

### **BC FERRIES**

### **Ferry Route Communications**

BATS FAST 5.8 w/ Proxim 8200 Radio

Project Location Vancouver - Victoria, BC Canada Project Type Ship-to-Shore Coastal Roaming Network (CRN)

#### Project Solution

Vessel: FAST 5.8, Proxim 8200 Radio Land: Overlapping Sector Antennas, Proxim 8200 Radio Distance: 0-10Km per Link Throughput: Up to 260 Mbps Aggregate Speed



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# CASE STUDY

# **BC FERRIES**

#### Situation

Following up with the successful test deployment with the "Queen of Alberni" vessel for the Tsawwassen to Duke Point route, BC Ferries took aim at providing connectivity to a key vessel operating on the difficult Route 1. Due to tower locations as well as a narrow, mid-route passage between Galiano and Mayne Islands, vessels operating on the Vancouver to Victoria route were never able to benefit from consistent, high-throughput wireless communications.

BC Ferries needed a solution that would deliver broadband connectivity for its 60.8 kilometer route from Tsawwassen to Swartz Bay, and allow for continued operations of the point-of-sale, (POS); communications, and free customer WIFI solutions aboard 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 by maintaining the existing infrastructure using Proxim radios on both sides to transport broadband communications.

Existing sites featuring overlapping sector antennas with Proxim radios were maintained shore side; while BATS' innovative, solid-state FAST antenna system and Proxim radio was placed on the vessel.

The BATS system was configured in a node-hopping arrangement, which would allow the antenna tracking system to move from one sector to another along the route, even providing ultrafast switching between links on different towers within nanoseconds to deliver a seamless browsing experience for both production operations and end users.

#### Thetis Islan

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 of up to 260 Megabit/s aggregate. These speeds again allowed the operators the ability to fully realize the investment in their shore side infrastructure, while also providing high-speed connectivity to a route previously deemed difficult to connect.

"We have never experienced the level of throughput or constant connection on the challenging Route 1", says Jim Nivison, Senior Project Manager at BC Ferries, "With BATS, we now have a solution that can enable a multitude of applications, including free customer WIFI aboard the Coastal Celebration vessel."

Following the successful deployment and configuration of the FAST antenna system aboard BC Ferries' "Coastal Celebration" vessel, the system entered into production aboard the vessel; bringing consistent, high-speed wireless internet connectivity to the challenging Tsawwassen to Swartz Bay route for the first time in its history.

