



Securing the future with quantum-safe networking services from Kyndryl

Rapid advances in quantum computing present a growing threat to current cryptographic systems. It may be just a matter of years until quantum-enabled systems can break public key infrastructure (PKI) encryption, potentially exposing enormous volumes of highly sensitive data.

Naturally, organizations need to protect their data, mission-critical systems and communications — especially in industries where data is both valuable and long-lived. Ensuring the reliability, authenticity and tamper-resistance of records, transactions and communications is essential in preserving operational confidence and stakeholder trust.

Local and international regulations are already evolving to take the quantum threat into account. As the world waits for developments in post-quantum cryptography, forward-thinking organizations can take steps to bolster their current cybersecurity capabilities and prepare to introduce new technologies.

The Kyndryl Quantum-Safe Assessment service helps organizations:

- Determine their current risk levels
- Understand the potential threats
- Classify their services based on relative sensitivity
- Run a detailed crypto-inventory analysis
- Plan a quantum-safe strategy
- Validate new quantum standards
- Develop the required agility to smooth the adoption of quantum-safe technologies

Updating all existing cryptographic capabilities and related technologies can be a long and complex process. We'll work with you to build out a hybrid approach in which today's technologies can co-exist with new technologies during the transition. By introducing broader initiatives around zero trust and cyber resiliency, we will also help you strengthen your overall security posture and stay ahead of evolving regulations.

The Kyndryl Quantum-Safe Assessment service can help you:

- Protect sensitive and valuable data from future quantum-enabled decryption
- Simplify compliance with data retention and privacy mandates
- Defend against interception or tampering in communications between critical systems
- Secure networks, devices and cloud applications against emerging quantum threats
- Meet current and emerging data-security regulations across the full technology lifecycle
- Enhance the resilience of both backend and customer-facing services by ensuring the integrity and authenticity of transactions, digital signatures and access controls
- Enable the secure exchange of data across distributed environments
- Secure communications and data across ecosystems spanning customers, partners and regulators



Combining deep technical expertise with a thorough understanding of your business priorities, Kyndryl helps organizations confidently navigate the complexities of quantum-safe networks. We can help you develop a strategy that supports your industry-specific threats, compliance requirements and operational scale.

Our approach merges strategic foresight with technical proficiency. Starting from a detailed analysis of emerging market trends and your organizational readiness, we provide a comprehensive assessment of relevant quantum vulnerabilities. The outcome of the service is a set of actionable roadmaps for cryptographic modernization and ongoing regulatory compliance.

Kyndryl's quantum-safe networking solutions are tailored to your specific needs. Our consulting-led approach takes into account:

- Sector-specific threats
- Regulatory environments and compliance mandates
- Your digital maturity and transformation roadmap

As one of the largest global providers of IT infrastructure services, Kyndryl has the necessary deep expertise in mission-critical infrastructure and cybersecurity. We have a proven track record of success in building and running resilient networks in heavily regulated industries — those most likely to be in the line of fire for future quantum-aided attacks.

Building on our experience in future-proofing infrastructure, Kyndryl is working with other technology leaders to prepare organizations around the world for the challenges of post-quantum encryption.

To learn more about how Kyndryl can help you transition securely to the post-quantum world, schedule a meeting with an industry expert today.



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