

Draco tera KVM switches support seismic exploration activities onboard Petroleum Geo-Services Ramform Titan Class seismic vessels



The Customer

Petroleum Geo-Services (PGS), founded in Norway in 1991 with two seismic ships has grown to become one of the leading oil and gas exploration companies in the world. Today, with a fleet of 16 offshore seismic vessels, PGS offers seismic and electromagnetic services, data acquisition, processing, reservoir analysis/interpretation and multi-client library data to guide oil companies in their quests to find oil and gas reserves offshore worldwide.

The Challenge

Exploration teams rely totally on the equipment they use. Seismic vessels are built to withstand the harshest imaginable conditions and the sensing and data processing equipment is built to continue operating whatever the condition. Vessels operate in some of the most inhospitable

and remote parts of the world's oceans, carrying out complex three-dimensional investigation into the structure of the ocean floor and what lies beneath. PGS uses the latest seismic and computer equipment to collect the maximum amount of data; quickly, safely and reliably, and then processes it using their revolutionary GeoStreamer GS technology. They can operate at sea for periods of up to 150 days on single voyage.

Two new Ramform Titan Class seismic vessels have just been launched: Titan and Atlas. They were designed and constructed to deliver the highest operational reliability and an efficient and comfortable working space for personnel by locating as much of the data processing equipment in a secure, environmentally-controlled 'rack room' on the lower deck of the vessel, with connection to the scientists and geologists several decks above.

The Solution

The company has used KVM extenders throughout its lifespan, progressing from analogue to digital devices as the technology evolved. For the latest builds, PGS investigated the market and chose to deploy the latest Draco tera KVM matrix switches for the first time. Two separate systems were integrated onto the vessels: one of 48 ports and one of 80 ports on each ship.

The KVM switches are located alongside the computers in the rack rooms. Marine-grade Cat 7 cabling is run throughout the ship, enabling individual operators to connect to specific computers to access the data they need. The operators are spread around different decks but all need to be able to instantly connect to the appropriate computer and access data with no switching or transmission delay; a task undertaken by the Draco tera switches with ease. Each operator can change the source computer quickly and easily using dedicated keyboard function keys, whilst the system administrator can manage the full system from his own terminal, setting access restrictions and defining routes as necessary.

"We are extremely pleased with the Draco tera switches, they provide a highly stable and robust platform and were straightforward to integrate, requiring no additional technical support. This provides a high degree of confidence that they will be reliable and easy to support at sea."

Asbjørn Olsen, Chief Observer, PGS Geophysical

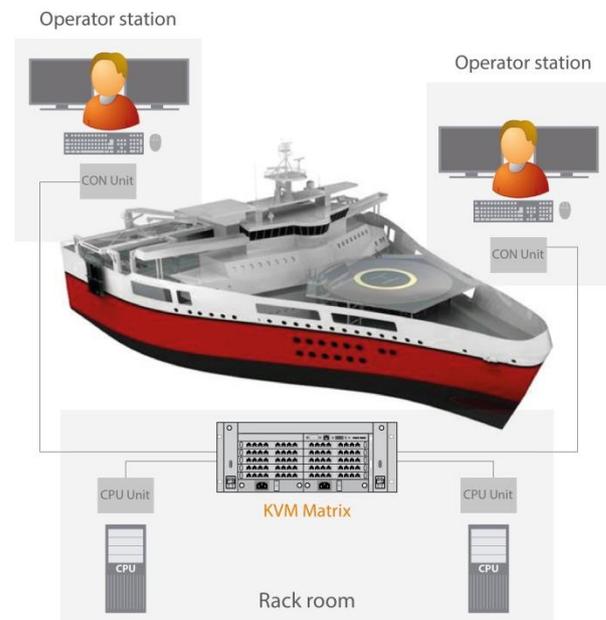
The Benefit

Using Draco tera KVM switches, the computer system architects responsible for the fit-out of the vessel were able to provide a data distribution mechanism of the highest reliability and robustness in order to ensure continuous operation vital to the survey tasks.

As new equipment is developed and deployed the Draco tera switches can be reconfigured, thanks

to the highly flexible flex-port technology that allows any port to be configured as an input or output. The tera's ability to carry single- and dual-link signals at up to UHD and 4K resolutions means that displays of the highest image quality and resolution can be used: a feature that is vital to the most interpretation of complex images.

Following their highly successful and positive experience with IHSE switches, PGS is currently planning the construction of two new vessels in 2016 that will use the same Draco tera switches to deliver similar onboard facilities.



KVM products in use:

- **Draco tera enterprise** matrix switches
- **Draco vario** extenders
- **Draco compact** extenders

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