

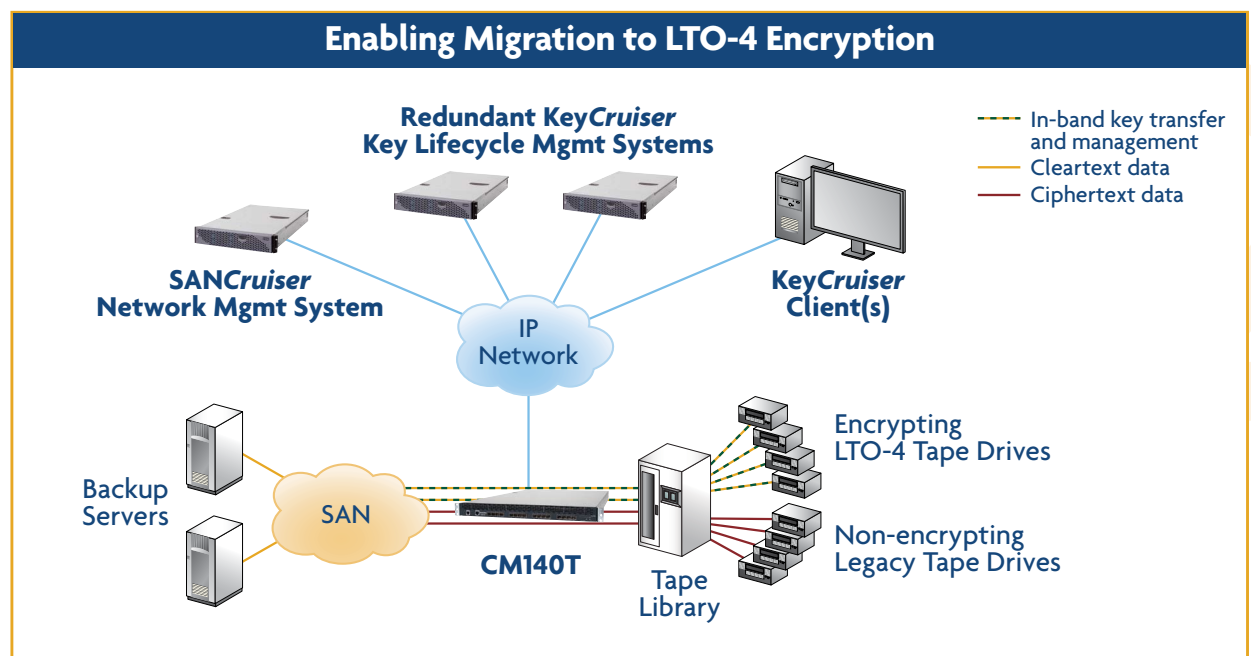
## Solution Overview: Secure LTO-4 Migration

The Secure LTO-4 Migration solution featuring products from Sun StorageTek, IBM, HP, Quantum / ADIC and CipherMax provides a seamless, cost-effective transition from cleartext tape backups to encrypted tape backup using LTO-4 drives. High costs associated with forklift upgrades and interruptions to established backup processes are avoided by using the CipherMax CM140T as both a key management gateway to the LTO-4 drives and as an encryption appliance for data stored on legacy LTO-2/3 and DLT/SDLT tapes. The Secure LTO-4 Migration solution provides:

- Transparent security with strong encryption for non-encrypting LTO tape drives
- Centralized key management for legacy and encrypting LTO-4 tape drives
- Ability to encrypt existing LTO-3 tape media with an LTO-4 drive
- Convenient, single pane of glass management for enterprise environments

### Why Secure LTO-4 Migration?

Next-generation tape drives with integrated encryption processing offer the promise of low-cost, transparent security without crippling server performance or expanding backup windows. Yet, the move to integrated drive-based encryption will bring with it complications for some time to come. Because of financial commitments to existing technology lifecycles, most users are looking to add LTO-4 drives into their Tape libraries that contain pre-existing LTO-2 and LTO-3 drives, not replace them outright. As a result, issues like the inability to use existing tape media for encrypted backup and interruptions to operational processes arising from the use of heterogeneous and mixed generation tape drive environments are first identified during the migration phase. Managing these limitations requires the introduction of additional processes to identify the most sensitive data for encryption, where and how existing media pools will be utilized, and how data can be recovered when and where it is needed.



## What does the Secure LTO-4 Migration solution include?

SecureVTL adds a CipherMax CM140T for Tape system to the Sun StorageTek, IBM, HP, Quantum /ADIC LTO-4 drives. In addition to the fabric-attached CM140T device, the CipherMax system includes the SAN*Cruiser* Network Security Management and the *KeyCruiser* Key Lifecycle Management applications.

## How does the CM140T install?

The CM140T installs between the backup server and the tape library as usual. The CM140T can be configured to be transparent to the SAN in Controller Mode, trunked to an existing SAN fabric in Discovery Mode, or as the SAN fabric itself in Switching Mode. The CM140T's flexible installation options ensure SAN compatibility and easy installation and configuration.

## How does the Secure LTO-4 Migration streamline my tape backup process?

Backup data using legacy non-encrypting tape drives is compressed and encrypted using the CM140T device as usual. For backups using encrypting LTO-4 drives, the CM140T turns off its own encryption and loads the encryption key designated by preset security policies onto the drives via in-band commands. For backups using LTO-3 media in LTO-4 tape drives, the CM140T provides the compression and encryption functionality, enabling secure storage for legacy media as well. All security policy definition and key management can be done through a single management interface, saving time and eliminating potential confusion resulting from the use of multiple key management systems.

## How does the *KeyCruiser* key lifecycle manager compare to LTO-4 key management?

In addition to providing a single point of management for encryption, users can take advantage of *KeyCruiser*'s intelligent key management features that simplify the migration process and mitigate the introduction of errors by transparently enforcing the application of encryption policies. These include:

- **Tape Media Label Tracking**—maintains key-to-tape mapping database to ensure data recoverability
- **Automatic Tape Format Detection**—identifies blank, plaintext and ciphertext tapes for application of encryption policies
- **Automatic Scratch Tape Detection**—applies default key to recycled tapes from scratch pool if designated for key rotation
- **Plaintext Tape Header Support**—allows backup applications to read tape header for identification
- **Automatic Tape Generation Detection**—enables LTO-3 media encryption using LTO-4 drives

## What is the impact on backup operations?

The CM140T line-speed throughput and optional deployment configurations ensures completely transparency to operations with respect to performance, interoperability and backup processes. Hardware acceleration for both compression and encryption processing supports backup rates at speeds equivalent to six LTO-3 tape drives, in addition to the ability to support key management for multiple LTO-4 drives.

## Where can I get more information on the Secure LTO-4 Migration solution?

For more information, please contact CipherMax at [sales@ciphermaxinc.com](mailto:sales@ciphermaxinc.com) or call 408-382-6500.

### CORPORATE HEADQUARTERS

**CipherMax, Inc.**  
1975 Concourse Drive  
San Jose, CA 95131 USA  
Tel: +1-408-382-6500  
Fax: +1-408-382-6599

### CIPHERMAX ASIA-PACIFIC

**CipherMax, Inc.**  
Room 1035  
Shanghai Central Plaza  
381 Huai Hai Zhong Lu  
Shanghai, 200020  
Tel: +86-13601216832

### ADDITIONAL CONTACTS

**General:** [info@ciphermaxinc.com](mailto:info@ciphermaxinc.com)  
**Partners:** [partners@ciphermaxinc.com](mailto:partners@ciphermaxinc.com)  
**Sales:** [sales@ciphermaxinc.com](mailto:sales@ciphermaxinc.com)  
**Technical Support:** 1-800-670-4423

### WEBSITE

[www.ciphermaxinc.com](http://www.ciphermaxinc.com)

