MEDIA RELEASE
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MPA Collaborates with Microsoft to Boost Innovation, Cybersecurity, Digital, and Green Transformation for Maritime Industry

The Maritime and Port Authority of Singapore (MPA) signed a memorandum of understanding (MoU) with Microsoft on 29 July 2024 to collaborate in innovative technologies including cloud computing, artificial intelligence (AI), data analytics, robotics, and cybersecurity, to support the adoption and development of digital and green solutions for the maritime industry.

2.   MPA and Microsoft will trial the use of AI and digital twins to optimise vessel route planning to enhance safety and reduce emissions in maritime operations, as well as just-in-time arrivals to reduce the turnaround times for vessels in port. MPA and Microsoft will also train early adopters and upskill workers on how to use and implement these solutions for their operations.

3.   As part of MPA's broader efforts to strengthen the cyber resilience of the maritime industry, MPA and Microsoft will explore synergies with MPA's own cybersecurity capabilities, supporting early detection of cyber threats and enabling companies to undertake timely actions. This will help uplift the cyber capabilities of maritime start-ups and enterprises.

4.   MPA and Microsoft will also co-develop new digital solutions or leverage existing Microsoft products to co-develop solutions to support small-and-medium enterprises, by aggregating demand and improving energy efficiency for shipping and port operations. These solutions include using Microsoft's digital modelling and simulation tools, and analytics capabilities, as well as building spatial models to help inform policy and decision-making on climate risk assessment, mitigation, and adaptation measures.

5.   Mr David Foo, MPA's Assistant Chief Executive (Operations Technology), said, "MPA's collaboration with Microsoft is a significant step towards strengthening Maritime Singapore's digitalisation and sustainability efforts. MPA is pleased to work with the

industry to create digital solutions and applications to address the key challenges in port operations and service delivery, safe navigation of ships, cybersecurity, and sustainability. The collaboration also supports goals for the maritime sector to innovate, reduce business costs and carbon emissions in alignment with the national and international emission targets."

6.   Ms Lee Hui Li, Managing Director, Microsoft Singapore said, "We are thrilled to embark on this transformative journey with MPA, leveraging Microsoft's advanced technologies in cloud computing, AI, and cybersecurity to drive the digital and green transformation of the maritime industry. Together, we strive to establish new benchmarks in safety, efficiency, and sustainability, as we accelerate innovation for the global maritime sector."

7.   In April 2024, MPA announced a partnership with Amazon Web Services to develop a maritime Artificial Intelligence and Machine Learning (AI–ML) Digital Hub to pilot new AI and generative AI capabilities for maritime use cases, including route and fuel optimisation, carbon emissions accounting, and just-in-time arrivals.

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About the Maritime and Port Authority of Singapore (MPA)
MPA was established on 2 February 1996 with the mission to develop Singapore as a premier global hub port and international maritime centre, and to advance and safeguard Singapore's strategic maritime interests. MPA is the driving force behind Singapore's port and maritime development, taking on the roles of port authority, maritime and port regulator and planner, international maritime centre champion, national maritime representative and a champion of digitalisation and decarbonisation efforts at regional and international fora such as at the International Maritime Organization. MPA partners industry, research community and other agencies to enhance safety, security and environmental protection in our waters, facilitate maritime and port operations and growth, expand the cluster of maritime ancillary services, and develops maritime digitalisation and decarbonisation policies and plans, R&D and manpower development. MPA is responsible for the overall development and growth of the maritime domain and Port of Singapore. In 2023, Singapore's annual vessel arrival tonnage crossed 3 billion Gross Tonnage and remains the world's busiest transshipment hub, with a total container throughput of 39.0 million 20-foot equivalent units (TEUs).

For more information, please visit www.mpa.gov.sg/

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