



Get your solution PCI ready with the PCI HSM accredited PaymentServer

All payment systems are unique, and the market is constantly evolving. Technologies like blockchain are on the rise. To keep up with market developments, the industry needs of tomorrow require implementing modifications today already, all while keeping regulations and compliance in mind.

In the face of industry changes, many vendors find themselves stuck with inflexible technology and limited customization options, including legacy systems with outdated API functions.

Using Utimaco's flexible software development kit, companies can reach full PCI compliance for a solution or environment based on the standard PaymentServer product offering or via a customized and re-certified HSM application. PaymentServer can be leveraged for companies looking for PCI Data Security Standard (PCI DSS), PCI Point-to-Point Encryption (PCI P2PE), or even for PCI HSM as a delta certification with custom code running on the HSM.

Certified customized functionality

- Professional Services for integrating additional functions and modifications
- Certification Services to gain PCI HSM compliance for additional functions
- Transparent pricing
- Software Simulator for development, evaluation and integration testing
- Use payment APIs and general purpose APIs like PKCS#11 on the same HSM



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Features

- Secure key storage and processing
- Extensive key management
- Secure key storage inside HSM or as external encrypted key files
- 2-factor authentication with smartcards
- “m out of n” authentication (e.g. 3 out of 5)
- Configurable role-based access control and separation of duties
- Multi-tenancy support
- Remote management
- Software simulator for evaluation and integration testing
- Supported operating systems: Windows and Linux
- Multiple integrations with PKI applications, database encryption, etc.
- All features included in product price

Security, safety, environmental compliance

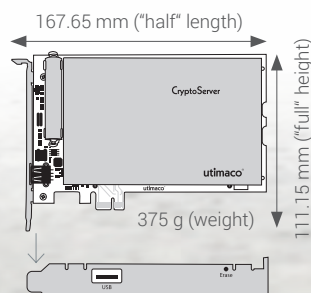
- PCI PTS HSM V2
- FIPS 140-2 Level 3, Physical Security Level 4
- DK (German Banking Industry Committee)
- CE, FCC Class B
- UL, IEC/EN 60950-1
- CB certificate
- RoHS II, WEEE

Application Programming Interfaces (APIs)

- EFTPOS ByteBuffer interface
- EFTPOS libraries for Windows and Linux
- EFTPOS C-API as source code available
- Allows operating system independent build of communication library and scripting

PCIe card physical specifications

- Half-length, full-height single lane PCI Express card
- Supports PCIe 1.1, PCIe 2.0 and PCIe 3.0 slots
- Operating voltage: 3.3V
- 3 V lithium battery, Ø 12 mm, length 600 mm, FDK CR 12600 SE or VARTA CR2NP
- 2 USB interfaces
- Operating temperature: +10°C to +35°C (+50°F to +95°F)
- Storage temperature: -10°C to +55°C (+14°F to +131°F)
- Relative humidity: 10% to 95%, non-condensing
- MTBF 360,000 hours at 25°C / 77°F



Cryptographic Algorithms

- PaymentServer
 - Triple-DES, DES
 - MAC
 - Hash-based deterministic random number generator (DRG.4 acc. AIS 31)
 - True random number generator (PTG.2 acc. AIS 31)
 - All algorithms included in product price
- For customized solutions, additional algorithms are available:
 - RSA, DSA, ECDSA with NIST and Brainpool curves
 - DH, ECDH with NIST and Brainpool curves
 - AES
 - CMAC, HMAC
 - SHA-1, SHA2-Family, SHA3, RIPEMD

Functionalities

- DUKPT
- Calculate Authorization Response Code (ARPC) based on an Authorization Request Cryptogram (ARQC) and an Authorization Response Code (ARC)
- Visa CVV and Mastercard CVC calculation
- MAC verification and calculation
- Pin Verification Value calculation
- Import Transport Keys
- Import Master Keys
- Generate Keys
- PIN generation
- On behalf key management
- 25 key derivations supported
- Architecture to easily add new key derivation methods

Network appliance physical specifications

- 19" 1U form factor
- Redundant field-replaceable power supply: 2 x 100 ~ 240 V AC, 50 ~ 60 Hertz, 300 W
- Power consumption: typically 45 W / 66 VA, max. 50 W / 70 VA
- Heat dissipation: max. 171 BTU/h
- 2 RJ45 1 Gb/s network interfaces
- Operating temperature: +10°C to +40°C (+50°F to +104°F)
- Storage temperature: -10°C to +55°C (+14°F to +131°F)
- Relative humidity: 10% to 95%, non-condensing
- MTBF 100,000 hours at 25°C / 77°F, environment GB, GC – Ground Benign, Controlled

