

SecurTape

software-based encryption for securing NonStop backup tapes



In recent years, several incidents of lost or stolen backup tapes happened around the world. In each case, the tapes contained confidential information in easily readable format and thus the loss of the tapes put confidential data at risk. SecurTape is a software-based solution which renders the data on backup tapes useless in case they get lost or stolen.

Purpose

SecurTape uses software-based encryption to secure the data at rest on your NonStop backup tapes.

Your company's backup tapes can be very damaging if they fall into the wrong hands and if the data on them can be retrieved. For example, a single tape may detail thousands of credit card transactions, medical records, or private financial records. If your security plan does not adequately protect the data on your backup tapes, your company risks embarrassment, financial penalty, criminal charges, and customer loss.

The discussion of the repercussions from the loss or theft of backup tapes is not theoretical. In recent years, there were several incidents of backup tape loss or theft at high-profile companies. The loss of these tapes put highly confidential data at extreme risk, and the incidents were well-reported and very damaging to those involved.

Encrypting the data on backup tapes with SecurTape is an effective way to protect it. If, despite your physical security precautions, a tape is lost or stolen it will be be nearly impossible to access the data it contains.

Features

- Strong ciphers, including
 - 168-bit 3DES-EDE (triple DES)
 - 256-bit AES-CBC (Advanced Encryption Standard)
- Highly efficient data compression before encryption
- Parallel Processing in multiple NonStop CPUs
- Uses Public/Private key cryptography and a key store
- Easy-to-use command line interface for managing keys
- Key Export/Import for restoring tapes on other systems
- Supports standard backup/restore, TMF, BR2 and PAK
- Encrypting unencrypted tapes without first restoring to disk
- Allows using unlabeled tapes, labeled tapes, tape catalog
- Tight control over key access due to built-in split knowledge and dual control
- Supports physical tape devices as well as virtual tape devices

Requirements

NonStop System:

- G06.27 or later
- H06.07 or later
- J06.04 or later

Benefits

- Costs less than the alternative hardware based solutions.
- Requires no new hardware purchase or installation.
- Installs easily, and is simple to maintain.
- Outstanding performance, minimal system impact and tape consumption.
- Works with existing Backup procedures using the NonStop Tape utilities.
- Uses the existing, unaltered NonStop objects like BACKUP, RESTORE, etc.
- Key store protects encryption keys: keys are never visible in the clear.

Architecture

SecurTape interacts with the existing backup and restore processes on the NonStop server to achieve secure data at rest on an encrypted tape.

SecurTape acts as a proxy between the BACKUP/RESTORE processes and the TAPE process on the NonStop platform to transparently add encryption. The keys used for encryption and decryption are saved in a key store on the NonStop system. Access to keys can be controlled on a per-user basis.



