

RA Ecosystem Partner Solution Quantropi QiSpace™



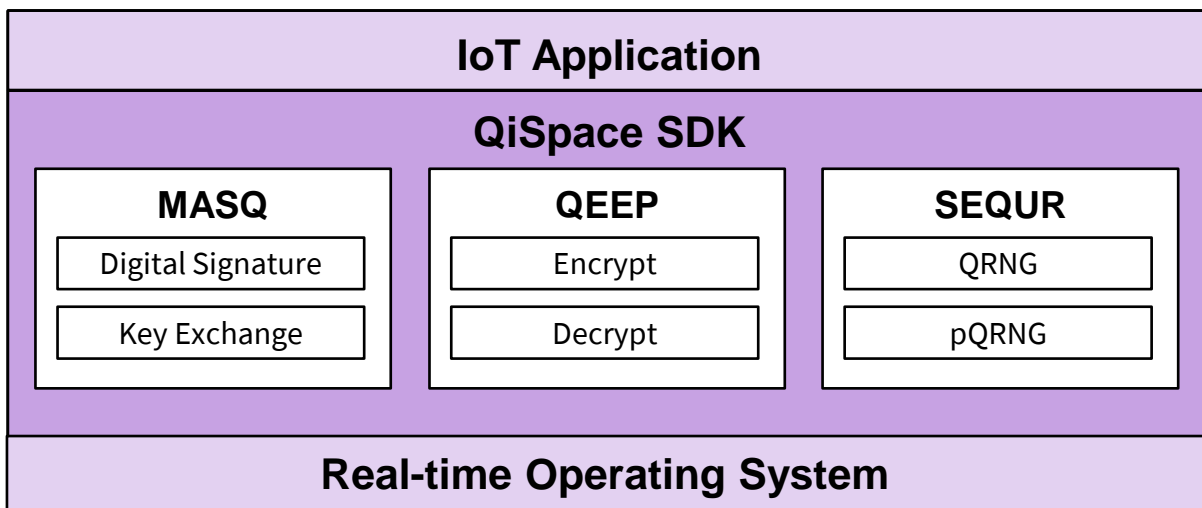
Solution Summary

Quantropi's® QiSpace™ for IoT application security provides modular cryptographic capabilities provided via MASQ™, QEEP™ and SEQUR™. Optimized for constrained IoT systems, QiSpace™ enables quantum security at the application level to protect data and communications in a manner independent of communications protocols. QiSpace™ for IoT application security is available for the Renesas [RA family of MCUs](#).

Features/Benefits

- MASQ™
 - Crypto-agile suite of PQC algorithms providing authentication and key exchange with smaller signature sizes and better performance
- QEEP™
 - Quantum-secure symmetric encryption with a small dynamic code footprint
 - Variable key lengths up to 1024-bits with no performance degradation
- SEQUR™
 - Quantum random number generated and delivered quantum-securely for the strongest keys

Diagrams/Graphics



Target Markets and Applications

- Aerospace
- Automotive
- Industrial IoT
- Infrastructure
- Medical
- Telecom

www.quantropi.com/solutions/application-security

QiSpace™ for IoT

The Y2Q Threat

Advancements in Quantum Computing are accelerating, making its prospect of breaking classical cryptography more real with every passing day. At the same time, today's digital societies and economies rely on IoT and connected devices. With over 11 million new IoT devices coming online daily, and their functions becoming more mission critical, it is important to ensure their data and communications are quantum-secure. Quantropi's QiSpace for IoT family of solutions is an extension of the core QiSpace Platform with specific IoT optimized solutions for Application Security, Quantum TLS (TLS-Q), and uLoadXLQ Secure Boot & Installer.

QiSpace™ Platform

QiSpace™ is the only platform that provides a full suite of quantum-secure cryptographic capabilities and quantum entropy services.

MASQ™ offers crypto-agile algorithms for key exchange and digital signature with support for NIST PQC, hybrid, and Quantropi's novel algorithms.

QEEP™ symmetric encryption with support for both Quantropi's Quantum Permutation Pad and AES-QEEP, a FIPS-compliant double-wrapping for defense in depth.

SEQR™ quantum entropy services offers quantum random number generation and distribution for quantum enhanced cryptographic keys.

Protect data, networks, connected devices, and communications from today's threats and tomorrow's quantum computing attacks.

Quantropi's QiSpace™ Quantum Security Platform



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