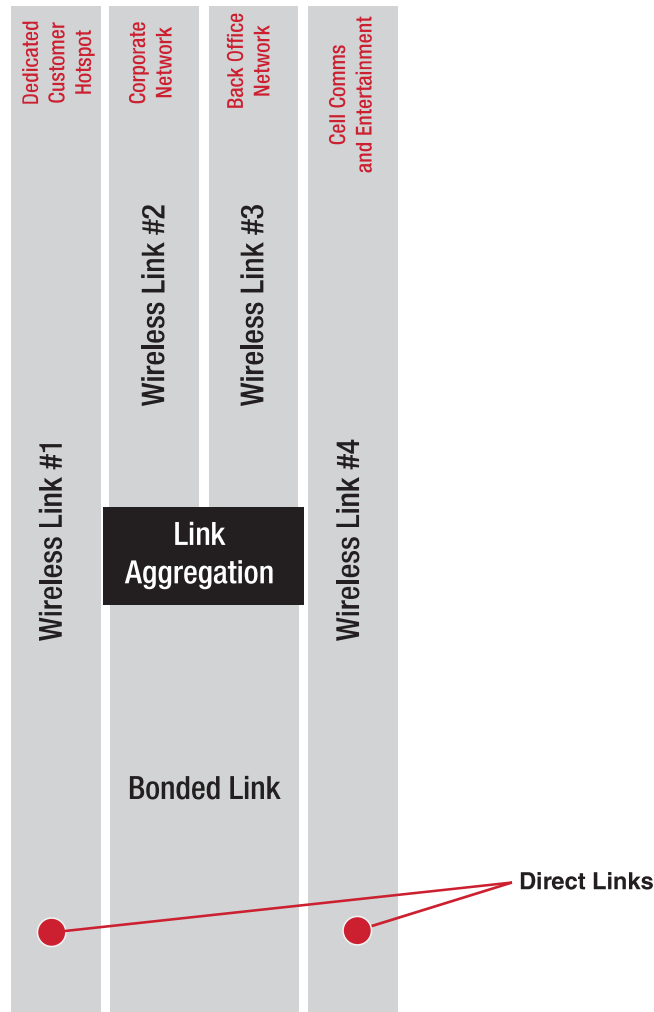


## Enhanced Route Communications Network



### Overview

BATS Enhanced Route Communications Network (ERCN) solution delivers next generation “Massive MIMO” capabilities for operators in the cruise, ferry and shipping markets. The ERCN solution represents a shift in terrestrial-based maritime communications systems, delivering concurrent multi-lane network links featuring integrated aggregation and failover capabilities.

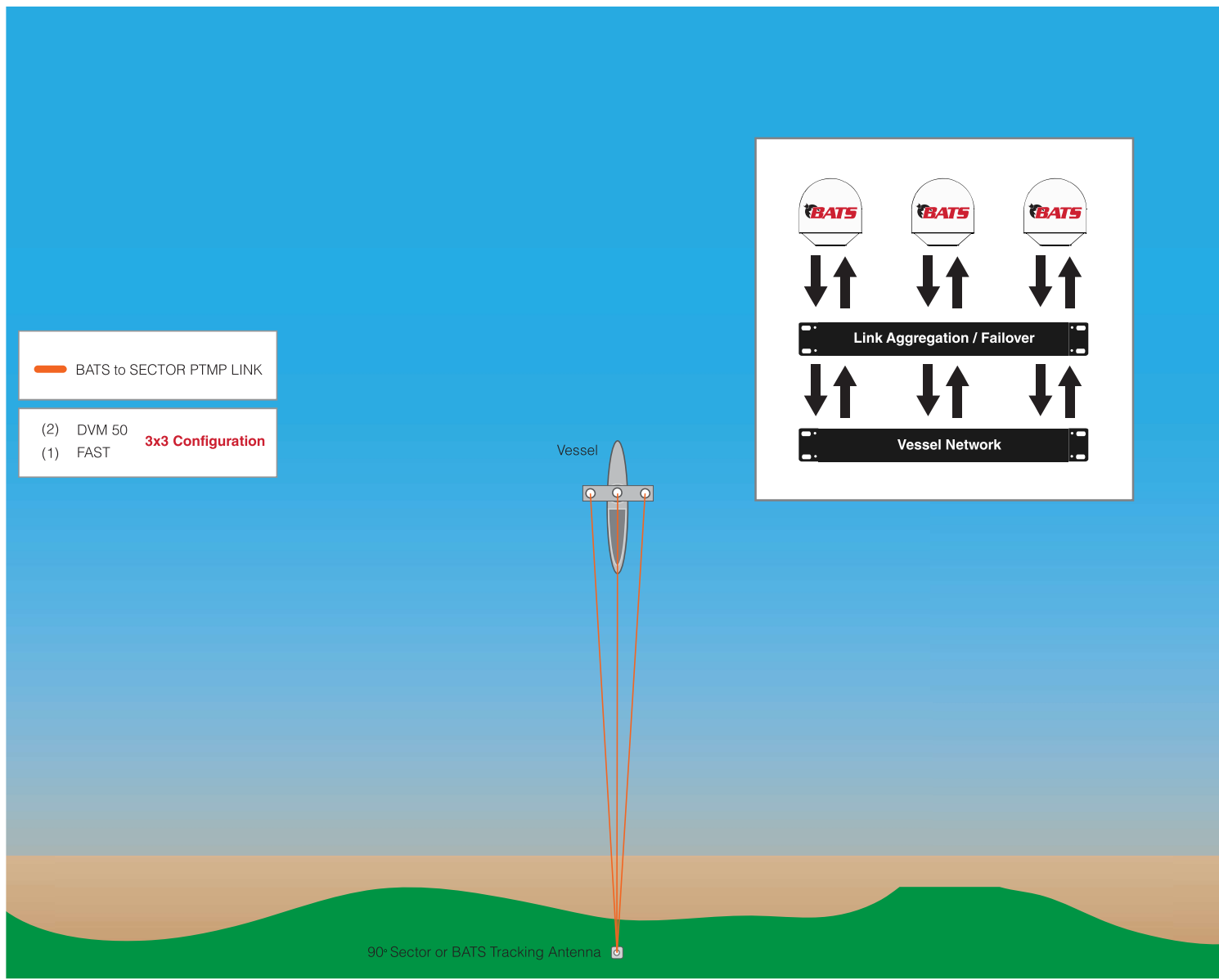
The integrated ERCN solution allows for operators in the leisure market to communicate and share data, as well as support their back office and VPN needs. Additionally, the Enhanced Route Communications Network solution allows for increased throughput for client internet hotspots through the use of a dedicated client channel within its flexible link architecture.

The flexible link architecture allows the operator to choose what QoS level and physical channel each data path takes and features peak speeds of up to 900 Mbps.

The ERCN solution features 2x2, 3x3, 4x4, and 6x6 node arrangements in both spread spectrum and cluster spectrum with intelligent frequency reuse and synchronization.

# SOLUTION GUIDE

## Enhanced Route Communications Network



### Integrated Network Features

#### Load Balancing

Load Balancing can help you easily fine-tune how traffic is distributed across connections, giving you SD-WAN-like flexibility and resilience without having to form a VPN. Each deployment has a unique setup, and load balancing can fulfill the unique requirements of your enterprise.

#### Automatic Failover

Automatic Failover keeps your network up and running by continually checking the health of all connected links and routing traffic around inactive or intermittent connections. You can even define Automatic Failover's behavior, specifying conditional or dedicated backup links that dynamically respond to network status.

#### Load Balancing Configuration

The Load Balancing Solution allows for high performance routing for Weighted Balance, Priority, Overflow, Rules Enforced, Lowest Latency, Least Used, and Persistence.

**Weighted Balance** – Assign more traffic to a faster link or less traffic to a connection with a bandwidth cap. Set a weight on the scale for each connection and outgoing traffic will be proportionally distributed according to the specified ratio.

**Priority** – Route traffic to your preferred link as long as it's available. Arrange the connection priority order, and traffic will be routed through the healthy link that has the highest priority in the list. Lower priority links will only be used if the current connection fails.

**Overflow** – Prevent traffic from slowing down when the connection runs out of available bandwidth. Arrange the connection overflow order and the highest priority link will route traffic as long as it has not been congested. Once it saturates, the lower priority links will start routing traffic.

**Persistence** – Eliminate session termination issues for HTTPS and other secure websites. Specify a traffic type and it will be routed through the same connection persistently based on its source and/or destination IP addresses. Traffic will keep routing on the same connection until the session ends.

**Least Used** – Choose the better connections with more free bandwidth.

**Lowest Latency** – Give the fastest response time when using applications like Voice Over IP. Traffic will be directed to the link with the most available bandwidth among the selected connections.

**Enforced** – Restrict outbound traffic to a particular connection. For scenarios like accessing a server that only allows users from a specific IP, select a connection and the specified traffic type will be routed through it at all times.

#### Link Aggregation

Link Aggregation allows the aggregation of the bandwidths of all available wireless BATS paths to ensure the highest bandwidth and reliability.