

# Where to BGAN?

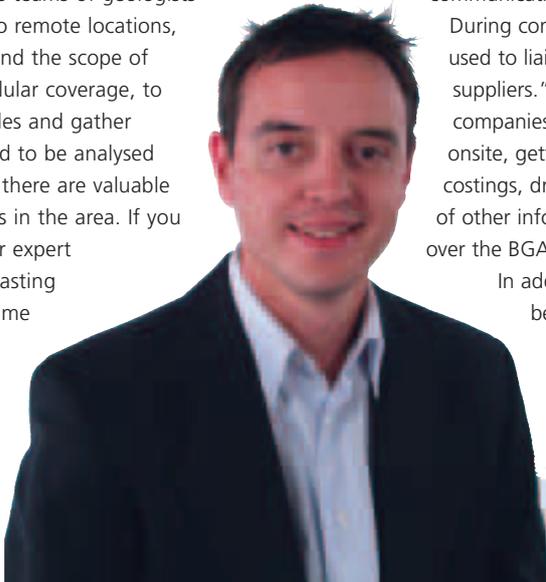
Stratos Global Corp is one of the largest distributors of Inmarsat's mobile satellite offering, BGAN. **Hugh Donnan**, Manager, Enterprise Vertical Market, Stratos Global Corp talks about the qualities of the BGAN system and how it can be used at different stages of the mining process

"For remote professionals in the mining industry, the need is growing rapidly for real-time information and remote-office connectivity. Personnel in the field require fast, dependable communications with operation centres in order to meet operating requirements and maximise efficiencies," Donnan explains.

Inmarsat's Broadband Global Area Network (BGAN) service is one way of tackling the need for quick and accurate information transfer. It is a mobile satellite offering using portable, lightweight terminals to provide video (up to 384 kbps streaming), high-speed data (up to 492 kbps) and voice connectivity anywhere in the world. Donnan says that "BGAN enables communications in areas where terrestrial or cellular networks are damaged, congested, non-existent or too difficult to deploy."

BGAN is able to do this through "the most versatile and reliable satellite network in the world," according to Inmarsat. The company owns and operates 11 satellites in geostationary orbit 35,786 km above the earth, controlled from its headquarters in London via ground stations all over the globe. This helps users obtain a quick and reliable connection from almost anywhere in the world.

These qualities are best used in exploration. As Donnan describes, "In the exploration phase, you have teams of geologists venturing out to remote locations, often well beyond the scope of fixed-line or cellular coverage, to take rock samples and gather data which need to be analysed to see whether there are valuable mineral deposits in the area. If you don't want your expert geophysicists wasting hours of their time travelling to these remote locations, then you need a way to get the data back to them to



work on in a timely manner."

Once results have been verified and the mine is proven economically viable, "the company can use BGAN to establish a communications infrastructure within minutes, expanding on this to aid the construction process until fixed-line communications are established.

During construction, [it] can be used to liaise with contractors and suppliers." This helps mining companies co-ordinate with teams onsite, getting progress reports, costings, drill results and a variety of other information immediately over the BGAN network.

In addition, "the service can be used for telemedicine applications in the event of accidents or illnesses, and for voice communications between workers employed on different parts of the site."

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## In action

BGAN has already had much success in many projects all over the world. It has been successfully deployed by Toronto-based Phoenix Geophysics. Ron Goulard, a Technology Officer for Phoenix, said the advantages of BGAN include: "The requirement of fewer people in the field; more efficient troubleshooting; faster transmission of data; and savings in transportation costs."

Phoenix is a leader in magnetotelluric and induced polarisation instrumentation. Its systems are used in more than 80 countries for exploration and research. The company's crews conduct field surveys in all terrains and climates, from ice-covered barrens in northern Canada to tropical jungles in South America. Since the company works on projects all over the world, it can experience a variety of communication coverage. By using BGAN equipment the company ensures a reliable

network wherever it is working in which it can upload information, contact colleagues and acquire site information.

In Australia, surveying company Haines Surveys is also using BGAN with great success during the exploration phase. Haines undertakes geological surveys on behalf of mining companies and is able to send the information it obtains directly to its clients through the network. Haines specialises in gravity data acquisition and has the capability to work worldwide in extreme and remote locations using state-of-the-art survey data gathering equipment. This global presence is a reason for using the BGAN systems. It helps speed up the analysis by mining companies allowing them to gain an up to date understanding of the prospective mine and make an informed decision on whether to proceed to the next stage.

### BGAN Enhancements

Stratos offers many additions that complement BGAN's use. Donnan: "Stratos Dashboard is the foundation of 'The Stratos Advantage' services for BGAN. To monitor and control costs, the online Stratos Dashboard provides real-time information on the amount of BGAN traffic used for voice and data, and the associated costs."

The consistent coverage of BGAN is one of its advantages. This is enhanced by "Stratos IP Access for BGAN. This enables customers to benefit from all possible types of Internet access via public, private, static and dynamic IP addresses – providing support for all applications and network requests.



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"To ensure data optimisation, Stratos has upgraded its StratosNexus network infrastructure to a fully IP-based system that supports end-to-end streaming, personal firewalls and satellite-optimised data compression."

Donnan continues: "BGAN leverages Stratos' global Internet points-of-presence and

enhanced terrestrial core network to ensure fast delivery of data traffic once it hits the ground. Customers have access to dedicated point-to-point leased line and ISDN connections to provide a reliable and efficient solution to bring mobile satellite traffic from the field to their headquarters' office in the most reliable and secure manner.

"Stratos GuaranteedAccess extends BGAN's guaranteed bandwidth (streaming 32, 64, 128, 256, 384+ kbps) to the terrestrial infrastructure, either ISDN or via leased lines. Customers using Stratos GuaranteedAccess receive end-to-end guaranteed bandwidth, ensuring that they always receive the capacity for which they pay."

The Stratos Advantage also has a customer-managed firewall. This "personal firewall resides between the Internet and the BGAN network. It provides additional security and cost savings by blocking specific web traffic and applications via an online, user-friendly interface. It also allows customers to block access to streaming services which can prevent unwanted high costs.

"Stratos BusinessAccess for BGAN lets corporate customers easily extend their Local-Area Networks (LANs) to BGAN-connected laptops, creating a fully private network between a company's BGAN users and the corporate intranet." **IM**