

nSHIELD EDGE

- Maximizes cost efficiency. nShield Edge is the most economical HSM in the nShield family
- Supports a wide variety of applications including certificate authorities, code signing and more
- Delivers strong security. nShield Edge HSMs are certified up to FIPS 140-2 Level 3



⟨Thales eSecurity⟩

nSHIELD EDGE HSMs

Certified USB-connected Devices that Deliver Cryptographic Key Services to Desktop Applications



nSHIELD EDGE HSMs

Feature Overview

nShield Edge hardware security modules (HSMs) are full-featured, FIPS-certified, USB-connected devices that deliver encryption, key generation and key protection along with convenience and economy.

DESIGNED FOR LOW-VOLUME TRANSACTION ENVIRONMENTS

Suits off-line key generation and development environments, while delivering complete algorithm and API support.

HIGHLY PORTABLE

Small, lightweight design with convenient USB interface supports a variety of platforms, including laptops and other portable devices.

COST EFFECTIVE AND SCALABLE

The most economical HSM in the nShield family, nShield Edge gives you an entry-point HSM, while affording you the option to scale your environment as your needs grow. Thales's unique Security World architecture lets you combine nShield HSM models to build a mixed estate that delivers flexible scalability, key sharing, seamless failover and load balancing.

TECHNICAL SPECIFICATIONS

Supported Cryptographic Algorithms

- > Asymmetric algorithms: RSA, Diffie-Hellman, ECMQV, DSA, El-Gamal, KCDSA, ECDSA, ECDH
- > Symmetric algorithms: AES, Arcfour, ARIA, Camellia, CAST, DES, MD5 HMAC, RIPEMD160 HMAC, SEED, SHA-1 HMAC, SHA-224 HMAC, SHA-256 HMAC, SHA-384 HMAC, SHA-512 HMAC, Tiger HMAC, Triple DES
- > Hash/message digest: MD5, SHA-1, SHA-2 (224, 256, 384, 512 bit), HAS-160, RIPEMD160
- > Full Suite B implementation with fully licensed ECC, including Brainpool and custom curves

Supported Operating Systems

- > Microsoft Windows 7 x64, 10 x64, Windows Server 2008 R2 x64, 2012 R2 x64, 2016 x64
- > Red Hat Enterprise Linux AS/ES 6 x64, x86 and 7 x64; SUSE Enterprise Linux 11 x64 SP2, 12 x64
- > Oracle Enterprise Linux 6.8 x64, 7.1 x64

Application Programming Interfaces (APIs)

- > PKCS#11, OpenSSL, Java (JCE), Microsoft CAPI and CNG, nCore, nShield Web Services Crypto API

Compatibility and Upgradeability

- > USB port (1.x, 2.x compliant)

Security Compliance

- > FIPS 140-2 Level 2 and Level 3, and NIST SP 800-131A

Safety and Environmental Standards Compliance

- > UL, CE, FCC, C-TICK, and Canada ICES RoHS2, WEEE

Management and Monitoring

- > Remote unattended operator/multi-user access control
- > Syslog diagnostics support
- > Windows performance monitoring
- > SNMP monitoring agent

Physical Characteristics

- > Portable desktop device with integrated smart card reader
- > Dimensions with stand open 120 x 118 x 27mm (4.7 x 4.6 x 1 in)
- > Weight: 340g (0.8lb)
- > Input voltage: 5v DC powered by USB host device
- > Power consumption: 700mW

Performance

- > Signing performance for NIST recommended key lengths:
- > 2048 bit RSA: 2 tps
- > 4096 bit RSA: 0.2 tps

AVAILABLE MODELS

- > nShield Edge is available in FIPS Level 2 and Level 3 variants
- > A non-FIPS Developer Edition is also available

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