# Global Oil and Gas Company Consolidates Branch Infrastructure

Technip uses Wide Area Application Services to optimize bandwidth of WAN links, including satellite links to vessels.

## EXECUTIVE SUMMARY

**Technip**
- Energy
- Headquarters: Paris, France
- 23,000 IT Users

**CHALLENGE**
- Provide cost-effective IT service delivery to remote offices and ships
- Accelerate IT infrastructure of temporary offices
- Enable collaboration across global enterprise

**SOLUTION**
- Consolidated branch IT infrastructure in centralized data centers
- Deployed Cisco Wide Area Application Services (WAAS) to optimize WAN bandwidth and accelerate application performance
- Implemented Cisco Unified Communications, Cisco Digital Signs, and Cisco TelePresence systems

**RESULTS**
- Reduced annual IT infrastructure costs by 30 percent
- Increased throughput on satellite links by 150 to 200 percent
- Accelerated Lotus Notes performance by as much as 90 percent

## Challenge

Technip, a world leader in project management, engineering, and construction for the oil and gas industry, is contributing to sustainable solutions for the energy challenges of the 21st century. Approximately 23,000 IT users work in three divisions: Subsea, Offshore, and Onshore. Technip's operating centers and industrial assets span 48 countries on five continents, including a fleet of 17 specialized vessels for pipeline installation and subsea construction.

Technip needed a cost-effective way to deliver IT services and support to global locations that do not have local IT staff. Previously, most offices had their own application servers. Therefore, when Technip set up a temporary construction office, which happened up to 10 times a year, the IT team had to dispatch a staff member to the location to set up servers. When the project was complete and the office closed, the IT team had to make time to integrate the office's data into the centralized data centers, sometimes resulting in redundant data that complicated information management and increased storage costs.

The company decided to consolidate branch IT infrastructure to reduce costs, accelerate setup of temporary offices, and centralize activities such as backup and security. But first, Technip needed a way to help ensure good application performance over the WAN. To do their jobs, employees count on reliable performance from messaging applications, print and file services, centralized applications delivered with Citrix XenApp, and a variety of data-intensive applications such as computer-aided design. Although offices in countries with high-speed Internet connections enjoyed excellent performance, other regions had slow connections that could not support centralized IT infrastructure. "The challenge was particularly intense in the Middle East and on vessels, which rely on 128 kbps to 512 kbps satellite links with 600 milliseconds latency," says Scott Williamson, vice president of IT for Technip.

## Solution

### Cisco Wide Area Application Services
Technip successfully consolidated branch IT infrastructure using Cisco® Wide Area Application Services (WAAS) to accelerate application performance and optimize existing WAN bandwidth. Instaltec, a Cisco Premier Certified

Partner, implemented Cisco Wide Area Services in multiple form factors in the company's six data centers in France, the United Kingdom, and the United States and in offices with slower WAN connections. To date, 49 global offices and 12 vessels have either a Cisco WAAS appliance or Cisco WAE NME Network Module in their Cisco router.  The Cisco WAAS solution accelerates all TCP-based traffic between the locations without requiring employees to change the way that they use applications.

Technip uses Citrix XenApp to deliver Windows applications as services to shipboard employees. "Cisco WAAS enables us to deliver a good Citrix experience even over 128 kbps satellite links by compressing traffic by up to 60 percent," says Williamson. By default, Citrix applies its own compression and encryption options, which Technip turned off. "Turning off Citrix compression enabled us to take advantage of the DRE [data redundancy elimination] cache in Cisco WAAS, which eliminates the wait for data to travel over the satellite link," Williamson says. Although WAN optimization does not address directly the inherent latency of satellite communications, employees on ships immediately noticed the faster login and webpage loading.

## Collaboration Technologies

Technip has adopted Cisco Unified Communications in most locations. Employees can dial coworkers in any global site, including ships, using four-digit dialing. In some locations, including ships, mobile employees can use

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> — Scott Williamson, Vice President of IT Technip

Cisco Unified Wireless IP phones, which connect over a Cisco Unified Wireless Network. Any laptop or Cisco Unified Wireless IP phone works in any Technip office, without any reconfiguration. "I can walk into a project office off the coast of West Africa and immediately have a wireless connection to applications and information in the centralized data centers," Williamson says.

Technip is implementing Cisco TelePresence® systems in major offices for face-to-face executive collaboration, avoiding the delays, cost, and environmental impact of travel. The company has also begun using Cisco Digital Signs, part of the Cisco Digital Media Suite, for employee communications. In the main campus in the United Kingdom, Cisco Professional Series LCDs on every floor display company videos, stock price, weather reports, safety briefings, and more. The company plans to add Cisco Digital Signs on ships, as well, to keep isolated offshore crews informed about company news. "We'll use Cisco WAAS to cache multimedia content for the digital signage, so that large files travel over the WAN only once," Williamson says.

## Results

### Increased Productivity Through Application Acceleration

With Cisco WAAS, employees in remote offices and vessels enjoy application performance rivaling the headquarters experience. "The CIFS [Common Internet File System] cache for file sharing makes a colossal difference for tasks such as opening a Microsoft Word document," Williamson says.

Cisco WAAS accelerates all TCP applications in use at Technip to varying degrees:

- Lotus Notes messaging: Up to 90 percent compression
- HTTP: Up to 80 percent compression
- Directory services: Up to 84 percent compression
- File and print services: 60 to 70 percent compression

"Offshore, we've seen huge differences in satellite link performance with Cisco WAAS," says Williamson. "We estimate that throughput has increased by 150 to 200 percent. Shipboard users, largely depending on Citrix XenApp but also using bandwidth-heavy desktop applications, enjoy good performance with the combination of TCP flow optimization, which benefits XenApp directly, and the full WAAS optimization suite, which reduces desktop application bandwidth consumption and therefore benefits XenApp further.

The business case for Cisco WAAS in the Middle East is also very strong because higher bandwidth is not available." In Technip's Abu Dhabi office, for example, Cisco WAAS nearly doubled available WAN bandwidth. Employees experienced the biggest performance gains for web traffic, printing, and email.

### Cost Savings Through Data Center Consolidation: Enables New Initiatives

Branch data center consolidation, specifically by removing servers, and their data, from branches, has reduced both capital and recurring operating costs accrued to branches by 30 percent. In fact the savings from data center consolidation funded a new disaster recovery solution. For some replication traffic, Cisco WAAS also provide benefits for the very solution that it funded.

### Cost Savings Though Better Use of Bandwidth

The bandwidth management and data reduction features of Cisco WAAS helps to ensure application performance for users of the satellite links employed by Technip. The result is reduced pressure from the user community for adding bandwidth to satellite links, leading to both reduced or deferred increases in bandwidth (operating) expenses.

### Rapid Setup of Temporary Offices

Previously, setting up IT infrastructure in a temporary construction office took about a week, because Technip needed to procure and configure a server and dispatch an engineer. "Now we just ship a preconfigured Cisco WAE Appliance that anyone in the office can connect with a single cable," Williamson says. "We avoid travel time, cost, and environmental impact, and what used to take a week takes a day." The night before a new office opens, Technip pre-positions commonly used files on the Cisco WAE so that employees experience good application performance from the very first day. After that, the company relies on Cisco WAAS to automatically cache files as employees access them.

Williamson concludes, "Cisco WAAS is one of the most important deployments Technip has done in the last several years, because it enabled centralization, IT consolidation, and standardization."

## For More Information

To find out more about Cisco Wide Area Application Services, visit:
http://www.cisco.com/go/waas.

To find out more about Cisco Unified Communications solutions, visit:
http://www.cisco.com/go/uc.

### PRODUCT LIST

**Networking Systems**

- Cisco Catalyst® 6509-E Switch
- Cisco 2800 Series Integrated Services Routers Security and VPN
- Cisco PIX 515E Security Appliance
- Cisco Aironet® Wireless Access Points
- Cisco Wireless Control System

**Application Networking Services**

- Cisco Wide Area Application Services (WAAS)
- Cisco Wide Area Virtualization Engines (WAVE) models 274, 474, and 674
- Cisco Wide Area Application Engines (WAE) models 512, 612, 614, 7341, and 7371

**Collaboration, Voice, and Video**

- Cisco Unified Communications Manager
- Cisco Unified IP Phone 7960G and 7940G
- Cisco TelePresence System
- Cisco Digital Signs

**Wireless**

- Cisco Aironet Wireless Access Points
- Cisco Wireless Control System

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