

Digitization driving the future of natural resources

Case studies on the business value of transformation



**Business
Services**



Building a sustainable future

Connectivity and big data are key to sustainability in the natural resources sector. Cheaper sensors and enhanced connectivity driven by increased compute power is creating a truly connected industry. As a result, big data analytics is maximizing operations and asset performance while reducing costs, thanks to smarter decision making.

New technologies coupled with data-driven insight can help the natural resource industry maximize opportunities. These include the cloud, which is improving business agility by breaking down data silos, and unified communications, which is helping link up diverse teams in remote locations, promoting valuable knowledge sharing, while driving innovation and complex processes. At the same time, the blurring lines between information technology (IT) and operational technology (OT) has put increased emphasis on mitigating growing cybersecurity risks.

Natural resource companies are now big targets for cybercriminals and hackers. Breaches could lead to destruction of operations or pipelines, resulting in massive environmental damage, enormous financial losses and even loss of life.

Making digital a priority

Digital transformation, like any other major change, isn't just about the technology. To succeed, it needs a clear vision and strategy with committed resources and a change management roadmap. For digitization to deliver on its potential, it must be integrated from end-to-end, with systems sharing data from across the natural resources value chain.

By looking at a range of different customer cases, we show how Orange Business Services can help you drive a culture of technology adoption and innovation to provide a competitive edge. The use cases fall into four different areas:



Connectivity



Cloud



Unified communications



Cyber security



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Global network capability enables Halliburton to accelerate digital transformation and rapidly enter new markets in East Africa

Halliburton is one of the world's largest suppliers of products and services to the oil and gas industry. Amongst other activities, it undertakes drilling and other oil service contracts across the world, working for exploration and production (E&P) companies wanting to exploit their oil fields.

After signing a contract with an E&P company, Halliburton needs to get the site operational as quickly as possible to stay in control of costs and get production moving. However, with many sites in remote locations, it can be a challenge to get the network and digital services that are essential to get a site online.

Take the Republic of Congo, the fourth largest oil producing country in sub-Saharan Africa. Often sites are in remote, mountainous areas and communications infrastructure is extremely under-developed. To put this into a technical perspective only around 11% of the country has internet access. Where there is access suffers from a very high latency.

Despite the geographical difficulties, each new site must be operational and revenue-generating as fast as possible with staff having full access to corporate tools. Any delays can seriously dent Halliburton's bottom line.

Orange global networking provides the answer

This is where Orange Business Services has been able to help. The Orange global network has made an enormous operational difference to Halliburton's business. Incorporating multiple access networks, including satellite, mobile and fixed infrastructure, Orange has provided Halliburton with the communications layer that has become fundamental to its business.

The rapid-to-deploy, global connectivity enables people and equipment to be mobilized faster to new sites. Previously experts had to travel to remote wells to look at any issues, now data can be sent to them back at headquarters where it can be analyzed for smart decision making.

Halliburton is now generating revenues faster, thanks to rapid on-site operations that Orange's global network is providing. At the same time, it is enabling Halliburton to maximize new markets in other countries such as Angola and Rwanda, reducing overall expenditure due to lower connectivity costs.

HALLIBURTON



Headquartered in Houston, Texas



Over 50,000 employees



In 70 countries

Orange Business Services solution

- Orange global network with focus on Middle East & Africa
- Strong built-in failover capability
- Program management

The benefits

- Rapid and successful entry into new "frontier" markets
- Immediate access to corporate online tools for staff in remote locations
- Secure, reliable global network with high network performance and availability
- Telecommunications solution that supports business growth

The results

- ↑ Faster revenue generation with sites rapidly operational
- 🌍 Opportunities maximized in new markets
- 💰 Cost savings as a result of lower connectivity costs
- 📊 Easier budget planning with predictable pricing
- 🔄 Flexibility through a scalable solution

"As we re-structured our business and entered new markets, often in remote locations, Orange consistently delivered a high-quality network service that helped us deliver our products and service to our clients."

Ken Braud
Senior Vice President
& CIO Halliburton

“Offices at sea” boosts ship-to-shore communication for BW Offshore

With a fleet of 15 owned Floating Production, Storage and Offloading (FPSO) vessels and one Floating Storage and Offtake (FSO) vessel, BW Offshore is the world's second largest contractor of floating production services. It is present in all major oil and gas regions worldwide, including Europe, Asia Pacific, West Africa, US and Brazil.

FPSOs are offshore production facilities that house both processing equipment and storage for produced hydrocarbons. After processing, an FPSO's oil or gas stores are offloading at regular intervals to shuttle tankers or transmitted as processed petroleum via pipelines.

Critical role of communications

Communications between the FPSO, offshore platforms and the onshore base are critical to ensure the safety of the offshore crew and provide accurate data on production levels, for example, together with providing basic voice and internet. Delivering reliable network services, however, can be a challenge in the many regions and remote locations that BW Offshore operates.

Orange Business Services has delivered BW Offshore a Maritime VSAT solution, which incorporates fully managed end-to-end satellite-based communication. This allows BW Offshore to integrate its FPSOs, FSO and two land-based locations into the Orange MPLS network, optimizing and simplifying communications.

BW Offshore personnel now have access to the same business applications, communication and entertainment services at sea as on land, wherever the FPSO is located.

With Orange Business Services taking end-to-end responsibility for the service, BW Offshore is now benefiting from a cost-efficient solution that provides predictable speed, quality and security. This has resulted in greater productivity, enhanced ship-to-shore collaboration and higher employee morale.

“By choosing the satellite-based solution from Orange Business Services, we avoid many of the challenges we sometimes faced with a multiple-provider strategy, like high latency on VSAT links and poor application performance on vessels at sea. We wanted a single provider with end-to-end responsibility that could deliver service with predictable speed, quality and security.”

Fritz Ekloff

Senior Vice President Corporate, IT and Systems BW Offshore



Headquartered in Norway



2,000 employees



Operates 14 offshore specialist vessels for oil and gas

Orange Business Services solution

- Orange global network with focus on Middle East & Africa
- Orange Maritime VSAT: fully managed end-to-end satellite-based communications solution
- Integration of 14 vessels and two land-based sites with the Orange MPLS network
- Single domain for always-connected servers and computers in real-time
- SIP trunking to enable global unified communications on Microsoft Lync for all employees, partners and suppliers
- Fully-managed WAN, IP telephony and VSAT optimized solution
- Program and partner management for Microsoft and Riverbed

The benefits

- Orange has delivered a global, integrated, robust and secure VSAT, MPLS and unified communications solution that enables high-quality ship-to-shore communications – no matter where a vessel is located.
- Greater productivity: Enhanced ship-to-shore collaboration; more efficient vessel and crew management; and faster, more accurate reporting
- Lower costs: International calls at local rates; higher crew retention; and robust, secure service with strong SLAs
- Higher crew morale: Enhanced crew support; easy access to communications and entertainment services; and reduced recruitment and training

The results

- Reduced costs
- 60% lower data traffic
- Better end-user experience
- Simplified management via a single global provider

Mining operator increases business agility and cost flexibility at a time of major change in its markets

Beset by a combination of falling prices, intensifying labor disputes and the rising costs of deeper exploration, precious metal mining faces a volatile and uncertain future. One global mining company with projects in Africa, Americas, Australasia and South Africa, has turned to technology to ensure its sustainability and business agility.

The company was looking to upgrade its networking services in a bid to increase productivity and reduce technology costs, while giving it the flexibility it needed to operate in such an unpredictable marketplace.

For this transformation to work effectively, the mining company required a robust network that could handle the increase in internet traffic and provide a better user experience for its employees. Security was also a major issue and it needed its employees to have secure access for cloud-based business applications from any location.

Orange Business Services was able to satisfy the company's needs with a fully managed Business VPN Hybrid and Infrastructure as a Service (IaaS) computing solution that provides both terrestrial and satellite connectivity for its more remote operations. This has enabled it to lower costs and simplify global management.

Orange global networking provides the answer

The hybrid network is optimized for unified communications and enables the mining company's employees to use corporate applications, including voice, video and instant messaging communications securely across its entire global operation.

Internet services are provided through regional breakouts, providing access to the internet closer to the user sites. This minimizes the volume of traffic on the company's corporate network and its use is governed by a central security enforcement policy.

The company now has nearly 50 different sites connected. As a result of this connectivity transformation, the miner has dramatically improved collaboration across all sites and improved employee productivity. This is thanks to an enhanced user experience, collaboration tools and the flexibility to use cloud-based business applications.

The successful deployment has also opened the door to co-innovation projects with Orange in the areas of health, underground safety, material, tools and cost management and environmental monitoring.

Global precious metal mining company

 Multiple operations across three continents

 Increasing internet use

Orange Business Services solution

- Fully managed Business VPN Hybrid and IaaS Flexible Computing Premium cloud solution
- Incorporates both terrestrial and satellite connectivity
- Nearly 50 different sites connected
- Internet services provided through regional breakouts with security policy enforcement
- Simplified and standardized operations, performance management and QoS

The benefits

- Enhanced collaboration with unified communications
- Better end-user experience
- Flexibility to use cloud-based business applications
- Central control of security

The results

-  Securely manage increasing internet traffic and cloud growth
-  Lower costs, no CAPEX, simplified global management
-  Co-innovation opportunities

European oil producer chooses cloud hosting, network, security and B2GaaS to launch new entity

One of Europe's biggest independent oil and gas companies with a diversified portfolio of interests – spanning the full field cycle from exploration through to development and production – has chosen cloud services to improve staff welfare and simplify integration.

The company has just completed a major acquisition that will make it one of the region's key exploration and production facilities. It understood from the beginning that embarking on such a large acquisition would inevitably take time in integration. For this reason, it took the informed step of preparing its IT function ahead of time, which it knew would come under strain with the new business joining.

To simplify integration, the company decided to go with an IT-as-a-Service (ITaaS) digital strategy, which would give it the flexibility and agility to fit the unique and changing needs of its business. For this it understood that it would require a new connectivity partner to fulfill its requirements.

At the same time, the company had been looking at the social impacts of an offshore lifestyle. Staying in touch with home boosts morale and welfare of crews who are away for long periods. To this end it wanted to make communications easier for its employees on offshore oil rigs.

Unified communications from offshore locations

Following a consultative process with Orange Business Services, the company decided to adopt Orange Business Together-as-a-Service unified communications, which delivers services from the Orange Cloud to the company's employees wherever they work. The solution integrates all communication applications through a single end-user client across multiple devices.

The service allows the company to adjust user profiles to different worker requirements and it has the bonus of only paying for activated users, so it can be scaled up and down as needed. The company has already seen an increase in productivity and employee well-being as a result.

In addition, Orange Business VPN, an MPLS based service, has simplified the company's previously complex networking approach, providing flexibility for its intranet, internet, videoconferencing and collaborative workflows. The solution also had the advantage of being secure by design.

European oil and gas producer



Owns multiple offshore oil facilities

Orange Business Services solution

- Orange Business Together-as-a-Service unified communications
- Business VPN & Enterprise Application Management
- Security, including Web Protection Suite, Cleanpipe (DDOS), Intrusion Detection & Protection, Managed Firewalls, Flexible SSL, Identity services
- Cloud hosting
- Consultancy
- Program and Partner Management

The benefits

-  Enhanced collaboration with unified communications
-  Better end-user experience
-  Flexibility to use cloud-based business applications
-  Central control of security policy over internet use



Gold mining company deploys integrated video conferencing to raise productivity and reduce safety incidents

Given the enormous hazards associated with deep-level gold mining, commitment to continuous safety is paramount. This company chose integrated video conferencing to improve safety and increase worker productivity in hazardous environments.

The company operates both open-cast and underground mines over vast distances with mining facilities in remote locations in the Arctic. With mining depths reaching as much as 5,000m, the gold mining environment is extremely challenging and labor intensive.

The mining company's experts are vital for the safe operation and efficient production of mines. However, the company has a limited number of experts and their advice is frequently called on at the same time, hundreds of miles apart.

To effectively share these valuable expert resources across multiple sites the company needed to improve its connectivity. This would enable robust video communications between its headquarters and these remote mining projects. It also wanted to be able to process and analyze data captured in its mines in real time.

Sharing access to expert resources

Orange Business Services deployed fully-integrated terrestrial and satellite network services to ensure stable and continuous connectivity between all sites. Services running over the network include unified communications and video conferencing, which gives experts the ability to connect virtually with remote colleagues. Critical equipment data is sent over the Orange network for analysis at the company's headquarters.

Orange Business Services' solution has enabled the precious metal mining company to improve safety within its mines together with overall efficiencies. Its deployment has underscored its mantra that a safer mine is a more productive one.

Gold mining group

 European oil and gas producer

 Owns multiple offshore oil facilities

Orange Business Services solution

- Fully-integrated Orange terrestrial and satellite network services
- Services include unified communications and video conferencing
- Several of the sites are connected entirely via satellite due to remote location
- Equipment data sent over Orange network for analysis
- Project management

The benefits

-  Lower travel costs and reduced number of safety-related issues
-  Improved productivity through better equipment maintenance tracking
-  Enables remote training, meetings and faster issue resolution
-  Reliable, secure high-quality

Build a smart future for your natural resource business

Here at Orange Business Services we have extensive experience working closely with the natural resources industry across the world.

We can help you gain operational efficiencies through improved use of technologies, such as cloud platforms, connectivity and unified communications. At the same time, we can help protect your organization from current and emerging cyber threats.

As a global provider of digital services and a carrier-grade integrator for the natural resources industry, we understand the changing dynamics of the sector. Our backbone connectivity is complemented by satellite coverage and is extended by our unique capability to install subsea fiber optic cables to connect offshore platforms.

We can help you in the re-platforming of core business processes to make your organization smarter, faster, and more efficient – driving real-time insight and new business models that will lower costs and increase performance and productivity.



1,600 cloud experts, engineers and project managers



2,400 data intelligence experts



Expertise in technology-rich collaboration environments



Broad range of collaboration solutions including devices, workspaces and collaboration rooms



1,200 cyber defense experts worldwide



9 SOCs, 4 CyberSOCs and 4 CERTS



Proprietary threat intelligence database and real-time feeds



Independent CERT and Epidemiology lab to qualify and remediate emerging threats



Find out more about how Orange Business Services can help you embrace digital transformation by visiting:

<https://www.orange-business.com/en/focus/natural-resources-transformation>



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