Hewlett Packard Enterprise

HPE ProLiant ML10 Gen9 Server User Guide

Abstract

This document is for the person who installs, administers, and troubleshoots servers and storage systems. Hewlett Packard Enterprise assumes you are qualified in the servicing of computer equipment and trained in recognizing hazards in products with hazardous energy levels.

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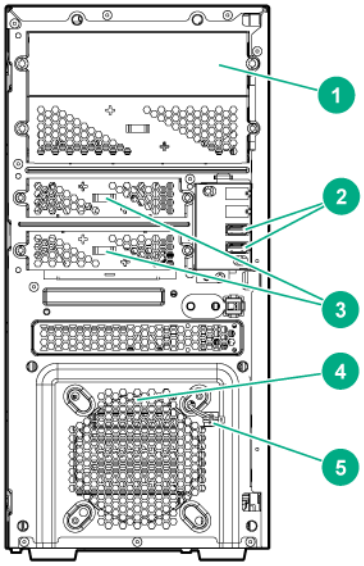
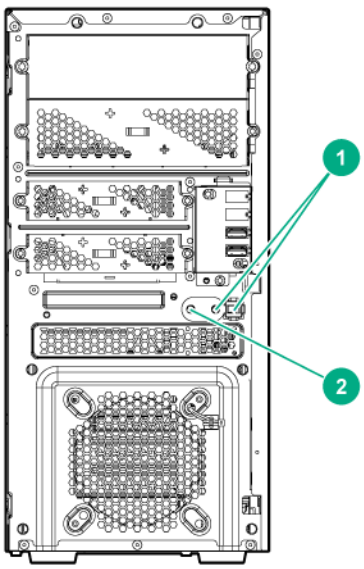
Component identification

Front panel components



Item	Description
1	Media bay
2	USB 2.0 connectors
3	Drive bays
4	Drive cage
5	Ambient temperature sensor

Front panel LEDs and buttons

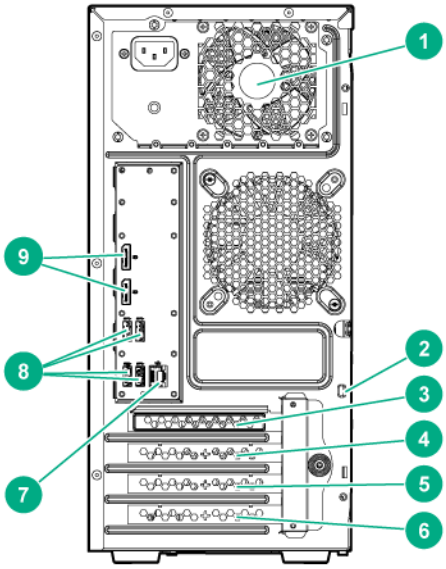


Item	Description	Status
1	Power On/Standby button and system power LED	Solid green = System on Solid amber = System in standby Off = No power present*
2	Health LED	Solid green = Normal Solid amber = Thermal warning Flashing amber = Critical thermal issue† Solid red = CPU failure† Flashing red = System failure† Off = System off

* Facility power is not present, power cord is not attached, no power supplies are installed, power supply failure has occurred, or the power button cable is disconnected.

† System shuts down.

Rear panel components



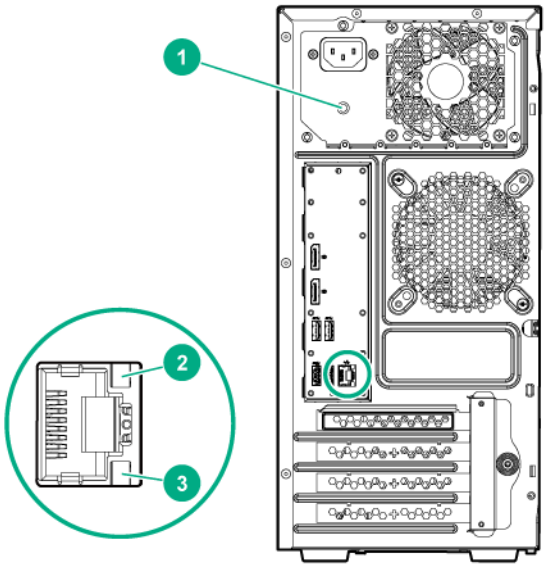
Item	Description
1	Power supply
2	Kensington security slot
3	Slot 1, PCIe3 x8 (8,4,1)*
4	Slot 2, PCIe3 x16 (16,8,4,1)*
5	Slot 3, PCIe3 x4 (4,1)*
6	Slot 4, PCIe3 x4 (4,1)*
7	NIC connector

Table Continued

8	USB 3.0 connectors
9	Display Ports The server supports DisplayPort version 1.2. The DisplayPort version 1.2 active adapter is required to connect the server to a monitor that does not have a DisplayPort input.

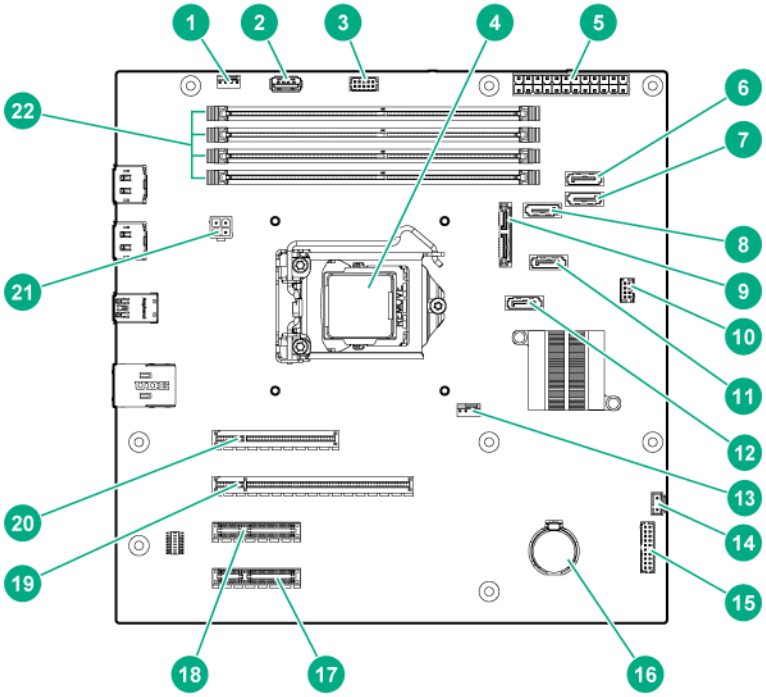
*For more information on the expansion slot specifications, see **PCIe expansion slot definitions**.

Rear panel LEDs and buttons



Item	Description	Status
1	Power supply LED	Solid green = One or more of the following conditions exists: Normal Power supply is in standby mode Off = One or more of the following conditions exists: Power is unavailable Power supply failed
2	NIC activity LED	Flashing green = 100 megabytes/sec network active Flashing amber = 1 gigabytes/sec network active
3	NIC link LED	Solid green = Link exists Off = No link exists

System board components



Item	Description
1	System fan connector
2	Internal USB 2.0 connector
3	Front LEDs and power button module connector
4	Processor
5	24-pin power supply connector
6	SATA connector 1
7	SATA connector 2
8	SATA connector 3
9	SATA 6 and optical drive shared connector
10	Front USB connector
11	SATA connector 4
12	SATA connector 5
13	Processor fan connector
14	Ambient temperature sensor connector
15	TPM connector
16	System battery
17	Slot 4, PCIe3 x4 (4,1)*

Table Continued

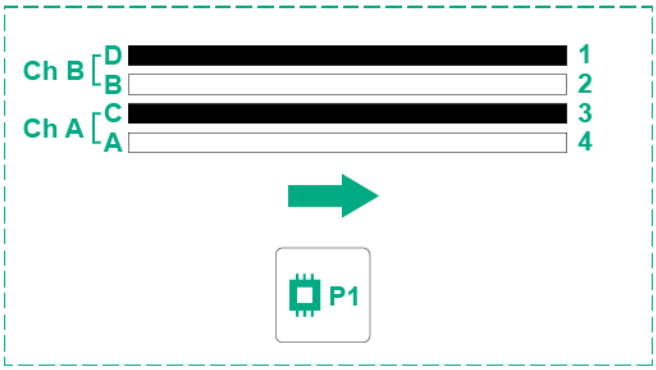
Item	Description
18	Slot 3, PCIe3 x4 (4,1)*
19	Slot 2, PCIe3 x16 (16,8,4,1)*
20	Slot 1, PCIe3 x8 (8,4,1)*
21	4-pin power connector
22	DIMM slots

For more information on the expansion slot specifications, see **PCIe expansion slot definitions**

PCIe expansion slot definitions

Expansion slot number	Technology	Bus Width	Connector Width	Form Factor
1	PCIe 3.0	x8	x8	Full-height Half-length
2	PCIe 3.0	x8	x16	Full-height Half-length
3	PCIe 3.0	x4	x4	Full-height Half-length
4	PCIe 3.0	x1	x4	Full-height Half-length

DIMM slot locations

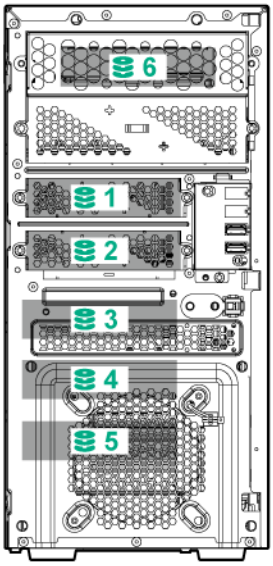


The arrow points to the front of the server.

Drive numbering

The server supports up to 6 LFF non-hot-plug drives when a drive enablement option is installed in the upper media bay, or 5 LFF non-hot-plug drives plus one optical drive when a slim optical drive enablement option is installed in the upper media bay. For more information, see the **Drive enablement option** and **Slim optical disk drive enablement option**.

The following image shows the drive numbering.



Operations

Power up the server

Procedure

1. Connect each power cord to the server.
2. Connect each power cord to the power source.
3. Press the Power On/Standby button.

   The server exits standby mode and applies full power to the system. The system power LED changes from amber to green.

Power down the server

Prerequisites

Before powering down the server for any upgrade or maintenance procedures, perform a backup of critical server data and programs.

WARNING:
To reduce the risk of personal injury, electric shock server, or damage to the equipment, disconnect the power cord to remove power from the . Pressing the Power On/Standby button does not shut off system power completely. Portions of the power supply and some internal circuitry remain active until AC power is removed.

IMPORTANT:
When the server is in standby mode, auxiliary power is still being provided to the system.

Procedure

- Press and release the Power On/Standby button.

  This method initiates a controlled shutdown of applications and the OS before the server enters standby mode.
- Press and hold the Power On/Standby button for more than four seconds to force the server to enter standby mode.

  This method forces the server to enter standby mode without properly exiting applications and the OS. If an application stops responding, you can use this method to force a shutdown.
- Use the Turn power off command in Intel AMT WebUI.

  This method may cause user application data loss. The command goes directly to the system hardware and does not allow the operating system to shut down gracefully.

Before proceeding, verify the server is in standby mode by observing that the system power LED is amber.

Remove the access panel

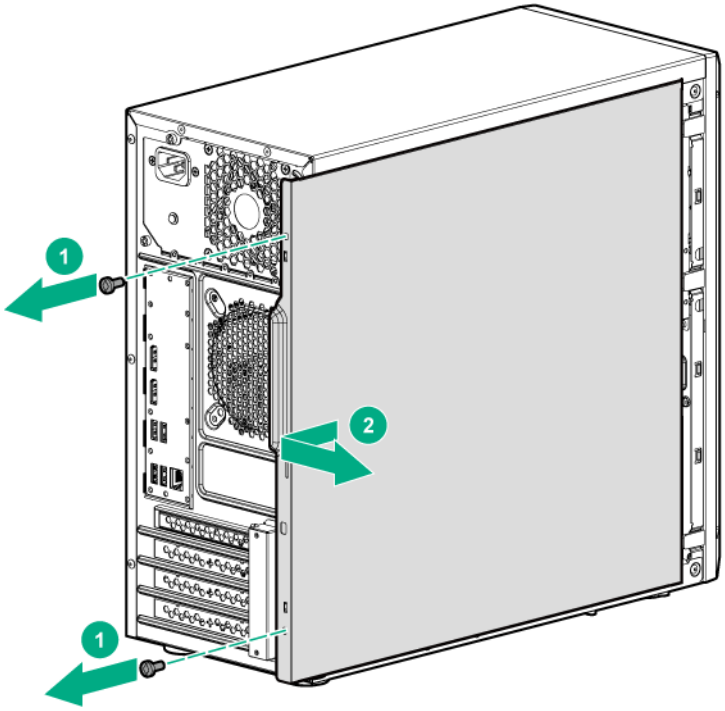
WARNING:
To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.

CAUTION:
For proper cooling, do not operate the server without the access panel, baffles, expansion slot covers, or blanks installed. If the server supports hot-plug components, minimize the amount of time the access panel is open.

CAUTION:
To prevent damage to electrical components, take the appropriate anti-static precautions before beginning any installation, removal, or replacement procedure. Improper grounding can cause electrostatic discharge.

Procedure

1. **Power down the server**.
2. Remove all power:
   a. Disconnect each power cord from the power source.
   b. Disconnect each power cord from the server.
3. If a Kensington security cable is installed, disconnect it from the rear panel. See the security cable documentation for instructions.
4. Remove the access panel:
   a. Loosen the access panel screws.
   b. Slide the access panel back.
   c. Lift the access panel away from the chassis.

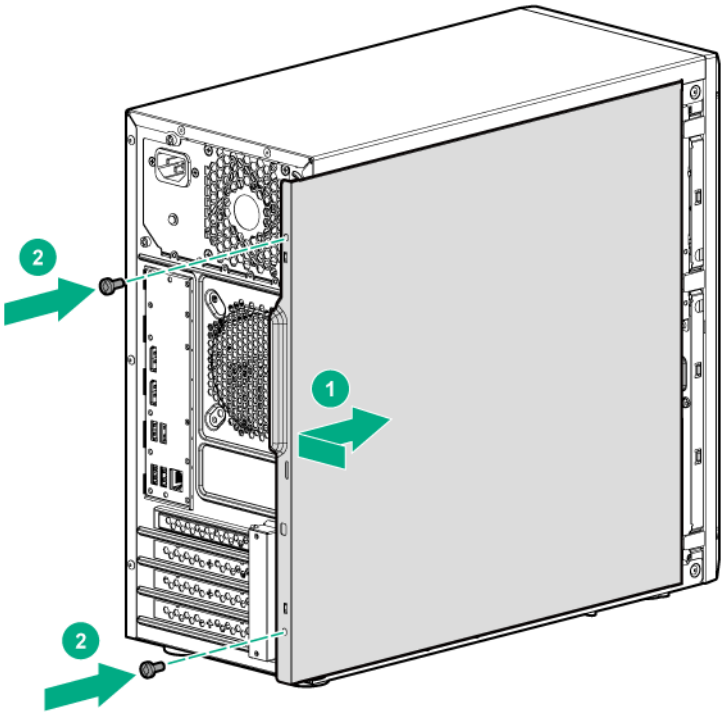


Install the access panel

Procedure

1. Install the access panel:

a. Place the access panel on the chassis, and slide it toward the front of the server.
b. Tighten the two screws on the access panel.

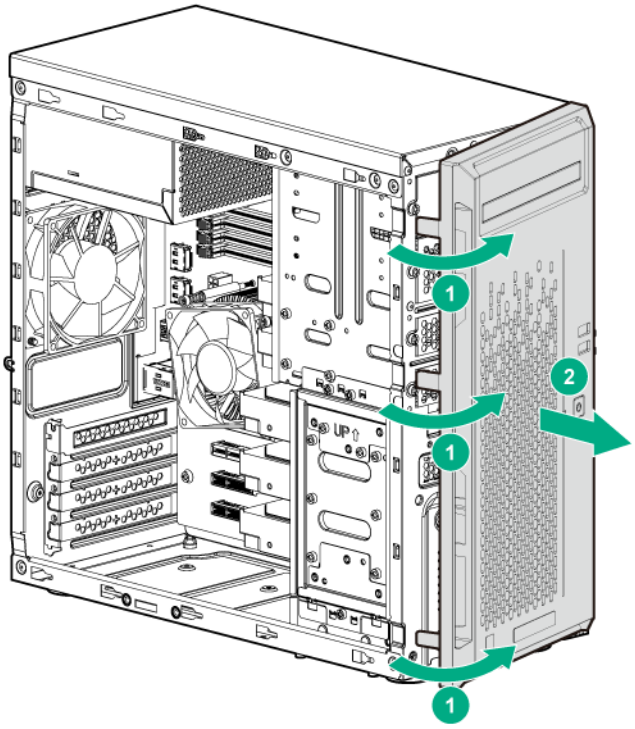


2. If a Kensington security cable was removed, connect it to the rear panel. See the security cable documentation for instructions.

Remove the tower bezel

Procedure

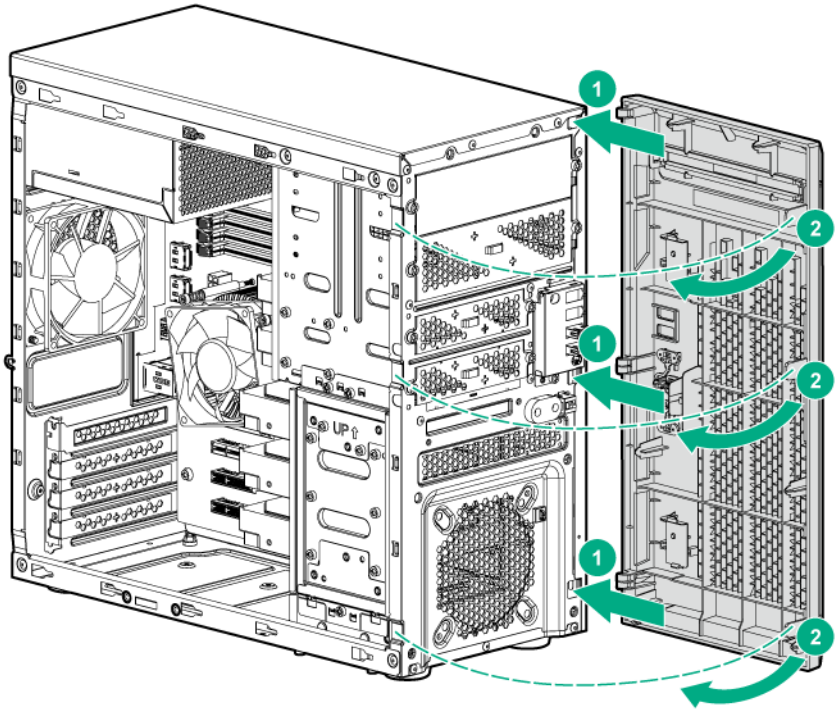
1. **Power down the server**.
2. Remove all power:
   a. Disconnect each power cord from the power source.
   b. Disconnect each power cord from the server.
3. **Remove the access panel**.
4. Remove all USB devices from the front I/O assembly.
5. Open the tower bezel.



Install the tower bezel

Procedure

1. Install the tabs on the tower bezel into the slots on the front chassis.
2. Close the tower bezel.



Setup

Optional services

Delivered by experienced, certified engineers, HPE support services help you keep your servers up and running with support packages tailored specifically for HPE ProLiant systems. HPE support services let you integrate both hardware and software support into a single package. A number of service level options are available to meet your business and IT needs.

HPE support services offer upgraded service levels to expand the standard product warranty with easy-to-buy, easy-to-use support packages that will help you make the most of your server investments. Some of the HPE support services for hardware, software or both are:

- Foundation Care – Keep systems running.
  - 6-Hour Call-to-Repair
  - 4-Hour 24x7
  - Next Business Day
- Proactive Care – Help prevent service incidents and get you to technical experts when there is one.
  - 6-Hour Call-to-Repair
  - 4-Hour 24x7
  - Next Business Day
- Startup and implementation services for both hardware and software
- HPE Education Services – Help train your IT staff.

For more information on HPE support services, see the **Hewlett Packard Enterprise website**.

Optimum environment

When installing the server, select a location that meets the environmental standards described in this section.

Space and airflow requirements

Leave at least a 7.6-cm (3-inch) clearance space at the front and back of the server for proper ventilation.

Temperature requirements

To ensure continued safe and reliable equipment operation, install or position the system in a well-ventilated, climate-controlled environment.

The maximum recommended ambient operating temperature (TMRA) for most server products is 35°C (95°F). The temperature in the room where the rack is located must not exceed 35°C (95°F).

CAUTION:
To reduce the risk of damage to the equipment when installing third-party options:

- Do not permit optional equipment to impede airflow around the server or to increase the internal rack temperature beyond the maximum allowable limits.
- Do not exceed the manufacturer’s TMRA.

Power requirements

Installation of this equipment must comply with local and regional electrical regulations governing the installation of information technology equipment by licensed electricians. This equipment is designed to

operate in installations covered by NFPA 70, 1999 Edition (National Electric Code) and NFPA-75, 1992 (code for Protection of Electronic Computer/Data Processing Equipment). For electrical power ratings on options, see the product rating label or the user documentation supplied with that option.

CAUTION:
Protect the server from power fluctuations and temporary interruptions with a regulating uninterruptible power supply. This device protects the hardware from damage caused by power surges and voltage spikes and keeps the system in operation during a power failure.

When installing more than one server, you might have to use additional power distribution devices to safely provide power to all devices. Observe the following guidelines:

- Balance the server power load between available AC supply branch circuits.
- Do not allow the overall system AC current load to exceed 80% of the branch circuit AC current rating.
- Do not use common power outlet strips for this equipment.
- Provide a separate electrical circuit for the server.

Electrical grounding requirements

The server must be grounded properly for proper operation and safety. In the United States, you must install the equipment in accordance with NFPA 70, 1999 Edition (National Electric Code), Article 250, as well as any local and regional building codes. In Canada, you must install the equipment in accordance with Canadian Standards Association, CSA C22.1, Canadian Electrical Code. In all other countries, you must install the equipment in accordance with any regional or national electrical wiring codes, such as the International Electrotechnical Commission (IEC) Code 364, parts 1 through 7. Furthermore, you must be sure that all power distribution devices used in the installation, such as branch wiring and receptacles, are listed or certified grounding-type devices.

Because of the high ground-leakage currents associated with multiple servers connected to the same power source, Hewlett Packard Enterprise recommends the use of a PDU that is either permanently wired to the building's branch circuit or includes a nondetachable cord that is wired to an industrial-style plug. NEMA locking-style plugs or those complying with IEC 60309 are considered suitable for this purpose. Using common power outlet strips for the server is not recommended.

Server warnings and cautions

WARNING:
To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.

WARNING:
To reduce the risk of personal injury, electric shock server, or damage to the equipment, disconnect the power cord to remove power from the . Pressing the Power On/Standby button does not shut off system power completely. Portions of the power supply and some internal circuitry remain active until AC power is removed.

CAUTION:
Protect the server from power fluctuations and temporary interruptions with a regulating uninterruptible power supply. This device protects the hardware from damage caused by power surges and voltage spikes and keeps the system in operation during a power failure.

CAUTION:
Do not operate the server for long periods with the access open or removed. Operating the server in this manner results in improper airflow and improper cooling that can lead to thermal damage.

Identifying the contents of the server shipping carton

Unpack the server shipping carton and locate the materials and documentation necessary for installing the server.

The contents of the server shipping carton include:

- Server
- Power cord

You need the following items for some procedures:

- T-10/T-15 Torx screwdriver
- Phillips screwdriver
- Hardware options
- Operating system or application software

Installing hardware options

Install any hardware options before initializing the server. For options installation information, see the option documentation. For server-specific information, see **Hardware options installation**.

Setting up a tower server

Follow the steps in this section to set up a tower server.

Procedure

1. Place the server on a flat, stable surface.
2. Connect peripheral devices to the server.

WARNING:
To reduce the risk of electric shock, fire, or damage to the equipment, do not plug telephone or telecommunications connectors into RJ-45 connectors.

3. Connect the power cord to the rear of the server.
4. Connect the power cord to the AC power source.

WARNING:
To reduce the risk of electric shock or damage to the equipment:

- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into grounded (earthed) electrical outlet that is easily accessible at all times.
- Unplug the power cord from the power supply to disconnect power to the equipment.
- Do not route the power cord where it can be walked on or pinched by items placed against it. Pay particular attention to the plug, electrical outlet, and the point where the cord extends from the server.

Installing the operating system

To operate properly, the server must have a supported operating system installed. Attempting to run an unsupported operating system can cause serious and unpredictable results. For the latest information on operating system support, see the **Hewlett Packard Enterprise website**.

To install an operating system on the server, create installation media on an optical disk or on USB media. Insert the optical drive into a USB-attached optical drive (user provided) or insert the USB device and reboot the server.

Before using your server for the first time, verify that you have the latest drivers, firmware, and system software installed, unless any installed software or components require an older version. Download individual drivers, firmware or other system software from the **Hewlett Packard Enterprise website**.

Powering on and selecting boot options in UEFI Mode

This server operates in UEFI mode by default. On servers operating in UEFI Mode, the boot controller and boot order are set automatically.

Procedure

1. Press the Power On/Standby button.
2. During the initial boot:
   - To modify the server configuration ROM default settings, press the <Delete> or <ESC> key on your keyboard when you see the text Press DEL to run `Setup` prompt to enter the BIOS setup utility. The BIOS setup utility is available in the English language only.
   - Enter the Boot settings screen to change the boot order, and override the default boot order settings in the Save and Exit screen.

Registering the server

To experience quicker service and more efficient support, register the product at the **Hewlett Packard Enterprise Product Registration website**.

Hardware options installation

Introduction

If more than one option is being installed, read the installation instructions for all the hardware options and identify similar steps to streamline the installation process.

WARNING:
To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.

CAUTION:
To prevent damage to electrical components, properly ground the server before beginning any installation procedure. Improper grounding can cause electrostatic discharge.

Drive options

For a list of drive configurations supported in this server, see **Drive numbering**.

The onboard Intel Rapid Storage Technology supports SATA drive installation only. For external tape drive support, **install a host bus adapter**.

For more information about product features, specifications, options, configurations, and compatibility, see the product QuickSpecs on the **Hewlett Packard Enterprise website**.

Drive installation guidelines

When adding drives to the server, observe the following general guidelines:

- The system automatically sets all device numbers.
- Populate drive bays, based on the **drive numbering** sequence. Start from the drive bay with the lowest device number.
- All drives grouped into the same drive array must meet the following criteria:
  - They must be either all SAS or all SATA.
  - They must be either all hard drives or all solid-state drives.
  - Drives should be the same capacity to provide the greatest storage space efficiency when drives are grouped together into the same drive array.

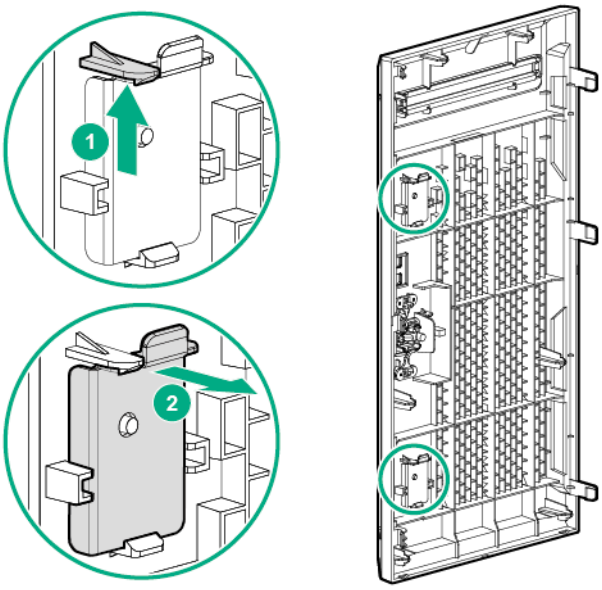
Installing a drive

CAUTION:
To prevent improper cooling and thermal damage, do no operate the server unless all bays are populated with either a component or a blank.

Procedure

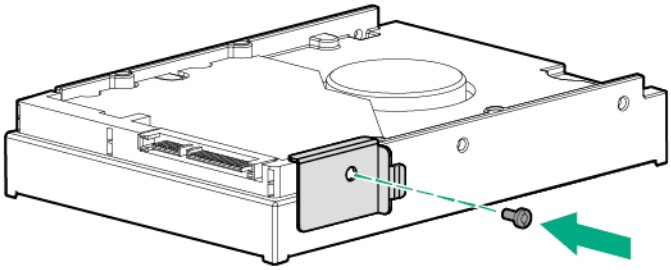
1. **Power down the server**.
2. Remove all power:
   a. Disconnect each power cord from the power source.
   b. Disconnect each power cord from the server.
3. **Remove the access panel**.
4. **Remove the tower bezel**.

5. To install the component:
   a. Remove the drive support bracket from the tower bezel.

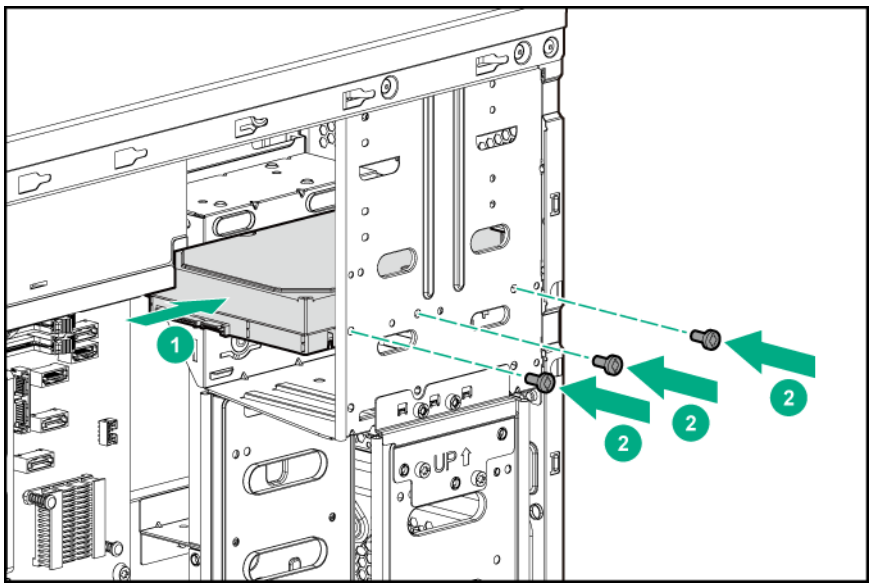


   b. Secure the support bracket on the drive with one silver #6-32 screw.

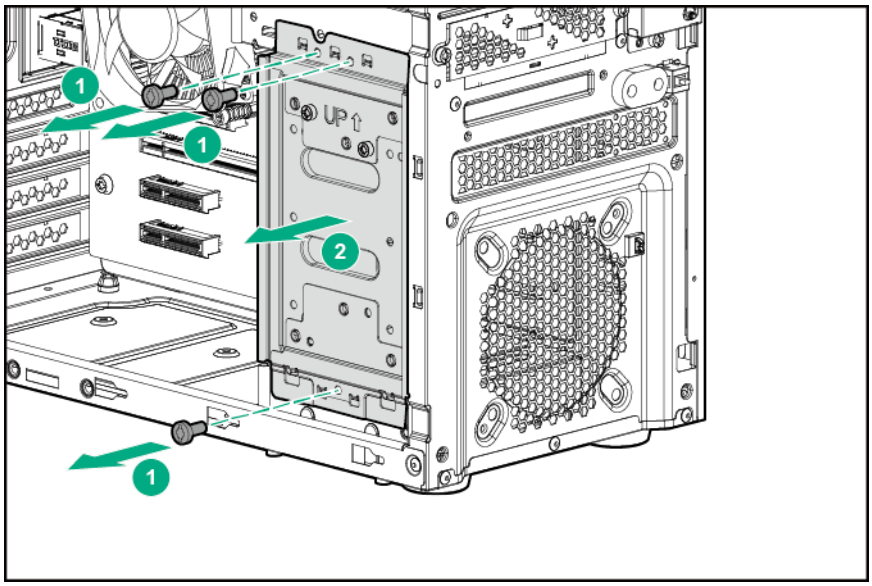
      The support brackets are required only when installing drive 1 and drive 2.



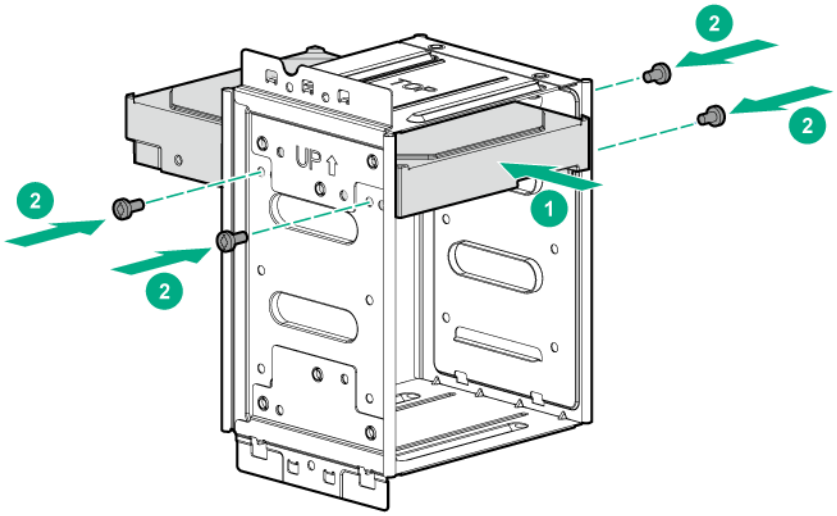
   c. Insert the drive into the drive bay and secure it with three silver #6-32 screws.



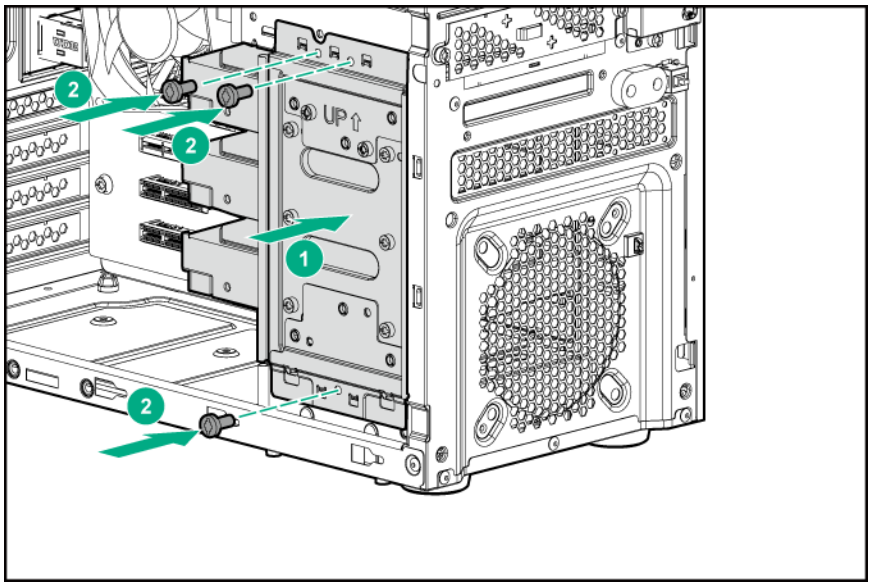
6. To install drives into the drive cage:
   a. Remove the installed drive cage assembly.



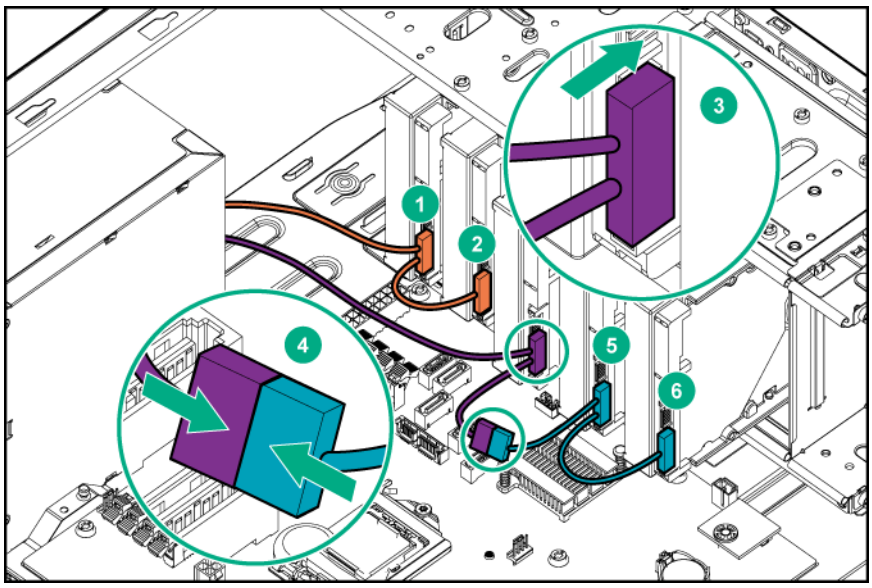
7. Secure the drive in the drive cage with four silver #6-32 screws.



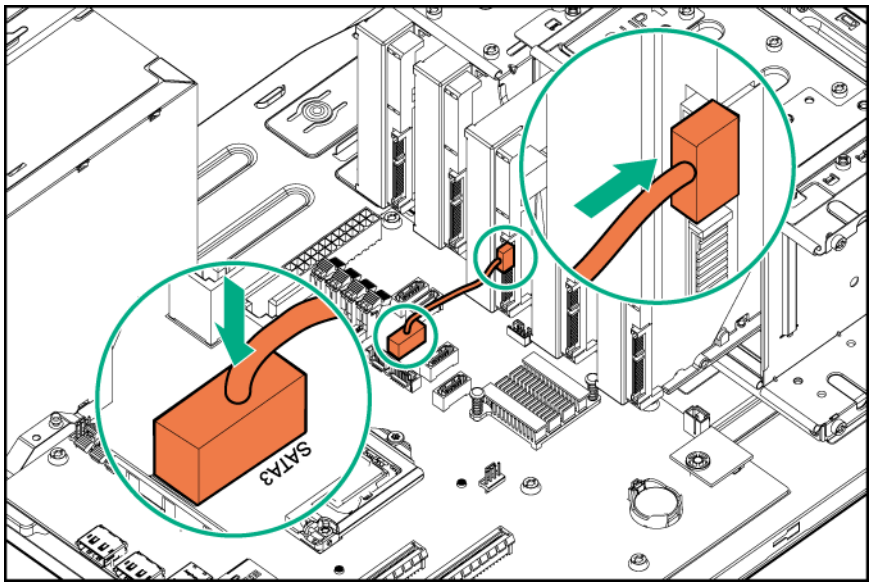
8. Install the drive cage into the chassis.



9. Place the server on its side.
10. Connect power cables to all drives:
    a. Connect the shorter drive power supply cable to drive 1 and drive 2.
    b. Connect one end of the longer drive power supply cable to drive 3.
    c. Connect the other end of the longer drive power supply cable to the extension power cable.
    d. Connect the other ends of the extension power cable to drive 4 and drive 5.



11. To connect the SATA cables:
    a. Connect drive 1 to SATA 1 on the system board.
    b. Connect drive 2 to SATA 2 on the system board.
    c. Connect drive 3 to SATA 3 on the system board.
    d. Connect drive 4 to SATA 4 on the system board.
    e. Connect drive 5 to SATA 5 on the system board.

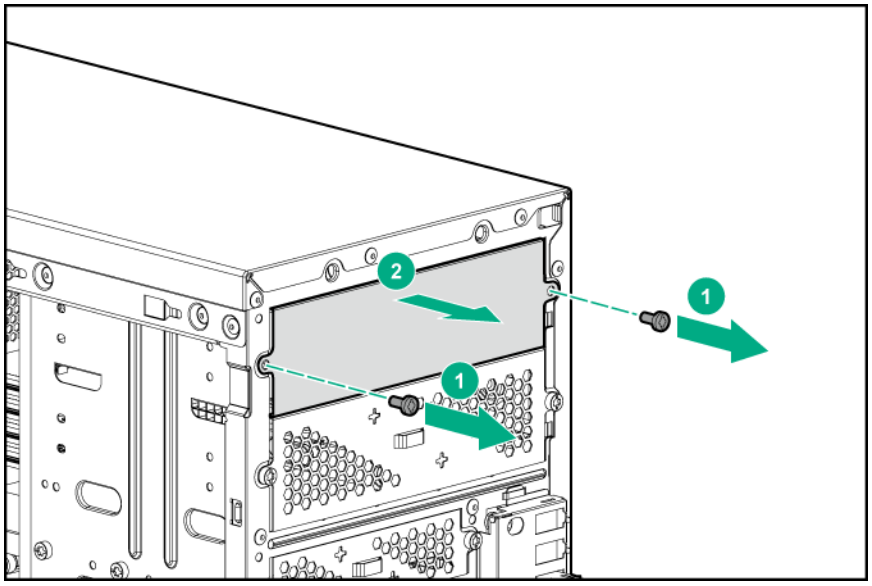


12. **Install the tower bezel**.
13. **Install the access panel**.
14. Return the server to an upright position.
15. Connect each power cord to the server.
16. Connect each power cord to the power source.
17. **Power up the server**.

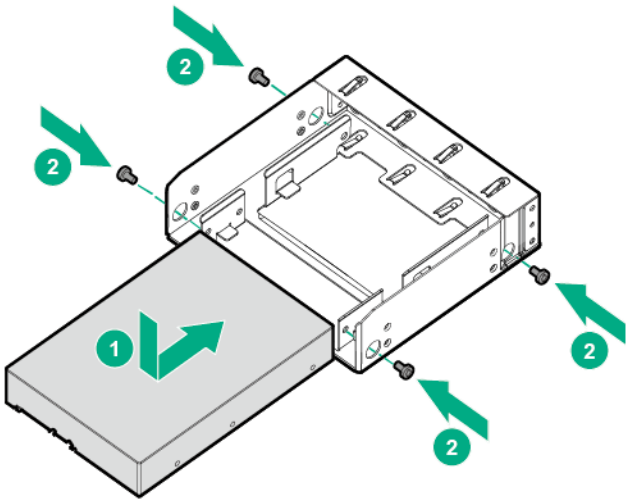
Drive enablement option

Procedure

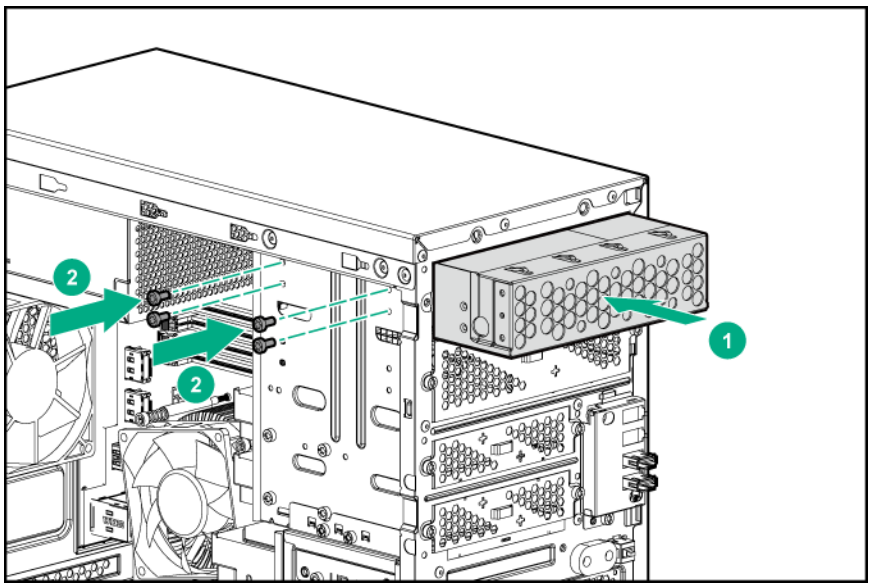
1. **Power down the server**
2. Remove all power:
   a. Disconnect each power cord from the power source.
   b. Disconnect each power cord from the server.
3. **Remove the access panel**.
4. **Remove the tower bezel**.
5. Remove the EMI shield.



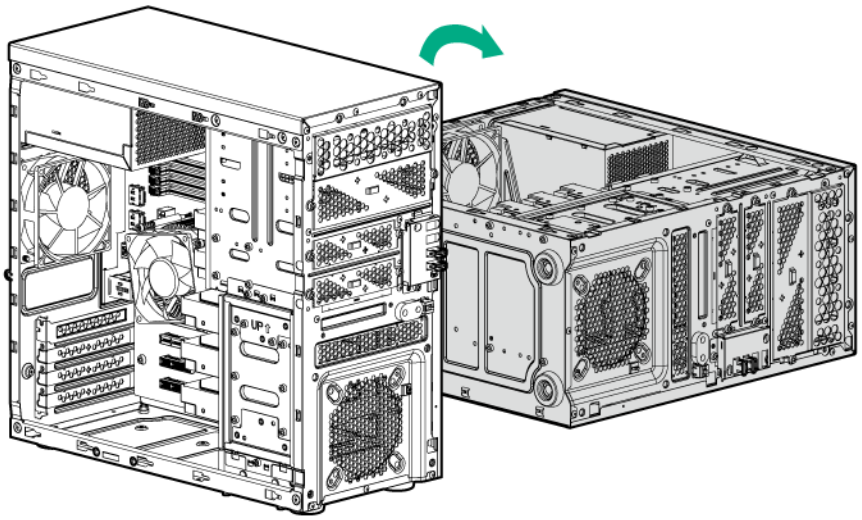
6. Install the drive into the drive cage and secure it with four silver #6-32 screws.



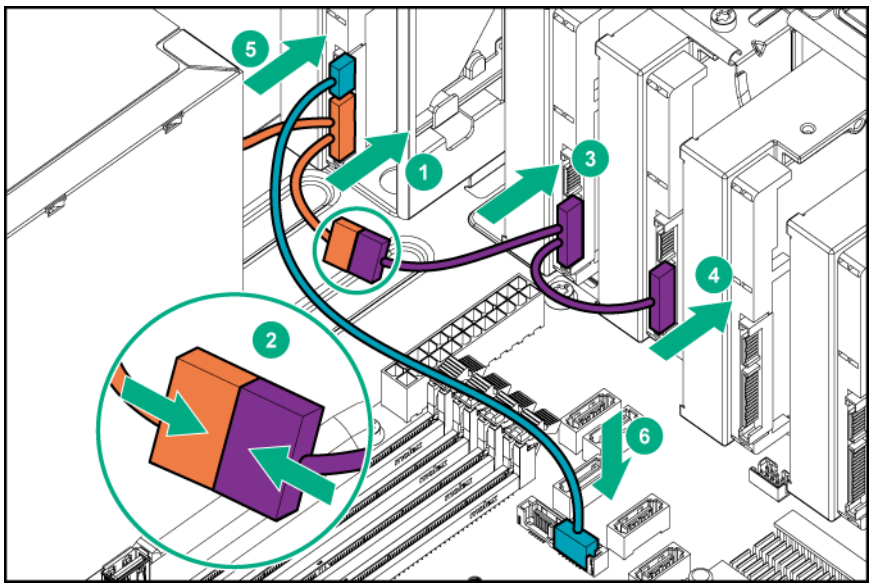
7. Insert the drive cage into the media bay and secure it with four black M3 screws.



8. Place the server on its side



9. To connect the drive cables:
   a. Connect one end of the shorter drive power supply cable to drive 6.
   b. Connect the other end of the shorter drive power supply cable to the extension power cable.
   c. Connect the other ends of the extension power cable to drive 1 and drive 2.
   d. Connect the SATA cable to the system board.



10. **Install the tower bezel**.
11. **Install the access panel**.
12. Return the server to an upright position.
13. Connect each power cord to the server.
14. Connect each power cord to the power source.
15. **Power up the server**.

Controller options

The server ships with an embedded Intel Rapid Storage Technology SATA RAID Controller. To obtain the SATA driver required for RAID configuration, download from the **Hewlett Packard Enterprise website**. For more information about the controller and its features, see Support for Intel Rapid Storage Technology on the **Intel website**.

To configure arrays, see *Setting Up and Configuring Intel AMT and RAID volumes on ProLiant ML10 Gen9 Server* on the **Hewlett Packard Enterprise website**.

Installing an HPE H241 host bus adapter

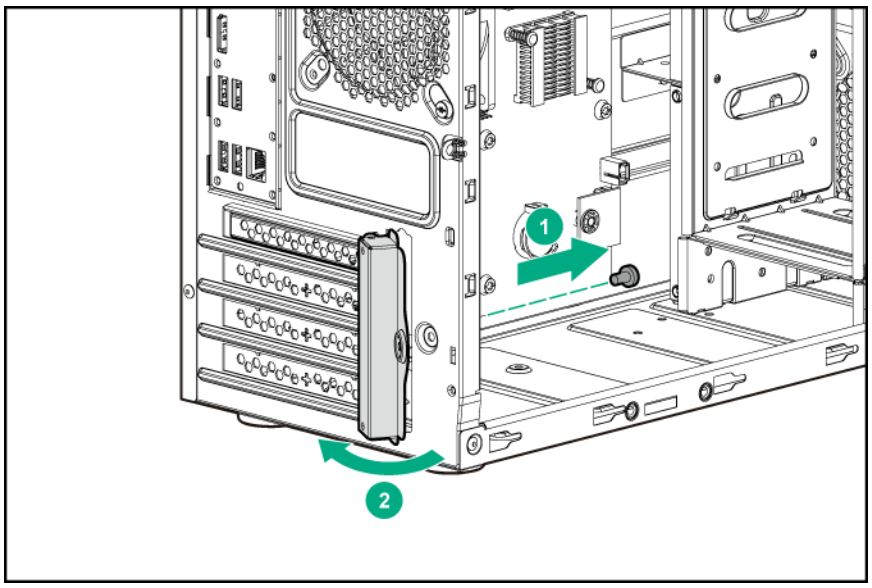
IMPORTANT:
For additional installation and configuration information, see the documentation that ships with the option.

An HPE H241 host bus adapter can only be installed in slot 1 and 2.

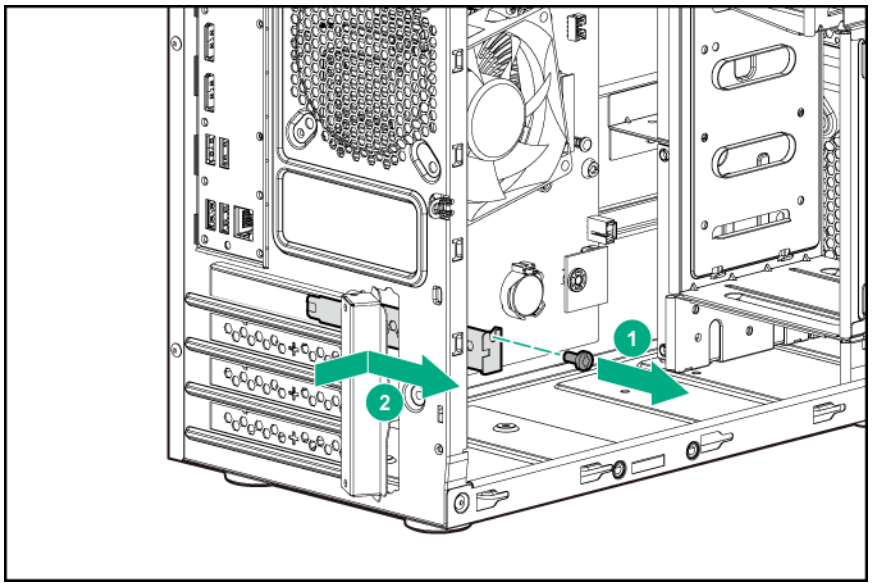
For more information about product features, specifications, options, configurations, and compatibility, see the product QuickSpecs on the **Hewlett Packard Enterprise website**.

Procedure

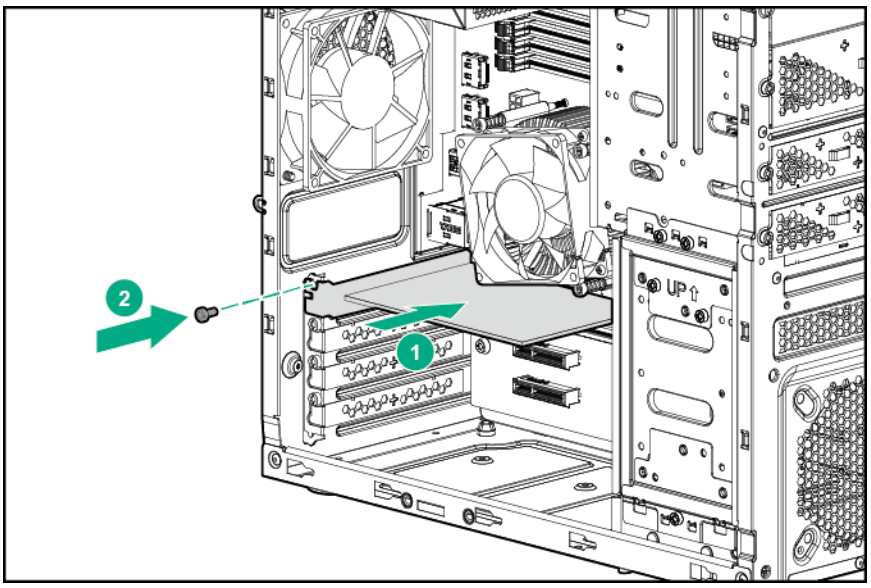
1. **Power down the server**.
2. Remove all power:
   a. Disconnect each power cord from the power source.
   b. Disconnect each power cord from the server.
3. **Remove the access panel**.
4. Remove the expansion slot cover retainer.



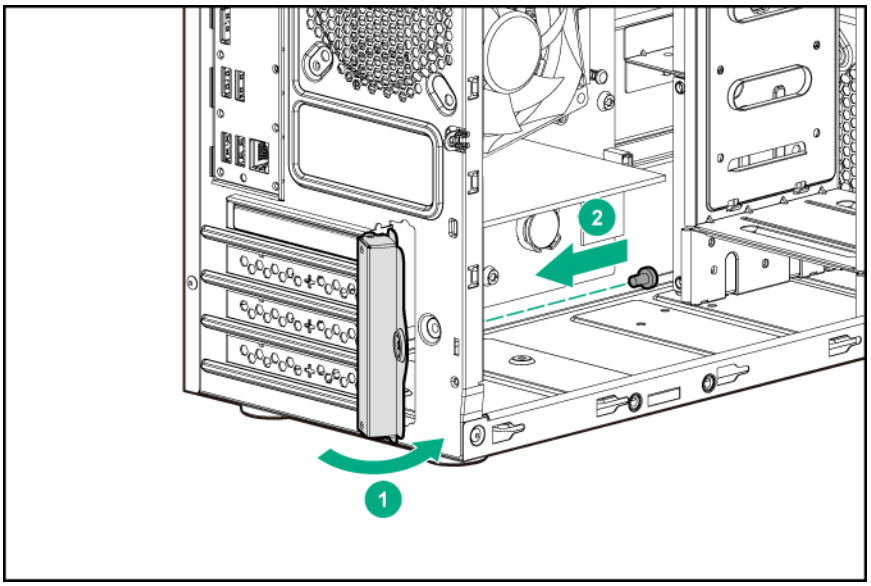
5. Remove the slot cover blank.



6. Remove the air baffle from the host bus adapter.
7. Install the host bus adapter.



8. Close the expansion slot cover retainer.



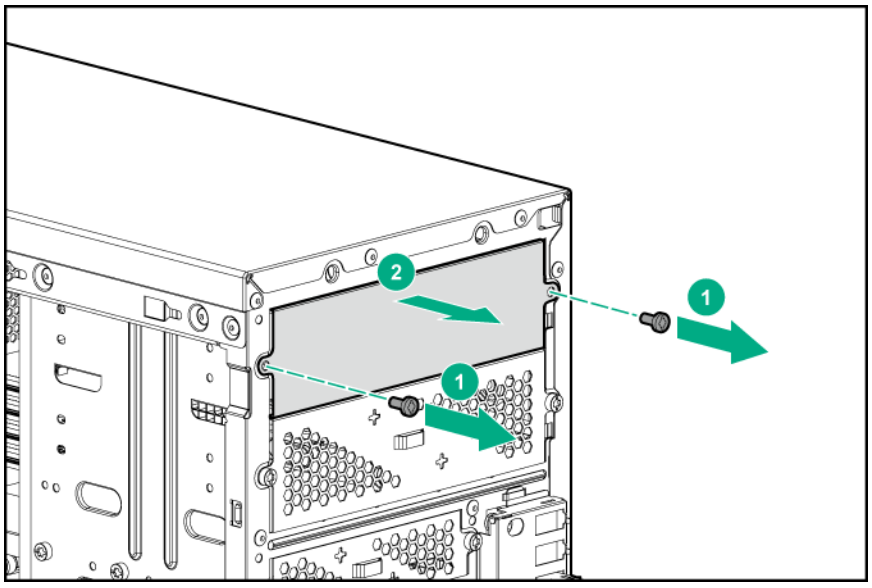
9. **Install the access panel**.
10. Connect the adapter to a storage product with external mini-SAS cables.
11. Connect each power cord to the server.
12. Connect each power cord to the power source.
13. **Power up the server**.

Slim optical disk drive enablement option

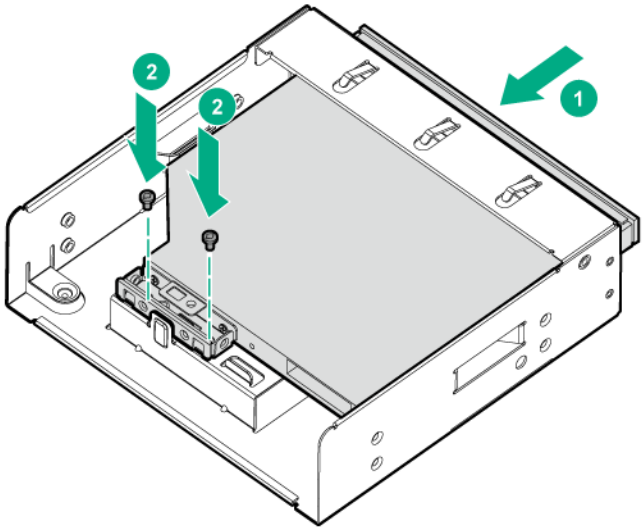
Procedure

1. **Power down the server**
2. Remove all power:
   a. Disconnect each power cord from the power source.
   b. Disconnect each power cord from the server.
3. **Remove the access panel**.
4. **Remove the tower bezel**.

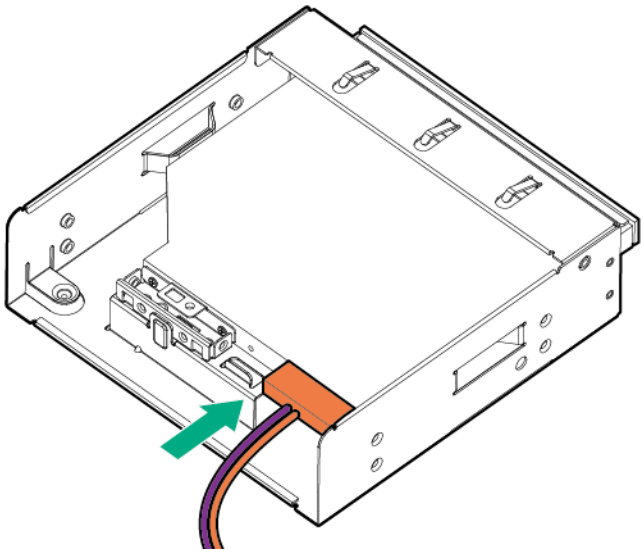
5. Remove the EMI shield.



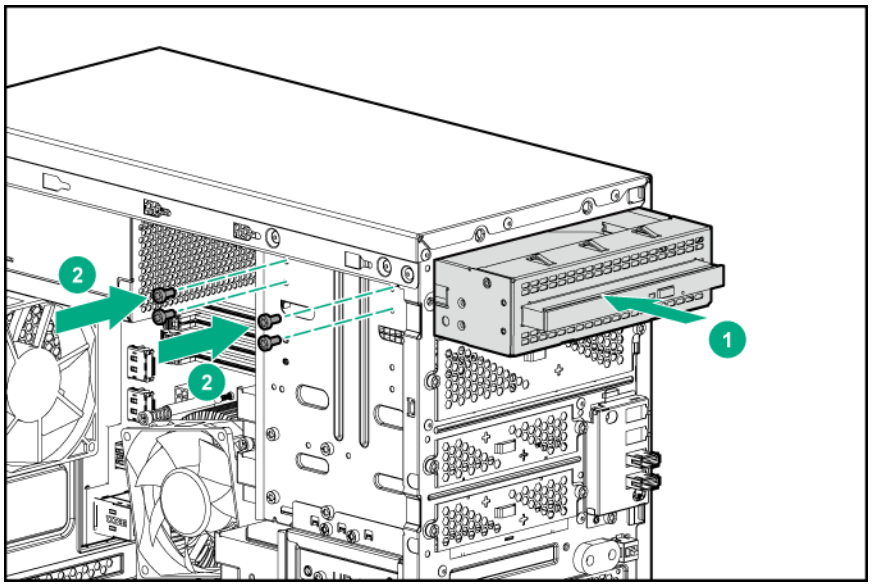
6. Install the slim optical disk drive into the drive cage and secure it with two silver #6-32 screws.



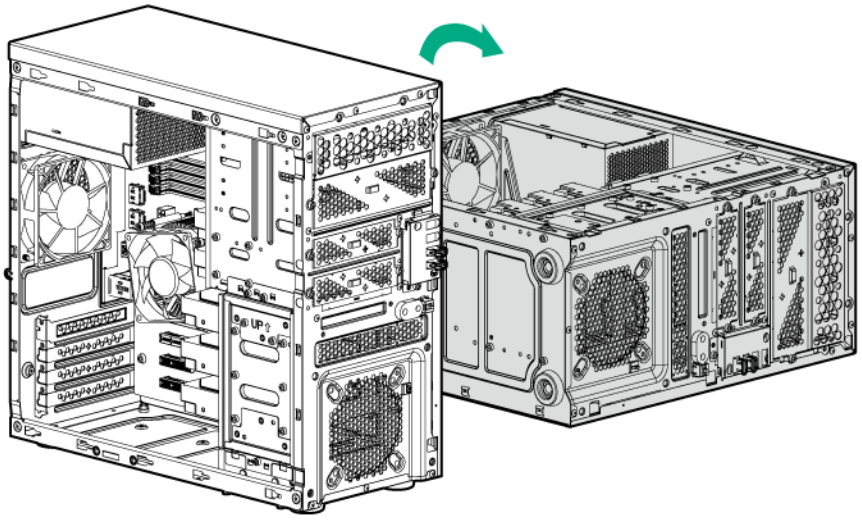
7. Connect the cable to the rear of the drive.



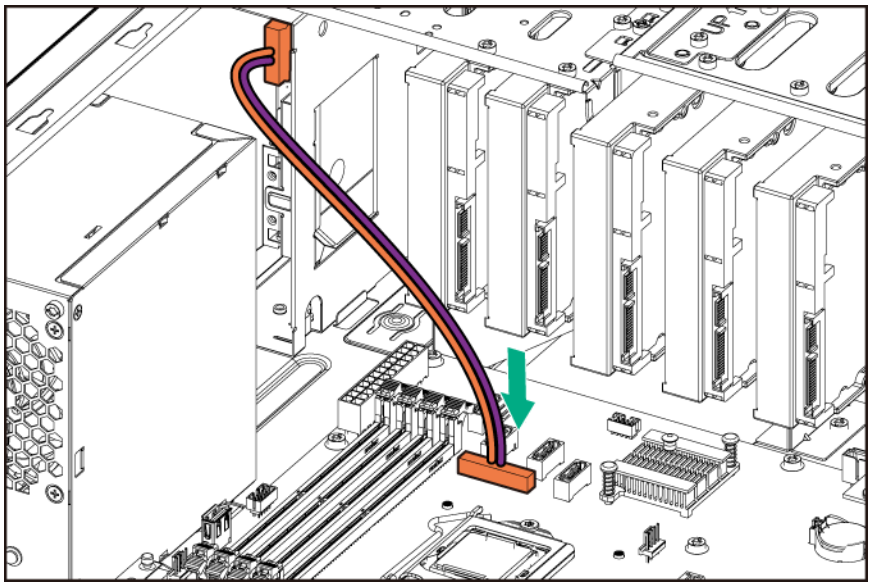
8. Install the drive cage into the chassis and then secure it with four black M3 screws.



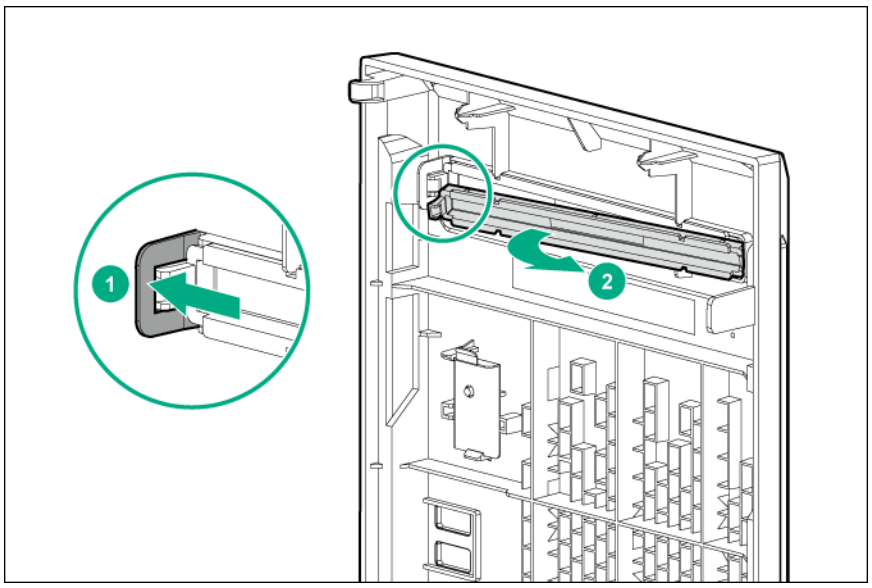
9. Place the server on its side



10. Connect the SATA and power cable.



11. Remove the optical drive bay blank.



12. **Install the tower bezel**.
13. **Install the access panel**.
14. Return the server to an upright position.
15. Connect each power cord to the server.
16. Connect each power cord to the power source.
17. **Power up the server**.

Memory options

The memory subsystem in this server supports UDIMMs only.

The server supports the single-rank and dual-rank PC4-2133 (DDR4-2133) UDIMMs operating at up to 2133 MT/s DIMM speeds.

Supported DIMM specifications

Type	Rank	Capacity	Native speed	Voltage
UDIMM	Single	4 GB	2133 MT/s	STD
UDIMM	Single	8 GB	2133 MT/s	STD
UDIMM	Dual	8 GB	2133 MT/s	STD
UDIMM	Dual	16 GB	2133 MT/s	STD

Populated DIMM speed (MT/s)

Type	Rank	1 DIMM per channel	2 DIMMs per channel
UDIMM	Single	2133 MT/s	2133 MT/s
UDIMM	Dual	2133 MT/s	2133 MT/s

For more information about product features, specifications, options, configurations, and compatibility, see the product QuickSpecs on the **Hewlett Packard Enterprise website**.

Memory subsystem architecture

The memory subsystem in this server is divided into channels. The processor supports two channels, and each channel supports two DIMM slots, as shown in the following table:

Population order	Channel	Slot number
1	A	3C
2	B	1D
3	A	4A
4	B	2B

For the location of the slot numbers, see **DIMM slot locations**.

Single and dual-rank DIMMs

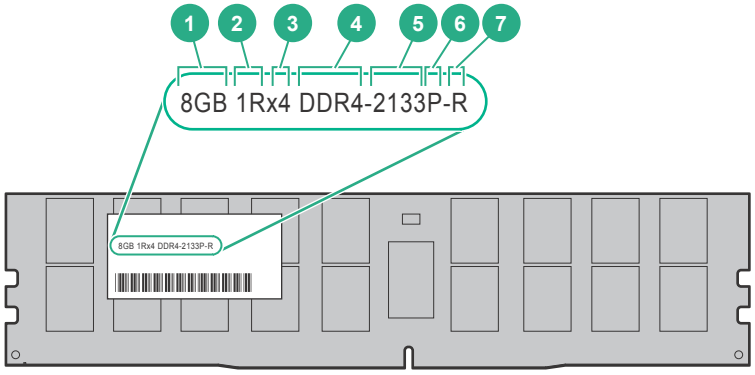
To understand and configure memory protection modes properly, an understanding of single and dual-rank DIMMs is helpful. Some DIMM configuration requirements are based on these classifications.

A single-rank DIMM has one set of memory chips that is accessed while writing to or reading from the memory. A dual-rank DIMM is similar to having two single-rank DIMMs on the same module, with only one rank accessible at a time.

Dual-rank DIMMs provide the greatest capacity with the existing memory technology. For example, if current DRAM technology supports 8-GB single-rank DIMMs, a dual-rank DIMM would be 16 GB.

DIMM identification

To determine DIMM characteristics, use the label attached to the DIMM and the following illustration and table.



Item	Description	Definition
1	Capacity	8 GB 16 GB
2	Rank	1R = Single-rank 2R = Dual-rank
3	Data width	x4 = 4-bit x8 = 8-bit
4	Memory generation	DDR4

Table Continued

Item	Description	Definition
5	Maximum memory speed	2133 MT/s
6	CAS latency	P = 15
7	DIMM type	E = UDIMM (unbuffered with ECC)

For more information about product features, specifications, options, configurations, and compatibility, see the product QuickSpecs on the **Hewlett Packard Enterprise website**.

Memory configuration

Maximum memory capacity

DIMM type	DIMM rank	One Processor
UDIMM	Single-rank (4 GB)	16 GB
UDIMM	Single-rank (8 GB)	32 GB
UDIMM	Dual-rank (8 GB)	32 GB
UDIMM	Dual-rank (16 GB)	64 GB

For the latest memory configuration information, see the product QuickSpecs on the **Hewlett Packard Enterprise website**.

General DIMM slot population guidelines

Observe the following guidelines:

- Install DIMMs only if the corresponding processor is installed.
- Black DIMM slots denote the first slot of a channel.
- When only one processor is installed, install DIMMs in the following sequential order: 3C, 1D, 4A, 2B.
- When single-rank, dual-rank DIMMs are populated with two DIMMs per channel, always populate the higher number rank DIMM first (starting from the farthest slot). For example, first populate the dual-rank DIMM and then populate the single-rank DIMM.
- DIMMs should be populated starting farthest from the processor on each channel.

For more information about server memory, see the **Hewlett Packard Enterprise website**.

The DIMM speeds supported in this server are listed in the following table:

Populated slots (per channel)	Rank	Speeds supported (MT/s)
1	Single, dual	2133
2	Single, dual	2133

Population order

For memory configurations with a single processor, DIMMs must be populated sequentially in the following order: 3C, 1D, 4A, 2B.

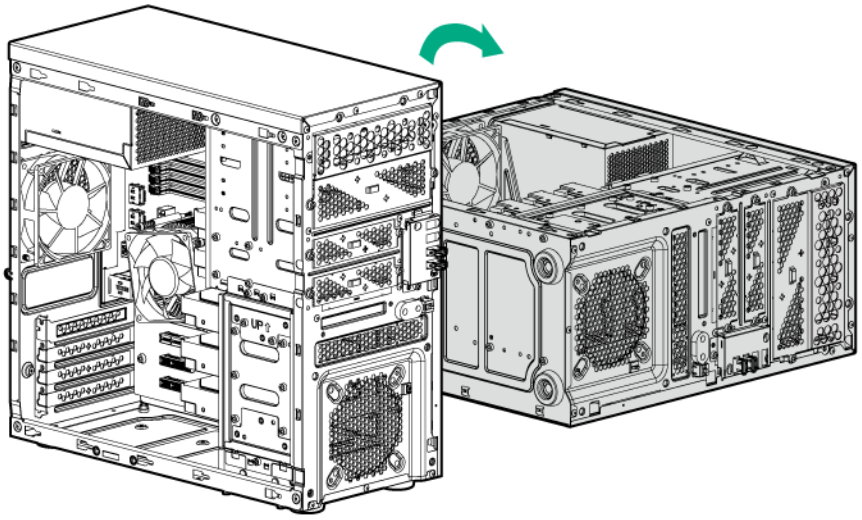
Installing a DIMM

Procedure

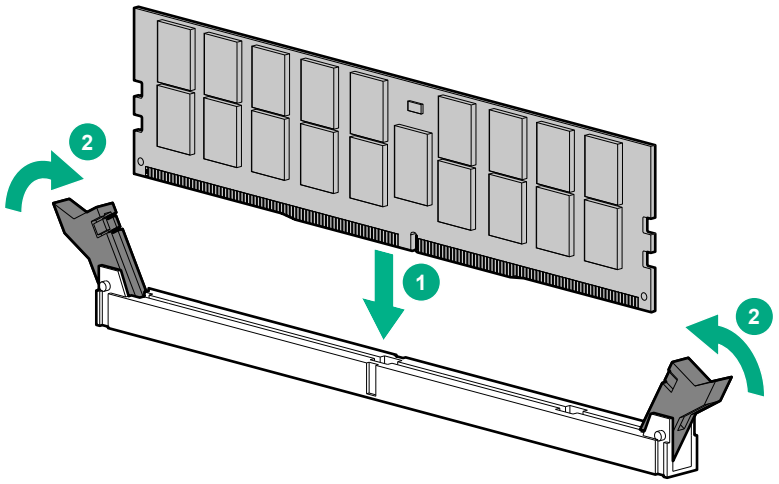
1. **Power down the server**
2. Remove all power:

a. Disconnect each power cord from the power source.
b. Disconnect each power cord from the server.

3. **Remove the access panel**.
4. Place the server on its side



5. Open the DIMM slot latches.
6. Install the DIMM.



7. **Install the access panel**.
8. Return the server to an upright position.
9. Connect the power cord to the server.
10. Connect the power cord to the power source.
11. **Power up the server**.

HP Trusted Platform Module option

For more information about product features, specifications, options, configurations, and compatibility, see the product QuickSpecs on the **Hewlett Packard Enterprise website**.

Use these instructions to install and enable TPM on a supported server. This procedure includes three sections:

1. **Installing the Trusted Platform Module board**.
2. **Retaining the recovery key/password**.
3. **Enabling the Trusted Platform Module**.

TPM installation requires the use of drive encryption technology, such as the Microsoft Windows BitLocker Drive Encryption feature. For more information on BitLocker, see the **Microsoft website**.

CAUTION:
Always observe the guidelines in this document. Failure to follow these guidelines can cause hardware damage or halt data access.

When installing or replacing a TPM, observe the following guidelines:

- Do not remove an installed TPM.

  Once installed, the TPM becomes a permanent part of the system board.
- When installing or replacing hardware, Hewlett Packard Enterprise service providers cannot enable the TPM or the encryption technology.

  For security reasons, only the customer can enable these features.
- When returning a system board for service replacement, do not remove the TPM from the system board.

  When requested, Hewlett Packard Enterprise Service provides a TPM with the spare system board.
- Any attempt to remove an installed TPM from the system board breaks or disfigures the TPM security rivet.

  Upon locating a broken or disfigured rivet on an installed TPM, administrators should consider the system compromised and take appropriate measures to ensure the integrity of the system data.
- When using BitLocker, always retain the recovery key/password.

  The recovery key/password is required to enter Recovery Mode after BitLocker detects a possible compromise of system integrity.
- Hewlett Packard Enterprise is not liable for blocked data access caused by improper TPM use.

  For operating instructions, see the encryption technology feature documentation provided by the operating system.

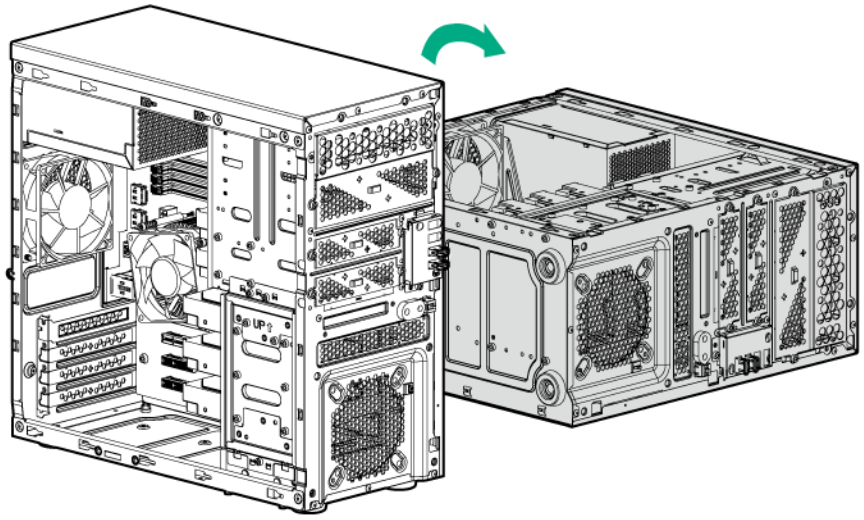
Installing the Trusted Platform Module board

WARNING:
To reduce the risk of personal injury, electric shock server, or damage to the equipment, disconnect the power cord to remove power from the . Pressing the Power On/Standby button does not shut off system power completely. Portions of the power supply and some internal circuitry remain active until AC power is removed.

WARNING:
To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.

Procedure

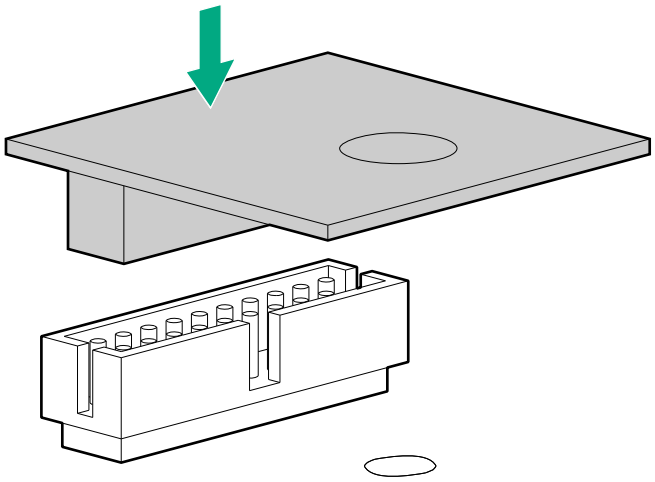
1. **Power down the server**
2. Remove all power:
   a. Disconnect each power cord from the power source.
   b. Disconnect each power cord from the server.
3. **Remove the access panel**.
4. Place the server on its side



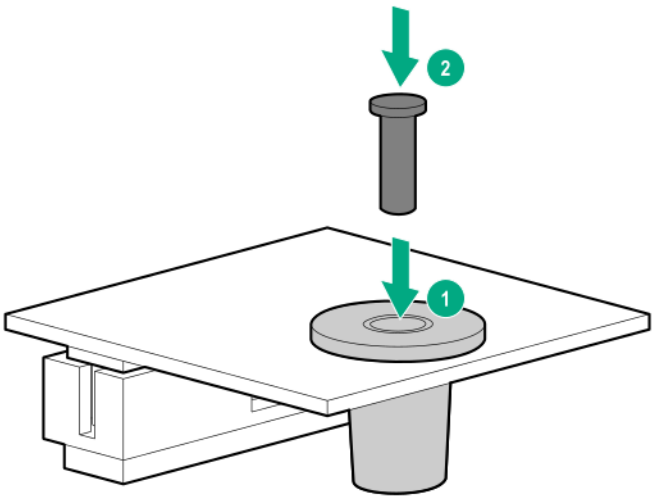
CAUTION:
Any attempt to remove an installed TPM from the system board breaks or disfigures the TPM security rivet. Upon locating a broken or disfigured rivet on an installed TPM, administrators should consider the system compromised and take appropriate measures to ensure the integrity of the system data.

5. Install the TPM board.

   Press down on the connector to seat the board.



6. Install the TPM security rivet by pressing the rivet firmly into the system board.



7. Return the server to an upright position.
8. **Install the access panel**.
9. Connect each power cord to the server.
10. Connect each power cord to the power source.
11. **Power up the server**.

Retaining the recovery key/password

The recovery key/password is generated during BitLocker setup, and can be saved and printed after BitLocker is enabled. When using BitLocker, always retain the recovery key/password. The recovery key/password is required to enter Recovery Mode after BitLocker detects a possible compromise of system integrity.

To help ensure maximum security, observe the following guidelines when retaining the recovery key/password:

- Always store the recovery key/password in multiple locations.
- Always store copies of the recovery key/password away from the server.
- Do not save the recovery key/password on the encrypted hard drive.

Enabling the Trusted Platform Module

Procedure

1. When prompted during the start-up sequence, access BIOS setup utility by pressing the **Esc** or **DEL** key.
2. From the Main Menu, select **Advanced**.
3. From the Advanced Menu, select **Trusted Computing**.
4. The device name appears on the screen if you have the TPM installed.
5. Select **TPM State**, and then press the **Enter** key to modify the TPM Functionality setting.

   The default setting of **TPM State** is **Enabled**.
6. Press the **Esc** key to exit the current menu, or press the **F4** key to save and exit BIOS setup utility.
7. Reboot the server.
8. Enable the TPM in the OS.

   For OS-specific instructions, see the OS documentation.

CAUTION:
When a TPM is installed and enabled on the server, data access is locked if you fail to follow the proper procedures for updating the system or option firmware, replacing the system board, replacing a hard drive, or modifying OS application TPM settings.

For more information on adjusting TPM usage in BitLocker™, see the **Microsoft website**.

Cabling

Cabling overview

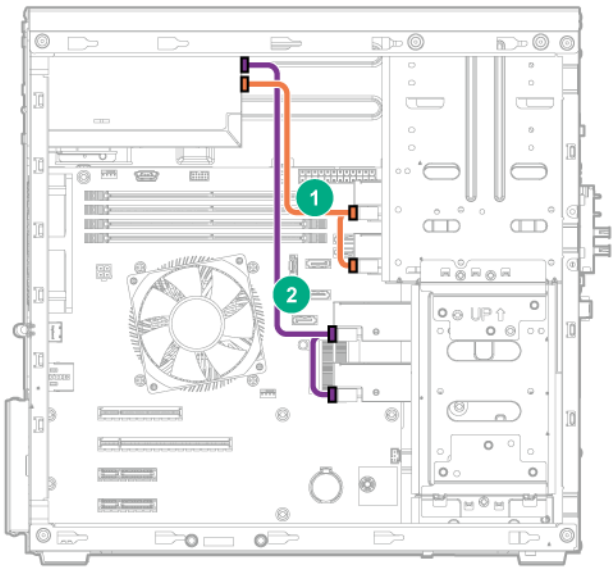
This section provides guidelines that help you make informed decisions about cabling the server and hardware options to optimize performance.

For information on cabling peripheral components, refer to the white paper on high-density deployment at the **Hewlett Packard Enterprise website**.

CAUTION:
When routing cables, always be sure that the cables are not in a position where they can be pinched or crimped.

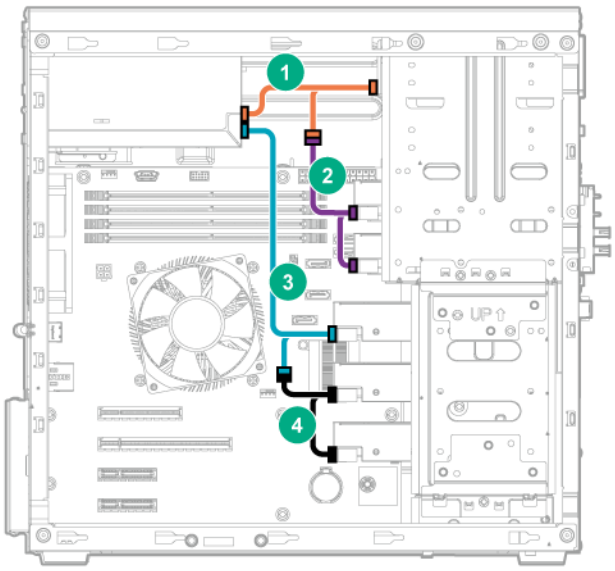
Storage cabling

Drive power cabling (4 drives)



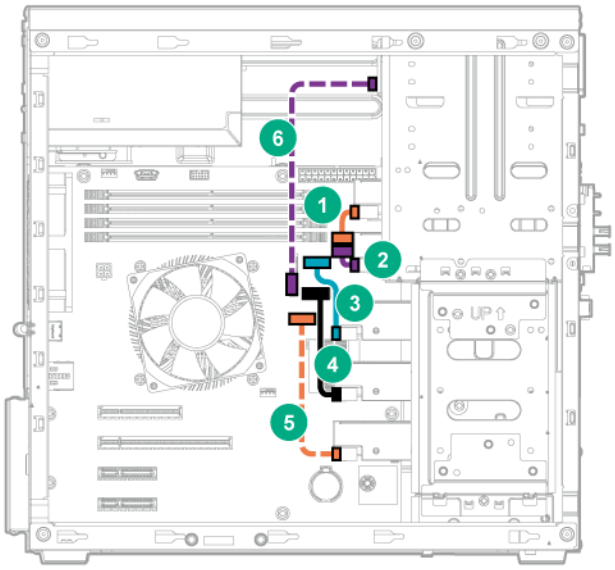
Item	Description
1	Drive power cable for drive 1 and 2
2	Drive power cable for drive 3 and 4

Drive power cabling (6 drives)



Item	Description
1	Drive power cable for drive 1, 2 and 6
2	Extension power cable
3	Drive power cable for drive 3 to 5
4	Extension power cable

Drive SATA cabling

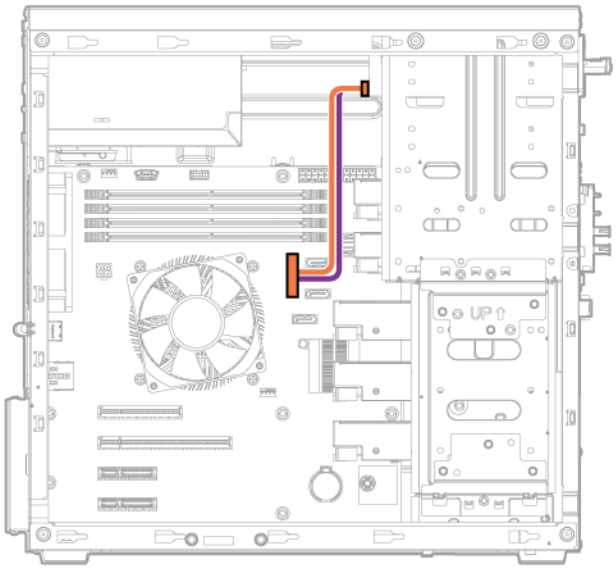


Item	Description
1	Drive 1 to SATA 1 on system board
2	Drive 2 to SATA 2 on system board

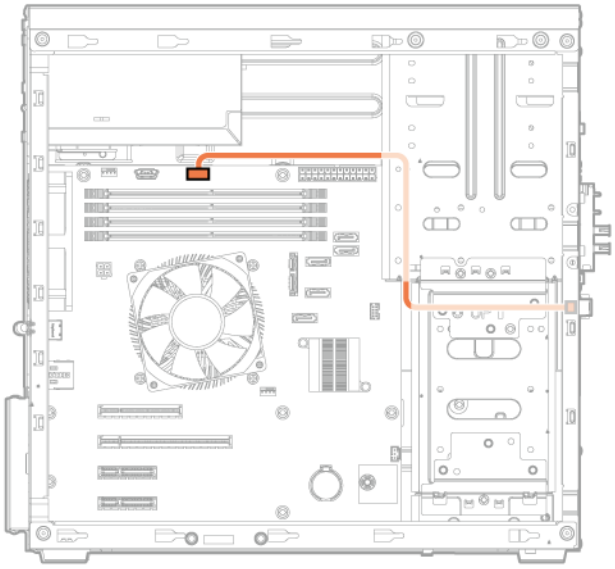
Table Continued

Item	Description
3	Drive 3 to SATA 3 on system board
4	Drive 4 to SATA 4 on system board
5	Drive 5 to SATA 5 on system board
6	Drive 6 to SATA 6 and optical drive shared connect on system board

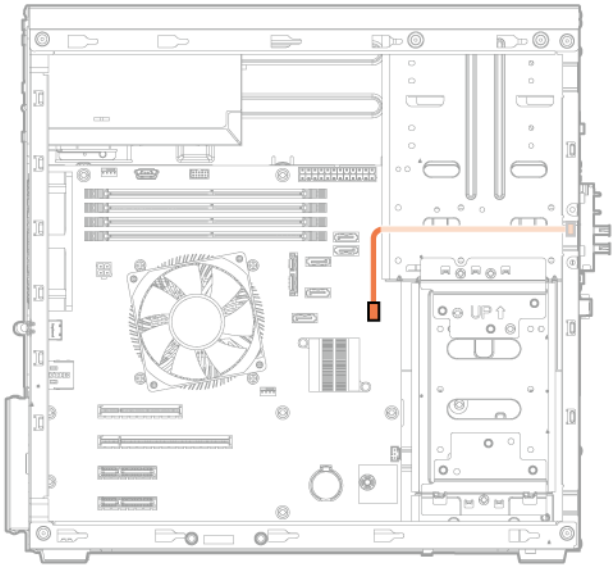
Optical drive cabling



Front LEDs and power button module cabling

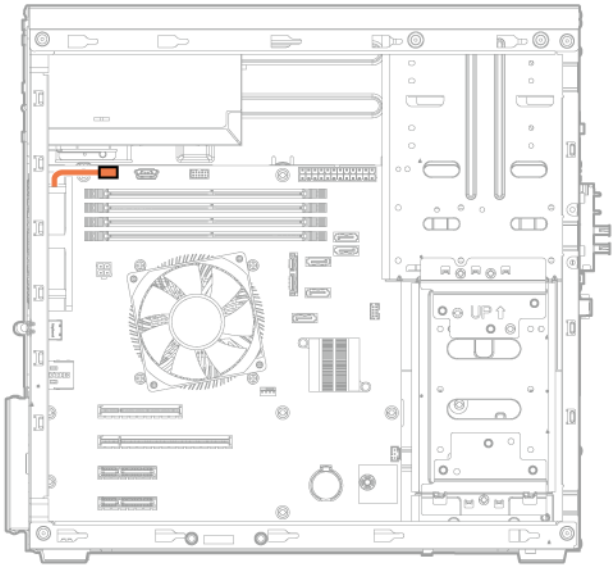


Front USB cabling

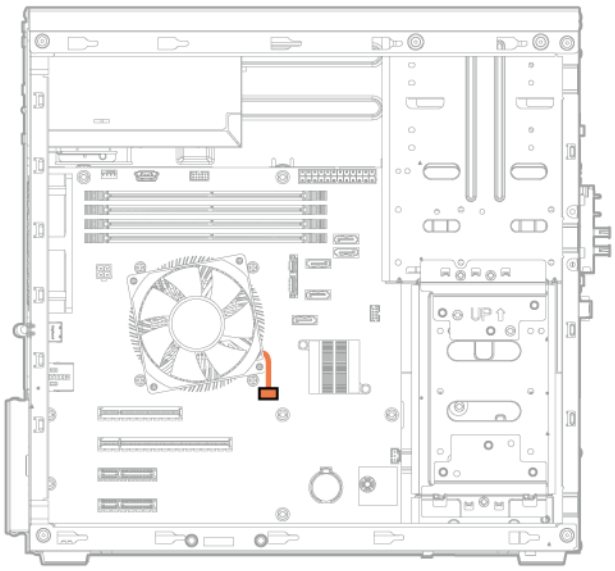


Fan cabling

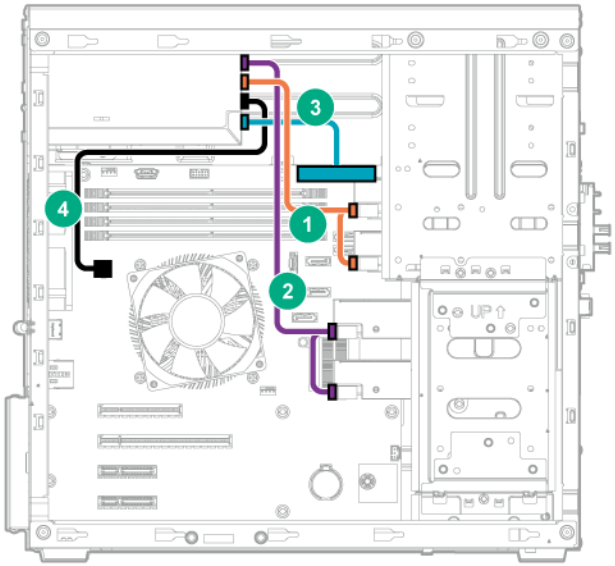
System fan



Processor fan



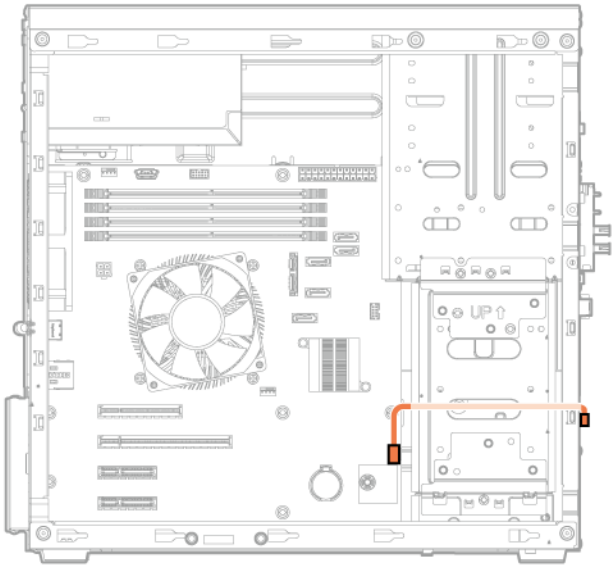
Power supply cabling



Item	Description
1	Drive power cable for drive 1, 2, and 6*
2	Drive power cable for drive 3, 4, and 5*
3	24-pin power cable
4	4-pin power cable

*The installation of drive 5 and 6 requires an extension power cable. See **Drive power cabling (6 drives installation)**.

Ambient temperature sensor cabling



Software and configuration utilities

BIOS Setup Utility

Use the embedded BIOS setup utility to perform a wide range of configuration activities including:

- Configuring system devices and installed options
- Displaying system information
- Selecting the primary boot controller
- Configuring memory options

Boot options

Near the end of the boot process, the boot options screen is displayed. This screen is visible for several seconds before the system attempts to boot from a supported boot device. During this time, you can do the following:

- Access BIOS Setup Utility by pressing the **Esc/Delete** key.
- Access Boot screen by pressing the **F7** key.
- Force a PXE Network boot by pressing the **F12** key.

Re-entering the server serial number and product ID

After replacing the system board, you must re-enter the server serial number and product ID.

Procedure

1. To enable SPD Write:
   a. During the server startup sequence, press the **Delete** or **Esc** key to access the BIOS Setup menu.
   b. Select **Chipset** > **PCH-IO Configuration**, and then press the **Enter** key.
   c. Select **SPD Write Disable** and press **Enter**.
   d. To enable SPD Write, select **Disable** and press **Enter**.
   e. To exit **Chipset**, press the **Esc** key.
   f. Select **Save & Exit** > **Save Changes and Exit**, and press **Enter**.
   g. To save changes, select **Yes**. The server automatically reboots.
2. To enter the product ID:
   a. During the server startup sequence, press the **Delete** or **Esc** key to access the BIOS Setup menu.
   b. Select **Advanced** > **System FRU Information**, and then press the **Enter** key.
   c. Select **FRU update Support** and press **Enter**.
   d. Select **Enable** and press **Enter**.
   e. Select **Modify Product Part/Model Number** and press **Enter**.

      Enter the Modify Product Part/Model Number and press **Enter**.
   f. Select **Modify Product S/N** and press **Enter**.

      Enter the Modify Product S/N and press **Enter**.
   g. Select **Start Update FRU** and press **Enter**.
   h. Select **Enable** and press **Enter**. The following warning appears:

      If you enable this item, the data will be written in FRU.
   i. To clear the warning, press **Enter**. The following message appears:

      ```
      FRU has been updated. Please reboot and check it.
      ```
   j. To clear the message, press **Enter**. The following warning appears:

      ```
      Please enable the setting of SPD Write Disable for security.
      ```

k. To clear the warning, press **Enter**.
l. To exit **Advance**, press the **Esc** key.

3. To disable SPD Write:
   a. Select **Chipset** > **PCH-IO Configuration**, and then press the **Enter** key.
   b. Select **SPD Write Disable** and press **Enter**.
   c. To disable SPD write, select **Enable** and press **Enter**.
   d. To exit **Chipset**, press the **Esc** key.
   e. Select **Save & Exit** > **Save Changes and Exit**, and press **Enter**.
   f. To save changes, select **Yes**. The server automatically reboots.

Embedded SATA RAID feature

The server ships with an embedded Intel Rapid Storage Technology SATA RAID Controller. The SATA driver required for RAID configuration is embedded in the OS and will be installed along with the installation of operating system or can be obtained from the **Hewlett Packard Enterprise website**.

For more information about the controller and its features, see *Support for Intel Rapid Storage Technology* on the **Intel website**.

To configure arrays, see *Setting Up and Configuring Intel AMT and RAID volumes on ProLiant ML10 Gen9 Server* on the **Hewlett Packard Enterprise website**.

Intel Active Management Technology

This ProLiant server uses Intel AMT processor technology to simplify management and reduce IT-related expenditures. Intel AMT processor technology allows for improved management of PC systems and better security. AMT is a platform-resident solution that includes both hardware and firmware, and relies on the Management Engine integrated into supported Intel chipsets. AMT provides out-of-band remote access to a system regardless of the power state or operating system condition as long as the system is connected to a power source and a network.

The server only supports Intel AMT when the supported Intel Xeon processor is installed in the system. The server only supports the Intel Standard Manageability when the supported Intel Pentium or Core i3 processor is installed. The instructions for downloading the Intel AMT and Standard Manageability software and firmware are available on the **Hewlett Packard Enterprise website**.

By default, AMT is inactive, and must be set up and configured in the MEBX before it can be used.

For more information, see *Setting Up and Configuring Intel AMT and RAID volumes on ProLiant ML10 Gen9 Server* on the **Hewlett Packard Enterprise website**. See the **Intel website** for other white papers and technical information regarding AMT and Standard Manageability.

USB support

Hewlett Packard Enterprise servers support both USB 2.0 ports and USB 3.0 ports. Both types of ports support installing all types of USB devices (USB 1.0, USB 2.0, and USB 3.0), but may run at lower speeds in specific situations:

- USB 3.0 capable devices operate at USB 2.0 speeds when installed in a USB 2.0 port.
- When the server is configured for UEFI Boot Mode, it provides legacy USB support in the pre-boot environment prior to the operating system loading for USB 1.0, USB 2.0 , and USB 3.0 speeds.
- When the server is configured for Legacy BIOS Boot Mode, it provides legacy USB support in the pre-boot environment prior to the operating system loading for USB 1.0 and USB 2.0 speeds. While USB 3.0 ports can be used with all devices in Legacy BIOS Boot Mode, they are not available at USB 3.0 speeds in the pre-boot environment. Standard USB support (USB support from within the operating system) is provided by the OS through the appropriate USB device drivers. Support for USB 3.0 varies by operating system.

The pre-OS behavior of the USB ports is configurable in the BIOS Setup Utility, so that the user can change the default operation of the USB ports.

Keeping the system current

Access to Hewlett Packard Enterprise Support Materials

Access to some updates for ProLiant Servers may require product entitlement when accessed through the Hewlett Packard Enterprise Support Center support portal. Hewlett Packard Enterprise recommends that you have an HP Passport set up with relevant entitlements. For more information, see the **Hewlett Packard Enterprise website**.

Updating firmware or System ROM

Obtain the firmware or System ROM updates and installation instructions from the **Hewlett Packard Enterprise website**.

Product entitlement is required to perform updates. For more information, see **Access to Hewlett Packard Enterprise Support Materials**.

Drivers

IMPORTANT:
Always perform a backup before installing or updating device drivers.

The server includes new hardware that may not have driver support on all OS installation media.

Driver for some of the new hardware are required. Download individual drivers from the **Hewlett Packard Enterprise website**.

Software and firmware

Software and firmware should be updated before using the server for the first time, unless any installed software or components require an older version.

Download firmware or other system software from the **Hewlett Packard Enterprise website**.

Operating System Version Support

For information about specific versions of a supported operating system, refer to the **operating system support matrix**.

HPE Technology Service Portfolio

HPE Technology Services deliver confidence, reduces risk and helps customers realize agility and stability. We help customers succeed through Hybrid IT by simplifying and enriching the on-premise experience, informed by public cloud qualities and attributes. HPE Support Services enables you to choose the right service level, length of coverage and response time to fit your business needs. Connect to HPE to help prevent problems and solve issues faster. By connecting, you will receive 24x7 monitoring, prefailure alerts, automatic call logging, and automatic parts dispatch. To learn more about getting connected, see the **Hewlett Packard Enterprise website** .

For more information about support services, see the **Hewlett Packard Enterprise website** .

Utilize our consulting expertise in the following areas:

- Private or hybrid cloud computing
- Big data and mobility requirements

- Improving data center infrastructure
- Better use of server, storage, and networking technology

For more information, see the **Hewlett Packard Enterprise website** .

Change control and proactive notification

Hewlett Packard Enterprise offers Change Control and Proactive Notification to notify customers 30 to 60 days in advance of the following:

- Upcoming hardware and software changes
- Bulletins
- Patches

Let us know what Hewlett Packard Enterprise commercial products you own and we will send you the latest updates to keep your business running smoothly.

For more information, see the **Hewlett Packard Enterprise website**.

Troubleshooting

Troubleshooting resources

The *HPE ProLiant ML10 Gen9 Troubleshooting Guide* provides procedures for resolving common problems and comprehensive courses of action for fault isolation and identification, issue resolution, and software maintenance. To view the guide, select a language:

- **English**
- **French**
- **Spanish**
- **German**
- **Japanese**
- **Simplified Chinese**

System battery replacement

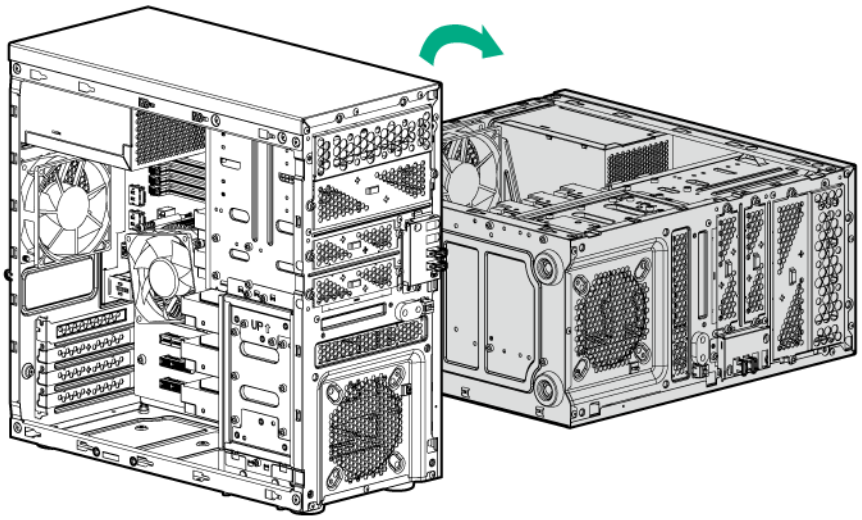
If the server no longer automatically displays the correct date and time, then replace the battery that provides power to the real-time clock. Under normal use, battery life is 5 to 10 years.

WARNING:
The computer contains an internal lithium manganese dioxide, a vanadium pentoxide, or an alkaline battery pack. A risk of fire and burns exists if the battery pack is not properly handled. To reduce the risk fo personal injury:

- Do not attempt to recharge the battery.
- Do not expose the battery to temperatures higher than 60°C (140°F).
- Do not disassemble, crush, puncture, short external contacts, or dispose of in fire or water.
- Replace only with the spare designated for this product

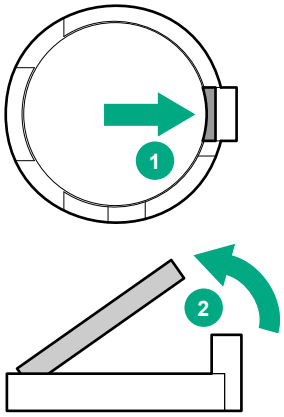
Procedure

1. **Power down the server**
2. Remove all power:
   a. Disconnect each power cord from the power source.
   b. Disconnect each power cord from the server.
3. **Remove the access panel**.
4. Place the server on its side



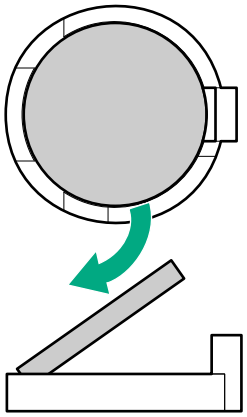
5. **Locate the battery on the system board**.
6. Use your finger or a small flat-bladed, nonconductive tool to press the metal tab.

   This will partially release the battery from the socket.
7. Remove the battery.



IMPORTANT:
Replacing the system board battery resets the system ROM to its default configuration. After replacing the battery, use BIOS setup utility to reconfigure the system.

8. Insert the battery with the "+" side facing up on the socket, and then press the battery down to secure it in place.



9. Return the server to an upright position.
10. **Install the access panel**.
11. **Power up the server**.

For more information about battery replacement or proper disposal, contact an authorized reseller or an authorized service provider.

Warranty and regulatory information

Warranty information

HPE ProLiant and x86 Servers and Options	**http://www.hpe.com/support/ProLiantServers-Warranties**
HPE Enterprise Servers	**http://www.hpe.com/support/EnterpriseServers-Warranties**
HPE Storage Products	**http://www.hpe.com/support/Storage-Warranties**
HPE Networking Products	**http://www.hpe.com/support/Networking-Warranties**

Regulatory information

To view the regulatory information for your product, view the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at the Hewlett Packard Enterprise Support Center:

www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Additional regulatory information

Hewlett Packard Enterprise is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at:

www.hpe.com/info/reach

For Hewlett Packard Enterprise product environmental and safety information and compliance data, including RoHS and REACH, see:

www.hpe.com/info/ecodata

For Hewlett Packard Enterprise environmental information, including company programs, product recycling, and energy efficiency, see:

www.hpe.com/info/environment

Belarus Kazakhstan Russia marking

EAC

Manufacturer and Local Representative Information

Manufacturer information:

- Hewlett Packard Enterprise Company, 3000 Hanover Street, Palo Alto, CA 94304 U.S.

Local representative information Russian:

- Russia:

  ООО «Хьюлетт Паккард Энтерпрайз», Российская Федерация, 125171, г. Москва, Ленинградское шоссе, 16А, стр.3, Телефон/факс: +7 495 797 35 00

- Belarus:

ИООО «Хьюлетт-Паккард Бел», Республика Беларусь, 220030, г. Минск, ул. Интернациональная, 36-1, Телефон/факс: +375 17 392 28 20

- Kazakhstan:

  ТОО «Хьюлетт-Паккард (К)», Республика Казахстан, 050040, г. Алматы, Бостандыкский район, проспект Аль-Фараби, 77/7, Телефон/факс: + 7 727 355 35 52

Local representative information Kazakh:

- Russia:

  ЖШС "Хьюлетт Паккард Энтерпрайз", Ресей Федерациясы, 125171, Мәскеу, Ленинград тас жолы, 16А блок 3, Телефон/факс: +7 495 797 35 00

- Belarus:

  «HEWLETT-PACKARD Bel» ЖШС, Беларусь Республикасы, 220030, Минск қ., Интернациональная көшесі, 36/1, Телефон/факс: +375 17 392 28 20

- Kazakhstan:

  ЖШС «Хьюлетт-Паккард (К)», Қазақстан Республикасы, 050040, Алматы к., Бостандык ауданы, Әл-Фараби даңғ ылы, 77/7, Телефон/факс: +7 727 355 35 52

Manufacturing date:

The manufacturing date is defined by the serial number.

CCSYWWZZZZ (serial number format for this product)

Valid date formats include:

- YWW, where Y indicates the year counting from within each new decade, with 2000 as the starting point; for example, 238: 2 for 2002 and 38 for the week of September 9. In addition, 2010 is indicated by 0, 2011 by 1, 2012 by 2, 2013 by 3, and so forth.
- YYWW, where YY indicates the year, using a base year of 2000; for example, 0238: 02 for 2002 and 38 for the week of September 9.

Turkey RoHS material content declaration

Türkiye Cumhuriyeti: EEE Yönetmeliğine Uygundur

Ukraine RoHS material content declaration

Обладнання відповідає вимогам Технічного регламенту щодо обмеження використання деяких небезпечних речовин в електричному та електронному обладнанні, затвердженого постановою Кабінету Міністрів України від 3 грудня 2008 № 1057

Electrostatic discharge

Preventing electrostatic discharge

To prevent damaging the system, be aware of the precautions you must follow when setting up the system or handling parts. A discharge of static electricity from a finger or other conductor may damage system boards or other static-sensitive devices. This type of damage may reduce the life expectancy of the device.

To prevent electrostatic damage:

Procedure

- Avoid hand contact by transporting and storing products in static-safe containers.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free workstations.
- Place parts on a grounded surface before removing them from their containers.
- Avoid touching pins, leads, or circuitry.
- Always be properly grounded when touching a static-sensitive component or assembly.

Grounding methods to prevent electrostatic discharge

Several methods are used for grounding. Use one or more of the following methods when handling or installing electrostatic-sensitive parts:

- Use a wrist strap connected by a ground cord to a grounded workstation or computer chassis. Wrist straps are flexible straps with a minimum of 1 megohm ±10 percent resistance in the ground cords. To provide proper ground, wear the strap snug against the skin.
- Use heel straps, toe straps, or boot straps at standing workstations. Wear the straps on both feet when standing on conductive floors or dissipating floor mats.
- Use conductive field service tools.
- Use a portable field service kit with a folding static-dissipating work mat.

If you do not have any of the suggested equipment for proper grounding, have an authorized reseller install the part.

For more information on static electricity or assistance with product installation, contact an authorized reseller.

Specifications

Environmental specifications

Specifications	Value
Temperature range*	—
Operating	10°C to 35°C (50°F to 95°F)
Nonoperating	-30°C to 60°C (-22°F to 140°F)
Relative humidity (noncondensing)	—
Operating	Minimum to be the higher (more moisture) of -12°C (10.4°F) dew point or 8% relative humidity Maximum to be 24°C (75.2°F) dew point or 90% relative humidity
Nonoperating	5% to 95% 38.7°C (101.7°F), maximum wet bulb temperature

* All temperature ratings shown are for sea level. An altitude derating of 1.0°C per 304.8 m (1.8°F per 1000 ft) to 3048 m (10,000 ft) is applicable. No direct sunlight allowed. Maximum rate of change is 20°C per hour (36°F per hour). The upper limit and rate of change might be limited by the type and number of options installed.

For certain approved hardware configurations, the supported system inlet temperature range is extended:

- 5°C to 10°C (41°F to 50°F) and 35°C to 40°C (95°F to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3048 m (10,000 ft).
- 40°C to 45°C (104°F to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3048 m (10,000 ft).

Server specifications

Specification	Tower model
Height	36.76 cm (14.47 in)
Depth	40.13 cm (15.79 in)
Width	17.50 cm (6.89 in)
Minimum weight	6.68 kg (14.73 lbs)
Maximum weight	10.58 kg (23.32 lbs)

Power supply specifications

The server supports the ATX 300W Power Supply.

CAUTION:
Check the system and power supply input ratings before powering up the server.

Specification	Value
Input requirements	
Rated input voltage	100-120 VAC/200-240 VAC
Rated input frequency	50/60Hz
Rated input current	6 A/4 A
Maximum rated input power	333 W at 115 VAC 333 W at 230 VAC
BTUs per hour	1133.33 at 115 VAC 1133.33 at 230 VAC
Power supply output	
Rated steady-state power	300 W at 115 VAC input 300 W at 230 VAC input
Maximum peak power	300 W at 115 VAC input 300 W at 230 VAC input

Support and other resources

Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website:

  http://www.hpe.com/assistance
- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:

  http://www.hpe.com/support/hpesc

Information to collect

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.
- To download product updates:

Hewlett Packard Enterprise Support Center	**www.hpe.com/support/hpesc**
Hewlett Packard Enterprise Support Center: Software downloads	**www.hpe.com/support/downloads**
Software Depot	**www.hpe.com/support/softwaredepot**

- To subscribe to eNewsletters and alerts:

  www.hpe.com/support/e-updates
- To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page:

  www.hpe.com/support/AccessToSupportMaterials

IMPORTANT:

Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HPE Passport set up with relevant entitlements.

Customer self repair

Hewlett Packard Enterprise products are designed with many Customer Self Repair (CSR) parts to minimize repair time and allow for greater flexibility in performing defective parts replacement. If during the diagnosis period Hewlett Packard Enterprise (or Hewlett Packard Enterprise service providers or

service partners) identifies that the repair can be accomplished by the use of a CSR part, Hewlett Packard Enterprise will ship that part directly to you for replacement. There are two categories of CSR parts:

- **Mandatory**—Parts for which customer self repair is mandatory. If you request Hewlett Packard Enterprise to replace these parts, you will be charged for the travel and labor costs of this service.
- **Optional**—Parts for which customer self repair is optional. These parts are also designed for customer self repair. If, however, you require that Hewlett Packard Enterprise replace them for you, there may or may not be additional charges, depending on the type of warranty service designated for your product.

NOTE: Some Hewlett Packard Enterprise parts are not designed for customer self repair. In order to satisfy the customer warranty, Hewlett Packard Enterprise requires that an authorized service provider replace the part. These parts are identified as "No" in the Illustrated Parts Catalog.

Based on availability and where geography permits, CSR parts will be shipped for next business day delivery. Same day or four-hour delivery may be offered at an additional charge where geography permits. If assistance is required, you can call the Hewlett Packard Enterprise Support Center and a technician will help you over the telephone. Hewlett Packard Enterprise specifies in the materials shipped with a replacement CSR part whether a defective part must be returned to Hewlett Packard Enterprise. In cases where it is required to return the defective part to Hewlett Packard Enterprise, you must ship the defective part back to Hewlett Packard Enterprise within a defined period of time, normally five (5) business days. The defective part must be returned with the associated documentation in the provided shipping material. Failure to return the defective part may result in Hewlett Packard Enterprise billing you for the replacement. With a customer self repair, Hewlett Packard Enterprise will pay all shipping and part return costs and determine the courier/carrier to be used.

For more information about the Hewlett Packard Enterprise CSR program, contact your local service provider. For the North American program, go to the **Hewlett Packard Enterprise CSR website**

Parts only warranty service

Your Hewlett Packard Enterprise Limited Warranty may include a parts only warranty service. Under the terms of parts only warranty service, Hewlett Packard Enterprise will provide replacement parts free of charge.

For parts only warranty service, CSR part replacement is mandatory. If you request Hewlett Packard Enterprise to replace these parts, you will be charged for the travel and labor costs of this service.

Réparation par le client (CSR)

Les produits Hewlett Packard Enterprise comportent de nombreuses pièces CSR (Customer Self Repair = réparation par le client) afin de minimiser les délais de réparation et faciliter le remplacement des pièces défectueuses. Si pendant la période de diagnostic, Hewlett Packard Enterprise (ou ses partenaires ou mainteneurs agréés) détermine que la réparation peut être effectuée à l'aide d'une pièce CSR, Hewlett Packard Enterprise vous l'envoie directement. Il existe deux catégories de pièces CSR :

- **Obligatoire—**Pièces pour lesquelles la réparation par le client est obligatoire. Si vous demandez à Hewlett Packard Enterprise de remplacer ces pièces, les coûts de déplacement et main d'œuvre du service vous seront facturés.
- **Facultatif—**Pièces pour lesquelles la réparation par le client est facultative. Ces pièces sont également conçues pour permettre au client d'effectuer lui-même la réparation. Toutefois, si vous demandez à Hewlett Packard Enterprise de remplacer ces pièces, l'intervention peut ou non vous être facturée, selon le type de garantie applicable à votre produit.

REMARQUE: Certaines pièces Hewlett Packard Enterprise ne sont pas conçues pour permettre au client d'effectuer lui-même la réparation. Pour que la garantie puisse s'appliquer, Hewlett Packard Enterprise exige que le remplacement de la pièce soit effectué par un Mainteneur Agréé. Ces pièces sont identifiées par la mention "Non" dans le Catalogue illustré.

Les pièces CSR sont livrées le jour ouvré suivant, dans la limite des stocks disponibles et selon votre situation géographique. Si votre situation géographique le permet et que vous demandez une livraison le jour même ou dans les 4 heures, celle-ci vous sera facturée. Pour toute assistance, appelez le Centre d'assistance Hewlett Packard Enterprise pour qu'un technicien vous aide au téléphone Dans les documents envoyés avec la pièce de rechange CSR, Hewlett Packard Enterprise précise s'il est nécessaire de lui retourner la pièce défectueuse. Si c'est le cas, vous devez le faire dans le délai indiqué, généralement cinq (5) jours ouvrés. La pièce et sa documentation doivent être retournées dans l'emballage fourni. Si vous ne retournez pas la pièce défectueuse, Hewlett Packard Enterprise se réserve le droit de vous facturer les coûts de remplacement. Dans le cas d'une pièce CSR, Hewlett Packard Enterprise supporte l'ensemble des frais d'expédition et de retour, et détermine la société de courses ou le transporteur à utiliser.

Pour plus d'informations sur le programme CSR de Hewlett Packard Enterprise, contactez votre Mainteneur Agrée local. Pour plus d'informations sur ce programme en Amérique du Nord, consultez le site **Web Hewlett Packard Enterprise**.

Service de garantie "pièces seules"

Votre garantie limitée Hewlett Packard Enterprise peut inclure un service de garantie "pièces seules". Dans ce cas, les pièces de rechange fournies par Hewlett Packard Enterprise ne sont pas facturées.

Dans le cadre de ce service, la réparation des pièces CSR par le client est obligatoire. Si vous demandez à Hewlett Packard Enterprise de remplacer ces pièces, les coûts de déplacement et main d'œuvre du service vous seront facturés.

Riparazione da parte del cliente

Per abbreviare i tempi di riparazione e garantire una maggiore flessibilità nella sostituzione di parti difettose, i prodotti Hewlett Packard Enterprise sono realizzati con numerosi componenti che possono essere riparati direttamente dal cliente (CSR, Customer Self Repair). Se in fase di diagnostica Hewlett Packard Enterprise (o un centro di servizi o di assistenza Hewlett Packard Enterprise) identifica il guasto come riparabile mediante un ricambio CSR, Hewlett Packard Enterprise lo spedirà direttamente al cliente per la sostituzione. Vi sono due categorie di parti CSR:

- **Obbligatorie—**Parti che devono essere necessariamente riparate dal cliente. Se il cliente ne affida la riparazione ad Hewlett Packard Enterprise, deve sostenere le spese di spedizione e di manodopera per il servizio.
- **Opzionali—**Parti la cui riparazione da parte del cliente è facoltativa. Si tratta comunque di componenti progettati per questo scopo. Se tuttavia il cliente ne richiede la sostituzione ad Hewlett Packard Enterprise, potrebbe dover sostenere spese addizionali a seconda del tipo di garanzia previsto per il prodotto.

NOTA: alcuni componenti Hewlett Packard Enterprise non sono progettati per la riparazione da parte del cliente. Per rispettare la garanzia, Hewlett Packard Enterprise richiede che queste parti siano sostituite da un centro di assistenza autorizzato. Tali parti sono identificate da un "No" nel Catalogo illustrato dei componenti.

In base alla disponibilità e alla località geografica, le parti CSR vengono spedite con consegna entro il giorno lavorativo seguente. La consegna nel giorno stesso o entro quattro ore è offerta con un supplemento di costo solo in alcune zone. In caso di necessità si può richiedere l'assistenza telefonica di un addetto del centro di supporto tecnico Hewlett Packard Enterprise. Nel materiale fornito con una parte di ricambio CSR, Hewlett Packard Enterprise specifica se il cliente deve restituire dei component. Qualora sia richiesta la resa ad Hewlett Packard Enterprise del componente difettoso, lo si deve spedire ad Hewlett Packard Enterprise entro un determinato periodo di tempo, generalmente cinque (5) giorni lavorativi. Il componente difettoso deve essere restituito con la documentazione associata nell'imballo di spedizione fornito. La mancata restituzione del componente può comportare la fatturazione del ricambio da parte di Hewlett Packard Enterprise. Nel caso di riparazione da parte del cliente, Hewlett Packard Enterprise sostiene tutte le spese di spedizione e resa e sceglie il corriere/vettore da utilizzare.

Per ulteriori informazioni sul programma CSR di Hewlett Packard Enterprise, contattare il centro di assistenza di zona. Per il programma in Nord America fare riferimento **al sito Web**.

Servizio di garanzia per i soli componenti

La garanzia limitata Hewlett Packard Enterprise può includere un servizio di garanzia per i soli componenti. Nei termini di garanzia del servizio per i soli componenti, Hewlett Packard Enterprise fornirà gratuitamente le parti di ricambio.

Per il servizio di garanzia per i soli componenti è obbligatoria la formula CSR che prevede la riparazione da parte del cliente. Se il cliente invece richiede la sostituzione ad Hewlett Packard Enterprise dovrà sostenere le spese di spedizione e di manodopera per il servizio.

Customer Self Repair

Hewlett Packard Enterprise Produkte enthalten viele CSR-Teile (Customer Self Repair), um Reparaturzeiten zu minimieren und höhere Flexibilität beim Austausch defekter Bauteile zu ermöglichen. Wenn Hewlett Packard Enterprise (oder ein Hewlett Packard Enterprise Servicepartner) bei der Diagnose feststellt, dass das Produkt mithilfe eines CSR-Teils repariert werden kann, sendet Ihnen Hewlett Packard Enterprise dieses Bauteil zum Austausch direkt zu. CSR-Teile werden in zwei Kategorien unterteilt:

- **Zwingend**—Teile, für die das Customer Self Repair-Verfahren zwingend vorgegeben ist. Wenn Sie den Austausch dieser Teile von Hewlett Packard Enterprise vornehmen lassen, werden Ihnen die Anfahrt- und Arbeitskosten für diesen Service berechnet.
- **Optional**—Teile, für die das Customer Self Repair-Verfahren optional ist. Diese Teile sind auch für Customer Self Repair ausgelegt. Wenn Sie jedoch den Austausch dieser Teile von Hewlett Packard Enterprise vornehmen lassen möchten, können bei diesem Service je nach den für Ihr Produkt vorgesehenen Garantiebedingungen zusätzliche Kosten anfallen.

HINWEIS: Einige Hewlett Packard Enterprise Teile sind nicht für Customer Self Repair ausgelegt. Um den Garantieanspruch des Kunden zu erfüllen, muss das Teil von einem Hewlett Packard Enterprise Servicepartner ersetzt werden. Im illustrierten Teilekatalog sind diese Teile mit „No“ bzw. „Nein“ gekennzeichnet.

CSR-Teile werden abhängig von der Verfügbarkeit und vom Lieferziel am folgenden Geschäftstag geliefert. Für bestimmte Standorte ist eine Lieferung am selben Tag oder innerhalb von vier Stunden gegen einen Aufpreis verfügbar. Wenn Sie Hilfe benötigen, können Sie das Hewlett Packard Enterprise Support Center anrufen und sich von einem Mitarbeiter per Telefon helfen lassen. Den Materialien von Hewlett Packard Enterprise, die mit einem CSR-Ersatzteil geliefert werden, können Sie entnehmen, ob das defekte Teil an Hewlett Packard Enterprise zurückgeschickt werden muss. Wenn es erforderlich ist, das defekte Teil an Hewlett Packard Enterprise zurückzuschicken, müssen Sie dies innerhalb eines vorgegebenen Zeitraums tun, in der Regel innerhalb von fünf (5) Geschäftstagen. Das defekte Teil muss mit der zugehörigen Dokumentation in der Verpackung zurückgeschickt werden, die im Lieferumfang enthalten ist. Wenn Sie das defekte Teil nicht zurückschicken, kann Hewlett Packard Enterprise Ihnen das Ersatzteil in Rechnung stellen. Im Falle von Customer Self Repair kommt Hewlett Packard Enterprise für alle Kosten für die Lieferung und Rücksendung auf und bestimmt den Kurier-/Frachtdienst.

Weitere Informationen über das Hewlett Packard Enterprise Customer Self Repair Programm erhalten Sie von Ihrem Servicepartner vor Ort. Informationen über das CSR-Programm in Nordamerika finden Sie auf der **Hewlett Packard Enterprise Website unter**.

Parts-only Warranty Service (Garantieservice ausschließlich für Teile)

Ihre Hewlett Packard Enterprise Garantie umfasst möglicherweise einen Parts-only Warranty Service (Garantieservice ausschließlich für Teile). Gemäß den Bestimmungen des Parts-only Warranty Service stellt Hewlett Packard Enterprise Ersatzteile kostenlos zur Verfügung.

Für den Parts-only Warranty Service ist das CSR-Verfahren zwingend vorgegeben. Wenn Sie den Austausch dieser Teile von Hewlett Packard Enterprise vornehmen lassen, werden Ihnen die Anfahrt- und Arbeitskosten für diesen Service berechnet.

Reparaciones del propio cliente

Los productos de Hewlett Packard Enterprise incluyen muchos componentes que el propio usuario puede reemplazar (Customer Self Repair, CSR) para minimizar el tiempo de reparación y ofrecer una mayor flexibilidad a la hora de realizar sustituciones de componentes defectuosos. Si, durante la fase de diagnóstico, Hewlett Packard Enterprise (o los proveedores o socios de servicio de Hewlett Packard Enterprise) identifica que una reparación puede llevarse a cabo mediante el uso de un componente CSR, Hewlett Packard Enterprise le enviará dicho componente directamente para que realice su sustitución. Los componentes CSR se clasifican en dos categorías:

- **Obligatorio**—Componentes cuya reparación por parte del usuario es obligatoria. Si solicita a Hewlett Packard Enterprise que realice la sustitución de estos componentes, tendrá que hacerse cargo de los gastos de desplazamiento y de mano de obra de dicho servicio.
- **Opcional**—Componentes cuya reparación por parte del usuario es opcional. Estos componentes también están diseñados para que puedan ser reparados por el usuario. Sin embargo, si precisa que Hewlett Packard Enterprise realice su sustitución, puede o no conllevar costes adicionales, dependiendo del tipo de servicio de garantía correspondiente al producto.

NOTA: Algunos componentes de Hewlett Packard Enterprise no están diseñados para que puedan ser reparados por el usuario. Para que el usuario haga valer su garantía, Hewlett Packard Enterprise pone como condición que un proveedor de servicios autorizado realice la sustitución de estos componentes. Dichos componentes se identifican con la palabra "No" en el catálogo ilustrado de componentes.

Según la disponibilidad y la situación geográfica, los componentes CSR se enviarán para que lleguen a su destino al siguiente día laborable. Si la situación geográfica lo permite, se puede solicitar la entrega en el mismo día o en cuatro horas con un coste adicional. Si precisa asistencia técnica, puede llamar al Centro de asistencia técnica de Hewlett Packard Enterprise y recibirá ayuda telefónica por parte de un técnico. Con el envío de materiales para la sustitución de componentes CSR, Hewlett Packard Enterprise especificará si los componentes defectuosos deberán devolverse a Hewlett Packard Enterprise. En aquellos casos en los que sea necesario devolver algún componente a Hewlett Packard Enterprise, deberá hacerlo en el periodo de tiempo especificado, normalmente cinco días laborables. Los componentes defectuosos deberán devolverse con toda la documentación relacionada y con el embalaje de envío. Si no enviara el componente defectuoso requerido, Hewlett Packard Enterprise podrá cobrarle por el de sustitución. En el caso de todas sustituciones que lleve a cabo el cliente, Hewlett Packard Enterprise se hará cargo de todos los gastos de envío y devolución de componentes y escogerá la empresa de transporte que se utilice para dicho servicio.

Para obtener más información acerca del programa de Reparaciones del propio cliente de Hewlett Packard Enterprise, póngase en contacto con su proveedor de servicios local. Si está interesado en el programa para Norteamérica, visite **la página web de Hewlett Packard Enterprise CSR**.

Servicio de garantía exclusivo de componentes

La garantía limitada de Hewlett Packard Enterprise puede que incluya un servicio de garantía exclusivo de componentes. Según las condiciones de este servicio exclusivo de componentes, Hewlett Packard Enterprise le facilitará los componentes de repuesto sin cargo adicional alguno.

Para este servicio de garantía exclusivo de componentes, es obligatoria la sustitución de componentes por parte del usuario (CSR). Si solicita a Hewlett Packard Enterprise que realice la sustitución de estos componentes, tendrá que hacerse cargo de los gastos de desplazamiento y de mano de obra de dicho servicio.

Customer Self Repair

Veel onderdelen in Hewlett Packard Enterprise producten zijn door de klant zelf te repareren, waardoor de reparatieduur tot een minimum beperkt kan blijven en de flexibiliteit in het vervangen van defecte onderdelen groter is. Deze onderdelen worden CSR-onderdelen (Customer Self Repair) genoemd. Als Hewlett Packard Enterprise (of een Hewlett Packard Enterprise Service Partner) bij de diagnose vaststelt dat de reparatie kan worden uitgevoerd met een CSR-onderdeel, verzendt Hewlett Packard Enterprise

dat onderdeel rechtstreeks naar u, zodat u het defecte onderdeel daarmee kunt vervangen. Er zijn twee categorieën CSR-onderdelen:

- **Verplicht**—Onderdelen waarvoor reparatie door de klant verplicht is. Als u Hewlett Packard Enterprise verzoekt deze onderdelen voor u te vervangen, worden u voor deze service reiskosten en arbeidsloon in rekening gebracht.
- **Optioneel**—Onderdelen waarvoor reparatie door de klant optioneel is. Ook deze onderdelen zijn ontworpen voor reparatie door de klant. Als u echter Hewlett Packard Enterprise verzoekt deze onderdelen voor u te vervangen, kunnen daarvoor extra kosten in rekening worden gebracht, afhankelijk van het type garantieservice voor het product.

OPMERKING: Sommige Hewlett Packard Enterprise onderdelen zijn niet ontwikkeld voor reparatie door de klant. In verband met de garantievoorwaarden moet het onderdeel door een geautoriseerde Service Partner worden vervangen. Deze onderdelen worden in de geïllustreerde onderdelencatalogus aangemerkt met "Nee".

Afhankelijk van de leverbaarheid en de locatie worden CSR-onderdelen verzonden voor levering op de eerstvolgende werkdag. Levering op dezelfde dag of binnen vier uur kan tegen meerkosten worden aangeboden, indien dit mogelijk is gezien de locatie. Indien assistentie is gewenst, belt u het Hewlett Packard Enterprise Support Center om via de telefoon ondersteuning van een technicus te ontvangen. Hewlett Packard Enterprise vermeldt in de documentatie bij het vervangende CSR-onderdeel of het defecte onderdeel aan Hewlett Packard Enterprise moet worden geretourneerd. Als het defecte onderdeel aan Hewlett Packard Enterprise moet worden teruggezonden, moet u het defecte onderdeel binnen een bepaalde periode, gewoonlijk vijf (5) werkdagen, retourneren aan Hewlett Packard Enterprise. Het defecte onderdeel moet met de bijbehorende documentatie worden geretourneerd in het meegeleverde verpakkingsmateriaal. Als u het defecte onderdeel niet terugzendt, kan Hewlett Packard Enterprise u voor het vervangende onderdeel kosten in rekening brengen. Bij reparatie door de klant betaalt Hewlett Packard Enterprise alle verzendkosten voor het vervangende en geretourneerde onderdeel en kiest Hewlett Packard Enterprise zelf welke koerier/transportonderneming hiervoor wordt gebruikt.

Neem contact op met een Service Partner voor meer informatie over het Customer Self Repair programma van Hewlett Packard Enterprise. Informatie over Service Partners vindt u op de **Hewlett Packard Enterprise website**.

Garantieservice "Parts Only"

Het is mogelijk dat de Hewlett Packard Enterprise garantie alleen de garantieservice "Parts Only" omvat. Volgens de bepalingen van de Parts Only garantieservice zal Hewlett Packard Enterprise kosteloos vervangende onderdelen ter beschikking stellen.

Voor de Parts Only garantieservice is vervanging door CSR-onderdelen verplicht. Als u Hewlett Packard Enterprise verzoekt deze onderdelen voor u te vervangen, worden u voor deze service reiskosten en arbeidsloon in rekening gebracht

Reparo feito pelo cliente

Os produtos da Hewlett Packard Enterprise são projetados com muitas peças para reparo feito pelo cliente (CSR) de modo a minimizar o tempo de reparo e permitir maior flexibilidade na substituição de peças com defeito. Se, durante o período de diagnóstico, a Hewlett Packard Enterprise (ou fornecedores/parceiros da Hewlett Packard Enterprise) concluir que o reparo pode ser efetuado pelo uso de uma peça CSR, a Hewlett Packard Enterprise enviará a peça diretamente ao cliente. Há duas categorias de peças CSR:

- **Obrigatória**—Peças cujo reparo feito pelo cliente é obrigatório. Se desejar que a Hewlett Packard Enterprise substitua essas peças, serão cobradas as despesas de transporte e mão-de-obra do serviço.
- **Opcional**—Peças cujo reparo feito pelo cliente é opcional. Essas peças também são projetadas para o reparo feito pelo cliente. No entanto, se desejar que a Hewlett Packard Enterprise as substitua,

pode haver ou não a cobrança de taxa adicional, dependendo do tipo de serviço de garantia destinado ao produto.

OBSERVAÇÃO: Algumas peças da Hewlett Packard Enterprise não são projetadas para o reparo feito pelo cliente. A fim de cumprir a garantia do cliente, a Hewlett Packard Enterprise exige que um técnico autorizado substitua a peça. Essas peças estão identificadas com a marca "No" (Não), no catálogo de peças ilustrado.

Conforme a disponibilidade e o local geográfico, as peças CSR serão enviadas no primeiro dia útil após o pedido. Onde as condições geográficas permitirem, a entrega no mesmo dia ou em quatro horas pode ser feita mediante uma taxa adicional. Se precisar de auxílio, entre em contato com o Centro de suporte técnico da Hewlett Packard Enterprise para que um técnico o ajude por telefone. A Hewlett Packard Enterprise especifica nos materiais fornecidos com a peça CSR de reposição se a peça com defeito deve ser devolvida à Hewlett Packard Enterprise. Nos casos em que isso for necessário, é preciso enviar a peça com defeito à Hewlett Packard Enterprise, você deverá enviar a peça com defeito de volta para a Hewlett Packard Enterprise dentro do período de tempo definido, normalmente em 5 (cinco) dias úteis. A peça com defeito deve ser enviada com a documentação correspondente no material de transporte fornecido. Caso não o faça, a Hewlett Packard Enterprise poderá cobrar a reposição. Para as peças de reparo feito pelo cliente, a Hewlett Packard Enterprise paga todas as despesas de transporte e de devolução da peça e determina a transportadora/serviço postal a ser utilizado.

Para obter mais informações sobre o programa de reparo feito pelo cliente da Hewlett Packard Enterprise, entre em contato com o fornecedor de serviços local. Para o programa norte-americano, **visite o site da Hewlett Packard Enterprise**.

Serviço de garantia apenas para peças

A garantia limitada da Hewlett Packard Enterprise pode incluir um serviço de garantia apenas para peças. Segundo os termos do serviço de garantia apenas para peças, a Hewlett Packard Enterprise fornece as peças de reposição sem cobrar nenhuma taxa.

No caso desse serviço, a substituição de peças CSR é obrigatória. Se desejar que a Hewlett Packard Enterprise substitua essas peças, serão cobradas as despesas de transporte e mão-de-obra do serviço.

カスタマーセルフリペア

修理時間を短縮し、故障部品の交換における高い柔軟性を確保するために、Hewlett Packard Enterprise製品には多数のカスタマーセルフリペア（CSR）部品があります。診断の際に、CSR部品を使用すれば修理ができるとHewlett Packard Enterprise（Hewlett Packard EnterpriseまたはHewlett Packard Enterprise正規保守代理店）が判断した場合、Hewlett Packard Enterpriseはその部品を直接、お客様に発送し、お客様に交換していただきます。CSR部品には以下の2種類があります。

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部品のみ保証サービス

Hewlett Packard Enterprise保証サービスには、部品のみ保証サービスが適用される場合があります。このサービスでは、交換部品は無償で提供されます。

部品のみ保証サービスにおいては、CSR部品をお客様により交換作業していただくことが必須になります。当該部品について、もしもお客様がHewlett Packard Enterpriseに交換作業を依頼される場合には、その修理サービスに関する交通費および人件費がお客様のご負担となります。

客户自行维修

Hewlett Packard Enterprise 产品提供许多客户自行维修 (CSR) 部件，以尽可能缩短维修时间和在更换缺陷部件方面提供更大的灵活性。如果在诊断期间 Hewlett Packard Enterprise（或Hewlett Packard Enterprise 服务提供商或服务合作伙伴）确定可以通过使用 CSR 部件完成维修，Hewlett Packard Enterprise 将直接把该部件发送给您进行更换。有两类 CSR 部件：

- **强制性的** — 要求客户必须自行维修的部件。如果您请求 Hewlett Packard Enterprise 更换这些部件，则必须为该服务支付差旅费和人工费用。
- **可选的** — 客户可以选择是否自行维修的部件。这些部件也是为客户自行维修设计的。不过，如果您要求 Hewlett Packard Enterprise 为您更换这些部件，则根据为您的产品指定的保修服务类型，Hewlett Packard Enterprise 可能收取或不再收取任何附加费用。

注：某些 Hewlett Packard Enterprise 部件的设计并未考虑客户自行维修。为了满足客户保修的需要，Hewlett Packard Enterprise 要求授权服务提供商更换相关部件。这些部件在部件图解目录中标记为“否”。

CSR 部件将在下一个工作日发运（取决于备货情况和允许的地理范围）。在允许的地理范围内，可在当天或四小时内发运，但要收取额外费用。如果需要帮助，您可以致电 Hewlett Packard Enterprise 技术支持中心，将会有技术人员通过电话为您提供帮助。Hewlett Packard Enterprise 会在随更换的 CSR 部件发运的材料中指明是否必须将有缺陷的部件返还给 Hewlett Packard Enterprise。如果要求您将有缺陷的部件返还给 Hewlett Packard Enterprise，那么您必须在规定的期限内（通常是五 (5) 个工作日）将缺陷部件发给 Hewlett Packard Enterprise。有缺陷的部件必须随所提供的发运材料中的相关文件一起返还。如果未能送还有缺陷的部件，Hewlett Packard Enterprise 可能会要求您支付更换费用。客户自行维修时，Hewlett Packard Enterprise 将承担所有相关运输和部件返回费用，并指定快递商/承运商。

有关 Hewlett Packard Enterprise 客户自行维修计划的详细信息，请与您当地的服务提供商联系。有关北美地区的计划，请访问 Hewlett Packard Enterprise 网站 (http://www.hpe.com/support/selfrepair)。

仅部件保修服务

您的 Hewlett Packard Enterprise 有限保修服务可能涉及仅部件保修服务。根据仅部件保修服务条款的规定，Hewlett Packard Enterprise 将免费提供更换的部件。

仅部件保修服务要求进行 CSR 部件更换。如果您请求 Hewlett Packard Enterprise 更换这些部件，则必须为该服务支付差旅费和人工费用。

客戶自行維修

Hewlett Packard Enterprise 產品設計了許多「客戶自行維修」(CSR) 的零件以減少維修時間，並且使得更換瑕疵零件時能有更大的彈性。如果在診斷期間，Hewlett Packard Enterprise (或 Hewlett Packard Enterprise 服務供應商或維修夥伴) 辨認出此項維修工作可以藉由使用 CSR 零件來完成，則 Hewlett Packard Enterprise 將直接寄送該零件給您作更換。CSR 零件分為兩種類別：

- **強制的** — 客戶自行維修所使用的零件是強制性的。如果您要求 Hewlett Packard Enterprise 更換這些零件，Hewlett Packard Enterprise 將會向您收取此服務所需的外出費用與勞動成本。
- **選購的** — 客戶自行維修所使用的零件是選購的。這些零件也設計用於客戶自行維修之用。不過，如果您要求 Hewlett Packard Enterprise 為您更換，則可能需要也可能不需要負擔額外的費用，端視針對此產品指定的保固服務類型而定。

備註：某些 Hewlett Packard Enterprise 零件沒有消費者可自行維修的設計。為符合客戶保固，Hewlett Packard Enterprise 需要授權的服務供應商更換零件。這些零件在圖示的零件目錄中，被標示為「否」。

基於材料取得及環境允許的情況下，CSR 零件將於下一個工作日以快遞寄送。在環境的允許下當天或四小時內送達，則可能需要額外的費用。若您需要協助，可致電 Hewlett Packard Enterprise 支援中心，會有一位技術人員透過電話來協助您。不論損壞的零件是否必須退回，Hewlett Packard Enterprise 皆會在與 CSR 替換零件一起運送的材料中註明。若要將損壞的零件退回 Hewlett Packard Enterprise，您必須在指定的一段時間內 (通常為五 (5) 個工作天)，將損壞的零件寄回 Hewlett Packard Enterprise。損壞的零件必須與寄送資料中隨附的相關技術文件一併退還。如果無法退還損壞的零件，Hewlett Packard Enterprise 可能要向您收取替換費用。針對客戶自行維修情形，Hewlett Packard Enterprise 將負責所有運費及零件退還費用，並指定使用何家快遞/貨運公司。

如需 Hewlett Packard Enterprise 的 CSR 方案詳細資訊，請連絡您當地的服務供應商。至於北美方案，請參閱 Hewlett Packard Enterprise 的 CSR 網站frepair (http://www.hpe.com/support/selfrepair)。

僅限零件的保固服務

您的「Hewlett Packard Enterprise 有限保固」可能包含僅限零件的保固服務。在僅限零件的保固服務情況下，Hewlett Packard Enterprise 將免費提供替換零件。

針對僅限零件的保固服務，CSR 零件替換是強制性的。如果您要求 Hewlett Packard Enterprise 更換這些零件，Hewlett Packard Enterprise 將會向您收取此服務所需的外出費用與勞動成本。

고객 셀프 수리

Hewlett Packard Enterprise 제품은 수리 시간을 최소화하고 결함이 있는 부품 교체 시 더욱 융통성을 발휘할 수 있도록 하기 위해 고객 셀프 수리(CSR) 부품을 다량 사용하여 설계되었습니다. 진단 기간 동안 Hewlett Packard Enterprise(또는 Hewlett Packard Enterprise 서비스 공급업체 또는 서비스 협력업체)에서 CSR 부품을 사용하여 수리가 가능하다고 판단되면 Hewlett Packard Enterprise는 해당 부품을 바로 사용자에게 보내어 사용자가 교체할 수 있도록 합니다. CSR 부품에는 두 가지 종류가 있습니다.

- **필수 -** 고객 셀프 수리가 의무 사항인 필수 부품. 사용자가 Hewlett Packard Enterprise에 이 부품의 교체를 요청할 경우 이 서비스에 대한 출장비 및 작업비가 청구됩니다.
- **선택 사항 -** 고객 셀프 수리가 선택 사항인 부품. 이 부품들도 고객 셀프 수리가 가능하도록 설계되었습니다. 하지만 사용자가 Hewlett Packard Enterprise에 이 부품의 교체를 요청할 경우 사용자가 구입한 제품에 해당하는 보증 서비스 유형에 따라 추가 비용 없이 교체가 가능할 수 있습니다.

참고: 일부 Hewlett Packard Enterprise 부품은 고객 셀프 수리가 불가능하도록 설계되었습니다. Hewlett Packard Enterprise는 만족스러운 고객 보증을 위해 공인 서비스 제공업체를 통해 부품을 교체하도록 하고 있습니다. 이러한 부품들은 Illustrated Parts Catalog에 "No"라고 표시되어 있습니다.

CSR 부품은 재고 상태와 지리적 조건이 허용하는 경우 다음 영업일 납품이 가능하도록 배송이 이루어집니다. 지리적 조건이 허용하는 경우 추가 비용이 청구되는 조건으로 당일 또는 4시간 배송이 가능할 수도 있습니다. 도움이 필요하시면 Hewlett Packard Enterprise Support Center로 전화하십시오. 전문 기술자가 전화로 도움을 줄 것입니다. Hewlett Packard Enterprise는 결함이 발생한 부품을 Hewlett Packard Enterprise로 반환해야 하는지 여부를 CSR 교체 부품과 함께 배송된 자료에 지정합니다. 결함이 발생한 부품을 Hewlett Packard Enterprise로 반환해야 하는 경우에는 지정된 기간 내(통상 영업일 기준 5일)에 Hewlett Packard Enterprise로 반환해야 합니다. 이때 결함이 발생한 부품은 제공된 포장 재료에 넣어 관련 설명서와 함께 반환해야 합니다. 결함이 발생한 부품을 반환하지 않는 경우 Hewlett Packard Enterprise가 교체 부품에 대해 비용을 청구할 수 있습니다. 고객 셀프 수리의 경우, Hewlett Packard Enterprise는 모든 운송 및 부품 반환 비용을 부담하며 이용할 운송업체 및 택배 서비스를 결정합니다.

Hewlett Packard Enterprise CSR 프로그램에 대한 자세한 내용은 가까운 서비스 제공업체에 문의하십시오. 북미 지역의 프로그램에 대해서는 Hewlett Packard Enterprise CSR 웹 사이트(http://www.hpe.com/support/selfrepair)를 참조하십시오.

부품 제공 보증 서비스

Hewlett Packard Enterprise 제한 보증에는 부품 제공 보증 서비스가 포함될 수 있습니다. 이러한 경우 Hewlett Packard Enterprise는 부품 제공 보증 서비스의 조건에 따라 교체 부품만을 무료로 제공합니다.

부품 제공 보증 서비스 제공 시 CSR 부품 교체는 의무 사항입니다. 사용자가 Hewlett Packard Enterprise에 이 부품의 교체를 요청할 경우 이 서비스에 대한 출장비 및 작업비가 청구됩니다.

Remote support

Remote support is available with supported devices as part of your warranty or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which will initiate a fast and accurate resolution based on your product's service level. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

If your product includes additional remote support details, use search to locate that information.

Remote support and Proactive Care information

HPE Get Connected	**www.hpe.com/services/getconnected**
HPE Proactive Care services	**www.hpe.com/services/proactivecare**
HPE Proactive Care service: Supported products list	**www.hpe.com/services/proactivecaresupportedproducts**
HPE Proactive Care advanced service: Supported products list	**www.hpe.com/services/proactivecareadvancedsupportedproducts**

Proactive Care customer information

Proactive Care central	**www.hpe.com/services/proactivecarecentral**
Proactive Care service activation	**www.hpe.com/services/proactivecarecentralgetstarted**

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Acronyms and abbreviations

CE	Conformité Européenne (European Conformity)
CSA	Canadian Standards Association
CSR	Customer Self Repair
EMI	electromagnetic interference
IEC	International Electrotechnical Commission
Intel AMT	Intel Active Management Technology
Intel RST	Intel Rapid Storage Technology
NVRAM	nonvolatile memory
PCIe	Peripheral Component Interconnect Express
PDU	power distribution unit
POST	Power-On Self-Test
SAS	serial attached SCSI
SATA	serial ATA
TMRA	recommended ambient operating temperature
TPM	Trusted Platform Module
UDIMM	unregistered dual in-line memory module
USB	universal serial bus