

High Capacity Packet Microwave Backbone Enables Advanced Mobile Services in the US Virgin Islands

Case Study

FAST FACTS

Customer:

- Choice Wireless

Solution Provider:

- Future Technologies
www.futuretechllc.com

Solution Highlights:

- 75 packet microwave links providing 4G backhaul in the US Virgin Islands
- Multi-gigabit scalable transport network powered by Horizon Quantum
- High capacity enterprise access for medical, hospitality, education, financial services and government locations



BACKGROUND

Choice Wireless is a leading provider of wireless voice, data and internet services in the US Virgin Islands. Looking to bring advanced mobility and fixed access services to consumers and businesses in previously undeserved areas, Choice Wireless needed a scalable and highly resilient backhaul network.

CHALLENGE

Building a mobile network from scratch – not to mention one that spans across three islands with very little existing infrastructure – is an ambitious and challenging undertaking. This is exactly what Choice Wireless set out to do when deploying the most advanced 4G network in the US Virgin Islands, covering the islands of St. Croix, St. Thomas and St. John. While offering mobile services was the primary driver, Choice also saw a significant opportunity to provide fixed access to the island's large enterprises and government organizations.

After establishing their new cell site locations, Choice evaluated multiple backhaul technology options for interconnecting these hard to reach locations. Installing a wired network across difficult terrain and between islands was a non-starter due to time and cost; a wireless backhaul solution was needed.

Given the lack of existing infrastructure and minimal towers, Choice required highly flexible radios that could cover long distances, including a span of more than 38 miles over water between the islands of St. Thomas and St. Croix. Choice also need a very robust system that could stand up to the high winds and heavy rainfall common to the region to ensure a high-level of service availability. Not wanting to constrain any future growth potential, the network had to offer multi-gigabit scalability.

After evaluating several wireless backhaul solutions, only DragonWave offered a solution that could meet all of Choice's requirements.

“Our 4G network is only as good as its underlying backhaul infrastructure, so it was imperative that we select a highly robust solution that could meet our growing capacity demands and handle the extreme weather conditions of this region. The Horizon Quantum and Horizon Compact have delivered excellent performance, allowing us to focus on providing unmatched service to our mobile subscribers and enterprise access customers.”

- Tony Shepherd, General Manager, Choice Wireless

SOLUTION

Choice Wireless, along with their integration partner, Future Technologies, has deployed a high capacity backbone network to interconnect their many base station sites. By adopting DragonWave's Horizon Quantum in a ring architecture, Choice now has a highly resilient, yet cost effective transport network with plenty of scalability to meet future demand.

In addition to its Horizon Quantum powered backbone network, Choice Wireless has extended their network using the all-outdoor Horizon Compact to provide high-speed connectivity to enterprise customers comprising financial institutions, hospitals, government institutions, hotels, resorts and the schools, including the University of the Virgin islands. All of these organizations are enjoying high capacity access with scalability up to 400 Mbps.

Through the highly successful rollout of their network, Choice Wireless has enhanced the lives of local residents and visitors by providing advanced mobile services in previously underserved areas. Business are also benefiting from much higher data connectivity, enabling them to improve their own operations.

As Choice expands their network and subscriber base, while adding new fixed access enterprise customers, the operator continues to work with Future Technologies and DragonWave and will soon be adding DragonWave's next generation Horizon Compact+ all-outdoor packet microwave system to their network.



HORIZON QUANTUM



HORIZON COMPACT

CHOICE WIRELESS MICROWAVE BACKBONE



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