

SE@URE

quantum technology

Revolutionizing cybersecurity
with quantum-powered
randomness: delivering device-
independent, self-testing
certified random numbers.

www.sequire-quantum.com

Weak randomness creates security risks



01.

Traditional Random Number Generators (RNGs) are vulnerable to predictability, bias, and hardware-based attacks.



02.

Quantum-powered randomness eliminates these vulnerabilities, redefining security for the digital age.

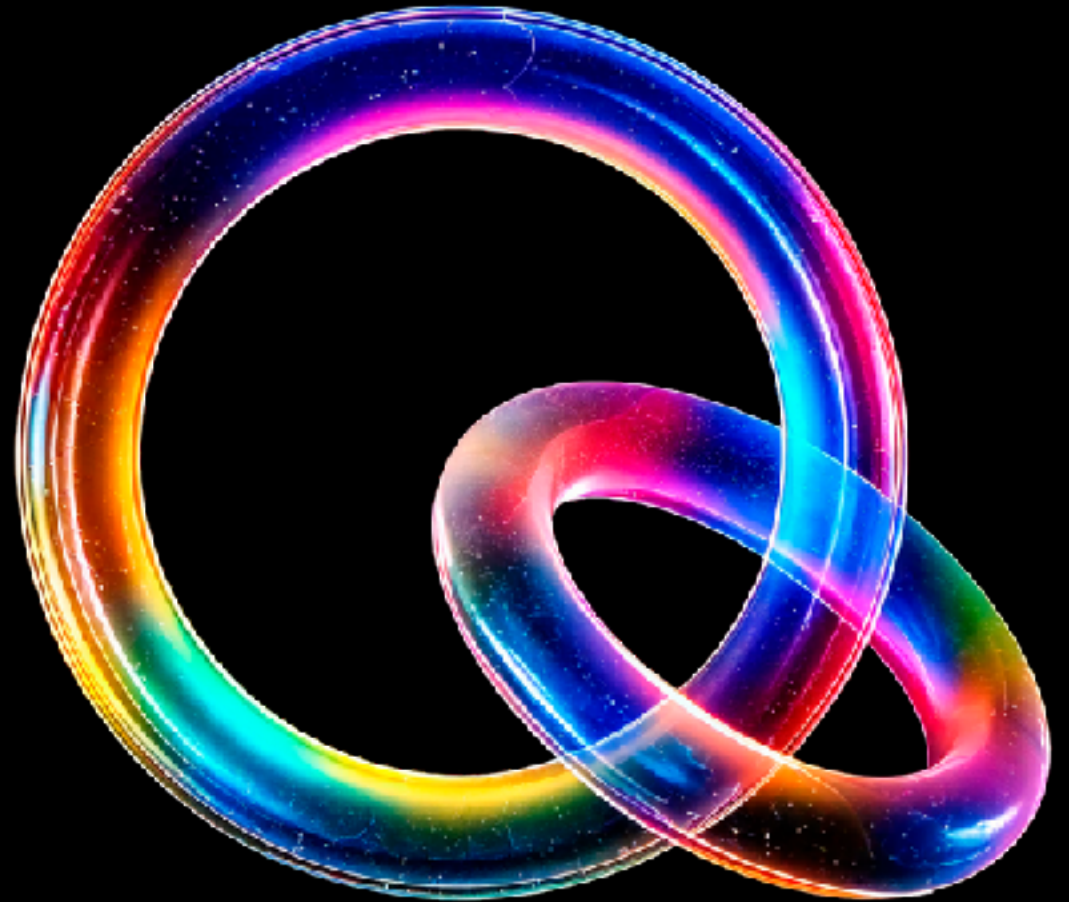


03.

Encryption, financial transactions, and secure communications depend on truly random numbers—yet today's RNGs cannot guarantee absolute security.

SEQRNG*

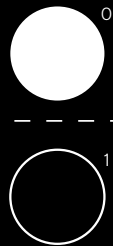
The only quantum
random number
generator with a unique
self-certification
process ever.



How *SeQRNG Self-Tests Every Bit—In Real Time

Step 01:

Generate a Quantum Event
A photon is emitted and measured. Its unpredictable behavior generates a raw random bit (0 or 1).

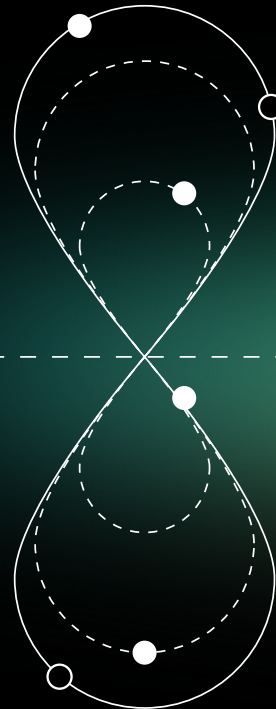


Step 02:

Validate Quantum Behavior
SeQRNG immediately checks if the event matches the physical expectations of quantum randomness.

Step 03:

Monitor Randomness Quality
The system tests for any unusual patterns in the data stream.



Step 04:

Check System Health
Sensors monitor detectors, photon sources, and environment conditions in real time.

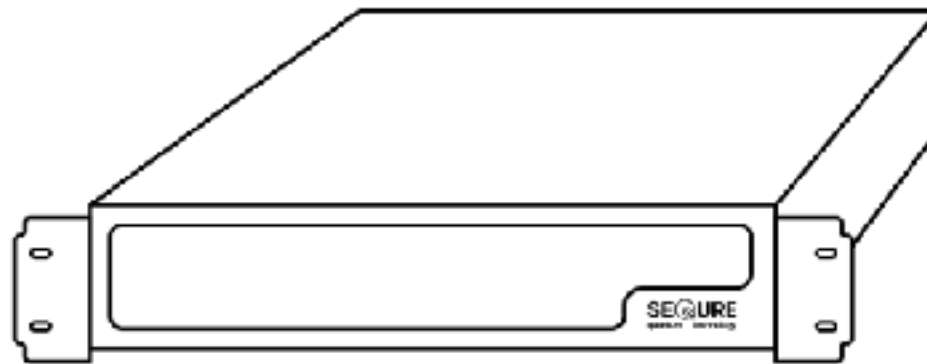
Step 05:

Deliver Certified Secure Randomness
Only after passing all layers of validation is the randomness released for cryptographic use – ready to secure keys, communications, and critical systems.



**Every bit, verified.
Every layer, checked.**
SeQRNG: Quantum randomness you can prove.

Why SEQRNG?



SeQRNG's Certified Randomness: Delivering full entropy with the highest quality of unpredictability.

Multi-layer Data Protection: Layers of encryption, authentication and key protection work together for robust, unified security.

Real-Time Threat Detection:
The only system capable of detecting cyberattack attempts instantly.

Compliance QES2 :
Int. Telecomm. Union [ITU-T X.1702], NIST 800-90B, NIST 800-22

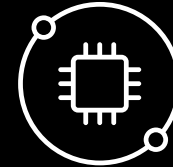
Solutions to protect the world's most critical data.



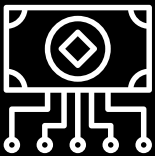
Telecommunications
& Technology



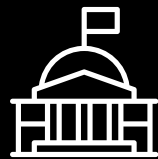
Healthcare &
Pharmaceutical



Simulations &
Modeling



Financial
Institutions



Government
& Defense



Lotteries &
Online Gaming



Powered

by **THALES**

In collaboration with Thales, a global leader in cybersecurity and defense, we integrate quantum-certified private randomness into advanced encryption systems—enhancing security across complex, high-assurance environments.



Built for Easy & Scalable Integration

Enterprise-Ready: Designed for high-assurance security environments, ensuring compliance with industry standards.

Seamless Compatibility: Works with existing virtualized environments and encryption systems—no need for a full infrastructure overhaul.

Remote Access (EaaS): Cost-effective access to SEQRNG via API, hosted in a Tier 4 data center.



SeQure PQC Agent

A cutting-edge solution agent designed to act as a TLS proxy, utilizing Post-Quantum Cryptography (PQC) algorithms to secure communications against both classical and quantum computing threats.

Key benefits

- Future-Proof Security
- Compliance and Governance
- Operational Flexibility



Sequire HSE 1.0 powered by Thales

The integration uses KMIP to facilitate secure key management and exchange processes. By implementing TLS with PQC algorithms with Sequire PQC agent, it ensures that the key exchange remains secure against potential quantum computing threats.

Key benefits

- Uncompromised Security
- Future-Proof Encryption
- Regulatory Compliance
- Scalability & Performance

OUR QUANTUM-POWERED APPLICATIONS



SeQRNG Integration with Luna HSM

To enhance cryptographic key generation and ensure the highest level of protection, we have integrated the SeQRNG Quantum Random Number Generator (QRNG) with our Hardware Security Module (HSM). Unlike conventional solutions, SeQRNG features real-time self-testing, guaranteeing that the generated numbers are truly random and unpredictable at all times.

Key benefits

- Security Enhancement
- Regulatory Compliance
- Flexibility and Scalability



SeQRNG Integration with CipherTrust Manager

As part of our ongoing commitment to strengthening information security and optimizing cryptographic key management, we introduce the integration of the SeQure Quantum Random Number Generator (SeQRNG) and SeQure TLS PQC agents with CipherTrust Manager.

Key benefits

- Key Management
- Algorithm Support
- Integration Interface:

Protecting humanity's digital freedom

In a world where data is power, security is freedom. SEQRNG ensures that the foundations of cybersecurity remain unbreakable.

Our mission is to make Quantum-Safe security accessible, protecting individuals, businesses, and nations from the threats of an evolving digital landscape.



Founders



Paulina Assmann

Co-Founder
CEO
Ph.D. in Physics



Marcin Pawlowski

Co-Founder
COO - EU
Ph.D. in Physics



Gustavo Lima

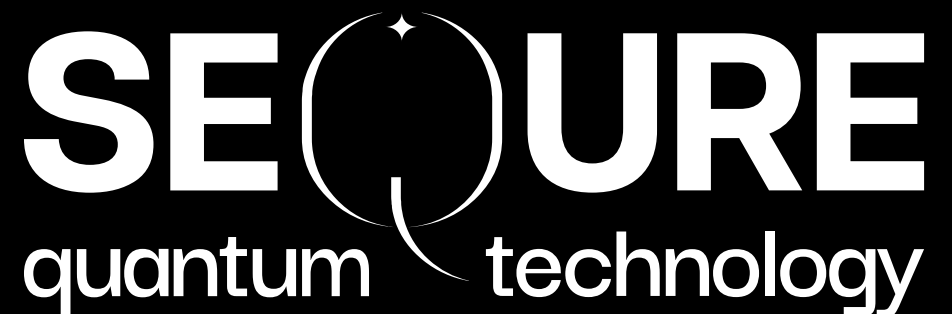
Co-Founder
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Ph.D. in Quantum Technologies



Stephen Walborn

Co-Founder
CTO
Ph.D. in Physics

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Let's discuss how Sequire
Quantum can strengthen
your infrastructure.