

Securing the Quantum Horizon with SISA's Quantum Risk Assessment

Quantum Reckoning: Closer Than You Think



9-10 Years to Impact

Quantum computers will crack RSA-2048 in seconds, collapsing cryptographic foundations that currently take trillions of years to break.



Data Under Siege

Hackers are harvesting encrypted data now to decrypt later ("harvest now, decrypt later"), putting today's transactions at risk.



Quantum Arms Race

Google, Microsoft, IBM, and Quantinuum are rapidly advancing fault-tolerant quantum machines, expected by 2030.



BFSI Unprepared

73% lack a quantum risk plan, while 62% don't have visibility into keys and certificates, widening the preparedness gap.



Compliance at Stake

Shor's and Grover's algorithms will dismantle RSA, DSA, and ECDSA - leaving GDPR, PCI DSS, and HIPAA compliance in jeopardy.



So What Next?

**If you think quantum
risk is a distant problem,
you're already late!
Your data, compliance,
and trust are running
out of time.**



Navigating the Quantum Shift with SISA's Quantum Risk Assessment (QRA)

SISA's Quantum Risk Assessment (QRA) is a forward-looking cybersecurity solution designed to help organizations evaluate how vulnerable their current cryptographic infrastructure is to the emerging era of quantum computing.

Unlike traditional assessments that focus on present-day threats, SISA's QRA anticipates how existing cryptographic systems will withstand the unprecedented processing power of quantum computing. It delivers visibility, risk scoring, and a clear roadmap to post-quantum resilience. Backed by global standards (NIST, ETSI, ISO), QRA ensures you are not reacting to disruption, but preparing for it.

With SISA's QRA, organizations can:



Gain Cryptographic Visibility

Gain visibility into how cryptography is implemented across endpoints, cloud, applications, and infrastructure, identifying the protocols, algorithms, and encryption mechanisms mapped to critical business functions.



Validate Risk and Response Planning

For each quantum risk, SISA delivers practical, prioritized, and governance-aligned strategies, from immediate exposure reduction to long-term migration to quantum-safe methods. Recommendations are tailored to the client's business context, maturity, and regulatory needs.



Quantum Risk Scoring and Analysis

Each cryptographic asset is assessed for business criticality, algorithm type, and encryption strength. Instead of simply listing outdated algorithms, SISA enables clients to prioritize what truly matters enabling focused, high-impact remediation and highlighting critical systems that depend on vulnerable encryption.



Reporting & Executive Briefing

All findings are consolidated into a structured report tailored for both technical and executive stakeholders. The report provides clear visibility into the cryptographic inventory, a risk assessment summary, identified quantum risks, and a remediation plan. Each engagement concludes with a collaborative debrief with leadership, equipping them with clarity and confidence to act on the next steps.

Quantum Security

From Assessment to Action: What You Get with SISA's QRA

At the end of the Quantum Risk Assessment, SISA provides a complete, audit-ready set of artifacts and reports that allow your organization to take decisive action.

Deliverables	Description
Cryptographic Asset Inventory	Full system-wide mapping of crypto assets and their risk classification
Risk Assessment report and Remediation plan	Final Risk assessment report and Remediation strategy
Executive Summary Report	Business-level summary and recommended next steps

Why Enterprises Trust SISA for Quantum Risk Assessment?

SISA's QRA offers an in-depth, structured, and standards-aligned evaluation of your cryptographic future-readiness to deliver actionable quantum security outcomes:

Aligned with Global Standards

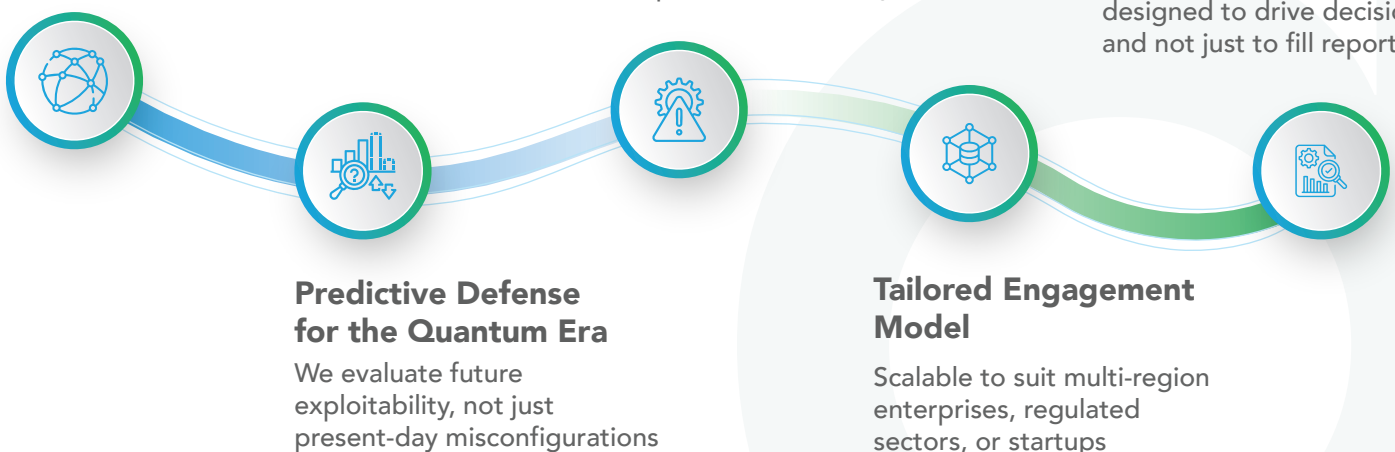
Based on NIST Cybersecurity Framework (CSF) with mapping to NIST's PQC migration guidance (SP 800-208) and other international standards, SISA's QRA ensures organizations are prepared not only for quantum-era threats but also for evolving regulatory requirements

Risk that Speaks Business

Risk is not just technical, our models consider business impact and operational criticality

From Assessment to Boardroom Action

Every deliverable is designed to drive decisions and not just to fill reports



If your business depends on digital trust, now is the time to assess quantum risk.

**Connect with our experts at SISA
to understand the framework and access your quantum readiness.**

About SISA

SISA is a Global Leader in Cybersecurity Solutions for the Digital Payment Industry. As a Global Payment Forensic Investigator of the PCI Security Standards Council, we leverage forensics insights into preventive, detective, and corrective security solutions, protecting 1,000+ organizations across 40+ countries from evolving cyberthreats. Our suite of solutions from AI-driven compliance, advanced security testing, agentic detection/ response and learner focused-training has been honored with prestigious awards, including from Financial Express, DSCI-NASSCOM and The Economic Times. With commitment to innovation, and pioneering advancements in Quantum Security, Hardware Security, and Cybersecurity for AI, SISA is shaping the future of cybersecurity through cutting-edge forensics research.

Compliance	Security Testing	Cyber Defense	Data Protection & Governance	Trainings & Certifications	Leading Tech Security
Payment Data Security <ul style="list-style-type: none"> • PCI DSS • PCI PIN • PCI 3DS • PCI P2PE • PCI S3 • PCI S-SLC • PCI CP (Card Production) • Facilitated PCI SAQ • Quarterly Health Check-ups • Central Bank Compliance • SWIFT Strategy and Risk <ul style="list-style-type: none"> • CCPA • GDPR • HIPAA • ISO • NIST • SOC 1 • SOC 2 • Cloud Security • HITRUST Unified Audits Managed Compliance	Application Security <ul style="list-style-type: none"> • Application Penetration Testing • CREST/CERT-in Approved Security Testing • API Security Testing • Secure Code Review Network Security <ul style="list-style-type: none"> • Vulnerability Assessment • Penetration Testing • Configuration Review • Firewall Rule Review • PCI ASV Scan Phishing Simulation Red Teaming Exercise <ul style="list-style-type: none"> • Layer Security Testing 	Managed Extended Detection and Response Solution - SISA ProACT <ul style="list-style-type: none"> • 24x7 Monitoring • UEBA • Threat Intel • Advanced Threat Hunting • Breach & Attack Simulation • SOAR • Use-case Factory Digital Forensics and Incident Response <ul style="list-style-type: none"> • Incident Response / Compromise Assessment Services • Forensic Readiness Audit • Forensic and Incident Response Retainer Service • PCI Forensic Investigation (PCI) • Internal Forensic Investigation (IFI) • Ransomware Simulation 	Data Discovery and Classification <ul style="list-style-type: none"> • PCI/PII/PHI Data Discovery • Data Classification in Endpoint (Windows, Linux) • Data Classification in O365, Metadata • Dynamic Masking, Redact, Truncation • Integration to DRM, DLP, SIEM Data Privacy Professional Services <ul style="list-style-type: none"> • Assessments (Unified Privacy Maturity, DPIA, 3rd Party Risk) • Data Inventory, Mapping and Process flow, RoPA • Data Privacy Framework - Policy, Notice, SoPs • Consent and Notice Management framework • Data Breach and Management • Principal management • Privacy by Design implementation guide • Define Data Retention Guidelines and processes • Technical/Organization measures • Privacy Training/Awareness 	Payment Data Security Training and ANAB Accredited Certification <ul style="list-style-type: none"> • CPISI (2 Day Program) • CPISI (3 Day Program) • CPISI- Advanced (3 Day Program) • CPISI-D (Developers) • CPISI Hybrid (4 Weeks) Certification Program in Cybersecurity for AI – CSPAI <ul style="list-style-type: none"> • CSPAI Forensic Briefing Sessions for Senior Management	AI PRISM <ul style="list-style-type: none"> • AI PRISM LLM Vulnerability Scanner Solution • AI Risk Management and Governance Solution Framework • AI Compliance and Governance Consulting Service Hardware and IoT Security Testing <ul style="list-style-type: none"> • Firmware Security Testing • Hardware/Embedded Security Testing • IoT Network Security Testing • IoT/Embedded Application and Management Layer Security Testing • MPOC/ PCI PTS Quantum Security <ul style="list-style-type: none"> • Quantum Cryptographic Consulting • Quantum Security Risk Assessment • Quantum Security Standards Compliance

SISA is a Global Leader in Cybersecurity Solutions for the Digital Payment Industry

USA | Canada | UK | Bahrain | Saudi Arabia | UAE | Qatar | India | Singapore | Malaysia | Australia

To learn more about SISA's offerings visit us at www.sisainfosec.com or
Contact your SISA sales representative at contact@sisainfosec.com