



## Oil and Gas Application Brief

With exploration and production activities in the oil and gas industry reaching an all-time high, companies have expanded their operations further into outlying areas – from remote sites deep in the wilderness to offshore rigs across the horizon. As oil and gas teams venture into these distant locations, they move well beyond the reach of existing communications infrastructure.

The connectivity requirements at oil and gas sites are also changing. In addition to basic voice and data communications access, oil and gas companies demand more bandwidth to support real-time applications that improve productivity, security and crew welfare.

Many oil and gas companies are turning to satellite communications for a highly effective solution to keep remote sites connected and advance core operations. Recent improvements in IP-based broadband satellite communications allow these companies to extend the reach of corporate networks seamlessly to any location and support two-way communications.

### Broadband Anywhere

Oil and gas companies need to operate in any location and environment. Satellite IP communications plays a critical role in getting the job done and protecting operations, facilities and crew. The benefits provide a solid return on investment.

- ◆ Instant communication between field operations and headquarters
- ◆ Connectivity onboard maritime vessels and offshore oil rigs
- ◆ The ability to monitor and control remote equipment and processes
- ◆ Real-time transmission of drilling data and seismic information
- ◆ A lifeline back home for production crew

## Immediate and Reliable Communications

### iDirect – The Industry Standard Satellite Platform for Oil and Gas Applications

Oil and gas companies have high-pressure business challenges, and they need to choose the most reliable and versatile communications systems. When it comes to satellite technology, one company is the clear industry leader – iDirect.

The iDirect satellite platform is a two-way, broadband IP communications system. It delivers high-speed connectivity to exploration and production sites including onshore/offshore rigs and maritime vessels (tankers, operational support vessels), giving them constant communication with core operations.

**Ultimate reliability.** iDirect's satellite communications platform is engineered to deliver high availability and powerful data throughput rates. Advanced features, such as Adaptive Coding and Modulation (ACM), preserve network performance even in the most adverse weather conditions, preventing loss of connectivity that could potentially interrupt production and jeopardize profitability.

**Bandwidth efficiency.** The iDirect platform is a TDMA-based shared bandwidth system. That means every location that requires connectivity can access a centralized pool of satellite capacity based on real-time demand. This provides a more cost-effective solution, while still providing a guaranteed level

### The iDirect Standard

iDirect has become the de-facto standard for reliable, high-speed IP-satellite communications in the oil and gas industry. Our platform meets even the most demanding requirements.

- ◆ Toll-quality voice connectivity and broadband data rates
- ◆ Higher throughput efficiency for emerging voice, video and data applications that require more bandwidth
- ◆ A single network that provides total coverage for every location, user and application
- ◆ Maximum uptime in any operational environment or weather condition



## Greater Productivity and Interaction



of service for critical applications. Combining iDirect MPLS features such as VLAN's and Group QoS capabilities enables multiple tenants on a rig to share the same physical connection but have completely private networks with dedicated service level agreements.

**Advanced mobility.** The iDirect platform can support a global maritime network, integrating satellite beams across geographical regions. This allows for always-on connectivity on both support vessels and transport vessels as part of the same corporate network.

### **Diverse Application Support**

For oil and gas companies, satellite connectivity is a critical part of their core communications infrastructure. And increasingly, it's relied on to support a variety of new applications.

**Integrated exploration and production operations.** To stay connected to their operations around the globe, oil and gas companies require greater integration between remote exploration and production sites and corporate offices. By providing reliable voice, data and video access, an iDirect network supports real-time information exchange between in-field operations and experts back at headquarters. The result is faster, more accurate analysis of exploration and drilling data that optimizes production and contains costs.

**Improved productivity and collaboration.** IP-based broadband satellite enables oil and gas companies to affordably run a variety of bandwidth-intensive applications that enhance productivity and improve collaboration – whether that's sending live video feeds from an oil rig or from the ocean floor; or equipping exploration vessels, workboats, tankers, OSVs, production platforms and remote drilling sites with full corporate network access. Further, satellite connectivity has opened up new opportunities to automate operations and manage them more efficiently from afar.

**Improving safety and security.** Oil and gas companies can rely on always-on, high-speed broadband to enable real-time access to Supervisory Control and Data Acquisition (SCADA) information while simultaneously supporting higher bandwidth applications such as video surveillance at remote locations to monitor operations and

## Constant Global Access

assess damage to critical assets when it occurs. In addition, advanced data encryption keeps SCADA and other information sent over the network secure.

**Crew welfare.** Beyond rig operations, the demand for increased bandwidth can also be seen in a new generation of crew. These individuals are accustomed to instant and ubiquitous connectivity. Web surfing, emails and texts are part of their daily life and even more necessary during long stretches away from home. Satellite networks can also be used for telemedicine, providing a link to medical staff from any location.

### Global Network of Service Providers

Today, iDirect's platform is the de-facto standard used by the world's most reliable satellite service providers and operators to deliver broadband satellite coverage to oil and gas companies worldwide. iDirect collaborates with these providers to support emerging end-customer applications to deliver the highest quality connectivity regardless of location or operating environment.

### Total Reach

The majority of the world's leading oil and gas companies rely on iDirect for reliable, high-speed satellite communications. It's a critical technology that helps them maximize productivity, lower operating costs, increase security and keep remote crews satisfied – even in some of the harshest conditions on earth.



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