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PX500 Series DLTSage™ Tape Security
Quick Start Guide

Introduction

The PX500 Series (PX502, PX506, and PX510) tape libraries with DLT-S4 tape drives are capable of utilizing DLTSage Tape security. DLTSage Tape Security is a unique solution designed to prevent unauthorized access to tape cartridges which is particularly valuable when protecting tapes that are transported offsite. DLTSage Tape Security is a firmware feature designed into the DLT-S4 tape drive which uses an electronic key to prevent or allow reading and writing of data on to a tape cartridge. This key is managed through the remote management pages of the PX500 Series tape library (refer to the *Quantum PX500 Series User's Guide*, PN 81-81290 located on the *PX500 Series Documentation CD* for more information on the remote management pages). DLTSage Tape Security is available at no additional cost as an integrated feature in of the DLT-S4 tape drive and PX500 Series tape library (firmware version 20 or later).

Notational Conventions

This instruction uses the following conventions:

> **NOTE:** Notes emphasize important information related to the main topic.

> **CAUTION:** Cautions indicate potential hazards to equipment and are included to prevent damage to equipment.

> **WARNING:** Warnings indicate potential hazards to personal safety and are included to prevent injury.

Setting up your PX500 Series tape library with DLTSage Tape Security consists of the following steps:

- Creating a Secure User
- Creating a Secure Key

Creating a Secure User

> **CAUTION:** If the **Secure Key** information is lost, any tape cartridges that were secured with the lost key will be unavailable for reading or writing.

The **Secure User** is the only user that has the ability to create, modify, and delete a **Secure Key** for the Library. The **Secure User** also has the ability to enable and

disable **Secure Capable Drives** for reading and writing data to and from tapes using the **Secure Key**.

When a user is created with administrator privileges (other than the default admin user), the **Create Secure User** section appears at the bottom of the **Users** page (see figure 1).

Figure 1 Create Secure User

To create a secure user:

> **NOTE:** Only users with administrator privileges (other than the default administrator) can create a secure user.

There is only one **Secure User** and the username is always **skadmin**.

1   Enter a secure password.

> **NOTE:** **Secure Passwords** must be alphanumeric strings of at least one character. A blank secure password will be rejected. **Secure Password** and **Verify Password** must match.

2   Verify the secure password by entering the password a second time in the **Verify Password** box.

3   Click **Create** to create the **Secure Key** password.

Once the **Secure Key** administrator password is added, the **Remove Secure User** section displays at the bottom of the **Users** page (see figure 2).

Figure 2 Remove Secure User

To update the **Secure Key** password:

> **NOTE:** Only the **Secure User** can change the secure user password.

1   Enter a secure password.

> **NOTE:** **Secure Passwords** must be alphanumeric strings of at least one character. A blank secure password will be rejected. **Secure Password** and **Verify Password** must match.

2   Verify the secure password by entering the password a second time in the **Verify Password** box.

3   Click **Update** to update the **Secure Key** password.

The **Secure Key** password is updated.

Creating a Secure Key

The **Secure Key** tab displays when a secure user has been added to the library and the secure user is logged in.

> **NOTE:** When logging on as a secure user, the IP address entered in the address line of the internet browser uses **https**, not the common http. Example: **https://<ip address>**

To access the **Secure Key** page, from the **Setup** page, click on the **Secure Key** tab at the top of the page.

The **Secure Key** page displays (see figure 3).

Figure 3 Secure Key Page
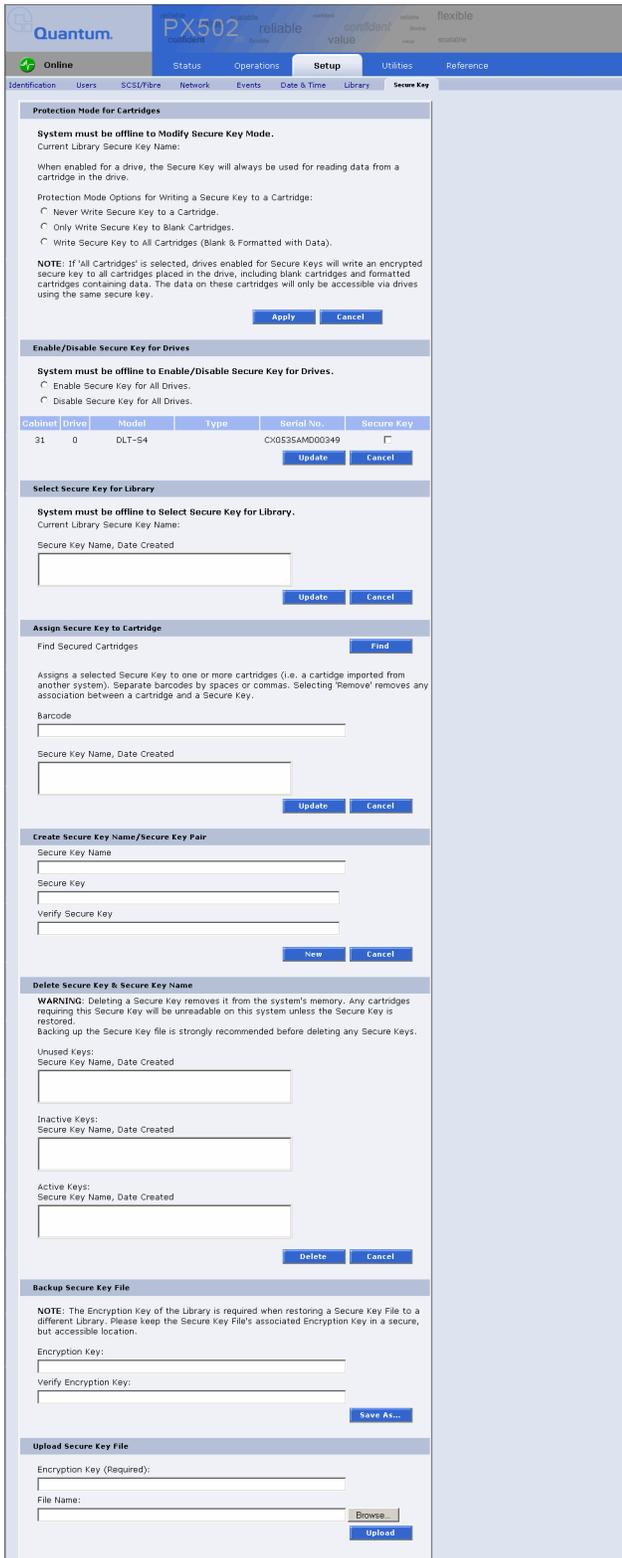
The Secure Key page is divided into the following sections:

- [Protection Mode for Cartridges](#)
- [Enable/Disable Secure Key for Drives](#)
- [Modify Secure Key for Library](#)
- [Assign Secure Key to Cartridge](#)
- [Create Secure Key Name/Secure Key Pair](#)
- [Delete Secure Key Name](#)
- [Backup Secure Key File](#)
- [Upload Secure Key File](#)

Protection Mode for Cartridges

Refer to [figure 4](#) for information on **Protection Mode for Cartridges**.

Figure 4 Protection Mode for Cartridges
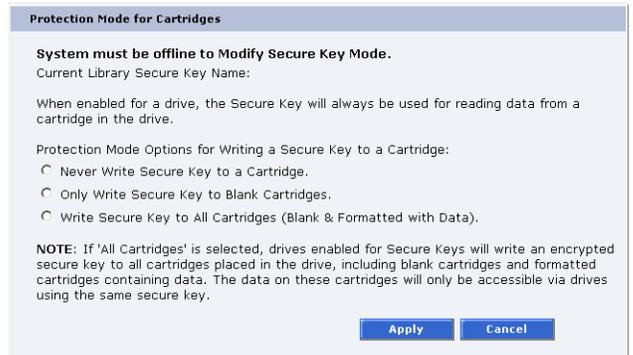
The **Protection Mode for Cartridges** area defines when the **Secure Key** is used for a cartridge in a tape drive with a **Secure Key** enabled. In all modes, the **Secure Key** is used to read data from cartridges that have a pre-existing **Secure Key**. If the **Secure Key** on the cartridge does not match the current **Secure Key** on the library, the data on the cartridge can not be read.

Three write protection modes are available:

- **Never Write Secure Key to a Cartridge** - The **Secure Key** will never be written to a cartridge placed in a secured tape drive.
- **Only Write Secure Key to Blank Cartridges** - The **Secure Key** will only be written to blank, unformatted cartridges.
- **Write Secure Key to All Cartridges** - The **Secure Key** will be written to all cartridges, including blank and formatted cartridges containing data. This mode may be used to apply a **Secure Key** to cartridges with pre-existing data.

**Enable/Disable Secure Key
for Drives**

Refer to figure 5 for information on **Enable/Disable Secure Key for Drives**.

Figure 5 Enable/Disable Secure
Key for Drives

The **Secure Key** can only be used with tape drives that are **Secure Key** capable. This section lists the tape drives in the library that are **Secure Key** capable. A checkmark in the **Secure Key** column indicates a **Secure Key** is enabled for the tape drive.

1   The **Secure Key** can be enabled or disabled for all tape drives by clicking the corresponding radio button.

2   Click the **Secure Key** check box for individual tape drives to enable/disable **Secure Key** for a tape drive.

3   Click **Update** to activate the changes.

> **NOTE:** The system must be offline to Enable/Disable Secure Key setting for drives.

**Modify Secure Key for
Library**

Refer to figure 6 for information on **Modify Secure Key for Library**.

Figure 6 Modify Secure Key for
Library

To modify the **Secure Key** used by the library:

1   Select the **Secure Key** name from the list of available names.

> **NOTE:** Selecting **None** to will cause the library to NOT use a **Secure Key**.

2   Click **Update**.

> **NOTE:** The system must be offline to modify a **Secure Key**.

**Assign Secure Key to
Cartridge**

Refer to figure 7 for information on **Assign Secure Key to Cartridge**.

Figure 7 Assign Secure Key to
Cartridge

Click **Find** to list all secured cartridges and their assigned **Secure Key** names.

To assign a **Secure Key** to a cartridge:

1   Enter the barcode of the cartridge. Separate multiple barcodes with either spaces or commas.

2   Select a **Secure Key** name from the list of available names.

3   Selecting **Remove** will remove the association between the cartridge and a **Secure Key** name in the cartridge database.

4   Click **Update** to accept the changes.

**Create Secure Key Name/
Secure Key Pair**

Refer to figure 8 for information on **Create Secure Key Name/Secure Key Pair**.

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Figure 8 Create Secure Key
Name/Secure Key Pair

To create a secure key name/secure key pair:

1   Enter the **Secure Key Name**.

> NOTE: The **Secure Key** name must be less than 12
> characters, may include spaces, but cannot
> contain the following characters: ( ) = ;

2   Enter a securekey in the protected **Secure Key** field.

3   Enter the same **Secure Key** in the **Verify Secure Key**
    field.

> NOTE: The **Secure Key** must be at least 8 characters
> and no more than 32 characters.

4   Click *New* to create the **Secure Key** name/key pair.

Delete Secure Key Name

Refer to figure 9 for information on **Delete Secure Key
Name**.

Figure 9 Delete Secure Key Name

The **Secure Key Names** maintained on the library are
displayed in one of three lists:

- **Unused Secure Keys** - keys not associated with any
  cartridges or tape drives currently in the system.

- **Inactive Secure Keys** - keys associated with cartridges
  in the library, or currently assigned to the library, but
  not assigned to any tape drives.

- **Active Secure Keys** - keys currently assigned to a tape
  drive.

To delete a **Secure Key Name/Secure Key** pair from the
library:

1   Select the desired **Secure Key Names** from the
    available lists.

2   Click *Delete*.

    A confirmation message will be displayed, click **Yes** to
    continue.

    Any tape drives that have been **Secure Key** enabled will
    remain enabled, but the **Secure Key** will not be used to
    read or write cartridges.

Backup Secure Key File

Refer to figure 10 for information on **Backup Secure Key
File**.

Figure 10 Backup Secure Key File

The list of **Secure Key Name/Secure Key Pairs** maintained
on the library should be backed up to a local device
whenever a change is made to the security keys.

> NOTE: Note the library's **Encryption Key**. The **Encryption
> Key** is required when restoring the file to any
> library.

1   Click **Save As...**

2   From the browser's **Save** window, select a path and
    name the file.

3   Click **OK**.

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Upload Secure Key File

Refer to figure 11 for information on **Upload Secure Key File**.

Figure 11 Upload Secure Key File

A file containing a list of **Secure Key Name/Secure Key Pairs** can be restored to the library.

> **NOTE:** The **Encryption Key** of the library originally maintaining the list is required to restore the file.

To upload (restore) a **Secure Key File**:

1 Enter the **Encryption Key** of the original library.

2 Enter the path and file name of the file to be uploaded (click **Browse...**)

3 Click **Upload** button.

A progress window is displayed indicating when the upload is complete or if any errors occurred during the upload or restoration of the file.

The **Secure Key** page is refreshed listing restored secure keys.

> **NOTE:** An error is displayed if the serial number provided does not match the serial number used to encode the secure keys.

Importing Secured Tape Cartridges

If you need to import tape cartridges into your library which have been secured with a key from another PX500 Series library, you need to import the **Secure Key** before the library can read or write to the tape cartridges.

To import secured tapes:

1 Write down the barcodes for every secured tape that will be imported into the library. You will need to have these barcodes available when associating the tape cartridges with the **Secure Key.**

2 Insert the tape cartridges into the PX500 Series library (refer to the PX500 Series User's Guide (PN 81-81290) for information on inserting tape cartridges.

3 On the PX500 Series library where the tape cartridges were originally secured with a key, backup the specific **Secure Key** associated with those tape cartridges (see Backup Secure Key File).

4 Upload the **Secure Key** from the original library to the where the tape cartridges were imported (see Upload Secure Key File).

5 Assign the barcode labels from the imported tape cartridges with the **Secure Key** from the original library (see Assign Secure Key to Cartridge).

The imported tape cartridges are now associated with the **Secure Key.**

Secure Key Maintenance

Quantum strongly recommends that you backup your secure keys whenever a new key is added (see Backup Secure Key File). The location of these keys should be available to library administrators who need access to secured tape cartridges.

> **CAUTION:** If the **Secure Key** information is lost, any tape cartridges that were secured with the lost key will be unavailable for reading or writing.

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