



NEWS RELEASE

Visit <http://www.mindef.gov.sg> for more news and information about MINDEF and the SAF

Date of issue: 21 Jul 2026

DIS and DSTA Collaborate with IBM to Explore Quantum Computing for Mission Planning, Logistics Optimisation

1. The Singapore Armed Forces' (SAF) Digital and Intelligence Service (DIS) and Defence Science and Technology Agency (DSTA) have partnered IBM to explore the use of quantum computing for complex mission planning, such as logistics optimisation use cases. Mission planning often requires balancing numerous operational constraints, resources and timelines, and quantum optimisation could eventually help solve such complex planning problems more efficiently than conventional approaches.
2. As quantum computing advances globally, the DIS and DSTA are taking an early step to build indigenous expertise, evaluate its mission planning applications, and prepare the SAF to harness future breakthroughs. The collaboration aims to build quantum computing expertise within the DIS and DSTA through hands-on development with IBM, and to evaluate whether quantum approaches could improve selected mission planning processes.
3. Under this collaboration, the DIS and DSTA engineers will work alongside IBM specialists to develop and evaluate quantum optimisation approaches for a representative mission planning problem, and to build practical expertise that can support future innovation. The collaboration forms part of the DIS' and DSTA's broader efforts to strengthen future digital capabilities and ensure that MINDEF/SAF remains prepared to harness emerging technologies.
4. "Quantum computing has the potential to transform how complex mission planning problems are solved, and we believe it is important to engage early to understand both its opportunities and limitations. Through this collaboration with IBM, the DIS and DSTA are building quantum expertise, strengthening partnerships with industry and exploring how emerging technologies can be applied to future operational challenges. By investing in our people and capabilities today, we will be better prepared to harness quantum technologies as they mature," said Military Expert 7 Guo Jinghua, Commander SAF C4 and Digitalisation Command.

MINDEF Communications Organisation

MINDEF Building, 303 Gombak Drive, #01-26 Singapore 669645 Tel: 6307 5535 Fax: 6764 6119

MINDEF Website: www.mindef.gov.sg
MINDEF Portal: www.ns.sg

MINDEF eServices Centre
Tel: 1800-eNSNSNS (1800-3676767) SMS: eNSNS (36767)

5. “Realising the value of quantum computing requires more than advancements in technology — it requires a deep understanding of operational problems and how new technologies can be integrated into real-world systems. Through this collaboration, DSTA is applying its systems engineering expertise to evaluate where quantum technologies can deliver meaningful impact for future mission planning,” said DSTA’s Deputy Chief Executive (Information), Ms Gayle Chan.

6. “We look forward to the DIS and DSTA receiving cloud access to IBM’s quantum compute resources, and we look forward to providing enablement resources to the DIS and DSTA to help their organisation build skills with quantum computing and to explore the applicability of quantum computing to planning and resource allocation, including logistics optimisation,” said Scott Crowder, Vice President, IBM Quantum Adoption and Business Development.

###