



## Press Release

Geneva, 26 June 2018

# ID Quantique is proud to announce partnership with Quantum Xchange to provide Quantum Key Distribution as a Service over Unlimited Distances in the United States

**ID Quantique SA (IDQ), the global leader in quantum-safe crypto solutions, announced today a partnership with Quantum Xchange (QX) to bring quantum-safe cryptography as a service into the U.S. market.**

[Quantum Xchange's](#) Quantum Key Distribution (QKD) service, based on QKD servers from IDQ and QX's complementary Trusted Node technology, will offer the best data protection for the long term based on the laws of quantum physics. Quantum Xchange today launched the first quantum, fiber-optic network in the United States and will support the deployment of dark fiber quantum networks that will serve the Northeast corridor from Washington D.C. to Boston, before expanding nationwide. Their [first QKD network](#) will connect the financial markets on Wall Street with back office operations in New Jersey, helping banks keep high-value transactions and mission-critical data safe and secure.

*"Quantum Xchange raises the bar for modern-day encryption and gives organizations a future-proof data security infrastructure to combat the looming threat of quantum computers," said John Prisco, President and CEO of Quantum Xchange. "Our solution is not weakened by quantum computing, mathematical discoveries, or massive parallel computing networks. As such, Quantum Xchange provides the ultimate solution for keeping mission-critical data safe today, tomorrow, and well into the future."*

Since its foundation in 2001, IDQ has seen continuous growth and continues to develop overseas. *"Quantum Xchange has an extremely innovative offering of keys on demand," said Grégoire Ribordy, CEO of IDQ. "Companies around the world are realizing how vitally important quantum-safe encryption will be in the next five to ten years, and the need to put in appropriate safeguards immediately. Quantum Xchange's Trusted Node technology complements our QKD offering to allow us to offer a full solution more quickly to the government and enterprise customers who need it the most urgently. The partnership also allows IDQ to access a new and fast-growing market with state-of-the-art technology that will be relevant for decades to come."*

The world's volume of data has been growing exponentially year-over-year, giving cybercriminals a greater opportunity to expose massive amounts of data in a single breach and costing the global economy [\\$600 billion](#) annually. The arrival of quantum computers will arm nefarious actors with machines powerful enough to crack the toughest Internet security ciphers in just seconds. Even stolen data that is protected by Secure Socket Layer (SSL) will be easily deciphered by quantum computers in the not-so-distant future, and the risk for organizations which don't act now is real.

Current protocols for secure data transmission are rooted in mathematical algorithms that can be solved – even when enterprises extend SSL key lengths. In contrast to public-key cryptography protocols like Diffie-Hellman, RSA and elliptic-curve cryptography, QKD systems leverage the fundamental properties of quantum mechanics – using photons of light, not prime numbers, to physically transfer a shared secret between two entities. QKD takes advantage of a photon's multiple quantum states, coupled with its no-change and no-cloning attributes, which means keys cannot be unknowingly interrupted, corrupted, cloned, or exposed during transmission.

QKD systems were first installed commercially by IDQ in 2007, in a world first, to protect [Swiss elections](#). Since then IDQ has provided QKD systems to governments, banks and other enterprise worldwide. Quantum Xchange exclusively owns the distance enhancing Trusted Node technology developed by Battelle Research which can extend the QKD range indefinitely using 100-mile multiples, making large-scale QKD over long distances possible and practical. The Trusted Nodes use quantum keys generated by IDQ's QKD systems. Quantum Xchange's model to provide end-to-end quantum keys on demand in the US will ensure easy accessibility for such customers to the highest levels of data protection, with inbuilt eavesdropping detection and forward security.

Highly regulated, high-risk organizations, including those in banking, critical infrastructure, telecommunications, health-care, and government are ideal candidates for Quantum Xchange's distance enhancing QKD solution. It requires no changes to current encryption tools or protocols and can be implemented today. [Quantum Xchange-as-a-Service](#) is available as a monthly subscription for unlimited use of keys with one, three, and five-year pricing packages.

### About ID Quantique

Founded in 2001 as a spin-off of the Group of Applied Physics of the University of Geneva, ID Quantique is the world leader in quantum-safe crypto solutions, designed to protect data for the future. The company provides quantum-safe network encryption, secure quantum key generation and Quantum Key Distribution solutions and services to the financial industry, enterprises and government organizations globally. IDQ's quantum random number generator has been validated according to global standards and independent agencies, and is the reference in highly regulated and mission critical industries — such as security, encryption, critical infrastructure and IoT — where trust is paramount.

Additionally, IDQ is a leading provider of optical instrumentation products, most notably photon counters and related electronics. The company's innovative photonic solutions are used in both commercial and research applications.

IDQ's products are used by government, enterprise and academic customers in more than 60 countries and on every continent. IDQ is proud of its independence and neutrality, and believes in establishing long-term and trusted relationships with its customers and partners.

For more information, please visit [www.idquantique.com](http://www.idquantique.com).

### About Quantum Xchange

As the provider of quantum-safe encryption, Quantum Xchange gives commercial enterprises and government agencies the ultimate defense to keep high-value data safe – today, tomorrow and in the future. Offering the first and only quantum fiber-optic network in the United States, Quantum Xchange enables organizations to send infinitely secured data over long distances using the laws of quantum physics. Leveraging the proven secure Quantum Key Distribution (QKD) method and its own exclusive Trusted Node technology for unlimited point-to-point distances, Quantum Xchange's future-proof, secure, data-transmission infrastructure addresses the shortcomings inherent with modern-day encryption: the ability for keys to be intercepted, corrupted or exposed during transmission, and the imminent threat of quantum computers.

To learn more about the future of security realized today, visit [QuantumXC.com](http://QuantumXC.com) or follow us on Twitter [@QuantumXchange](https://twitter.com/QuantumXchange).