Smart-1 625 Installing and Removing Storage Devices

This document is for the Smart-1 625 Security Management appliance.

Safety Instructions

- Lift the appliance with assistance. To avoid injury, do not attempt to lift the appliance by yourself.
- Opening or removing the appliance cover, while the appliance is powered on may expose you to a risk of electric shock.
- Do not operate the appliance without the cover for more than five minutes.
- Operating the appliance without the cover can result in component damage.
- Many repairs may only be done by a certified service technician. Only perform troubleshooting and simple repairs as authorized in your product documentation, or as directed by the technical support.
- We recommend that you always use an antistatic mat and antistatic strap on your wrist, while working on components inside the appliance.
- To ensure proper operation and cooling, all bays in the appliance and cooling fans must always be populated with a component and blank.

For more information, see the Enterprise Products Safety, Environmental, and Regulatory Information booklet supplied in the original appliance shipping carton.

Important - We recommend that only experienced personnel install or remove hardware components. Installing or removing components incorrectly can permanently damage the Security Management Appliance.

Important - Make sure that you are electromagnetically grounded when working with hardware components of the appliance. ESD (electrostatic discharge) can damage the appliance.
Storage Devices

- The supplied 3.5" disks are SATA III hot swappable.
- Hot swappable disks are supplied in hot swappable disk carriers that fit in the disk slots.
- The two disks must be installed in the two left slots (0 and 1 on the diagram below).
- If you do not immediately install a replacement disk when a disk fails, leave the failed disk in place to ensure proper appliance cooling until the new disk is installed.

RAID Levels and Disk Storage

<table>
<thead>
<tr>
<th>Smart-1 625</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default RAID Level</td>
</tr>
<tr>
<td>Supported RAID Levels</td>
</tr>
<tr>
<td>Default Storage</td>
</tr>
</tbody>
</table>

Numbering of the Disk Slots on the Front Panel

<table>
<thead>
<tr>
<th>Slot 0</th>
<th>Slot 1</th>
<th>Slot 2</th>
<th>Slot 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disk</td>
<td>Disk</td>
<td>Empty</td>
<td>Empty</td>
</tr>
</tbody>
</table>

Note - Only slot 0 and slot 1 are supported.

Do not install a disk in slot 2 or slot 3. If you do so, the appliance will show this error:

Disk slot occupation mismatch!!
Only use of slot 0 and 1 is supported.
Disk Carrier LEDs

Each disk carrier has an activity indicator and a status indicator. These indicators provide information about the current status of the disk.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Status indicator LED. Shows the power condition of the disk. For LED patterns, see the table below.</td>
</tr>
<tr>
<td>2</td>
<td>Activity indicator LED. Shows whether the disk is currently in use or not.</td>
</tr>
<tr>
<td>3</td>
<td>Release button.</td>
</tr>
<tr>
<td>4</td>
<td>Release handle.</td>
</tr>
<tr>
<td>5</td>
<td>Disk</td>
</tr>
</tbody>
</table>

**Status Indicator LED patterns**

<table>
<thead>
<tr>
<th>Status Indicator LED Pattern</th>
<th>Disk Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steady green</td>
<td>Disk is online.</td>
</tr>
<tr>
<td>Flashes green twice per second</td>
<td>Identifying disk or preparing disk for removal.</td>
</tr>
<tr>
<td>Blinks green, amber, and then turns off</td>
<td>Predicted disk failure.</td>
</tr>
<tr>
<td>Blinks amber four times per second</td>
<td>Disk failed.</td>
</tr>
<tr>
<td>Blinks green slowly</td>
<td>Disk is rebuilding.</td>
</tr>
<tr>
<td>Status Indicator LED Pattern</td>
<td>Disk Condition</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Blinks green for three seconds, blinks amber for three seconds, then turns off after six seconds</td>
<td>Disk rebuild stopped.</td>
</tr>
<tr>
<td>Off</td>
<td>Disk is ready for insertion or removal. The status indicator LED remains off until all disks are initialized after the system is turned on. Disks are not ready for insertion or removal during this time.</td>
</tr>
</tbody>
</table>

**Procedure**

These steps are required to remove and install a disk:

1. Prepare the appliance.
2. Remove the disk carrier with the failed disk.
3. Install the disk carrier with the new disk.
4. Install the front panel bezel.
5. Make sure the new disk is recognized and synchronized.

**Preparing the Appliance**

1. Make sure to follow the safety instructions (on page 1).
2. If installed, remove the front panel bezel:
   a. At the left end of the bezel, unlock the keylock using the bezel key.
   b. Lift the release latch next to the keylock.
   c. Pull the left end of the bezel away from the front panel.
   d. Unhook the right end of the bezel.
   e. Pull the bezel away from the appliance.
   f. At the right end of the bezel, insert the bezel key into the back of the bezel, so it is not lost.
Removing the Disk Carrier

1. Press the release button on the front of the hot swappable disk carrier.
2. Open the hot swappable disk carrier handle.
3. While holding the handle, slide the disk carrier out of the disk slot.
4. Wait for at least 15 seconds. The appliance needs time to recognize that you removed a disk.

Installing the Disk Carrier

1. Press the release button on the front of the disk carrier.
2. Open the release handle.
3. Insert the disk carrier into the disk slot.
4. Slide the disk carrier until the disk connects with the backplane.
5. Close the disk carrier release handle to lock the disk carrier in place.
6. Wait for at least 15 seconds. The appliance needs time to recognize that you installed a disk.

Note - When installing a disk carrier, before locking its handle, make sure that the adjacent disk carriers are fully installed. Otherwise, you can damage the shield spring on the adjacent disk carrier that is partially installed.
Installing the Front Panel Bezel

1. On the back of the bezel, locate and remove the bezel key.
2. Hook the right end of the bezel onto the appliance.
3. Fit the left end of the bezel onto the appliance and push the release latch next to the keylock.
4. Lock the keylock at the left end of the bezel using the bezel key.

Making Sure the New Disk is Recognized and Synchronized

1. Connect to the command line on the appliance (using SSH or console).
2. Log in to Expert mode.
3. Check that the replacement disk works correctly. Monitor the disk synchronization until it completes.
   Run this command: `raid_diagnostic`