

**Toshiba’s Commitment to a Quantum-Safe Singapore**



As a global business hub with advanced digital connectivity, Singapore is well-positioned to lead the charge in quantum-safe technologies. [The 2023 Singapore Digital Connectivity Blueprint](#) highlighted an 8.6% expansion in the Information and Communications sector in 2022, emphasizing the importance of resilience and security in a digital world. With advancements in quantum computing threatening traditional encryption methods, Singapore plans to implement quantum security technologies such as Post-Quantum Cryptography (PQC) and Quantum Key Distribution (QKD) through the [National Quantum-Safe Network Plus \(NQS+\)](#).



*Illustration of a Quantum-Secured Digital Society*

Toshiba is at the forefront of establishing a quantum-safe future for Singapore, leveraging its extensive expertise in QKD technology. With over three decades of research in quantum technology, Toshiba has shifted from academia to commercializing QKD systems. [The recent opening of a £20 million Quantum Technology Centre in Cambridge, UK](#), underscores Toshiba's commitment to developing quantum-secure networking solutions. This initiative addresses the vulnerabilities of traditional encryption methods, ensuring robust data security through advanced QKD technology that utilizes quantum physics principles to create resilient encryption against potential decryption attempts.

In 2021, Toshiba formed a strategic partnership with SpeQtral to develop cutting-edge quantum security solutions, combining Toshiba's fiber-based QKD expertise with SpeQtral's satellite QKD innovations. This collaboration has yielded significant achievements, including launching Southeast Asia's first Quantum Networks EXperience Centre (QNEX) for demonstrations and prototyping.

The partnership has achieved significant milestones, including the [first quantum-secure link across SPTel's diverse and scalable fiber network](#), enhancing the security of sensitive data. The joint efforts are further solidified by the recent [Memorandum of Understanding \(MOU\) with SpeQtral and ST Engineering](#) to accelerate the development of tailored quantum-safe solutions, ensuring robust protection for sensitive communications across sectors such as finance and government while positioning Singapore as a leader in quantum security in Southeast Asia.



*QKD protects critical infrastructure across sectors - from finance and energy to scientific research - ensuring security in the quantum era*

Toshiba collaborates closely with SPTel-SpeQtral to educate businesses about quantum technologies, including Quantum Key Distribution (QKD), as part of the NQSN+ initiative to create a Quantum-Safe Singapore. This partnership enhances digital infrastructure and data protection against quantum threats while fostering innovation and security for sustainable economic growth. With nearly 150 years of experience, Toshiba is committed to advancing quantum cryptography and establishing strategic alliances to secure Singapore's digital landscape, bolstering the nation's position in quantum technologies and cybersecurity.

Learn more about how Toshiba & SpeQtral strategic partnership drives the Quantum Security [HERE](#).



*Achieving a quantum-secured future with Toshiba Quantum Key Distribution technology*