

Control, Security, and Simplicity over PQC-Supportive HSMaaS

Your business moves fast, and your security should, too. Managing cryptographic keys and compliance shouldn't be an operational burden.



Introduction

Encryption Consulting's HSMaaS delivers enterprise-grade security, complete control, and seamless scalability without the complexity of traditional HSM management. It combines the power of dedicated HSMs with the agility and quantum-safe efficiency of a fully managed service.

Why HSMaaS?

Traditional HSMs demand substantial investment, specialized expertise, and continuous maintenance, all while cyber threats grow more sophisticated. Managing hardware, ensuring compliance, and keeping pace with changing security requirements, including the urgent demand for PQC readiness, can strain resources and distract from core business objectives. A more intelligent approach is needed.

Our HSMaaS eliminates these complexities by offering a fully managed, high-assurance security solution that seamlessly integrates with your infrastructure. It removes the burden of hardware management, strengthens data protection with robust encryption, and scales effortlessly as your business grows. No infrastructure headaches. No hidden costs. Just a smarter, more efficient way to secure your cryptographic assets with expert support.

Key Features

- **Full Administrative Control:** HSMaaS provides complete administrative control over cryptographic keys, user permissions, and security configurations. You define access policies, configure cryptographic algorithms, and track every administrative action with detailed audit logs.
- **High Performance:** With a scalable architecture, HSMaaS optimizes cryptographic operations for maximum efficiency. Intelligent load balancing distributes tasks evenly across servers, reducing latency and improving response times with built-in support for PQC key exchange.
- **Continuous Monitoring:** Real-time monitoring detects anomalies in cryptographic operations, with automated alerts for suspicious activities. Seamless SIEM integration centralizes log analysis, while regular security audits proactively identify and address potential vulnerabilities.
- **Compliance Monitoring:** Meet regulatory requirements with industry-leading security controls, including FIPS 140-2 Level 3 compliance. HSMaaS ensures compliance with GDPR, HIPAA, PCI DSS, and eIDAS regulations, and proactively supports compliance with upcoming PQC mandates.

Flexible Service Models

Every organization has different requirements, not just in where their HSM is deployed but also in how it's managed. That's why we offer two service models tailored to your infrastructure.

Dedicated HSM: For enterprises that require a new HSM infrastructure, we design and deploy a fully customized solution. Whether you need an Azure Dedicated HSM for a lift-and-shift approach or a purpose-built architecture, we ensure seamless implementation with zero complexity.

Managed HSM: Already have an HSM but need expert management? We take care of provisioning, configuration, patching, and maintenance, ensuring continuous security and compliance. Easily migrate applications from a vault (multi-tenant) to a managed HSM with zero disruption.

Key Features

- **Execution of Secure Code:** All cryptographic operations are executed within a tamper-resistant HSM environment, ensuring private keys remain protected. This includes ML-KEM and ML-DSA algorithms, fully integrated into firmware. Any executed code is continuously monitored for anomalies, preventing unauthorized access or malicious interference.
- **Effortless HSM Management:** A centralized management console simplifies operations, allowing you to manage multiple HSM instances from a single interface. RBAC enables secure delegation of tasks, while expert-led PQC transition support ensures seamless issue resolution.

Deployment Options

Security needs vary, and so should your HSM architecture. Whether you require full control, cloud agility, or a hybrid approach, our HSMaaS adapts to your business requirements, delivering the perfect balance of security, scalability, and PQC readiness.



On-Premises HSM

Install HSMs within your local environment to maintain full ownership, meet regulatory mandates, and achieve high-speed performance.



Cloud-Based HSM

Utilize our cloud-delivered HSMaaS for efficient, scalable cryptographic services, eliminating the need for hardware maintenance while optimizing agility and cost.



Hybrid HSM

Opt for a managed, hosted HSM model that combines strong security, regulatory alignment, and expert operational support in one integrated solution.

Why Enterprises Trust Encryption Consulting's HSMaaS?

Leading organizations rely on HSMaaS to eliminate operational complexities, strengthen cryptographic security, and meet the new compliance requirements. Encryption Consulting delivers a fully managed, high-assurance solution that enterprises trust for their most sensitive data and applications.

Zero-Complexity Deployment: Deploy high-assurance cryptographic security instantly, without the need for in-house expertise or complex configurations. Supports rapid deployment of hybrid PQC solutions.

Effortless Compliance: Meet regulatory mandates with automated reporting, pre-configured security controls, and built-in audit readiness for evolving cryptographic standards.

Unmatched Reliability: High availability, built-in redundancy, and continuous monitoring ensure uninterrupted security for your most critical applications against HNDL attacks.

Seamless Integration: Works effortlessly across applications, platforms, and security ecosystems (TLS/SSL, IoT, code signing) without disrupting your existing workflows.

Expert-Driven Management: Our specialists handle everything, from deployment to compliance and PQC readiness, so your team can focus on innovation, not administration.

Benefits of our HSMaaS

Eliminate infrastructure burdens, enhance security, and scale effortlessly without the complexity of managing physical HSMs. Encryption Consulting's HSMaaS is designed to give you full cryptographic control, improve operational efficiency, and ensure compliance with global security standards.

- Achieve FIPS 140-2 Level 3-certified security without the burden of in-house management, ensuring the highest level of cryptographic protection.
- Seamlessly scale as your organization grows with on-demand resources that eliminate capacity constraints and ensure PQC readiness.
- Reduce capital investments and operational costs by eliminating hardware procurement, operational overhead and maintaining compliance requirements.
- Maintain full control over cryptographic keys, policies, and configurations in a dedicated, isolated environment, unlike shared cloud HSMs.
- Offload all hardware management, updates, and compliance requirements to our expert team so your organization can focus on business priorities while achieving quantum-safe security.



Get in Touch

Your cryptographic infrastructure should be an asset, not an operational burden. With Encryption Consulting's HSMaaS, you gain enterprise-grade security, seamless scalability, and total control without the complexity of traditional HSMs. Get in touch with us today to schedule a consultation. Drop us an email at info@encryptionconsulting.com or call us at +1- 469-815-4136!