OCEANS-X: Connecting the Maritime Ecosystem

ONE COMMUNITY. ONE CONNECTED FUTURE.

Gavin Yeo
Deputy Director, Digital Ecosystem

Digital@SeaAsia-Pacific 2026
29 Oct 2026



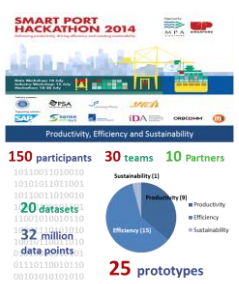








The evolution of MaritimeSG data ecosystem







digital CEANS

OCEANSX

2014 – 2017

Unlocking Data Potential through Smart Port Hackathon

2019 - 2021

Fostering Innovation through 1-way G2B Data Sharing

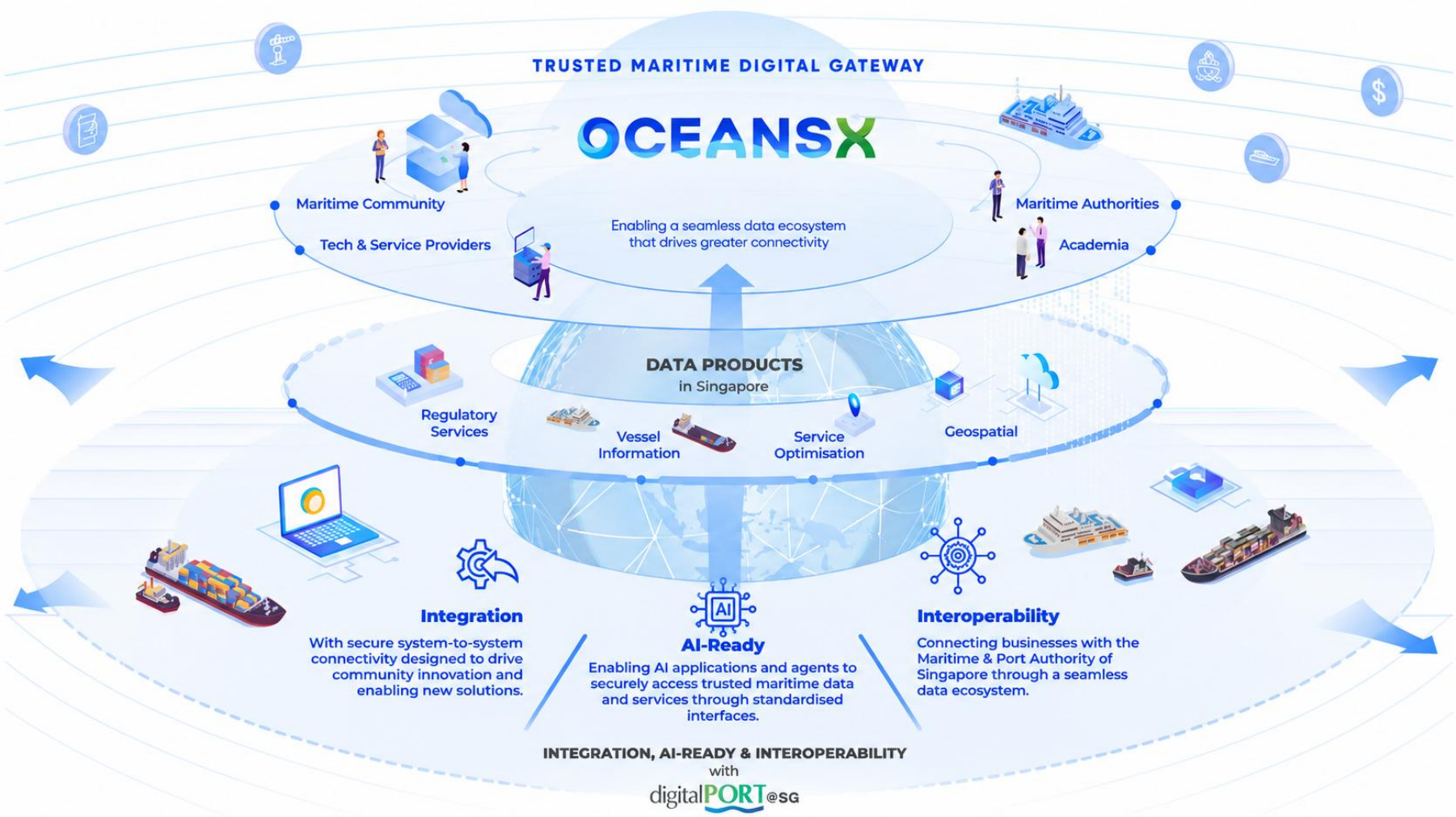
2026 and beyond

Enhancing Digital Connectivity with 2-way data exchange capabilities (G2G, G2B, B2G)

OCEANS-X stands for **O**pen/**C**ommon **E**xchange **A**nd **N**etwork **S**tandardisation e**X**change

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OCEANS-X is a trusted digital platform fostering connectivity and innovation through data sharing and system interoperability



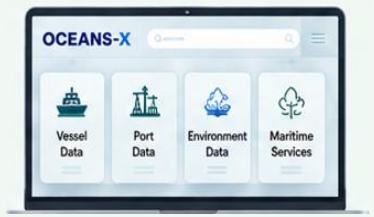
Connecting the Maritime Ecosystem Through Trusted Data and Standards

Connecting ports and ecosystem partners

ACCESS

Trusted Data & Services

Easily discover and access maritime data and digital services



Easy Access

CONNECT

Connected Ecosystem

Connect with ports and partners across the world



Stronger Connections, Greater Reach

INTEROPERATE

Common Standards

Enable data and services to work across organisations and borders



One Language, Many Systems

INNOVATE

New Solutions

Build and scale new cases, services and solutions



From Idea to Impact

AI-Ready Foundation

A trusted data foundation built for AI-powered applications and services

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Enables trusted data sharing, supports operational efficiency, and lay the foundation for long-term ecosystem innovation

Technology Providers

- Build innovative solutions/services
- Integrate into operational workflows
- Reduce integration friction
- Prototype and test faster

Maritime Authorities

- Support efficient port operations
- Enable data-driven and policy decision
- Promote ecosystem alignment
- Advance digitalisation goals

Academia

- Research
- Innovation and prototyping
- Industry collaboration
- Policy and systems research

Maritime Community

- Better planning and coordination
- Higher operational efficiency
- More reliable service delivery
- Support for sustainability

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OCEANS-X is already delivering impact to our ecosystem partners

~50M

API Calls

Within 4 months of launch for OCEANS-X

30-50%

Operational savings

Through direct system-to-system API connectivity

100+

Datasets

in OCEANS-X

> 200

Registered Companies

in OCEANS-X



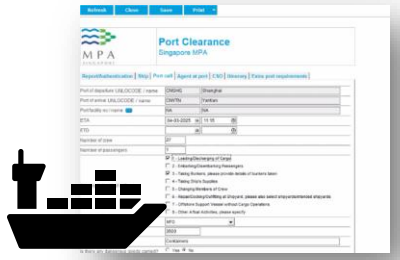
Arrival Schedule | Departure Schedule | Vessel Information | Vessel Position | Vessel Movements | Weather | Geospatial | And more....

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Port Clearance as a Service is a key B2G use case of OCEANS-X. Marinetech companies can leverage OCEANS-X APIs to develop digital solutions to enable seamless port clearance

- digitalPORT@SG™ handles > 200,000 arrival/departure declarations annually
- Further productivity gain and cost reduction for industry if port clearance declaration can be fully automated from a platform-to-platform integration, eliminating manual uploading and submission on a portal.
- OCEANS-X will unveil APIs to automate the submission of PANs and GD forms as a capability, which Marinetech companies can leverage for their product development.

An example of a feature developed by a commercial solution provider enabling submission of Pre-Arrival Notification (PANS)/General Declaration (GD) through platform-to-platform integration using OCEANS-X APIs.



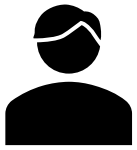
Ship Master/Agent initiates PANS/GD submission via a function developed by the solution provider



User is authenticated via a digital identity solution

OCEANSX

Data is prefilled in digitalPORT@SG™ GD submission via OCEANS-X's API

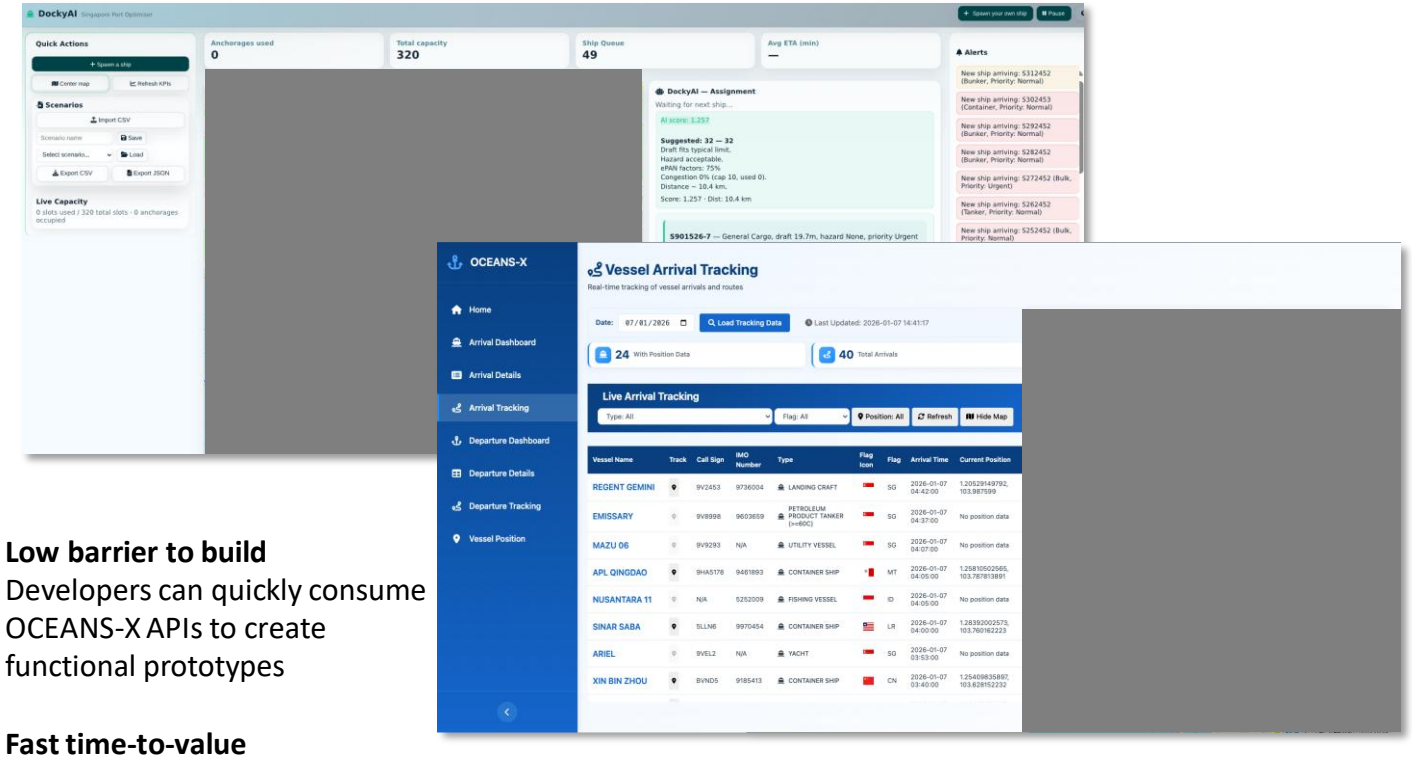


Ship Agent verifies and confirms submission



Lowers the barrier to application development by providing easy to consume APIs that enable rapid prototyping and real-world applications

Port Traffic Monitoring Prototype developed by students as part of the MaritimeONE Summit 2025

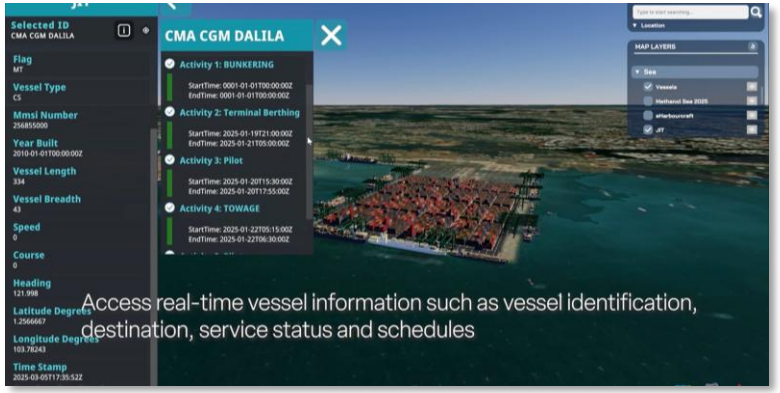


Vessel Tracking Prototype built using OCEANS-X APIs

Low barrier to build
Developers can quickly consume OCEANS-X APIs to create functional prototypes

Fast time-to-value
Useful applications can be developed in hours or days, accelerating experimentation and innovation

The data from OCEANS-X enables visualisation and simulation of maritime operations and prototyping of industry use-cases through **MPA's Maritime Digital Twin**

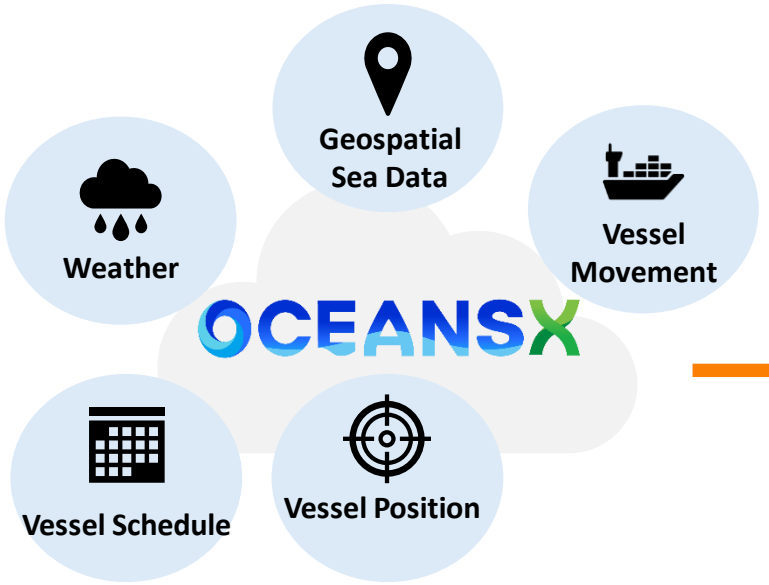


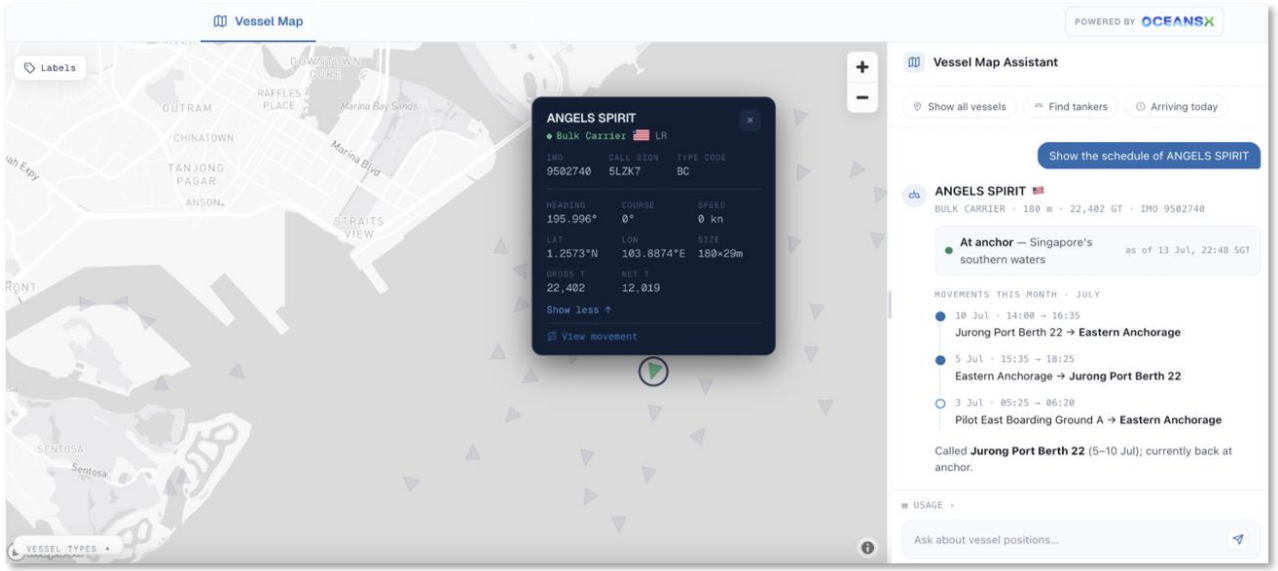
Proven real-world value
Demonstrates the real-world value of OCEANS-X data via industry proof-of-concepts (POCs) and use cases

Test before you build
Enables industry to test products and services before implementation and enhance coordination capabilities

Visibility into vessel movements, schedules and trusted data, will drive smarter and more efficient operations

With OCEANS-X's APIs, operators can integrate with and receive near real-time information of vessels





Benefits

- Plan & Dispatch on time
- Standby resources at the right time
- Safe & Efficient Operations
- Anticipate Demand
- Coordinate Efficiently
- Identify & Plan Better
- Forecast & Allocate Effectively
- Coordinate Efficiently
- Support Sustainability

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The way forward: Integrating OCEANS-X with AI to make maritime data accessible to everyone

Today, getting value from OCEANS-X data still takes technical skill – someone has to build and maintain a connection to each API. The next step is to connect OCEANS-X to AI, so anyone can simply ask for what they need in plain language – for example, through a chat interface – and get trusted maritime data back in seconds.



01

AI-Powered Services

Use AI to build new applications and services on top of trusted OCEANS-X data and capabilities.



02

Intelligent Assistance

Help users understand, access and use OCEANS-X data and services more easily, with AI providing guidance along the way.



03

Natural Language Access

Allow users to simply describe what they need, with AI helping to identify and access the relevant data or service across OCEANS-X.

MPA SINGAPORE

MARITIME SINGAPORE

Thank you

















