



Press release

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Orange Business and Toshiba partner to launch first commercial quantum-safe network service in France

Orange Quantum Defender service available today, protecting enterprises against future quantum computing cyberattacks

Orange Business and Toshiba Europe have partnered to launch the first quantum-safe networking service in Paris, France. Orange Quantum Defender uses Toshiba's Quantum Safe Networking technology, which combines Quantum Key Distribution (QKD) with Post Quantum Cryptography (PQC) for defence in depth. The service is now commercially available in the greater Paris area.

The quantum-safe network offers the ultimate protection for sensitive data against future quantum computing attacks. A leading French financial services company has already connected multiple sites to the network, accessing high-speed, resilient quantum-safe infrastructure to secure its critical financial data.

The continued development of quantum technologies puts sensitive data under threat like never before, as quantum computers are set to render current public key encryption methods insecure. Organisations and enterprises within highly trust-sensitive industries, such as financial services, the public sector, critical infrastructure, and healthcare, are under particular threat from "store now, decrypt later" attacks. This is where sensitive data is collected today and stored by bad actors for decryption when quantum computers become available. To respond to this threat, organisations must take action to fortify their communications now to ensure they remain secure well into the future.

Orange Quantum Defender is provided over the existing Orange commercial fibre network in Paris [using Toshiba's QKD technology](#). A defence-in-depth principle combines hardware-based QKD and software-based PQC technologies to both protect sensitive data and ensure future data secrecy. The combination of QKD and PQC means organisations can benefit from a multi-layered security approach, providing the most secure network possible.

"We are thrilled to launch Orange Quantum Defender – a first-of-its kind service in France. This is a significant step in the Orange multi-layer quantum-safe networking strategy, as we help our enterprise customers respond to the growing and evolving security threats from quantum computing. Built on the robust technology by Toshiba, we are not just protecting sensitive data today; we are prepared and ready to partner with our customers for a secure and resilient future," said Aliette Mousnier-Lompré, CEO, Orange Business.

The quantum safe network follows years of collaboration between Orange and Toshiba in validating QKD for commercial applications. Previous [joint tests](#) showed that Toshiba's QKD technology could successfully scale across long distances at high secret key rates while co-existing with conventional data signals. Not only did this show that QKD could be used by businesses to protect their data in real-life situations today, but that it could easily be deployed on existing fibre networks, lowering barriers to adoption. The new network marks a fundamental step not only in protecting highly sensitive commercial data but also supports France's national quantum strategy.

"The quantum age isn't just some fringe concept anymore, and large organisations are on the frontline when it comes to the dangers posed by powerful quantum computers," commented Hiroshi Tsukino, Corporate Vice President of Toshiba Corporation, and Vice President of ICT Solutions Division at Toshiba Digital Solutions. *"We have been collaborating with Orange for several years to validate QKD technology performance across existing fibre networks, and I'm excited to now jointly launch the first commercial solution that can deliver a quantum-safe future for organisations in Paris."*

About Toshiba

In 2025, the Toshiba Group celebrates its 150th anniversary. As the company looks ahead, it is enhancing its management structure, streamlining operations, and investing in forward-looking businesses to build foundations for new growth.

This will allow it to continue to support advances toward a sustainable future with products and services developed by its wide range of businesses in the energy, infrastructure, and electronic devices domains.

Guided by its corporate philosophy, "Committed to People, Committed to the Future.," Toshiba brings industry-leading capabilities in green transformation (GX) and digital transformation (DX) to solutions for companies addressing the many challenges faced by modern society. By leveraging the power of data derived from its constantly evolving products and solutions, the Group is determined to help to achieve carbon neutrality and a circular economy.

In fiscal year 2024, Toshiba Group recorded annual sales of 3.5 trillion yen and employed 95,000 people worldwide. For more information, visit our [website](#) or follow us on [LinkedIn](#).

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