

Westermo Cellular gateways and WeConnect software ensure uninterrupted telecommunications services on the Galápagos Islands

The Galápagos Islands are a volcanic archipelago, roughly 600 miles or about 1,000km off the coast of Ecuador, in the Pacific Ocean. The isolated islands inspired Charles Darwin's theory of evolution and is today a World Heritage site that showcases the preservation of a diversity of unusual plant and animal species. The Galapagos is a unique destination on any wildlife enthusiast's bucket list.

As a province of Ecuador, mobile network operators (MNO) from the mainland are obligated to provide cellular services on the islands. This supports both the 30,000 permanent residents and close to 300,000 tourists that visit the islands each year. Connectivity is provided by several MNOs and internet service providers. However, the only connection back to the mainland is via satellite.

To maintain uninterrupted services in accordance to stringent regulatory conditions, remote monitoring solutions and access to equipment at various sites across the islands are essential. To support a satellite operator-managed service to one of its MNO customers, telecommunications consultant Specialized RF, developed an out-of-band remote access solution for the monitoring and control of critical equipment. The solution utilises Westermo industrial cellular gateways and easy-to-use remote access management platform WeConnect, which enables secure remote connections to applications on the network edge.



Westermo industrial cellular gateways installed on the main radio towers on the islands help provide remote access

“I needed a way to establish secure remote access, for my clients, to the equipment deployed on the islands, because typically it takes hours for human resources to travel to these sites,” said Jens Langenhorst, consultant and owner of Specialized RF. *“After researching various options, Throughput Technologies, the Westermo distributor in South Africa, introduced me to the Westermo cellular gateways.”*



Satellite at Baltra airport

Deployment of the remote monitoring solutions are at cellular tower sites located across the islands. These applications had specific criteria and limitations to work within. For example, the available power source at the sites is only 48V DC. Furthermore, to provide redundant connectivity, a dual SIM gateway with external antennas that can be positioned outside of the typical metal racks or shelters was needed. The Westermo industrial cellular gateways were ideally suited for these applications, providing the required functionality and designed to withstand the environmental demands ensuring reliability and a long lifecycle.

“The selling point for me was the WeConnect secure VPN service. Not only was it easy to set up and configure, but it was already integrated into the Westermo cellular gateway. My satellite clients employ specialists around the globe and using WeConnect they can access and recover any issue remotely, within minutes. Furthermore, this solution now unlocks a much wider set of available global skills that can assist anytime, anywhere. In turn, simply put, it results in improved cellular services and uptime in the Galapagos Islands,” explained Langenhorst.