

WITH BEC'S OUTDOOR LTE CONNECTIVITY SOLUTION, GTT SUCCESSFULLY PROVIDES OFFSHORE LTE INTERNET



Customer

Guyana Telephone and Telegraph Company is a fixed local exchange carrier (LEC) based in Guyana, South America. It is the largest provider of telecommunication services in Guyana, with a subscriber base exceeding three hundred thousand in a country with a population of about seven hundred thousand; its parent company is the Atlantic Tele-Network.

Challenges

ExxonMobil affiliate Esso Exploration and Production Guyana Limited reached out to GTT to provide offshore LTE internet connectivity to its floating storage and production (FSPO) vessels. Offering offshore LTE connectivity to vessels presents several challenges.

First and foremost, the coverage area of LTE networks is limited to a certain distance from the shore, which makes it difficult to provide reliable connectivity to vessels that are far out at sea. This is compounded by the fact that vessels are often moving. Further complicating maintaining a steady connection. Also, harsh environmental conditions make installing and maintaining challenging, and FSPO vessels typically have limited power resources. Finally, offshore LTE connectivity requires a significant infrastructure investment, including installing specialized equipment on the vessel and onshore.

Solutions

GTT evaluated several ruggedized outdoor solutions and selected the 7000 R24 Gigabit LTE Outdoor Router. The 7000 R24 is a high-performance fixed wireless solution designed for outdoor applications.

It offers Gigabit-LTE speeds of up to 1.2 Gbps down and 150 Mbps up, carrier aggregation up to 5CA downlink, high gain 4X4 MIMO for increased capacity and extended coverage, and 256 QAM for higher throughput. Additionally, the 7000 R24 is the perfect choice for durability under environmental conditions featuring GORE® Protective vents to equalize pressure, humidity, airflow, lighting/ESD Protection, and IP68 compliant enclosure to protect against dirt and harmful water ingress.

Although the 7000 R24 met the requirements, GTT wanted to optimize performance for this particular scenario with custom requirements. With a few indepth discussions, BECbyBILLION designed the customized solution based on the 7000 R24. The custom requirements included: a high-gain omni-directional antenna instead of the standard directional, specific LTE frequency bands support for LTE Bands: 5/3/7, notably Band 28 (45 MHz bandwidth between 703-748UL / 758 – 803 DL) and a custom network configuration and firmware.

Results

Offshore LTE connectivity is critical for floating storage and production (FSPO) vessels. The 7000 R24 exceeded expectation delivering a secure, reliable, and high-speed internet connection to 30km from the tower and the FSPO. This internet connection is essential for applications, including remote monitoring and control of operations, data collection and analysis, video conferencing, crew training, and safety briefings.

Customer

GTT (Guyana Telephone and Telegraph Company)

Application

Servicing Offshore Vessels with Highspeed LTE Connectivity

Solution

RidgeWave® 7000 R24 Gigabit LTE Outdoor Router

Connectivity

4G/LTE Cat.18 Technology

Results

The 7000 R24 exceeded expectation delivering a secure, reliable, and highspeed internet connection to 30km from the tower and the FSPO.