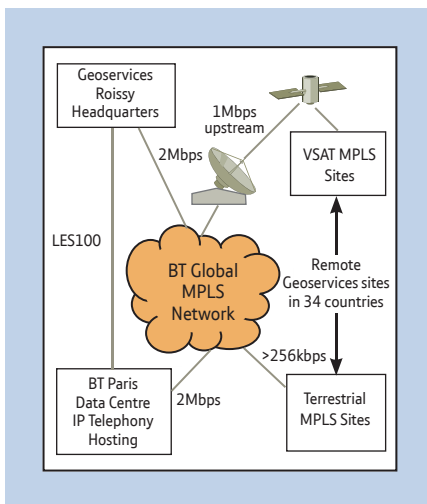


Oil and gas services company fuels business growth with a fully managed global network solution

A BT IP-based network combining terrestrial and satellite technology enables Geoservices to converge voice and data, improving connectivity to 34 countries at reduced cost



BT hosts IP Telephony for Geoservices on a global basis, yielding annual cost savings of over €500,000

Executive Summary

Geoservices is an oil and gas services company, with operations across the globe. Although the company had direct WAN links to its ten largest locations, communication to its smaller sites relied on public services. With an ever-increasing necessity for secure and reliable connectivity the company initiated a network transformation project aimed at improving communications with remote management teams. This global infrastructure would also need the bandwidth to enable the convergence of voice and data and support the rollout of central business and support applications.

The BT solution provides Geoservices with an enhanced, secure and reliable global network providing converged voice and data connectivity to all its worldwide locations at reduced cost and enabling the implementation of new business-wide applications. Cost savings realised from the deployment of IP Telephony are expected to total €500,000 per annum. That money is being reinvested to increase bandwidth in support of new business and support applications being implemented with the assistance of BT professional services.

A BT converged solution was chosen, which enables secure connectivity to 50 global Geoservices locations in 34 countries across five continents. At the heart of the solution is BT's global MPLS (multi-protocol label switching) network, with difficult-to-reach locations connected through satellite services or by IPSec VPN (virtual private network) tunnelling over the internet. The fully managed BT service includes the provision of centralised internet access, firewall and security services as well as BT MeetMe voice conferencing. With the core convergent network established BT was able to implement a hosted IP Telephony solution, initially at four locations then extending to 1,000 ports globally, operating over MPLS with Class of Service functionality enabled.

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Jean-Loup Bevierre
IT Operations Manager
Geoservices

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“We are very happy to be working with BT. Its people listen to us, they understand our needs, and they are easy to contact. Furthermore, the network is reliable and has made it easier for us to communicate both internally and with our clients. It will strengthen our business by supporting new business applications.”

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Marketplace

Geoservices enjoys an enviable reputation in the upstream – drilling and production – sector of the global oil and gas industry. Its core business comprises three principal services:

- Mud Logging – providing real time data from analysing the presence of minerals and gases in fluids brought to the surface during the drilling process
- Well Intervention – employing advanced techniques to increase well production
- Field Surveillance – consultancy to help optimise production from mature wells

The company employs close to 5,000 people spread across 34 countries and five continents – in all the main locations across the globe where natural oil and gas resources reside. With such a diverse workforce, communication technology plays a pivotal role in keeping employees informed and connected, to support business processes, and to enable the effective analysis and processing of data from the field.

Business opportunity

Geoservices managed its IT in-house but had not adopted a standardised approach to wide area network (WAN) connectivity. Although it had direct WAN links to its ten largest locations, communication to its smaller sites relied on the internet for email and costly public switched telephone network (PSTN) services for voice. Many Geoservices offices and field units in remote locations operated in very harsh environments, and communication links were unreliable. In addition, Geoservices had only rudimentary security measures in place.

The company initiated a network transformation project. Jean-Loup Bevierre, IT Operations Manager at Geoservices, explains the vision: “We needed to extend our network and build the foundation of a common global infrastructure to improve communications with remote management teams. The infrastructure needed sufficient bandwidth to support the rollout of central business and support applications and enable the convergence of voice and data.”

Geoservices issued a tender inviting a number of global network providers to propose a managed service solution that would provide the necessary secure worldwide connectivity. Jean-Loup Bevierre continues: “Only BT was willing to offer connectivity to difficult-to-reach locations such as Nigeria. BT proposed a combination of technologies backed by a strong commercial offer, and demonstrated that it could work with other companies throughout the world in delivering the service.”

BT solution

The BT solution enables secure connectivity to 50 global Geoservices locations in 34 countries across five continents. At the heart of the solution, BT’s global MPLS (multi-protocol label switching) network provides flexible and scalable any-to-any IP-based connectivity with the facility to prioritise time critical traffic over the network.

However, some locations – mainly in Africa and the Middle East – remained beyond the reach of the BT MPLS terrestrial network. For these sites BT proposed either IPSec VPN (virtual private network) connectivity over the internet, or celestial connectivity through its Satellite Broadband Enterprise solution. BT’s satellite solution for Geoservices is delivered through VSAT Systems iDirect services, enabling 1Mbps upstream connectivity. A key feature of this service is that all sites share the satellite bandwidth. This delivers improved performance with maximum utilisation of available bandwidth at a cost effective price.

The fully managed service from BT includes the provision of centralised internet access, firewall and security services. The BT solution also includes the BT MeetMe voice conferencing service, enabling any Geoservices employee to instantly set up a conference bridge from any location, so improving the company’s ability to effectively communicate both internally or with its major oil and gas company clients. In a further step towards outsourcing, Geoservices also engaged BT to take on responsibility for the day-to-day management of its fixed and

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mobile network service contracts for its operations in France. This centralised and simplified the administrative tasks for the small Geoservices IT team.

Jean-Loup Bevierre says: “The implementation of the new network went well. Most of the customer-committed dates were achieved and the reliability of the technology is good. With the global network established, we decided to sign a new agreement with BT to extend the contract to include IP Telephony.”

Geoservices uses a wide variety of PBX systems for voice communications, with calls routed via in-country PSTN. With an IP-based network extending to all Geoservices sites worldwide, there is now the opportunity to implement IP Telephony over the WAN. A pilot implementation commenced with an MPLS upgrade to enable class of service functionality. This allows prioritisation of time critical traffic, such as voice, over the network. The MPLS upgrade was followed by the installation of Cisco CallManager technology, hosted at BT’s Paris data centre.

Upgrade of local LAN infrastructure to support IP Telephony and the deployment of Cisco IP Telephones at selected sites followed, starting with the Geoservices headquarters at Roissy in France, Sandnes in Norway and Aberdeen and Dundee in the UK. A Cisco Unity unified messaging system completes the solution and provides the capability for voice mails to be managed in the same way as emails.

With the pilot a success, global rollout commenced with IP Telephony ultimately extending to around 1,000 network ports worldwide. The infrastructure is fully managed by BT from its Amsterdam Service Centre and the service incorporates comprehensive remote diagnostics capability with round-the-clock support.

Results

The fully managed BT service provides Geoservices with an enhanced secure and reliable global network, enabling connectivity to all its worldwide locations within a consistent architecture. It has enabled Geoservices to converge voice and data – improving and standardising connectivity, reducing cost and supporting the deployment of business-wide applications. Meanwhile BT’s security and anti-spam measures have substantially reduced the influx of unsolicited email messages.

The cost reduction is primarily delivered through the implementation of IP Telephony over the converged infrastructure allowing intra-company calls to be carried free of charge over the MPLS WAN (with local in-country break-out). The BT hosted system also facilitates the removal of localised PBX equipment, reducing administration and maintenance costs. The cumulative effect is that payback can quickly be achieved.

Jean-Loup Bevierre says: “We expect annual recurring savings of over 500,000 euros with the implementation of IP Telephony and we have decided to re-invest this money to enhance the bandwidth to each of our sites to support further planned business improvement initiatives.” This will see the tripling of bandwidth to most Geoservices locations in preparation for the implementation of central business and support applications. Geoservices has engaged a dedicated team of seven BT professional services people to help develop and implement the new applications within the Geoservices environment. The first implementation will be in Venezuela with a global rollout to follow.

The BT solution has also extended to the creation of a global directory of Geoservices people, improving staff contactability and intra-company communications.

Jean-Loup Bevierre sums up: “We are very happy to be working with BT. Its people listen to us, they understand our needs, and they are easy to contact. Furthermore, the converged network is reliable and has made it easier for us to communicate both internally and with our clients. It will strengthen our business by supporting new business applications.”

Why BT?

- The scale and global reach of BT network services backed by attractive commercial terms
- BT’s ability to work with other worldwide communications service providers to provide an integrated global solution
- BT hosting and managed service capability together with its wide range of skills and technical competence
- BT’s understanding of Geoservices requirements and business needs

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Technology blueprint

The BT managed service for Geoservices is hosted at BT's Paris data centre from where a 100Mbps LAN Extension circuit links the Geoservices headquarters at Roissy. The BT solution includes the provision of centralised internet access, proxy server hosting, managed firewall services, URL content filtering, BT MessageScan (anti-spam) and VPN SSL (secure socket layer) capability, enabling secure email access for Geoservices personnel over the internet from any computer worldwide.

Voice services are provided through two clustered Cisco Media Convergence Server (MCS) 7835 Unified CallManager appliances to provide a robust, highly available server platform running Cisco Unified CallManager 5.0 software. The CallManager servers are hosted at BT's Paris data centre and connected to Roissy and the legacy PBX through Cisco 2600 Series Multiservice Routers over the LAN Extension circuit.

Infrastructure at Geoservices remote sites connected to the BT global MPLS network comprises a BT-managed Cisco access router and Cisco Catalyst 2950 Series Switch, providing fast Ethernet access with Quality

of Service to support IP Telephony. At each remote site local PSTN access is provided through a Cisco 2821 Integrated Services Router for resilience.

The BT MPLS service used by Geoservices provides a variety of bandwidth options upwards from 64kbps and offers traffic prioritisation with three class of service categories. Class 1 is reserved for the highest priority voice traffic, class 2 for high priority data supporting key business applications and class 3 for other traffic including email, intranet FTP and internet breakout.

BT's Satellite Broadband Enterprise solution uses the Intelsat 901 @ 342°E up-linked from a BT site in the UK and providing high bandwidth connectivity to BT's global MPLS network. At the remote location a Cisco 1721 Modular Access Router is linked to an iDirect Netmodem broadband router connected to a 2.4m C Band antenna.

Main BT products and services

- BT's global MPLS network, internet access, hosting and managed security services
- BT hosted Cisco Unified Call Manager IP Telephony solution with Cisco Unity unified messaging
- BT supplied and managed Cisco LAN switching and routing technology
- BT Satellite Broadband Enterprise solution from BT Media and Broadcast
- BT MeetMe voice conferencing service
- BT professional services

Offices worldwide

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