

Veritas Appliance

Hardware Service Procedure

Replacing a RAID Controller in a Veritas 5U84 Primary Storage Shelf

Document Number: 217

Version: 1.0 (11/06/17)

Purpose

This document describes the process for replacing a RAID Controller in a Veritas 5U84 Primary Storage Shelf that is connected to a 5340 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 RAID Controller in a 5U84 Primary Storage Shelf

The Veritas 5U84 Primary Storage Shelf uses dual, hot swappable RAID Controllers. These controllers create and manage the 5U84 Primary Storage Shelf disk drive RAID arrays that contain backed up data. They also create and manage the RAID disk drive arrays on 5U84 Expansion Storage Shelves when those are attached to the 5U84 Primary Storage Shelf.

The 5U84 Primary Storage Shelf can continue to operate with only one functioning RAID Controller. But if both RAID Controllers are faulty the shelf must be powered off before you replace the controllers. Although you must have access to the rear panel of the 5U84 Primary Storage Shelf, it is not necessary to remove the shelf from the rack to replace the RAID Controller.

Note: Always ensure that one RAID Controller per 5U84 Primary Storage Shelf is functional before attempting to remove and replace any faulty RAID Controller within a 5U84 Primary Storage Shelf. Do not remove a faulty RAID Controller unless you can immediately install a replacement RAID Controller. The system must not operate for long period of time without all RAID Controllers in place to provide adequate cooling to the Storage Shelf internal components.

Requirements

Use the following to verify the requirements of the service.

- Hot-swappable RAID Controller
- Cable labels
- ESD wrist strap

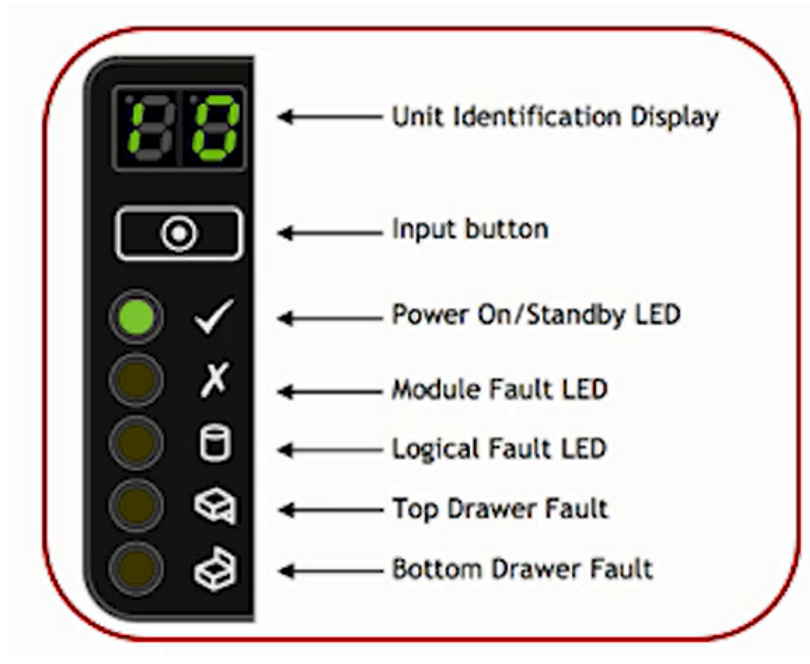
Removing the faulty RAID Controller

Use the following procedure to remove the faulty RAID Controller.

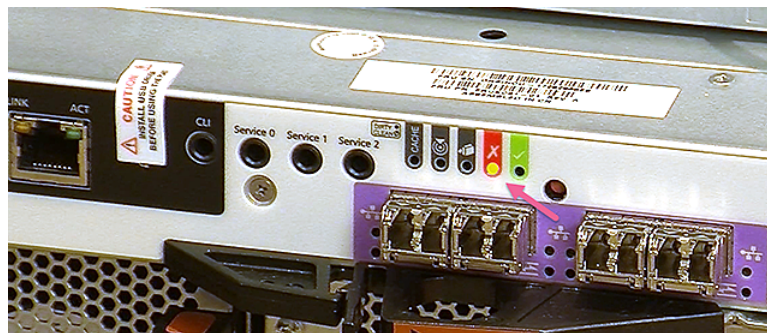
To remove the faulty RAID Controller

- 1 Check the Module Fault LED on the front of the Storage Shelf.

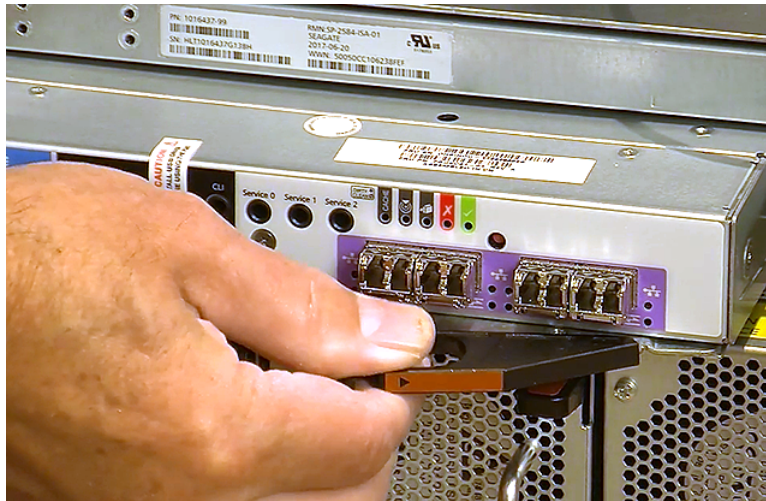
At the front of the Storage Shelf, an Operator Panel located on the left-hand storage shelf ear displays any fault information using a series of LEDs. The middle LED should be amber, indicating that a module fault exists.



- 2 Identify the RAID Controller to be removed. If the controller has failed, the fault LED will be lit amber.



- 3 Make a note of the locations of the cables before removing them from the RAID Controller. A RAID Controller uses fiber cables. It may also have a SAS3 cable attached to it if there is a 5U84 Expansion Storage Shelf as part of the 5340 Appliance system. Label and disconnect any cables connected to the controller. Label each cable to facilitate re-connection to the replacement RAID Controller.
- 4 Pinch the latch on the module and pull the handle towards you. This levers the module out of its connector on the midplane.



Note: Do not disturb other SAS3 cables if there are multiple storage shelves installed as part of the 5340 Appliance system.

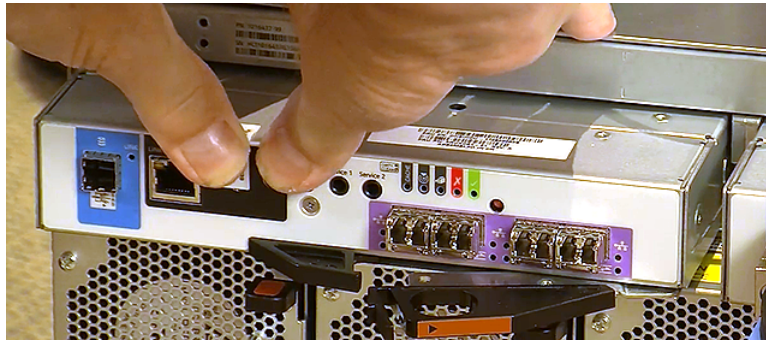
- 5 Swing the latch handle open, grip the latch handle and ease the RAID Controller forward from the slot.
- 6 Place both hands on the module body, and pull it straight out of the enclosure such that the RAID Controller remains level during removal.
- 7 Place the faulty RAID Controller in an ESD-preventative bag.

Installing the replacement RAID Controller

Use the following procedure to install the replacement RAID Controller.

To install the replacement RAID Controller

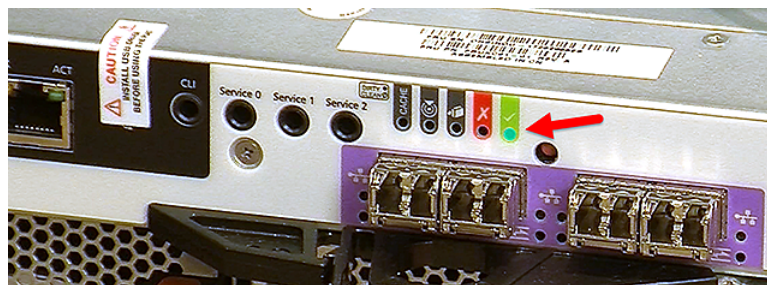
- 1 Slide the replacement RAID Controller into the chassis.
To insert a replacement RAID Controller, rotate the replacement RAID Controller so that the release latch is at the bottom. Open the release latch and rotate it to its most open position. Slide the replacement RAID Controller into its slot until it will go no further and the handle has started to close.
- 2 Close the latch until it clicks home.



- 3 Connect the cables to the replacement RAID Controller.

Note: Refer to the labels and any notes you made before you removed the cables from the defective RAID Controller.

- 4 Verify that the LED illuminates green.



- 5 If the LED is not green, call Veritas Technical Support.