

Press Release

Telefónica Tech collaborates with Quside and Qrypt to validate new quantum technology in its VDC cloud Service.

- Telefónica's digital business holding company is offering its customers next-generation solutions in its VDC cloud service following successful completion of testing.
- Quantum random number generation and Entropy-as-a-Service (EaaS) architectures have facilitated this advanced offering and the validation of an extensive number of use cases, including enhanced key generation for cryptographic modules (HSM), data security in SDN networks, MonteCarlo simulations and randomisation for gaming applications.
- Telefónica Tech's VDC customers will benefit from the quantum random number service and the technology will be accessible as a new resource in the cloud.

Madrid, 9 April 2021 - Telefónica Tech has collaborated with Barcelona-based Quside, an industry-leading manufacturer of high-performance quantum random number generators, and New York-based Qrypt, a producer of cryptographic quantum security solutions enabled by its Quantum Entropy-as-a-Service (EaaS) solution, to successfully complete the integration of a new quantum technology into its cloud service hosted in its Virtual Data Centers (VDC).

The availability of large quantities of high-quality random numbers has become an essential requirement in many fields. Its application ranges from high-quality encryption keys, which encrypt the exponential growth of data transfers, to the creation of highly accurate simulations for science, engineering, finance, and insurance.

In addition, “go-to-cloud” and “cloud-first” strategies are now a necessity in the ICT industry. It is forecast that a high percentage of total spending on enterprise applications will be spent on cloud services by 2023, and we believe a significant portion of this will be spent on tasks that require random numbers, especially in the financial sectoral sector.

This collaboration allows Telefónica Tech to enhance its cloud services by providing its customers with easy-to-use, high quality and high-performance quantum random numbers so they can integrate them into their business processes.

Telefónica Tech has validated the use of quantum random number generators in a new Entropy-as-a-Service (EaaS) architecture, integrated into its VDC cloud offering. Several use

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cases have been demonstrated using this EaaS integration, including seeding for cryptographic devices (HSM), Monte Carlo simulations for scientific, engineering, and financial applications, gaming, as well as for a new proof-of-transit protocol that improves the security of data transiting software-defined networks (SDN).

Hugo de los Santos, Director of Products and Services at Telefónica Cyber & Cloud Tech, said: "Offering this key quantum-generated resource is a significant advantage for both our internal and external customers. It is especially important for our enterprise customers with demands for high quality and high-performance random numbers, who will benefit from this unique feature".

The random numbers are provided by Spanish startup Quside, while Entropy-as-a-Service distribution as a service is offered by New York-based US startup Qrypt. Telefónica Tech has joined forces with Quside and Qrypt to integrate the technology into its VDC (Virtual Data Center) cloud service.

"Randomness is an essential resource for a wide range of ICT systems, including cybersecurity. We are thrilled to be part of Telefónica Tech's efforts to deploy stronger security features to their global customers using emerging quantum technologies," says Carlos Abellán, CEO of Quside.

Random numbers produced by Quside hardware are now available on three continents thanks to Qrypt through their scalable randomness distribution solutions.

"The secure distribution of true quantum randomness is now a practical technical capability for a broad range of critical applications. We're excited to be working with Telefónica Tech to scale this quantum service globally " said Denis Mandich, CTO of Qrypt.

After deploying this new technology in Telefónica Tech's test infrastructures, it will go into production in the next few months.

About Telefónica Tech

Telefónica Tech is a holding company owned by the Telefónica Group. The company offers a wide range of integrated technological services and solutions in Cybersecurity, Cloud, IoT, Big Data and Blockchain. Telefónica Tech's capabilities reach, every day, more than 300,000 customers in 175 countries.

About Quside:

Quside builds quantum technologies for safer connectivity and more powerful computation. A spin-off of ICFO – The Institute of Photonic Sciences - in Barcelona, Quside is commercializing innovative hardware solutions for all connected devices. More information at: www.quside.com.

About Qrypt:

Based in New York City, NY, with an office in Germantown, MD, Qrypt's quantum hardware and software solutions offer organizations all-in-one protection from threats today and those on the horizon. More information at: www.qrypt.com.

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