

## Tapping into New Markets with Satellite Services

How service providers deliver constant connectivity to leading global companies



## An overview of customer connectivity challenges

Satellite services deliver on the promise of global broadband connectivity beyond traditional boundaries. Companies are demanding constant connectivity and have adopted satellite as its technology of choice to support a range of applications and communications needs, across multiple industries. As more companies turn to satellite to meet increasingly diverse and complex communication needs, the opportunities for providers will continue to grow.

However, the satellite industry has its challenges. Bandwidth is an increasingly expensive resource, driven in part by satellite capacity shortages in key markets. Allocation adds cost and complexity as providers attempt to deliver flexible, scalable bandwidth to customers on an as-needed basis.

In addition, today's customers demand high quality, reliable services that support their unique application requirements. This includes support for networks that must provide global connectivity, while supporting voice, data, and video applications across a wide array of environments. Mobility and Integration are also high on the list of priorities and further complicate the requirements. A one-size-fits-all solution cannot address the specific needs of the most lucrative customer opportunities.

These challenges offer opportunities for providers who focus on optimizing and expanding their services to meet market demands. Success lies in understanding the particular application requirements of key segments and offering differentiated services. Providers can bring business to a new level by enhancing their service offerings and delivering reliable, affordable connectivity with a broad mix of services.

iDirect understands these challenges and meets them head on. At the heart of iDirect's satellite-based IP communications technology is its ability to enable constant connectivity for any type of application in any environment. Providers who take advantage of iDirect's Intelligent Platform™ will be empowered to extend private networks to remote offices and support mobile connectivity across land, sea and air.

## Key Markets Deliver Lucrative Opportunities

As the market for satellite grows, so does the need for specialized services and the opportunities for providers who can deliver. In particular, key market segments—including Enterprise, Maritime, Cellular, Financial, and Oil and Gas—hold particular promise as satellite technology evolves to support a greater range of applications.



### *Enterprise*

Organizations demand secure, high-speed IP-based connectivity that is always available, and supports all business applications, in any location on the globe. At the same time, enterprises must manage operating costs, fulfill the need for greater efficiencies, increase productivity, and maintain a consistent quality of service. Key application areas include multimedia distribution, access to email, VoIP and video applications, secure, financial transactions, and back up to business continuity.



### *Maritime*

Ships at sea are turning to satellite to deliver always-on, high-speed connectivity that supports broadband applications. VSAT technology has emerged as the standard for maritime connectivity, supporting email, Internet access, VPNs, and VoIP applications, offering increased productivity and morale for crew members and ship-to-shore operations, cost savings, and faster, more efficient communications. As the number of vessels in operation increased by 55 percent between 2007 and 2009, the need for VSAT continues to grow.



### *Cellular*

There are two billion people worldwide living in remote, rural areas with limited or no access to cellular services. These markets are ready for wireless providers to expand their networks. In the past, reaching these areas with terrestrial build-out was prohibitively expensive. Today, innovations in cellular infrastructure and unified IP networks allow mobile providers to tap into this market with cellular services. Satellite connectivity offers providers the opportunity to keep prices lower with cellular backhaul.



### *Financial*

In order for businesses to optimize worldwide operations global connectivity is needed. This means a single, integrated IP network that provides voice, data, and video, and supports all business applications across the enterprises—at all times. Financial institutions need to facilitate faster, more secure transactions, ensure business continuity even when the network fails, and keep a mobile workforce trained. Companies can achieve lower operating costs and higher productivity through IP connectivity.



### *Oil & Gas*

To remain competitive in the demanding oil and gas industry, companies need to find ways to lower operating costs and increase productivity. IP connectivity to remote sites allows on-location subject matter experts to be connected to in-field operations. This results in real-time interpretation of data, and more accurate analysis. With pipeline operations now a crucial part of the national infrastructure, monitoring is essential for both economic and security reasons.

## **Innovative Satellite Technology to Address Any Network Requirement**

Satellite communications has undergone immense changes in recent years, morphing from its traditional role into a packet-based, two-way IP system designed to integrate seamlessly with terrestrial networks. iDirect created the world's first IP-based platform and has delivered non-stop innovation for over 15 years, including many other industry firsts.

iDirect's IP platform is the most advanced in the industry, and one of the most efficient and flexible systems on the market. With iDirect, providers can extend satellite communication services to multiple offices and provide access to carrier-class applications—even in remote locations.

An integrated approach to satellite IP networking makes it easier for providers to build and manage networks no matter how varied or complex. Based on the Intelligent Platform™, iDirect supports multiple topologies, and a variety of application requirements. These include extending private networks to remote offices, supporting mobile connectivity across land, sea and air, providing rural telephony and Internet broadband, and maintaining communications when disaster strikes and networks fail.

Providers can better meet customer needs, realize greater ROI, and seize emerging business opportunities. The following case studies provide an inside look at how iDirect has helped providers address communication customer needs in diverse markets, around the globe.

## Companies find success with satellite connectivity

### ***Orange Business Services: Supporting strategic goals and daily communications***

Headquartered in France, international marine services giant, Bourbon, supplies the world's most demanding oil and gas companies with a comprehensive range of new-generation, innovative and highly efficient vessels. In 2005, Bourbon faced a sizeable challenge: the company's monthly L-band connectivity fees had more than doubled due to increased communications activity aboard its vessels. With a major period of growth on the horizon, Bourbon needed to upgrade its communications infrastructure to a more reliable, scalable, and cost-effective network.

To develop this network and expand its burgeoning business and retain its standing as an industry leader, Bourbon sought out a partner that could provide a reliable solution. It selected Orange Business Services, a maritime service provider with a stellar performance record. For Bourbon, Orange developed a high-speed Virtual Private Network (VPN) based on its global VSAT service, which is built on the iDirect satellite communications platform. The project began with Orange installing Ku-band antennas and iDirect two-way IP routers on 150 Bourbon vessels. It continued with a flat-fee, always-on VSAT broadband service.

Today, Bourbon is utilizing the VSAT network to improve several strategic aspects of its business. These include daily phone and email usage from ship-to-shore and ship-to-ship, upgrading operations by running real-time business applications onboard its vessels, and lowering costs connected to vessel management and maintenance by enabling remote access and support.

### ***BT Communications: Improving network availability and transaction times***

Visa International has a vast presence in the global economy. Owned by and comprised of 21,000 member banks, this ubiquitous service association has issued over one billion Visa cards worldwide on which transactions worth trillions of U.S. dollars take place every year in more than 150 countries. In 2003, Visa's Central and Eastern Europe, Middle East and Africa (CEMEA) business recognized that the legacy networks it depended on to process card transactions were unable to keep pace with business growth and desired response times. The company needed a new, more efficient and reliable network.

Visa was drawn to BT, a service provider with a universal reach capable of providing and supporting secure connectivity in some of the most underdeveloped parts of the world. BT's VSAT solution, which is based on the iDirect platform, was a two-way communications platform designed to optimize IP traffic delivery over satellite, and comprised both terrestrial and satellite technologies across 265 sites in 51 countries.

The new solution exceeded Visa's expectations. Member banks are enjoying 99.5 percent availability. Average transaction times have dropped by over half a second. Most importantly, the company is adding to its bottom line by paying less in network management costs.

### *Telespazio Argentina: A 48-hour fix to deliver reliable connectivity*

In 2006, satellite provider Telespazio Argentina was contacted by Telecom Personal, one of Argentina's leading cellular providers, which was seeking to expand coverage to remote rural markets. SCPC links to backhaul traffic were being utilized; however, Telecom Personal wanted a more cost-effective solution. After analyzing the situation, Telespazio Argentina concluded that a shared bandwidth satellite platform would work best. A new satellite IP network was configured to allocate bandwidth across multiple distributed locations. After six months, engineers determined that the test network was not conducive to what the company needed.

With an opportunity slipping away, Telespazio Argentina contacted iDirect, which delivered its own IP networking technology to their offices. Within 48 hours, Telespazio Argentina had its iDirect network running. Within 10 days, it had successfully tested the network in Telecom Personal's environment without experiencing any of the cellular provider's previous problems. And five days later, Telespazio Argentina implemented the iDirect solution.

Since that time, the cellular backhaul network has performed flawlessly in every category, from bandwidth efficiency and quality of service, to reliability and seamless integration with Telecom Personal's cellular network. It has also proved to be a boon to Telecom Personal's business. Thousands of new subscribers have been added, providing a steady revenue stream in what has been a saturated mobile service market.

### *Verizon Business: Helping an industry giant to reach new users*

What makes Verizon Business's use of satellite technology so special is that it has found a way to meet heightened customer demand in places where terrestrial connectivity already exists. The innovative carrier is using satellite services to extend its Private IP (PIP) network, which assures business continuity, and delivers an efficient method for multimedia distribution and VoIP traffic. It also provides connectivity to cover almost any contingency.

Creating a seamless customer experience requires a tight integration between terrestrial and satellite systems. Verizon Business found that perfect blend with the iDirect platform. It enables them to provide service level agreements on its satellite network comparable to those it offers on its terrestrial MPLS network. In addition, the iDirect platform supports full VLAN separation, ensures two-way data encryption, and makes managing system features uncomplicated.

Verizon showcased its strategy in a PIP satellite network implementation for a major U.S. retailer. Within four months, more than 2,200 of the retailer's locations had connectivity. Verizon also merged backup bandwidth and MPEG-4 video content onto the same platform, creating twice as much video bandwidth capacity as a terrestrial T1 line. The retailer now has extra bandwidth for day-to-day mission-critical operations and a backup network as needed. A number of other Verizon customers have benefited from an integrated hybrid network, which affords them the ability to use the same bandwidth to stream multimedia for video, corporate TV, digital signage and other uses, such as PC software refresh.

### ***CapRock Communications: Connecting critical operations from rig to shore***

A leading satellite communications provider to the offshore energy industry, CapRock Communications needed to ensure seamless global connectivity to meet the communications challenges of its customers, whose rigs often sail thousands of miles from one remote location to another. Being able to provide higher availability, better bandwidth utilization, and consistent coverage was crucial to CapRock's success—and why they turned to iDirect's Evolution® platform. Currently rolled out in the Gulf of Mexico, the Evolution platform has enhanced the value of CapRock's services to its customers.

One such customer is Diamond Offshore Drilling, a leading drilling contractor with worldwide operations. In the past, Diamond Offshore's rigs would occasionally experience link degradation or even temporarily lose connectivity during heavy rains and other severe weather. After adopting CapRock's services over the iDirect platform, the rig owner is experiencing much more consistent service, as Evolution's Adaptive Coding and Modulation (ACM) technology automatically adjusts signal strength to guarantee maximum uptime.

In addition to the business benefits, CapRock is providing extra perks to Diamond Offshore's crews. Most of the crews on rigs today are tech-savvy and now can access the Internet to keep in touch with family and friends while away from home. Utilizing iDirect's Group Quality of Service (GQoS) technology, Diamond Offshore can set bandwidth priority to ensure that critical operational and core communications applications do not compete with recreational connectivity.

### ***Get iDirect, Get Connected***

The need for reliable, extendable broadband connectivity continues to be a critical mandate for organizations, worldwide. Satellite services are being used in a variety of markets—including maritime, cellular, oil and gas, financial, and enterprise—to deliver connectivity beyond traditional boundaries. This trend toward leveraging satellite to address diverse customer needs offers new opportunities for providers who focus on enhancing their service offerings.

The hallmark of iDirect is the Intelligent Platform™ that integrates advanced features and technology into iDirect's portfolio of universal hubs, routers and network management software to enable any IP application to run reliably and efficiently over satellite. This single platform, built with fully integrated IP routing technology, provides the agility to meet precise business needs of your customers regardless of bandwidth requirements, application, satellite band or topology.

Visit [www.idirect.net](http://www.idirect.net) for detailed information on the compelling benefits of satellite technology.



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