



# Enable Your Business With Utimaco's Cloud-Based Marketplace

Lower Total Cost of Ownership • Flexible Deployment and Easy Scalability • Backed-up by High Security Physical Setup\*

Utimaco's Trust as a Service is a cloud-enabled Marketplace that delivers Data Protection, Secure Payments, and Key Management online services. Leverage the cloud to deploy and manage your business while enjoying lower total cost of ownership, smooth integration, and the ability to scale instantly.



## Highlights

**Reduce the Total Cost of Ownership** by eliminating hardware and staff cost

**Flexible deployment and scalability** with easy integration based on business demands

**Backed up by high security physical setup**, enabling the most robust security

## Key Benefits

### Lower Total Cost of Ownership

Eliminate on-site expenses and hardware investments while also cutting down on both operational and staffing costs.

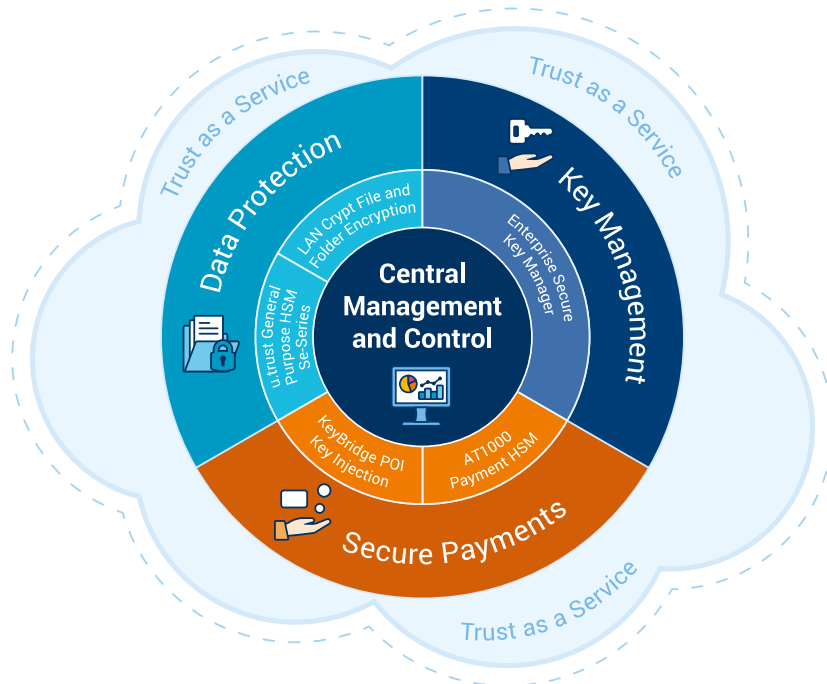
### Flexible Deployment and Easy Scalability

Seamlessly mesh with your current business operations, adapt with agility, and effortlessly adjust your scale to meet your enterprise's distinctive needs.

### Backed by High Security Physical Setup\*

Equipped with proven Hardware Security Module technology, our services deliver the most robust security performed in critical infrastructures worldwide.

Creating trust for your digital business within a few clicks. Driven by you – powered by Utimaco



\* Specific type of underlying physical setup is depending on the individual service

# Utimaco's Trust as a Service Solution Overview



## General Purpose Hardware Security Module as a Service

No implementation Efforts ♦ FIPS-certified ♦  
No CSP Vendor Lock-In ♦ High Availability ♦ 24/7 Support

Our General Purpose HSM as a Service provides access to a FIPS 140-2 Level 3 HSM that is fully hosted by Utimaco but under your sole remote control. This enables secure key generation, storage, and management without any setup, maintenance, or implementation effort – reducing the total cost of ownership.



## File and Folder Encryption as a Service

Quick Setup ♦ Role-based Encryption ♦  
Unauthorized Access Protection ♦ 30-day Trial

Fully operational service in less than 15 minutes that protects files and folders against unauthorized internal and external access, irrespective of storage location. Whether it is data protection at rest or in motion or giving correct access rights to users, this is the required solution. Fulfill the use cases like sensitive data protection, secure file sharing, compliance fulfillment, and client confidentiality.



## Invoice Signature as a Service

Secure and Trustworthy Verification ♦ Full eIDAS Compliance ♦  
High Availability

Our service provides eIDAS-compliant Qualified Electronic Signatures, ensuring trust in your invoices. It enables you to generate, validate, and archive Qualified Electronic Signatures, focusing on electronic business documents such as invoices, incoming orders, delivery bills, or financial statements.



## Device Attestation as a Service

Unique Identities ♦ Management ♦ Key Storage and Audit Possibilities ♦ Trust among IoT Devices

Our solution establishes unique identities for IoT devices, enhancing security and enabling remote management for effortless control over cryptographic key injection, ensuring integrity and trustworthiness throughout operations.



## Payment Hardware Security Module as a Service

Reduced Costs ♦ Fully Managed Service ♦ PCI certified ♦  
Multi-Cloud ♦ High Availability

Our Payment HSM as a Service offers a suite of fully managed services as an alternative to operating your own estate of Payment HSMs in your own data centers. The service removes the need for customers to invest in hardware, secure facilities, and management resources and reduces the burden of PCI compliance, audit, and support.



## Key Exchange and Escrow as a Service

Key Generation and Escrow ♦ Legacy Key Exchange ♦  
Multi-Cloud Capability

The PCI-PIN certified service providing trusted cryptographic key management. Our trained Utimaco staff is available 24/7 to execute reliable and secure on-demand cryptographic key operations. Suitable for a variety of payment and general-purpose business applications, such as: Key Generation, Key Escrow, Key Inventory, Key Exchange, Key Storage, Key Migration, Key Rotation, and many more.



## Timestamp as a Service

Secure and Trustworthy Verification ♦ Full eIDAS Compliance ♦  
High Availability ♦ Easy Integration

Our service provides Qualified Electronic Timestamps, enabling eIDAS-compliant proof of time and content. It enables you to generate, validate, and archive Qualified Electronic Timestamps, allowing you to gather trustworthy legal evidence that a document has remained unaltered. Standard interfaces ensure rapid and easy integration into existing business processes.

Discover Utimaco's  
Trust as a Service Offerings on  
<https://utimaco.com/products/trust-service>



# Technical Overview



## General Purpose Hardware Security Module as a Service

### Certifications and Compliance

- FIPS 140-2 Level 3 certified HSM
- GDPR
- HIPAA
- ETSI C-ITS
- GSMA SAS-SM

### Performance

Up to 40,000 RSA 2K signatures / s

### Supported Cryptographic Algorithms

- Symmetric algorithms: AES, Triple-DES, DES
- Asymmetric algorithms: RSA, DSA, ECDSA with NIST and Brainpool curves, EdDSA
- Elliptic Curves: DH, ECDH with NIST, Brainpool and Montgomery curves
- Hashing algorithms: SHA-1, SHA-2, SHA-3, RIPEMD
- MAC/sealing algorithms: MAC, CMAC, HMAC
- Optional upgraded with blockchain-specific algorithms: BIP32/44 and SLIP-010

### Hosting information

- Hosted in an ISO/IEC 27001, HIPAA, PCI, and GSMA SAS-SM compliant data center
- 24/7 support from the HSM vendor
- Setup and additional hardware included
- Secure server room with dedicated HSM per customer
- All relevant security and regulatory certifications
- Current regions: Europe & Americas

### Supported cryptographic interfaces

- PKCS #11
- Java Cryptography Extension (JCE)
- Microsoft Crypto API (CSP), Cryptography Next Generation (CNG), and SQL
- Extensible Key Management (SQLEKM)
- OpenSSL
- Utimaco's comprehensive Cryptographic eXtended services Interface (CXI)



## Payment Hardware Security Module as a Service

### Certifications and Compliance

- FIPS 140-2 Level 3 certified HSM
- PCI PTS HSM V3
- PCI DSS
- PCI PIN
- TR-31 Key Block Support

### Performance

Up to 10,000 TPS

### Supported Cryptographic Algorithms

- Symmetric algorithms: DES, 3DES, AES
- Asymmetric algorithms: RSA 1024 to 4096
- Hashing algorithms: SHA-1 to SHA512
- MAC/sealing algorithms: MAC and HMAC, CMAC

### Payment Standard

- **ANSI** X3.92, X9.52, X9.97, X9.8, X9.24, X9.17, TR31, TR34, TR39
- **APACS** 40 and 70
- **ISO** 9797, ISO 10126, ISO 9807, ISO 16609, ISO 9564
- **NIST** security standards SP800-90 (RBG), SP800-38A, SP800-67
- **DUKPT** X9.24, (DUKPT 2018)
- VISA, MASTERCARD, AMEX, CHINA UNION PAY, JCB, DISCOVER

### API and Communication Protocol

- PTCP/IP sockets
- TLS sockets
- REST API



## File and Folder Encryption as a Service

### Certifications and Compliance

GDPR, CCPA, TISAX, HIPAA, PDPA, NIS2 Directive, etc.

### Mobile Operating Systems

Android (11,12,13,14), iOS/iPadOS (15,16,17)

### Supported Platforms

Microsoft Terminal Server, Virtual Machines, OneDrive, Azure SQL, Dropbox, Google Drive, MS Azure

### Supported Directory Service

Microsoft Entra ID

### Technical Requirements

Client 64 Bit -Windows 10 Pro/Enterprise, Windows 11 Pro/Enterprise, Windows Server, macOS, Support Citrix Environments

### Supported Media

Network drives, local HDs, CD/DVDs, USB, Flash drives, Memory cards

### Supported Cryptographic Algorithms

AES 256 Bit



## Key Exchange and Escrow as a Service

### Certifications and Compliance

- PCI PIN, PCI P2PE, FIPS 140-2 L3 HSM, PCI PTS HSM
- SOC2, PCI-DSS
- ISO27001, ISO9001, ISO14001
- NIST SP800-53

### Hosting Information

Hosted in a highly secure datacenter providing:

- 24/7 onsite security personnel
- CCTV with 90-day backup
- Biometric / Photo badge access
- Crash-rated / Anti-climb gates
- Geo-redundancy

### Hardware-Based Security

Based on hardware appliances with integrated HSM as Root of Trust

- Dedicated to secure key generation and storage inside a tamper-protected HSM
- Fully protecting cryptographic keys under AES 256 Bit encryption
- Hosted in Utimaco Datacenter

Subject matter experts carrying out associated key management responsibilities, including:

- Key Generation
- Key Escrow
- Key Inventory
- Key Exchange
- Key Storage
- Key Migration
- Key Rotation
- Key Export
- Key Distribution (e.g., to POS Devices and other endpoints including IoT Platforms)
- Key Custody
- Key Management



## eInvoice Signature as a Service

### SMTP Interface

- E-mail interface (Proxy) through SMTP protocol, using encrypted connections (START TLS) via mail relay/smart host
- Authentication via account credentials
- Maximum file size, unless otherwise agreed, 15 MB

### REST Interface

- REST interface with an encrypted connection (HTTPS) for transmission, pickup, and status query for data/documents to be signed, stamped, archived, and checked.
- Data traffic encryption via TLS
- Authentication via account credentials
- Maximum file size, unless otherwise agreed, 15 MB

### SFTP Interface

- SFTP interface with secured file transfer
- Easy and flexible integration
- Authentication using account credentials or certificates
- Maximum file size, unless otherwise agreed, 15 MB



## Timestamp as a Service

### RFC 3161 Interface

- Standard interface to request timestamps
- Data traffic encryption via TLS
- Authentication using account credentials
- Transmitting of document HASH values



## Device Attestation as a Service

### Certifications and Compliance

PCI PIN, PCI P2PE, GSMA SAS-SM (DCOM), ISO 27001

### Supported Cryptographic Algorithms

TDES, AES, RSA, ECC

### Utimaco Datacenter – Backbone of our Service

#### Datacenter Building

SOC 2, PCI-DSS, ISO 27001, ISO 9001, ISO 14001, NIST SP 800-53

#### Private Cage

24/7 Monitoring, Collecting logs, Redundant network infrastructure and service components, CCTV and motion detection

#### Compliant Secure Room

PCI PIN, PCI P2PE, GSMA SAS-SM (DCOM), ISO 27001

#### Compliant Cloud Personnel

Certified key custodians, Trusted operation personnel

### EMEA

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