

Secure Keys for Data at Rest, in Use, and in Motion – Fully FIPS Certified.



Automated
encryption key
control

The most
interoperable
and integrated
Key manager

Designed
to be utilized
according to different
security approvals:
FIPS 140-2 Level 1, 2, 3
and 4 (physical)
and Common
Criteria

A fully functional **60 day trial version** is available at support.hsm.utimaco.com (Registration required)

Enterprise Secure Key Manager:



UTIMACO
ESKM

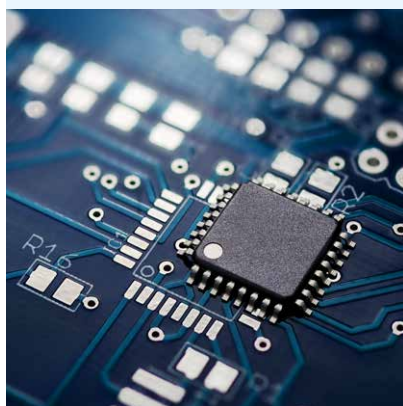


UTIMACO
vESKM

Key Features

Hardware

- Capacity for **>2 million keys, >25,000 clients, and thousands of ESKM nodes** per distributed cluster
- Locking front bezel, dual pick-resistant locks for **security officer dual control**
- **Hardware & Software appliance** designed to meet FIPS 140-2 Level 1, Level 2, Level 3 and Level 4 (physical) cryptographic security
- **High-availability clustering**, with thousands of nodes
- **Encrypted redundant storage**, dual networks, dual power with enhanced cooling
- **Multiple interfaces** for initial installation setup



Software

- **All software is included**, pre-installed, digitally signed, and verified at startup
- Comprehensive **monitoring**, recovery, scheduled **backups**, and log rotations, **restore** functionality
- **Web browser GUI** and Command Line Interface supported
- Supports: **AES, 3-Key Triple DES, HMAC, RSA, and ECDSA** key types among others
- SNMP alerts and **SIEM log monitoring**
- TLS and SSH for **secure administrator remote access**



Compliance

- Designed for **NIST SP 800-131A** and **FIPS 140-2 Levels 1, 2, 3 and 4** (physical) requirements
- Certificate-based **mutual client-server authentication**, secure administration and audit logging
- Conforms with **KMIP 1.0 through 2.1** specifications
- Performs **automatic key replication**, client load balancing and fail-over
- **Embedded Local Certificate Authority** as an option to protect keys in transit



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Security and Policy Enforcement

Every organization has customer and employee data that must be protected. **Enterprise Secure Key Manager (ESKM) by UTIMACO can help mitigate organized attacks, misuse, and data breach exposure that results in the loss of this sensitive data as well as tarnishing the company's reputation.** Encryption is easy but securing and managing the cryptographic keys in a clear and transparent manner can be challenging, but it does not have to be. ESKM secures keys and provides centralized key management, saving time and money.

- **Highest Level of Security**

Tamper-responsive with the ability to act in response to side-channel attacks with FIPS 140-2 Level 1, Level 2, Level 3 and Level 4 (physical) compliant architecture; certificate-based authentication and built-in CA.

- **Embedded HSMs**

- vESKM integrated with CC and VS-NfD certified UTIMACO CryptoServer LAN V5 HSM to protect the keys at rest.
- ESKM L3 and ESKM L4 (physical) protects the keys at rest with embedded UTIMACO CryptoServer HSMs.

- **Proving Compliance**

Meet audit and compliance mandates with controls for PCI-DSS, HIPAA, EU data privacy laws and other regional privacy mandates.

- **Key Control and Management**

ESKM provides a single pane of glass for auditing controls with digitally signed logs and key lifecycle activities to reduce audit costs and accelerate visibility.

- **Streamlining Data and Processes**

Enables unified enterprise key management with reliable policy controls, centralized administration and audit trails to reduce operational costs and assist in control attestation.

- **Easy Deployment and Simple Licensing**

ESKM can be easily installed and configured; simply drop in as hardware or virtual appliance. Access transparent client licensing, with no hidden costs attached to volume of keys or scalability.

- **Robust Scalability and High Availability**

Geographically separate clusters across datacenters, supporting thousands of clients, and millions of keys with failover and highly redundant hardware.

- **Active-active cluster**

Configuration and automated key replication across thousands of nodes (ESKMs) per clusters.

- **Automatic key replication**

Hands-off administration, automated backups and audit logging.

Integrations and Ecosystem

UTIMACO and Atalla have a long-standing history in the industry and offer a vast portfolio that presents a multitude of options for integrating ESKM. By leveraging this ecosystem, organizations can save time and resources so they can focus on what they do best!

Portfolio Support

- While Cryptography is the single proven technology that delivers protection for your data, only the HSMs paired with the right key management solution are the underlying custodians of trust. To provide an additional layer of security, customers can protect their keys by integrating the UTIMACO CryptoServer LAN HSM with vESKM.
- UTIMACO is known for its cryptographic solutions and best-of-class HSMs that serve the payment and general purpose market segments. The UTIMACO CryptoServer is a general purpose HSM that protects the security of cryptographic key material for servers and applications.
- The vESKM (FIPS 140-2 Level 1, deployed as a virtual appliance) or ESKM L2 (FIPS 140-2 Level 2, deployed as a hardware appliance) fully integrates with the UTIMACO GP Hardware Security Module: CryptoServer LAN V5 over the network, whereas the ESKM L3 and L4 integrates with embedded CryptoServer PCIe card. This integration further protects the cryptographic keys at rest and provides a centralized root of trust.

Most Interoperable

- ESKM is a certified Key Management Interoperability Protocol (KMIP) v2.1 offering with market leading support for partner applications and pre-qualified solutions.
- Key management is reliant on the ability to integrate with other systems. That's why it is essential for organizations to choose a key manager that integrates out-of-the-box with varied deployments, as well as custom integrations. ESKM supports OASIS Key Management Interoperability Protocol (KMIP) that supports communication with clients for key management operations on cryptographic material, including symmetric and asymmetric keys, certificates, and templates. By implementing KMIP with ESKM, organizations can achieve the following:
 - **Streamline security policies** for consistent controls and compliance audits
 - **Save money and time** with a single system to learn, control, maintain, audit, and integrate new applications with no additional management required
 - **Mitigate vendor lock-in** and outdated technology
 - **Implement best practices** with universal, automated key lifecycle controls

Custom Integrations and Scaled Deployments

- Simplified RESTful API interface for key CRUD (Create, Read, Update, Delete) operations and crypto.
- Integrated with open client libraries like KMIP, OpenKMIP and PyKMIP, ESKM can help safeguard the mission critical application keys as the trusted key manager for custom use cases.
- UTIMACO ESKM implements an XML based native Key Management System (KMS) protocol that is very easy to implement at scale. This KMS protocol supports auto-registration, which is always a challenge for scaled deployments. UTIMACO also provides a client library / SDK for custom integrations.
- Supporting these two protocols, ESKM stands out as the enterprise key manager of choice supporting the most client integration uses cases in the industry.

Integrates With the Broader HPE Ecosystem and Third-Party Applications

ESKM KMIP Integrations

- | | |
|-------------------|-----------------------|
| • BDT | • NetApp |
| • Bloombase | • OpenStack community |
| • Brocade | • Project 6 Research |
| • Cryptosoft | • Quantum |
| • ETI-Net | • Spectra Logic |
| • Fernetix | • Suse |
| • Hitachi Vantara | • Vmware |
| • IBM Db2 | • ZettaSet |
| • MongoDB | |

HPE Security and Storage Solutions

- | | |
|---|------------------------------|
| • Helion (OpenStack Barbican + HPSE) | • SimplyVity/Hyper Converged |
| • MF Autonomy (Connected MX Backup/Recovery) | • StoreEver |
| • Nimble | • StoreEver Tape Library |
| • NonStop | • StoreOnce |
| • Secure Encryption (Proliant/smart array controller) | • StoreServe 3PAR |
| | • XP |
| | • XP Storage |

Technical Specifications



Physical Security and Specifications

- **Appliance security**
Rack-mountable (1U), physically fortified, doublelocking bezel, Medeco pick-resistant locks
- **Electrical security**
Dual redundant power supplies, out-of-range temperature and voltage detection
- **Controls**
Power on/off switch, unit ID switch, LCD control panel
- **Dimensions (WxDxH)**
19 x 26 x 1.75 in
(48.26 x 66.04 x 4.45 cm)
- **Weight**
ESKM-L2: 24.9 lbs (11.3kg)
ESKM-L3/L4: 27.8 lbs (12.6 kg)

Connectivity

- **Communications ethernet**
TCP/IP, TLS 1.2 (only)
- **Connection**
10/100/1000BASE-T (RJ45) auto-sensing

Electrical and Thermal Characteristics

- **Rated input voltage**
100 to 127 VAC
200 to 240 VAC
- **Rated input current**
5 A – 3 A at 200 VAC
- **Rated input frequency**
50 Hz to 60 Hz
- **Rated input power**
350 W at 200 VAC
- **BTUs per hour**
1195 at 100 VAC
1195 at 200 VAC
- **Rated steady-state power**
250 W at 100 VAC
250 W at 200 VAC
- **Maximum peak power**
400 W at 100 VAC (3 sec.)

Operating Environment

- **Operating temperature**
0°C to 40°C (32°F to 104°F)
- **Operating relative humidity**
5% to 95%, non-condensing

Certification/Compliance

- **Safety**
UL/CUL, CE, TUV, BIS, BSMI, SII
- **Emissions**
FCC Class B, VCCI, BSMI, C-Tick, IC, KCC
- **Environmental**
RoHS, REACH

Implement a Virtual Key Management Strategy the Easy Way With Virtual ESKM

- **Virtual ESKM:** UTIMACO's Virtual Enterprise Secure Key Manager (vESKM) is the virtual version of the most interoperable and integrated Key Manager in the market. It provides a pre-configured and hardened security virtual appliance that provides a unified service for creating, protecting, and delivering cryptographic keys to data encryption devices and applications across the distributed enterprise IT infrastructure. Through that it enables you to protect and ensure continuous access to business-critical and sensitive, data-at-rest encryption keys locally and remotely. vESKM centralizes cryptographic processing, security policies and key management in a FIPS 140-2 Level 1 complaint platform. With vESKM you can take advantage of these benefits:
 - Agile key management
 - Reduced hardware and maintenance costs
 - Scalable key management to support growing and changing workloads and spikes in demand
 - Increased security on cloud platforms by maintaining key ownership
 - Better support for custom applications
 - Quick and easy deployment
 - High availability
- vESKM can help simplify key management across the entire lifecycle while protecting the keys using HSMs as the root of trust. It is fully integrable with CC and VS-NfD compliant UTIMACO CryptoServer.



Getting Started

Experience first-hand the look and feel of the User Interface (UI) and feature set without setting up a dedicated system for proof of concept. Download the [vESKM](#) distributed as Open Virtual Appliance (OVA).

For more information, please email hsm@utimaco.com

*Registration required

About UTIMACO

UTIMACO is a global platform provider of trusted Cybersecurity and Compliance solutions and services with headquarters in Aachen (Germany) and Campbell, CA (USA).

UTIMACO develops on-premises and cloud-based hardware security modules and key management solutions as well as compliance solutions for telecommunication providers in the field of regulation. UTIMACO is one of the world's leading manufacturers in both market segments.

350+ employees around the globe create innovative solutions and services to protect data, identities and communication networks with responsibility for global customers and citizens. Customers and partners in many different industries value the reliability and long-term investment security of UTIMACO's high-security products and solutions.

Find out more on utimaco.com



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Creating Trust in
the Digital Society

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