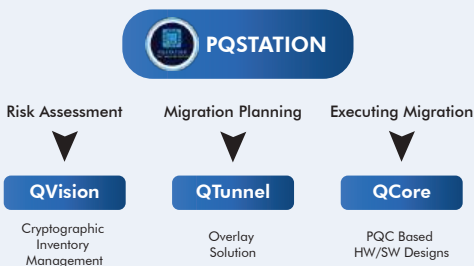# PQSTATION

PQSTATION
POST QUANTUM CRYPTO

The Quantum Threat

Quantum computing is a looming threat to the security of current cryptosystems. Cryptographically-relevant quantum computers can break widely deployed security protocols, rendering critical systems and sensitive data vulnerable.

Organizations need to safely and timely migrate to post-quantum cryptography (PQC) to ensure robustness against quantum-enabled attacks. Migration requires proper risk assessment, strategic preparation, and careful integration of quantum-safe cryptographic modules to minimize operational disruptions.

PQStation offers a complete suite of solutions to help organizations navigate this journey with confidence.

Risk Assessment	Migration Planning	Executing Migration
QVision	**QTunnel**	**QCore**
Cryptographic Inventory Management	Overlay Solution	PQC Based HW/SW Designs

QVision for Risk Assessment generates a comprehensive cryptographic inventory. It identifies vulnerabilities and gaps to help prioritize areas for PQC implementation.

QTunnel for Phased Migration offers a seamless interim solution for critical systems while allowing for a gradual migration to PQC.

QCore for Complete Migration provides robust hardware and software IPs that implement quantum-resistant algorithms.

Today's cybersecurity landscape is complex. It is challenging to understand and manage the cryptographic protocols. Cryptography is deeply embedded in devices, applications, and infrastructure, yet visibility into its usage is limited. In the face of threats, it is critical to identify gaps in outdated or non-compliant cryptography. A clear inventory compels organizations to move away from insecure or outdated cryptographic tools.
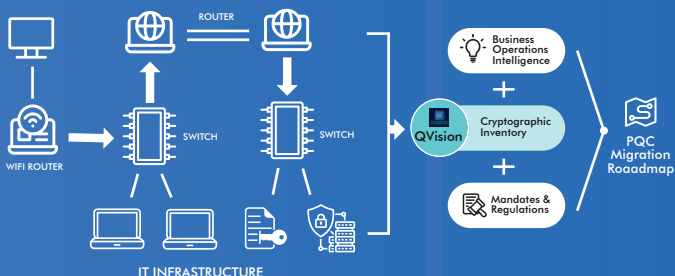
QVision identifies how compliant you are with international cybersecurity standards, such as PCI DSS, NIST SP 1800, ISO 27000, and other mandated standards.

By giving you fuller control over cryptographic assets, QVision helps you with roadmaps for transitioning to quantum-resistant standards. Beyond the quantum threats, QVision assists in swiftly adapting to best cryptography practices.

It is ideal for organizations in highly regulated industries such as finance, healthcare, and government. It benefits businesses that are moving towards quantum-resistant standards or seeking cryptographic agility in response to evolving cyber threats.

Cryptography, embedded in critical applications and infrastructure, is designed to secure sensitive data and communication channels. Transitioning to post-quantum cryptographic (PQC) standards is not straightforward. It is difficult to "rip and replace" outdated encryption methods, heightening the risks and challenge faced by organizations that rely on legacy systems.

QTunnel is a seamless interim migration solution. It secures communication between critical components of your infrastructure during the transitional phase. It supplies quantum-safe encryption for your most sensitive links without disrupting current operations or requiring major overhauls.

| Application A | ⟷ | PQC Overlay (HW/SW) | **Quantum Safe Tunnel** | PQC Overlay (HW/SW) | ⟷ | Application B |

QTunnel serves as a protective bridge between existing cryptographic systems. QTunnel provides quantum-resistant security while you are preparing for a full-scale upgrade to post-quantum solutions.

For those who require immediate protection against quantum threats but are not yet ready for a complete overhaul of their cryptographic systems, QTunnel is an ideal solution.

Securing both hardware and software systems requires advanced quantum-resistant solutions that can be integrated seamlessly into the current workflows.

QCore provides robust post-quantum cryptography (PQC) hardware and software IPs. These are standard implementations of ML-KEM FIPS 203, ML-DSA FIPS 204, and their hybrid.

QCore is multi-platform. It runs on Linux, MacOS, and Windows and supports x86_64 and ARM architectures.

Our IPs are optimized for both performance and security. They come fully equipped with sophisticated countermeasures against fault injection and side-channel attacks.
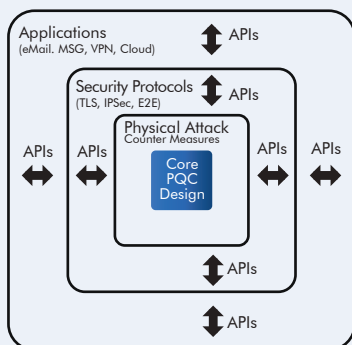
QCore is ideal for those who manage their own cryptography and exercise control over their environments and source codes. QCore is perfect for those who need utmost security and stellar performance simultaneously.

Navigating the field of post-quantum cryptography can be daunting. Most organizations are unfamiliar with its technical landscape, tricky challenges, as well as immense power.

Whether you are looking for high-level guidance or technical training, PQStation gladly helps equip your team with the required knowledge and skills.

Our C-Suite Training is tailored for senior executives. It focuses on the strategic implications and various options for safe and timely migration.

Our Hands-on Training targets technical teams responsible for the actual implementation of PQC solutions. It covers the relevant algorithms. We demonstrate integration into existing systems and share deployment best practices. Your team will gain expertise and confidence to impleme

BE QUANTUM–READY NOW

Get In Touch
inquiry@pqstation.com