



ENTRUST

Adaptive Issuance™ Key Manager Software

Streamline smart card issuance with secure and simple key management

To better protect consumer and citizen data, smart cards and credentials have become essential to issuance programs. With this important advancement comes the complexity of managing cryptographic keys. Adaptive Issuance™ Key Manager Software brings security, simplicity, and efficiency for data preparation and smart card issuance. This software delivers everything you need to securely manage keys throughout every step of the issuance process. Developed with strict adherence to best practices and industry standards, our software can be leveraged for a wide range of applications and gives you the flexibility and efficiency to manage multiple keys.

Exceptionally secure. Overall security is enhanced with two separate levels of user access control to the Key Manager Software and hardware security module (HSM).

Extremely efficient. A streamlined management interface simplifies cryptographic operations throughout the production process.

Easy to integrate. Plug and play the Key Manager Software into your issuance environment through the Crypto API, a modern and secure RESTful interface that's easy to interact with and still satisfies the highest security standards required by your business.

Highly reliable and scalable. Offers load balancing and failover protection by broadcasting commands to multiple HSMs. Choose the HSM performance level you need now, and then quickly and easily add HSMs to scale as your business needs change.

Cross-site key synchronization. Administrate your HSM, perform your key ceremony, and synchronize the production environment – all from a central location.

VERSATILE APPLICATION

Key Manager Software is the ideal solution for a variety of use cases and markets including:

- EMV
- Government programs
- Identification & credential programs

Key Manager Software easily fits your issuance model:

- Financial instant issuance
- Central card issuance



Adaptive Issuance™ Key Manager Software

Entrust HSMs provide ultra-strong security and ultimate data protection, so whether you choose the HSM built with inhouse expertise or the option built through our long-lasting partnership, your HSM choice will meet your needs.

Key Manager Software in combination with our nShield HSMi and the SafeNet ProtectServer HSM secures magnetic stripe data calculations, chip data preparation and personalization, and PIN functions. All while supporting a wide range of services including encryption, user and data authentication, message integrity, and secure key storage.

Primary advantages



HSM security

- FIPS 140-2 level 3 validated
- Meets EMV security requirements
- Tamper-protected environment
- True Random Number Generation



HSM performance

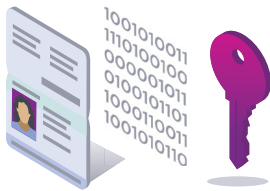
- Specialized cryptographic electronics offload processing from the host system
- nShield HSMi: 8000 / 16000



Key management

- Intuitive web graphic user interface (GUI)
- Remote management on network HSMs
- Synchronize keys across multiple production locations
- Supports TR-31 key block format for secure key exchange

Program benefits



Higher performance

Improves security, functionality, and efficiency for cryptographic operations during personalization. Offers load balancing and failover protection.



Greater flexibility

Supports magnetic stripe data calculations, chip data preparation, personalization and validation.



Enhanced processing

Eases user authentication, simplifies key management tasks, and supports certificate handling for major payment applications.

Smart maintenance

Through our Software Maintenance Agreements (SMAs), you'll have access to upgrades and technical support to keep your program running seamlessly. You'll also reduce your costs long-term by taking advantage of regular software updates rather than purchasing new software.

Levels of SMA coverage

Standard level includes:

- Software version upgrades
- Tech support

Enhanced level includes:

- Software version upgrades
- Tech support
- Back-up licenses

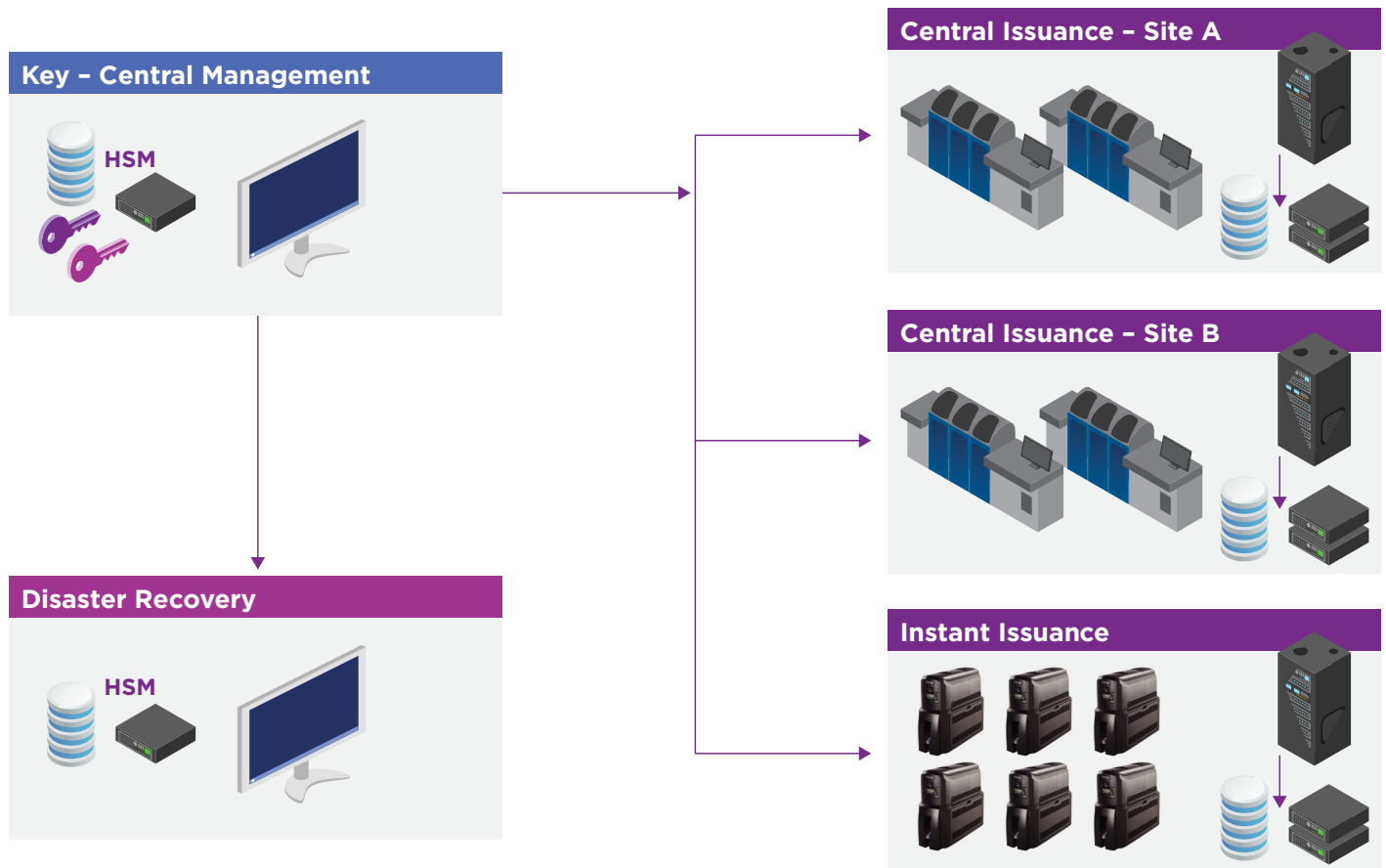


Adaptive Issuance™ Key Manager Software

Reduce your risk and your costs by synchronizing keys from a central management site

Key Manager Software features an intuitive graphic user interface (GUI) to simplify HSM device administration and key management. Reduce key management risk with central key management and synchronization of keys and certificates across multiple production locations. Time-critical management tasks such as key modification, addition, and deletion can be securely performed from remote locations to reduce response times and management costs.

Centralized key management





Adaptive Issuance™ Key Manager Software

Software feature set	Plus edition	Professional edition	Enterprise edition
Technology			
Web-based UI	✓	✓	✓
User access control	Application or LDAP	Application or LDAP	Application or LDAP
5QL server database	✓	✓	✓
HSM supported	nShield HSM/i 8000 ProtectServer 2 PL25 nShield HSM/i Test and Development Kit	nShield HSM/i 8000 nShield HSM/i 16000 ProtectServer 2 PL25 ProtectServer 2 PL1500 nShield HSM/i Test and Development Kit	nShield HSM/i 8000 nShield HSM/i 16000 ProtectServer 2 PL25 ProtectServer 2 PL1500 nShield HSM/i Test and Development Kit
Number of HSM in production	1	1	Unlimited
Multiple workstations			✓
Functions			
Activities logging	✓	✓	✓
HSM failover			✓
HSM load balancing			✓
Crypto API		✓	✓
Built-in database replication			✓
Capabilities			
Basic crypto function	✓	✓	✓
Certificate management	✓	✓	✓
Data preparation	✓	✓	✓
Document personalization	✓	✓	✓
Administration			
Maximum objects across tokens	200 (- 10 BIN)	Unlimited	Unlimited
Key management	✓	✓	✓
Backup management	✓	✓	✓
Central configuration			✓
Sites keys synchronization			✓
Batch key import			✓

PLATFORMS SUPPORTED

Operating system	Browser	Database
<ul style="list-style-type: none"> • Windows 10 (64 bit) • Windows 11 (64 bit) • Windows Server 2016 • Windows Server 2019 	<ul style="list-style-type: none"> • Internet Explorer 10 or higher • Google Chrome • Microsoft Edge 	<ul style="list-style-type: none"> • SQL Server 2016 • SQL Server 2016 Express • SQL Server 2017 • SQL Server 2017 Express • SQL Server 2019 • SQL Server 2019 Express



Adaptive Issuance™ Key Manager Software

ProtectServer 2 External Rack Mountable Characteristics

Dimensions

- Width: 17.20 in. (437 mm)
- Depth: 10.63 in. (270 mm)
- Height: 1.73 in. (44 mm)

Power consumption

- 220/110 Volts Switchable

Operating environment

- Temperature: Operating 0°C - 40°C

Security certifications

- FIPS 140-2 Level 3

Safety and environmental compliance

- UL, CSA, CE, FCC, KC Mark, VCCI, CE, RoHS, WEEE

nShield HSM/ Rack Mountable Characteristics

Dimensions - Standard 1U 19in rack mount

- Width: 16.90 in. (430 mm)
- Depth: 27.8 in. (705 mm)
- Height: 1.7 in. (43.4 mm)

Power consumption

- Up to 2.0A at 110V AC, 60Hz
- Up to 1.0A at 220V AC, 50Hz

Operating environment

- Temperature: Operating 0°C - 40°C

Security certifications

- FIPS 140-2 Level 2 and Level 3 certified hardware

Safety and environmental compliance

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

nShield HSM/ Test and Development Kit Characteristics

Portable desktop device with integrated smart card reader

Dimensions (with stand open):

- 120 x 118 x 27mm (4.7 x 4.6 x 1in)

Weight:

- 340g (0.8lb)

Power consumption:

- 700mW

Input voltage:

- 5v DC powered by USB host device

Learn more at
[entrust.com](https://www.entrust.com)



Global Headquarters
1187 Park Place, Minneapolis, MN 55379
U.S. Toll-Free Phone: 888 690 2424
International Phone: +1 952 933 1223