Quantum Resilience Delivered
Protect Your Future

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To set up a meeting:
QuintessenceLabs@carahsoft.com
844-214-4790

To purchase, check out the contract vehicles available for procurement:
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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
- Crypto-agile adaptable to quantum-resistant algorithms
- Crypto-agile and interoperable key management

> **"** *RSA and DSA fail catastrophically when used with weak random number generators."*
>
> *– Heninger, 2021*
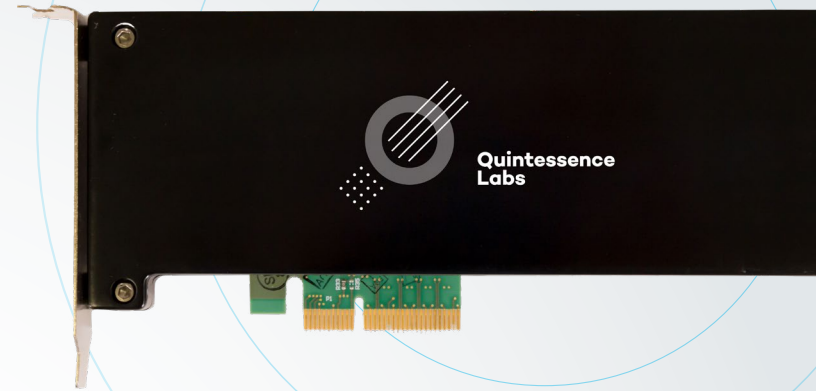
ENTROPY

qStream™ Quantum Random Number Generator (QRNG)

The qStream QRNG appliance 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
- Represents the new norm in random number generation
- Generates perfectly unpredictable true random numbers
- Delivered at the speeds needed for commercial applications

qStream™ 200 Quantum Entropy Appliance

The qStream Entropy Appliance ensures sufficient supplies of highest quality entropy throughout your network.

- Derived from a quantum source
- Delivers the highest quality random numbers at the highest speeds
- Pairs QRNG appliance with entropy management software
- Prevents performance degradation for applications using entropy

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

NEXT GENERATION KEY MANAGEMENT

qClient™ Software Development Kit (SDK)

Effortlessly integrate quantum key & policy management with existing security systems

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)

Rapid exchange of secure keys, protected by the laws of physics

ENTROPY

qStream™ Quantum Random Number Generator (QRNG)

Perfectly unpredictable true random numbers form foundational layer for quantum security

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qStream™ 200 Quantum Entropy Appliance

Ensure sufficient supplies of highest quality entropy throughout your network

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qRand™ 100 Quantum Entropy Enhancer

Monitor and augment entropy pool preventing security compromise in virtual environments

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*

qRand™ 100 Quantum Entropy Enhancer

The qRand 100 Quantum entropy enhancer feeds quantum random numbers to the entropy pool of your computer.

- Solves the problem of "entropy starvation"
- Delivers sufficient entropy, even in virtual environments
- Monitors entropy status and augments entropy pool with full entropy random bits

qProtect™ Secure DataStorage 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

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**.