IDQ
FROM VISION TO TECHNOLOGY

REDEFINING SECURITY

QKD as a Service

Colt & IDQ provide Managed Quantum Cryptography Service for high-security network encryption in Switzerland

Centauris
Layer 2 Encryptors

▲ Reliable field proven hardware

▲ Support for AES 256- bit keys

▲ Support for P2P and multipoint

▲ Leading FIPS & CC certification

▲ True full duplex wire speed encryption up to 10Gbps

▲ Low latency under 15 microseconds

▲ Single GUI and management platform for multiple protocols

▲ Secure remote management & upgrade

Cerberis QKD server

▲ Quantum Key Distribution

▲ Prevents eavesdropping & passive attacks

▲ True forward-security

Colt and ID Quantique SA (IDQ) have deployed a secure critical backbone link for financial institutions and enterprises in Geneva, Switzerland, based on IDQ's world- first Quantum Cryptography service.

The Cerberis solution, which is used to encrypt the data transmitted between the Geneva metropolitan area and a remote disaster recovery data center located 70 km away, is based on IDQ's innovative Quantum Key Distribution (QKD). QKD derives its security from the intrinsic and proven principles of quantum physics – that the quantum encryption keys are truly random, and that any interception or eavesdropping of the data will disturb the quantum system and can therefore be detected. This means that the system can verify whether data has been intercepted whilst inflight which ensures that the customer can be confident that their data remains secure.

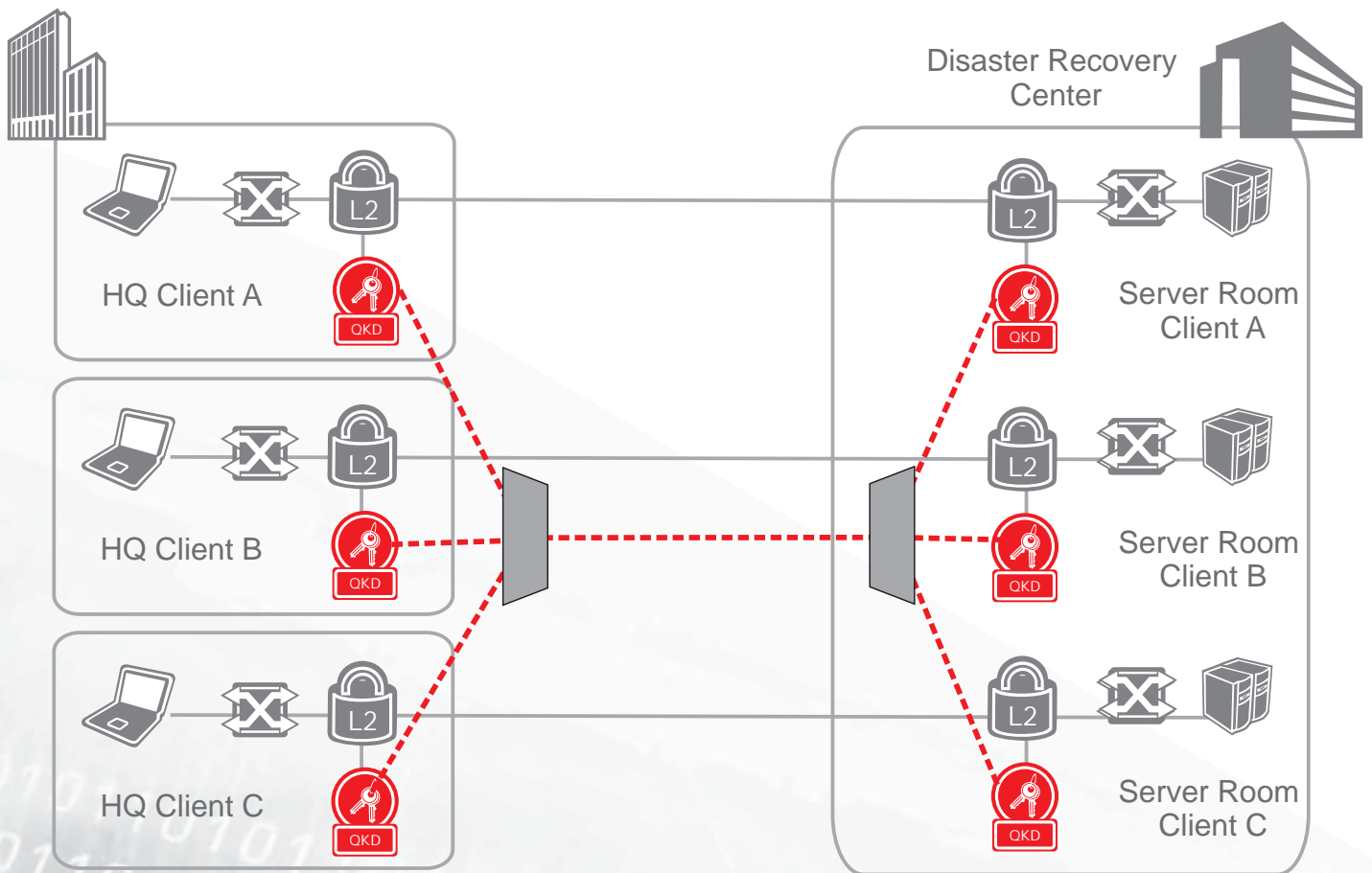Working with Colt has enabled ID Quantique to offer encryption as a managed service.

Grégoire Ribordy, CEO of IDQ explains, "This collaboration with Colt has allowed us to offer quantum key distribution in a flexible and very affordable way. New clients will be able to benefit from IDQ's high security infrastructure because we can now offer a managed service where the customer can pay monthly, avoiding upfront capex costs."

Igor Gustincic, Regional Sales Director Switzerland and member of the Swiss management team at Colt explains "Colt has a reputation for providing high speed and secure networked solutions to the financial services market. Working together with ID Quantique allows Geneva based financial institutions and private companies to take advantage of a different type of key distribution to encrypt and protect their business critical data."

Whilst the network is managed by Colt, customers retain absolute control and visibility over their encryption keys and mission-critical data. Quantum keys for different clients are multiplexed over a common optical fibre to reduce the total cost of the solution, and customer data is sent over separate links, with both key and network redundancy built into the solution.

Advanced monitoring solutions ensure absolute transparency for the end user, with configurable real-time alerts and regular status reports for audit or forensic purposes.

IDQ's Cerberis solution combines quantum key distribution with high-speed encryption based on the leading 256-bit AES cipher. The solution supports the encryption of different protocols, such as Ethernet, Fibre Channel and SONET/SDH, and works with latency in single microseconds for real-time applications and data back-up. The products are certified according to the highest international norms for encryptors (FIPS and CC EAL4+).