

Veritas Appliance

Hardware Service Procedure

Replacing a disk drive carrier in a Veritas 5U84 Storage Shelf

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Version: 1.7 (01/31/2024)

Purpose

This document describes the process for replacing a 4-TB/8-TB/10-TB/18-TB/20-TB disk drive carrier in a Veritas 5U84 Storage Shelf.

Affected appliance models

- 3340 Appliance
- 3350 Appliance
- 3360 Appliance
- 5340/5340 HA Appliance
- 5350/5350 HA Appliance
- 5360/5360 HA Appliance

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.

High availability (HA) appliance service considerations

Attention: A HA or multi-node appliance is serviced in the same manner as a single node appliance.

About the disk drive carrier

This section describes how to remove and replace a hot-swappable storage disk drive together with its carrier in a Veritas 5U84 Storage Shelf.

The 5U84 Primary Storage Shelf and the 5U84 Expansion Storage Shelf each use a 5U chassis. Each chassis contains two sliding drawers that are accessible from the front of the storage shelves. Each drawer can hold 42 Disk Drive In Carrier (DDIC) modules. The DDIC modules are installed in each of the drive drawer slots, which can hold a total of 84 disk drives. The DDIC module holds one 3.5" SAS-3, 7200 rpm hard disk drive, in either 4-TB or 8-TB capacities (5340/5350/5360 Appliance), 4-TB or 10-TB capacities (3340 Appliance), 4-TB, 10-TB, or 18-TB capacities (3350 Appliance), or 4-TB, 10-TB, or 20-TB capacities (3360 Appliance).

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

Caution: Swap one drive at a time only. Removing more than one drive at one time can affect system functionality.

Caution: Verify that the capacity of the drive is the same as the capacity of the drive that is being replaced. Veritas does not support populating a 5U84 storage shelf with mixed capacity disk drives.

Requirements

Verify you have the following items:

- 4-TB/8-TB/10-TB/18-TB/20-TB hot-swappable disk drive with its carrier
- Screwdriver with a Torx T20 bit
- ESD wrist strap

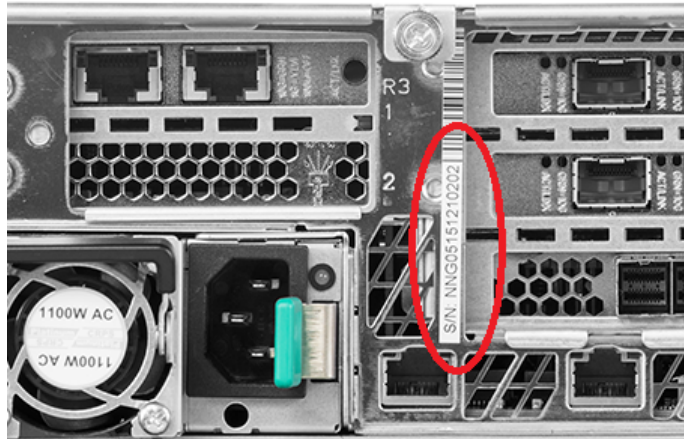
Locating the appliance with the faulty component

Use the following steps to locate the appliance with the faulty component.

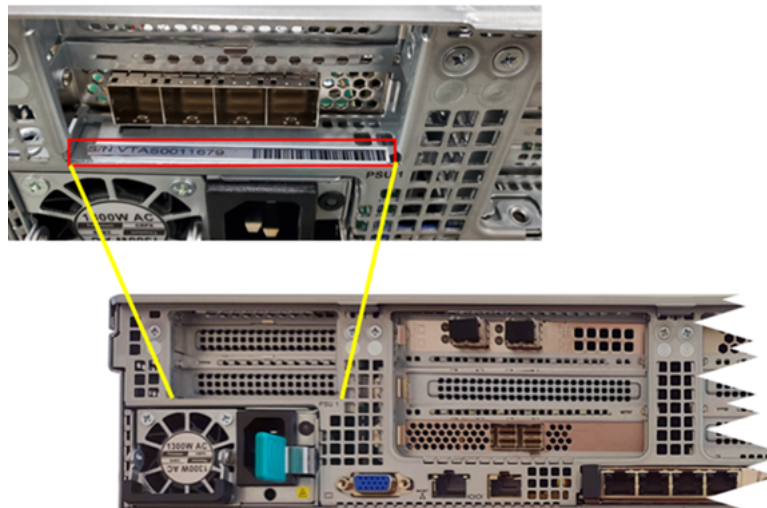
To locate the appliance with the faulty component

- 1 Contact the Veritas Field Service Coordinators to let them know that you have arrived at the customer site.
- 2 Have the customer take you to the unit with the faulty component.
- 3 Verify the appliance compute node serial number.

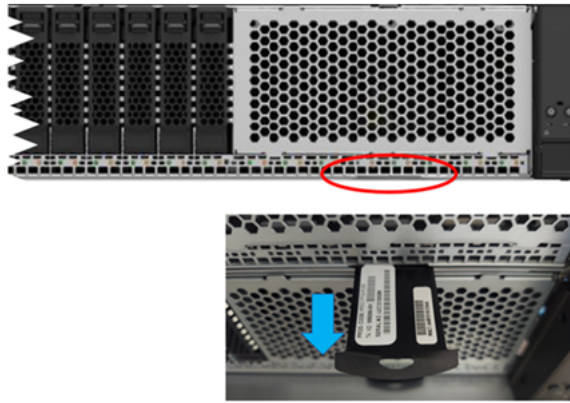
- For the 3340/3350/5340/5350 Appliances, the serial number is located on the rear panel of the appliance and begins with the letters VTAS.



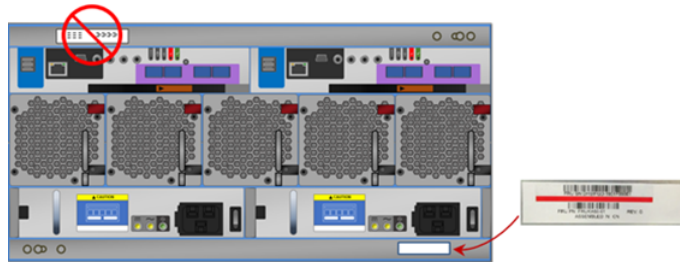
- For the 3360/5360 Appliance, the serial number is located on the rear panel of the appliance above PSU 1 and begins with letters VTAS.



The serial number can also be found on the pull-out tab on the front of the appliance.



If the work order provides the 5U84 Storage Shelf serial number, verify that the serial number on the work order matches the serial number on the storage shelf. The Veritas Serial Number label is located in the lower right-hand corner of the shelf's rear panel under the power supply. Do not use the label in the upper left-hand corner for the Veritas Serial Number.



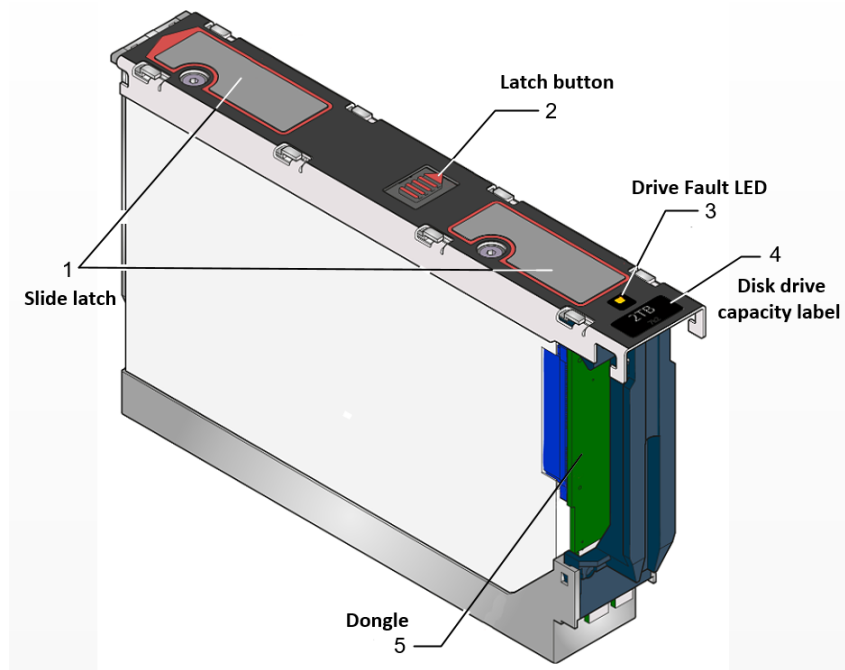
Removing the faulty disk drive carrier

Use the following procedure to remove the faulty disk drive carrier.

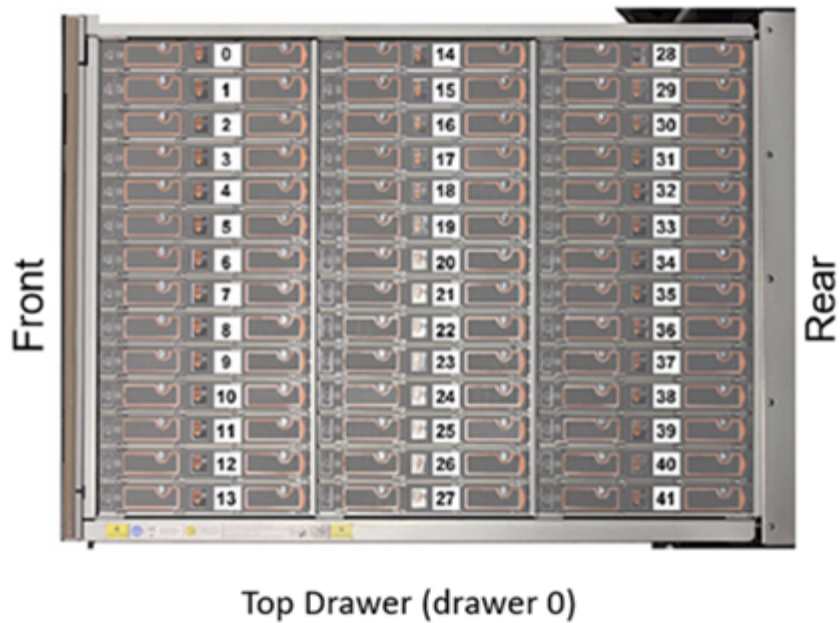
To remove the faulty disk drive carrier

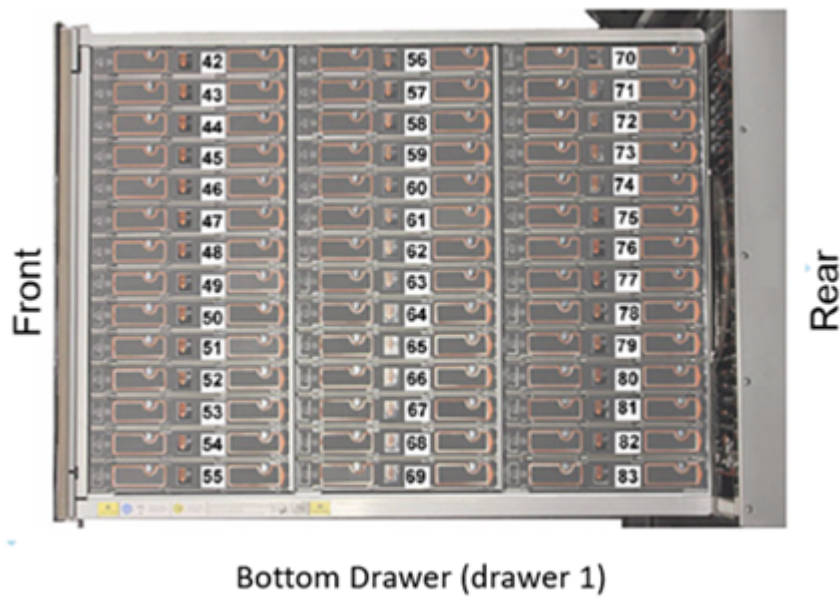
- 1 Identify which drawer contains the drive to be replaced.

If the drive has failed, the drive fault LED will be lit amber on the relevant drawer.



If the drive number is known, the drive location mapping can be used.



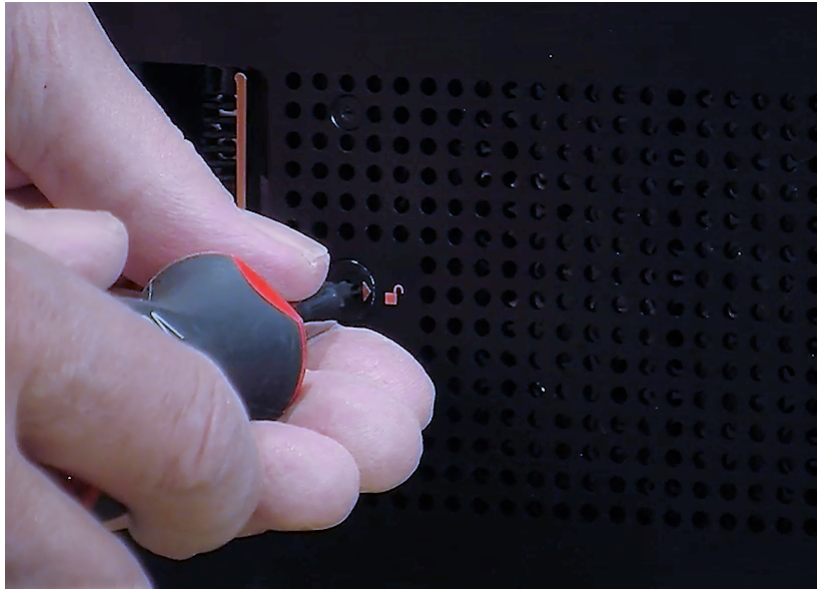


2 Unlock the drawer anti-tamper locks.

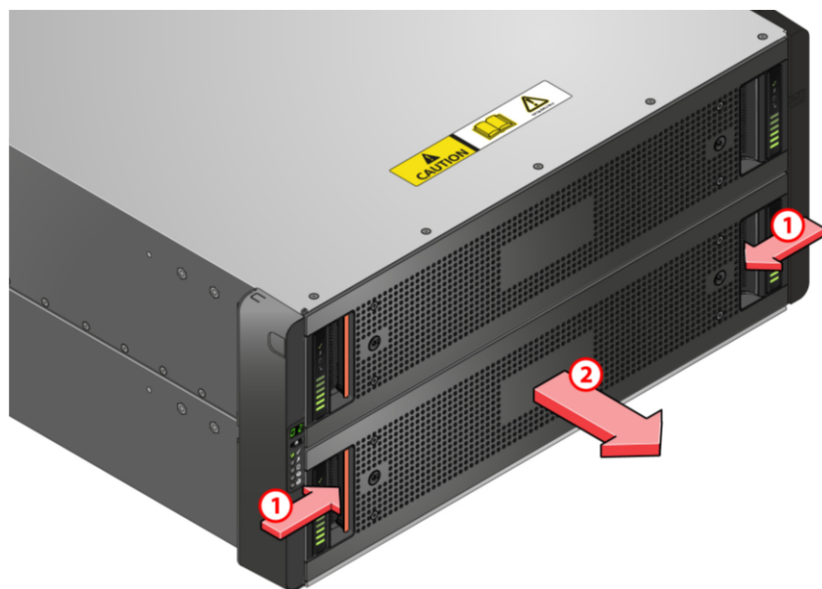
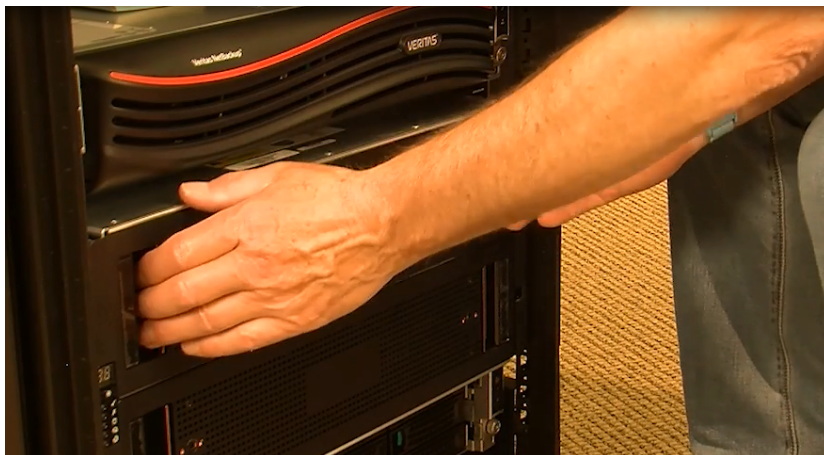
Make sure the drawer anti-tamper locks are not engaged. The red arrows on the locks point inwards if the locks are disengaged.



Unlock them if necessary by rotating them counterclockwise using a screwdriver with a Torx T20 bit.



- 3 Push the drawer latches inward and hold them.



- 4 Pull the drawer all the way out until it locks open.

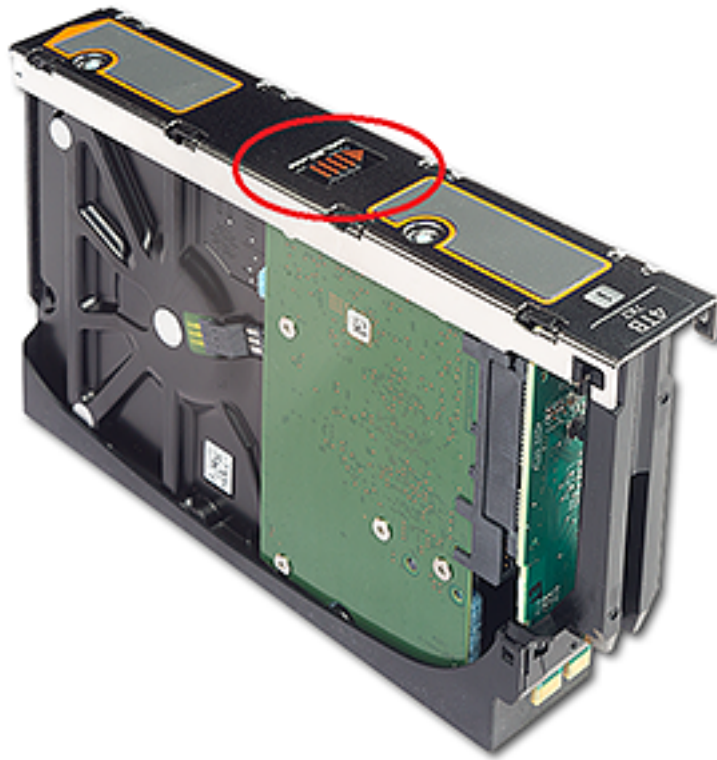


Caution: The drawer must not be left open for more than two minutes while the enclosure is powered.

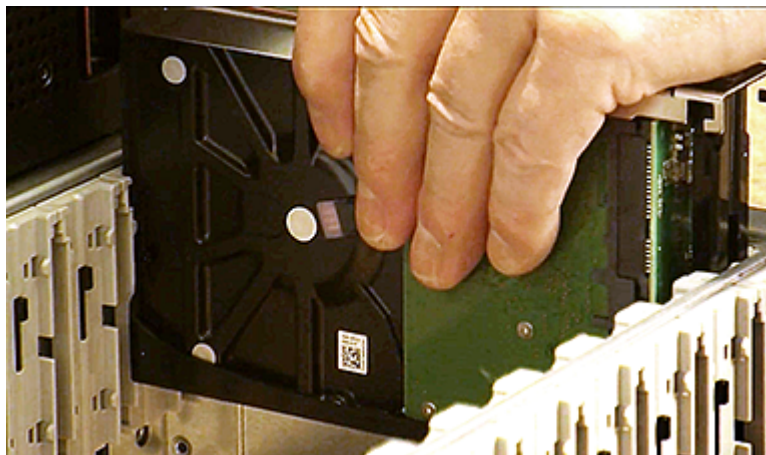
- 5 Before removing the faulty disk drive carrier, make sure that the following are fulfilled. Locate the drive to be replaced. The drive status LED must be a solid amber color before you disconnect the drive.

Caution: Incorrectly disconnecting the drive can cause data loss or data corruption. Therefore, if the drive status LED is not solid amber, contact the Veritas Field Service Coordinators before you proceed.

- 6 Slide the release button and the disk drive carrier pops up slightly from the slot.



- 7 Lift the drive out of the slot approximately 1 inch (25mm), and then wait 30 seconds, allowing the drive to spin down.



Caution: Damage can occur to a drive if it is removed while it is still spinning. Make sure that the drive has stopped prior to removal. Swap one drive at a time only. Removing more than one drive at one time can affect system functionality.

- 8 Remove the faulty disk drive carrier from the drive bay and place the faulty disk drive in an ESD-protective bag.

Installing the disk drive carrier

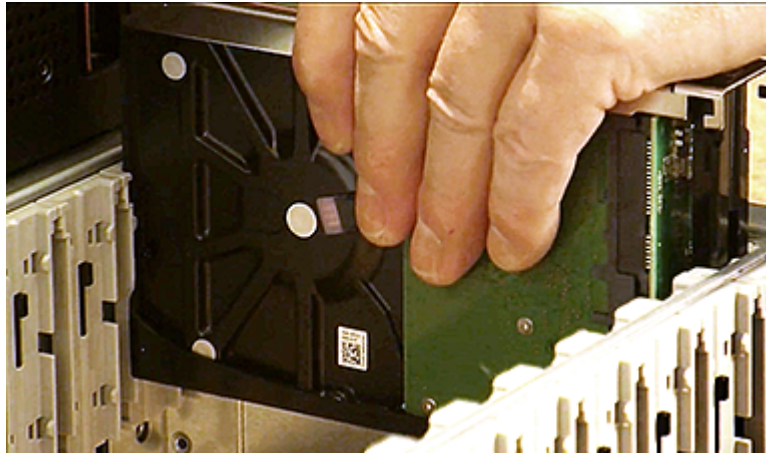
Use the following procedure to install the replacement disk drive carrier.

To install the replacement disk drive carrier

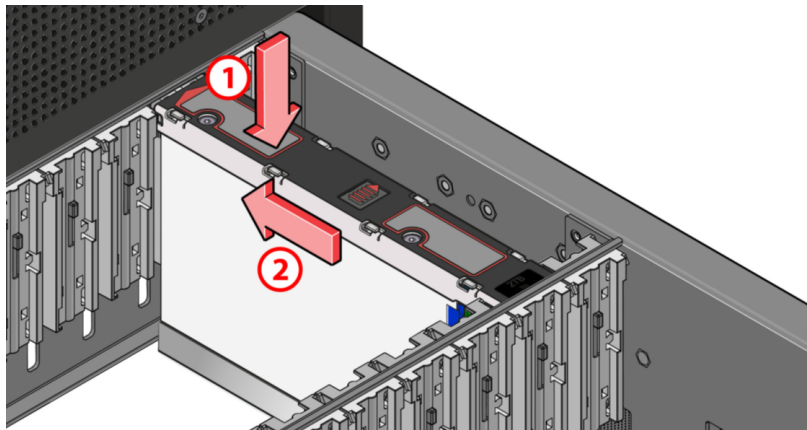
- 1 Remove the replacement disk drive carrier from its ESD-protective bag.

Caution: Verify that the capacity of the drive is the same as the capacity of the drive that is being replaced. Veritas does not support populating a 5U84 storage shelf with mixed capacity disk drives.

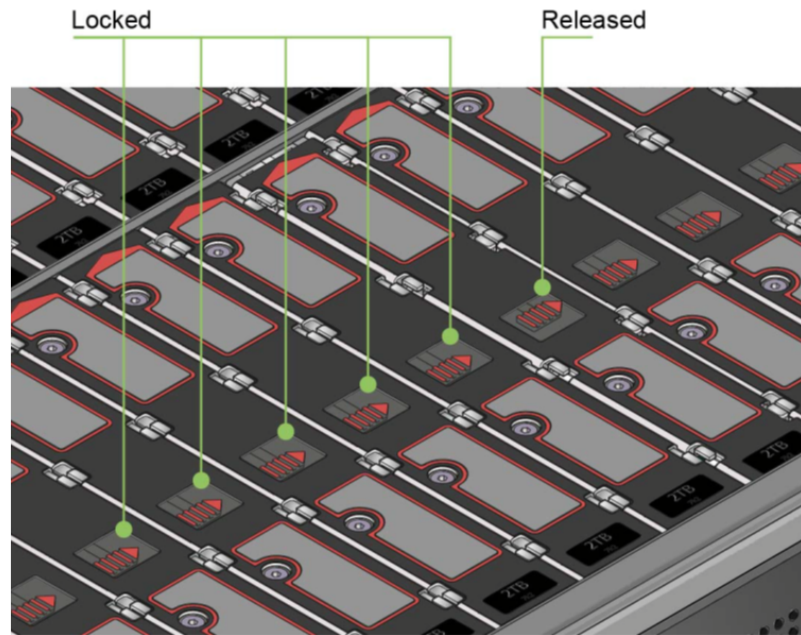
- 2 Lower the replacement new disk drive carrier into the slot, with the drive capacity label facing towards you.



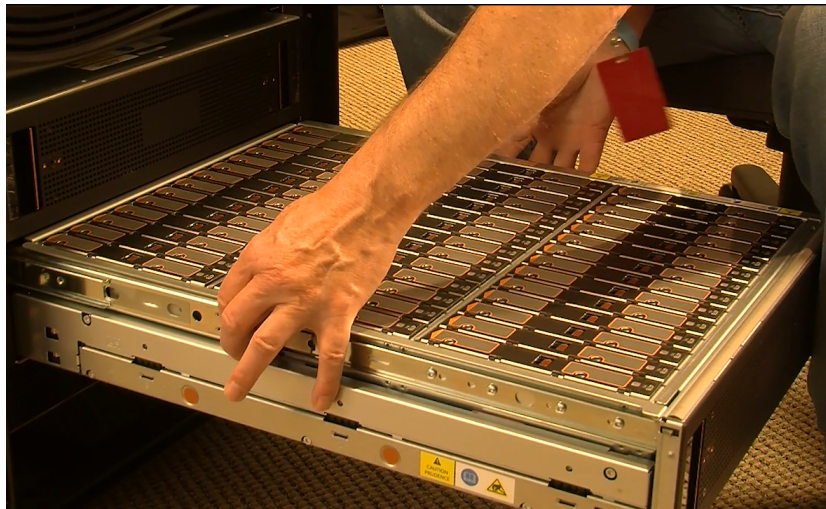
- 3 Push the drive downwards and hold it down while sliding the drive carrier plate. This locks the drive in place.



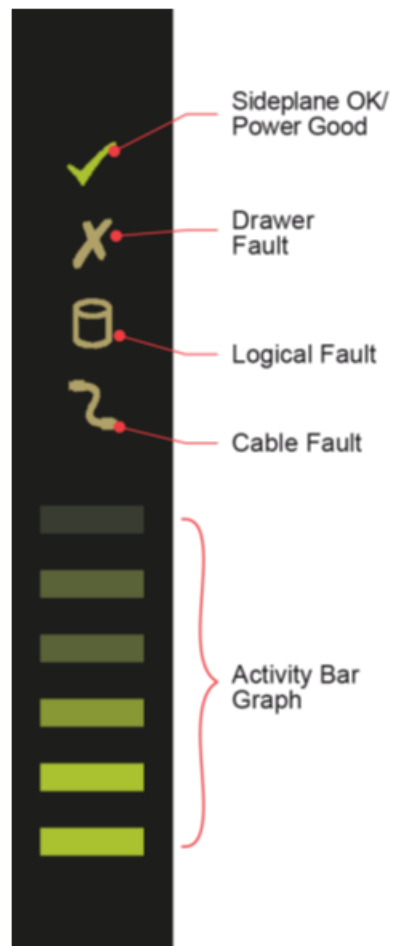
- 4 Check that the release latch has returned to its locked position.



- 5 Close the drawer by pressing and holding both latches located on the sides of the drawer.



- 6 Push the drawer all the way back into the enclosure, making sure it clicks home.
- 7 Lock the drawer by turning both anti-tamper locks clockwise using a screwdriver with the screwdriver with a Torx T20 bit.
- 8 Check the status of the drawer LEDs for any faults that may be present.



9 If faults appear, contact Veritas Technical Support.