

## Benefits

### Security

FIPS 140-2 L3 certified  
 Tamper protection physical  
 HSM security  
 True RNG  
 Smartcard backup of key material  
 Hardened Linux Platform

### Performance

Dual LAN  
 Up to 600 RSA signings/sec  
 WLD (Work Load Distribution)  
 Multi-threaded API's

### Easy Management

GUI HSM admin interface  
 CMD line interface  
 Infield upgrade  
 Remote HSM Management

### Extensive API support

# ProtectServer External

## Hardware Security Module (HSM)

*SafeNet ProtectServer External is a network-attached HSM that connects via TCP/IP to a single machine or complete network (LAN) to perform as a central cryptographic subsystem for delivery of symmetric and asymmetric cryptographic services. All operations that would otherwise be performed on the insecure servers are securely processed within the HSM ensuring sensitive keys are always protected from compromise.*



### Most Secure

The FIPS 140-2 Level 3 certification of the core processor and memory confirms that SafeNet ProtectServer External HSM is uniquely qualified to detect attempted physical attacks and perform secure cryptographic processing including correct implementations of several commercially significant and approved cryptographic algorithms. In addition, SafeNet ProtectServer External HSM provides a tamper-protected environment that delivers the highest level of physical and logical protection to the storage and processing of highly sensitive information, such as cryptographic keys, PINs, and other data.

### Ease of Management

SafeNet ProtectServer External provides a secure, easy-to-perform local and remote management facility plus in-field servicing. Easy interaction and key management are delivered via an intuitive Graphic User Interface (GUI), plus remote network access to the HSM facilitates increased administrative convenience and reduced

cost and time. Smart cards provide the highest security and administrative convenience for secure back-up, recovery and transfer of cryptographic keys. Upgrades can be cost effectively performed at the in-field location avoiding the cost of returning the product to the service location.

### Ease of Integration

SafeNet ProtectServer External offers a wide range of Application Programming Interfaces (APIs) to assist adherence of cryptographic applications to industry-standard security applications and platform environments. This includes the broadest suite of PKCS#11 function sets available on the market, a Java JCA/JCE and Microsoft CryptoAPI provider implementation, plus seamless integration with OpenSSL. Additionally, a customization module facilitates customized cryptographic applications operating on a HSM.

These APIs are interoperable across many of SafeNet's PCI adapter and network-attached HSMs, enabling a wide choice of hardware configurations to suit specific needs.

## High Performance and Scalability

SafeNet ProtectServer External performs rapid processing of cryptographic commands. Specialized cryptographic electronics — including a dedicated data cipher microprocessor, memory, and a true Random Number Generator (RNG) - offloads the cryptographic processing from the host system freeing it to respond to more requests. ProtectServer External is available in a broad range of symmetric and asymmetric cryptographic performance levels to meet a wide variety of security application processing requirements, with speeds up to 600 RSA signature operations/sec. The included dual-network interface optionally enables the HSM to be integrated on the same or different sub-nets and be shared between different networks in order to protect multiple business domains or provide redundancy within a single network. In addition, high levels of scalability, reliability, redundancy and increased throughput can be easily achieved as there is no restriction on the number of HSMs that can work in unison, or the number of keys that can be managed.

## Migrating Keys from SafeNet ProtectServer Orange-External to SafeNet ProtectServer External

For migrating keys from a PSO-e appliance to a PSe appliance, all of the keys you wish to migrate must be set as exportable. If a key is not exportable it cannot be removed from the HSM.

Your pre-existing keys can be exported using a graphical environment with the java utility kmu, or via the command line with the ctkmu tool. For the graphical tool the task is as simple as selecting your keys and then selecting Export. In the export dialog, leave the wrapping key as Random; the wrapping key is generated and transported along with the wrapped/exported keys. If you select an explicit wrapping key, that same wrapping key must be present on the destination HSM. On the destination HSM you select the destination slot and then choose the Import command.

## Technical Specifications

### Client API and Toolkit Support

- PKCS#11
- Java JCA/JCE
- Microsoft CryptoAPI (CAPI)
- Open SSL
- Customizable Software Development (SDK)

### Host Platforms

- ProtectToolkit C
- ProtectToolkit J
- ProtectToolkit M
- ProtectProcessing

### Cryptographic Processing

#### Asymmetric Key Encryption and Key Exchange

- RSA (up to 4096 bits), DSA, ECDSA (up to 512 bits), Diffie Hellman (DH), plus others upon request

#### Symmetric Algorithms

- AES, DES, 3DES, CAST-128, RC2, RC4, SEED, plus other upon request

#### Modes Supported

- ECB, CBC, OFB64, CFB-8 (BCF)

### Physical Characteristics

#### Host Connectivity

- TCP/IP over Ethernet
- Dual LAN Support

#### Dimensions

- 12 7/8" x 11 3/4" x 3"
- Weight 8.8lbs

#### Power Requirements

- 220/110 Volts Switchable
- Operating Environment
- 0° to 40°C
- 5% to 95% Relative Humidity

### Compliance

- FIPS 140-2 Level 3
- Certificate# 739

### OS Support

- Windows; NT, XP, 2000, 2003(32bit)
- Solaris; 7, 8, 9(32/64 bit)
- Linux; RH7, RH8, EL3, FC2
- AIX; 5.2(32bit), 5.3(32/64 bit)
- HP-UX; 11(32bit), 11i(32/64 bit)

### Regulatory Standards Certifications

- UL 1950 (EN60950) & CSA C22.2
- Safety Compliant
- FCC Part 15 — Class B
- RoHS Compliant



**Corporate Headquarters:** 4690 Millennium Drive, Belcamp, Maryland 21017 USA  
Tel.: +1 410 931 7500 or 800 533 3958, Fax: +1 410 931 7524, Email: [info@safenet-inc.com](mailto:info@safenet-inc.com)

**EMEA Headquarters:** Tel.: + 44 (0) 1276 608 000, Email: [info.emea@safenet-inc.com](mailto:info.emea@safenet-inc.com)

**APAC Headquarters:** Tel: + 852 3157 7111, Email: [info.apac@safenet-inc.com](mailto:info.apac@safenet-inc.com)

For all office locations and contact information, please visit [www.safenet-inc.com/company/contact.asp](http://www.safenet-inc.com/company/contact.asp)

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