WINEGARD ANTENNA PLATFORM PROVIDES PERFECT SOLUTION FOR HERMESCONNECT CUSTOMERS

OVERVIEW
Hermes Datacomms is a communications provider for the oil and gas industry worldwide. The company connects onshore and offshore drilling platforms located in some of the world’s most remote and challenging environments. Based on discussions with its customers, Hermes began working with Winegard on a VSAT system that would provide mobile broadband with a skid that houses the antenna’s electronics in a climate controlled environment. The final product was a Winegard SF1200 antenna with a “Hermes” skid that maximizes transportability and eliminates the need to have a “building” for the electronics.

THE CHALLENGE
Hermes provides VSAT services to oil and gas customers that operate in remote, difficult to reach locations. Hermes’ typical antenna installation process required the company to send a VSAT engineer to the particular site to install a fixed antenna. Since drilling rigs move on a regular basis, it was necessary to send an engineer from site to site to uninstall and then reinstall the VSAT antenna. This process was costly, time consuming and made the equipment vulnerable to damage. “Political instability inside various countries also makes it difficult to transport engineers in and out, and safety concerns sometimes makes travel impossible,” said Hermes Regional Director Shaun Young.
Although installing fixed antennas on drilling rigs had a number of drawbacks, the combination of the cost of auto acquisition antennas and the resulting complexity of attaching long cables between the antenna controller and the RF equipment made the switchover impractical. “Drillers drill holes and don’t have the time or inclination to set up VSAT systems,” Young said. “In addition, the RF equipment requires a clean temperature controlled environment to ensure the equipment life is maintained.”
Hermes’ initial experience using auto deploy antennas resulted in marginal improvements over fixed systems. Customers still had to contend with cable damage, experienced difficulty connecting cables correctly, and frequently misplaced critical components.
THE SOLUTION

Hermes needed a VSAT system that was fully self-contained with all equipment including VSAT, controller, router and RF modem permanently connected and located within a single assembly. The electronic components required a temperature controlled environment capable of withstanding a temperature range from -20 to +50 Celsius.

Using the SF1200 platform, Winegard was able to develop a product that met HermesConnect’s rigorous technical design and software configuration. Winegard’s SF1200 antenna system is a “small footprint” system where the antenna folds over the mounting apparatus when in a stowed position. This is essential for the success of the HermesConnect skid system as this provides sufficient space to mount the electrical enclosure which contains the router and modem. “The enclosure has plenty of capacity to accept all the equipment we would send to the site including out-of-band management and all RF modem brands available,” Young said. “We are not restricted to any one modem technology which allows Hermes greater flexibility to deliver products and services to our global customers.”

THE RESULTS

Hermes now has a product that meets the exact requirements of its customers. HermesConnect is a fully self-contained VSAT system that is extremely easy to deploy, is robust and reliable, and delivers service in any configuration the customer requires. The customer receives the exact network design they need and not a one-size fits all compromise.

The HermesConnect system has resulted in a substantial reduction in cost to both Hermes and its customers since Hermes’ network team is able to manage the system remotely. It is no longer necessary to pay to have engineers on site to deploy a satellite connection or adjust configurations.

Customers are discovering a variety of uses for the HermesConnect product. The initial benefit was access to real time drilling data delivered anywhere in the world. However, once customers realized that the VSAT system did not require any special skills to deploy, they began sending systems to sites regardless of whether there was a pre-defined requirement for the data. This expansion of onsite systems enabled Hermes customers to centralize their operations by sending data from remote equipment to conveniently located data centers. As a result, they were able to reduce head count on site as the technology enables one expert to remotely manage multiple sites during normal working hours.

Ease of use has also been a major benefit to customers. When drilling operations are complete and a site move is required, the HermesConnect is loaded onto a utility vehicle and driven to the next site. At the new site, the process of unloading the antenna from the vehicle and establishing a connection to a network takes less than five minutes. Furthermore, if the satellite signal weakens due to movement of the skid base (placed on gravel), the antenna automatically realigns, usually without losing connectivity.