



Blue Coat®

ProxySG™ 510/810 Series

Hard Disk Drive Replacement

Installation Guide

Replacing Disk Drives in a Blue Coat Series 510/810 System

This document describes how to replace disk drives in a Blue Coat Series 510/810 System. The procedures described in this document apply to the ProxySG, ProxyAV, RA, and Director (510 only).

This procedure applies to both single disk drive systems and multi-disk drive systems.

This document also provides procedures for hot-swapping a disk drive in a multi-disk drive system. If you are hot-swapping a disk drive, see ["Hot-swapping a Disk Drive \(810 only\)"](#) on page 11.

Replacing the Disk Drive in a Single Disk Drive System

To replace the disk drive in a Blue Coat Series 510/810 single disk drive system, complete the following steps:

1. Power off the single disk drive system.
2. Open the front panel by pulling the two bezel tabs forward and down.



3. Remove the replacement disk drive from the shipping container. (The disk drive lever, the black latch, must be on left side for the 510/810 Series)
4. To insert a disk drive into the unit, push the button on the right to release the disk drive lever. Then, hold the disk drive lever out, align the disk drive with the drive bay guide rails, and gently push the disk drive into the drive bay (to avoid damaging the SATA/SCSI connectors).



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5. When the disk drive lever meets the frame, push the lever forward slowly until it locks into place.



6. Close the front panel.

Verifying Installation of the Disk Drive

You can verify that you installed the disk drive correctly by reviewing information in the Management Console or the CLI (for SG products).

Using the Management Console to Verify Disk Drive Installation

The following procedure describes how to use the Management Console to verify disk drive installation.

1. Enter the appliance URL.
2. Select the Statistics tab.
3. Select General > Summary.

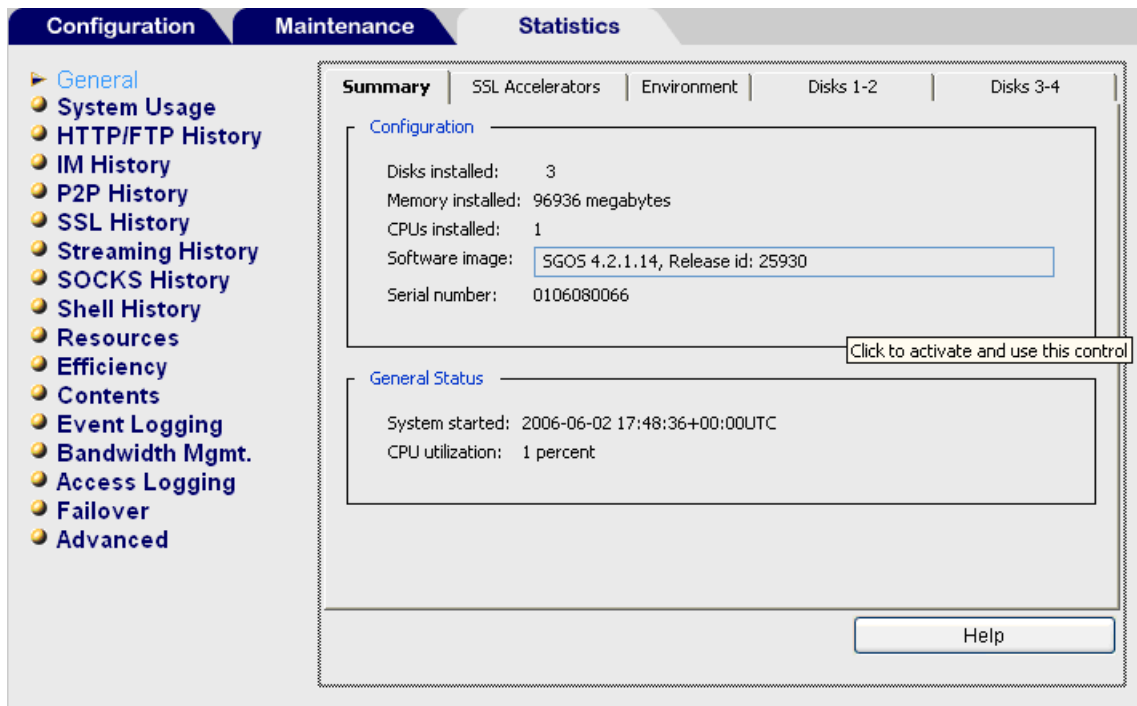


Figure 1. Disk details on the Statistics > General > Summary page.

4. The Summary tab lists the total number of installed disk drives. Verify that the number of installed disk drives matches the number physically installed in the appliance.

Using the CLI to Verify Disk Drive Installation

The following procedure describes how to use the CLI to verify disk drive installation.

Note: These steps are applicable only for an already configured appliance.

1. Go to the Serial Console Menu
2. Select 1) Command Line Interface.

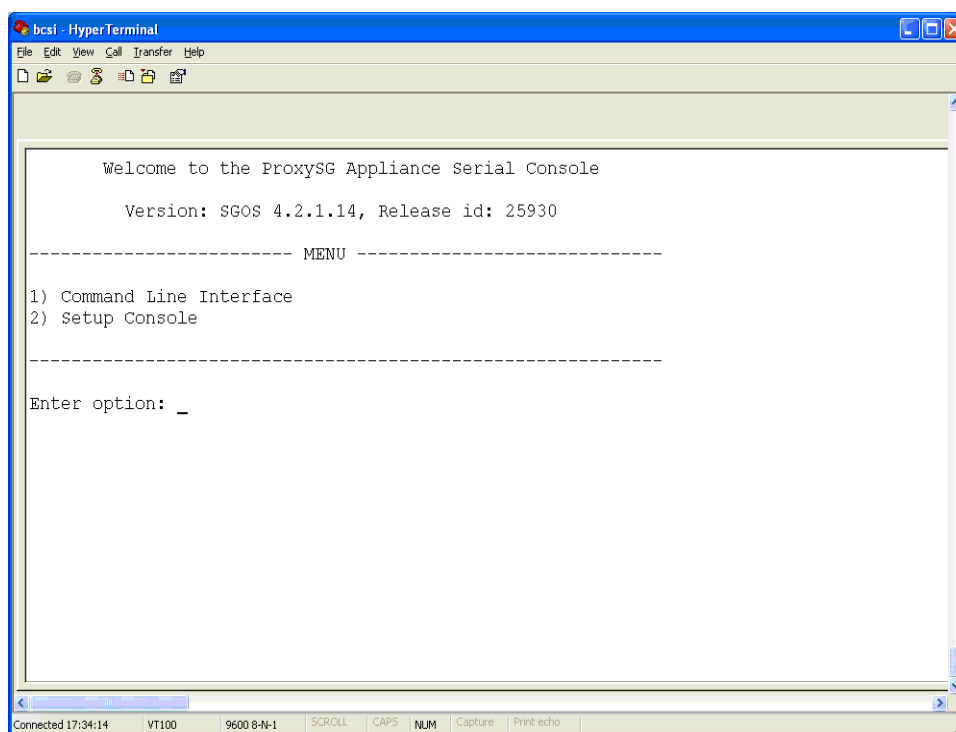
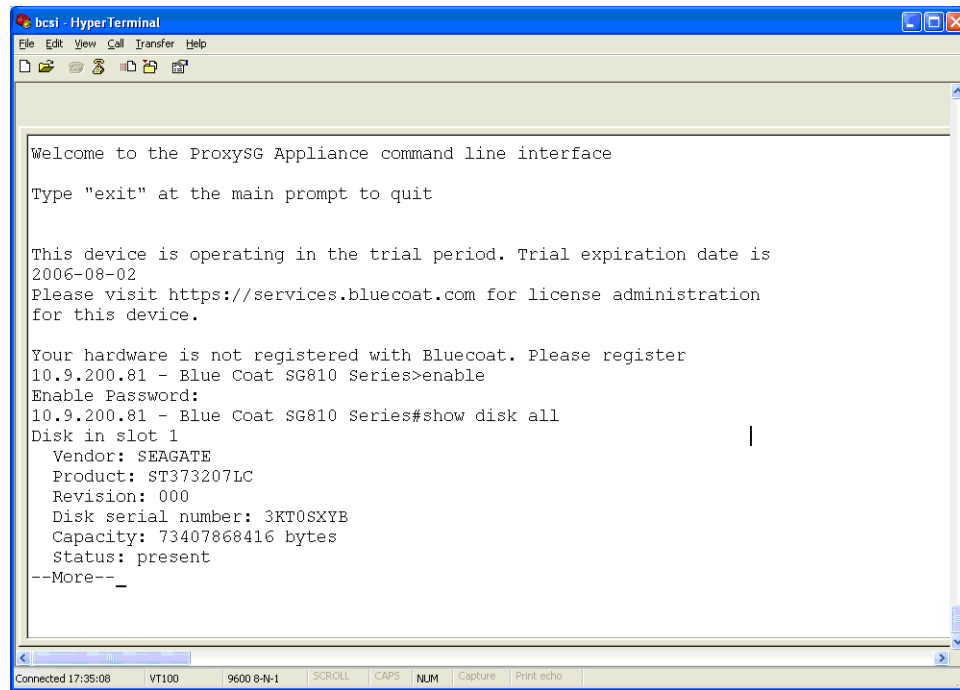


Figure 2. Serial Console Menu

3. Type **enable**.
4. Enter the enable password you created during the initial configuration of your appliance.

5. Type **show disk all**.

As shown in Figure 3, the appliance displays the slots that have disk drives installed and the slots in which disk drives are not installed.



```
bcsl - HyperTerminal
File Edit View Call Transfer Help

Welcome to the ProxySG Appliance command line interface

Type "exit" at the main prompt to quit

This device is operating in the trial period. Trial expiration date is
2006-08-02
Please visit https://services.bluecoat.com for license administration
for this device.

Your hardware is not registered with Bluecoat. Please register
10.9.200.81 - Blue Coat SG810 Series>enable
Enable Password:
10.9.200.81 - Blue Coat SG810 Series#show disk all
Disk in slot 1
Vendor: SEAGATE
Product: ST373207LC
Revision: 000
Disk serial number: 3KT0SXYB
Capacity: 73407868416 bytes
Status: present
--More--
```

Figure 3. CLI output displaying disk drive slot information.

Replacing a Disk Drive in a Multi-Disk Drive System

Follow the procedures below to replace a disk drive in a Blue Coat Series 510/810 multi-disk drive system.

If you are hot-swapping a disk drive, see "Hot-swapping a Disk Drive (810 only)".

1. Power off the multi-disk drive system.
2. Open the front panel by pulling the two bezel tabs forward and down.



3. Remove the disk drive from the shipping container. Place the disk drive into the first available disk drive bay on the left. (The disk drive lever, the black latch, must be on left side).
4. To insert the disk drive, hold the disk drive lever out, align the disk drive with the drive bay guide rails, and gently push the disk drive into the drive bay (to avoid damaging the SATA/SCSI connect).



-
5. When the disk drive lever meets the appliance frame, push the lever forward slowly until the lever locks in place.



6. Repeat the preceding steps if you need to install additional disk drives.

Important: The left-most disk drive is used to boot the system. Never install a new disk drive to the left of this boot disk drive, or you will lose the configuration of your appliance.

If you do not have enough empty slots to the right of the boot disk drive, move the left-most disk drive (the boot disk drive) all the way to the left before installing any other disk drives.

Ensure that the appliance is powered off before you remove any disk drives, or use the Web browser or the CLI to take the disk drives off-line.

7. Close the front panel.

Verifying the Installation of the Disk Drives

You can verify that you installed the disk drive correctly by reviewing information in the Management Console or the CLI.

Using the Management Console to Verify Disk Drive Installation

The following procedure describes how to use the Management Console to verify disk drive installation.

1. Enter the appliance URL.
2. Select the Statistics tab.
3. Select General > Summary.

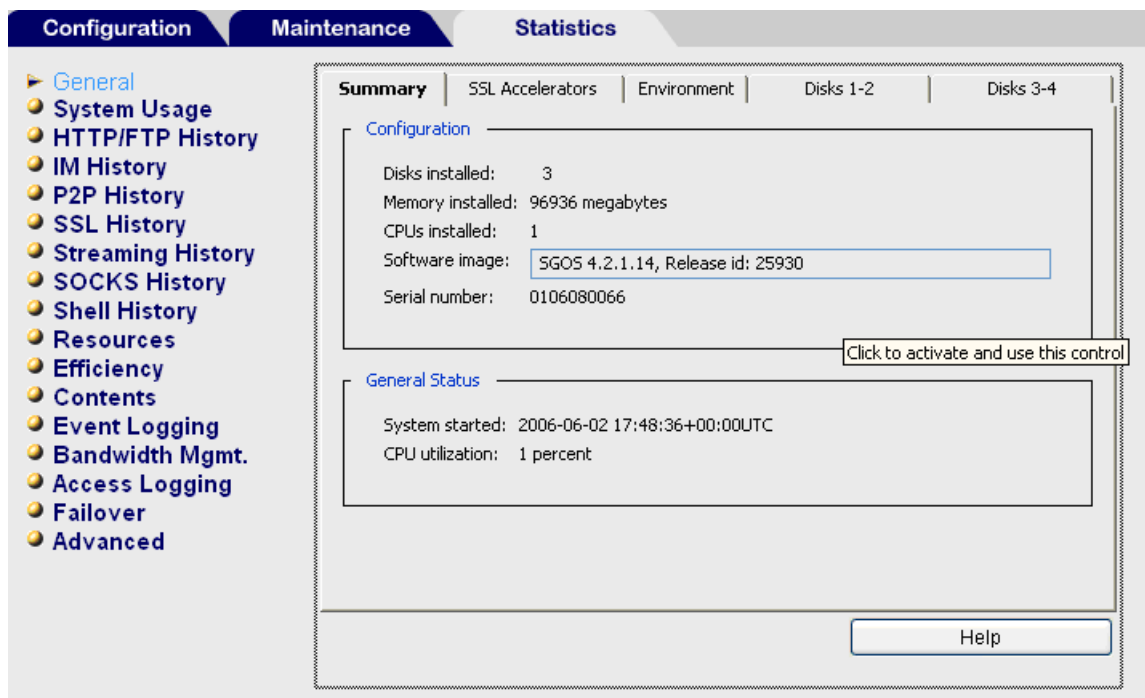


Figure 4. Disk details on the Statistics > General > Summary page.

4. The Summary tab lists the total number of installed disk drives. Verify that the number of installed disk drives matches the number physically installed in the appliance.

Using the CLI to Verify Disk Drive Installation

The following procedure describes how to use the CLI to verify disk drive installation.

Note: These steps are applicable only to an appliance that has already been configured.

1. Go to the Serial Console Menu.
2. Select 1) Command Line Interface.

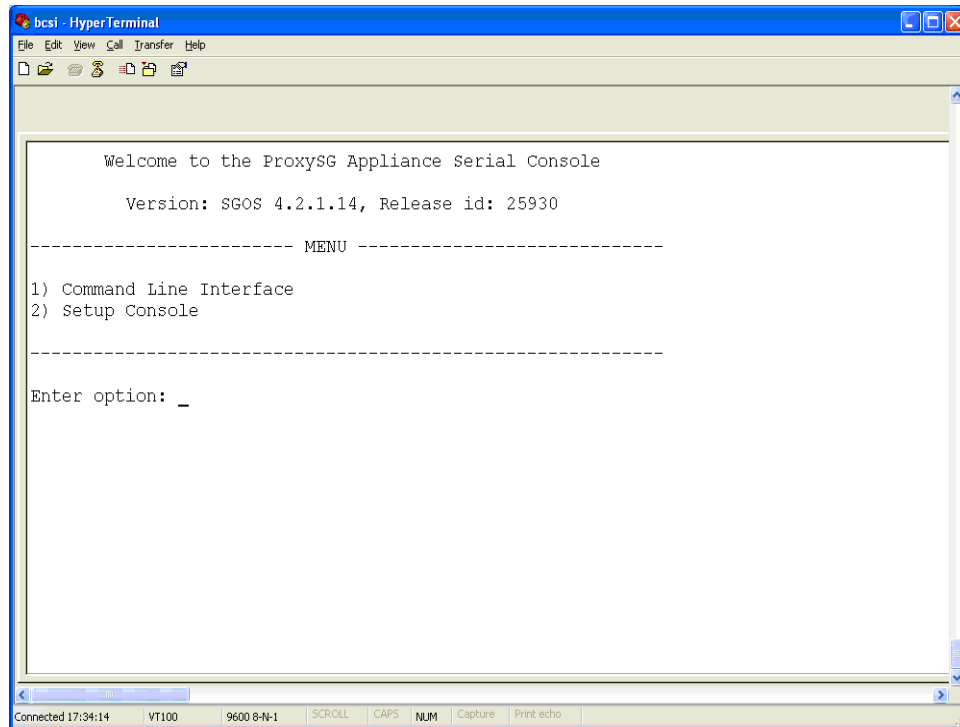
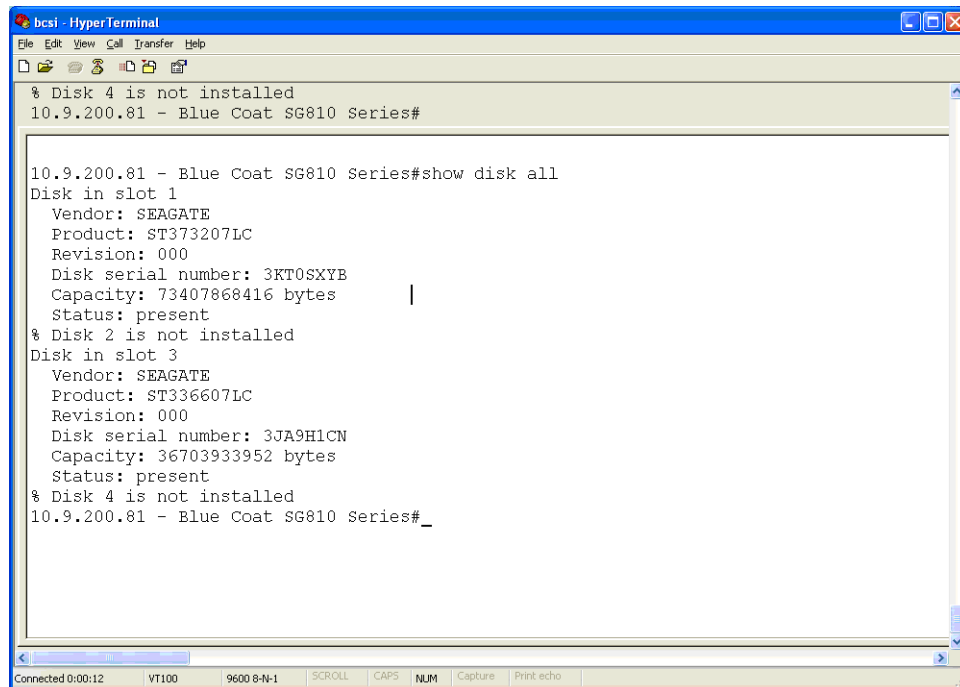


Figure 5. Serial Console Menu

3. Type **enable**.
4. Enter the enable password you created during the initial configuration of your appliance.

5. Type **show disk all**.

As shown in Figure 6, the appliance displays the slots that have disk drives installed and the slots in which disk drives are not installed.



The screenshot shows a HyperTerminal window titled "bcsi - HyperTerminal". The terminal displays the following CLI output:

```
% Disk 4 is not installed
10.9.200.81 - Blue Coat SG810 Series#

10.9.200.81 - Blue Coat SG810 Series#show disk all
Disk in slot 1
  Vendor: SEAGATE
  Product: ST373207LC
  Revision: 000
  Disk serial number: 3KT0SXYB
  Capacity: 73407868416 bytes
  Status: present
% Disk 2 is not installed
Disk in slot 3
  Vendor: SEAGATE
  Product: ST336607LC
  Revision: 000
  Disk serial number: 3JA9H1CN
  Capacity: 36703933952 bytes
  Status: present
% Disk 4 is not installed
10.9.200.81 - Blue Coat SG810 Series#_
```

The terminal window includes a menu bar (File, Edit, View, Call, Transfer, Help), a toolbar, and a status bar at the bottom showing "Connected 0:00:12", "VT100", "9600 8-N-1", and various keyboard shortcuts (SCROLL, CAPS, NUM, Capture, Print echo).

Figure 6. Sample CLI output displaying disk drive slot information.

Hot-swapping a Disk Drive (810 only)

The disk drives in an appliance can be removed and replaced separately, without powering off the appliance.

Using the Management Console or the CLI, take the disk drive that you want to hot-swap offline. The disk drive indicator light turns off once the disk drive is offline. When the disk drive is offline, the LED turns from green to off.

Using the Management Console to Hot-swap a Disk Drive

Using the Management Console, complete the following steps to take the disk drive offline, and replace the disk drive.

1. Enter the appliance URL.
2. Select the Statistics tab.
3. Select General > Disks 1-2 (or 3-4).
4. Take the disk offline by clicking “Take Disk <x> Offline”

Where <x> is the number of the disk you are taking offline.

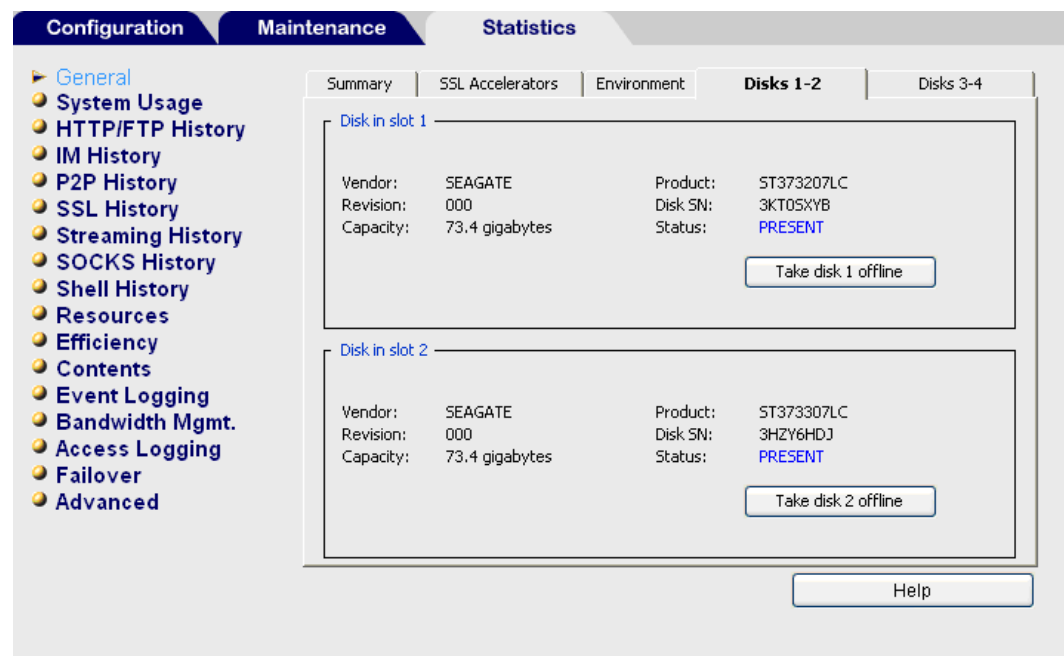


Figure 7. Using the Management Console to take a disk drive offline.

5. Wait for the HDD LED to turn off on the front panel display.

Complete the following steps to hot-swap the disk drive:

1. Remove the disk drive from the slot.
 - a. Open the front panel by pulling the two bezel tabs forward and down.
 - b. To remove the disk drive, press the disk-drive button to release the disk-drive lever; gently pull the lever to slide the drive out.
2. Install the replacement disk drive.

- a. Insert the new disk drive. To seat the disk drive, hold the disk drive lever out, align the disk drive with the guide rails in the slot, and carefully insert the disk drive.
- b. When the disk drive lever meets the frame of the appliance, push the lever forward slowly until the lever locks in place.

When the new disk drive is plugged in, the LED turns green to indicate that an electrical connection has been established. In addition, the LED will start to flash when the OS has recognized the presence of the disk drive. After a few seconds, the status light stops flashing and glows solid while the disk drive is in function with SGOS.

Using the CLI to Hot-swap a Disk Drive

Using the CLI, complete the following steps to (a) take a disk drive offline, (b) replace the disk drive, and (c) verify that you hot-swapped the disk drive correctly.

1. Go to the Serial Console Menu.
2. Select 1) Command Line Interface.

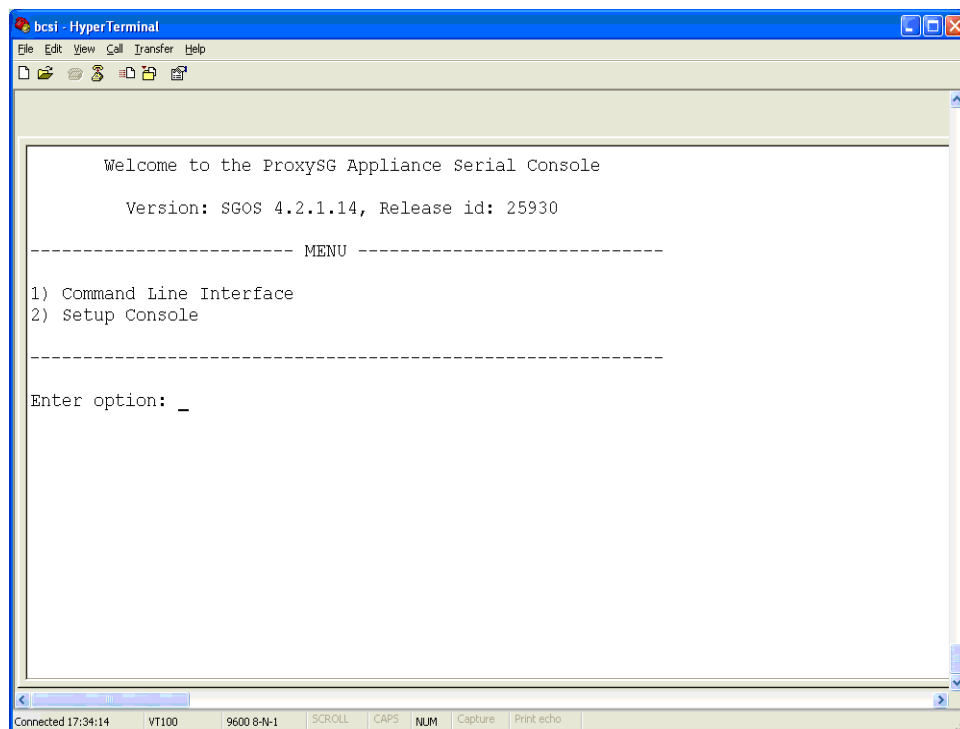
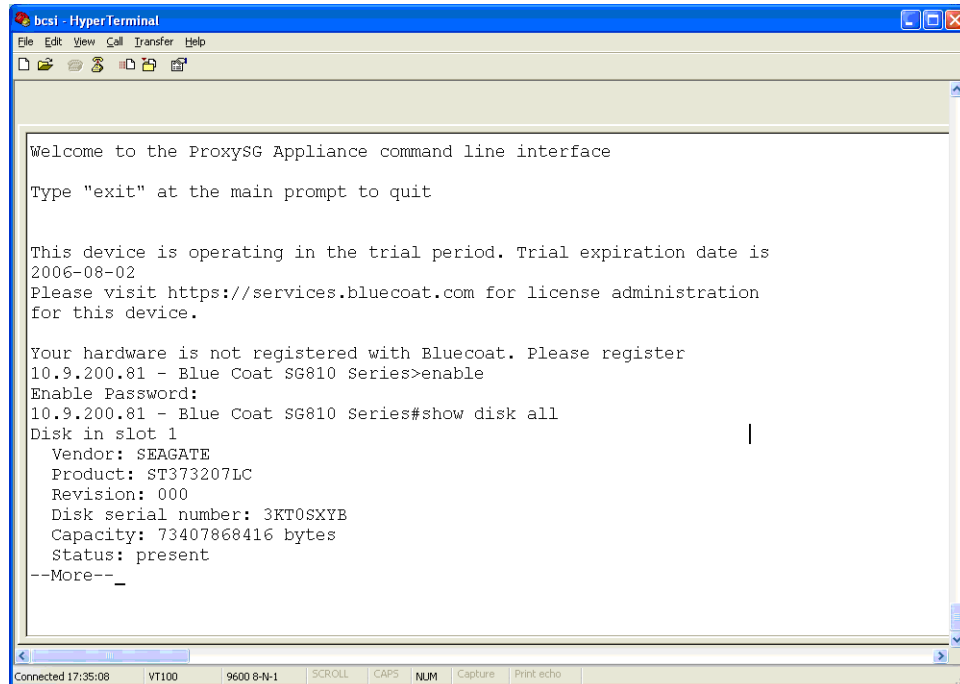


Figure 8. The Serial Console Menu

Begin by taking the disk drive offline.

1. Type **enable**.
2. Enter the enable password you created during the initial configuration of your appliance.
3. Type **disk offline <slot_number>**. The term *slot_number* represents the slot that contains the disk drive you want to take offline.



```
bcsl - HyperTerminal
File Edit View Call Transfer Help

Welcome to the ProxySG Appliance command line interface

Type "exit" at the main prompt to quit

This device is operating in the trial period. Trial expiration date is
2006-08-02
Please visit https://services.bluecoat.com for license administration
for this device.

Your hardware is not registered with Bluecoat. Please register
10.9.200.81 - Blue Coat SG810 Series>enable
Enable Password:
10.9.200.81 - Blue Coat SG810 Series#show disk all
Disk in slot 1
  Vendor: SEAGATE
  Product: ST373207LC
  Revision: 000
  Disk serial number: 3KT0SXYB
  Capacity: 73407868416 bytes
  Status: present
--More--

Connected 17:35:08  VT100  9600 8-N-1  SCROLL  CAPS  NUM  Capture  Print echo
```

Figure 9. Using the CLI to take a disk drive offline and to verify that the disk drive is offline.

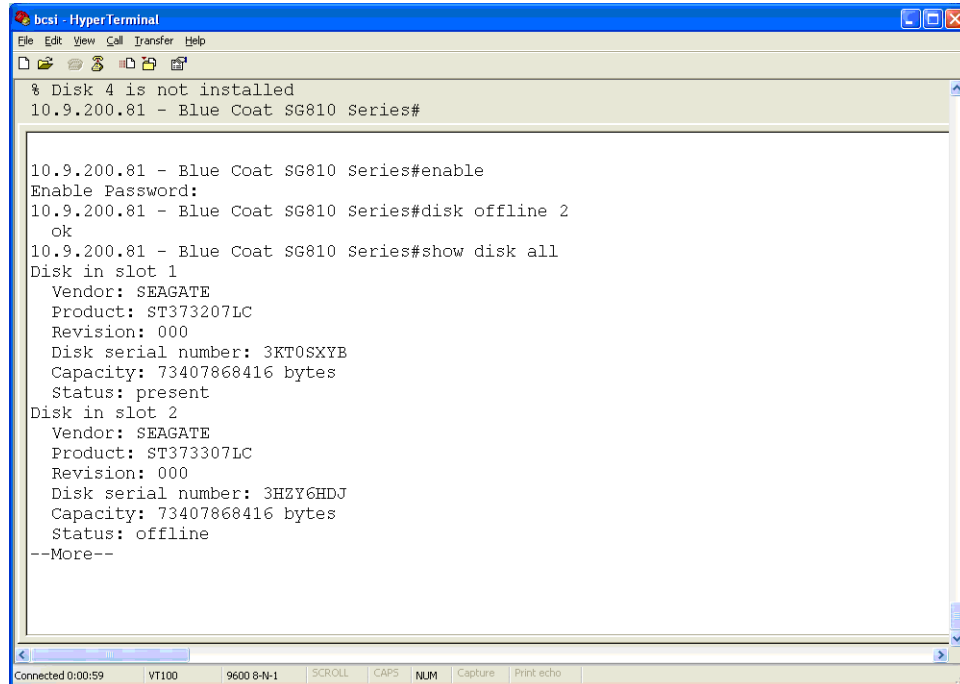
4. Type **show disk all**. As shown in Figure 9, the CLI displays the slots that have disk drives installed and the slots in which no disk drives are installed. If the disk drive is offline, it will be shown as uninstalled.

Complete the following steps to hot-swap the disk drive:

1. Remove the disk drive from the slot.
 - a. Open the front panel by pulling the two bezel tabs forward and down.
 - b. To remove the disk drive, press the disk-drive button to release the disk-drive lever; gently pull the lever to slide the drive out.
2. Install the replacement disk drive.
 - a. Insert the new disk drive. To seat the disk drive, hold the disk drive lever out, align the disk drive with the guide rails in the slot, and carefully insert the disk drive.
 - b. When the disk drive lever meets the frame of the appliance, push the lever forward slowly until the lever locks in place.

When the new disk drive is plugged in, the LED turns green to indicate that an electrical connection has been established. In addition, the LED will start to flash when the OS has recognized the presence of the disk drive. After a few seconds, the status light stops flashing and glows solid while the disk drive is in function with SGOS.

Type **show disk all**. As shown in Figure 10, the appliance displays information about the new, hot-swapped disk drive.



```
bcsi - HyperTerminal
File Edit View Call Transfer Help

% Disk 4 is not installed
10.9.200.81 - Blue Coat SG810 Series#

10.9.200.81 - Blue Coat SG810 Series#enable
Enable Password:
10.9.200.81 - Blue Coat SG810 Series#disk offline 2
ok
10.9.200.81 - Blue Coat SG810 Series#show disk all
Disk in slot 1
Vendor: SEAGATE
Product: ST373207LC
Revision: 000
Disk serial number: 3KT0SXYB
Capacity: 73407868416 bytes
Status: present
Disk in slot 2
Vendor: SEAGATE
Product: ST373307LC
Revision: 000
Disk serial number: 3HZY6HDJ
Capacity: 73407868416 bytes
Status: offline
--More--

Connected 0:00:59 VT100 9600 8-N-1 SCROLL CAPS NUM Capture Print echo
```

Figure 10. Information displayed for the disk drive in Slot 2, including the vendor, product, and other information.

Verifying the Disk Drive Hot-swapping

You can verify disk drive hot-swapping by reviewing information in the Management Console or the CLI.

Using the Management Console to Verify Disk Drive Hot-swapping

The following procedure describes how to use the Management Console to verify disk drive hot-swapping.

1. Enter the appliance URL.
2. Select the Statistics tab.

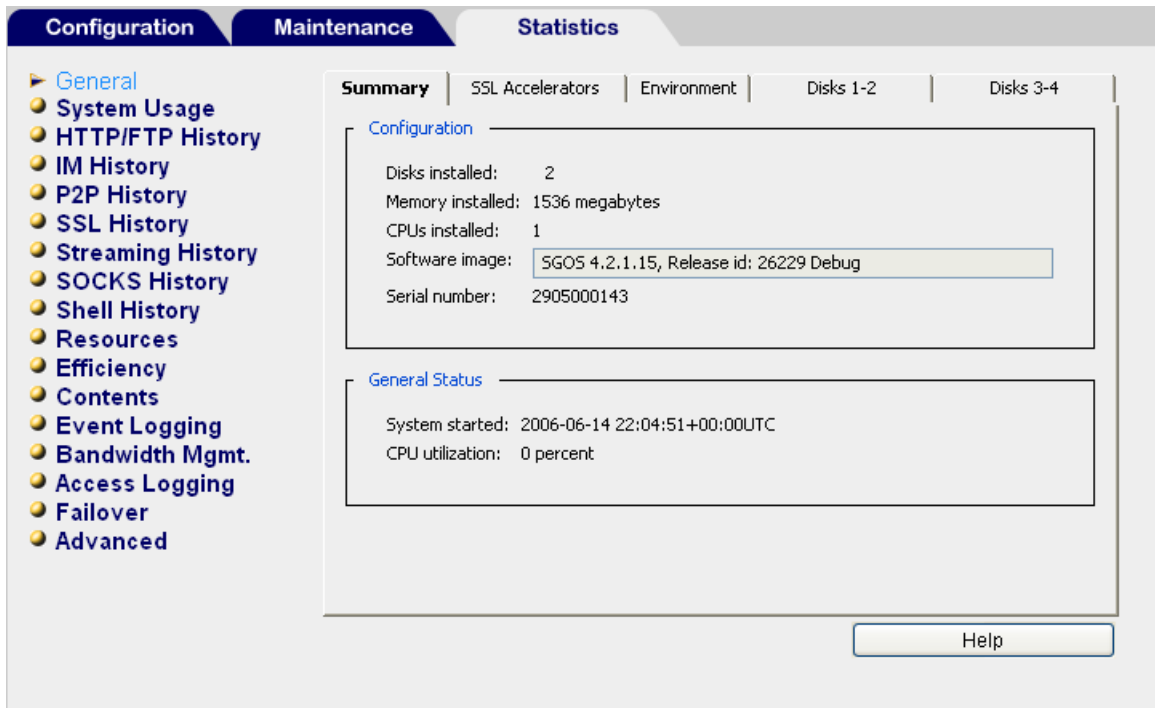


Figure 11. Disk details on the Statistics > General > Summary page.

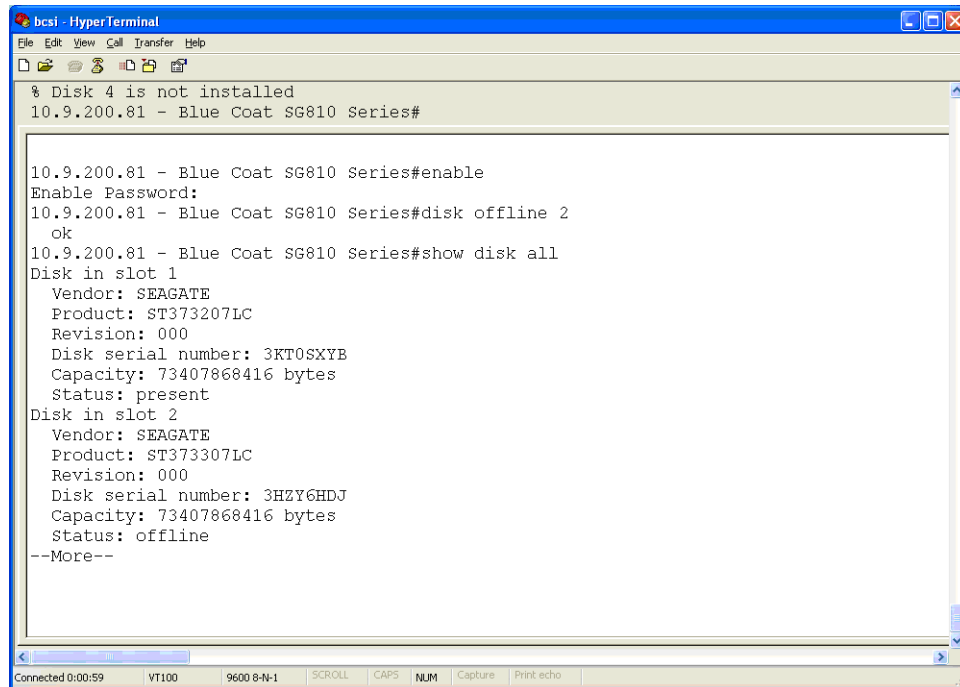
3. Select General > Summary.
4. The Summary tab lists the total number of installed disk drives. Verify that the number of installed disk drives matches the number physically installed in the appliance.

Using the CLI to Verify Disk Drive Hot-swapping

Complete the following procedure to verify that you correctly hot-swapped the disk drive.

Note: These steps are applicable only for an already configured appliance.

1. Go to the Serial Console Menu
2. Select 1) Command Line Interface.
3. Type **enable**.
4. Enter the enable password you created during the initial configuration of your appliance.
5. Type **show disk all**. As shown in Figure 12, the appliance displays the slots that have disk drives installed and the slots in which disk drives are not installed.
6. Compare the disk drives displayed by the CLI to the disk drives physically installed in the appliance to verify that the disk drive was hot-swapped correctly.



```
% Disk 4 is not installed
10.9.200.81 - Blue Coat SG810 Series#

10.9.200.81 - Blue Coat SG810 Series#enable
Enable Password:
10.9.200.81 - Blue Coat SG810 Series#disk offline 2
ok
10.9.200.81 - Blue Coat SG810 Series#show disk all
Disk in slot 1
  Vendor: SEAGATE
  Product: ST373207LC
  Revision: 000
  Disk serial number: 3KT0SXYB
  Capacity: 73407868416 bytes
  Status: present
Disk in slot 2
  Vendor: SEAGATE
  Product: ST373307LC
  Revision: 000
  Disk serial number: 3HZY6HDJ
  Capacity: 73407868416 bytes
  Status: offline
--More--
```

Figure 12. Sample CLI output displaying disk drive slot information.

Information Available from the Disk Drive LEDs

The following table describes the meaning of disk drive LED activity.

Boot Time	Disk Drive LED Activity
During the boot sequence.	All disk drive LEDs lights flash. Status LEDs flash until the appliance test is completed.
After the boot sequence.	The green Activity LED flashes with disk drive activity.
When the boot sequence is complete.	<p>The status LEDs for installed disk drives stay on.</p> <p>A fast flashing status LED indicates a disk drive failure.</p> <p>Status LEDs that are off can indicate one of the following conditions:</p> <ul style="list-style-type: none">• An empty disk drive bay• A disk drive that is not properly installed• A defective disk drive.• A disk drive that is offline <p>Status LEDs flash when the associated disk drive is taken offline or when a disk drive is being initialized.</p>

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