



PRODUCT SHEET

BigOceanData Route Optimisation

Weather-aware, vessel-specific voyage optimisation
for planning, execution and review.

Weather-aware, vessel-aware **voyage optimisation**

Reduce voyage cost, improve ETA confidence and support safer, more practical route decisions from planning through execution.

Built for shipowners, managers and operators, BigOceanData (BOD) Route Optimisation combines ABB-powered routing with vessel context, operational constraints and ship-shore workflow support.

Built into the BigOceanData platform, the service combines ABB-powered route optimisation with vessel tracking, route-risk awareness and voyage workflow support. Teams can compare route options against fuel, time, cost, emissions, ETA and operational constraints not distance alone.

By optimising against fuel, time and cost, BOD Route Optimisation also supports teams working to improve voyage efficiency and meet CII requirements.



The smartest route, **not just the shortest route**

BOD Route Optimisation helps teams compare route options and choose the one that best fits commercial, operational and safety priorities.



Lower total voyage cost

Compare routes against fuel, time, cost and operating priorities rather than distance alone.



Shared ship-shore route picture

Connect shore and vessel side planning and voyage monitoring more effectively.



Safer, more practical routing

Apply route restrictions, safety thresholds and high-risk area avoidance in one workflow.



More reliable arrival planning

Use forecast-aware routing to support stronger ETA confidence and voyage control.

Key capabilities



Lower voyage costs

Optimise for time, fuel and cost, not simply the shortest route between ports.



High-risk and piracy avoidance

Reflect security-sensitive areas and route-risk considerations within voyage planning.



Safe coastal and nearshore routing

Support practical routing in shallow and coastal waters alongside offshore optimisation.



Weather-optimised ocean routing

Support better route decisions on long passages using forecast-aware optimisation.



Vessel-specific performance modelling

Use standard vessel profiles or custom models to support more realistic voyage optimisation.



Operational constraints and route restrictions

Apply ECAs, route restrictions, safety thresholds and company operating preferences.



BOD Route Optimisation

From pre-voyage planning through live voyage management and post-voyage review, BOD Route Optimisation is designed to support the full voyage decision cycle. It helps shore teams and vessels work from the same route picture, refresh plans as conditions change and review performance against the original plan. Support better voyage decisions from pre-voyage planning through live execution and post-voyage review.

From planning to voyage review

Planning, execution and review

- **Route templates**
Speed up setup for repeat routes and regular voyage patterns.
- **Two-way RTZ exchange**
Support collaboration between ship and shore within the platform or with route-file exchange.
- **Automatic re-optimisation**
Refresh route plans when weather forecasts, schedules or actual route changes.
- **Monitor against plan**
Compare actual voyage progress with the optimised route during execution.
- **Post-voyage review**
Assess planned versus actual routing and performance after the voyage.

What teams value most

- **ABB-powered routing**
A proven routing engine supporting voyage optimisation in day-to-day operations.
- **Connected within BigOceanData**
Route optimisation connects with vessel tracking, voyage management and operational visibility.
- **Ship-shore context**
Combine route decisions with vessel tracking, voyage management and operational visibility.
- **Risk-aware decision support**
Bring route-risk and security considerations into the same workflow as route planning.
- **Built for live operations**
Move from route planning to live voyage monitoring and post-voyage review.

Where route optimisation delivers value



Shipowners and ship managers

Compare route options before sailing and select the one best aligned to cost, fuel, time and risk priorities.



Fleet performance and voyage teams

Track actual performance against plan and improve post-voyage review.



Operators and chartering teams

Support voyage control with ship-shore route exchange and route updates while underway.



Security and risk-aware operations teams

Bring route-risk considerations into the same workflow as route planning and voyage control.



BigOceanData is a proven maritime operations platform that brings together vessel tracking, voyage management, port and area monitoring, route risk and analytics in one cloud-based environment. It is designed to give maritime teams a clearer operational picture across fleet, voyage and risk workflows.

Route optimisation adds ABB-powered voyage optimisation to the BigOceanData platform, helping teams move from route planning to live monitoring and post-voyage review in one connected workflow.

Contact

Request a live walkthrough to see how BOD Route Optimisation supports route planning, voyage execution and ship-shore decision-making.

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