## **CASE STUDY**

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### **BC FERRIES**

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#### Project Location Victoria, British Columbia, Canada

Project Type Ship-to-Shore Coastal Roaming Network (CRN)

Project Solution Vessel: DVM 30, 0.3m MIMO Antenna, Proxim 8200 Radio Land: Overlapping Sector Base Stations, Proxim 8200 Radios Distance: 0-30Km Throughput: 50 - 260 Mbps Aggregate Speed



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# CASE STUDY

# **BC FERRIES**

#### Situation

BC Ferries in Victoria, British Columbia, Canada needed to augment its legacy terrestrial wireless and satellite infrastructure for its "Queen of Alberni" vessel. Bandwidth and network availability levels across both of the vessel's fixed, omnidirectional antennas and SATCOM link were described as "barely usable."

BC Ferries needed a solution that would deliver broadband connectivity for its 52.6 kilometer route from Tsawwassen to Duke Point on Vancouver Island, and allow for continued operations for the point-of-sale (POS) communications, and VPN needs of the vessel. They also needed a solution that could utilize as much of the legacy network as possible, to minimize cost and time associated with the deployment.

#### Solution

BATS Wireless worked in conjunction with BC Ferries, to deliver a broadband link that was able to meet and exceed the bandwidth requirements for the ferry route. This link was achieved while maintaining the existing infrastructure using Proxim 8200 radios on both sides to transport broadband communications.

Five existing sites featuring overlapping 4.5°, 9°, 30° and 60° sector antennas with Proxim 8200 radios were maintained shore side; while a 24dBi MIMO antenna and Proxim 8200 radio was placed on the vessel, housed inside BATS' DVM-50 dome.

The BATS system was configured for advanced network node hopping, which would allow the antenna tracking system to move from one sector to another while along the route, even maintaining links for distances of up to 30 kilometers.

Together, the solution notably achieved and exceeded the desired throughput for the ferry route; providing BC Ferries with a reliable, secure upgrade to its existing terrestrial system—capable from 50 to 260 Megabit/s aggregate. These speeds allowed the operators the ability to fully realize the investment in their shore side infrastructure, while also dramatically increasing performance.

