



Quintessence
Labs

QUANTUM RESILIENCE DELIVERED

Protect your future.



QUINTESSENCELABS SOLUTIONS

KEY AND POLICY MANAGEMENT

Trusted Security Foundation® (TSF®)

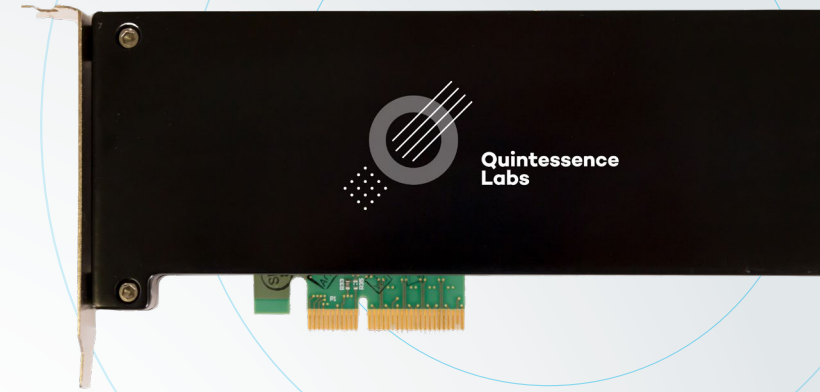
Tackle the toughest key management challenges with the TSF key and policy manager.

- Centralized and vendor-neutral encryption key management solution
- Designed to easily address the toughest challenges in key management
- PQC crypto-agile key management supporting the latest NIST Quantum Resistant Algorithms
- Common Criteria Certified



“RSA and DSA fail catastrophically when used with weak random number generators.”

– Heninger 2021



ENTROPY MANAGEMENT

qStream™ Quantum Random Number Generator (QRNG)

The qStream QRNG forms the foundational layer of all our security products.

- Derived from a quantum source—the ultimate source of randomness
- Instantly strengthens all crypto systems, full traceability
- High performance QRNG, generating 1Gb/sec of true random number providing 100% quantum entropy
- NIST 800-90B Certified as a true random entropy source

qRand™ Entropy Management Software

Quantum-Powered Entropy Enhancer and Entropy Broker

- Delivers sufficient entropy levels, even in virtual environments, eliminating “entropy starvation”
- Consolidates multiple entropy sources into a more secure single entropy stream
- Distributes entropy to multiple target locations providing Entropy-as-a-Service (EaaS) capabilities

Quantum Resilience Delivered

QuintessenceLabs' quantum-enabled solutions integrate with today's encryption technologies to offer quantum resilience now, and seamlessly transition to a post-quantum world.



KEY AND POLICY MANAGER

Trusted Security Foundation® (TSF®)

Quantum-Safe Architecture™ provides proven framework for quantum resilience

FORTIFY CRITICAL ENCRYPTION LAYER FOR ZERO TRUST AT ENTERPRISE SCALE ON-PREMISE OR IN THE CLOUD TO ENABLE AS-A-SERVICE OFFERINGS



START YOUR QUANTUM RESILIENCE JOURNEY



NEXT GENERATION KEY MANAGEMENT

qClient™ Software Development Kit (SDK)

Effortlessly integrate quantum key & policy management with existing security systems



KEY DISTRIBUTION

qOptica™ 100 Quantum Key Distribution (QKD)

Enable continuous generation and exchange of information-theoretically secure key material between two parties, where security is guaranteed by the laws of quantum physics



KEY DISTRIBUTION

qConnect Quantum Safe Key Distributor

Provides quantum safe key distribution using NIST approved PQC algorithms and standard industry protocols



ENTROPY MANAGEMENT

qStream™ Quantum Random Number Generator (QRNG)

Perfectly unpredictable true random numbers form foundational layer for quantum security



ENTROPY MANAGEMENT

qRand™ Entropy Management Software

Manage entropy levels, consolidate entropy streams to multiple applications, creating Entropy-as-a-Service (EaaS) capability



ZEROIZATION

qProtect™ Secure Data Storage and Protection

Ultimate protection for sensitive mobile data in unsafe or uncontrolled environments

QuintessenceLabs Enables You to Be Crypto Agile Today

KEY DISTRIBUTION

qOptica™ 100 Quantum Key Distribution (QKD)

QuintessenceLabs' continuous variable quantum key distribution (CV-QKD) technology is the most secure means of distributing keys, protected by the laws of physics.

- Point-to-point protocol that uses specialized hardware to share secret keys over an optical link
- Secrecy of the keys is guaranteed by the laws of quantum physics
- Offers CV-QKD technology with built-in advantages in terms of cost, form factor, and performance



“Without entropy, cryptographic functions such as encryption are rendered essentially useless.”

– Garrett Bekker, Principal Research Analyst

KEY DISTRIBUTION

qConnect Quantum Safe Key Distributor

qConnect provides quantum safe key distribution using NIST approved PQC algorithms and standard industry protocols.

- Quantum safe distribution of cryptographic keys protected by PQC algorithms and/or QKD platforms
- Supports qConnect only or hybrid QKD/PQC key delivery and distribution
- Supports ETSI 014, Cisco SKIP, and NOKIA Key Output protocols
- Virtual Machine or Network Attached Appliance w/QRNG form factors

ZEROIZATION

qProtect™ Secure Data Storage and Protection

The qProtect delivers powerful data protection for the most sensitive and critical assets, particularly when they are in uncontrolled environments.

- The ultimate protection for sensitive data in unsafe environments
- Virtual zeroization automatically erases one-time key material as it records and encrypts data
- Prevents unauthorized access to data and data manipulation
- Practical solution keeps critical mobile data safe, now and into the future

NEXT GENERATION KEY MANAGEMENT

qClient™ Software Development Kit (SDK)

With qClient (100 SDK), developers can quickly integrate QuintessenceLabs' key management and random number generation into any application.

- Vendor-neutral software development kit (client SDK)
- Allows developers to effortlessly integrate key management and encryption applications
- Supports industry standard APIs: KMIP, PKCS#11

About QuintessenceLabs

QuintessenceLabs' portfolio of modular products addresses the most difficult security challenges, helping implement robust security strategies to protect data today and in the future.

For more information on QuintessenceLabs' data protection solutions, please visit www.quintessencelabs.com or email info@quintessencelabs.com.

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