

Krown Technologies Publishes Security Assessment Confirming Quantum-Grade Protection in Qastle Wallet

Independent review validates Qastle's integration of Quantum eMotion's QRNG2 engine and alignment with NIST, OWASP, and PTES security frameworks

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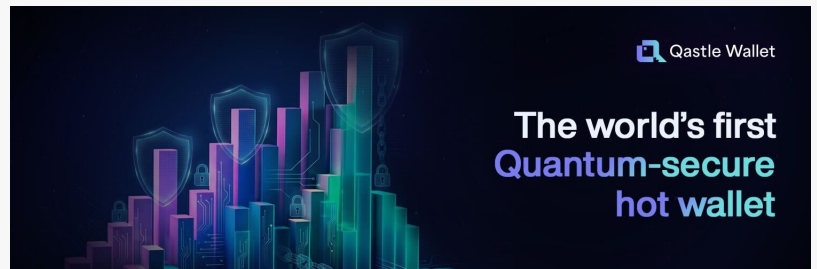
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[Technologies, Inc.](#), developer of the Krown Network and the [Qastle](#)

quantum-secured hot wallet, today announced the findings of a comprehensive security assessment of the Qastle application suite and its integration with Quantum eMotion's QRNG2 quantum entropy engine. The assessment confirms the validity, viability, sustainability, and operational robustness of QRNG2 within Qastle's key-generation and wallet-creation workflows.



Krown & QeM Graphic 2



Qastle Graphic with message about quantum keys

With the global crypto wallet market expected to grow into the hundreds of billions of dollars by 2030, and wallet providers competing to secure hundreds of millions of current and future crypto users, the stakes for wallet security have never been higher. At the same time, billions of dollars in digital assets continue to be lost to hacks and compromised private keys across the industry each year.

Against that backdrop, the Qastle Security Assessment concludes that Qastle's end-to-end architecture—mobile apps, API layer, and browser extensions—has been designed and implemented with a strong focus on protecting private keys, safeguarding user data, and securing all transaction flows.

QRNG2: True Quantum Entropy at the Core of Qastle

Within Qastle, entropy for cryptographic material is sourced directly from Quantum eMotion's



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James Stephens

QRNG2 engine through a tightly integrated API workflow. Each time Qastle needs randomness for key creation, it issues a call to the QRNG endpoint to retrieve a truly non-deterministic quantum value, rather than relying on traditional pseudo-random generators. Every call is logged with timestamps, response status, and system state, and transient failures trigger controlled retries until a valid quantum value is obtained.

All QRNG2 interactions and related logs are stored in a

containerized infrastructure that provides isolation, integrity controls, and traceability. This design allows Krown’s engineering team to verify that quantum entropy was requested, received, and correctly applied in the wallet-generation process, providing strong assurance that QRNG2 is operating as intended and sustaining its performance over time.

“We set out to prove—not just claim—that Qastle is driven by real quantum entropy,” said James Stephens, Chief Executive Officer of Krown Technologies, Inc. “This assessment validates that Quantum eMotion’s QRNG2 engine is not only viable, but operationally robust and sustainable in live production conditions. Every wallet that Qastle generates is backed by true quantum randomness, documented with auditable logs, and aligned with the highest standards of modern cybersecurity.”

Built on NIST, OWASP, and PTES Security Frameworks

The Qastle assessment was conducted using globally recognized security frameworks, including the NIST Cybersecurity Framework, the OWASP methodology, and the Penetration Testing Execution Standard (PTES). NIST’s Framework provides structured guidance to help organizations identify, protect, detect, respond to, and recover from cyber threats, while OWASP and PTES together define rigorous approaches to application security testing and penetration testing. (NIST Publications)

For Qastle iOS and Android, the review addressed cryptographic implementations, secure storage of sensitive material, application hardening, transport-layer security, and resilience against tampering and reverse-engineering. For the Qastle API, the assessment focused on endpoint-level controls, authentication and authorization flows, input validation, rate limiting, and session management. The browser extensions were reviewed for permissions, data-access boundaries, and message-passing behavior to ensure least-privilege operation and safe interaction with both the local environment and Qastle’s backend.

“From the outset, Qastle was engineered to be a security-first wallet,” said Gareth Slaven, Chief Technology Officer at Krown Technologies, Inc. “This assessment confirms that our architecture, our use of QRNG2, and our operational processes align with NIST, OWASP, and PTES best practices. Just as important, it confirms that QRNG2 behaves flawlessly in our production

stack—delivering reliable, quantum-grade entropy without compromising performance or user experience.”

Validating Viability, Sustainability, and Operational Flow

Beyond point-in-time testing, the assessment emphasizes Qastle’s ability to sustain secure operations over time. Detailed logging of QRNG2 calls, containerized infrastructure, and robust error-handling flows demonstrate that the integration is not only technically sound, but operationally resilient.

By combining quantum-grade entropy with layered application security, Qastle is positioned to operate securely at scale as the number of users, transactions, and supported assets continues to grow. This security posture helps Qastle address today’s attack landscape while preparing for emerging quantum and classical threats in the years ahead. (Grand View Research)

Path Toward NIST Certification

With the successful validation of Qastle’s security posture and the confirmed operational integrity of Quantum eMotion’s QRNG2 entropy engine, Krown Technologies is now preparing for its next milestone: formal NIST certification. The assessment demonstrates strong adherence to NIST’s Cybersecurity Framework principles, and Krown’s engineering team has already initiated the internal mapping required for certification readiness.

This next phase will involve expanding Qastle’s documented controls, strengthening audit trails, and engaging with certified NIST evaluators to validate the architecture against official standards for cryptographic modules, entropy sources, and secure application processes. The move positions Qastle—and the broader Krown Network—to become one of the world’s first quantum-secured wallet environments aligned with formal federal standards for cybersecurity.

“Our goal is clear: we intend for Qastle to meet and ultimately achieve NIST-grade certification,” said James Stephens, CEO of Krown Technologies, Inc. “This is a natural progression after the outstanding performance demonstrated in our QRNG2 integration assessment. We are building technology for a world that demands provable, measurable, and certified security.”

About Qastle Wallet

Qastle is a next-generation, quantum-secured hot wallet developed by Krown Technologies, Inc. It integrates Quantum eMotion’s QRNG2 engine to deliver true quantum entropy for key generation, combined with a security architecture aligned to NIST, OWASP, and PTES frameworks. Qastle is designed to provide everyday users and institutions with a secure, intuitive wallet experience that anticipates the coming quantum era of cybersecurity.

About Krown Technologies, Inc. / Krown Network

Krown Technologies, Inc., headquartered at 201 Victory Blvd., Monroe, Louisiana, is the company behind the Krown Network and the broader Camelot ecosystem—an expanding suite of blockchain, DeFi, AI, and security products focused on delivering quantum-secured infrastructure

for digital assets. Krown's mission is to build one of the world's most secure and rewarding blockchain ecosystems for users, builders, and institutions alike.

About [Quantum eMotion Corp.](#) (TSXV: QNC | OTCQB: QNCCF | FSE: 34Q0)

Quantum eMotion Corp. is a Canadian deep-tech company commercializing Quantum Random Number Generator (QRNG) solutions for cybersecurity, blockchain, and fintech. Its QRNG2 hardware produces true quantum entropy to secure data and transactions against classical and post-quantum threats.

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