

Thales Hardware Security Modules

The Foundation of Trust for Your Digital Transformation

What is an HSM and why do I need one?

Hardware Security Modules (HSMs) are hardened, tamper-resistant hardware devices that protect cryptography keys used for such functions as encryption, digital signing and key generation.

HSMs are frequently used to:

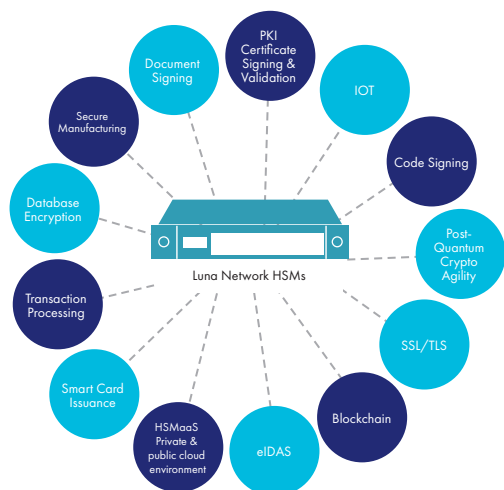
- Meet and exceed established and emerging regulatory standards for cybersecurity
- Achieve higher levels of data security and trust
- Maintain high service levels and business agility

What Makes Thales the Best HSM Vendor?

Thales HSMs provide high-assurance, FIPS 140-2-validated root key protection for your critical data and digital identities. Furthermore, they help meet industry compliance and simplify audits for a wide range of applications including PKI, code signing, TLS/SSL, data base encryption and cloud.

With Thales HSMs, you can:

- **Centralize lifecycle management of cryptographic keys**—from generation, distribution, rotation, storage, termination, and archival— in a purpose-built, highly secure appliance.
- **Improve profitability and achieve compliance**— a wide range of use cases and compliance mandates, from PKI to paper-to-digital initiatives, and eIDAS to GDPR.
- **Extend your HSM through strong separation of duties**—a security officer per partition enables you to delegate cryptographic separation and administration in order to keep keys secure.
- **Defend from threat**—with Luna HSMs' strong security architecture, including keys in hardware; side channel attack protection that does not affect performance; and crypto agility.
- **Protect your organization and its users during the digital transformation**—without compromising security, agility, usability or scalability across a mix of devices, applications and environments.



What Makes Our HSMs Unique?

Keys Always Remain in Hardware

Secure your most sensitive cryptographic keys in our FIPS 140-2 Level 3 HSMs. Storing your keys in our high-assurance vault ensures your critical assets and digital identities are safe from breach, unlike alternative solutions on the market. With the keys-in-hardware approach, applications communicate via a client with keys stored in the HSM – but keys never leave the appliance.

Only True Cloud-based HSM Available

Move your keys in and out of cloud environments with the only true HSM hybrid solution. Secure your data regardless of the use case, industry, application or environment be it in on-premises, in the cloud, hybrid- or multi-cloud. Additionally, Luna HSM are also the HSM of choice for Microsoft Azure, IBM and AWS Classic' dedicated HSMs.

High Performance

Meet your high throughput requirements across a breadth of algorithms including ECC, RSA and symmetric transactions, to satisfy your most demanding applications and meet service level agreements.

Hardware Security Modules (HSMs) are hardened, tamper-resistant platforms that protect cryptography keys used for such functions as encryption, digital signing and key generation.

Easy to Use

Combine Thales Luna Network HSMs with Thales Crypto Command Center, a centralized platform for managing cryptographic resources, to provide on-demand monitoring, reporting, provisioning and alerting of crypto resources in minutes.

Common Architecture

Luna Network, PCIe and USB HSMs benefit from a common architecture where the supported client, APIs, algorithms, and authentication methods are consistent across the entire Luna General Purpose HSM product line. Eliminate the need to design applications around a specific HSM, and have the flexibility to move keys from form factor to form factor.

Broad Ecosystem Support

Benefit from one of the broadest ecosystems available on the market and integrate with over 400 of the most commonly used enterprise applications for PKI, quantum, blockchain, big data, Internet of Things (IoT), code signing, SSL/ TLS, web servers, application servers, databases, and many more. Additionally, we offer broad API support including PKCS #11, Java, Open SSL, Microsoft, Ruby, Python and Go.

Emerging Technologies

Guard against evolving threats and capitalize on emerging technologies during your digital transformation including IoT, blockchain, quantum, and more, with Thales' unparalleled combination of products and features.

Secure Hardware to Hardware Backup

Securely backup on-premises Luna HSMs to the cloud and vice versa, including hardware backup to a FIPS 140-2-certified Level 3-validated Luna Backup HSM, without compromising the security of your keys.

Thales General Purpose HSM Portfolio



Luna Network HSMs

Secure sensitive data and critical applications by storing, protecting and managing cryptographic root keys in Luna Network HSMs - high-assurance, tamper-resistant, network-attached appliances offering market-leading performance. Meet compliance and audit needs for FIPS 140, HIPAA, PCI-DSS, eIDAS, GDPR, and others, in highly-regulated industries including Financial, Healthcare and Government.



Luna PCIe HSMs

Secure sensitive data and critical applications by storing, protecting and managing cryptographic keys in Luna PCIe HSMs - high-assurance, tamper-resistant, low-profile PCIe cards. Provide applications with dedicated access to a purpose-built, high-performance cryptographic processor. Quickly embed this cost-efficient solution directly into servers and security appliances for FIPS 140-2 validated key security.



Luna USB HSMs

Luna USB HSMs deliver industry-leading key management in a portable appliance with an USB interface. All key materials are maintained exclusively within the confines of the hardware. The small form-factor and on-board key storage sets the product apart, making it especially attractive to customers who need to physically remove and store the small appliance holding PKI root keys.



ProtectServer Network HSM and ProtectServer PCIe HSM

Available in network attached and PCIe form factors, ProtectServer HSMs are designed to protect cryptographic keys against compromise while providing encryption, signing and authentication services to secure Java and sensitive web applications. ProtectServer HSMs offer a unique level of flexibility for application developers to create their own firmware and execute it within the secure confines of the HSM. Known as functionality modules, the toolkits provide a comprehensive facility to develop and deploy custom firmware.



Luna Cloud HSM

Data Protection On Demand is a cloud-based platform that provides a wide range of on-demand Luna HSM, key management and encryption services through a simple online marketplace. With Data Protection On Demand, security is made simpler, more cost effective and easier to manage for small to medium business deployments because there is no hardware to buy, deploy and maintain. Just click and deploy the services you need, provision new tenants, add further services and get usage and audit reporting in minutes.



Crypto Command Center

A complete, centralized monitoring, reporting and management tool for Luna Network HSM crypto resources on-premises, virtual, or in hybrid and cloud environments.

About Thales

The people you rely on to protect your privacy rely on Thales to protect their data. When it comes to data security, organizations are faced with an increasing number of decisive moments. Whether the moment is building an encryption strategy, moving to the cloud, or meeting compliance mandates, you can rely on Thales to secure your digital transformation.

Decisive technology for decisive moments.

THALES

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