

Case Study:

MORRISON

DELIVERING ENERGY

GDS helps a pipeline & diving company take advantage of cost-efficient, high-speed LTE cellular connectivity on its vessels in the Gulf of Mexico.



Chet Morrison Contractors, LLC (MORRISON) provides engineering, construction, pipeline and other services to oil and gas and renewable energy companies.

Headquartered in Houma, LA., the company has domestic and international facilities strategically located around the Gulf of Mexico and in the Caribbean, delivering creative solutions to meet its customers' diverse needs. It employs some of the top talents in the industry and adheres to the highest standards for quality and safety with uncompromising regard for environmental protection.

About Morrison Challenges

"We are an offshore pipeline and diving company," said Royce Pellegrin, IT Manager, MORRISON. "Our clients are predominately upstream oil and gas producers and pipeline transportation companies. We have been installing and maintaining pipeline infrastructure for our clients for almost four decades now."

MORRISON operates four offshore pipelay vessels, two dive support vessels and various inland waterway construction barges. For nine years, MORRISON relied upon Global Data Systems (GDS) to provide satellite communications services for its vessels. MORRISON conducts an extensive review of several service providers every three years, but GDS consistently offered the most complete, cost-efficient, innovating services.

In the most recent competitive bid process, GDS came to MORRISON with an innovative new SD-WAN solution that would better meet the company's needs. With an access agnostic approach GDS was able to deliver an SD-WAN solution on our VSAT and LTE network to MORRISON's vessels, providing higher performance, availability and redundancy than satellite alone at a reasonable cost.

"There has always been a need in the Gulf for higher-speed Internet at a lower cost for marine vessels, and GDS has provided that," Pellegrin said. "You will not find a vendor who is as responsive, accommodating and forward-thinking as GDS. We've been with them for a long time, nine years, and it has truly been a win-win relationship."

Company Stats

Presence:

Domestic & International

Location:

Houma, LA

Industry:

Oilfield / Energy Sector

At A Glance

Challenge

- Voice & data connectivity in the Gulf of Mexico

Solution:

- Implement secure LTE connectivity to vessels

Results

- Improved connectivity with vessels, dramatic increase in performance
- Improved personnel quality of life aboard vessels

Challenge

Like many companies in the energy sector operating in the Gulf of Mexico, MORRISON needs reliable voice and data connectivity for its vessels. Until recently, that meant satellite services, which provide almost global coverage but are complex, expensive and unreliable provide slower speeds. Microwave radio transmissions require a clear line of sight between towers and are subject to disruption due to weather. Those challenges are trying to overcome in moving vessels.

“To get high-speed satellite, you have to have an enormous dome on a mobile vessel,” said Pellegrin. “And then you have clouds, rain and all these things that limit you because you’re trying to send a data stream through the atmosphere with a limited power source.”

“An LTE network is low-atmosphere communications, so you don’t get the rain fade you see with satellite services. And you don’t need a big antenna or a lot of power,” Pellegrin said. “GDS saw the value in bringing LTE and Satellite services together in a combined SD-WAN solution to fleets like ours.”

Thanks to GDS, we have been able to move forward with technology that we wouldn’t have seen even just three years ago.”

Solution

GDS worked with MORRISON to develop a prototype of its SD-WAN NOMAD solution that would bring LTE connectivity to vessels in the Gulf of Mexico. NOMAD provides high-quality software defined network and business communications services in a portable solution that features multiple data transport options, along with traffic shaping, application prioritization and bandwidth allocation to help ensure Quality of Service.

“GDS came to us with a SD-WAN design, and we tested it against our day-to-day business processes and how we communicate,” said Pellegrin. “Ultimately, the solution gave us high-speed connectivity with redundant failover and maximum uptime by using LTE cellular with satellite as a backup. And the cost difference between the old VSAT-only solution and the new hybrid solution was very minimal.”

NOMAD includes robust security controls to protect the network against cyberattack. They are giving MORRISON the benefits of a next-generation firewall, intrusion detection, antimalware protection, content filtering and more, right on each vessel.

“With VSAT, we had to put security services at the hub where the connection comes in from the satellite to the terrestrial networks. When you do that, you lose a little bit of speed, so there were a lot of times where we experienced delayed communications and slow application refresh rates,” Pellegrin said. “We saw great value in securing the network at the vessel. Land-based

offices have had this kind of security for more than 10 years, but to roll this out to a mobile office sitting in the Gulf of Mexico is a new technique.” What’s more, the security features are integrated into a self-contained device that allows remote management. It’s the ideal solution for vessels that lack onboard IT support.

“NOMAD uses the Cisco protocols and management services, so I can remote in and see all the communications, all the data, all the intrusion attempts, etc. It allows us to be more proactive when it comes to managing the vessels themselves,” said Pellegrin. “GDS also provides 24x7x365 monitoring and support. When issues come up during off hours they take care of it.” With NOMAD, MORRISON also receives a straightforward bill for all the communications services for its vessels. Consolidated billing not only streamlines payment but eliminates the need to do multivendor reviews each year.

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Results

The NOMAD solution has dramatically improved MORRISON's ability to maintain connectivity with its vessels.

The company immediately saw dramatic improvements in availability and performance, and fewer support headaches.

"The number of service tickets coming in from the vessels for slow or delayed Internet connectivity is minimal now," Pellegrin said. "This not only improves our operations but, from an IT perspective, allows me to focus on other things. "Of course, GDS also provides world-class support. I'm a one-person show, so this is a big deal. I can leverage the technical advancements and the knowledge at GDS. They've become my IT department on our vessels."

NOMAD has also allowed MORRISON to deliver value-added services to its customers. The company saved enough on their standard services to offer their customers a client only network. Additionally, the company is using the technology to improve the quality of life of personnel on the vessel.

"As we were prototyping out the SD-WAN solution, we realized that the cost factor associated with the higher speed allowed us to create a dual network on a vessel," Pellegrin said.

"One network would not only support all of our operational processes but allow us to offer the same high-speed connectivity to our customers.

For More Information

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- facebook.com/getgds

Call Us:

- 888-435-7986

About This Solution:

- getgds.com/services/connectivity/offshore-connectivity

"One of the most significant issues faced while working on long job deployments is the struggle to have beneficial communications with family, friends and business associates. The desire for technological advancements to provide for our crew member family has always been part of our vendor review process. Unfortunately, with VSAT, it was never affordable to address appropriately," said Pellegrin.

"Because NOMAD has such a low cost of operations, **we were able to implement a secondary network dedicated specifically to our crew members.** This technology allows them to carry out common functions that you would in your own home life – check emails, pay bills, communicate with significant others and loved ones, etc. – and improve morale in the process."

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