Installing a Blade Server

This chapter contains the following sections:

Installing a Blade Server

For installations of UCS blades with differing widths and heights in a chassis, the guideline is to load the heaviest and largest blades at the bottom of the chassis. Therefore, if a UCS B460 blade server is present, it should be installed at the bottom, followed by full-width blades such as the UCS B420 or UCS B480 above the UCS B460, and then half-width blades such as the UCS B200 at the top of the chassis.

Before you begin

The blade server must have its cover installed before installing it into the chassis to ensure adequate airflow.

Procedure

Step 1 If necessary, remove the slot divider from the chassis.

    a) Simultaneously pull up on the left side catch and push down on the right side catch as shown in callout 1 of the following figure.

    b) Pull the slot divider out of the chassis as shown in callout 2 of the following figure. Keep the slot divider in case it is needed at another time.

Figure 1: Removing a Slot Divider
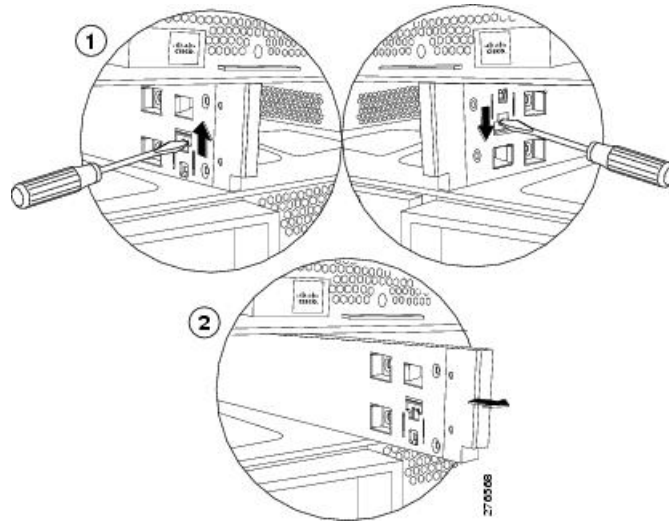
Tip   To reinstall the slot divider, align it with the dimples in the slot top and bottom and slide it back in until it clicks into place.

Step 2   Grasp the front of the blade server and place your other hand under the blade to support it.

Figure 2: Positioning a Blade Server in the Chassis
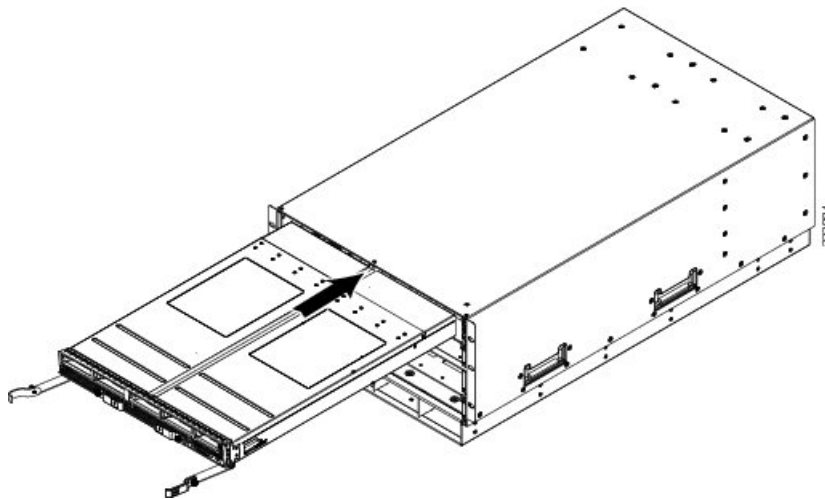
Step 3   Open the ejector levers in the front of the blade server.

Step 4   Gently slide the blade into the opening until you cannot push it any farther.

Step 5   Press the ejectors so that they catch the edge of the chassis and press the blade server all the way in.

Step 6   Tighten the captive screw on the front of the blade to no more than 3 in-lbs. Tightening only with bare fingers is unlikely to lead to stripped or damaged captive screws.

Cisco UCS Manager automatically reacknowledges, reassociates, and recommissions the server, provided any hardware changes are allowed by the service profile.

Server Configuration

Cisco UCS blade servers can be configured and managed using the following UCS management software interfaces.

Cisco Intersight Managed Mode

Cisco UCS blade servers can be configured and managed using the Cisco Intersight management platform in Intersight Managed Mode (Cisco Intersight Managed Mode). For details, see the *Cisco Intersight Managed Mode Configuration Guide*, which is available at the following URL: https://www.cisco.com/c/en/us/td/docs/unified_computing/Intersight/b_Intersight_Managed_Mode_Configuration_Guide.html

Cisco UCS Manager

Cisco UCS blade servers can be configured and managed using Cisco UCS Manager. For details, see the *Configuration Guide* for the version of Cisco UCS Manager that you are using. The configuration guides are available at the following URL: http://www.cisco.com/en/US/products/ps10281/products_installation_and_configuration_guides_list.html

Powering Off the Blade Server

Use Cisco UCS Manager to shut down the server. For detailed steps on how to perform this operation, see the *Configuration Guide* for the version of Cisco UCS Manager that you are using. The configuration guides are available at the following URL: http://www.cisco.com/en/US/products/ps10281/products_installation_and_configuration_guides_list.html

Removing a Blade Server

You must decommission the server using Cisco UCS Manager before physically removing the blade server.

Procedure

Step 1 Turn off the blade server using either Cisco UCS Manager.

Step 2 Completely loosen the captive screws on the front of the blade.

Step 3 Remove the blade from the chassis by pulling the ejector levers on the blade until it unseats the blade server.

Step 4 Slide the blade part of the way out of the chassis, and place your other hand under the blade to support its weight.

Step 5 Once removed, place the blade on an antistatic mat or antistatic foam if you are not immediately reinstalling it.

Step 6   If the blade server slot is to remain empty, reinstall the slot divider and install two blade server blanking panels to maintain proper thermal temperatures and to keep dust out of the chassis.

Server Troubleshooting

For general troubleshooting information, see the Cisco UCS Manager Troubleshooting Reference Guide.

Basic Troubleshooting: Reseating a SAS/SATA Drive

Sometimes it is possible for a false positive UBAD error to occur on SAS/SATA HDDs installed in the server.

- Only drives that are managed by the UCS MegaRAID controller are affected.

- Drives can be affected regardless where they are installed in the server (front-loaded, rear-loaded, and so on).

- Both SFF and LFF form factor drives can be affected.

- Drives installed in all Cisco UCS C-Series servers with M3 processors and later can be affected.

- Drives can be affected regardless of whether they are configured for hotplug or not.

- The UBAD error is not always terminal, so the drive is not always defective or in need of repair or replacement. However, it is also possible that the error is terminal, and the drive will need replacement.

Before submitting the drive to the RMA process, it is a best practice to reseat the drive. If the false UBAD error exists, reseating the drive can clear it. If successful, reseating the drive reduces inconvenience, cost, and service interruption, and optimizes your server uptime.

Note   Reseat the drive only if a UBAD error occurs. Other errors are transient, and you should not attempt diagnostics and troubleshooting without the assistance of Cisco personnel. Contact Cisco TAC for assistance with other drive errors.

To reseat the drive, see Reseating a SAS/SATA Drive, on page 4.

Reseating a SAS/SATA Drive

Sometimes, SAS/SATA drives can throw a false UBAD error, and reseating the drive can clear the error.

Use the following procedure to reseat the drive.

Caution   This procedure might require powering down the server. Powering down the server will cause a service interruption.

Before you begin

Before attempting this procedure, be aware of the following:

- Before reseating the drive, it is a best practice to back up any data on it.
- When reseating the drive, make sure to reuse the same drive bay.
    - Do not move the drive to a different slot.
    - Do not move the drive to a different server.
    - If you do not reuse the same slot, the Cisco management software (for example, Cisco IMM) might require a rescan/rediscovery of the server.
- When reseating the drive, allow 20 seconds between removal and reinsertion.

Procedure

Step 1	Attempt a hot reseat of the affected drive(s). Choose the appropriate option:
	a) For a front-loading drive, see Drive Replacement.
Step 2	During boot up, watch the drive's LEDs to verify correct operation.
	See LEDs.
Step 3	If the error persists, cold reseat the drive, which requires a server power down. Choose the appropriate option:
	a) Use your server management software to gracefully power down the server.
	See the appropriate Cisco management software documentation.
	b) If server power down through software is not available, you can power down the server by pressing the power button.
	See LEDs.
	c) Reseat the drive as documented in Step 1.
	d) When the drive is correctly reseated, restart the server, and check the drive LEDs for correct operation as documented in Step 2.
Step 4	If hot and cold reseating the drive (if necessary) does not clear the UBAD error, choose the appropriate option:
	a) Contact Cisco Systems for assistance with troubleshooting.
	b) Begin an RMA of the errored drive.