Cisco UCS E-Series M6 Servers Hardware Installation Guide

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Introduction

This document provides installation information for the Cisco UCS E-Series M6 Servers. It includes the following sections:

New and Changed Information

Table 1: New and Changed Information for Software Release 1.0

Feature	Description	Changed in Software Release	Updated Sections
UCS E-Series M6 Servers	New server - E1100D-M6 - introduced	1.0	New Hardware Installation Guide document

Overview

The Cisco UCS E-Series M6 Server is a power-efficient blade server that is housed within the Cisco Catalyst 8300 Series Edge platforms. This server provides a general-purpose compute platform for branch-office applications deployed either as bare-metal on operating systems, such as Linux, or as virtual machines on hypervisors, such as VMware vSphere Hypervisor.

The Cisco UCS E-Series M6 Server is purpose-built with powerful Intel Icelake-D processors for general-purpose compute. It comes in the double-wide form factor, and fits into two SM slots.

Hardware Requirements

Cisco UCS E-Series M6—Double-wide E-Series M6 Servers specifications:

- 10-cores CPU
- 3.0-GHz clock speed

The Cisco UCS E-Series M6 Servers can be installed in the following platforms:

- Cisco C8300-2N2S-6T
- Cisco C8300-2N2S-4T2X

Hardware Information for the Cisco UCS E-Series M6 Servers

Table 2: Cisco UCS E-Series M6 Server Hardware at a Glance

Feature	UCS E-Series M6 Server
Form Factor	Double-wide Service Module
CPU	Intel Icelake-D Processor
CPU Cores and CPU Clock Speed	10-Cores with 3.0-GHz Clock
Memory DIMM Slots	4 Slots
RAM	16 to 128 GB Supports DDR4 2667-MHz DI and 32 GB
RAID	RAID 0, RAID 1 and RAID 5
Storage Type[1]	SATA SSD, NVMe Drive, and Connector
Storage Capacity[2]	480 GB to 16 TB
Internal Network Interface	2 10-Gigabit Ethernet Interface
External Interfaces	1 USB 3.0 Type C Connector 1 RJ-45 Gigabit Ethernet Conn 2 SFP+ 10 Gigabit Ethernet Co 1 RJ-45 Management Ethernet 1 KVM Connector (1 VGA po connector, 1 Serial DB9 port)
Router Platforms	C8300-2N2S-4T2X C8300-2N2S-6T
Maximum Number of UCS E-Series M6 Servers per Router[3]	C8300-2N2S-4T2X - 1 E-Serie C8300-2N2S-6T - 1 E-Series M

1 All hardware drives within the Cisco UCS E-Series M6 Server must be installed with the same type of storage device: either all SSD drives or all SATA drives.

2 The size of the SSD drives is expressed in decimal form. For instance, GB=1 billion bytes, not 2^30 bytes. TB=1 trillion bytes, not 2^40 bytes.

3 UCS E-Series M6 Server is supported in forward-flow configuration only. It is not supported in the reverse-flow configuration with the reverse-flow fan tray kit.

Supported Transceivers

Table 3: SFP Transceivers Supported on the Cisco UCS E-Series M6 Server

SFP	Description
SFP-10G-SR	10GBase-SR SFP+Module for MMF
SFP-10G-LR	10GBase-LR SFP+Module for SMF
SFP-10G-SR-S	10GBASE-SR SFP + Module for MMF S-Class
SFP-10G-LR-S	10GBASE-LR SFP + Module for SMF S-Class
GLC-SX-MMD	1000BASE-SX short-wavelength, with DOM
GLC-LH-SMD	1000BASE-LX/LH long-wavelength, with DOM
SFP-H10GB-ACU7M	10GBASE-CU SFP+ cable 7 meter, active
SFP-H10GB-ACU10M	10GBASE-CU SFP+ cable 10 meter, active

Recommended Safety Practices

This section describes recommended practices for safe and effective installation of the hardware, and includes the following topics:

Safety Recommendations

To prevent hazardous conditions, follow these safety recommendations while working with this equipment:

- Keep tools away from walk areas where you or others could fall over them.
- Do not wear loose clothing around the router. Fasten your tie or scarf and roll up your sleeves to prevent clothing from being caught in the chassis.
- Wear safety glasses when working under any conditions that might be hazardous to your eyes.
- Locate the emergency power-off switch in the room before you start working. If an electrical accident occurs, shut the power off.
- Before working on the router, turn off the power and unplug the power cord.
- Disconnect all power sources before doing the following:
  - Installing or removing a router chassis
  - Working near power supplies
- Do not work alone if potentially hazardous conditions exist.
- Always check that power is disconnected from a circuit.
- Remove possible hazards from your work area, such as damp floors, ungrounded power extension cables, or missing safety grounds.
- If an electrical accident occurs, proceed as follows:

- Use caution; do not become a victim yourself.
- Turn off power to the room using the emergency power-off switch.
- If possible, send another person to get medical aid. Otherwise, determine the condition of the victim and then call for help.
- Determine if the person needs rescue breathing or external cardiac compressions; then take appropriate action.

Preventing Electrostatic Discharge Damage

Electrostatic discharge can damage equipment and impair electrical circuitry. Electrostatic discharge occurs when electronic printed circuit cards, such as those used in Cisco service modules and network modules, are improperly handled and can result in complete or intermittent equipment failure. Always observe the following electrostatic discharge damage (ESD) prevention procedures when installing, removing, and replacing the Cisco UCS E-Series M6 Servers:

- Make sure that the router chassis is electrically connected to earth ground.
- Wear an ESD-preventive wrist strap, and make sure that it makes good contact with your skin.
- Connect the wrist strap clip to an unpainted portion of the chassis frame to channel unwanted ESD voltages to ground.
- If no wrist strap is available, ground yourself by touching the metal part of the router chassis.



Caution The wrist strap and clip must be used correctly to ensure proper ESD protection. Periodically confirm that the resistance value of the ESD-preventive wrist strap is between 1 and 10 megohms (Mohm).

Maintenance Guidelines

The following maintenance guidelines apply to Cisco UCS E-Series M6 Servers:

- Keep the router chassis area clear and dust-free during and after installation.
- If you remove the chassis cover for any reason, store it in a safe place.
- Do not perform any action that creates a hazard to people or makes equipment unsafe.
- Keep walk areas clear to prevent falls or damage to equipment.
- Follow installation and maintenance procedures as documented by Cisco Systems, Inc.

Safety Warnings

The following safety warning statements apply to all hardware procedures involving the Cisco UCS E-Series M6 Servers. Translations of these warnings are available in the Cisco Network Modules and Interface Cards Regulatory Compliance and Safety Information document at:

http://www.cisco.com/en/US/docs/routers/access/interfaces/rcsi/IOHrcsi.html

Warning **Statement 1071—**Warning Definition

IMPORTANT SAFETY INSTRUCTIONS

Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Read the installation instructions before using, installing, or connecting the system to the power source. Use the statement number at the beginning of each warning statement to locate its translation in the translated safety warnings for this device.

SAVE THESE INSTRUCTIONS



Warning **Statement 1074—**Comply with Local and National Electrical Codes

To reduce risk of electric shock or fire, installation of the equipment must comply with local and national electrical codes.

Warning **Statement 1024—**Ground Conductor

This equipment must be grounded. To reduce the risk of electric shock, never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.

Warning **Statement 1029—**Blank Faceplates and Cover Panels

Blank faceplates and cover panels serve three important functions: they reduce the risk of electric shock and fire, they contain electromagnetic interference (EMI) that might disrupt other equipment, and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place.

Warning **Statement 1046—**Installing or Replacing the Unit

To reduce risk of electric shock, when installing or replacing the unit, the ground connection must always be made first and disconnected last.

If your unit has modules, secure them with the provided screws.

Warning **Statement 1008—**Class 1 Laser Product

This product is a Class 1 laser product.

Warning **Statement 1056—**Unterminated Fiber Cable

Invisible laser radiation may be emitted from the end of the unterminated fiber cable or connector. Do not view directly with optical instruments. Viewing the laser output with certain optical instruments, for example, eye loupes, magnifiers, and microscopes, within a distance of 100 mm, may pose an eye hazard.

Warning **Statement 9001—**Product Disposal

Ultimate disposal of this product should be handled according to all national laws and regulations.

Types of Cisco UCS E-Series M6 Servers

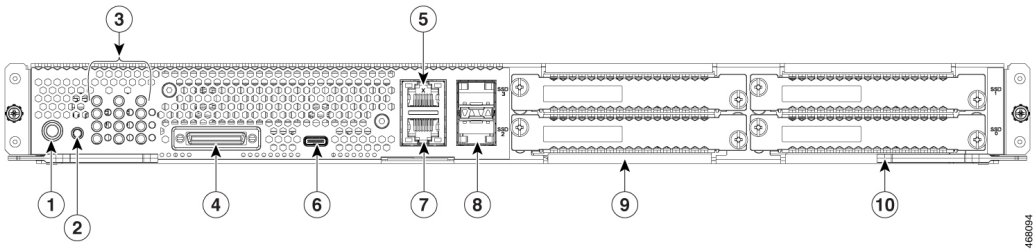
Cisco UCS E-Series M6 Servers are available in the following form factors:

- Double-wide E-Series M6 Servers: UCS-E1100D-M6

Cisco UCS E-Series M6 Servers

Back Panel and Internal Components

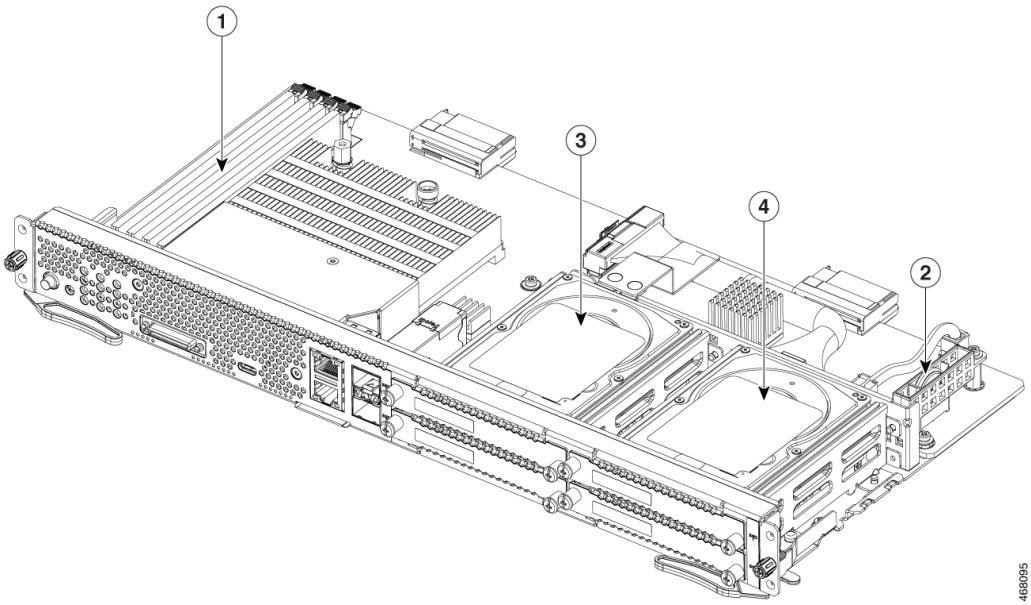
Figure 1: Back Panel of the Cisco UCS E-Series M6 Server



1	Power Button	2	Reset Switch
3	LEDs	4	KVM/ Console Port
5	Management Port	6	USB C-Type Port 0
7	Gigabit Ethernet Port 2	8	SFP+ Ports 3 and 4

9	SSD2 and SSD3	10	SSD0 and SSD1

Figure 2: Internal Components of the Cisco UCS E-Series M6 Server



1	Memory DIMM slots	2	CMOS battery (resides inside the battery protector)
3	SSD2 and SSD3	4	SSD0 and SSD1

UCS E-Series M6 Server LEDs

The following table lists the LEDs on the Cisco UCS E-Series M6 Server, and describes the LED colors and states.

Table 4: Cisco UCS E-Series M6 Server LEDs

LED	Color	State
ACT0	Green	Status of the hard drive activity: • Steady—Hard drive is present. • Blinking—Active. • Off—Inactive or there is no power supplied to the CPU.
FLT0	Amber	Fault is detected on the hard drive.
ACT1	Green	Status of the hard drive activity: • Steady—Hard drive is present. • Blinking—Active. • Off—Inactive or there is no power supplied to the CPU.

LED	Color	State
FLT1	Amber	Fault is detected on the hard drive.
ACT2	Green	Status of the hard drive activity: • Steady—Hard drive is present. • Blinking—Active. • Off—Inactive or there is no power supplied to the CPU.
FLT2	Amber	Fault is detected on the hard drive.
ACT3	Green	Status of the hard drive activity: • Steady—Hard drive is present. • Blinking—Active. • Off—Inactive or there is no power supplied to the CPU.
FLT3	Amber	Fault is detected on the hard drive.
STS	Green	Operation is normal.
	Amber	Fault is detected on the processor.
SYS	Green	System is active.
CIMC	Green	Solid when the CIMC is operating normally.
	Amber	CIMC is in the process of booting up.
EN	Green	The module is powered on and is functioning correctly.
	Amber	The module has some failure or is not ready.
Power	Green	• Steady—CIMC and the CPU are both operating normally. • Blinking—The CPU is operating normally, and CIMC is booting up.
	Amber	• Steady—CIMC is operating normally, and the CPU is powered down. • Blinking—CIMC is in the process of booting up, and the CPU is powered down.

LED	Color	State
GE Port LEDs	Green	Left LED shows the speed of the Ethernet cable: • 2 Blinks—100 Mb/s speed. • 3 Blinks—1 Gb/s speed.
	Green	Right LED shows whether the link is established. • Steady—Link is established. • Off—No link is established.
SFP+ Port LEDs	Green	Left LED shows whether the link is established: • Steady—Link is established. • Off—SFP not plugged.
	Green	Right LED shows whether the port is enabled: • Steady—Port is enabled. • Off—SFP not plugged.
	Amber	Right LED shows whether the port is enabled: • Steady—Port is NOT enabled. • Off—SFP not plugged.

Basic Workflow for Installing the UCS E-Series M6 Server in the SM Slot

Procedure

	Command or Action	Purpose
Step 1	Gather the required tools and equipment.	Tools and Equipment Required for Installation, on page 10
Step 2	Unpack and inspect the module.	Unpacking and Inspecting the Server, on page 10
Step 3	Remove the blank faceplates from the SM slots that you want to use.	Removing the Blank Faceplate from the Router's SM Slot, on page 10
Step 4	Depending on the type of server that you want to install, either remove or install the slot divider.	Preparing the Router's SM Slot for UCS E-Series M6 Server Installation, on page 11
Step 5	Install the E-Series M6 Server into the router.	Installing the UCS E-Series M6 Server into the Router, on page 13

	Command or Action	Purpose
Step 6	Verify the E-Series M6 Server installation.	Verifying the UCS E-Series M6 Server Installation, on page 15

Tools and Equipment Required for Installation

- Number-1 Phillips screwdriver or a small flat-blade screwdriver
- ESD-preventive wrist strap
- Tape to secure DC circuit breaker handle—Applicable for routers that use DC power

Unpacking and Inspecting the Server

Procedure

Step 1 Remove the module from its cardboard container and save all packaging material.

Step 2 Compare the shipment to the equipment list provided by your customer service representative. Verify that you have all items.

Step 3 Check for damage and report any discrepancies or damage to your customer service representative. Have the following information ready:

- Invoice number of shipper (see the packing slip)
- Model and serial number of the damaged unit
- Description of damage
- Effect of damage on the installation

Note
The module is thoroughly inspected before shipment. If any damage occurred during transportation or any items are missing, contact your customer service representative immediately.

Removing the Blank Faceplate from the Router's SM Slot



Warning **Statement 1029—**Blank Faceplates and Cover Panels

Blank faceplates and cover panels serve three important functions: they reduce the risk of electric shock and fire, they contain electromagnetic interference (EMI) that might disrupt other equipment, and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place.

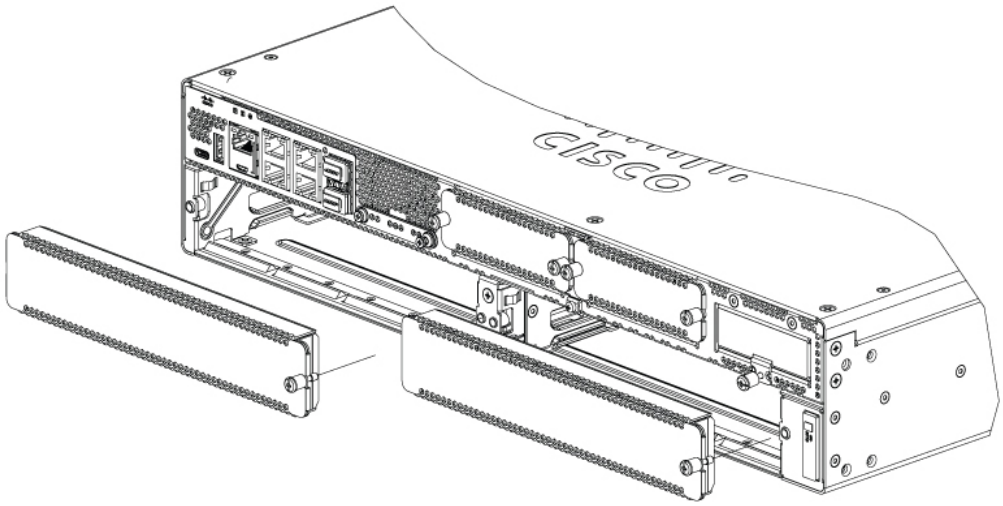
Before You Begin

Make sure that you connect the wrist-strap clip to an unpainted portion of the chassis frame to channel unwanted ESD voltages to ground.

Procedure

Step 1 Using either a number-1 Phillips screwdriver or a small flat-blade screwdriver, unscrew the captive screws and remove both blank faceplates from the chassis slot.

Figure 3: Removing the Blank Faceplate from the Router



Step 2 Save the blank faceplates for future use.

What to do next

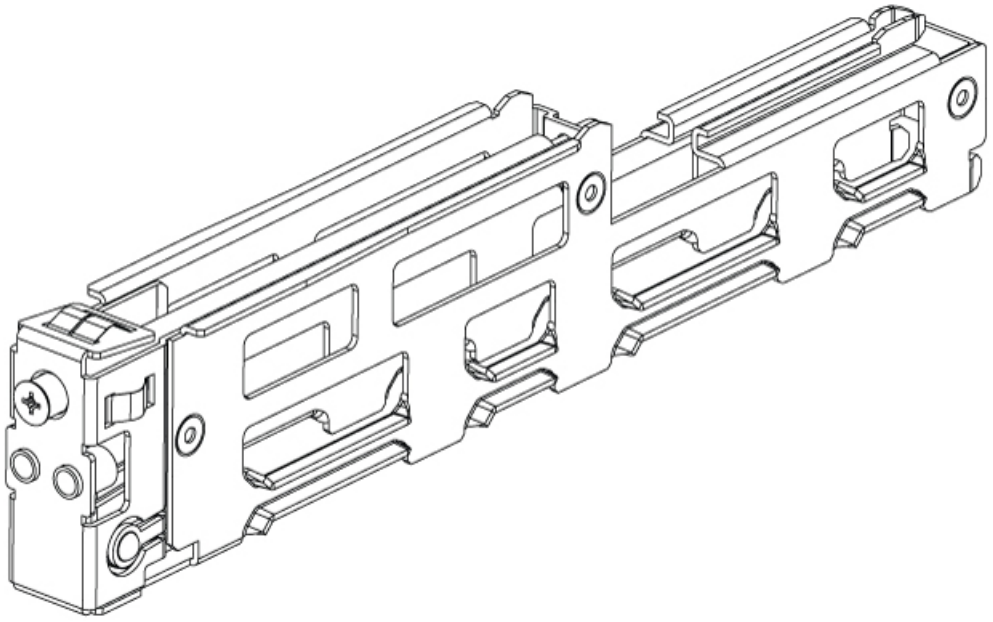
Prepare the router slot for UCS E-Series M6 Server installation. See the section Preparing the Router's SM Slot for UCS E-Series M6 Server Installation, on page 11.

Preparing the Router's SM Slot for UCS E-Series M6 Server Installation

The Cisco Catalyst 8300 Series Edge routers have a flexible SM slot to support various Cisco server modules. Before installing the UCS E-Series M6 Server into the router, prepare the router's SM slot for the server's particular form factor.

By default, a slot divider is preinstalled in the Cisco Catalyst 8300 Series Edge router. The UCS E-Series M6 server is a double-wide module, so you must remove the slot divider from the router.

Figure 4: Slot Divider for SM Slots



See the section Removing the Slot Divider for UCS E-Series M6 Server Installation, on page 12 for more information.

Removing the Slot Divider for UCS E-Series M6 Server Installation

To install the UCS E-Series M6 server in the router's SM slot, you must remove the slot divider. Use this procedure to remove the slot dividers from the SM slot.

Before You Begin

Make sure that you connect the wrist-strap clip to an unpainted portion of the chassis frame to channel unwanted ESD voltages to ground.

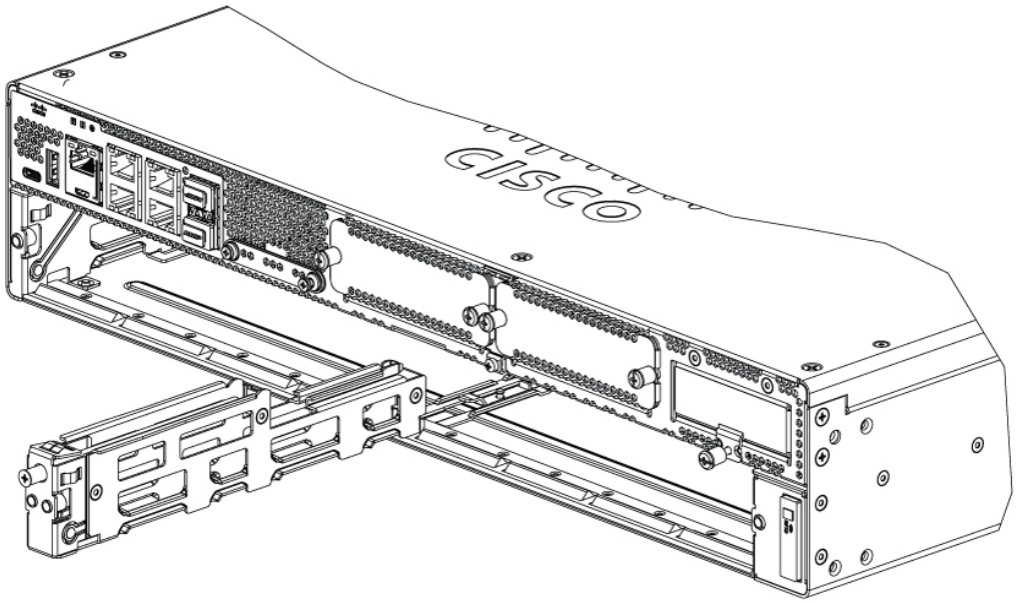
Procedure

Step 1 Remove any installed service modules, blank faceplates, and slot adapters from the router slot that you plan to use.

Step 2 Loosen the retention screw on the front of the slot divider; do not remove the screw completely from the slot divider.

Step 3 Pull the slot divider straight out of the module slot.

Figure 5:



What to do next

Install the UCS E-Series M6 server into the router. See the section Installing the UCS E-Series M6 Server into the Router, on page 13.

Installing the UCS E-Series M6 Server into the Router

The UCS E-Series M6 Server can be installed either before or after mounting the router, whichever is more convenient.

Caution To prevent damage to the server, handle the server by the chassis or frame.

Before You Begin

Verify that you have done the following:

1. Removed the blank faceplates from the slots that you intend to use. See the section Removing the Blank Faceplate from the Router's SM Slot, on page 10.
2. Saved the blank faceplates for future use.
3. Prepared the slot for the module form factor that you are installing. See the section Preparing the Router's SM Slot for UCS E-Series M6 Server Installation, on page 11 .
4. Connected a wrist-strap clip to an unpainted portion of the chassis frame to channel unwanted ESD voltages to ground.

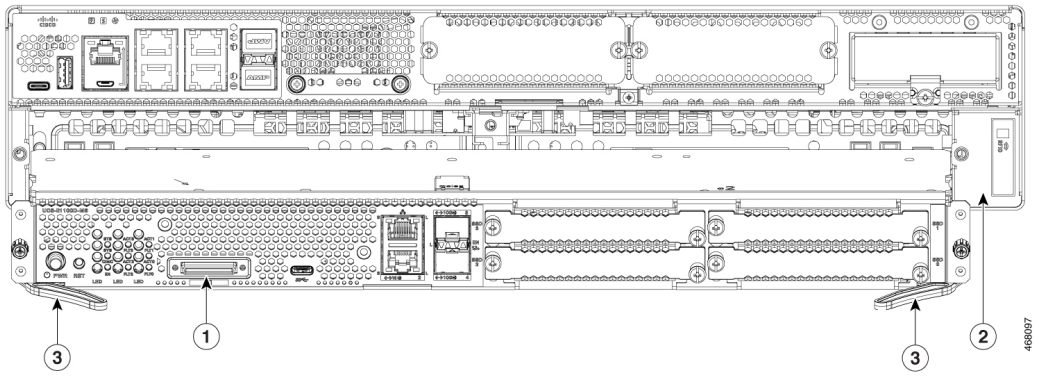
Procedure

Step 1 Turn off the electrical power to the router. Leave the power cable plugged in to the channel ESD voltages to ground.

Note
Alternatively, the Cisco Catalyst 8300 Series Edge platforms support online insertion and removal (OIR). See the section Online Insertion and Removal—UCS E-Series M6 Servers, on page 16.

Step 2 With the latches in the open position, align the module with the guides in the chassis walls, and slide the module gently into the slot. See the following figure:

Figure 6: Installing the UCS E-Series M6 Server in a Cisco Catalyst 8300 Series Edge Platform



1	UCS E-Series M6 Server	2	Router Chassis
3	Side-latches in Open Position		

Note
The side-latches should be in open position before you install the module. After you install the module, first secure the side-latches, and then secure the side-screws.

Step 3 Push the module into place until you feel the module seat securely into the connector on the router backplane, using the side latches to engage the module into the router. The module faceplate should contact the chassis face.

Step 4 Using a number-1 Phillips or flat-blade screwdriver, tighten the captive mounting screws on the module faceplate.

What to do next

1. Check that the IOS-XE image installed in the router is compatible with the E-Series M6 server.

Note The UCS E-Series M6 servers are supported from Cisco IOS-XE 17.11.1a onwards. To upgrade the IOS-XE image on your Catalyst 8300 Series Edge platforms, obtain the package (image) from https://software.cisco.com/download/home, and follow the instructions in chapter *Installing the Software* in the Cisco Catalyst 8300 and Catalyst 8200 Series Edge Platforms Software Configuration Guide.

2. Check the BIOS and CIMC images installed on the server.

Note The E-Series M6 server comes with BIOS and CIMC images preinstalled. To upgrade the BIOS or CIMC image on your UCS E-Series M6 server, obtain the package (image) from https://software.cisco.com/download/home, and follow the instructions in chapter *Firmware Management* in the CLI Configuration Guide for UCS E-Series M6 Servers.

3. Connect the UCS E-Series M6 Server to the network and power up the router and the server.
4. Verify that the router recognizes the UCS E-Series M6 Server. See the section Verifying the UCS E-Series M6 Server Installation, on page 15.

Verifying the UCS E-Series M6 Server Installation

Before You Begin

1. Install the UCS E-Series M6 Server into the router.
2. Check the router for a compatible IOS-XE image.
3. Check the BIOS and CIMC images installed on the server.
4. Power on the server.

Procedure

To verify the UCS E-Series M6 Server installation, use one of the following commands:

- To display a high-level overview of the entire physical system, use the **show platform** command:

```
Router#show platform
Chassis type: C8300-2N2S-4T2X

Slot      Type                State                 Insert time (ago)
--------- ------------------- --------------------- -----------------
0         C8300-2N2S-4T2X     ok                    23:32:17
 0/0      4x1G-2xSFP+         ok                    23:31:16
1         C8300-2N2S-4T2X     ok                    23:32:17
 1/0      UCS-E1100D-M6       ok                    00:04:41
2         C8300-2N2S-4T2X     ok                    23:32:17
R0        C8300-2N2S-4T2X     ok, active            23:32:17
F0        C8300-2N2S-4T2X     ok, active            23:32:17
P0        PWR-CC1-650WAC      ok                    23:31:38
P1        Unknown             empty                 never
P2        C8300-FAN-2R        ok                    23:31:38
```

```
Slot      CPLD Version        Firmware Version
--------- ------------------- ----------------------------------------
0         20061845            17.3(4.1r)
1         20061845            17.3(4.1r)
2         20061845            17.3(4.1r)
R0        20061845            17.3(4.1r)
F0        20061845            17.3(4.1r)
```

- To verify that the router recognizes the server, use the **show hw-module subslot all oir** command:

```
Router#show hw-module subslot all oir

Module                   Model                Operational Status
------------------------ -------------------- ------------------------
subslot 0/0              4x1G-2xSFP+          ok
subslot 1/0              UCS-E1100D-M6        ok

Router#
```

Online Insertion and Removal—UCS E-Series M6 Servers

Online insertion and removal (OIR) provides uninterrupted network operation, maintains routing information, and ensures session preservation on the Cisco Catalyst 8300 Series Edge platforms. You can use online insertion and removal to install or replace hardware without affecting system operations.

Inserting the UCS E-Series M6 Server in a Cisco Catalyst 8300 Series Edge Platform

A Cisco Catalyst 8300 Series Edge Platform that is up and running can detect when a UCS E-Series M6 Server is inserted in the SM slot. After the router detects the UCS E-Series M6 Server, the router software enables power to the server.

Shutting Down the UCS E-Series M6 Server Installed in a Cisco Catalyst 8300 Series Edge Platform

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. Enter your password, if prompted.
Step 2	**ucse subslot** *slot* **1/0 shutdown** **Example:** `Router# ucse subslot 1/0 shutdown`	Shuts down the UCS E-Series M6 Server gracefully. **Note** Before proceeding with the next command, verify that the UCS E-Series M6 Server has shut down. When the UCS E-Series M6 Server shuts down, the power LED turns orange. You can also use CIMC to verify if the UCS E-Series M6 Server has powered down.
Step 3	**hw-module subslot** *slot* **/0 stop** **Example:**	Shuts down power to the specified UCS E-Series M6 Server to prepare it for removal.

	Command or Action	Purpose

	`Router# hw-module subslot 1/0 stop`
	Example:
	`SM Hardware slot 0 can be removed`
		When it is safe to remove the UCS E-Series M6 Server, a message is displayed as shown in the example.
		Note Before removing the UCS E-Series M6 Server,verify that power to the slot is shut down. The power LED should be off.

Restarting the UCS E-Series M6 Server Installed in a Cisco Catalyst 8300 Series Edge Platform

If the **oir-stop** command is issued and the UCS E-Series M6 Server is not physically removed from the slot, you can restart the server with the **start** command. From a console terminal, issue the **hw-module subslot** *slot* **/0 start** command. The console displays the module's changing state.

```
Router# hw-module subslot 1/0 start
```

Installing or Replacing Solid-State Drives on the UCS E-Series M6 Servers

The UCS E-Series M6 Servers can be ordered with one to four (1 to 4) solid-state drives (SSD) or NVMe drivers preinstalled. The UCS E-Series M6 Servers with NVMe drivers support the following Redundant Array of Independent Disks (RAID) configuration:

- RAID 0 (data striping)—Data is stored evenly in stripe blocks across all NVMe disks in the array, providing fast throughput. There is no data redundancy, and all data is lost if any disk fails.
- RAID 1 (disk mirroring)—Data is written to two NVMe disks, where the data in both disk drives is identical. This provides complete data redundancy if one disk fails.
- RAID 5 (disk striping with distributed parity)—Data and parity information is striped and distributed across all disks in the array with distributed parity information. RAID 5 requires three Solid States and provides limited fault tolerance.

The UCS E-Series M6 Servers support adding a Mark as spare drive under RAID 1. If one of the disk drives under RAID 1 fails and there is a hot spare drive installed, the system automatically rebuilds the disk image onto the mark as spare drive. The mark as spare drive replaces the failed drive as the mirrored drive under RAID 1. To maintain fault tolerance, you must install another NVMe drive.



Warning **Statement 9001—**Product Disposal

Ultimate disposal of this product should be handled according to all national laws and regulations.



Warning **Statement 1029—**Blank Faceplates and Cover Panels

Blank faceplates and cover panels serve three important functions: they reduce the risk of electric shock and fire, they contain electromagnetic interference (EMI) that might disrupt other equipment, and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place.

The solid-state drives must be installed in the following order:

1. SSD0
2. SSD1
3. SSD2
4. SSD3

Before You Begin

Make sure that you connect the wrist-strap clip to an unpainted portion of the chassis frame to channel unwanted ESD voltages to ground.

Procedure

Use this procedure to install or replace a solid-state drive on the UCS E-Series M6 Servers.

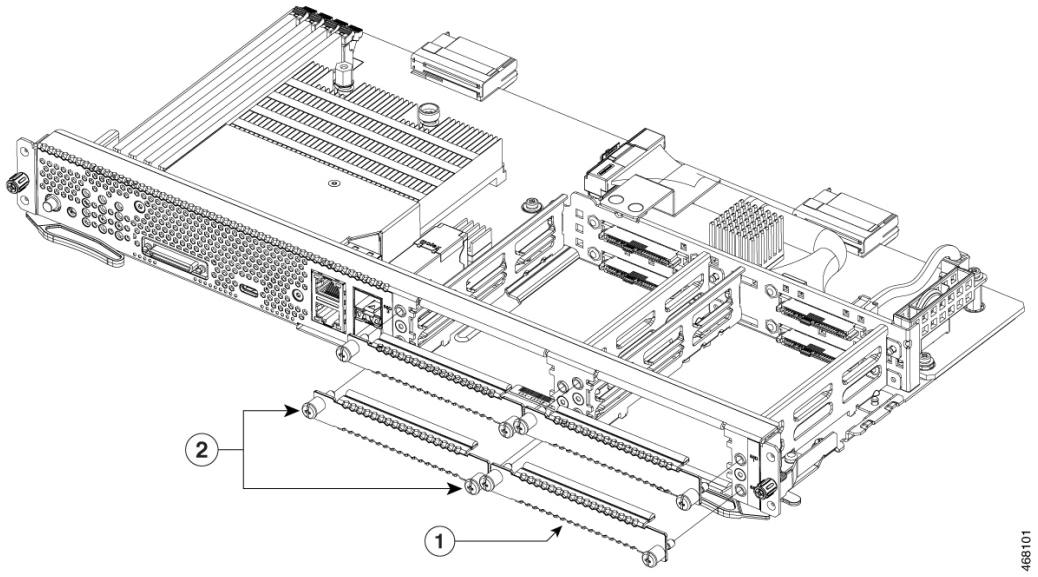
Note The UCS E-Series M6 server has four SSD slots. Slots that do not have SSDs must be covered with a blank faceplate.

Procedure

Step 1 Shut down the UCS E-Series server x86 processor.

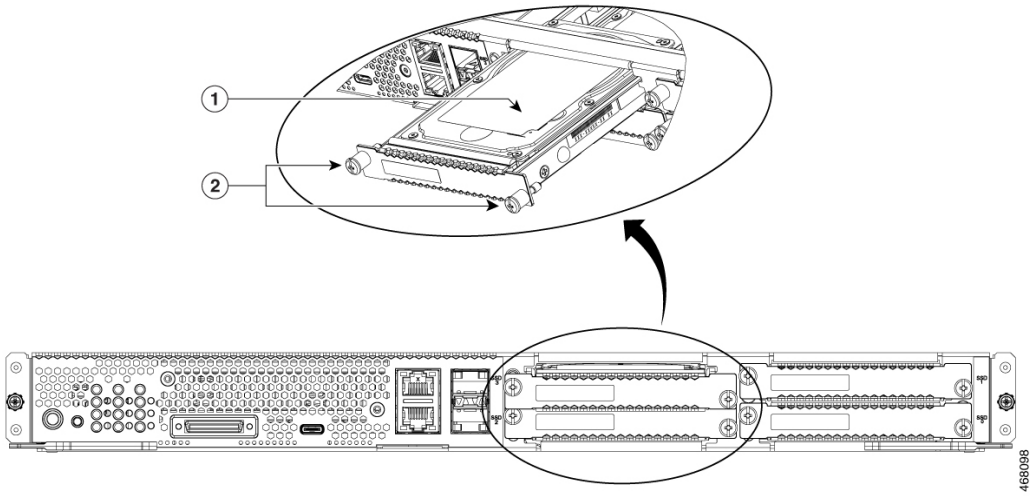
Step 2 Using either a number-1 Phillips screwdriver or a small flat-blade screwdriver, unscrew the captive screws on the faceplate and remove the cover faceplate. See the following figures.

Figure 7: Replacing a Solid-State Drive on the UCS E-Series M6 Server



1	Blank Faceplate	2	Captive Screws on Blank Faceplate

Figure 8: Replacing a Solid-State Drive on the UCS E-Series M6 Server



1	Solid State Drive	2	Captive screws on Drive Assembly

Step 3 (Optional) If there is a solid-state drive, use the screwdriver to loosen the captive screws on the SSD assembly.

Step 4 (Optional) To remove the faulty solid-state drive, pull the handle of the SSD assembly and slide out the solid-state drive.

Step 5 Slide the new solid-state drive into the UCS E-Series M6 server until it clicks into place.

Step 6 Tighten the captive screws on the new SSD assembly. Make sure that the SSDs are firmly secured to the carrier to avoid rattling during operation.

Step 7 Restart the UCS E-Series M6 Server.

Installing and Replacing the Memory DIMMS in the UCS E-Series M6 Server

Caution Always wear an ESD-preventive wrist strap and ensure that it makes good contact with your skin when you remove or install DIMMs. Connect the equipment end of the wrist strap to the metal part of the chassis.

Caution Handle the DIMMs by the edges only. DIMMs are ESD-sensitive components and can be damaged by mishandling.

Warning **Statement 9001—**Product Disposal

Ultimate disposal of this product should be handled according to all national laws and regulations.

Warning **Statement 1029—**Blank Faceplates and Cover Panels

Blank faceplates and cover panels serve three important functions: they reduce the risk of electric shock and fire, they contain electromagnetic interference (EMI) that might disrupt other equipment, and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place.

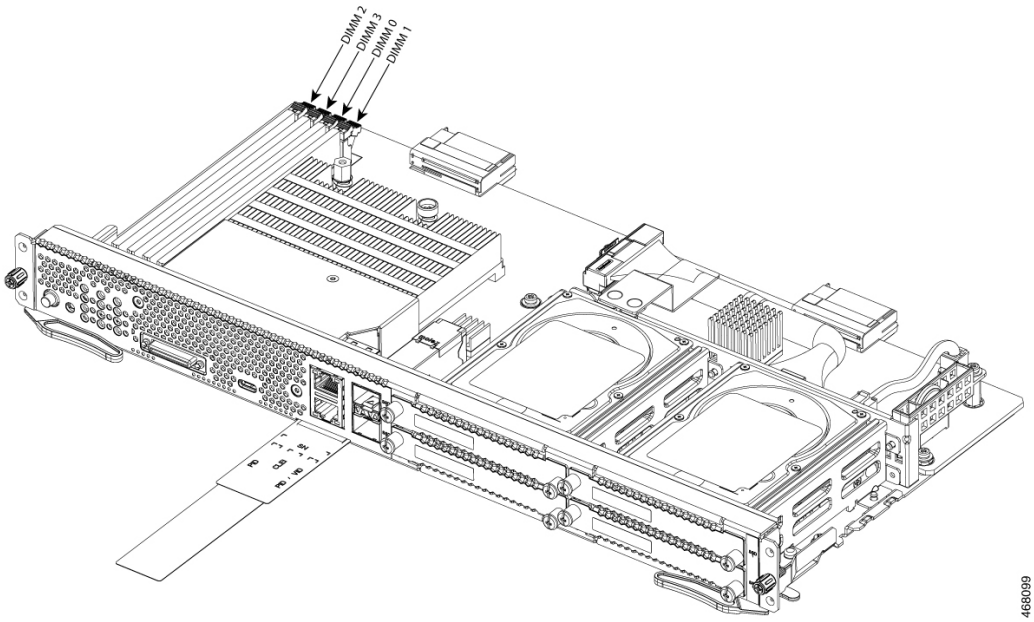
This section includes the following topics:

Memory DIMM Location

Note The UCS E-Series M6 Servers support up to 128 GB of DDR4 memory DIMMs.

The following figure shows the location of the memory DIMMs in the UCS E-Series M6 Server. The DIMM slot number is marked on the PCB approximately in the location the arrows are pointing in the figure below:

Figure 9: Memory DIMM Location in the UCS E-Series M6 Server



Removing the Memory DIMM

Before You Begin

Make sure that you connect the wrist-strap clip to an unpainted portion of the chassis frame to channel unwanted ESD voltages to ground.

Procedure

Procedure

Step 1 Turn off power to the router.

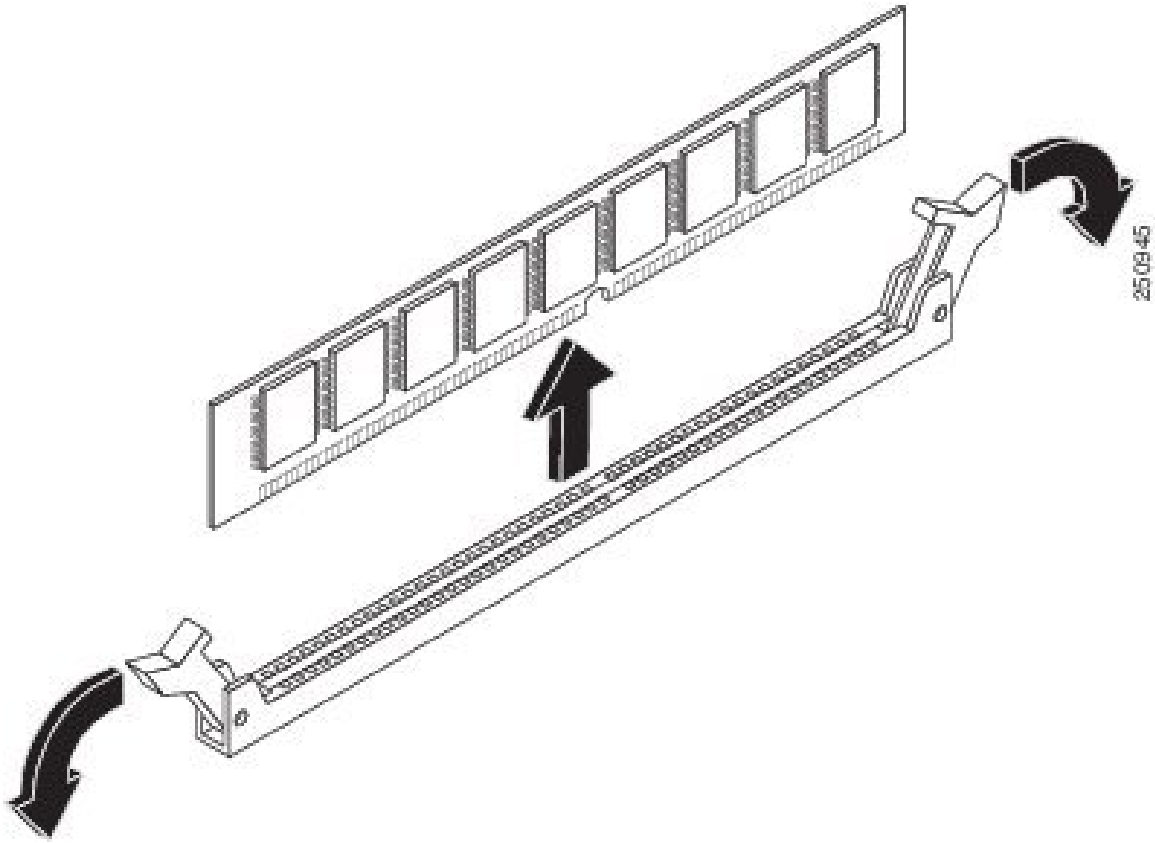
Step 2 Locate the DIMM on the UCS E-Series M6 Server. See the section Memory DIMM Location, on page 20.

Step 3 Pull the latches away from the DIMM at both ends to lift the DIMM slightly.

Caution
Take care not to dislodge the battery that is adjacent to the DIMM connectors.

Step 4 Pull the DIMM out of the socket as shown in the following figure.

Figure 10: Removing the Memory DIMM



Step 5 Place the DIMM in an antistatic bag to protect it from ESD damage.

Installing the Memory DIMM

For information about the memory on the router, see the appropriate router documentation. For information about the memory on the UCS E-Series M6 Server, see the requirements of the installed operating system.

The UCS E-Series M6 Servers support up to 128 GB of DDR4 memory DIMMs.

Performance degradation can occur if you use the following memory configuration:

- Mix DIMM sizes and densities within a channel.
- Partially populate a channel.

DIMMs must be installed in the following order in the UCS E-Series M6 Servers:

1. DIMM 0/2
2. DIMM 2/0
3. DIMM 1/3
4. DIMM 3/1

Note DIMM 0 must be plugged before DIMM 1, and DIMM 2 must be plugged before DIMM 3.

Before You Begin

Make sure that you connect the wrist-strap clip to an unpainted portion of the chassis frame to channel unwanted ESD voltages to ground.

Procedure

Procedure

Step 1 Turn off power to the router.

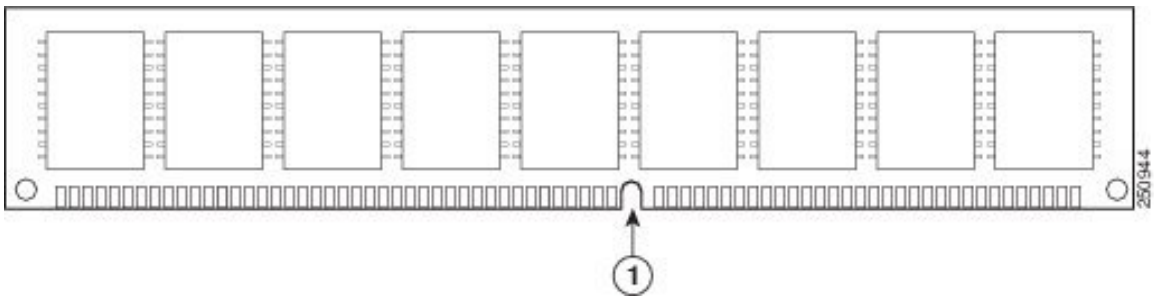
Step 2 Remove the UCS E-Series M6 server.

Step 3 Locate the DIMM connector. See the section Memory DIMM Location, on page 20 .

Step 4 Make sure that both latches on the DIMM connector are in the open position.

Step 5 Orient the DIMM so that the polarization notch on the DIMM lines up with the notch on the connector.

Figure 11: Polarization Notch on the DIMM

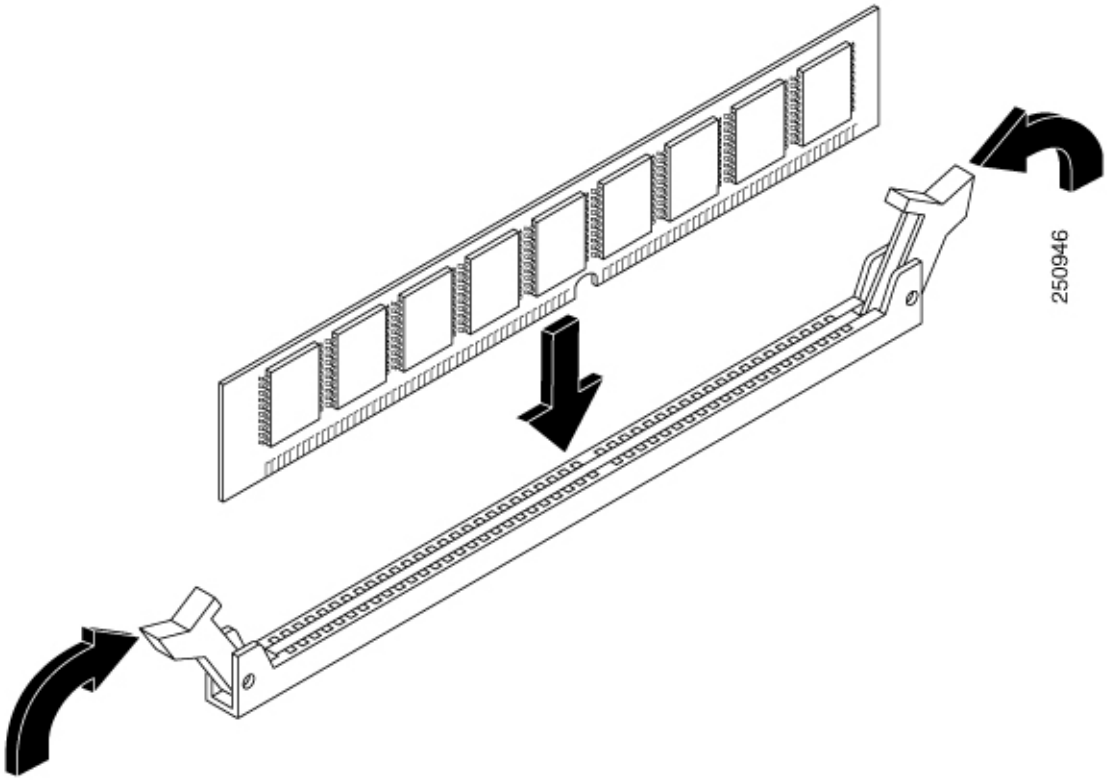


1	Polarization notch

Step 6 Insert the DIMM into the connector.

Step 7 Carefully and firmly press the DIMM into the connector until the latches close onto the DIMM. Make sure that both latches snap to the closed position against the DIMM.

Figure 12: Installing a Memory DIMM



Step 8 Replace the UCS E-Series M6 Server.

Cisco Integrated Management Controller

Cisco Integrated Management Controller (CIMC) is a separate management module built into the motherboard. CIMC is the management service for the Cisco UCS E-Series M6 Servers. You can use a web-based GUI or SSH-based CLI to access, configure, administer, and monitor the server. For more information on CIMC, see the *GUI Configuration Guide for Cisco UCS E-Series M6 Server.*

Related Documentation

For more information about Cisco UCS E-Series M6 Servers, see the following related documentation:

- Regulatory Compliance and Safety Information for Cisco UCS E-Series M6 Server
- GUI Configuration Guide for Cisco UCS E-Series M6 Server
- CLI Configuration Guide for Cisco UCS E-Series M6 Server
- XML API Guide for Cisco UCS E-Series M6 Server