

Veritas Appliance

Hardware Service Procedure

NetBackup 5330 Appliance Compute Node Disk Drive Replacement

Document Number: 139

Version: 3.2 (6/14/16)

Affected Models

NetBackup 5330 Appliance

The NetBackup 5330 Appliance is a hardware and software storage system that scales to a total of 456TB of available backup capacity. It consists of a 2U NetBackup 5330 Appliance compute node and one attached 4U NetBackup Primary Storage Shelf. You can add up to two optional 4U Expansion Storage Shelves if you require additional storage.

The NetBackup 5330 Appliance compute node contains eight 3TB SAS disks, which can be accessed from the front panel. An embedded RAID controller on the compute node's mainboard is used to configure six of the eight disks into two RAID1 mirrored volumes, plus two hot-spare disks. These volumes are labeled Volume 0 and Volume 1. If a disk in either RAID volume experiences a hardware error, the appliance automatically initiates a RAID rebuild operation. During the rebuild operation, the appliance randomly selects a hot-spare disk, and then rebuilds the RAID volume.

The disks in slot 6 and slot 7 are reserved for future use, while the slots 8 through 11 are empty.

A small control panel is on the right side of the front panel. It contains system LEDs and operations buttons, including the power button.

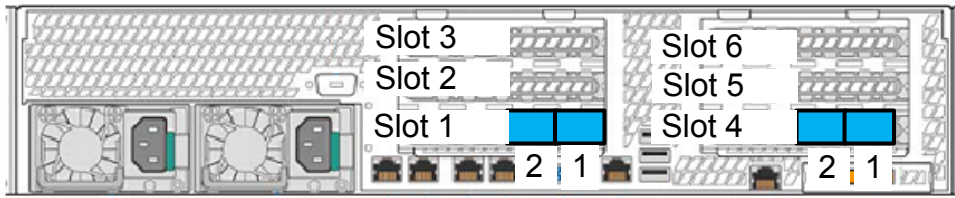
Figure 1 Front view of the NetBackup 5330 Appliance compute node



The rear panel contains six PCIe slots. The slots may hold 10 Gb Ethernet NICs or 8 Gb Fibre Channel HBAs. Power sockets are on the left side of the rear panel.

Figure 2

Rear view of the NetBackup 5330 Appliance compute node



Note: You may need to remove the top cover of the appliance to add or replace components inside of the appliance. The appliance must be shut down and turned off completely before you remove the cover. If the appliance is not shut down, contact the customer for shutdown or the Veritas Field Service Coordinators if the customer is not available.

Onsite Policies and Procedures

Electrical safety

The static discharged by human bodies can damage static-sensitive components on the boards. When installing and maintaining the equipment, observe appropriate electrostatic safety precautions to prevent personnel injuries or device damage.

When operating a device in an electrostatic sensitive area, you must take electrostatic-discharge (ESD)-preventive measures. These include wearing ESD-preventive gloves, an ESD-preventive wrist strap, and ESD-preventive clothes to avoid personnel injury or device damage.

To prevent damage to the device, pay attention to the following during operations:

- Do not touch devices with bare hands because ESD from the human body may damage the electrostatically sensitive elements on a board.
- When dealing with the server or any of the internal components, wear an ESD-preventive wrist strap, ESD-preventive gloves, and ESD-preventive suit.

Hardware part replacement procedure

Replacing a NetBackup 5330 Appliance compute node 3-TB hard disk drive

This section describes how to replace a 3-TB disk drive in the NetBackup 5330 Appliance compute node. The compute node disk drives are located in slots 0-7. The remaining slots contain blank carriers.



This repair can be accomplished with the appliance installed in the rack.

Caution: You must complete the hard disk drive swap within three minutes. Leaving the disk drive slot open for longer than three minutes can result in the appliance overheating and cause other components to fail.

Note: If the appliance has attached storage shelves, these do not need to be powered down while the appliance is being serviced.

Requirements

- NetBackup 5330 Appliance compute node replacement 3-TB hard disk drive
- ESD wrist strap

To locate and identify the appliance that has the faulty disk drive

- 1 Go to the unit with the failed component.
- 2 In the front panel, locate the drive to be replaced. The drive must be in Slot 0-7 and the drive status LED must be a solid amber color before you disconnect the drive. The drive status LED is the top LED of the two LEDs that are located on the disk drive face plate.



If the LED is blinking amber, the disk drive is in the process of rebuilding and must not be disturbed. If the drive status LED is off, the drive is working properly.

Warning: Disconnecting the drive incorrectly can cause data loss or data corruption. Therefore, if the drive status LED is not solid amber, contact the Veritas Field Service Coordinators.

To remove the disk drive

- 1 Put on an ESD-compliant wrist strap or take other ESD-protective measures.

Note: The static discharged by human bodies can damage static-sensitive components on the boards. When installing and maintaining the equipment, you must observe appropriate electrostatic safety precautions to prevent personnel injuries or device damage.

To review electrostatic safety precautions, see the topic titled Electrical safety found earlier in this document.

- 2 Remove the front bezel. Grip the bezel on the sides and pull it from the appliance.

- 3 Locate the drive that you want to replace. The drive must be in Slot 0-7, and the drive status LED should be solid amber. The drive slots are shown in the figure below.

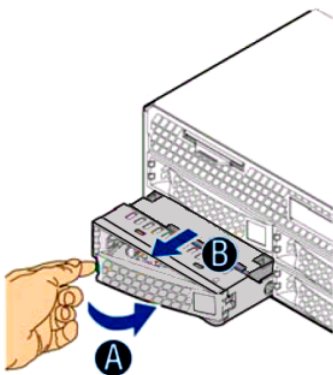
Warning: The drive status LED must be solid amber. Solid amber indicates that the disk drive has failed. If the drive status LED is not solid amber, contact Veritas Support before you proceed.



- 4 Press the green button on the left side of the drive to release the disk drive lever.



- 5 Pull the lever open completely but do not slide the drive out of the slot. Let the drive motor stop spinning. This takes about 30 seconds.
- 6 Slide the drive out of the slot.



Caution: You must complete the hard disk drive swap within three minutes. Leaving the disk drive slot open for longer than three minutes can result in the appliance overheating and cause other components to fail.

- 7 Place the drive in an ESD-protective bag.

To install the disk drive

- 1 Put on an ESD-compliant wrist strap or take other ESD-protective measures.
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Note: The static discharged by human bodies can damage static-sensitive components on the boards. When installing and maintaining the equipment, you must observe appropriate electrostatic safety precautions to prevent personnel injuries or device damage.

To review electrostatic safety precautions, see the topic titled Electrical safety found earlier in this document.

- 2 Remove the replacement disk drive from the ESD-protective wrapper.
- 3 Press the green button to release the lever.
- 4 Pull the lever open completely.
- 5 Slide the disk drive completely into the slot complete.
- 6 Close the lever. Make sure that the disk drive cover is flush with the front panel. The drive activity LED turns green when the connection is good.

After a short period, the drive status LED will start blinking amber to indicate that the rebuild is in progress.