

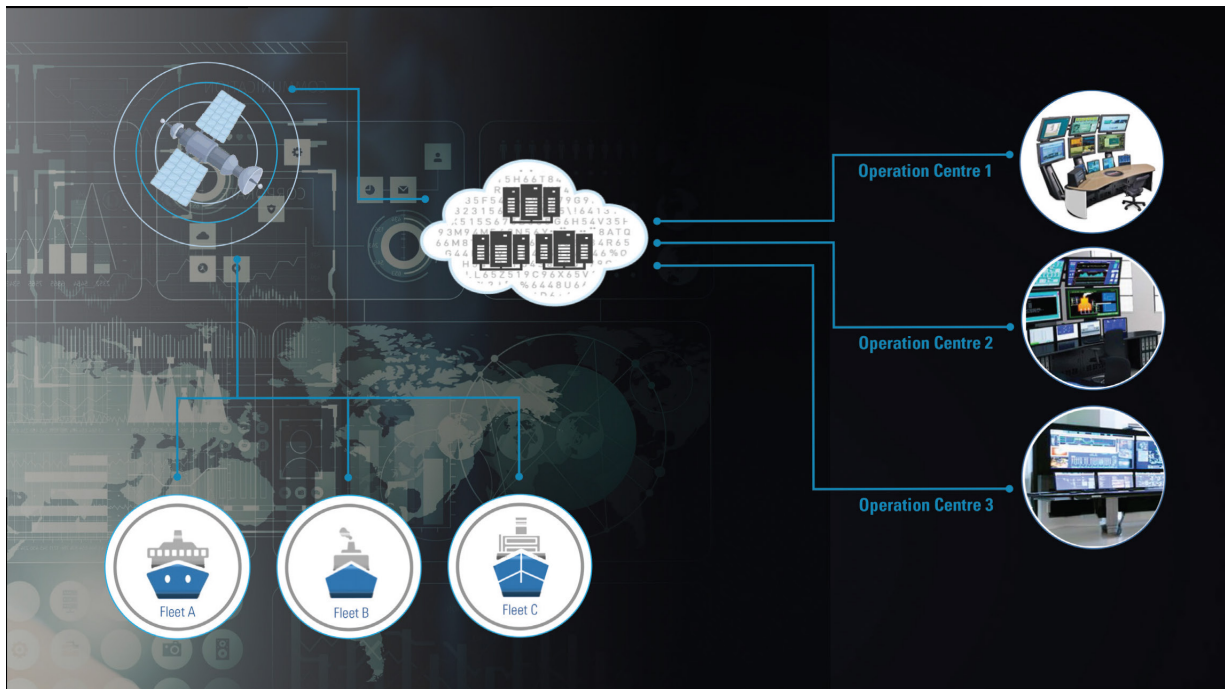
NERVA

SHIP MANAGEMENT

SYSTEM



NERVA SHIP MANAGEMENT SYSTEM

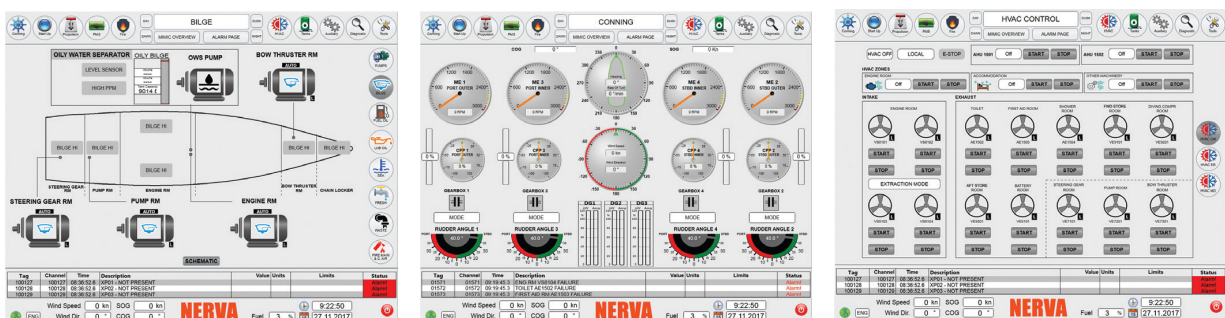


The NERVA Ship Management System (SMS), designed and developed by the marine arm of ST Engineering, provides centralised control and monitoring of platform sensors and systems.

NERVA is designed to meet the requirements of International Maritime Organisation (IMO) and major classification societies. Quality is assured through the use of reliable marine-grade and Commercial-Off-The-Shelves (COTS) products. Ship owners have full flexibility in customising the user-friendly and intuitive Human-Machine Interface (HMI) to meet their needs.

ST Engineering is the first shipbuilder to be awarded the Certificate of Design Assessment by the American Bureau of Shipping (ABS) for NERVA SMS. The ABS certification is a testament to the design and development competency of NERVA SMS in meeting internationally accredited design standards for operability, safety and reliability.

Integrating technological advancements in process automation together with shipbuilding expertise, the NERVA SMS offers state-of-the-art ship management system solution for most vessel types. NERVA SMS has been deployed on various new shipbuilding and retrofit projects.



NERVA SHIP MANAGEMENT SYSTEM

NERVA HIGHLIGHTS

OPEN ARCHITECTURE

- Ease of platform and system upgrade in hardware and software

MODULARITY & SCALABILITY

- Configurable through modular customisation
- Intelligent alarm tracking and decision aid support

EASE OF OPERATION

- Improved operation efficiency via intuitive 3-touch Graphical User Interface (GUI)
- Automatically generate reports for offline analysis of ship performance

NERVA MOBILE

- Connects to NERVA SMS server for portable monitoring on handheld devices at Wi-Fi enabled compartments

NOTES

- Ability for operator to add comments on system or machinery for follow-up action

FIRE-FIGHTING & DAMAGE CONTROL

- Operator plots and marks out damaged compartments and actions taken

MODE BASED GUI

- Ability for operator to customise mimic page for viewing of several systems of interest on the same mimic page

DECISION SUPPORT

- Provided guided analysis of fault diagnosis for corrective maintenance

INTEGRATED CCTV SYSTEM

- Connects to onboard CCTV system to display CCTV footage through NERVA SMS

SHORE BASED REMOTE MONITORING

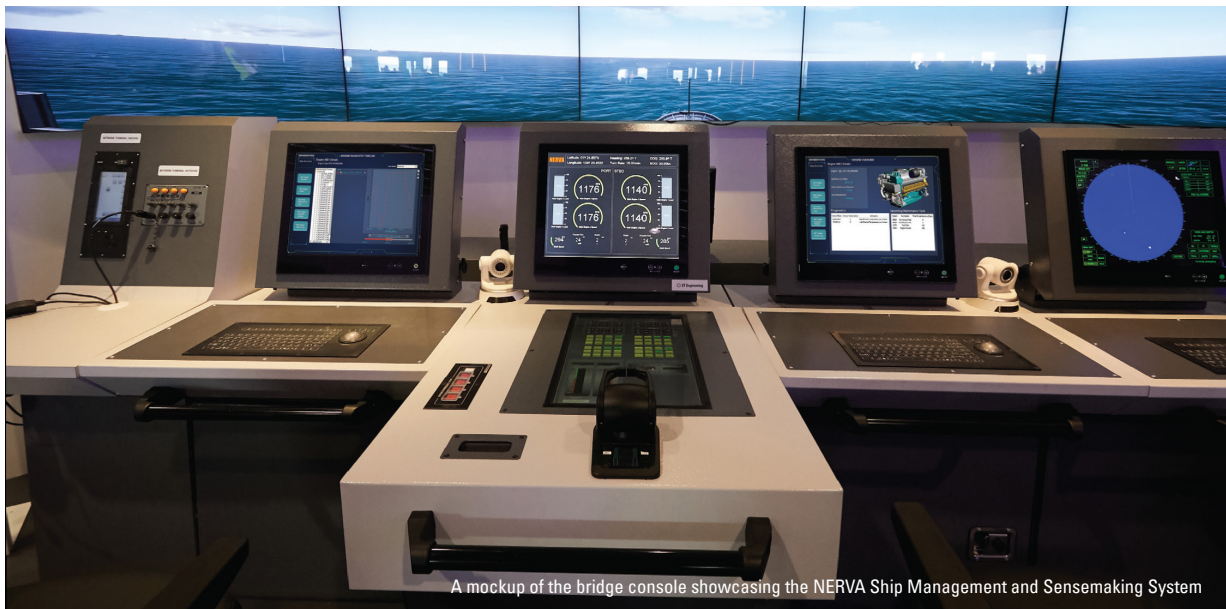
- Enables the ship to be connected with the shore for data analysis

JOURNAL

- Logs historical alarms and events

EMAIL / PHONE MESSAGE ALERT

- Automatically sends a notification to alert personnel at shore for notification of critical alarms or situation onboard ships through an email / phone message alert



A mockup of the bridge console showcasing the NERVA Ship Management and Sensemaking System

SENSEMAKING SYSTEM

Leveraging on the data collected from the NERVA SMS on board, the sensemaking system was developed to incorporate data and predictive analytics technique to perform equipment health monitoring and predictive diagnostics.

The sensemaking system is further enhanced with a decision support engine which provides recommendations in preventive actions to the operator. This allows a condition-based maintenance approach which will reduce downtime and maintenance costs.