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OIL AND GAS

BGAN HDR CASE STUDY

ALGERIE TELECOM SATELLITE AND INMARSAT SUPPORT GROUPEMENT BERKINE IN ALGERIA

KEY BENEFITS OF BGAN HIGH DATA RATE (BGAN HDR):

1. Performance: standard IP at a rate of up to 800kbps with a low latency from 800 milliseconds.
2. Reliability: operates over the Inmarsat L-band global satellite and ground network, with 99.9% availability.
3. Easy to integrate: simple for field teams to set up, integrate and maintain without technical expertise or training.
4. Cost effective: low-cost terminal, low data rate plans with no reconnection fees.
5. Enhanced support: free firmware upgrade over-the-air.
6. Easy to manage solution: remote terminal management, debugging and configuration options.



Groupement Berkine deploys BGAN HDR to help save time and money with real-time data exchange from remote drilling sites.

ABOUT THE COMPANY

In 1998, Anadarko Petroleum Corporation and Sonatrach, the national state-owned oil company of Algeria, formed a joint operating association called Groupement Berkine (Berkine). Despite the acquisition of Anadarko Petroleum by Occidental Petroleum (Oxy) in 2019, Berkine's operations in the Berkine Basin of Eastern Alegria have continued, predominantly in the El Merk and Hassi Berkine South (HBNS) fields. To date, the company has discovered over 2 billion barrels of oil in Algeria.

THE CHALLENGE

Like many organisations across the oil and gas industry, Berkine's operations are characterised by far-flung drilling sites, adverse environments and demanding operating conditions, in order to respond to the growing global demand for energy. As

potential drilling sites become harder to find, exploratory teams are being sent to ever more remote and hostile locations in the Berkine Basin, Algeria, where cellular connectivity is non-existent. However, reliable connectivity is critical to these teams as they sink exploratory wells and share high volumes of data back to central drilling management teams to update them on progress, helping them reduce find time and improve operational efficiency.

Further, working on remote exploratory and production sites for extended periods can not only be an isolating experience, but it also presents Berkine with several health and safety

challenges. If something goes wrong and a field worker gets injured, the remoteness of many of Berkine's drilling sites means that having a reliable communications lifeline to the outside world is critical to its ability to respond to an emergency and the overall well-being of its remote crews.

To ensure that communication and real-time data transfer between their drilling sites and central management

teams is possible, Berkine had an existing VSAT (very-small-aperture terminal) satellite solution in place. However, due to the nature and remoteness of its operations, Berkine encountered situations where coverage was intermittent or even non-existent at various drilling sites. As such, they needed a more reliable, highly portable satellite connectivity solution that would ensure field teams could get connected within minutes of arriving on-site or in an emergency, no matter where remote crews were in the Berkine Basin.

Tarik Tafadjira, Senior IT and Telecom Engineer at Groupement Berkine, explained: "VSAT has been an important enabler for helping our crews stay connected. However, we were finding that, particularly when drilling teams were sinking wells in some of the remotest areas of the Berkine Basin, our remote crews were losing communications and the ability to efficiently transfer data with our existing VSAT solution. Consequently, we needed a satellite communications solution that was extremely reliable, as well as highly portable and easy for our

remote teams to deploy in an emergency and when our VSAT solution was out of range."

THE SOLUTION

Berkine set about finding the right partners who could provide a reliable back-up to its existing VSAT service. Berkine chose Algerie Telecom Satellite (ATS), a key partner of Inmarsat, and a leading provider of satellite communications and equipment. They quickly saw the potential to harness the benefits of Inmarsat's BGAN services, which are delivered via the Inmarsat-4 network, with 99.9 per cent satellite and ground network availability.

In particular, due to Berkine's need send high volumes of data, from test reports to images and video, to drilling management teams on a daily basis, ATS recommended Inmarsat's BGAN HDR (High Data Rate) service, which offers the fastest L-band speeds on the market, and supplied Berkine with Cobham SATCOM EXPLORER 710 terminals. The EXPLORER 710 is an ultra-portable BGAN terminal, which is suitable for live broadcasting



provides streaming rates over 650 kbps, as well as enabling users to connect their own smart devices for voice calling and connectivity.

A key requirement for Berkine was the need to have a portable, reliable and easy-to-use back-up connectivity solution. As the smallest Class 1 BGAN terminal in the world – weighing just 3.5 kg and the size of a laptop – the EXPLORER 710 met this requirement with ease. It can be packed-up easily and set-up quickly with no technical expertise needed, as well as being light enough for crews to rapidly establish a connection in unfamiliar terrain, unstable situations, or crisis scenarios. This rapid availability of robust and extensive communications ensures the real-time transfer of critical, detailed data direct

from drilling sites, enabling exploration teams to evaluate a prospective site rapidly, supporting more efficient decision-making and safer operations.

THE RESULTS

Berkine has been delighted with the results it has seen since reaching out to ATS. Before the implementation of the solution, the unreliability of the existing VSAT service meant that remote drilling teams often found themselves in situations where they had no means to communicate with central management's teams, posing a safety and efficiency risk.

However, since ATS has provided Berkine with EXPLORER 710 terminals, remote teams sinking exploratory wells can now send high volumes of data to central drilling management teams, from test reports to

images and video, no matter where they are located. This has helped Berkine ensure that it has a reliable back-up form of connectivity, improving the speed of its decision-making and making a significant contribution to the reduction of exploration costs and the improved safety of its remote crews.

Mr Tafadjira concluded: "Inmarsat has a history of reliability and a reputation for providing high-quality data, both of which we value highly. Having access to the EXPLORER 710 terminals was a real deal-breaker for our exploration teams as, without it, they were finding themselves without a form of back-up communications if the existing VSAT solution failed them. It was also so easy to set up. Whenever we needed a quick and reliable form of back-up communication, we now had the tools we needed to get online, send data and key

daily reports to central drilling management teams within minutes.

"Further, if something does go wrong out in the field and one of our remote field workers gets injured, for example, the high-quality live video streaming capabilities of the EXPLORER 710 terminals now ensures that they have

quick access a fast diagnosis and support from medical personnel hundreds of miles away. This has helped improve the safety and well-being of our remote crews even further, as well as minimising employee downtime to help improve operational efficiency."

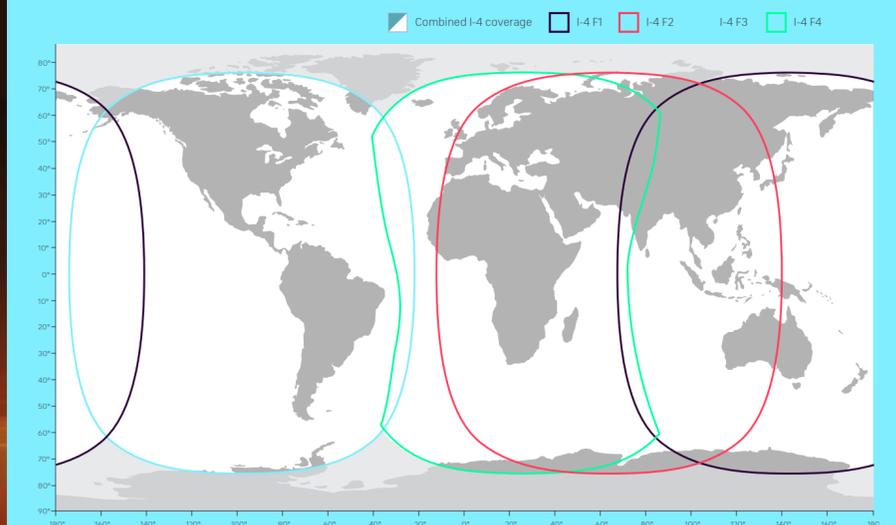


ABOUT INMARSAT

Inmarsat is the world leader in global, mobile satellite communications. It owns and operates the world's most diverse global portfolio of mobile telecommunications satellite networks, sustaining business and mission critical safety & operational applications for more than 40 years. It is also a major driving force behind technological innovation in mobile satellite communications,

sustaining its leadership through a substantial investment and a powerful network of technology and manufacturing partners. Inmarsat operates across a diversified portfolio of sectors and holds leading positions in the Maritime, Government, Aviation and Enterprise satcoms markets, operating consistently as a trusted, responsive and high-quality partner to its customers across the globe.

L-BAND COVERAGE





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