN

INMARSAT TRUSTED BY GOVERNMENTS
MOBILE • FLEXIBLE • GLOBAL • RELIABLE • SECURE

TRANSFORMING FIRST RESPONDER COMMUNICATIONS

BGAN is the only mobile satellite service to offer simultaneous voice and data, through a single, highly compact device on a global basis.

It is also the first service to offer guaranteed data rates on demand for live video streaming, videoconferencing and telemedecine. BGAN terminals can be used indoors and outdoors, being robust enough to withstand challenging environments and extremes of temperature. Vehicular BGAN terminals comprise a tracking antenna for mounting on the vehicle roof and an interior unit.

Inmarsat's BGAN service is transforming emergency and disaster response operations with a compelling combination: voice and high-speed data, completely independent of terrestrial networks, using small, highly portable terminals.

BGAN provides communications operability from the first moment of a disaster response, even when terrestrial networks are disrupted. First responders can send status reports, images and live video from the moment

they arrive on site, enabling the immediate, effective co-ordination of relief efforts – improving response times, which can ultimately save lives. If responders need to move between locations they can use vehicular BGAN to send emails and make calls while on the move.

BGAN also ensures interoperability for individual firefighters, police officers and emergency responders as they enter the disaster zone with different communications devices. So, whenever your first responders deploy, BGAN keeps them connected.

APPLICATIONS

- Mobile command post: email, internet, VPN, telephony
- Connectivity between individual first responders, mobile command posts and off-site leadership, including using their standard HF radios and cell phones
- Fixed or vehicular mobile command post: supporting multiple users from a single device via a WLAN
- Situational awareness and reassurance using live video from disaster sites.

BGAN IN-FIELD EQUIPMENT

- BGAN satellite terminal
- BGAN voice handset
- Laptop (MAC or PC)
- Power adapters AC/DC, batteries, cables

KEY BENEFITS

SIMULTANEOUS VOICE AND DATA

- Quickly re-establish essential communications in a disaster zone, regardless of the state of terrestrial infrastructure
- Send status reports, images and video footage quicker in crisis situations
- Responders can speak to off-site leadership, while sending a live video update

RELIABLE

- Continue rescue efforts unimpeded by disruption to terrestrial wireline and cell phone infrastructure
- Network capacity can be dynamically re-directed to areas of high usage
- Ensures bandwidth availability is maintained as other agencies enter the disaster zone
- Range of highly robust, satellite terminals to withstand challenging disaster environments

EASY TO USE

- Quick and easy to set up and shut down
- No technical expertise required – enables connectivity for individual first responders

HIGHLY COMPACT

- Easily carried in a backpack with other emergency equipment and transferred between locations within the disaster area
- Vehicular interior units take up minimal space in the car, with a discreet tracking antenna mounted on the roof

FLEXIBLE

- Compatible with sector-specific 3rd party peripherals e.g. interoperability bridging equipment/pico cells
- BGAN supports both ISDN and IP – compatible with US Defense Department encryptors – and supports a wide range of IP-based interoperability solutions
- There are terminals that enable an instant wireless LAN so that remote teams can share a single BGAN connection
- Vehicular version provides on-the-move connectivity for small mobile command posts and fits into a standard garage
- Can be used without a laptop interface
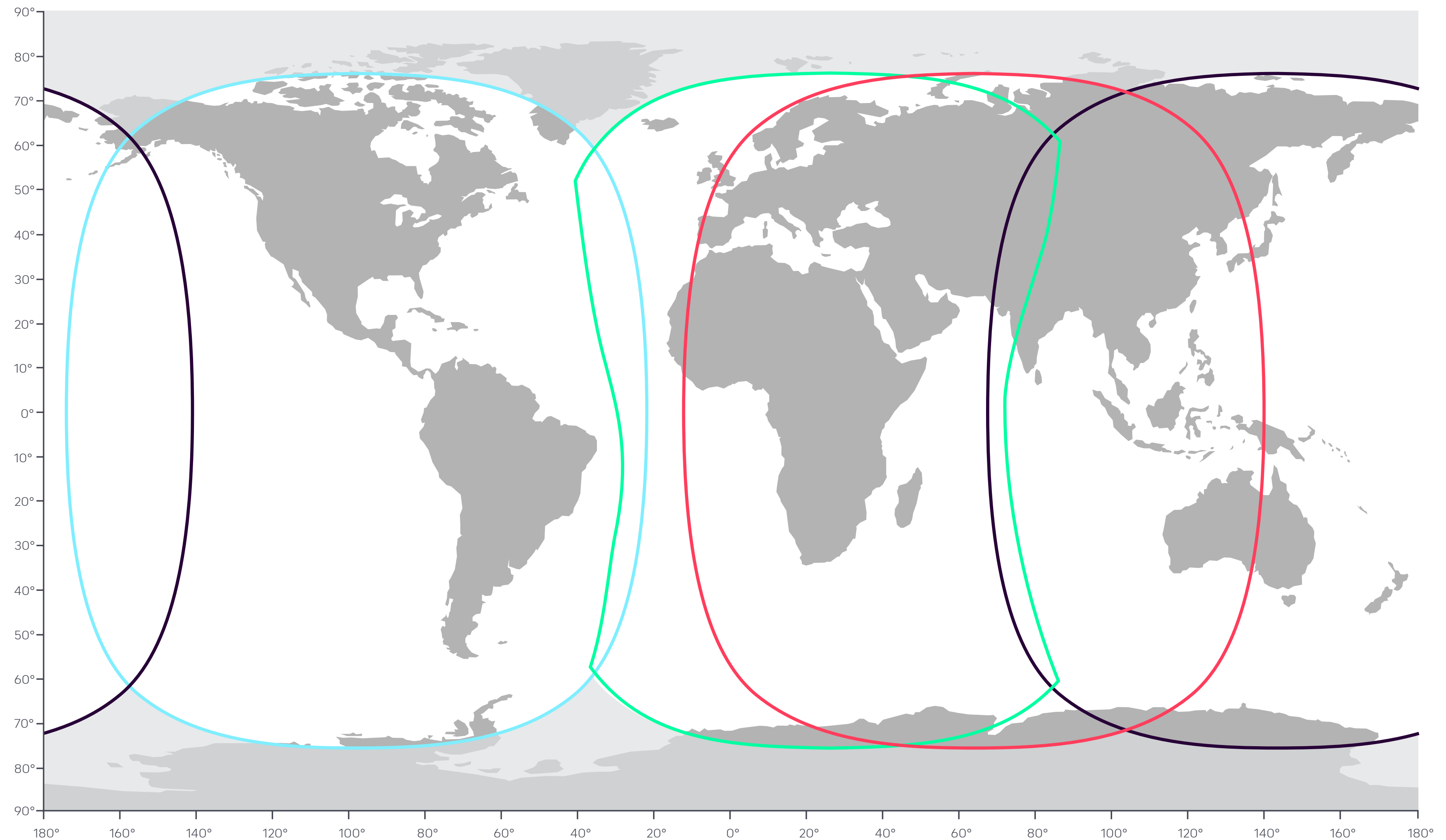
COMPETITIVELY PRICED

- Significantly lower costs for both terminals and airtime compared with previous mobile satellite services
- Can be deployed to more mobile teams, enabling real-time communications from more locations – ensures the right assistance gets to the right place at the right time

OUR
COVERAGE
I-4 NETWORK

This map is for general information purposes only and no guarantee is given of accuracy or fitness for a particular use. Coverage is subject to change at any time.

PTT BGAN

Unrivalled resilience to terrestrial voice and data networks through satellite augmentation using the world leading BGAN network

THE PROBLEM:

Lack of coverage - No radio link extensions across sites and large areas resulting in no means of communication when outside traditional radio coverage

Safety - No ability for staff tracking outside radio coverage

Maintenance cost - Extensive maintenance cost for ageing radio networks

Lack of cross agency / department talk groups - Inability to communicate between different radio networks and / or frequencies

Redundancy - No means of backup communication when the LMR/ DMR infrastructure is down

THE CHALLENGE:

Find a solution that allows government Push-To-Talk (PTT) radio users to be fully interoperable with all other radio users and have crisis proof communications using their existing equipment.

THE SOLUTION

Inmarsat's BGAN Push-to-Talk (PTT) Solution combines real-time telemetry data transfer from critical assets with seamless Push-to-Talk voice communication, with satellite coverage that extends beyond the limits of terrestrial networks.

The solution is built upon our highly reliable BGAN service, which operates with 99.9% network availability, ensuring connectivity when you need it.

The solution utilises low form factor BGAN terminals like the Cobham EXPLORER 325 and 323, which are perfect for mounting on vehicles, locomotives and other machinery. The EXPLORER 323 terminal is the first of its kind, equipped with Inmarsat Class 12 type approval, which when combined with the smart PRISM PTT radio communications system, can be easily integrated to extend voice communications beyond line of sight.

THE TERMINAL

BENEFITS:

- Improve situational awareness and assessment: send and receive situation reports, real-time images/videos between operational teams and control centre
- Optimise units dispatch: send dispatch information to units based on real-time GPS positioning,
- Improve response time by optimising route: access to real-time information regarding traffic, providing access to live-route planner
- Optimise coordination of emergency teams response: ability to communicate with all deployed teams at the same time delivering the capability for teams to communicate with each other
- Improve medical assessment time: first responder personnel can access patient medical file and use telemedicine to provide fast treatment and send ahead videos and images from the scene
- The M2M capability delivers a reduction in vehicle maintenance costs, unexpected failure and repair time through access to vehicle telemetry allowing predictive maintenance
- Improve collaboration with other units/agencies: Ability to communicate with teams/individual deployed in remote areas to communicate aid requests, safety status, group messaging and sharing images/videos across wider group
- Always available seamless communication on-the-move and on-the-pause: real-time monitoring of the emergency
- No installation cost: Solution installed on vehicle roof via magnet mount: easy installation that can be moved be moved between vehicles
- One solution can support multiple users: Vehicle can be used as a communication hub for multiple users, leveraging existing equipment such as phones, existing handset, IoT (medical connected devices)
- Predictable budgeting allowing forces to anticipate cost by including it in budget

EXPLORER 323: ULTRA-COMPACT COMMS-ON-THE-MOVE BGAN TERMINAL.

EXPLORER 323 is an ultra-compact BGAN terminal for voice and data communication on-the-move. The one-piece system consists of a combined transceiver and switched beam antenna with integrated Wi-Fi. It is designed for robust and durable use with no moving parts. Simply place the terminal on the roof - it is easily mounted with optional magnetic mounts - and connect your phone to the EXPLORER app or log onto the wireless network with your PC to turn the vehicle into a mobile communication hub.

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