

■ CASE STUDY

NetPerformer reduces monthly satellite costs and increases security capabilities for global oil-rig network

Parker Drilling seamlessly transitions to a Memotec NetPerformer® satellite-based network to support its offshore and remote land-based oil-rigs

Memotec Inc.

THE OPPORTUNITY

Since its founding more than 70 years ago, Parker Drilling Company has provided drilling services to the energy industry in every region of the world. The company operates 31 land-based drilling rigs in 13 countries from the U.S. to Papua, New Guinea, and 25 offshore barge rigs in the US Gulf of Mexico, the Caspian Sea, Nigeria, and Mexico. Parker Drilling also provides rig management services, often to oil and gas companies that own rigs but prefer to outsource the operation of their drilling platforms. On these rigs, the company manages such critical functions as engineering, human resources, training, purchasing, logistics, and maintenance, as well as health, safety and environmental programs.



Before the advent of IP telephony, the company relied on radio (voice) communications to maintain contact with offshore drilling platforms and with land-based rigs in remote areas, where traditional telephone service were not available. Voice communications via radio was an inefficient medium as it did not allow for transmitting geological and other data from the rigs to onshore base stations. In addition, radio offered no security for the transmission of such sensitive information as planned bids on future drilling contracts.

In 2003, the company decided to upgrade to satellite-based IP technology for voice and data transmissions to and from its offshore platforms and its land-based drilling rigs in isolated areas. The first step was to identify the solution that offered the best combination of quality, reliability, security, service, and cost-effectiveness.

THE CHALLENGES

Cost of Ownership

In addition, the cost of servicing equipment installations on oil rigs is increased by the expense of helicopter transportation from shore, as well as security concerns that may limit access to platforms, requiring maximum flexibility from solutions providers when scheduling maintenance visits. *"To win business-and to keep it-you have to offer a competitive combination of low cost, fast turnaround, absolute reliability, and great service,"* said Cox.

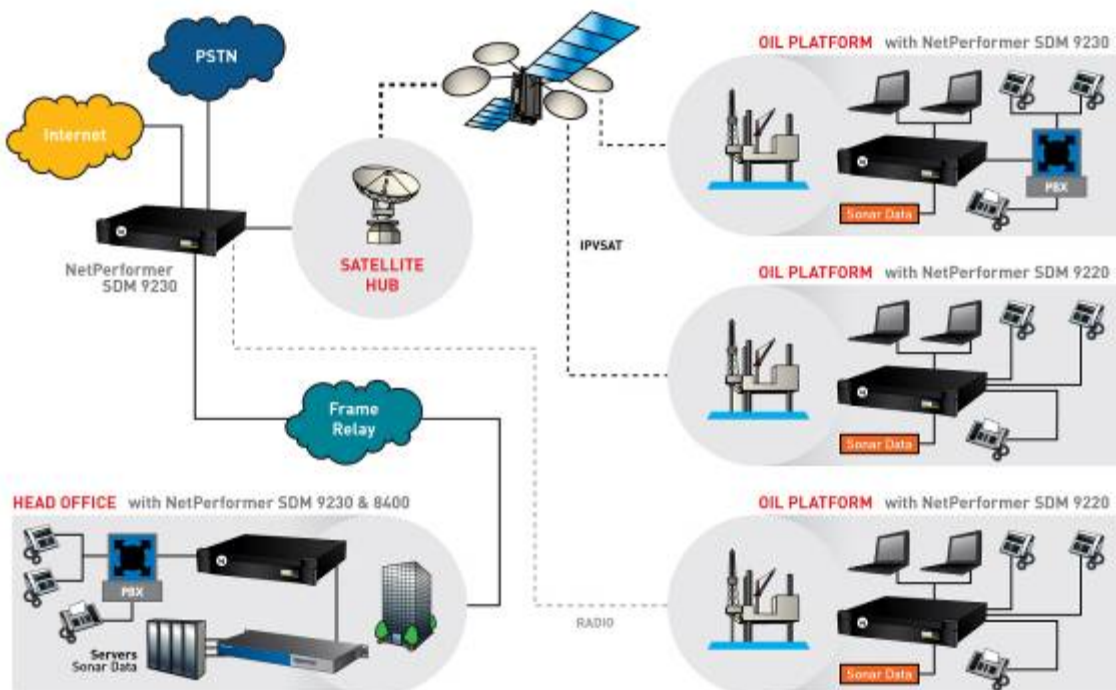
Security

Security was another critical factor, according to Cox. Drilling companies submit bids for future contracts, and all transmissions that contain information about bids or any other confidential financial information have to be protected against electronic eavesdropping. In addition, the Sarbanes-Oxley Act of 2002 raised the security stakes by requiring publicly held companies in the USA to ensure the confidentiality and control of sensitive financial data. *"Security is now a big issue"* said Cox. *"Sarbanes-Oxley audit results are important to investors and, aside from that, we have to take steps that will deter anyone from gaining unauthorized access to our wireless communications. Fortunately, NetPerformer provides that extra bit of security that we need. Industrial espionage is alive and well in the energy business, so we must take the*

necessary steps to protect our network, whether it is voice or data. I take it as a compliment when a T-1 circuit provider tells me, while troubleshooting a point-to-point landline with NetPerformer on each end, that they're unable to tell if there is a good connection because their test equipment doesn't recognize the data due to the fact that it has been fragmented and highly compressed by the NetPerformer"

THE SOLUTION

Charles Cox, Telecommunications Manager for Parker Drilling, knew what he was looking for from the outset. "Everybody in our industry was going to VSAT (Very Small Aperture Terminal) satellite communications technology," said Cox. "The U.S. government had been using VSAT for years, and it offered the perfect solution for our offshore and remote locations. Our goal was to establish a more reliable, cost-effective, and robust communications link with our worldwide operation using VSAT as the vehicle. There's plenty of equipment on the market that will interface with VSAT, but satellite bandwidth is an expensive commodity, so we wanted to make sure we created a network with selected hardware that would be as efficient as possible."



Efficiency

After a thorough review of the available options, Parker Drilling's chose Memotec's NetPerformer voice and data router. "NetPerformer was the clear winner in our analysis because of its data compression performance," said Cox. "In addition, NetPerformer is extremely efficient in minimizing the amount of satellite bandwidth required to support a typical rig's voice and broadband Internet usage. On a typical offshore rig, they can use two voice calls, email, and Internet access simultaneously on just 100 kHz (64Kbps). That translates directly into substantial cost savings while still providing the communications to

meet safety and operational requirements. Further, the quality of voice transmissions is excellent despite the limited bandwidth."

The end-result is a cost effective solution that handles both telephone and Internet traffic. It also transmits sonar data and other information gathered at the oil rigs over satellite to onshore locations via terrestrial Frame Relay.

THE RESULTS

Given the current cost of satellite bandwidth and the relatively less efficient data compression of competing routers, Parker Drilling is able to save several thousands of dollars per month on each rig where NetPerformer has been installed. *"When you multiply that by the number of rigs that now rely on NetPerformer for their communications, it amounts to a substantial sum over time,"* said Cox. The company has saved even more by locating the VSAT server in its Houston office where it can easily be maintained by the existing IT staff.

Service has also been consistently up to par. *"I have nothing but good things to say about the support Parker Drilling gets from Memotec. I could not ask for better,"* Cox said. *"For our requirements, NetPerformer is simply the best solution on the market today."*

