

2024



OPTISHIP
SMARTER VESSELS

Powered by:  **UTONOMOUS CRAFTS**

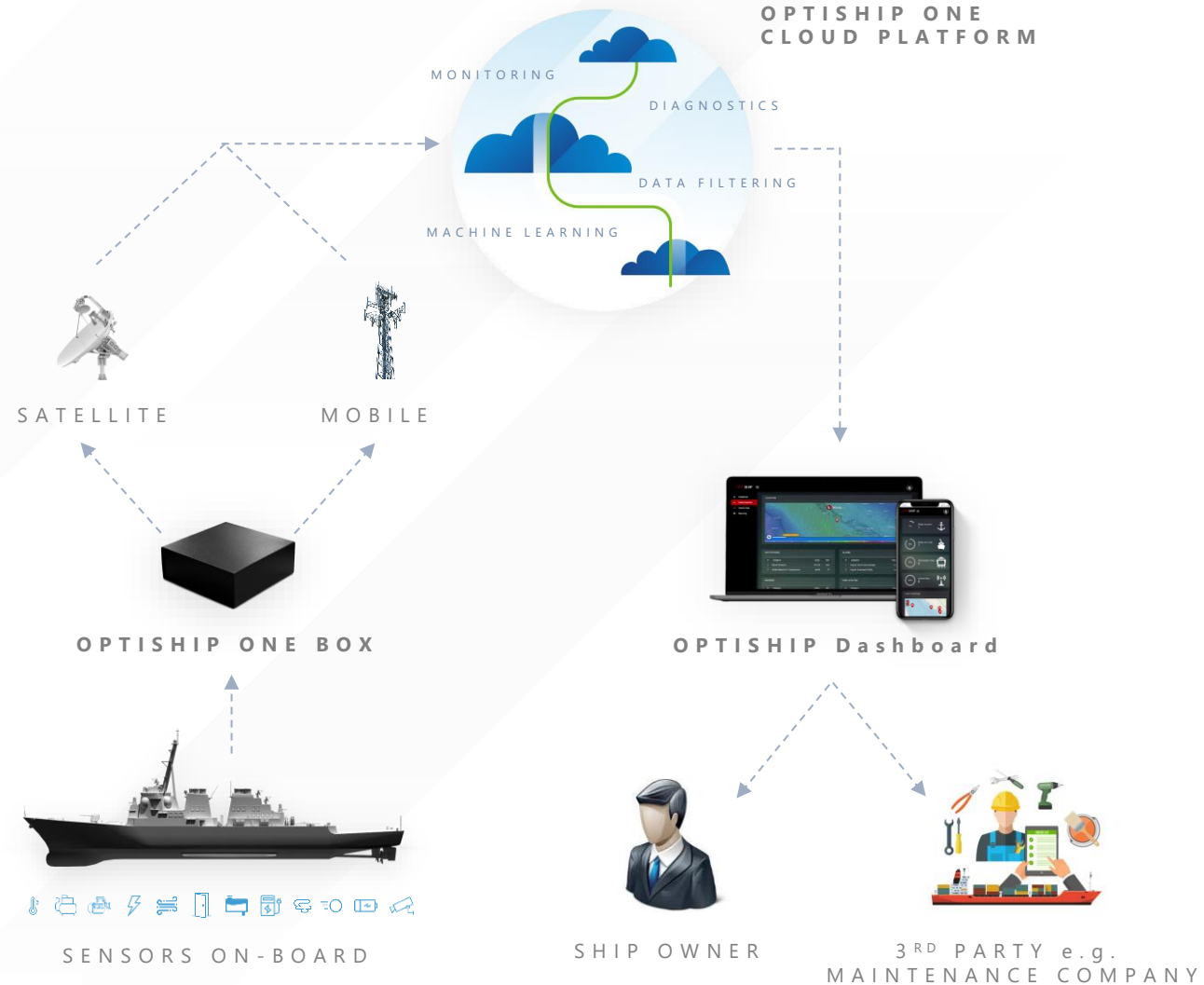
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What is Optiship and how it works



The Optiship One system gives you on-line access to the key parameters of your ship

- Embedded sensors, ECUs and data networks are connected on a ship to a Optiship One Box. The sensors are either hardwired or wireless Bluetooth & Zigbee and monitor various systems e.g., engine, state of battery charge, fuel tank level, temperature and many more
- The collected data is sent via a satellite, cellular or Wi-Fi using a secure encrypted communication channel, to the Optiship One Cloud Platform .
- The Optiship One Cloud Platform analyses the received data using advanced analytics techniques, machine learning and artificial intelligence in order to e.g. predict propulsion malfunctions or to generate other actionable insights.
- The engine and ship data are made available to the ship owner on the Optiship One Cloud Platform which is accessible via your smartphone or desktop browser by a protected user account.
- The ship owner can grant access to third parties like maintenance companies in order to work more easily with its service providers.






General Features

The Optiship One system offers a variety of features which are based on sensor data on-board and data from external data providers.





Sensors

Ambient condition sensors:






-  Temperature
-  Smoke detection
-  Wind data

And many more other sensors....

Security sensors:











-  Bilge pump
-  Motion detection
-  Door & window entry sensors
-  Security cameras

Energy management sensors:

-  Engine data
-  Battery charge level
-  Fuel tank level
-  Shore power
-  Electric power consumption







Features

-  Fleet management
-  Realtime data
-  Historic data
-  Reporting eg. Engine data, sensors, etc.
-  Alert setup
-  Track regular maintenance intervals of components
-  Weather information from external sources
-  Geofence areas e.g set up of no-go/dangerous areas
-  Anchor: get notified whenever there is a drift outside the designated area
-  Wifi on ship

Engine Monitoring Features








The Optiship One Engine Monitoring module is based on engine room or bridge propulsion relevant data collection

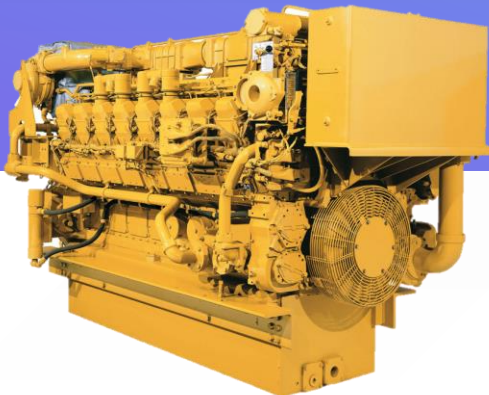
Data Source

-  Engine data (Engine Control Unit)
-  Battery charge level
-  Fuel tank level
-  Engine room conditions (Wireless Sensors)



Features

-  Fleet management
-  Engine real-time data
-  Historic data
-  Regular and expert Reporting eg. Load profiles, fuel consumption distribution, operational outliers
-  Customized alarm setup (SMS, email notifications)
-  Track regular maintenance intervals
-  Remote Diagnostic Trouble Codes read-out

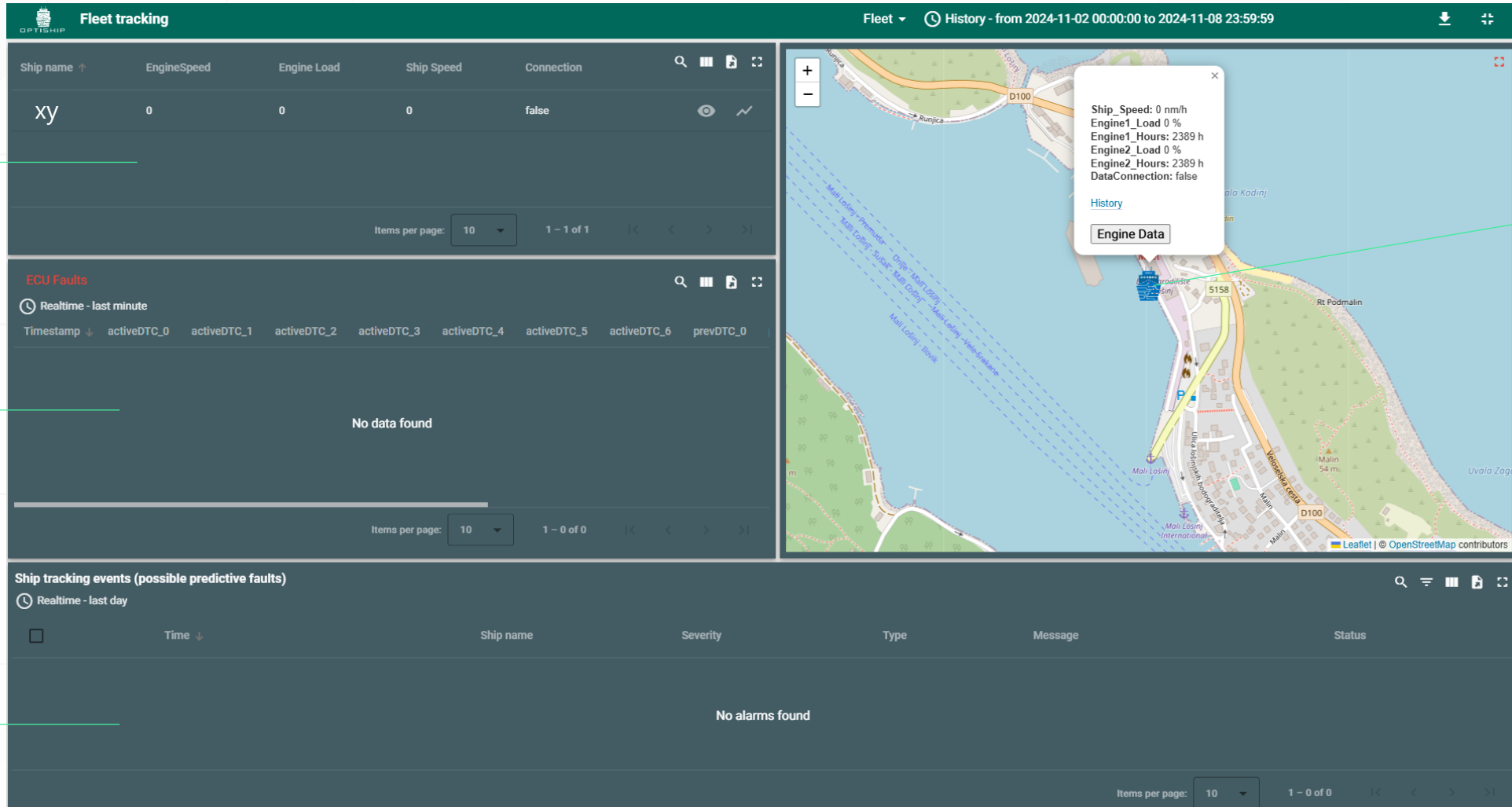


Optiship One Box

- 4x CAN interfaces
- High-accuracy GPS
- 4G LTE connectivity
- Ethernet
- HDMI (optional)
- Linux-based
- Remote configuration and diagnostic
- Wide range of input voltages
- 16 GB onboard memory (expandable to 32 GB)
- Local processing capability
- Worldwide connectivity coverage



Optiship Cloud Platform (Fleet View)



The screenshot displays the Optiship Fleet tracking interface, which is divided into three main sections on the left and a map on the right.

Fleet tracking table:

Ship name ↑	EngineSpeed	Engine Load	Ship Speed	Connection
xy	0	0	0	false

Items per page: 10 | 1 - 1 of 1

ECU Faults:

Realtime - last minute

Timestamp ↓	activeDTC_0	activeDTC_1	activeDTC_2	activeDTC_3	activeDTC_4	activeDTC_5	activeDTC_6	prevDTC_0
No data found								

Items per page: 10 | 1 - 0 of 0

Ship tracking events (possible predictive faults):

Realtime - last day

	Time ↓	Ship name	Severity	Type	Message	Status
No alarms found						

Items per page: 10 | 1 - 0 of 0

Map:

The map shows the ship's position (xy) and provides a detailed view of the ship's status and engine data. A tooltip for the ship 'xy' displays the following information:

- Ship_Speed: 0 nm/h
- Engine1_Load: 0 %
- Engine1_Hours: 2389 h
- Engine2_Load: 0 %
- Engine2_Hours: 2389 h
- DataConnection: false

Buttons for History and Engine Data are available.

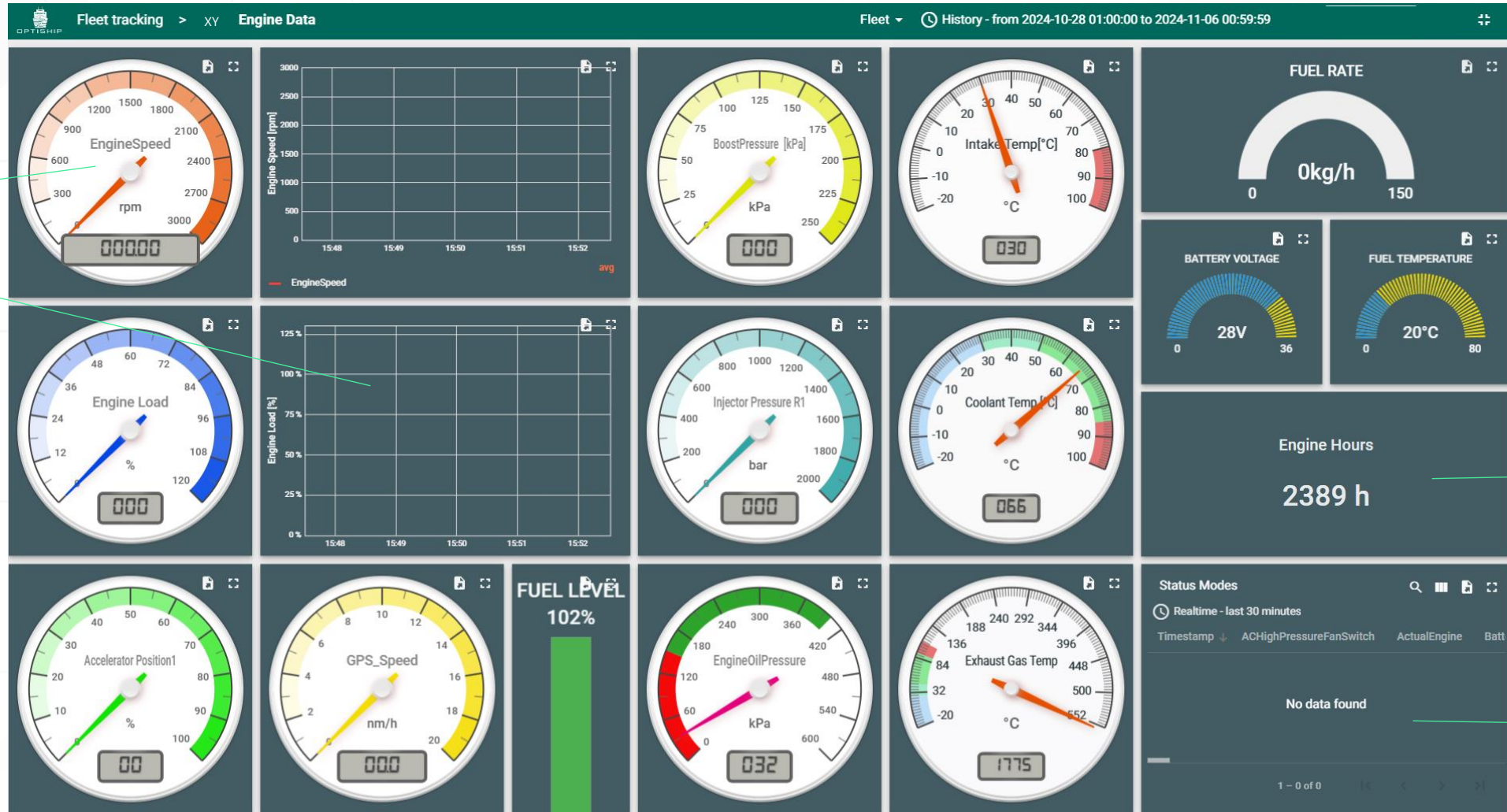
List of ships in the fleet with general information like speed, engine load, etc.

List of active and previous engine Diagnostic Trouble Codes

List of OPTISHIP predicted possible faults grouped by severity warnings

Ship position within the fleet with general information. Access to Engine real-time and historic data.

Optiship Cloud Platform (Engine Data)



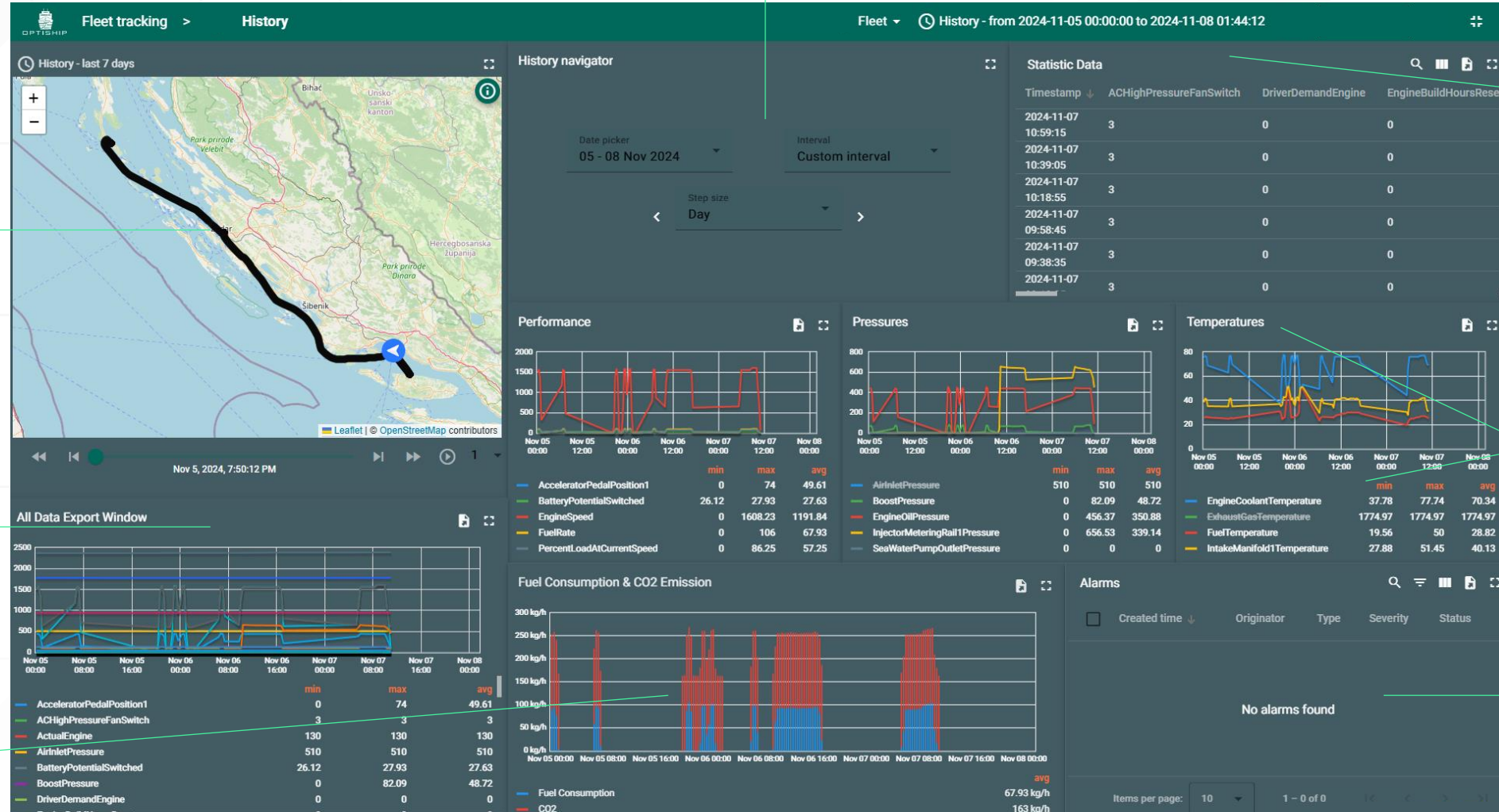
Gauges and trace signal views for dynamic channels

Total engine operating hours with embedded maintenance scheduling alerts

Data on machinery states and modes

Optiship Cloud Platform (History)

Data time period, interval and step size selection. Used for detailed analysis.



Trip replay feature with full parameter tracking

Full data export from custom selected time period in a form of a csv, xlsx, etc.

Fuel consumption and CO2 emission distribution

Data on machinery states and modes

Data traces with min, max and average values within the selected period

Alarms and faults active during the selected time period



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