



## **JOINT MEDIA RELEASE**

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### **MPA and Firmus Technologies to Study Seawater Cooling for Sustainable AI Infrastructure**

The Maritime and Port Authority of Singapore (MPA) and Firmus Technologies, a Singapore-based technology company specialising in energy-efficient, AI-optimised infrastructure, have signed a Memorandum of Understanding (MoU) to collaborate on the study of sustainable, modular AI factories using seawater for cooling. The MoU was signed by MPA Chief Executive, Mr Teo Eng Dih, and Firmus Technologies Co-Chief Executive Officer, Mr Tim Rosenfield.

2. The collaboration will focus on the research and testing of scalable AI infrastructure that uses seawater-based cooling systems to improve energy efficiency. AI factories refer to high-performance data facilities designed to train and run artificial intelligence models at scale, requiring significant computing power and cooling capacity. The study will examine the viability of deploying modular versions of such seawater-based cooling systems around Singapore's waterfront areas to support growing demand for compute infrastructure.

3. As the maritime and port regulator and planner, MPA will support this study by providing technical and planning guidance to ensure that infrastructure design and implementation plans do not impact safety of navigation within its port limit, and that the study considers the relevant pollution control regulations, including the Prevention of Pollution of the Sea Act. This includes advising on the siting of the seawater intakes, management of water discharges, and design considerations to ensure infrastructure aligns with long-term coastal and maritime development plans. The study will also assess the requirements for Environmental Impact Analysis.

4. MPA and Firmus Technologies will also engage local research institutions and industry stakeholders to partner in this study.

5. Mr Teo Eng Dih, Chief Executive, MPA, said, "By working with Firmus at the early study stage, we hope to ensure that future developments involving sea-based

cooling systems to support AI infrastructure are well-considered from the outset – balancing innovation with safety and the needs of Singapore as a global hub port.”

6. Mr Tim Rosenfield, Co-Chief Executive Officer, Firmus Technologies, said, “This collaboration with MPA marks a significant opportunity to explore how scalable AI compute can be delivered through sustainable, maritime-adjacent systems. Firmus is committed to advancing high-efficiency AI infrastructure with minimal environmental overhead. We look forward to contributing our technical expertise to support Singapore’s long-term digital and sustainability ambitions.”

<End of Release>

## **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 maritime and port development, taking on the roles of 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 and the International Organization for Marine Aids to Navigation. MPA partners industry, research community and other agencies to enhance safety, security, and environmental protection, facilitate maritime and port operations and growth, expand multi-domain capabilities, and support the cluster of maritime ancillary services and manpower development. MPA is responsible for the overall development and growth of the maritime multi-domain and the Port of Singapore.

For more information, please visit [www.mpa.gov.sg/](http://www.mpa.gov.sg/)

## **About Firmus Technologies**

Firmus Technologies is building the critical infrastructure behind the next era of AI. Specialising in sustainable, high-performance data centers — known as AI Factories — Firmus partners with governments, cloud providers, and enterprises to design, deliver, and operate sovereign-grade compute at scale. With a deep commitment to energy efficiency, regional economic growth, and technological sovereignty, Firmus is shaping the future of AI infrastructure — responsibly, rapidly, and reliably.

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