# THALES

# Thales Hardware Security Modules The Foundation of Digital Trust

## What is an HSM?

A hardware security module (HSM) is a dedicated device that is specifically designed for the protection of the cryptographic keys. HSMs act as trust anchors that protect the cryptographic infrastructure of some of the most security-conscious organizations in the world by securely managing, processing, and storing those keys inside a hardened, tamper-resistant device.

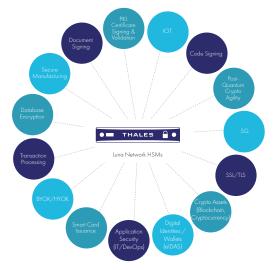
# The need for a strong crypto foundation

A root of trust is the foundation of a cryptographic system. Digital security is dependent on cryptographic keys that encrypt and decrypt data and perform functions such as signing and verifying signatures, and ensuring the integrity of those keys and the cryptographic functions within a secure environment such as an HSM is paramount.

# Luna HSM-the foundation of digital trust

Protect your organization's devices, identities and transactions, and build trust in the overall ecosystem with Thales Luna HSMs - the foundation of digital trust for over 25 years. Don't compromise on agility, usability or scalability with Luna HSMs, purposefully designed to provide a balance of security and high performance for both traditional and emerging technologies. Additional benefits include:

- **Reduce risk.** Protect your critical digital infrastructures with a strong security architecture that is purpose built, certified, and crypto-agile. As an IT security professional, secure your data and identities with strong authentication and role separation, and a keys-in-hardware approach.
- **Ensure flexibility and visibility.** Strategic data and identity protection ensures flexibility and visibility by securing encryption keys, critical data and digital identities wherever they may be.
- Easily install, provision and manage Luna HSMs. Meet SLAs and reduce downtime with streamlined operations. Designed for today's lights out data centers, Luna HSMs are operationally graceful, reliable and centrally managed.
- Simplify integration and development. With a wide variety of APIs, flexible deployment options and superior performance, you can quickly secure hundreds of applications with our out-ofthe-box technology partner hybrid integrations.



# What makes Luna HSMs unique?

## Always know the whereabouts of your keys

Securely isolate your cryptographic keys inside the tamper-resistant hardware of the Luna HSM with our unique keys-in-hardware approach. Knowing cryptography is only as strong as the security afforded to your cryptographic keys, Luna HSMs are designed with the highest key security in mind. Applications communicate with the keys stored in the Luna HSM via a client – but keys never leave the HSM.

### Meet your compliance needs

Whatever your compliance needs may be, from GDPR and eIDAS to PCI-DSS and CCPA, Luna HSMs are part of the solution. Luna HSMs offer the most certifications in the industry including Common Criteria, FIPS 140-2, ITI and more. Have complete trust in your infrastructure, backed by a certified HSM cryptographic foundation that is internationally recognized.

#### Key protection wherever your applications/workloads run

Don't be tied to one specific location or cloud service provider and ensure key ownership and control with our on-premises and cloud-based solutions. Easily move your keys in and out of cloud environments with Thales' Luna HSM hybrid solution. Additionally, dedicated Luna HSMs are available at major cloud service providers including Microsoft and IBM.

## Scale to meet high performance use cases

Meet high throughput requirements to satisfy your most demanding applications and meet service level agreements.

### Easily manage and monitor HSM resources

Manage your cryptographic resources with Thales Crypto Command Center, a centralized platform that provides on-demand monitoring, reporting, provisioning and alerting in minutes.

## Choose the HSM to meet your needs

Benefit from a common architecture across all Luna HSMs. Perform the same crypto, leverage the same integrations, APIs, mechanisms and authentication methods, eliminate the need to design applications around a specific HSM; and have the flexibility to move keys from form-factor to form-factor, wherever you may need them.

#### Extend your return on investment

Integrate with over 400 of the most commonly used enterprise applications - the largest ecosystem of partners in the market. Additionally, we offer broad API support including PKCS #11, Java, Open SSL, Microsoft, Ruby, Python and Go.

## Secure your digital transformation

Guard against evolving threats and capitalize on emerging technologies including PKI, IoT, blockchain, code signing, cloud, quantum-safe crypto agility, 5G and more, with Thales' unparalleled combination of products and features.

#### Install and connect in modern data centers

Benefit from IPV6, optional 10G fibre connectivity, low power requirements, and reduced TCO with remote management.

# Thales general purpose HSM portfolio



#### Luna Network HSMs

Secure sensitive data and critical applications by storing, protecting and managing cryptographic keys in Luna Network HSMs - Thales' premium family of high-assurance, tamper-resistant, network-attached appliances offering market-leading performance. Meet compliance and audit needs for FIPS 140-2 Level 3, HIPAA, PCI-DSS, eIDAS, GDPR, and others, in highly-regulated industries including financial, healthcare and government.



#### Luna PCIe HSMs

Store, protect and manage cryptographic keys for sensitive data and critical applications in Luna PCIe HSMs - highassurance, 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 Level 3-validated key security.



#### Luna USB HSMs

Maintain all key materials exclusively within the confines of Luna USB HSMs, delivering industry-leading key management in a portable appliance. The small form-factor and on-board key storage sets the product apart, making it especially attractive to customers who need offline key storage.



#### Luna Cloud HSM

Luna Cloud HSM, available on Thales Data Protection on Demand online marketplace, is a cloud-based HSM service. A common architecture across all Luna HSMs — whether they are deployed in the cloud, on-premises, or a combination of both — ensures your critical infrastructures are protected with a strong foundation of digital trust that's certified and crypto agile.



#### Crypto Command Center

Centralize your crypto management Luna Network HSM resources and reduce IT security infrastructure costs with Crypto Command Center - a complete monitoring, reporting and management tool for on-premises, hybrid and cloud environments.



#### ProtectServer HSMs

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. 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.

## Contact Thales

Contact us to learn how more about Luna General Purpose HSMs and how they can help you protect applications using modern technologies, ensure your users, devices and infrastructure is secure, and how you can protect your data and digital identities regardless of the environment be it on-premises, in the cloud, or hybrid and multi-cloud.

# 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



#### **Contact us**

For all office locations and contact information, please visit <u>cpl.thalesgroup.com/contact-us</u>

> cpl.thalesgroup.com <</pre>



© Thales - March 2023 • RMv11