Route-planning and optimization involves setting the optimum routes taking into consideration safety, costs and time. For ship captains this is a complex challenge for which they seek expert insight from master mariners and skilled meteorologists. DTN developed RouteGuard to address these challenges.

**Benefits**
RouteGuard enables ship owners and charterers to save time and fuel while keeping their crews, ships and cargo safe with the provision of expert marine and meteorology advice on the optimal routes. With RouteGuard you can:

- **Save fuel and time:** Expertly calculate routes with the lowest voyage costs.
- **Secure safe voyages:** Reduce risks and increase safety by avoiding severe weather conditions.
- **Unburden captains:** Make informed decisions utilizing personalized advice from master mariners and skilled meteorologists.
- **Improve fleet operational efficiency:** Reduce downtime and ship and cargo damage by avoiding severe weather.

**Users and key use cases**
RouteGuard supports all stakeholders involved in the planning and adjustment of shipping routes, including: onboard users, such as captains and senior crew, and onshore users, such as operations, performance and fleet managers.

**Onboard**
- **Weather forecast analysis:** Analyze weather and ocean forecasts in real time.
- **Route planning:** Plan and update detailed routes and port itineraries.

**Onboard and Onshore**
- **Route adjustments:** Calculate and recalculate optimum routes using personalized advice.

**Onshore**
- **(Post) voyage analysis:** Obtain assistance when evaluating voyage and post voyage performance.

**Customers**
Leading shipping companies, such as Glencore, Dockwise and BW put their trust in us. Contact us to learn more about how we help these prestigious organizations safely and economically plan routes covering millions of sea miles.
Features
RouteGuard is a shore-based ship routing and performance analysis service for ocean-going fleets. It combines data with nautical and meteorological expertise to calculate the optimum routing information for any voyage. Monitor routes and performance in real time on the FleetGuard web platform. RouteGuard also makes it easy to generate post-voyage performance analysis, helping detect under performing routes and adjust accordingly for future voyages.

RouteGuard offers the following functionality:

Weather forecast analysis - Access in-house weather models from The DTN MeteoBase, specially adapted for marine forecasts. Models contain variables, such as surface pressure, wind and waves, currents, ice and visibility.

Route planning and guidance - Calculate optimal routes based on ETA, costs and safety using expert advice and guidance from former seafarers and nautical meteorologists.

FleetGuard web platform - Monitor fleets, routes, communications and vessel performance with a fully-customizable, modular interface.


RouteGuard unique capabilities
RouteGuard is built using decades of experience in weather forecasting and severe weather routing. RouteGuard users have access to the following unique capabilities:

- **Nautical MeteoBase** - Combines weather information from the most respected global forecasting models (ECMWF, UK Meteorological Office & NCEP) to produce a single, higher-quality forecast.

- **SPOS unique functionality** - Plans and adjusts routes using unique features, such as the ship profile library, Weather-optimized Route Network and variable speed routing.

- **Expert advice** - Provides access to the route planning, adjustment expertise and experience of master mariners as well as meteorologists.