

Veritas Appliance

Hardware Service Procedure

Replacing an Expansion I/O module in a Veritas 5U84 Storage Shelf

Document Number: 216

Version: 1.5 (07/10/2023)

Purpose

This document describes the process for replacing an Expansion I/O Module in a Veritas 5U84 Storage Shelf.

Affected appliance models

- 3340 Appliance
- 3350 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 Expansion I/O module

The 5U84 Expansion Storage Shelf Expansion I/O modules provide SAS3 data throughput and communications between one or more 5U84 Expansion Storage Shelves. The rear panel of each 5U84 Expansion Storage Shelf contains two Expansion I/O modules. These modules are located at the top of the storage shelf, directly above the power cooling modules.

The storage shelf can operate with one functioning Expansion I/O module. If both Expansion I/O modules are faulty, the storage shelf must be powered off to correct the condition. Although you must have access to the rear panel of the storage shelf, it is not necessary to remove the shelf from the rack to replace the module.

Note: Always ensure that one Expansion I/O module per storage shelf is functional before attempting to remove and replace any faulty Expansion I/O module within a storage shelf. Do not remove a faulty Expansion I/O module unless a replacement module can immediately be installed. The system must not operate for any long period of time without all modules in place to provide adequate cooling to the storage shelf internal components.

Requirements

Verify you have the following items:

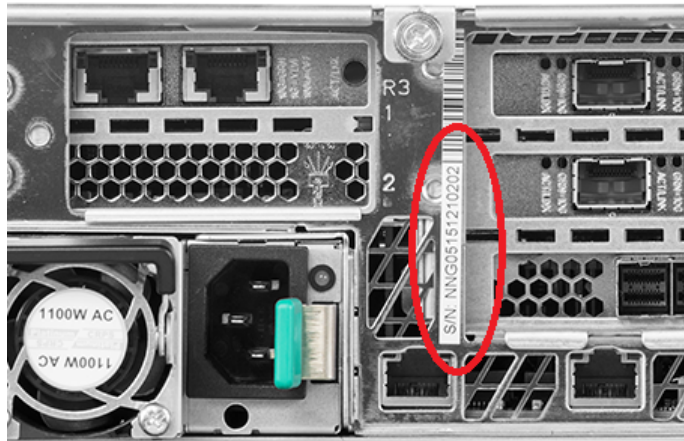
- Replacement Expansion I/O module
- Cable labels

Locating the appliance with the faulty component

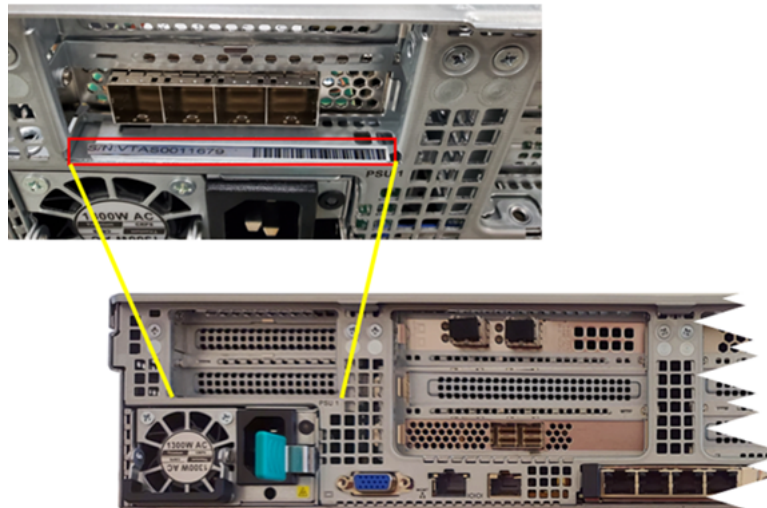
Use the following steps to locate the appliance with the faulty component.

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.

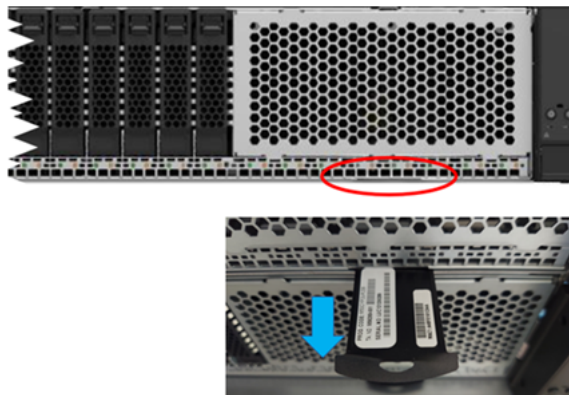


- For the 5360 Appliance, the serial number is located on the rear panel of the appliance above PSU 1 and begins with letters VTAS.

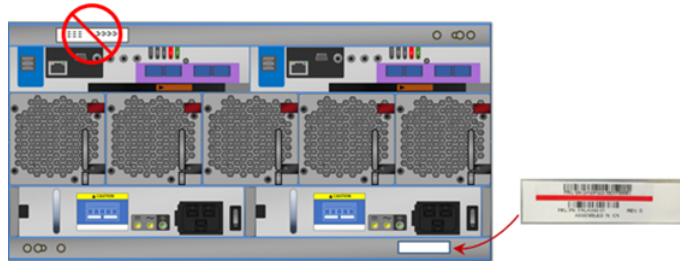


The serial number can also be found on the pull-out tab on the front of the appliance.

5360 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 Expansion I/O module

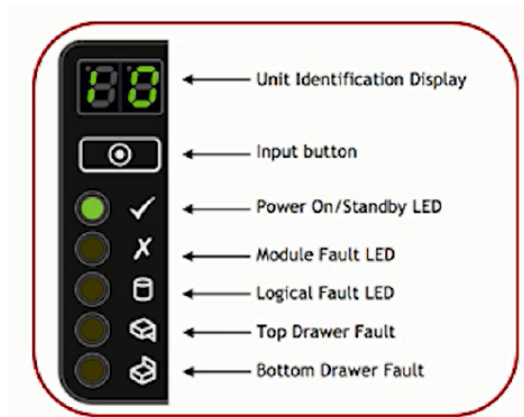
Use the following steps to remove the faulty Expansion I/O module.

To remove the faulty Expansion I/O module

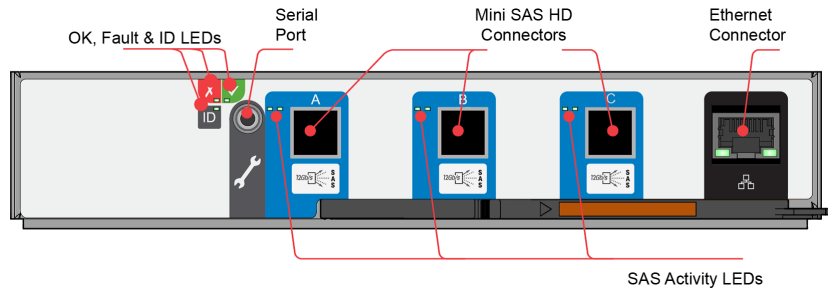
- 1 Check the Module Fault LED on the front of the storage shelf.

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.

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- 2 Identify the Expansion I/O module to be removed. If the module has failed, the fault LED appears as an amber color.



- 3 An Expansion I/O module has SAS cables attached to it. Label and disconnect any cables connected to the Expansion I/O module.

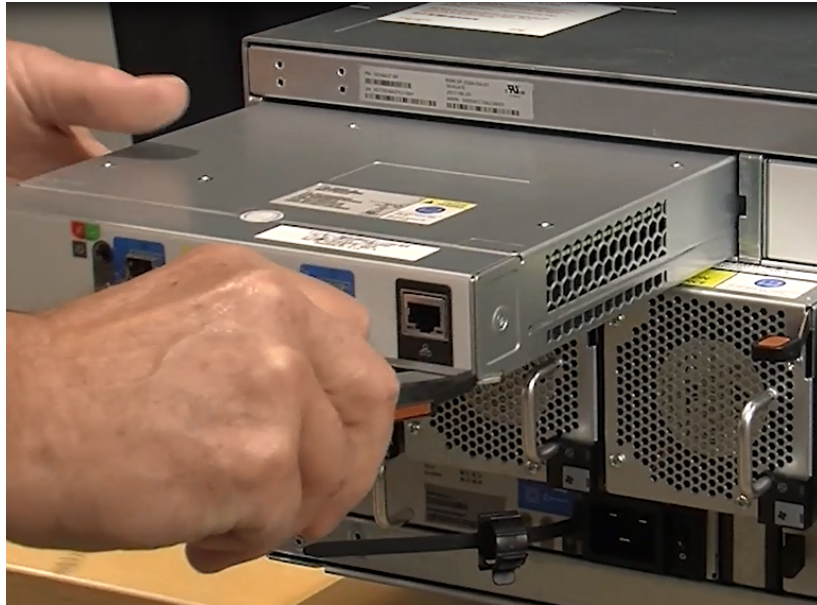
Note: Make sure that label each cable to facilitate re-connection to the replacement Expansion I/O module.

- 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 SAS cables if there are multiple storage shelves installed.

- 5 Swing the latch handle open, grip the latch handle and ease the Expansion I/O module forward from the slot.
- 6 Place both hands on the module body, and pull it straight out of the enclosure such that Expansion I/O module remains level during removal.



- 7 Place the faulty Expansion I/O module in an ESD-protective bag.

Installing the replacement Expansion I/O module

Use the following steps to install the replacement Expansion I/O module

To install the replacement Expansion I/O module

- 1 Slide the replacement Expansion I/O module into the chassis.
Rotate the replacement Expansion I/O module so that the release latch is at the bottom. Open the release latch and rotate it to its most open position. Slide the Expansion I/O module into its slot until it will go no further and the handle has started to close.
- 2 Close the latch until it clicks home.

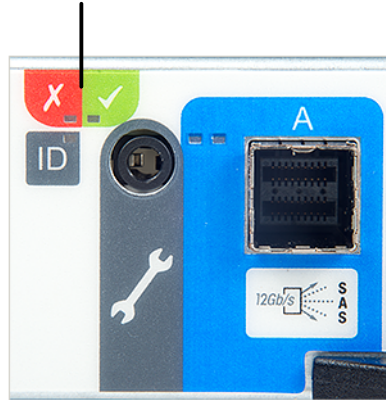


- 3 Connect the cables to the new module.

Refer to the labels and any notes you made before you removed the cables from the defective Expansion I/O module.

- 4 Verify that the LED (green) on the rear panel of the Expansion I/O module is on.

I/O module Status LED location



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