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## Case Studies

### CSC Outfits Remote Locations With Reliable Communications

An oil rig in the middle of the ocean or a skyscraper in a busy metropolitan city: Both are likely office locations for CSC's energy clients, and both require reliable, leading-edge communications systems to perform vital business functions. CSC's Offshore and Remote Site Communications team designs and installs these systems in the most remote locations in the world.

#### CSC's Offerings

"We can basically build a small corporate office in the middle of the ocean in a very short time," says CSC principal communications consultant Murray Wales, who leads the Australia-based team. CSC's offerings include radio frequency communications, satellite systems, voice telephony systems, fiber optics, data communications networks, network security, e-mail systems and network operating systems servers.

CSC has installed remote communications on offshore oil rigs and at remote drilling sites for its energy clients, including Australia's BHP Billiton and Origin Energy. The team has completed projects in Africa, Australia, North and South America, Europe, Asia and the Middle East. Wales notes that CSC team members have a great depth of personal experience in providing fast, cost-effective and reliable solutions comparable to land-based systems.

"People working on the oil rigs have left their onshore office, where they've had fax machines, the latest PCs, Internet access and instant dial tones. On the oil rig, they need and expect those same capabilities and facilities to be available," Wales says.

For oil exploration, time is money. Energy companies can pay hundreds of thousands of dollars a day to lease rigs for oil exploration. To make the most of their exploration budget, clients require a reliable system to quickly deliver critical information from the rig to head office engineering and geology staff.

"The client may be paying \$300,000 a day to lease the oil rig and all of its support services.



Client: Origin Energy, Australia

**Challenge:** Quickly install a reliable communications system in one of the harshest offshore oil and gas regions in the world to deliver critical information from the oil rig to head office.

**Solution:** After consulting with the client, CSC builds the system in a lab, and packs and ships it in rugged transit cases to be assembled on-site. Once the team and cases are delivered to the remote location, CSC staff work nonstop to install and test the system.

**Results:** CSC installs a satellite communications system designed to cope with winds up to 60 knots, days of constant rain and rough seas. Other technology, including: IP video monitoring and telephony, fully managed desktop computers with Internet and e-mail services are also provided.

Related Information:

Learn more about CSC's Chemical & Energy [offering](#).

Read other [case studies](#) about CSC's work for chemical and energy clients.

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They don't want us to say, 'You'll have e-mail in a week,' Wales explains. "We work day and night to get the communications set up so the client can start using the rig."

you produce results.

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On occasion, the delivery can be as challenging as the installation. Because of harsh weather and sea conditions, each CSC team member who travels to oil rigs must be certified in Helicopter Underwater Escape Training (HUET). Wales has installed systems in 131° F (55° C) desert temperatures, as well as in constant rain and winds in the middle of the ocean.

One of the harshest offshore oil and gas regions in the world is the Central Bass Strait off the coast of Australia, where Origin Energy recently drilled three gas wells from a mobile drilling rig. CSC worked with the company to install a satellite communications system designed specifically to cope with winds of up to 60 knots, days of constant rain and rough seas.

In 2004, CSC installed a point-to-point SCPC (Single Channel Per Carrier) VSAT link between the drilling operations office in Melbourne and the mobile oil rig, and established a voice and data frame relay circuit over the satellite link to extend the Melbourne office LAN and telephone extensions onto the platform. The team also installed IP video monitoring and IP telephony, and provides fully managed desktop computers with Internet and e-mail services for the drilling operations.

"We have many contractors on the rig doing operations that cost hundreds of thousands of dollars a day," says Mark Mussared, offshore subsurface manager for Origin Energy, who oversaw the drilling operation that required the communications between the rig and the Melbourne office. "The satellite communications system CSC installed provided us with a crucial link between rig and shore that we can depend on, even in the harshest weather conditions."

#### Communications a safety issue

Because there is no onsite CSC support, the remote communications team uses redundant backup systems and CSC team members are on call 24x7 to resolve issues remotely. Wales notes that communications failures can result in revenue loss of \$10,000 per hour. More important, however, is the lifeline that the communications system provides.

"There are 100 people sitting on a piece of metal in the middle of the ocean. If all of a sudden the communications system fails, the lifeline to those 100 people is lost—logistics capabilities, emergency response, drilling information, all lost," Wales explains.