

## PX500 Series DLTSage™ Tape Security Quick Start Guide

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## 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

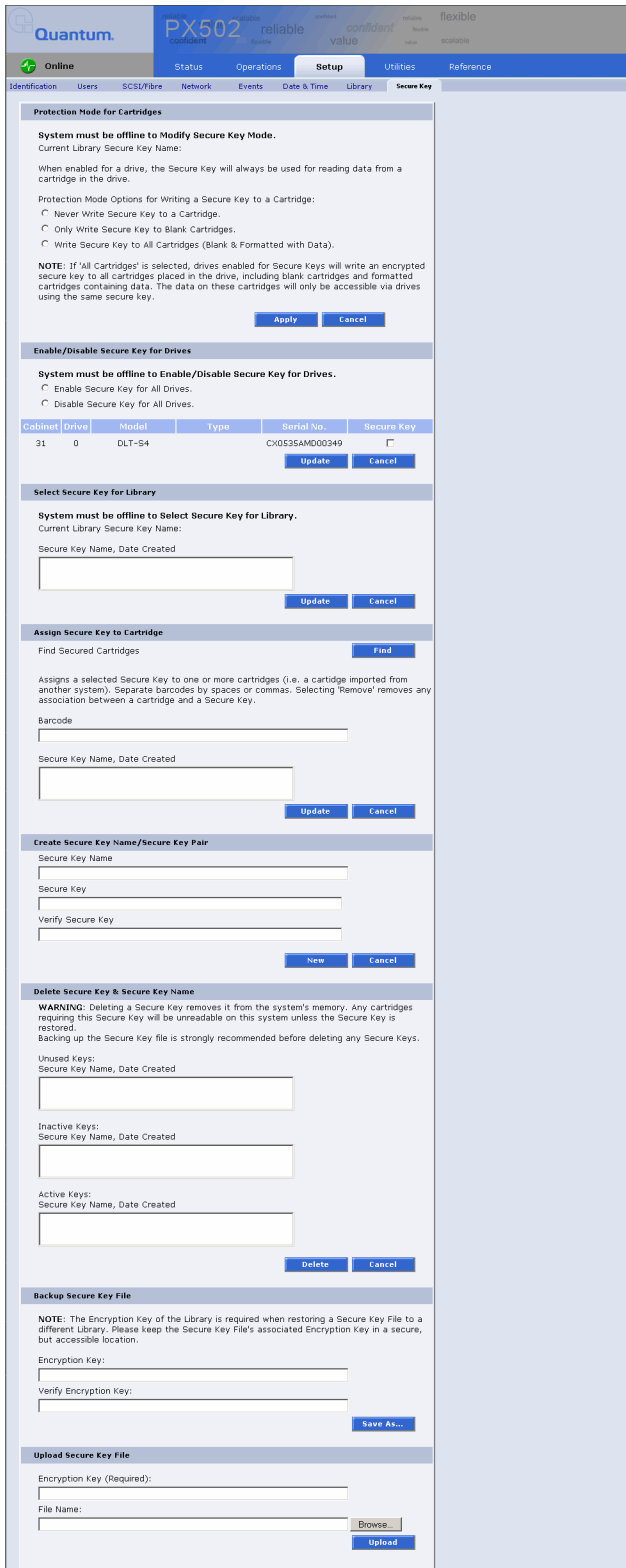
The **Secure Key** tab displays when a secure user has been added to the library and the secure user is logged in.

**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



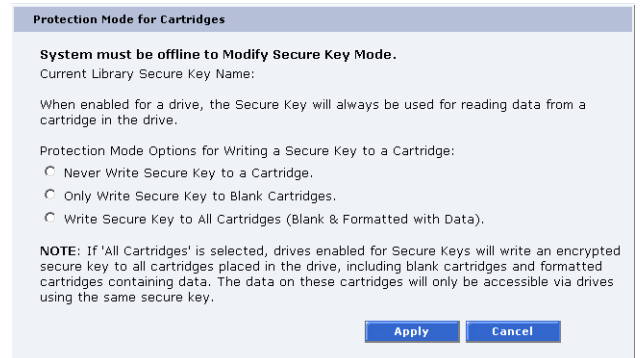
The Secure Key page is divided into the following sections:

- [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 cannot be read.

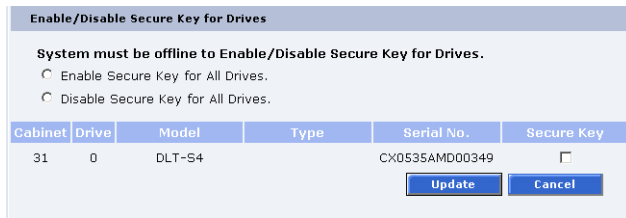
Three write protection modes are available:

- **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** will cause the library to NOT use a **Secure Key**.

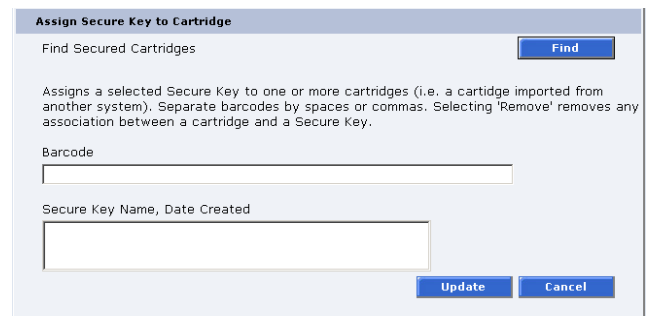
- 2 Click **Update**.

**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**.

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**.

## 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.

## Quantum

United States of America  
Quantum Corporation  
141 Innovation Drive  
Irvine, CA 92612  
U.S.A.  
phone 949.856.7800  
fax 949.856.7799

European Headquarters  
Quantum Corporation  
3 Bracknell Beeches  
Old Bracknell Lane West  
Bracknell  
Berkshire RG12 7BW  
United Kingdom  
phone +44 1344 353500  
fax +44 1344 353510

Asia Pacific  
Quantum Corporation  
9 Temasek Boulevard, #08-03  
Suntec Tower Two  
Singapore 038989  
Tel: +65 6334 0660  
Fax: +65 6432 2830  
Email: [singapore.sales@quantum.com](mailto:singapore.sales@quantum.com)

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