



Telefónica, IDEMIA Secure Transactions and Quside announce partnership to unveil pioneering Quantum-Safe Connectivity for IoT devices

Telefónica, IDEMIA Secure Transactions and Quside announce a groundbreaking partnership to deploy a quantum-safe solution for IoT devices. This groundbreaking partnership will set new standards for security and resilience in IoT ecosystems, protecting both device infrastructure and data from potential quantum attacks.

CONNECTIVITY

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In an industry breakthrough that will pave the way for quantum computing advancements for Internet of Things (IoT) devices, Telefónica, IDEMIA Secure Transactions (IST) and Quside announce the launch of Quantum-Safe connection for industrial IoT devices.

This project is part of a long-term collaboration between Telefónica and IDEMIA Secure Transactions, which has already announced some significant milestones, such as the deployment of the world's first quantum-safe 5G SIM card in 2022. Building on IST's leadership in quantum technology, this initiative now introduces cutting-edge Quantum-Safe IoT connectivity and Transport Layer Security (TLS), a cryptographic protocol that enables the deployment of new cryptographic protocols without the need for hardware changes. It also leverages Quside's strong randomness quantum technology generator that ultimately leads to unpredictable and more efficient computation.

Pioneering security for IoT ecosystems

In the wake of quantum computing advancements, Internet of Things (IoT) devices are being confronted by unprecedented security challenges that requires to develop quantum-resistant security measures tailored to the unique constraints and requirements of IoT deployments.

These solutions will be particularly useful as a first step for industrial companies, especially for those with long-lasting devices (15+ years), granting secure connections between IoT devices, such as smart meters, and their operating systems.

In the future, these innovations will enable Telefónica to offer new cryptographic quantum security services to IoT developers through the GSMA Open Gateway platform, the telecoms industry initiative to transform networks into open platforms.

Post-quantum is the next revolution to come in the communications and data industry and IDEMIA Secure Transactions, Quside and Telefónica's partnership underlines their shared commitment to innovation and leadership in post-quantum technology. This collaboration not only addresses current security challenges but also anticipates future threats, ensuring long-term protection for IoT devices.

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As businesses and governments alike seek to secure their IoT ecosystems, the market potential for quantum-safe technology is limitless. Telefónica and its partners are positioning themselves as the main and pioneer actors that will shape the sector in the years to come.

At Telefónica, we persistently evolve our understanding of the future to transform it into reality. These quantum-safe developments will enable Telefónica and its customers to benefit from enhanced security with easier deployment. End users will also gain from the assurance of uninterrupted services and protection against advanced cyber threats, during the whole device lifetime.

Antonio Guzmán- Discovery Director at Telefónica Innovación Digital

IDEMIA Secure Transactions has been engaged for years in creating quantum-resistant technologies that safeguard society in the post-quantum world. We are particularly proud of this transformative partnership with Telefónica that represents another milestone in secure communications. With such an innovative approach alongside Telefónica, IDEMIA Secure Transactions demonstrates its conviction that co-creating innovative solutions with its long-standing customers is shaping a safer digital future for consumers.

Fabien JAUTARD, EVP for Connectivity Services at IDEMIA Secure Transactions

At Quside, we're thrilled to work with Telefónica and IDEMIA Secure Transactions on this quantum-safe connectivity initiative. This groundbreaking effort reflects our dedication and joint commitment to bring stronger security to all connected devices, including industrial IoT, in the transition to quantum-resistant cryptography.

Carlos Abellán, CEO and Co-founder at Quside

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IDEMIA Group brings together three market-leading businesses that enable mission-critical solutions:

- **IDEMIA Secure Transactions** is the leading technology provider who unlocks safer and easier ways to pay and connect.
- **IDEMIA Public Security** is a leading global provider of biometric solutions that unlock convenient and secure travel, access, and protection.
- **IDEMIA Smart Identity** leverages the power of cryptographic and biometric technologies to unlock a single trusted identity for all.

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