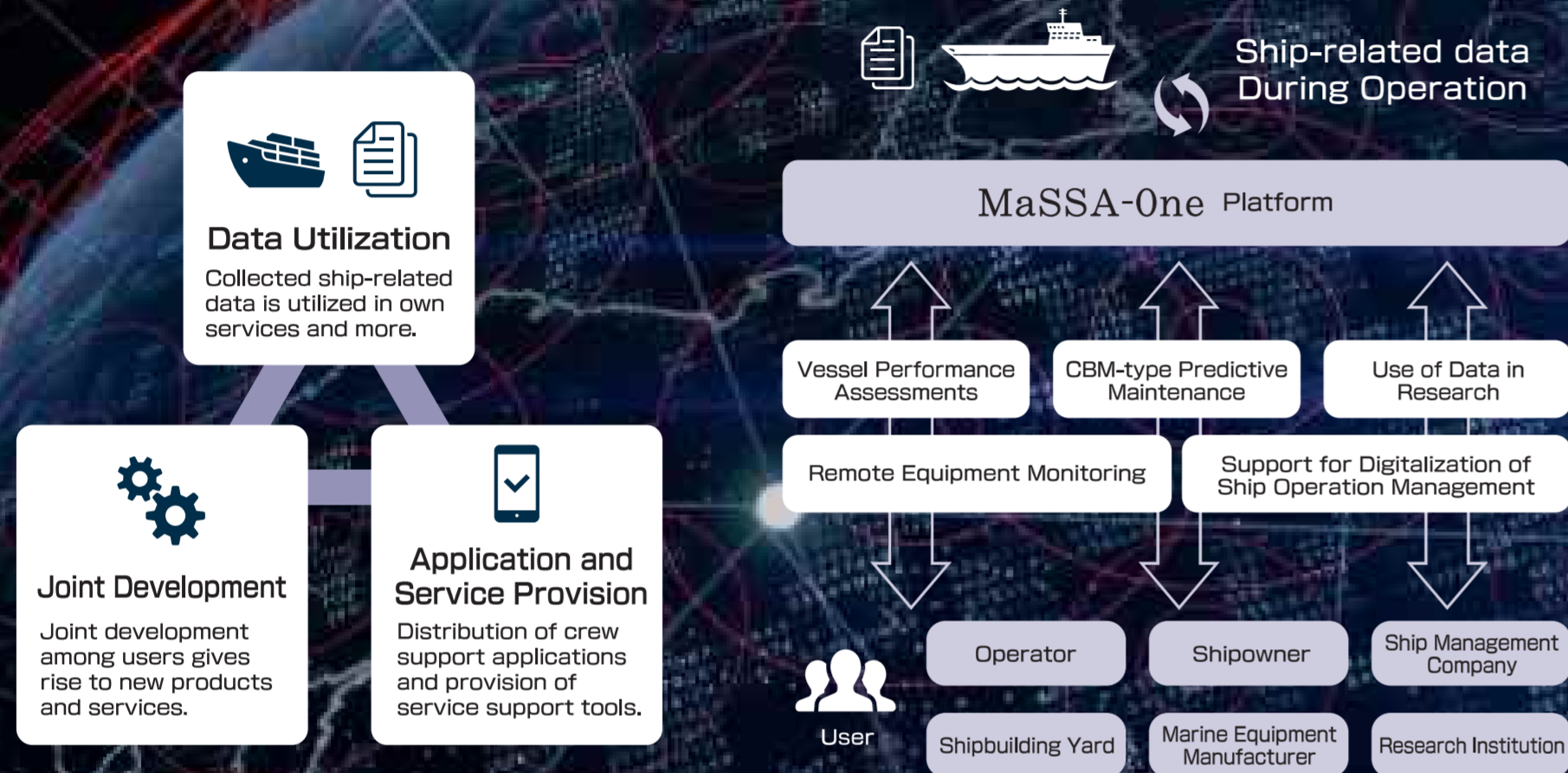


An Open Platform Usable by Anyone

We develop the MaSSA-One platform to share ship-related data and provide beneficial applications, thus fostering an ecosystem that benefits all participating users.



MaSSA
the Maintenance System
for Soundness Sailing Ability

[MaSSA] CONCEPT BOOK

BEMAC Corporation

Imabari Head Office | 105 Noma, Imabari-city, Ehime Pref.794-8582 Japan
TEL : +81-898-25-8282 FAX : +81-898-25-3777

Tokyo headquarters | 32nd Floor, Hibiya Mitsui Tower,
Tokyo Midtown Hibiya, 1-1-2 Yurakucho,
Chiyoda-ku, Tokyo Pref. 100-0006 Japan
TEL : +81-3-6550-8211 FAX : +81-3-6550-8212

BEMAC Corporation Europe | De Cuserstraat 93, Amsterdamse Bos 2F,
1081CN Amsterdam, The Netherlands
TEL : +31-(0)-20-894-9623



BEMAC



MaSSA-One

BEMAC Group Companies

BEMAC STAR ASIA
PTE. LTD. | 1 Maritime Square, #09-31 & 32 Harbourfront
Centre Singapore 099253
TEL : +65-6884-7989 FAX : +65-6884-7980



BEMAC

MaSSA

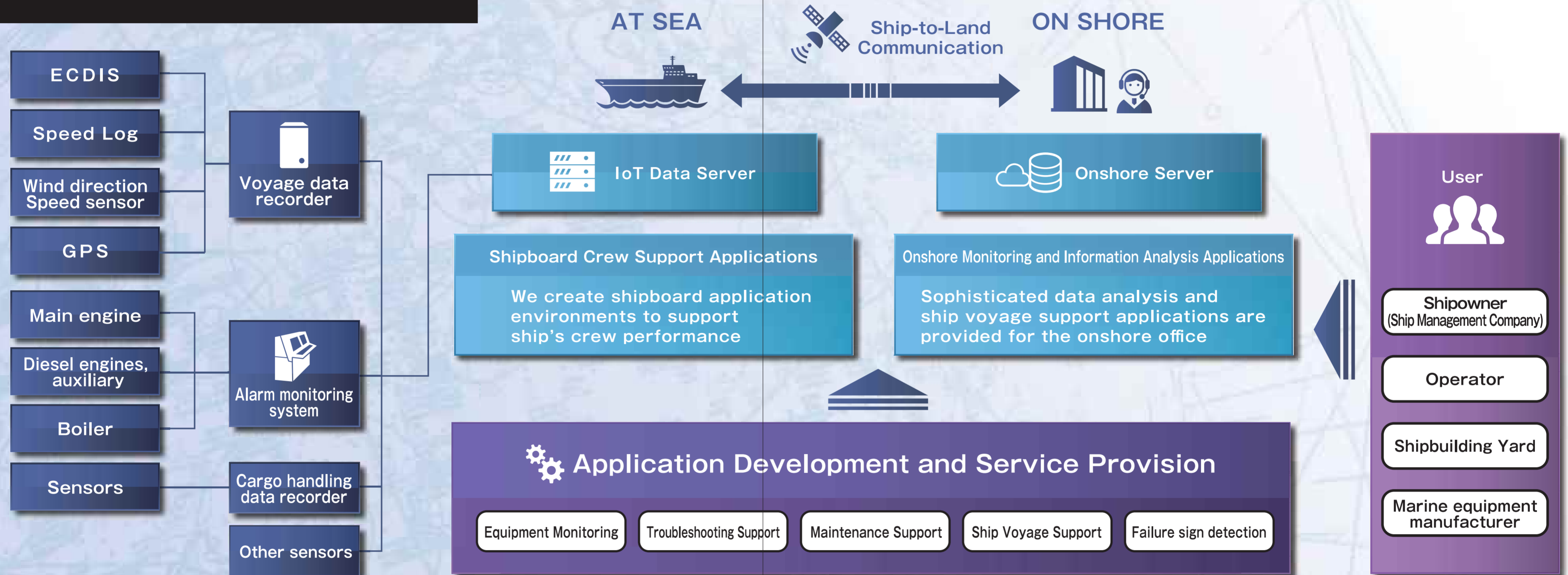
The **M**aintenance system for **S**oundness **S**ailing **A**bility.

Aiming to realize "a ship that never stops".

MaSSA collects data of ships voyage to enable confirmation of operation status and equipment status. Furthermore, it utilizes condition-based maintenance (CBM), remote support from onshore offices, automatic ship operation/navigation technologies and more to help prevent equipment breakdowns, maritime accidents and other such problems, ensuring that the ship reaches its intended destination as scheduled.

Shipboard and land platforms that realize MaSSA 「MaSSA-One」

MaSSA-One collects and stores a wide array of data on the ship's engines, cargo handling, voyages and more, and shares the data with the onshore offices to provide ship voyage support applications.



01 Real-time visual display of ship-related data and provision of crew support applications.

- Various ship-related data collected via the IoT Data Server can be confirmed in real time from onboard the ship.
- Installation of applications to support the ship's crew. MaSSA-One provides the applications that enables appropriate and speedy recovery response on board and supports efficient operation in the event of trouble.

02 Sophisticated data analysis at the onshore office

- Collected ship-related data is utilized in the development of applications for responding to problems and malfunctions, maintenance support, and more.
- Enables more advanced onshore analyses in response to problems in order to determine their causes.
- Facilitates optimized management of shipboard equipment by using condition-based maintenance (CBM) rather than time-based maintenance (TBM).

03 Flexible responses to a wide range of needs.

- Users can choose from a lineup of continually developed applications, selecting only those they wish to use.
- Applications from other companies as well as service collaborations (via ISO APIs) are also available.
- MaSSA-One onshore servers are capable of coordinating with other types of onshore servers.