ENGLISH EDITION

META SHIPPING

Solution Overview

Beyond feature lists: real operational challenges and practical examples.

Connect maritime decisions
to data and actionable workflows.

THE REAL PROMISE

Customers do not buy AI. They buy problems solved.

Shift the focus from features to operational challenges → workflows → decision value.

BEFORE | Fragmented work

Information is scattered across emails, spreadsheets and separate systems. Staff must repeatedly search, reconcile and validate records.

WITH LOGI AI | Connected

Connect business context and data. Highlight evidence, estimates and gaps so teams compare on the same basis.

DECISION | Human judgment

Compare available options; authorized personnel review, approve and execute.

One principle across Meta Shipping

Source data → validation → analysis & calculation → alternatives → expert review → actionable records

Important: verify live service scope, data coverage and model accuracy for the deployed version and connected sources.

Connect vessel, cargo and voyage data in one operational workflow

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

Commercial teams receive cargo contracts by email, cargo teams receive shipping instructions, chartering teams keep separate vessel spreadsheets, and operations teams track voyages elsewhere. Inconsistent records delay schedule changes and cost checks.

Illustrative case

A hypothetical 32,000-ton bulk cargo moves from Port A to Port B. Once the cargo team registers a Shipment, staff can view the cargo, suitable vessel candidates, route and port calls in one workflow and pass the context to the next task.

Workflow

1. Start with Shipment and Cargo information
2. Link vessel particulars, voyage and port calls
3. Share one operational context across chartering and operations
4. Validate required fields, identifiers and missing data
5. Pass confirmed information to costs, operations and settlement

Deliverables

Shipment-linked workflow records; vessel, voyage and cargo context; reference data reusable by downstream modules.

Expected benefits

Less duplicate entry and inconsistent information; better traceability from cargo intake to voyage execution; reuse in cost and settlement work.

Performance KPIs

Missing-data rate / Duplicate-entry rate / Handover time / Correction count

Key insight

Example: If a vessel ETA changes, cargo and operations teams can assess the impact from the same linked voyage record instead of reconciling separate spreadsheets.

Hypothetical workflow example. Actual integrations depend on customer permissions and the deployed version.

Connect voyage revenues, expenses and P&L with accounting

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

Re-entering hire, freight, port costs, demurrage, despatch, bunker costs, disbursements and settlements in accounting can sever the link to source transactions, increase mapping errors and slow reconciliation.

Illustrative case

One hypothetical freight settlement becomes an accounting candidate. The system checks the source settlement event, counterparty, currency, amount and account mapping, then produces a balanced Journal Preview.

Workflow

1. Select a source event for accounting
2. Confirm counterparty, currency, amount and period
3. Map transaction type to ledger accounts
4. Check debit/credit balance and voucher preview
5. Obtain authorized review and approval
6. Post only through a separate authorized process

Deliverables

Draft journal linked to its source, balance-check results, Voucher Preview and review/approval audit trail.

Expected benefits

Trace transactions through journal drafts; catch mapping and debit/credit errors before posting; separate preparation, approval and posting.

Performance KPIs

Journal error rate / Mapping correction rate / Review time / Source-linkage rate

Key insight

Example: A balanced Journal Preview is not automatically posted. Reviewer approval and separate posting authority are required.

Preview PASS does not mean posted to the ledger. Login, permissions, approval and posting status must each be checked.

Estimate vessel market value using evidence and AI assumptions

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

Even vessels of similar age and DWT may differ in type, specifications, fuel efficiency, maintenance and market timing. A single price indication is insufficient for acquisition or charter decisions.

Illustrative case

A hypothetical shipowner evaluates three vessels of the same type, aligning age, DWT, main particulars and market date. The team compares how changes in market hire and voyage-cost assumptions alter their economics.

Workflow

1. Choose the vessel or candidate fleet
2. Verify type, DWT, age, capacity and technical particulars
3. Set valuation date and review market observations
4. Compare similar vessels and market indicators
5. Test sensitivity to changed assumptions
6. Combine with independent due diligence and expert judgment

Deliverables

Vessel comparison, valuation date, particulars, assumptions and scenario-based value assessments.

Expected benefits

Consistent vessel comparisons; explicit valuation date and assumptions; support for sale, purchase, chartering and fleet planning.

Performance KPIs

Particulars completeness / Market-data recency / Deviation from external appraisals / Sensitivity

Key insight

Example: Vessel A may cost less to buy but burn more fuel. Vessel B may cost more yet operate more efficiently. Evaluate asset value and voyage economics separately and together.

Verify the deployed model description, training sources, calibration methods and data cutoff before relying on estimates.

Generate candidate sea routes between departure and arrival ports

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

A departure and arrival port alone do not complete a voyage plan. Route bends and intermediate waypoints affect distance, sailing days and fuel; inconsistent candidate routes hinder comparison.

Illustrative case

A hypothetical vessel sails from Busan to Rotterdam. The user selects both ports, generates candidate routes, then reviews key waypoints and route geometry.

Workflow

1. Select departure and arrival ports
2. Generate routes from the connected route network
3. Inspect track geometry and waypoints on a map
4. Check supported vessel and navigation constraints
5. Separately review navigational suitability
6. Send reviewed routes to distance and bunkering analysis

Deliverables

Candidate sea routes, waypoints, route geometry and context for downstream analysis.

Expected benefits

Repeatable route-generation baseline; visual route and waypoint review; shared starting point for distance, bunkering and voyage-cost calculations.

Performance KPIs

Route-generation success / Review time / Network coverage / Difference from actual tracks

Key insight

Example: Two Busan–Rotterdam route candidates can be compared for distance and fuel consumption. Generated routes are not automatically optimal or safe for navigation.

Check route-network coverage and supported navigation restrictions for each deployed version.

See the basis of port-to-port distance and route geometry

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

Confusing straight-line and actual sea-route distances can distort bunker, voyage-duration and cost estimates. A distance number without its route basis is hard to verify.

Illustrative case

A hypothetical voyage planner reviews the Busan–Singapore distance. On a map, they inspect the route and waypoints and distinguish network-based sea miles from geographic distance.

Workflow

1. Choose a port pair or generated route
2. Show complete route and waypoints on a map
3. Review leg distances and total distance
4. Compare alternative routes on the same basis
5. Identify sea-route versus great-circle metrics
6. Pass verified distance to bunker and cost models

Deliverables

Route map, leg distances, total distance and measurement basis.

Expected benefits

Avoid distance interpretation errors; compare routing visually; strengthen evidence behind bunker and voyage-cost inputs.

Performance KPIs

Distance-data completeness / Correction rate / Cross-module consistency / Review time

Key insight

Example: A direct geographic line can be shorter than a sea route around coasts, straits and navigation networks. Fuel estimates require clarity about the distance definition.

The actual user interface should explicitly identify the measurement basis for every distance.

Check vessel position using departure and destination information

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

When departments consult different tracking sources, vessel identifiers, update times and ETAs may not agree. Treating an outdated position as current can lead to wrong operational decisions.

Illustrative case

A hypothetical import team searches for an arriving vessel, checks its latest AIS position, reception time, track and ETA indicators, then shares one vessel reference with port and logistics teams.

Workflow

1. Search by IMO, MMSI or vessel identifier
2. Retrieve latest observation from connected feeds
3. Check timestamp, source and data age
4. Inspect track history and ETA indicators
5. Flag unusual or stale positions for separate review
6. Reuse the same vessel reference across linked workflows

Deliverables

Vessel position, track history, timestamps, sources and available voyage-monitoring information.

Expected benefits

Consistent vessel lookup across teams; less repetitive searching; visibility into the freshness and trustworthiness of positions.

Performance KPIs

Feed coverage / Reception delay / Identifier match / Stale-position share / ETA error

Key insight

Example: If the latest reported position is eight hours old, do not present it as the vessel's current position. Always show data age.

Timeliness, geographic coverage and ETA accuracy depend on connected AIS data sources and their delays.

Prepare raw AIS for reliable time-ordered track analysis

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

Raw AIS may contain duplicate messages, missing coordinates, timezone mismatches and implausible position jumps. Uncleaned data can produce false tracks and alerts.

Illustrative case

For a hypothetical vessel, one day of AIS messages is processed. Duplicates at the same timestamp and coordinate errors are flagged, and an ordered track with quality indicators is reconstructed.

Workflow

1. Collect raw AIS messages
2. Validate structure, vessel identifier and timestamp
3. Standardize time zones, units and fields
4. Detect duplicates, gaps and invalid coordinates
5. Sort by time and segment tracks
6. Retain quality flags for downstream analysis

Deliverables

Cleaned AIS observations, time-ordered track segments and duplicate/gap/anomaly quality flags.

Expected benefits

More reliable AIS analysis inputs; earlier detection of source errors; traceability between raw and processed records.

Performance KPIs

Valid-message share / Duplicate rate / Unresolved identifiers / Track gaps / Throughput

Key insight

Example: A vessel apparently moving hundreds of nautical miles in one minute may indicate GPS, duplication or timestamp errors rather than real motion.

Preserve raw observations and flag questionable data instead of indiscriminately deleting them.

Prioritize unusual movements across large-scale vessel tracks

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

Analysts cannot inspect thousands of tracks manually. Position jumps, unexpected prolonged stops and route deviations need review, but data faults must be separated from genuine incidents.

Illustrative case

A candidate deviation is flagged on a hypothetical vessel route. Analysts examine raw AIS, missing records, vessel characteristics and route context before deciding on expert escalation.

Workflow

1. Select vessels, sea area and time window
2. Run rule-based or statistical detection
3. Flag jumps, speed changes, stops and deviations
4. Inspect raw tracks and quality issues
5. Consider alternative explanations and route context
6. Escalate for expert review and record outcomes

Deliverables

Anomaly candidates linked to supporting tracks, detection reasons and review status.

Expected benefits

Prioritized analyst review; reduced repetitive inspection at scale; traceable handoff from detection to expert decisions.

Performance KPIs

Precision and recall / False alarms / Review time / Evidence completeness / Reviewer agreement

Key insight

Example: A route deviation after an AIS reception gap may reflect missing data rather than a real deviation. An alert starts an investigation; it does not confirm an incident.

Detection flags are not evidence of illegal or dangerous conduct; source data and expert assessment remain essential.

Compare single-port and split bunkering on whole-voyage economics

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

Buying the most fuel at the cheapest port is not always optimal. Detours, consumption, reserve requirements, tank capacity and port charges determine feasibility and total cost.

Illustrative case

A hypothetical vessel sails from San Martin to Phu My. Strategy A buys all fuel at departure; Strategy B buys only the required amount and bunkers again in Singapore. Both are compared on the same voyage assumptions.

Workflow

1. Enter voyage legs, distances and fuel consumption
2. Check FO/DO remaining on board (ROB) and reserves
3. Calculate remaining fuel after each leg
4. Validate tank capacities and fuel constraints
5. Compare prices, port charges and detours
6. Rank feasible options by total voyage cost

Deliverables

Bunkering port options, purchase volumes, leg-by-leg ROB, reserves, detours and total cost by strategy.

Expected benefits

Compare total voyage cost rather than unit price; exclude fuel-shortage or tank-overflow options; reveal economic trade-offs of one-stop and two-stage bunkering.

Performance KPIs

Total bunker spend / Fuel shortfall / Reserve compliance / Extra miles / Consumption forecast error

Key insight

Example: Even if Singapore fuel costs less per tonne, its detour and port charges can outweigh the price saving. Unit price alone cannot determine the best strategy.

Label estimated prices, consumption and ROB; recommend only plans that satisfy fuel, reserve and tank constraints on every leg.

Calculate itemized port costs from vessel particulars and tariffs

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

Port costs include pilotage, towage, mooring and port dues, each varying by GT, NT, LOA, draft, terminal, tariff effective date and service conditions. A single total obscures estimates and official rates.

Illustrative case

A hypothetical ship calls Rotterdam. Users enter GT, LOA, draft and call conditions. The calculator applies relevant tariff schedules and effective dates; unsupported items remain estimated or marked missing.

Workflow

1. Select port, terminal and call conditions
2. Enter GT, NT, LOA, draft and other particulars
3. Verify tariff sources, effective dates and terms
4. Apply rate brackets and formulas by item
5. Show OFFICIAL, PROVISIONAL or INPUT_REQUIRED
6. Separate official and estimated subtotals

Deliverables

Itemized costs, rates, formulas, sources, official and estimated subtotals, and unavailable items.

Expected benefits

Explain individual charges; distinguish official from estimated amounts; provide a basis for recalculation when vessel inputs change.

Performance KPIs

Share of items with official evidence / Tariff recency / Invoice deviation / Recalculation success

Key insight

Example: If pilotage is calculated from an official tariff but towage data are absent, towage must not be set to zero. Mark it missing or estimated so users can judge total-cost uncertainty.

Estimated port costs are not invoices or firm quotations. Verify official sources, applicability and effective dates.

Forecast demand to support shipping and infrastructure decisions

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

Shipping companies must plan fleets, staffing and facilities in advance. Historical averages alone can miss seasonality, cargo-mix shifts and economic cycles.

Illustrative case

A hypothetical port prepares for growth in vehicle cargo. Monthly historic volumes inform baseline, growth and low-growth scenarios, which are then compared with berth, yard and equipment plans.

Workflow

1. Select port, cargo type, region and period
2. Validate historical units, gaps and data quality
3. Set forecast horizon and growth/decline assumptions
4. Produce baseline and alternative scenarios
5. Backtest against historical holdout observations
6. Use results in facility, fleet and inventory plans

Deliverables

Period-based demand forecasts, scenario comparisons and forecast-error/bias diagnostics.

Expected benefits

Link future demand to capacity planning; compare assumptions rather than one prediction; identify shortage and overcapacity risks earlier.

Performance KPIs

MAE/RMSE / Forecast bias / Cargo-specific accuracy / Data completeness / Update interval

Key insight

Example: Annual vehicle volume can rise while peak-month congestion is missed. Compare monthly demand with berth and yard capacity to time investments appropriately.

Forecasts depend on data, horizon and assumptions. Validate the model chronologically against observed outcomes.

Connect global shipping and port developments to decisions

Case-based explanation · Hypothetical scenario for illustration

Operational challenge

Regulatory, port-closure, freight-rate, trade-policy and infrastructure news is scattered across markets and sources. Manual monitoring can delay critical information.

Illustrative case

A hypothetical carrier strategy team monitors Red Sea route risk, strikes at European ports and carbon rules. It verifies article dates and original sources and assesses operational, cost and strategic implications.

Workflow

1. Set regions, ports, companies and topics
2. Collect public or appropriately licensed sources
3. Check publisher, publication time and original link
4. Classify and summarize by subject, company and region
5. Rank risk material facts against original sources
6. Prepare operational, cost and strategic briefings

Deliverables

Topic-specific news stream, original sources, publication dates, summaries and strategic reviews.

Expected benefits

One view of cross-market changes; less repetitive news gathering; source-grounded research and executive briefing support.

Performance KPIs

Source coverage / Ingestion delay / Duplicate rate / Source verification / Analyst review time

Key insight

Example: A port strike report can lead beyond a summary to evaluation of affected vessel calls, alternate ports, likely delays and additional costs.

Summaries do not replace original reporting. Check source credibility, copyright and update timestamps.

END-TO-END INDUSTRY CASE

How 14 solutions support one vessel and one voyage

Example: a workflow from cargo intake through routing, bunkering, port costs, accounting and market intelligence

01	Start workflow	MetaShipping	Link Shipment, Cargo and voyage context
02	Evaluate economics	Ship Valuation	Compare vessel candidates and market assumptions
03	Plan route	Route Generator / Distance Viewer	Review route alternatives and distance basis
04	Monitor voyage	Vessel Tracking / AIS	Check position, tracks and data quality
05	Review anomalies	Anomaly Detection / Expert Evaluation	Assess alerts with evidence and expert judgment
06	Optimize costs	Bunker Port Planner / Port Cost Calculator	Compare bunkering strategies and port charges
07	Settle & strategize	META ACCOUNTING / Demand Forecast / News Monitor	Review accounting, demand trends and industry change

Value comes not from the number of menus, but from each module carrying forward the same business context into the next decision.

THE NEXT STEP

META SHIPPING must answer the customer’s questions.

“Which business problem does it solve? What data do we provide, what do we receive, and who can make the next decision?”

1. Business challenge

Describe the customer’s real operational situation, costs, time and risks.

2. Verifiable results

Show outputs, calculations, assumptions and missing data transparently.

3. Next customer action

Offer a demo, data-readiness assessment or pilot deployment.

Use this reviewed Korean edition to confirm examples, numbers and wording before preparing international materials and product detail pages.