



Keeping Government Agencies Connected Across the Globe

Orange Business Services uses iDirect's IP-based VSAT platform to keep nations connected with all of their embassies

For government and international defense agencies, establishing and maintaining communications with embassies in distant countries can be a formidable challenge. Many embassies are located in areas with limited infrastructure and IT support. Other sites face the constant threat of political unrest or civil war. Still others must contend with environmental hazards such as natural disasters.

All this adds to the enormous responsibility these agencies have to execute critical diplomatic functions. Without the necessary availability and security for broadband communications, it becomes virtually impossible for them to stay connected and in control.

These are the challenges Orange Business Services solves for the Ministry of Foreign Affairs (MoFA) agencies for multiple nations across the world. Orange manages a global IP network that integrates terrestrial MPLS VPN access with satellite connectivity based on the iDirect platform. It provides nations with a secure and reliable solution to keep them connected to their embassies, no matter where they are located.



**Business
Services**

"With iDirect providing the satellite backbone of our services, there are virtually no limitations to our reach or capabilities. This enables us to deliver a valuable service to Ministries of Foreign Affairs, integrating all of their embassies onto a common IP network."

Michel Verbist
Orange Business Services



Driving the Delivery of Critical Information

Overcoming Network Limitations

One recent example of how Orange is helping MoFAs involves a nation in Northern Europe. This nation's MoFA network is designed to facilitate the secure exchange of information between headquarters in its capital city and more than 140 foreign embassies across 100 countries. In many of these locations, the embassies rely on terrestrial Wide Area Network (WAN) access to perform critical diplomatic functions and stay connected with central headquarters in the capital.

However, the WAN's performance and bandwidth availability varied greatly depending on location, hampering the MoFA's ability to maintain a uniform global experience across all of its sites. And with several embassies located in remote and difficult-to-reach areas where WAN infrastructure isn't available, the high cost and extensive timeline required to build out this infrastructure was simply not an option.

Security was also a primary concern, given the highly sensitive and classified nature of the network's traffic. With the threat of civil unrest facing its embassies located in more volatile areas, terrestrial communications infrastructure

like WAN is susceptible to damage or vandalism that often accompanies rioting or civil war. Once an area is deemed too dangerous, an embassy needs to be able to quickly shut down a site, relocate and re-establish a communications link. This necessitated a higher standard of availability in some regions than WAN access could provide.

In 2009, the MoFA submitted a public RFP for an upgraded network that could avoid these pitfalls. After viewing several proofs-of-concept from various vendors, the MoFA chose Orange Business Services, a leading global telecommunications provider to multinational companies, to develop a solution.

Improving Communications Access

In order to reliably and cost-effectively provide higher bandwidth availability for every site on the MoFA's network, Orange built a secure, global hybrid IP network utilizing terrestrial and satellite connectivity. Over six months, Orange upgraded the communications infrastructure at all 140 of the MoFA's embassies, including VSAT access at 40 remote sites based on long-time partner iDirect's satellite IP platform.



Orange Business Services' Champagne teleport extends its core MPLS network with global satellite coverage.

A Secure and Private IP Network

“When high-profile organizations like MoFAs rely on Orange Business Services to provide connectivity to distant or remote areas, there’s one company that we count on to power our VSAT networks, and that’s iDirect,” said Michel Verbist, product manager for satellite solutions at Orange Business Services. “Given our experience using iDirect’s platform to provide connectivity solutions for maritime and enterprise customers, we knew that it could handle the critical demands of government and defense agencies just as capably.”

Each of the 40 VSAT-equipped embassies has iDirect’s powerful, next-generation Evolution X5 satellite router installed to enable high-speed VPN access, Voice over IP (VoIP) and a growing number of critical internal applications such as ERP systems. What’s more, the iDirect routers are quick and simple to deploy, giving MoFA employees the ability to easily shut down and relocate without requiring onsite support if their embassies are at risk.

Providing a Seamless Global Experience

Since iDirect’s platform is designed to work over IP, it can seamlessly integrate with Orange’s terrestrial MPLS service, allowing the provider to deliver a uniform, global IP-broadband experience. The iDirect platform takes full advantage of the latest satellite technology breakthroughs, amplifying next-generation efficiency gains to provide a solution that enables operators like Orange to offer satellite service that matches the quality and performance of terrestrial links at an affordable cost.

Additionally, iDirect makes use of a feature of the next-generation DVB-S2 broadcast standard called *Adaptive Coding and Modulation* to bolster satellite link quality during adverse weather. When heavy rains

threaten signal strength, for example, the iDirect platform automatically adjusts the satellite link to optimize performance and prevent rain fade. This allows Orange to ensure maximum uptime for the MoFA’s sites – no matter what extreme environments or harsh conditions they may be experiencing.

Delivering On-Demand Bandwidth

Each MoFA embassy has different bandwidth requirements, depending on its location, its number of departments and the types of applications it needs to run. iDirect provides Orange with innovative technology that allows it to dynamically share bandwidth across MoFA sites to affordably meet each site’s requirements.

Using the iDirect platform’s Deterministic Time Division Multiple Access (TDMA) technology, Orange can create shared bandwidth pools among several MoFA sites, so that if one embassy requires additional capacity at any moment it can pull unused bandwidth from the network. This eliminates the need for expensive dedicated satellite links at each MoFA embassy while giving each site the ability to burst to maximum speed when required for critical operations or bandwidth-intensive applications.

Further, with iDirect’s built-in Group Quality of Service feature, Orange can allocate bandwidth intelligently and efficiently across multiple MoFA sites, even down to the application level. For example, if an embassy requires a certain amount of bandwidth for submitting time-sensitive visa applications back to HQ, this traffic can be prioritized to take precedence over administrative voice traffic at the same location. Advanced features like these help Orange meet its SLA with the MoFA and guarantee higher bandwidth availability.

Excelling Bandwidth Requirements

Seeing the Results

As a result of its seamless and timely implementation of the MoFA network, Orange Business Services received the “Best Project Management” award at the World Communication Awards in London – one of the telecom industry’s highest accolades. Thanks to satellite-IP connectivity provided via the iDirect platform, Orange continues to ensure that each and every one of the nation’s embassies is connected to the same powerful network – including those in remote portions of the Middle East and Africa. With reliable bandwidth to support voice, data, and core VPN and business applications, this MoFA can now execute its critical diplomatic functions efficiently and without fail.

“This MoFA project was one of our most successful to date,” added Verbist. “With iDirect providing the satellite backbone of our services, there are virtually no limitations to our reach or capabilities.”



iDirect

13865 Sunrise Valley Drive
Herndon, VA 20171
+1 703.648.8000
+1 866.345.0983
www.idirect.net

Advancing a Connected World