



Danielle Edwards, Product Marketing Manager at NSSL

Vehicular BGAN

Helen Jameson talks to Danielle Edwards, Product Marketing Manager at NSSL about the advantages of vehicular BGAN for military communications-on-the-move applications.

Question: How long have vehicular BGAN services been available?

Danielle Edwards: It's been available now for between four and six months. There was a test period between December 2006 and January 2007 but we have been actively selling it for between four and six months.

Question: Has the service had a good take-up by the military?

Danielle Edwards: It's a work in progress. When you are deploying in that kind of environment there are many points to consider - how do they integrate it into their network? How do they run certain applications that they think they are going to need? We have had more and more queries and a lot of interest in it but like a any new product it has been relatively slow while we prove the content by making sure that it can be integrated into their network and can provide the services that they need to carry out while on the move.

Question: What is BGAN and what are its vital statistics?

Danielle Edwards: BGAN launched in No-

vember 2005 and there are basically five salient points to BGAN. It's true broadband so it replicates the service you have at home either on the move or in a remote location. And by true broadband I mean very much like your BT service where you get 8mbps service which means you get 8mbps most of the time but if someone is downloading a great deal of information or video then this is reduced.

So what we mean for true broadband on BGAN is that you get up to 492kbps in both directions but it also has the ability to switch on an 'on demand' service and will take call and dedicated or streaming IP and that means it's much like having a leased line into your office. BGAN can offer a 32, 64, 128 or 256 as a dedicated channel. So you have the best of both worlds.

For everyday operation where you are for example sending emails, connecting to your VPN you can use the DSL type service which is charged simply for the data sent and received but for mission critical applications like VoIP and video streaming you can switch on this dedicated service for which you get charged per minute for business critical and

NSSL awarded prestigious MoD communications contract until 2020

NSSL has been awarded the extension of a major contract to become the sole provider of commercial satcoms for the UK Ministry of Defence (MoD). The contract, which comes under the umbrella of the Skynet 5 PFI, is until 2020 and reflects the good relationship enjoyed between the Ministry of Defence and NSSL over the past 20 years.

The value of the contract is in excess of £200m and will involve NSSL supplying handsets, DVB services, BGAN (Broadband Global Area Network) and integration assistance to MoD units around the world. The equipment will be used by MoD personnel for support and administrative purposes, as well as strategic communications. This extension of contract will save the MoD money as it provides for efficient economies of scale, which means funds can be assigned elsewhere.

MoD spokesperson Lt John Gordon (CINCFLEET Staff) said: "It is vital that MoD personnel can rely on competent and secure communications wherever they might be in the world. NSSL has worked with the MoD for a number of years and we have always been delighted by the high quality of customer service and technical support. We are looking forward to working with NSSL for the foreseeable future."

Commenting on the contract win, Bob Chewter, Managing Director of NSSL said: "NSSL has always had an extremely good relationship with the MoD. Indeed, we have been providing them with equipment for over 20 years now. That doesn't take away the significance of this contract win for us, especially at a time when remote communications are ever more vital to the British military, and we look forward to providing an excellent level of customer support."

ABOUT NSSL

NSSL Ltd is an independent service provider for satellite communications solutions, and one of the top Inmarsat service providers worldwide.

With a wide range of services and extensive experience of systems integration and application development, the company is strong in the maritime, government, energy, media, finance and corporate sectors. NSSL provides voice, data and broadband solutions anywhere in the world.



time critical applications.

Traditionally, communications on the move up to the launch of BGAN was an either or scenario. So, it could do voice and it could do data but not at the same time. It was pretty much like the dial-up Internet solution we all had in our home five or ten years ago. This is the way that satellite communications-on-the-move was before BGAN. But now, with BGAN you can be running your data application and still make and receive phone calls at the same time.

The devices are also a lot smaller and more compact than they have ever been before. So that's BGAN – true broadband, simultaneous voice and data, and the ability to have dedicated bandwidth if necessary. To have one unit with global coverage is quite important so that you are not having to reconfigure the terminal every time you move into a different geographical area. It's just a matter of re-pointing the terminal and you're away for on the move or remote communications.

Question: What services does vehicular BGAN offer to soldiers on-the-move?

Danielle Edwards: For soldiers on the move it will do voice (standard 4kbps voice), it will do dedicated bandwidth of up to 464 on the move so it's slightly less than a fixed remote site which is 492, our standard land mobile BGAN. Plus it will give you a dedicated channel of up to 256. So, it is exactly like BGAN but the difference is that you can be in your Land Rover on the move, and you can take advantage of available services.

Question: Why is BGAN particularly well-suited to communications-on-the-move in the context of the battlefield?

Danielle Edwards: The BGAN antenna is ruggedised and suited to harsh conditions. But I think the biggest benefit is the fact that you do not have to park up somewhere in order to communicate which is so difficult in that kind of environment. Plus, in terms of the media environment that tends to follow the same kind of geography as the military do, there is the benefit of being able to do all your business applications and your communications without having to stop the vehicle in a potentially inhospitable location. So it does everything a BGAN does but you don't have to be stationary to do it.

Question: Soldiers are often forced to work in harsh and challenging environments where many things are going on at once. How simple is the system to deploy and operate?

Danielle Edwards: It is incredibly simple. You just plug it in. There's two ways you can operate it. For those who are engineering savvy they can simply connect to the equipment and they are away. For users who maybe don't have a technical background there is a

NSSL helps speed up contact between UK families and soldiers in the field

NSSL is helping UK troops to keep in touch with home while they serve abroad. Some relationships between soldiers and their loved ones are negatively affected due to the lack of speedy communication. Now, thanks to NSSL's support, communication has vastly increased in speed from weeks to days and sometimes even hours. Military experts believe that regular communication with home is an essential part of retaining effective fighting forces and enhancing general morale.

The system is called 'Bluey' and enables soldiers stationed in areas like Afghanistan, which suffers from poor terrestrial coverage, to get messages to and from family members quickly and easily. The name 'Bluey' derives from pre-electronic messages which were printed on blue paper. There are three types of 'Bluey':

- eBluey (text only: email via web portal converted into letter)
- FaxBluey (scanned copy of fax converted into letter format)
- PhotoBluey (text and photo via portal converted into letter)

At present, 90 percent of messages from UK forces in Afghanistan to loved ones comprise of 'FaxBluey', which works by scanning in written letters and then printing them off in the UK. In comparison, only 10 percent of messages being sent to Afghanistan comprise of 'FaxBluey'; the rest are made up of 'eBluey' and 'PhotoBluey' messages. Family members simply log onto the internet, type their message and click send. The message is sent from a web server to the nearest Forces Post Office 'in field' where it is printed and supplied to the soldier.

'Bluey' makes use of entry level BGAN which enables remote access from virtually anywhere in the world. To connect to entry level BGAN users simply plug in a highly portable satellite terminal to their laptop. Prior to 'Bluey', UK forces relied on Iridium satellite phones which, at 2.4 kb/s, were notoriously slow. NSSL is now providing support to seven 'Bluey' sites in Afghanistan.

Major Adrian Spicer, who has hands-on experience of using 'Bluey' 'in field' commented: "NSSL support has been fantastic. At the moment the 7,000 UK troops based in Afghanistan are receiving 12,000 messages per week and sending 8,000 messages. This sort of technology means that more families can keep in touch, which means better relationships and ultimately happier and more motivated soldiers."

Danielle Edwards, Product Marketing Manager at NSSL said: "Providing satellite equipment to the British Army was a great way to prove that the kit we supply not only works in the toughest of environments but is often the only way to keep in touch. We're glad that the technology we provide is having such a positive impact on the morale of UK forces and helping them feel just that little bit closer to civilisation."

software interface that guides them through everything from setting up the data connection to making a voice call, to sending SMS messages if necessary, so it does cater for both. You don't need the software if you are vaguely technically savvy but for users who don't have experience there are instructions there to guide them through each step in the process.

Question: In the highly sensitive environment of war, how secure are transmissions to and from vehicular BGAN?

Danielle Edwards: Well, just on a clear call it has the same issues that most satcoms do but there are various devices that can be plugged in that military customers come to know and love quite dearly, like encryption. There are devices that may be plugged into the BGAN to secure those communications.

Question: What are BGAN's advantages over other COTM solutions?

Danielle Edwards: The biggest advantage is being able to do voice and data at the same time and the fact that it's true broadband. It's full IP and communications while doing voice at the same time and text messaging if necessary. ■

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