

Vodafone and IBM Work to Future-Proof Smartphone Security with Quantum-Safe Cryptography

Vodafone demonstrating proof of concept with IBM's Quantum Safe technology to enhance Vodafone Secure Net, its all-in-one security service



Armonk, New York, March 3, 2025 – Today, Vodafone and IBM (NYSE: [IBM](#)) announced a collaboration aimed at protecting customers and their data from future risks related to quantum computers when browsing the Internet on their smartphones.

The companies have developed a new proof of concept using the IBM Quantum Safe technology to enhance Vodafone Secure Net, Vodafone's popular mobile all-in-one digital security service used by millions of customers, to protect against anticipated quantum security risks. Available in several countries across Europe, Vodafone Secure Net protects users against phishing, malware, and identity thefts on Vodafone's fixed and mobile networks.

In this feasibility test, Vodafone is using IBM Quantum Safe technology to implement new post-quantum cryptography standards to the existing encryption methods used by Vodafone Secure Net. Vodafone and IBM are demonstrating the new proof of concept with support from Akamai Technologies, the cybersecurity and cloud computing company, at the major industry trade show, Mobile World Congress (MWC25), in Barcelona, Spain.

Vodafone is looking to introduce new, attack-resistant cryptographic algorithms across its networks, as well as business and consumer products. Future-proofing Vodafone Secure Net complements the work Vodafone and IBM are doing at the industry level to promote the adoption of post-quantum cryptography standards and other security best practices in a future of advanced quantum computing.

Luke Ibbetson, Head of Research & Development, Vodafone, said: "We want our customers to enjoy the internet without worry, now and in the future. On the one hand quantum computing could have many societal benefits such as modeling new medicines and optimizing advanced digital networks. But on the other hand, it could be used to undermine the cryptographic principles that the Internet relies on today. That is why Vodafone and IBM are working together with other partners to get ahead of the curve."

Lory Thorpe, Quantum Safe Industry Lead, IBM, added: "As a pioneer in quantum-safe cryptography and solutions, IBM is proud

to expand our collaboration with Vodafone to help protect its customers from anticipated quantum risks. It's crucial for organizations to implement post-quantum cryptography, and Vodafone has led by example as an early adopter of post-quantum security solutions.”

Someday, future cryptographically relevant quantum computers could be used to break today's Internet encryption techniques. While this risk may still be years away, cybercriminals are using “harvest now, decrypt later” attacks to harvest and store data for later decryption. Recognizing this risk, in 2024, IBM's cryptography researchers co-developed two algorithms which were [published](#) as part of the U.S. National Institute of Standards and Technology's (NIST) first three post-quantum cryptography standards.

In addition, Vodafone became one of the first companies to successfully test [IBM Quantum Safe technology](#) to identify and inventory cryptography in its network infrastructure and systems. Through the new proof of concept based on the IBM Quantum Safe technology, the company is leading the charge in implementing current post-quantum cryptography standards from NIST.

Vodafone and IBM are also founding members of the [GSMA's Post-Quantum Telco Network Task Force](#), an industry working group founded in 2022 that has grown to include more than 50 telecommunications companies and 20 major operators across the telecommunications industry.

Vodafone and IBM will be available at MWC25 to discuss this latest quantum-safe collaboration. For more information about the IBM Quantum Safe technology and services, visit: <https://www.ibm.com/quantum/quantum-safe>.

About Vodafone Group

Vodafone is a leading European and African telecoms company. We provide mobile and fixed services to over 340 million customers in 15 countries, partner with mobile networks in over 45 more and have one of the world's largest IoT platforms. In Africa, our financial technology businesses serve almost 83 million customers across seven countries – managing more transactions than any other provider.

Our purpose is to connect for a better future by using technology to improve lives, businesses and help progress inclusive sustainable societies. We are committed to reducing our environmental impact to reach net zero emissions by 2040.

For more information, please visit www.vodafone.com follow us on X at @VodafoneGroup or connect with us on LinkedIn at www.linkedin.com/company/vodafone.

About IBM

IBM is a leading provider of global hybrid cloud, artificial intelligence, and consulting expertise. We help clients in over 175 countries harness insights from their data, optimize business processes, reduce costs and gain a competitive advantage in their industries. More than 4,000 government and corporate entities in critical infrastructure areas such as financial services, telecommunications and healthcare rely on the IBM hybrid cloud platform and Red Hat OpenShift to achieve their digital transformations quickly, efficiently and securely. IBM's breakthrough innovations in artificial intelligence, quantum computing, industry-specific cloud solutions and consulting offer open and flexible options to our clients. All of this is backed by IBM's long-standing commitment to trust, transparency, accountability, inclusion and service. Visit www.ibm.com for more information.

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