

Rayterton

Maritime Operations & Fleet Management Platform

One Integrated Command Platform for End-to-End Maritime Operations

Delivering fleet control, voyage certainty, safety governance, and fuel efficiency across your entire maritime ecosystem.

Governing with The Digital Backbone of Modern Maritime Operations

Rayterton Apps Software for Maritime Operations and Fleet Management

- **Total Control. Total Visibility. Total Confidence at Sea.**
A single maritime operations platform that turns complex fleet activities into real-time executive decisions.
- **Transforming Maritime Operations into a Strategic Advantage**
From fleet readiness and voyage performance to safety compliance and energy efficiency, all governed in one platform.
- **Built for Safe, Compliant, and Profitable Maritime Operations**
An enterprise-grade platform designed to meet operational, regulatory, and executive demands at scale.
- **Master Your Fleet. Optimize Every Voyage. Control Every Cost.**
An integrated maritime platform that delivers measurable efficiency, safety, and operational excellence.
- **The Digital Backbone of Modern Maritime Operations**
Connecting fleet management, safety governance, and operational intelligence into a single national-ready platform.

Modules in the Maritime Operations & Fleet Management Platform

Fleet & Vessel Management

Provides a centralized master repository for all vessels, covering technical specifications, classification, ownership, operational status, certifications, and overall asset condition as a single source of truth.

Voyage Planning & Execution

Manages voyage scheduling, routing, port calls, ETA tracking, delay analysis, and voyage performance benchmarking from planning through completion.

Port & Marine Operations

Controls port clearance processes, berth and slot scheduling, turnaround time monitoring, congestion analysis, and demurrage risk management in coordination with port authorities.

Maintenance & Dry Dock Management

Governs the full maintenance lifecycle including planned and corrective maintenance, dry dock programs, spare parts management, cost control, and asset lifecycle history.

Safety, Compliance & ISM Governance

Manages safety procedures, incident and near-miss reporting, audits, inspections, certifications, and regulatory compliance under international maritime standards and ISM Code.

Crew & Maritime HR Operations

Controls crew profiles, assignment and rotation planning, certification and license tracking, medical fitness records, and fatigue and rest time monitoring.

Fuel & Energy Management

Monitors bunker planning, fuel consumption logging, variance and loss analysis, fuel efficiency benchmarking, emission metrics, and fuel cost trends.

Voyage Costing & Profitability Control

Calculates voyage-level operational costs including fuel, port charges, maintenance allocation, and operating expenses, providing clear visibility into voyage profitability.

Maritime Control Tower & Executive Dashboard

Delivers real-time executive dashboards consolidating fleet readiness, safety performance, fuel efficiency, maintenance status, operational risks, and cost indicators in a single command view.

Incident, Claim & Risk Management

Manages operational incidents, accidents, cargo damage, insurance claims, investigations, root cause analysis, and long-term risk trend monitoring.

Integration & Maritime Digital Ecosystem

Supports integration with AIS, weather and ocean data services, port systems, ERP and financial platforms, and regulatory data exchanges within a broader maritime digital ecosystem.

Strategic Planning, RKAP & Scenario Simulation

Enables board-level strategic planning through scenario simulation for fleet expansion, route optimization, fuel price sensitivity, port capacity, PSO obligations, and RKAP alignment using live operational data.

Fleet & Vessel Management

Provides a centralized master of all vessels across the fleet, covering technical specifications, classification, ownership, operational status, and asset condition.

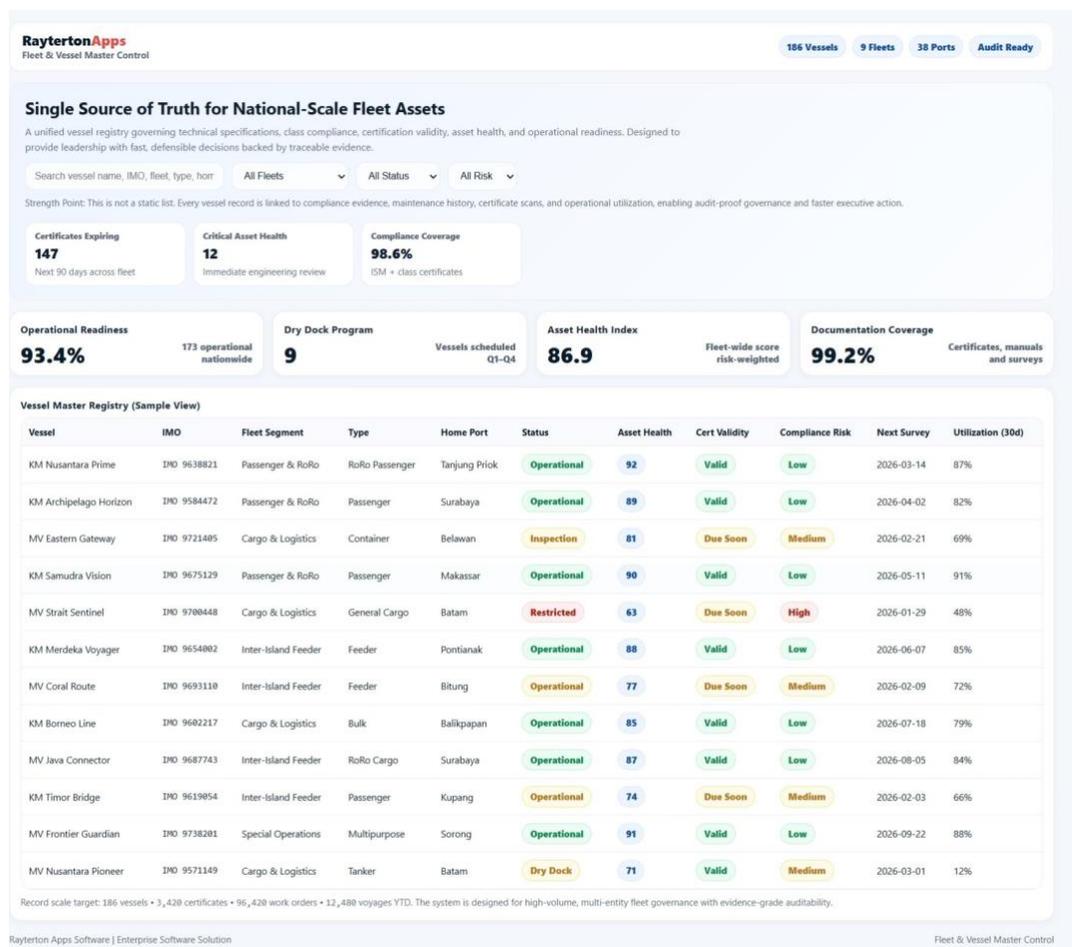
This module ensures a single source of truth for fleet readiness and availability.

Features:

- Fleet Overview Dashboard
- Vessel Master Registry
- Vessel Status & Availability
- Technical Specifications & Classification
- Asset Health Index
- Vessel Ownership & Flag Management
- Certificate & Document Repository

Strength Points:

Establishes a single, authoritative source of truth for all fleet assets, enabling management to monitor vessel readiness, compliance, and operational availability across the entire organization.



Voyage Planning & Execution

Manages voyage scheduling, routing, port calls, ETA tracking, and delay analysis from planning to completion.

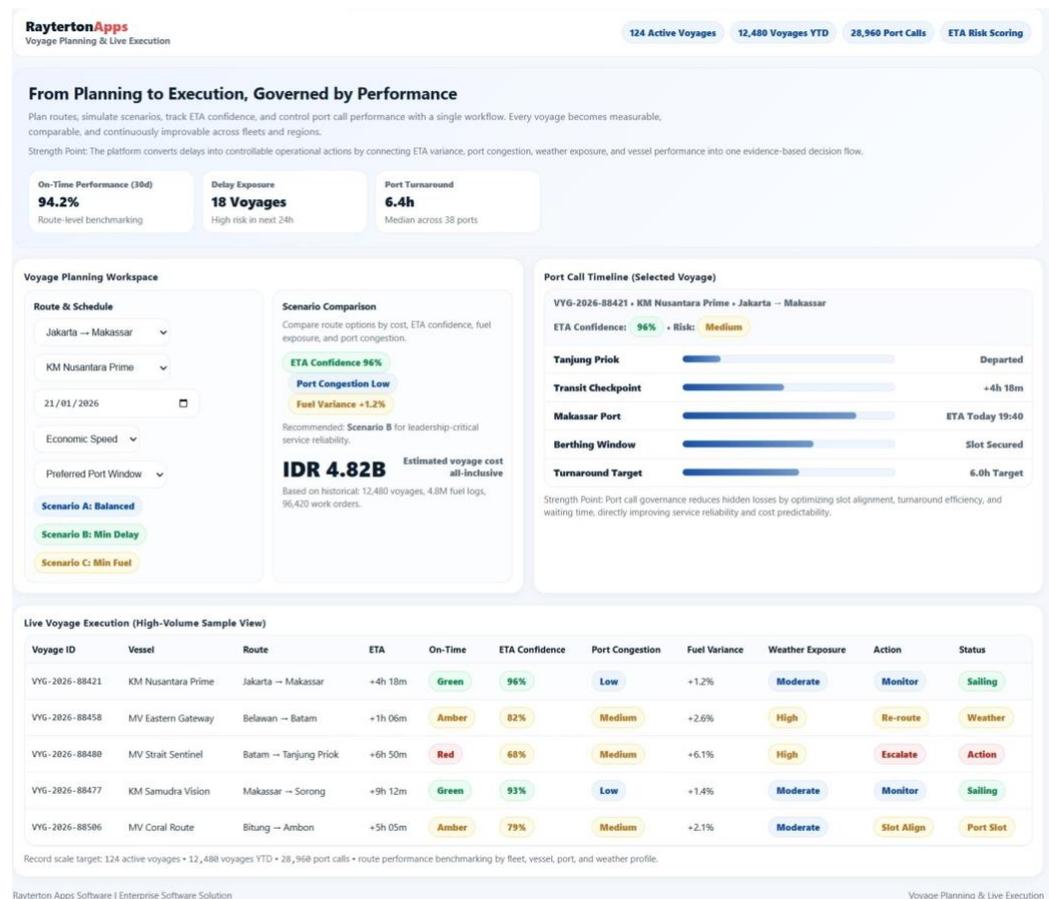
Executives gain full visibility into voyage performance, punctuality, and route efficiency across all vessels.

Features:

- Voyage Planning Workspace
- Route Optimization & Scenario Comparison
- Sailing Schedule & Timeline
- Port Call Management
- ETA & Delay Analytics
- Voyage Performance Review
- Voyage History & Benchmarking

Strength Points:

Transforms voyage planning from a scheduling activity into a performance driven process, allowing management to compare routes, analyze delays, and continuously improve voyage efficiency.



Port & Marine Operations

Controls port clearance, berth scheduling, turnaround time, and operational coordination with ports.

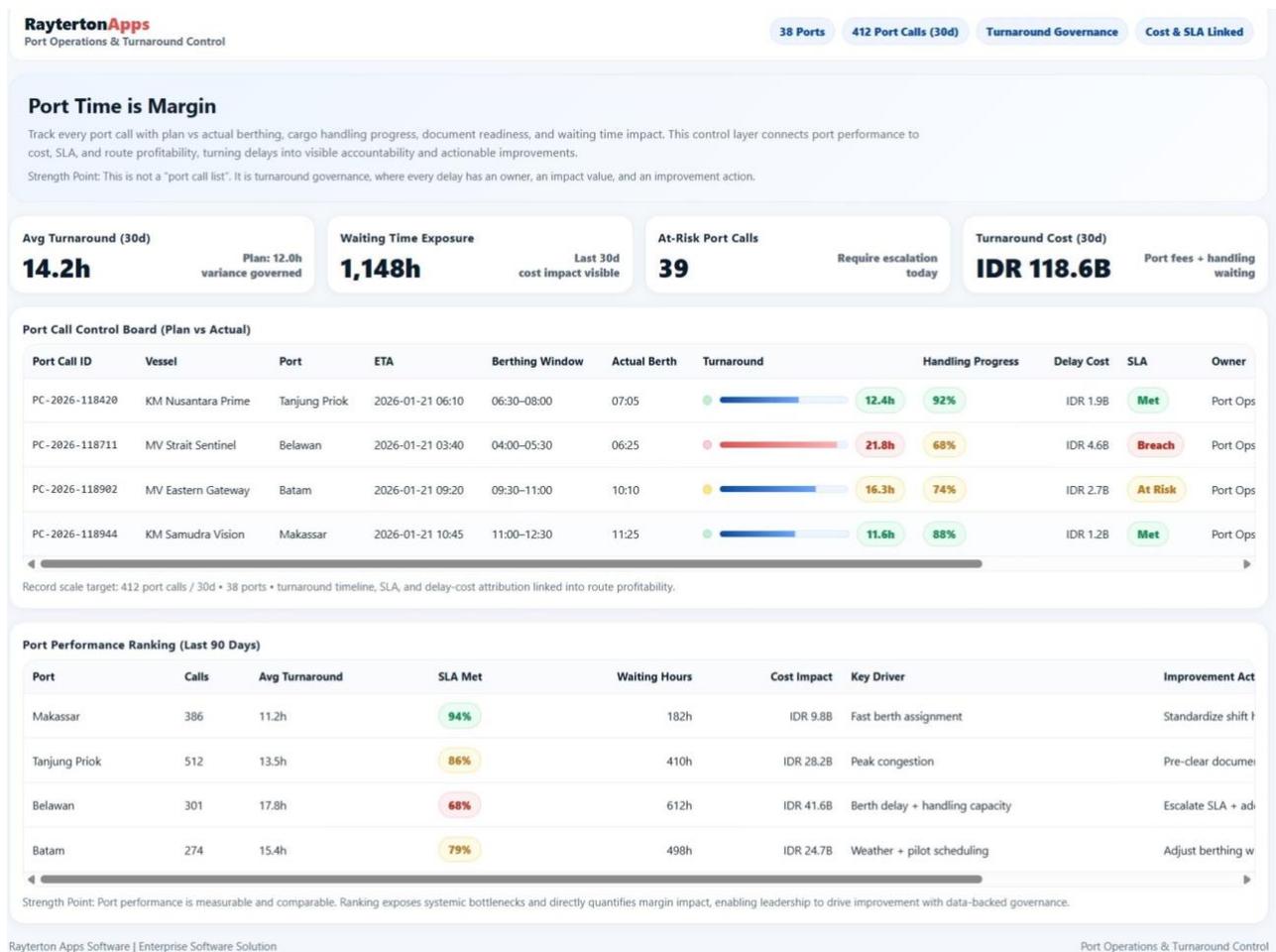
Designed to reduce waiting time, improve port productivity, and strengthen integration with port authorities.

Features:

- Port Operations Dashboard
- Berth & Slot Scheduling
- Port Clearance Status
- Turnaround Time Analysis
- Waiting Time & Congestion Monitoring
- Demurrage Exposure Analysis

Strength Points:

Provides structured control over port interactions, reducing waiting time, minimizing demurrage risk, and improving coordination with port authorities and terminal operators.



Maintenance & Dry Dock Management

Governs the full maintenance lifecycle including planned maintenance, corrective actions, spare parts, and dry docking programs.

Ensures asset reliability while controlling maintenance cost and minimizing operational disruption.

Features:

- Maintenance Control Dashboard
- Planned Maintenance Schedule
- Corrective Maintenance & Work Orders
- Dry Dock Planning & Tracking
- Spare Parts & Inventory Control
- Maintenance Cost Analysis
- Asset Lifecycle History

Strength Points:

Ensures asset reliability and lifecycle control by shifting maintenance from reactive repair to planned, cost controlled, and performance oriented asset management

RaytertonApps
Maintenance & Dry Dock Governance

96,420 Work Orders | 9 Dry Dock Programs | Asset Lifecycle Control | Audit-Ready Evidence

From Reactive Repair to Governed Reliability

Plan, execute, and audit every maintenance activity across vessels, components, and dry dock programs. The platform provides traceable evidence for every work order, spare usage, cost attribution, and downtime impact.

Strength Point: Maintenance is treated as governance, not paperwork. Every decision is connected to asset health, compliance obligations, and operational availability.

Work Orders (MTD)
8,412

Across 186 vessels
all fleets

Overdue Maintenance
146

Require immediate
engineering action

Dry Dock Governance
9

Programs tracked
Q1-Q4

Spare Parts Availability
97.8%

Critical spares
coverage

Dry Dock Program Control (Portfolio View)

Program ID	Vessel	Dockyard	Window	Scope (Items)	Budget	Committed	Progress	Risk	Lead Engineer	Status
DD-2026-017	KM Nusantara Prime	PT Dockyard Surabaya	2026-02-03 – 2026-02-28	218	IDR 42.8B	IDR 31.2B	<div style="width: 70%;"></div>	Medium	Eng. R. Santoso	In Progress
DD-2026-022	MV Eastern Gateway	Batam Marine Works	2026-03-10 – 2026-03-31	164	IDR 31.4B	IDR 22.9B	<div style="width: 40%;"></div>	Medium	Eng. H. Prabowo	Mobilizing
DD-2026-029	MV Strait Sentinel	Tanjung Priok Docking	2026-01-18 – 2026-02-15	246	IDR 49.9B	IDR 46.7B	<div style="width: 90%;"></div>	High	Eng. D. Wirawan	At Risk
DD-2026-034	KM Archipelago Horizon	Makassar Shipyard	2026-04-05 – 2026-04-30	190	IDR 37.2B	IDR 12.4B	<div style="width: 15%;"></div>	Low	Eng. A. Rahman	Planned
DD-2026-041	KM Borneo Line	Balikpapan Dry Dock	2026-05-12 – 2026-06-03	156	IDR 28.7B	IDR 6.8B	<div style="width: 10%;"></div>	Low	Eng. S. Kurniawan	Planned

Record scale: target: 96,420 work orders • 18,600 preventive tasks • 6,240 corrective incidents • cost attribution per vessel, per component, and per dry dock scope.

Work Order Execution (Audit-Traceable Sample)

WO ID	Vessel	System	Priority	Description	Planned	Downtime Impact	Cost	Evidence	Status
WO-2026-883120	KM Nusantara Prime	Main Engine	High	Injector calibration and exhaust temp rebalancing	2026-01-22	2.0h	IDR 214M	Photos + Checklist	In Progress
WO-2026-884007	MV Strait Sentinel	Hull & Coating	Critical	Corrosion patching and ultrasonic thickness survey	2026-01-21	6.5h	IDR 382M	Survey Report PDF	At Risk
WO-2026-882411	MV Eastern Gateway	Aux Generator	High	Vibration inspection and bearing replacement	2026-01-23	1.5h	IDR 96M	Sensor Log + Photos	Scheduled
WO-2026-881770	KM Samudra Vision	Safety Equipment	Normal	Lifboat winch lubrication and load test	2026-01-24	0.5h	IDR 18M	Checklist	Scheduled
WO-2026-883955	KM Borneo Line	HVAC	Normal	Air handling filter replacement and airflow balancing	2026-01-25	0.0h	IDR 9M	Parts Issue Note	Planned

Strength Point: Every work order carries evidence, cost, and downtime impact, allowing management to defend decisions during audits and to continuously improve fleet availability.

Rayterton Apps Software | Enterprise Software Solution

Maintenance & Dry Dock Governance

Safety, Compliance & ISM Governance

Manages safety procedures, incident reporting, audits, certifications, and regulatory compliance under international maritime standards.

Positions safety as a structured governance system rather than reactive reporting.

Features:

- Safety & Compliance Dashboard
- Incident & Near Miss Reporting
- ISM Audit & Inspection Management
- Safety Checklist & SOP
- Certification & Compliance Status
- Regulatory Reporting Center

Strength Points:

Positions safety and regulatory compliance as an embedded governance framework, not merely a reporting obligation, ensuring consistent adherence to international maritime standards.

RaytertonApps
Safety, ISM & Compliance Command

1,942 Audits 0 Major Violations Certificate Governance Evidence-Based

Compliance as a Living Operating System

Capture incidents, conduct audits, manage certificates, enforce corrective actions, and maintain full ISM governance across fleets. Every compliance decision is traceable, reviewable, and defensible to regulators and auditors.

Strength Point: Safety and ISM are not treated as reporting. The platform enforces corrective action workflows with evidence, deadlines, accountability, and verification, ensuring compliance becomes measurable operational discipline.

Safety Score (30d) **A-** Fleet-wide compliance governance

Open Corrective Actions **312** Require closure verification

Certificates Expiring **147** Next 90 days fleet-wide

Incident Volume (MTD) **86** Near miss, safety events and hazards

Compliance Command Queue (Portfolio View)

Case ID	Type	Vessel	Location	Classification	Severity	Owner	Due Date	Evidence	Status	Verifi
CAPA-2026-00441	Corrective Action	MV Strait Sentinel	Tanjung Priok	ISM Non-Conformity	<div style="width: 100%;"></div>	HSE Lead – W. Nugraha	2026-01-24	Photos + Report	At Risk	Per
AUD-2026-01872	Audit Finding	KM Nusantara Prime	Jakarta	Internal Audit	<div style="width: 100%;"></div>	HSE Auditor – R. Permadi	2026-01-31	Checklist	Open	Sch
INC-2026-00119	Incident	MV Eastern Gateway	Belawan	Near Miss	<div style="width: 100%;"></div>	Ship Safety Officer – A. Lestari	2026-01-23	Witness Log	Investigation	N/
CERT-2026-00307	Certificate Renewal	KM Archipelago Horizon	Surabaya	Class Certificate	<div style="width: 100%;"></div>	Compliance Admin – S. Hartono	2026-02-05	Scan + Approval	In Review	Per
AUD-2026-01905	Audit Finding	KM Samudra Vision	Makassar	Port State Control	<div style="width: 100%;"></div>	HSE Lead – W. Nugraha	2026-01-28	PSC Notes	At Risk	Per

Record scale target: 1,942 audits + 28,400 certificate records + 6,120 incident logs + corrective actions with evidence, owners, due dates, and verification trails.

Certificate Governance (Expiring Soon)

Cert ID	Vessel	Certificate	Issuer	Validity	Days Left	Owner	Evidence	Status	Escalation
CERT-884120	MV Strait Sentinel	Safety Management Certificate	Class Society	2024-01-29 → 2026-01-29	8	Compliance Admin – S. Hartono	Scan + Approval	Due Soon	Escalation
CERT-882774	KM Nusantara Prime	ISM Document of Compliance	Flag Administration	2024-02-14 → 2026-02-14	24	HSE Lead – W. Nugraha	PDF	In Renewal	Medium
CERT-881199	MV Eastern Gateway	Load Line Certificate	Class Society	2024-03-01 → 2026-03-01	39	Ship Safety Officer – A. Lestari	Scan + Photos	Planned	None
CERT-883070	KM Archipelago Horizon	Passenger Ship Safety Certificate	Port Authority	2024-02-21 → 2026-02-21	31	Compliance Admin – S. Hartono	PDF + Checklist	In Renewal	Medium

Strength Point: Certificate governance prevents operational disruption by linking expiry risk to vessel status, voyage scheduling, and compliance escalation in one unified command queue.

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Safety, ISM & Compliance Command

Crew & Maritime HR Operations

Controls crew assignment, rotation planning, certification validity, medical records, and fatigue monitoring.

Ensures vessels are operated by compliant, fit, and well managed crews at all times.

Features:

- Crew Operations Dashboard
- Crew Master & Profile
- Crew Assignment & Rotation
- Certification & License Tracking
- Medical & Fitness Records
- Fatigue & Rest Time Monitoring

Strength Points:

Strengthens operational safety and vessel performance by ensuring that every voyage is operated by certified, fit, and properly assigned crew members.

Crew & Maritime Workforce Governance

9,860 Crew Records

186 Vessels

License & Medical Validity

MLC Rest-Hour Compliance

Crew Readiness is Operational Readiness

Manage crew assignment, certification validity, medical fitness, rest-hour compliance, and voyage staffing requirements in one governed workforce layer. The system prevents non-compliant sailing by enforcing role-based requirements and real-time readiness checks before departure.

Strength Point: This is not generic HR. It is maritime workforce governance with audit-ready evidence, role requirements, and compliance controls embedded into voyage execution.

Crew Readiness (Today)

96.1%

Voyage-ready assignment

Expiring Certificates (60d)

284

Require renewal scheduling

Medical Expiry (90d)

198

Fitness-to-sail risk exposure

Rest-Hour Violations (MTD)

37

MLC compliance requires action

Voyage Staffing & Readiness Gate (Pre-Departure)

Voyage ID	Vessel	Route	Departure	Required Roles	Assigned	License Validity	Medical Validity	Rest-Hour Compliance	Gate Result
YVG-2026-88421	KM Nusantara Prime	Jakarta → Makassar	2026-01-21 08:30	24	24	<div style="width: 100%; height: 10px; background-color: #007bff;"></div>	<div style="width: 100%; height: 10px; background-color: #007bff;"></div>	<div style="width: 100%; height: 10px; background-color: #007bff;"></div>	CLEARED
YVG-2026-88480	MV Strait Sentinel	Batam → Tj. Priok	2026-01-21 11:15	18	18	<div style="width: 80%; height: 10px; background-color: #dc3545;"></div>	<div style="width: 100%; height: 10px; background-color: #007bff;"></div>	<div style="width: 80%; height: 10px; background-color: #dc3545;"></div>	HOLD
YVG-2026-88477	KM Samudra Vision	Makassar → Sorong	2026-01-21 13:10	22	22	<div style="width: 100%; height: 10px; background-color: #007bff;"></div>	<div style="width: 100%; height: 10px; background-color: #007bff;"></div>	<div style="width: 100%; height: 10px; background-color: #007bff;"></div>	CONDITIONAL

Strength Point: The system enforces a "readiness gate" before departure. If a required certificate is expired or rest-hour compliance is violated, sailing can be blocked with escalations and replacement workflows.

High-Risk Crew Compliance Queue

Crew ID	Name	Rank	Assigned Vessel	Critical Certificate	Expiry	Days Left	Medical Status	Rest-Hour Exposure	Owner	Status
CRW-0009821	Rizky Mahendra	Chief Engineer	MV Strait Sentinel	STCW III/2 – Chief Engineer	2026-02-01	11	Valid	High	Crew Admin – S. Hartono	At Risk
CRW-0014410	Alya Putri Lestari	Second Officer	KM Nusantara Prime	BRM – Bridge Resource Management	2026-03-05	44	Expiring	Medium	Ship Master – Capt. J. Wicaksono	Open
CRW-0007712	Bagus Pratama	Chief Mate	KM Samudra Vision	Advanced Fire Fighting	2026-01-29	8	Valid	Low	Crew Admin – N. Kartika	Due Soon
CRW-0011097	Hendra Wijaya	Able Seafarer Deck	MV Eastern Gateway	Security Awareness	2026-02-18	28	Valid	Medium	Ship Safety Officer – A. Lestari	Open

Record scale target: 9,860 crew records • 42,700 certificate entries • 120,000 rest-hour logs per month • compliance queue with owners, deadlines, and proof.

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Crew & Maritime Workforce Governance

Fuel & Energy Management

Monitors fuel consumption, bunker planning, variance analysis, and efficiency benchmarking across vessels and voyages.

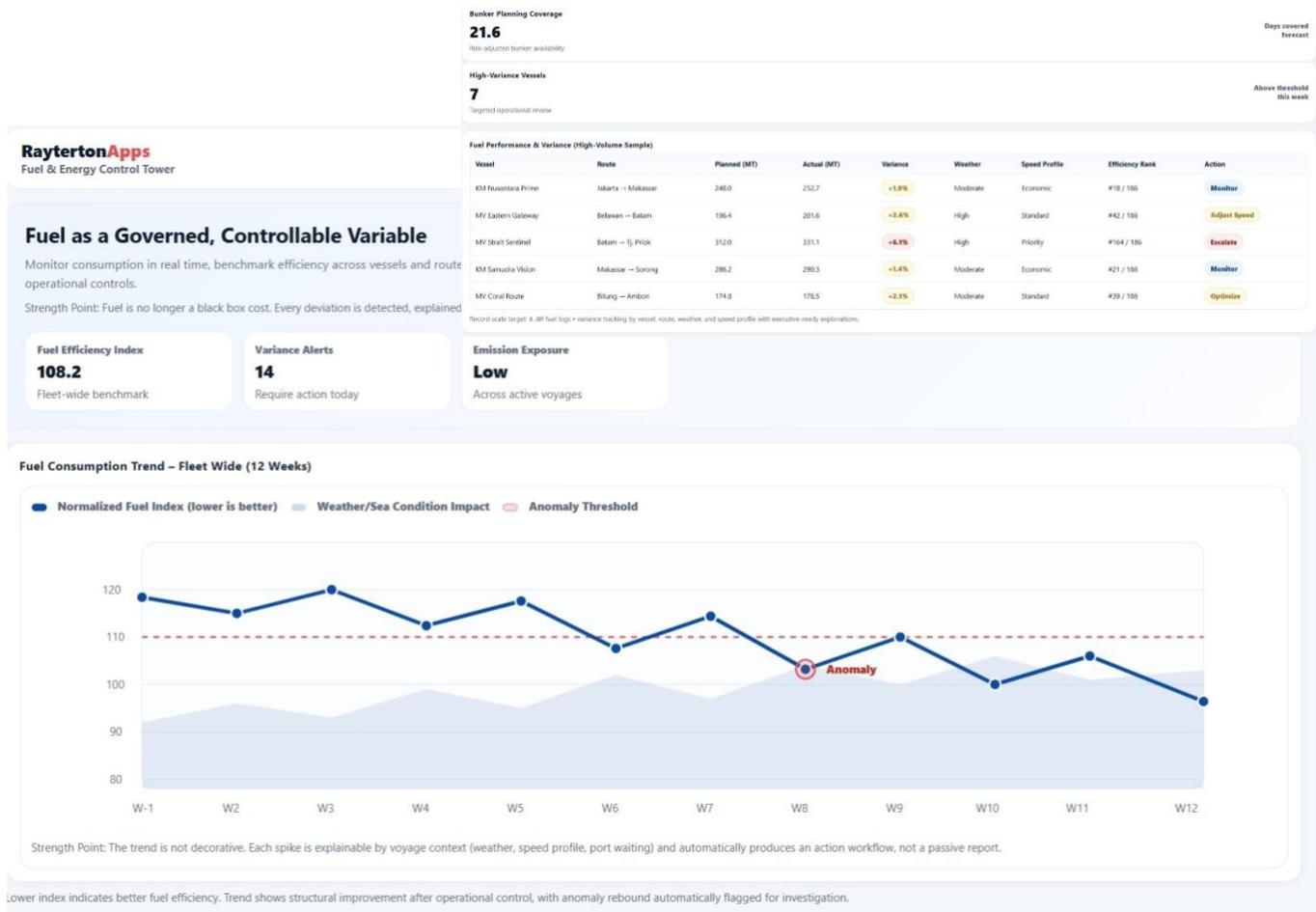
Transforms fuel from an uncontrollable expense into a measurable and optimizable cost driver.

Features:

- Fuel Control Dashboard
- Bunker Planning & Consumption Log
- Fuel Variance & Loss Analysis
- Fuel Efficiency Benchmarking
- Emission & Energy Performance
- Fuel Cost Trend Analysis

Strength Points:

Turns fuel consumption into a measurable and controllable variable, enabling management to optimize energy efficiency and protect profitability across the fleet.



Voyage Costing & Profitability Control

Calculates operational cost per voyage including fuel, port charges, maintenance allocation, and operational expenses.

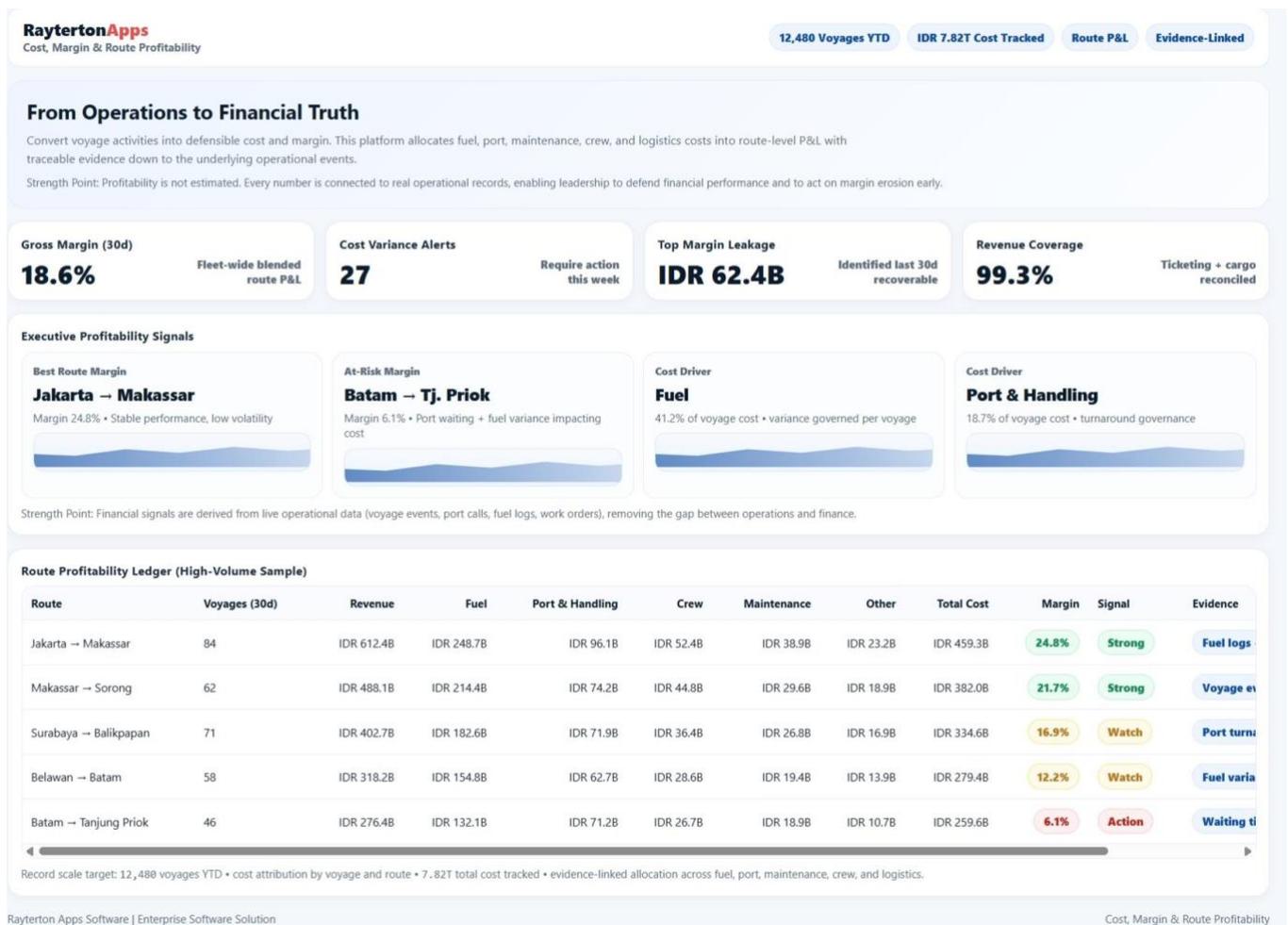
Provides management with clear visibility into cost drivers and voyage level profitability.

Features:

- Voyage Cost Dashboard
- Cost Allocation & Breakdown
- Fuel & Port Cost Analysis
- Maintenance Cost Attribution
- Voyage Profitability Analysis
- Cost vs Budget Monitoring

Strength Points:

Creates a direct link between maritime operations and financial performance, providing transparent visibility into voyage level cost drivers and profitability.



Maritime Control Tower & Executive Dashboard

Delivers real time dashboards for fleet availability, safety performance, fuel efficiency, maintenance status, and cost trends.

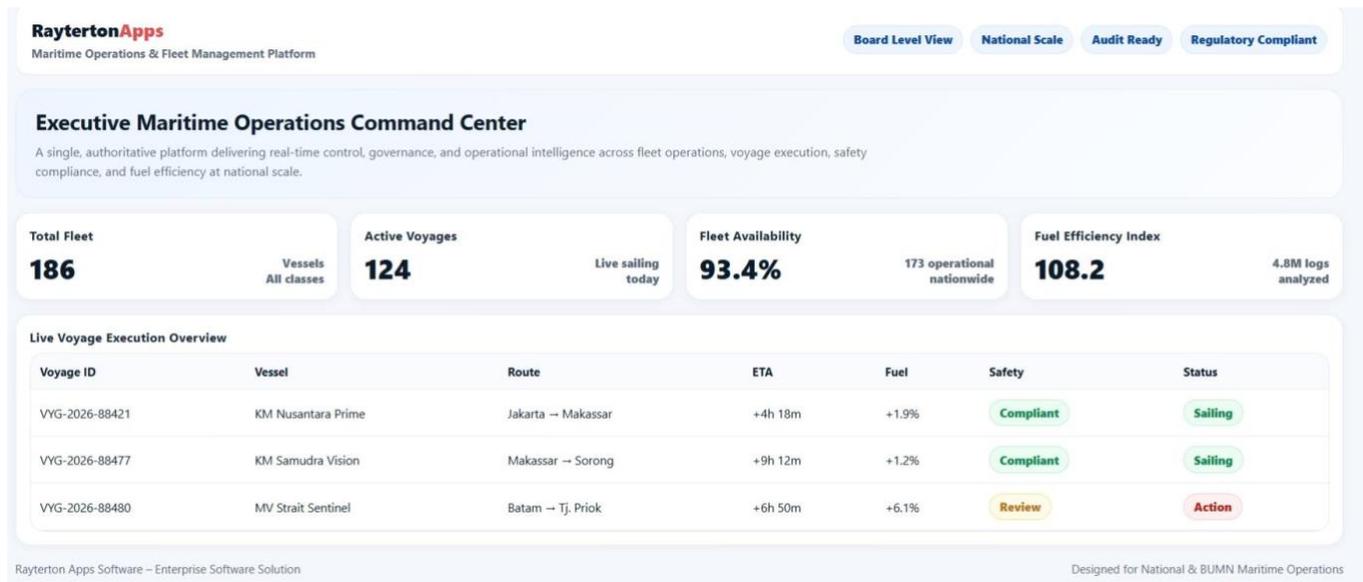
Enables executives to monitor maritime operations with a single, consolidated command view.

Features:

- Executive Command Dashboard
- Fleet Readiness Overview
- Safety & Risk Summary
- Fuel Efficiency Snapshot
- Maintenance & Downtime Overview
- Cost & Performance Indicators

Strength Points:

Delivers a single executive view that consolidates operational, safety, and cost intelligence, enabling faster and more confident decision making at board level.



Incident, Claim & Risk Management

Manages operational incidents, cargo damage, insurance claims, investigations, and loss analysis.

Ensures operational risks are documented, analyzed, and controlled systematically.

Features:

- Risk & Incident Dashboard
- Accident & Damage Reporting
- Cargo Loss & Damage Claims
- Insurance Claim Tracking
- Investigation & Root Cause Analysis
- Loss & Risk Trend Analysis

Strength Points:

Ensures operational risks, incidents, and claims are managed systematically, improving accountability, transparency, and long term risk mitigation.

Operational Risk & Insurance Exposure Command

6,120 Incident Logs

1,384 Claims

IDR 1.26T Exposure

Loss Prevention

Risk is Financial, Not Only Safety

Connect incidents and hazards to financial exposure, insurance claims, loss prevention actions, and risk reduction effectiveness. This command layer provides leadership with a single view of where operational risk becomes financial loss.

Strength Point: Incidents are not archived. They are converted into exposure tracking, claim governance, and prevention accountability to reduce recurring losses.

Exposure (Open)

IDR 312B

Financial risk under governance

Claims In Progress

146

Insurer review evidence linked

Loss Prevention Actions

588

Actions tracked for effectiveness

Recurring Loss Drivers

5

Top root causes ranked

Risk Heatmap (Fleet × Risk Category)

	Collision	Fire	Cargo Damage	Injury	Equipment Failure
Passenger Fleet	Medium	Low	Medium	High	Medium
Cargo Fleet	Medium	Low	High	Medium	Medium
Tanker / Special	High	Medium	Medium	Medium	High
RoRo	Low	Low	Medium	Medium	Medium

Strength Point: Risk is measurable. Heatmap links to incidents, claim history, exposure value, and prevention actions to show where leadership intervention creates the biggest loss reduction.

Claims & Exposure Ledger (High-Volume Sample)

Case ID	Vessel	Type	Incident Reference	Date	Estimated Loss	Exposure (Open)	Insurer	Evidence	Claim Status	Preventic
CLM-2026-01482	MV Strait Sentinel	Collision	INC-2026-00119	2026-01-12	IDR 48.2B	IDR 22.4B	Marine Insurer A	Photos + AIS Track	In Review	Bridge
CLM-2026-01310	KM Nusantara Prime	Injury	INC-2025-09811	2025-12-09	IDR 6.4B	IDR 1.1B	Marine Insurer B	Report + Medical	In Negotiation	PPE Ex
CLM-2026-00977	MV Eastern Gateway	Cargo Damage	INC-2025-11220	2025-11-22	IDR 18.9B	IDR 7.6B	Marine Insurer A	Survey Report	In Review	Handli
CLM-2026-00418	KM Samudra Vision	Equipment Failure	WO-2026-881770	2026-01-05	IDR 12.6B	IDR 4.2B	Marine Insurer C	Sensor Log + WO	Approved	Predict

Record scale target: 6,120 incident logs • 1,384 claims • exposure tracking with evidence (AIS, port logs, photos, surveys) and prevention effectiveness measurement.

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Operational Risk & Insurance Exposure Command

Integration & Maritime Digital Ecosystem

Supports integration with AIS, weather services, port systems, ERP, finance, and regulatory platforms.

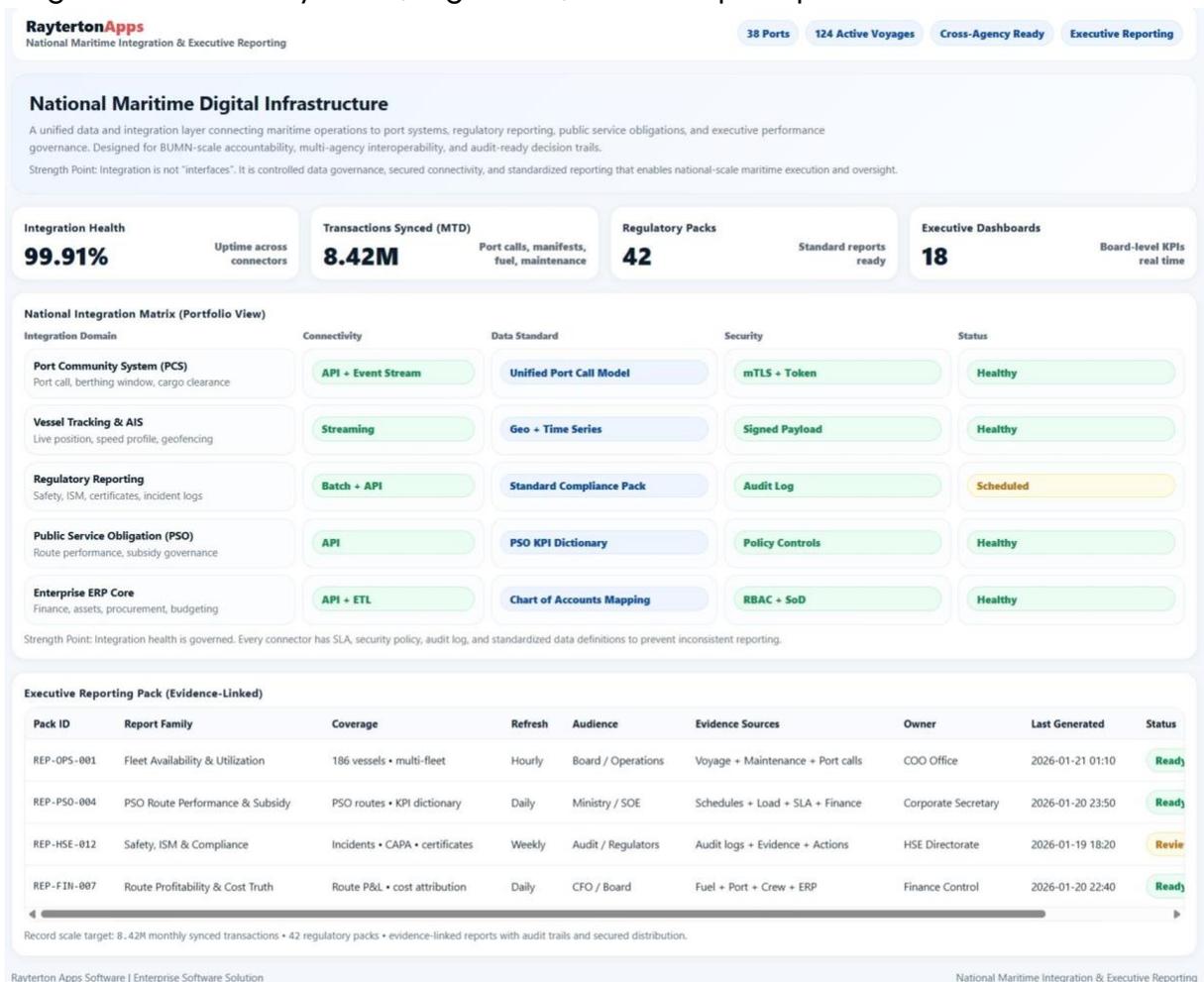
Positions the system as part of a broader national and international maritime digital ecosystem.

Features:

- System Integration Dashboard
- AIS & Vessel Tracking Feed
- Weather & Ocean Data Integration
- Port Authority Integration
- ERP & Financial System Linkage
- Regulatory Data Exchange

Strength Points:

Positions the platform as part of a broader maritime digital ecosystem, enabling seamless data exchange with external systems, regulators, and enterprise platforms.



Strategic Planning, RKAP & Scenario Simulation

Supports enterprise level strategic planning by simulating fleet, route, fuel price, port capacity, PSO obligation, and investment scenarios using live operational data.

Aligns operational execution with RKAP targets and board approved strategies, ensuring every major decision is tested before cost, risk, and service impact occur.

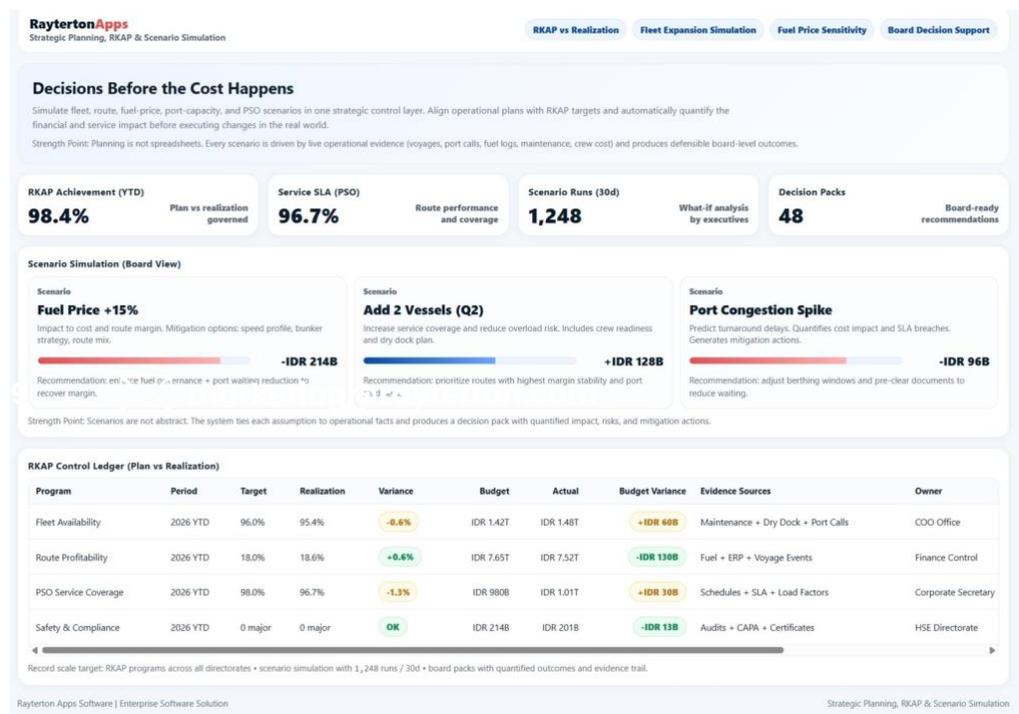
Positions the platform as a board level decision system that transforms operational evidence into defensible strategic outcomes for executives, shareholders, and regulators.

Features:

- RKAP Planning and Realization Control Dashboard
- Scenario Simulation and What If Analysis Engine
- Fleet Expansion and Capacity Planning Simulation
- Fuel Price Sensitivity and Cost Impact Modeling
- PSO Coverage and Service Level Scenario Analysis
- Board Ready Decision Packs with Quantified Impact

Strength Points:

Transforms strategic planning from spreadsheet driven assumptions into evidence based simulation. Every scenario is powered by real voyage events, fuel logs, port calls, maintenance records, and crew costs, enabling leadership to make confident decisions with quantified financial impact, service risk, and mitigation actions before execution.



Discover How to Govern and Optimize Your Maritime Operations at Scale

Experience Full Executive Control Over Your Fleet Operations. See How Integrated Maritime Intelligence Drives Operational Excellence. Explore a Platform Built for Safe, Efficient, and Profitable Maritime Operations.

See How Integrated Maritime Intelligence Drives Operational Excellence

Discuss Your Operational and Governance Requirements with Our Maritime Specialists

View How This Platform Aligns Maritime Operations with Executive Decision Making

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About Rayterton

Established in 2003, Rayterton delivers comprehensive Best Fit Software Solutions, server and hardware products, and technology services to a wide range of industries and organizations. Our core expertise lies in Business Process Improvement (BPI), IT Infrastructure, and IT Management.

At Rayterton, we are committed to empowering our clients by enhancing their business operations through tailored IT and management solutions. We combine innovation, experience, and client collaboration to ensure long-term success and digital transformation.

Our Competitive Strengths

100% Risk Free

Best fit to client requirements

Easy to customize

Software ownership

No Change Request (CR) fees during maintenance

For more information, visit rayterton.com