



BHINNEKA NUSANTARA  
MANDIRI



# COMPANY PROFILE

YOUR MARINE, OIL & GAS  
AND WAREHOUSE SOLUTION

**2023**



## Vision

To become a reputable, trusted general supplier and a complete system provider for a total solution package service for our clients.

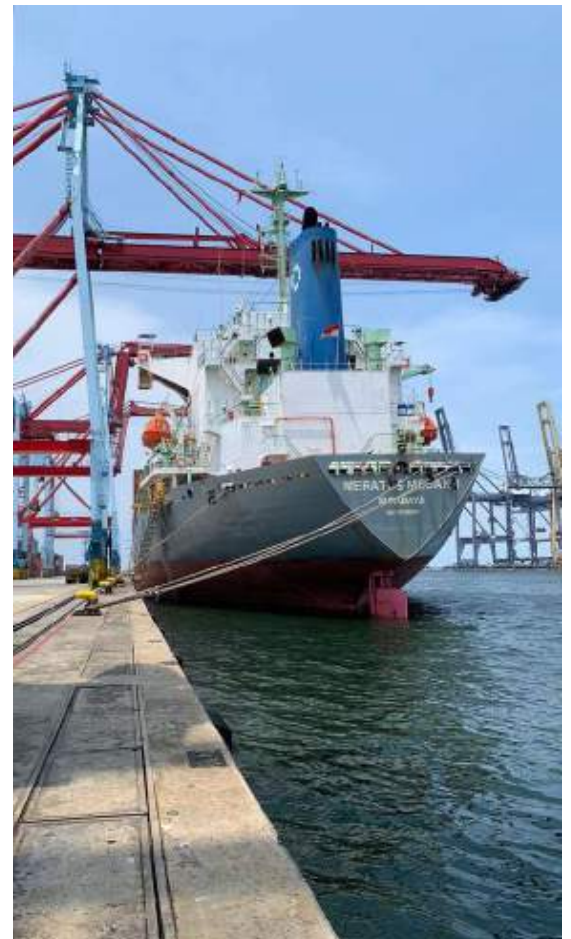
## Mission

1. To provide a variety of commercial and measurable shipping equipment
2. Provide after-sales services that are professional and have integrity to support the sustainability of customers needs.
3. Total solutions with integrated services by utilizing reliable IT networks and smart systems
4. Improve employee welfare along with increasing company productivity.

## About Us

PT Bhinneka Nusantara Mandiri is a general supplier and service company for marine, oil & gas and industry with excellent base and sharp view of its position. We provide assorted investments in resources, high-tech software, and infrastructure. One stop service for ship owners and managers with wide-range marine requirements at the most competitive prices and with the most efficient service for wide range of industries, such as oil & gas, storage company, shipping & marine company, solar supplier, factory, contractor, etc.

Through powerful proven software solutions, RAMUS Smart Monitoring delivers in an uncomplicated and reliable technology, provide an effective tool to help streamline technical and asset management and achieve those ever important cost efficiencies.





# OUR PRODUCTS AND SERVICES



## Our Products

1. Fuel Monitoring Systems,
2. Engine Monitoring Systems,
3. Bunker Monitoring Systems,
4. Tank Monitoring Systems,
5. Asset Monitoring System
6. Flowmeter,
7. Engineering Service.

Essential data to improve business growth, optimize maritime operations and increase cost efficiency.

RAMUS specializes in transmitting, processing, and storing enormous amounts of analytic data and intelligence to provide professional, extensive, and diverse solutions for companies. Real-time and historical tracking of individual vessels, as well as region based and fleet-based tracking that can be set to recognize industry standards. Optimizing information transfer from fuel to warehouse monitoring system anytime and anywhere to improve efficiency time and cost for business growth.

Trained engineer and technician for comprehensive coverage that offers you peace of mind.

Our service technicians are experts in their field. Offers worldwide, round the clock-service, 365 days a year. Crew that has been trained to operate a system at maximum potential performance is considered to be a strategic asset as much as the most advanced defence system for companies. Professional after sales service support. 24 hours system standby for monitoring and reporting.

# ramus

REMOTE ANALYTIC MONITORING UTILITY SYSTEM

## RAMUS SMART MONITORING

### R - REMOTE

Your team will be able to monitor assets from anywhere in the world 24 hours a day.

### A - ANALYTIC

With high levels of technology, RAMUS processes data and reports in order to extract accurate information, which can be used to better understand and improve business performance.

### M - MONITORING

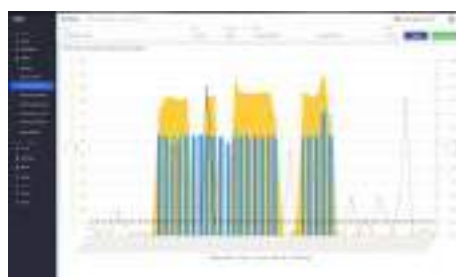
Good management are the backbone of successful companies. The effective utilization of resources is essential for pursuing of one or more goals. RAMUS is developed with world class time, accuracy and efficiency monitoring to increase the productivity of your business.

### U - UTILITY

Our service and products will cover all your equipments by maintaining them through routine maintenance and inspections which will guarantee a long lasting assets.

### S - SYSTEM

We use high quality Smart Technology for our system to support your operational process to simplify it process and improve its cost and time management which will increase your productivity with a tangible long lasting effect.



# RAMUS COMMUNICATION TERMINAL

Two-way vessel monitoring collection data by panels:

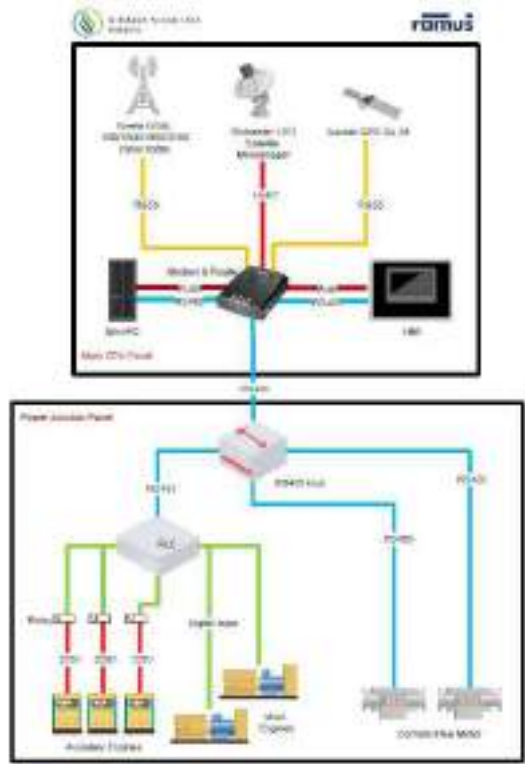
**Top Deck Panel Functionality**

1. Transmission Data by GSM & Transponder Sattelite (opsional)
2. Collection and calculate data from Installed sensor
3. Remote command
4. GPS Configuration
5. Interface Monitoring

\* Position (GPS accuracy +11m), Speed and Heading

**Engine Panel Functionality**

1. Connection RPM Sensor,
2. Connection Flowmeter Sensor
3. Connection AE Sensor



# FUEL MONITORING SYSTEM

The marine vessel Fuel Monitoring System calculates fuel usage from diesel pressure and temperature parameters. Usage plotted on RAMUS systems are compensated through various pre-programmed factors. With Coriolis Technology we deliver the world's best measurement for supreme accuracy, reliability and consistency both on land and sea.

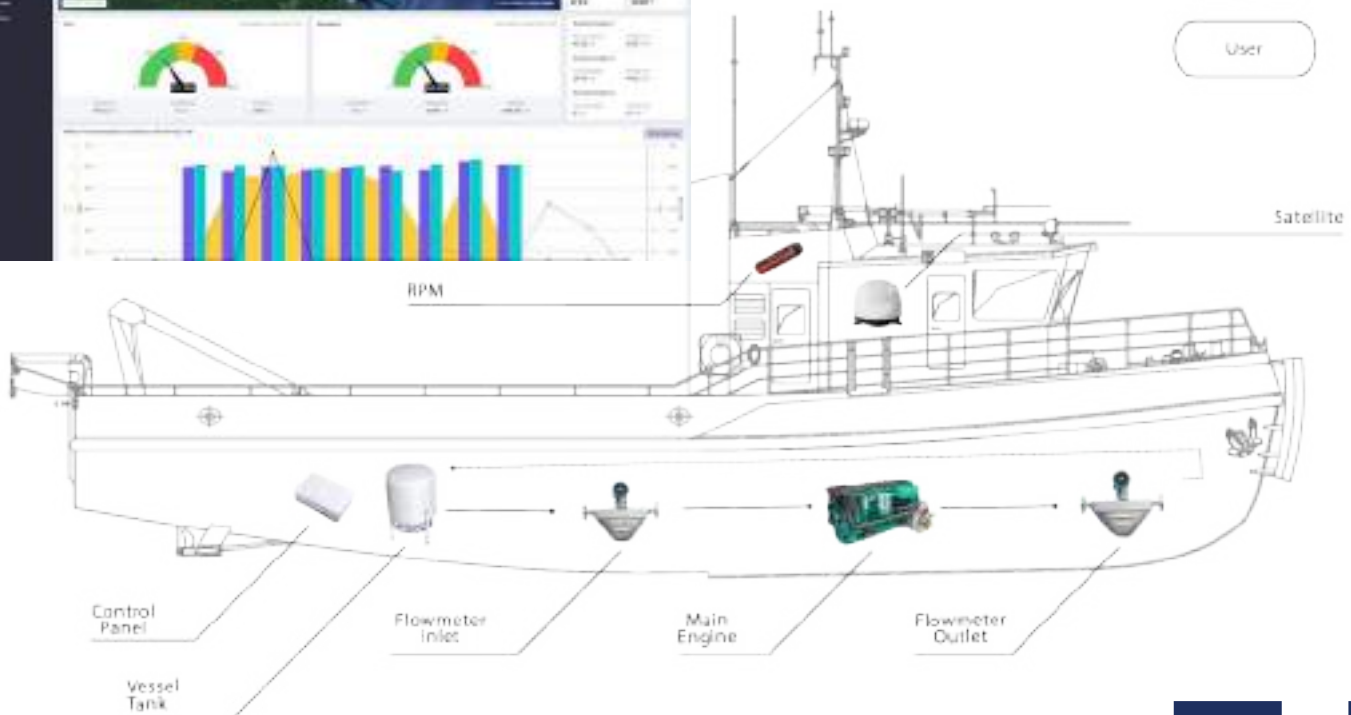
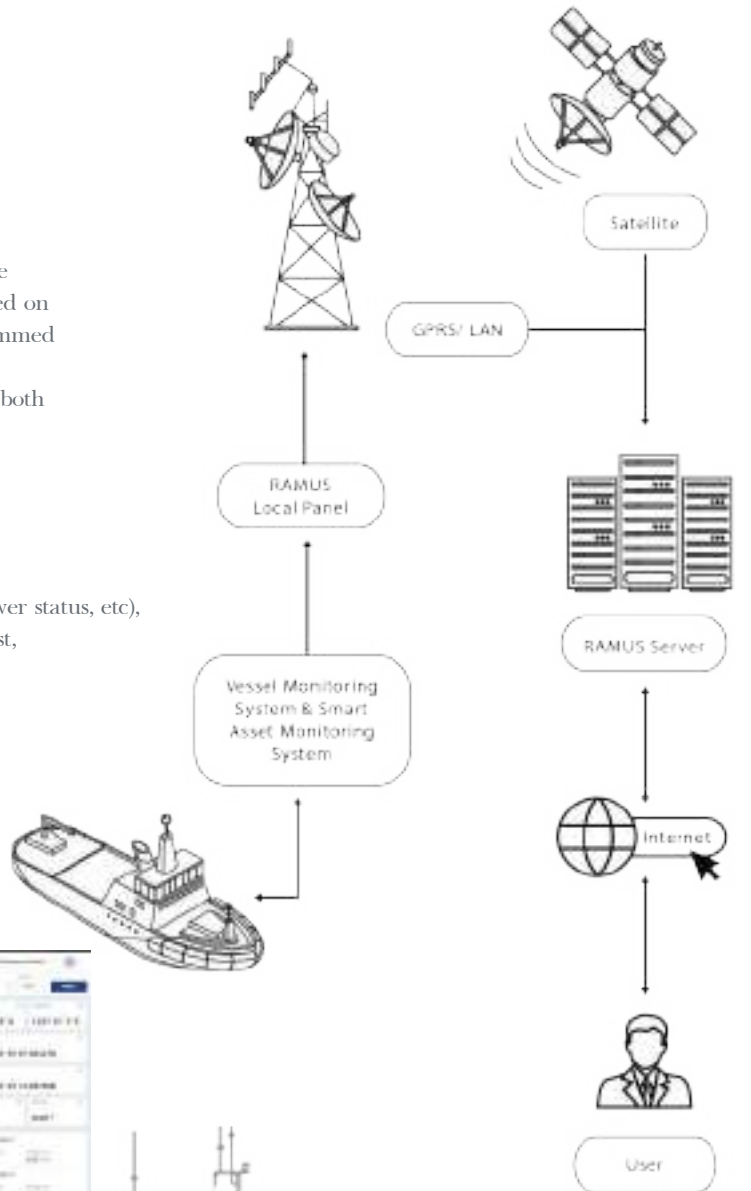
### FMS Back-end Application:

1. Collect all sensor's data (RPM, **Flow Meters**, generator's power status, etc),
2. Compressing and encoding the data to minimize airtime cost,
3. Sending data through RAMUS,
4. Archiving and log sensor's data on local storage.

### How to Access Data

**Tracking :** Android App

**Tracking & Fuel Monitoring :** Web Access





# ENGINE MONITORING SYSTEM

1. Collect all sensor's data (RPM, generator's power status, etc),
2. Compressing and encoding the data to minimize airtime cost,
3. Sending data through RAMUS Terminal,
4. Archiving and log sensor's data on local storage.

Onboard interface displaying flow meter data and RPM data.

Monitoring Preferences:

RPM

1. Provides engines running hours,
2. Consumption can be calculated based on formulation but not relatable to real condition,
3. Cheaper solution.



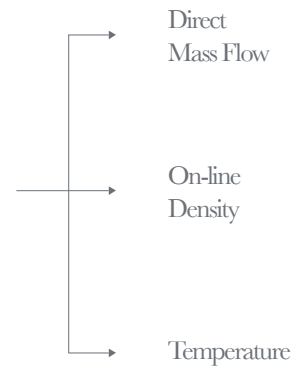
# BUNKERING MONITORING SYSTEM

## Safety, Security and Simplicity

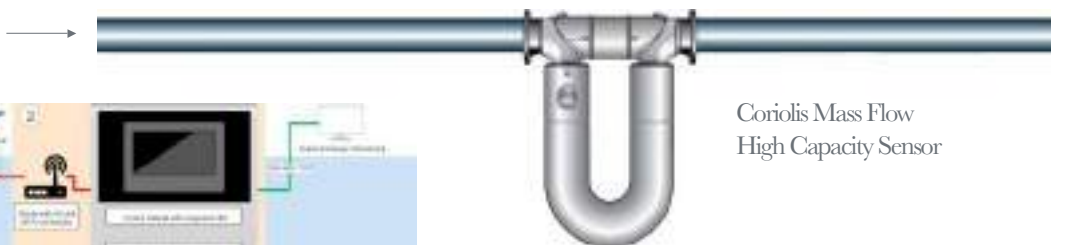
- Diagnostics to identify quality of product and bunker operation issue,
- Handle low flow rate and acquiesce with certification,
- Risk preventative of failure,
- Great reliability and endurance for flowmeter.

## Optimize safety and efficiency

Lack of skilled manpower increasing overhead costs is another challenge. Our solution reduce productivity loss due to slower ship turnaround, less intensive use of bunker tankers, additional costs, operational & administrative difficulty, etc.

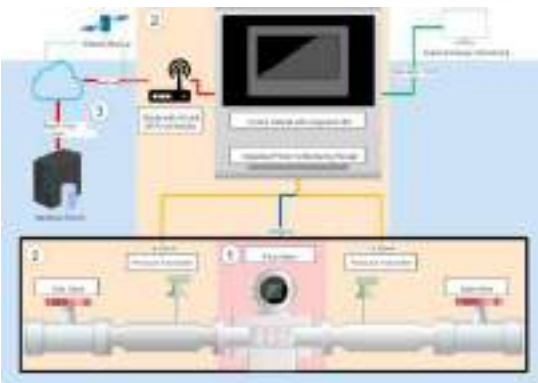


Bunker transfer



Bunker loading

Coriolis Mass Flow  
High Capacity Sensor





# FLOWMETER

Flowmeters are used in several fields of operations in marine engineering and shipbuilding. Large ships can contain large amounts of pipework carrying different fluids such as water, wastewater, cooling and heating liquids, fuel and hydraulic oil. Permanent metering of lines becomes crucial once the ship has services and regular spot measurements with portable units are required as part of maintenance



Coriolis flowmeter system is highly customizable to provide a configuration to specific applications.

Robust transmitter offerings allow a multitude of mounting options:

1. Compact mounting integral to the sensor
2. Field mount variants for harsh conditions
3. Compact control room DIN rail packages for optimal locating in a control cabinet
4. Specific fit-for-purpose solutions for two-wire connectivity or filling and dosing machinery integration

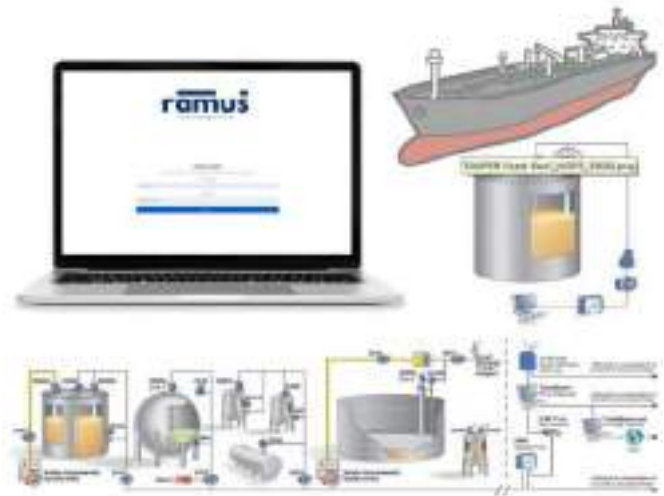


## Coriolis Mass Flow for Fuel Monitoring System

- Coriolis Flow is a flowmeter with the principle of the Coriolis effect that can be used for fuel monitoring systems. 316L stainless steel construction for compatibility with most fluids.
- Coriolis flow meters provide accurate flow and density measurements (with an accuracy of  $\pm 0.25\%$  margins of error).
- Coriolis flow can minimize maintenance and increase long-term reliability because no moving parts result in no maintenance or repair.

## Coriolis Mass Flow for Bunkering System

- Elite Series is a high quality coriolis products for custody transfer measurement of Marine Fuel Oil (MFO) or Heavy Fuel Oil (HFO), that able to save hundreds of thousands in operating expenses and ensure accurate billing.
- With the principle of the Coriolis effect, Elite Series flowmeter can be used for bunkering systems with sizes from 1/4" up to 14". The temperature of the fuel passing through it can reach 100 degrees Celsius.
- Elite Series Coriolis Flow can minimize costs due to multivariable measurements (mass, density, temperature, volume with high accuracy  $\pm 0.1\%$  margins of error) from a single device, no internal moving parts and a strong meter performance that eliminates the need for improvement or maintenance on board.



# TANK MONITORING SYSTEMS

With a RAMUS Tank Monitoring System connected to your tank, you can keep track of exact levels in your tanks at any time. See if levels are increasing or decreasing and get alarms whenever certain verge are reached. Streamline your service operations by refilling/emptying only when needed.

What can you do online?



Alarm management

Immediately notify if certain levels are reached. Direct alarms to service personnel.



Monitor levels

Access to tank levels 24 hours for 7 days.



Get reports and statistics

Compare flows over time and get reports on certain periods.



## ENGINEERING SERVICE

Our certified engineering service has extensive knowledge of marine technology and is capable of providing the highest quality service on a broad range of products. Fully conversant and available 24 hours in all of the major trends currently affecting the sector, to help you carefully match capacity to demand in many industries.

# ASSETS

## MONITORING SYSTEMS

Asset tracking, also known as asset monitoring systems, is a system of hardware and software that logs information about tangible assets, allowing a business to verify its assets' location and status from vessels, system alarm, docking to document expiration.

In addition to asset location, an asset tracking system might also track an asset's name, type, usage, engine hours, maintenance schedule, or other information, and may send alerts to managers when anything goes amiss.



### Recurrent Questions From Fleet Owners

- Where are my vessels?
- Are my vessels rendering expected services to my consumers?
- Is the operation of the fleet already optimized?
- How can I reduce my operation cost?
- How can I get synthetic/high level reports?

### Solutions

- Vessel Tracking System
- Experience Knowledge of the Owner on vessels operations and tracking analysis
- Others internal / external sources

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PT BNM collects, processes all available data sources to deliver tailored report answering Clients operational and management needs.



# BENEFITS

## INTEGRATED APPROACH

1. Analyze fleet operations
2. Auditing of outlaw behaviors
3. Fuel Cost awareness
4. Improve safety and security of operations
5. Optimize the cost & benefit ratio
6. Operation/Idle time optimization
7. Zone area management
8. Manage and protect assets
9. Alert of prohibited actions
10. No IT Investment / Back-up facilities
11. Technical support / maintenance provided locally.

### Operational Applications

1. Improve safety and security of offshore operations
2. Manage and protect assets
3. Analyze fleet operations





# PORTFOLIO

## PROJECTS

Some of our portfolio in RAMUS Smart Monitoring installations



# BUSINESS

## FLOW & PROCESS



Approachment



Survey



Review &  
Negotiate



Engagement



Installation &  
Commissioning



After Sales  
Support



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