

SPHiNX Data Encryption Suite

Highlights

- Protects data from unauthorized access
- Achieves regulatory compliance for virtual and physical tape
- Deploys on existing SPHiNX platforms with no impact to host server environments
- Leverages powerful 256-bit AES (Advanced Encryption Standard)
- Complete key life cycle management
- Seamless integration with SPHiNX-supported physical tape drives and libraries
- No separate key server required

The Data Encryption Suite is an optional software licensed feature for the Corporate Edition of SPHiNX™, which can satisfy your regulatory compliance and stronger policies regarding the security of data at rest on disk or written to tape. The algorithm used by The Encryption Suite is the Advanced Encryption Standard (AES) with a 256-bit key length. Compression and encryption are performed inline as your data is written to SPHiNX. During a scheduled migration to physical tape media, the data remains encrypted, ensuring tapes are securely transported offsite and archived in a protected format.

Integrated key management

Key management, a critical component, ensures your encryption keys are safely handled. The Encryption Suite has an integrated key server that supports the complete key life cycle, ranging from random key generation, distribution, recovery and deletion of the encryption keys. The key server randomly generates a symmetric key for each file to be encrypted, preventing the reuse of keys.

Encrypted data is always separated from the keys stored in the embedded key database. Requests for keys must be authenticated before access to keys is provided. Your keys are automatically protected from loss by securely backing up the key database to any SPHiNX or NAS system prior to their use. Further, keys can be easily shared among multiple SPHiNX systems, ensuring access of data in a replicated environment.

Ease of use

Configure encryption policies from any standard web browser using an intuitive interface. You select what critical data should be encrypted during the creation of virtual pools or cartridges by simply clicking a configuration setting. An administrator configures encryption functions, preventing unauthorized persons from purposely or inadvertently modifying the configuration settings.

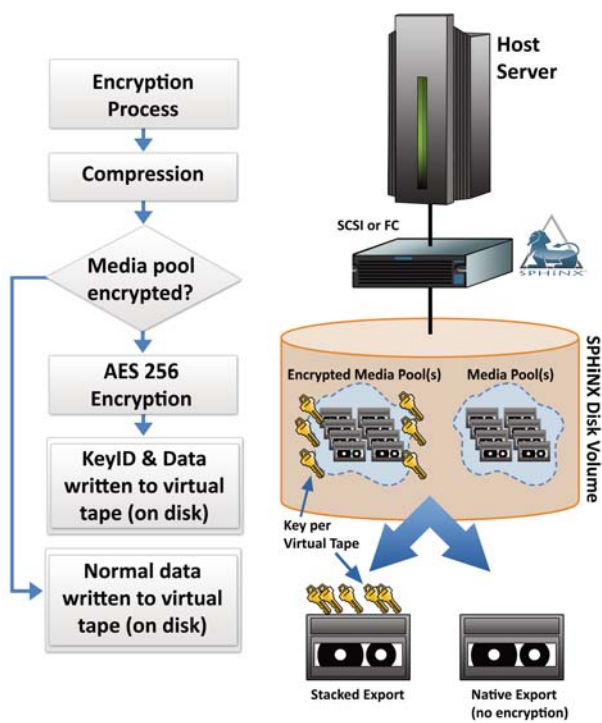
Flexibility

Granularity at the virtual cartridge or the media pool level enables you to tailor encryption to meet the specific needs of your business. Encryption is performed inline automatically or manually to ensure critical data is protected when needed.

Interoperability

The Encryption Suite does not require any changes to host server environments or backup policies. Encryption processing and key management is transparent, and other functions of SPHiNX will operate normally. The Encryption Suite interoperates with any SPHiNX-supported host system. Also, secure migration of encrypted data to any connected tape drive or library can be scheduled.

Data Encryption Architecture



Data Encryption Specifications

Supported Systems

Crossroads SPHiNX Corporate Edition (SPHiNX-CX)

Encryption Processing Type

Software-based encryption, hardware-based encryption (optional)

Encryption Key Method

Symmetric-key encryption cipher

Supported Encryption Algorithm

256-bit Advanced Encryption Standard (AES-256-CBC)

Key Management Processing

Fully-integrated key server and key database within SPHiNX

Random key generated for each encrypted virtual tape cartridge

Full life cycle of keys (generation, distribution, storage, protection)

Security and Access Controls

Requires user to be a SPHiNX administrator level

Configuration and Management

Easily administered from within the SPHiNX user interface

Encryption of entire media pool or individual virtual cartridges

Manually manage or configure for automatic processing

Audit Logging

All related encryption functions are logged for reference

ABOUT CROSSROADS EUROPE GmbH

Crossroads Europe GmbH delivers flexible solutions to connect, protect, secure and restore business-critical data. Crossroads (symbol: CRDS) is currently traded on Pink Sheets and also posts its financial disclosure reports, press releases and other related documentation on the OTCIQ web service of the Pink Sheets website. For more information, please visit www.crossroads.com.