HPE ProLiant DL360 G5 Server - Parts Support Guide

Part Number: External
Published: 2020
Edition: 1

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Abstract

This document will help you identify parts of the product and also gives a step-by-step instruction on how to remove and replace the components.

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Front view



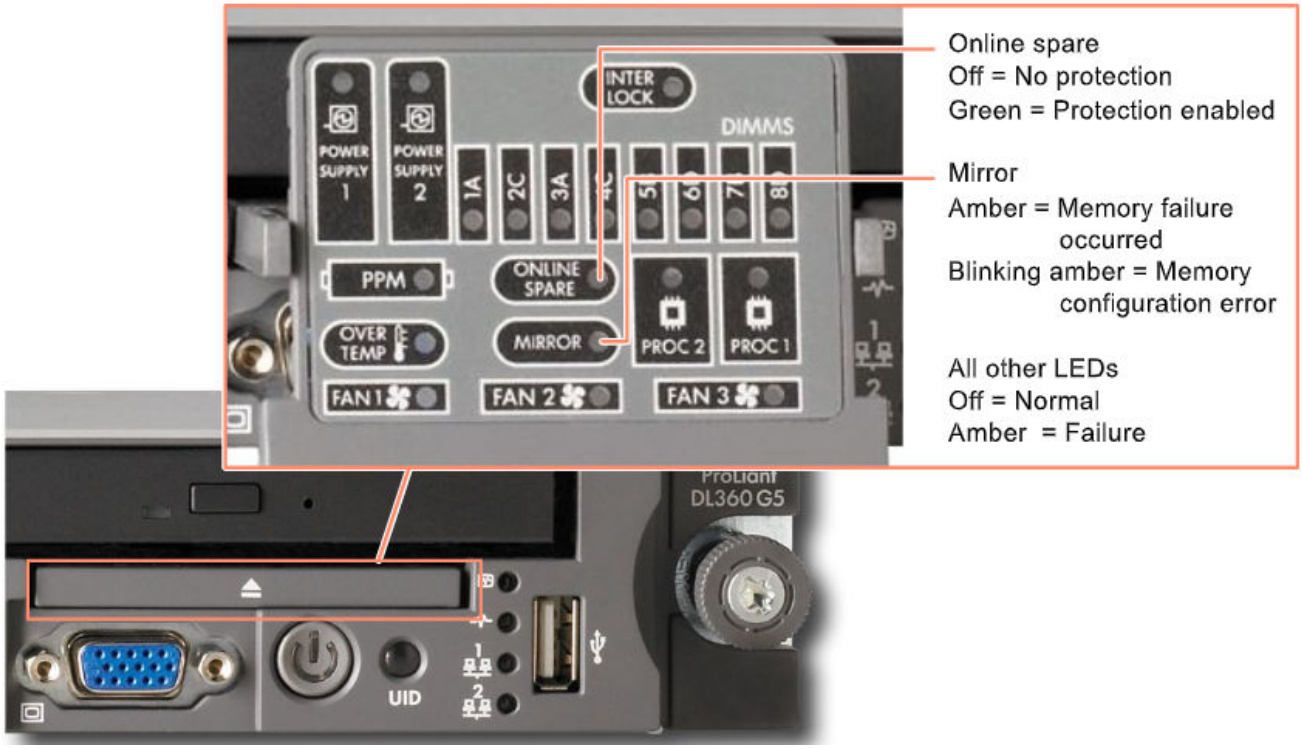
Subtopics

- **Multibay device**
- **Quick find diagnostic panel**
- **Front panel health indicators**
- **SAS Hard drive**
- **SAS Hard drive blank**

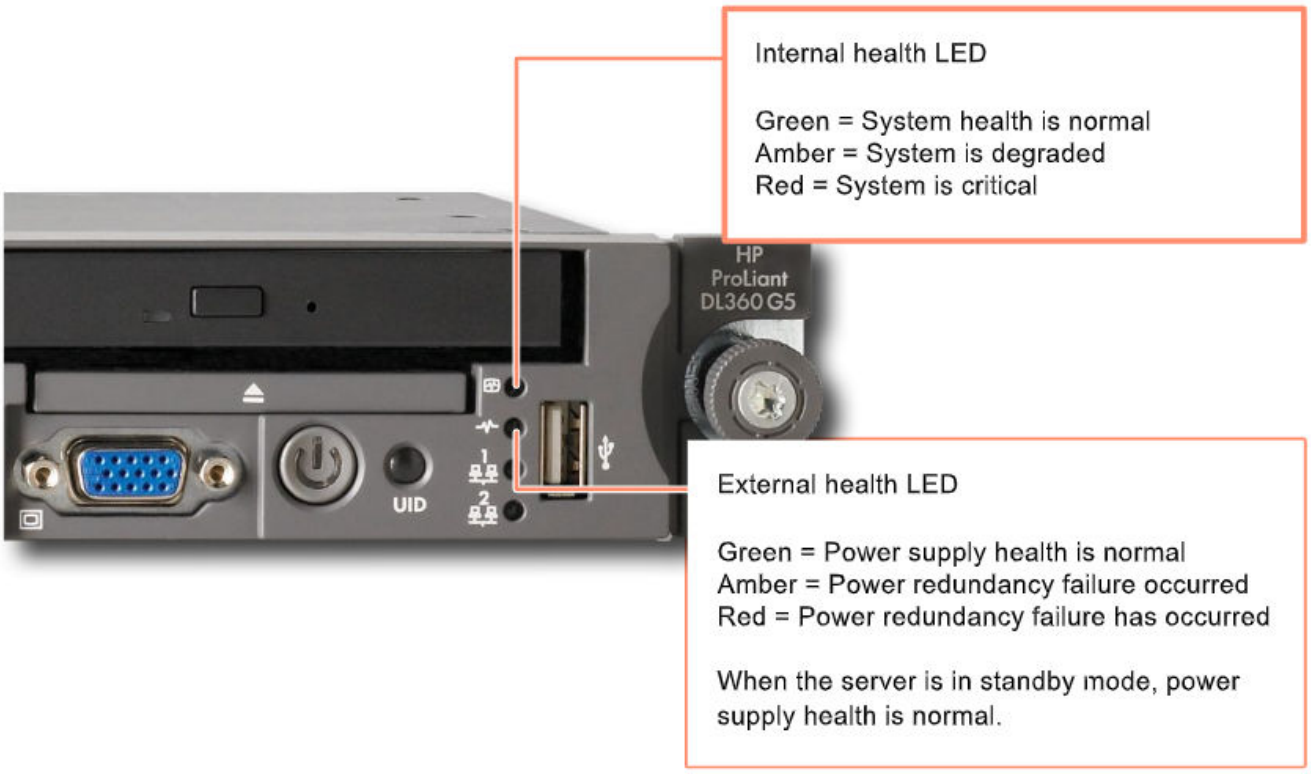
Multibay device



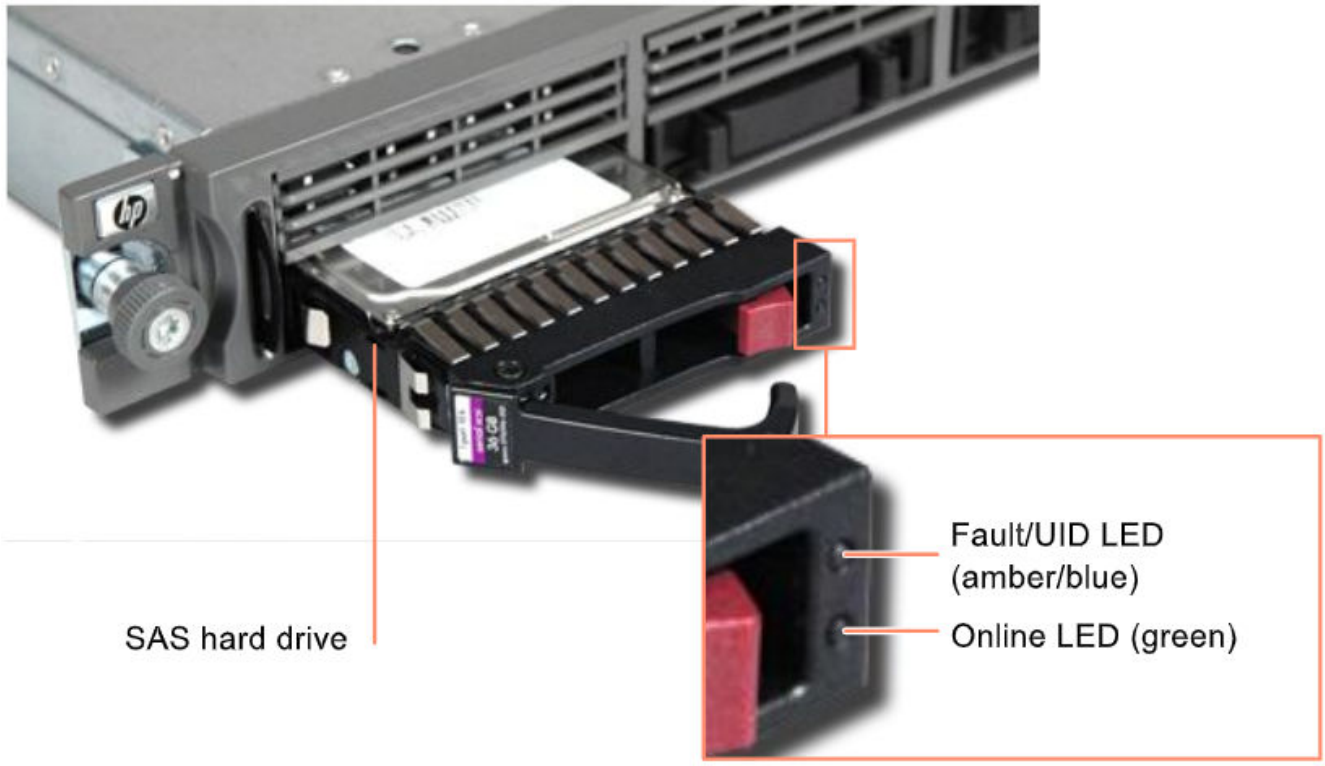
Quick find diagnostic panel



Front panel health indicators



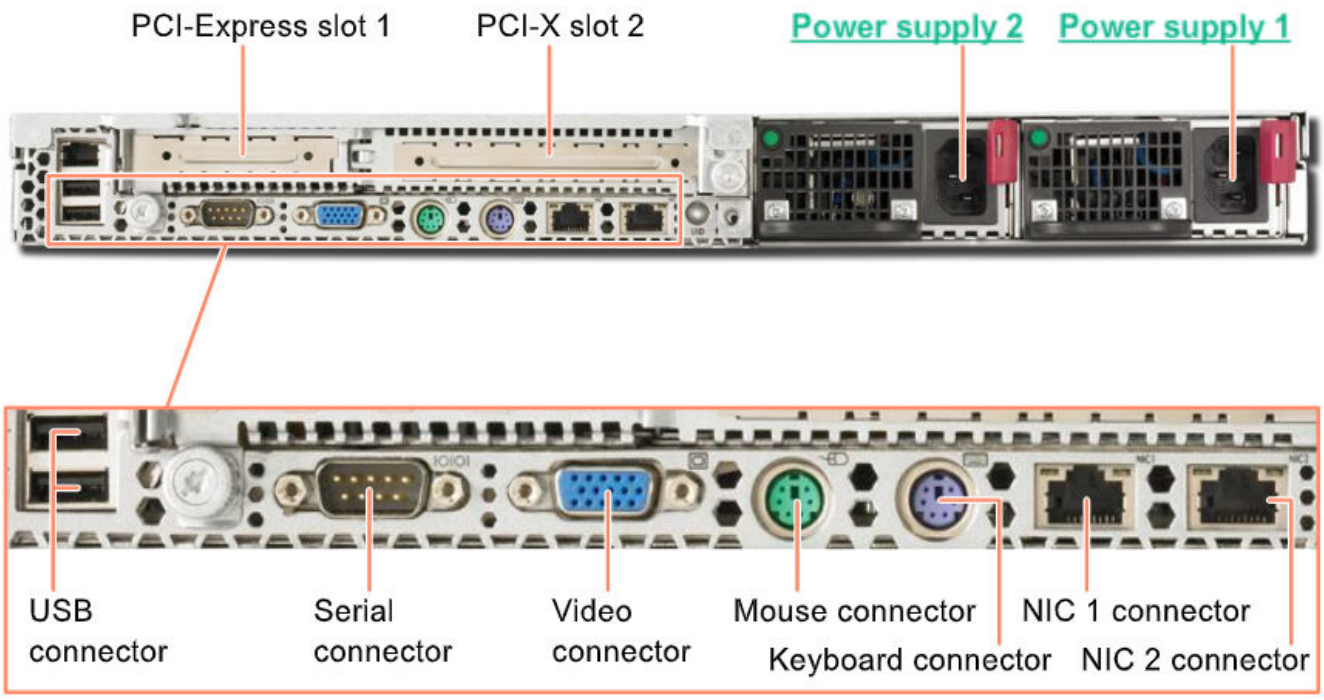
SAS Hard drive



SAS Hard drive blank



Back view



Subtopics

- **Power supply 1**
- **Power supply 2**

Power supply 1



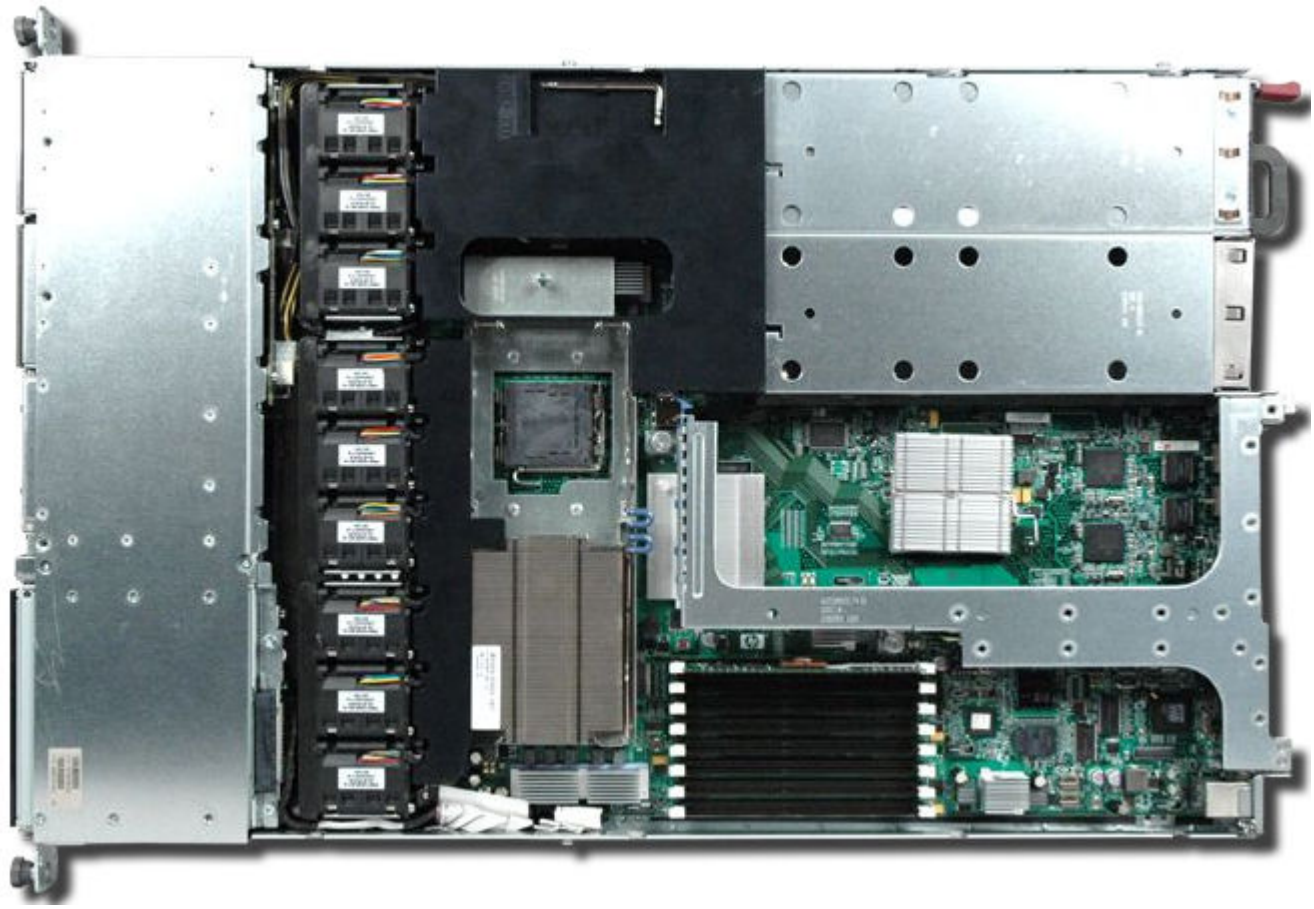
Power supply 2



Top view



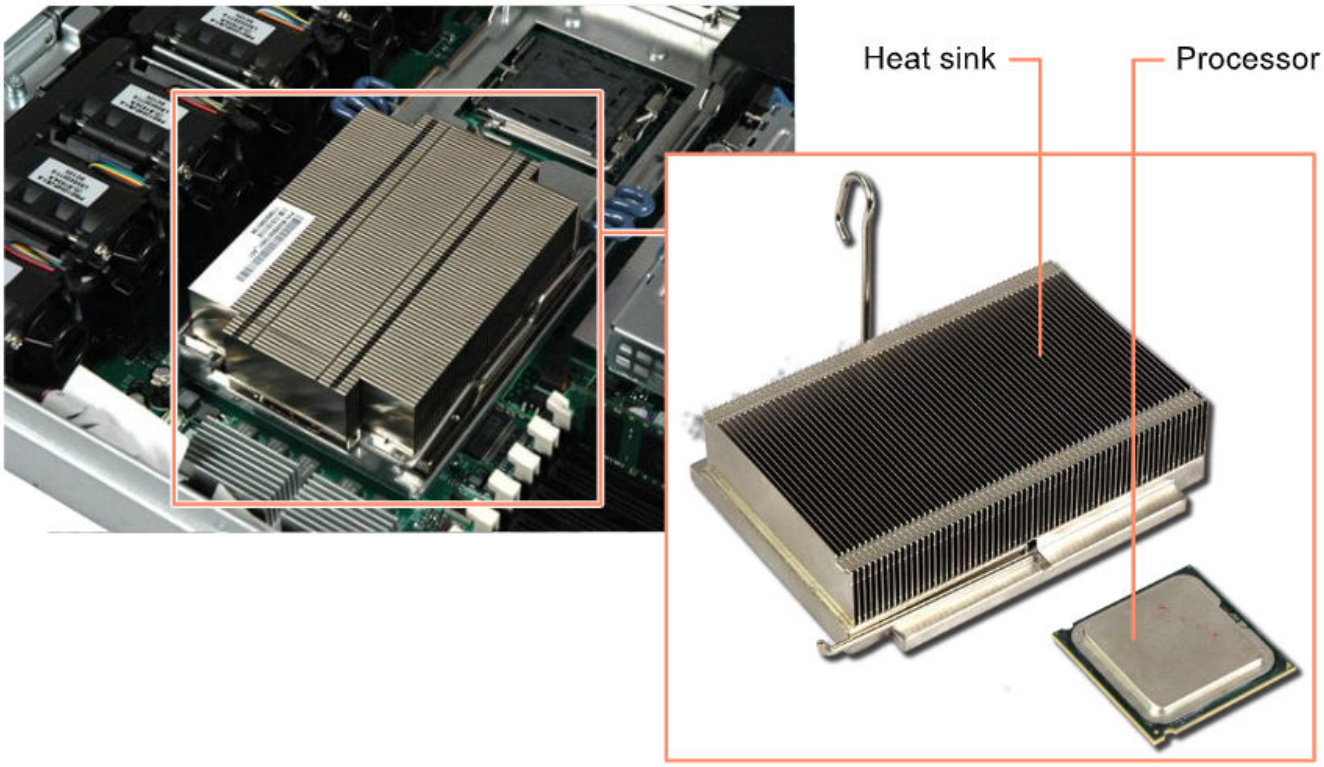
Internal view



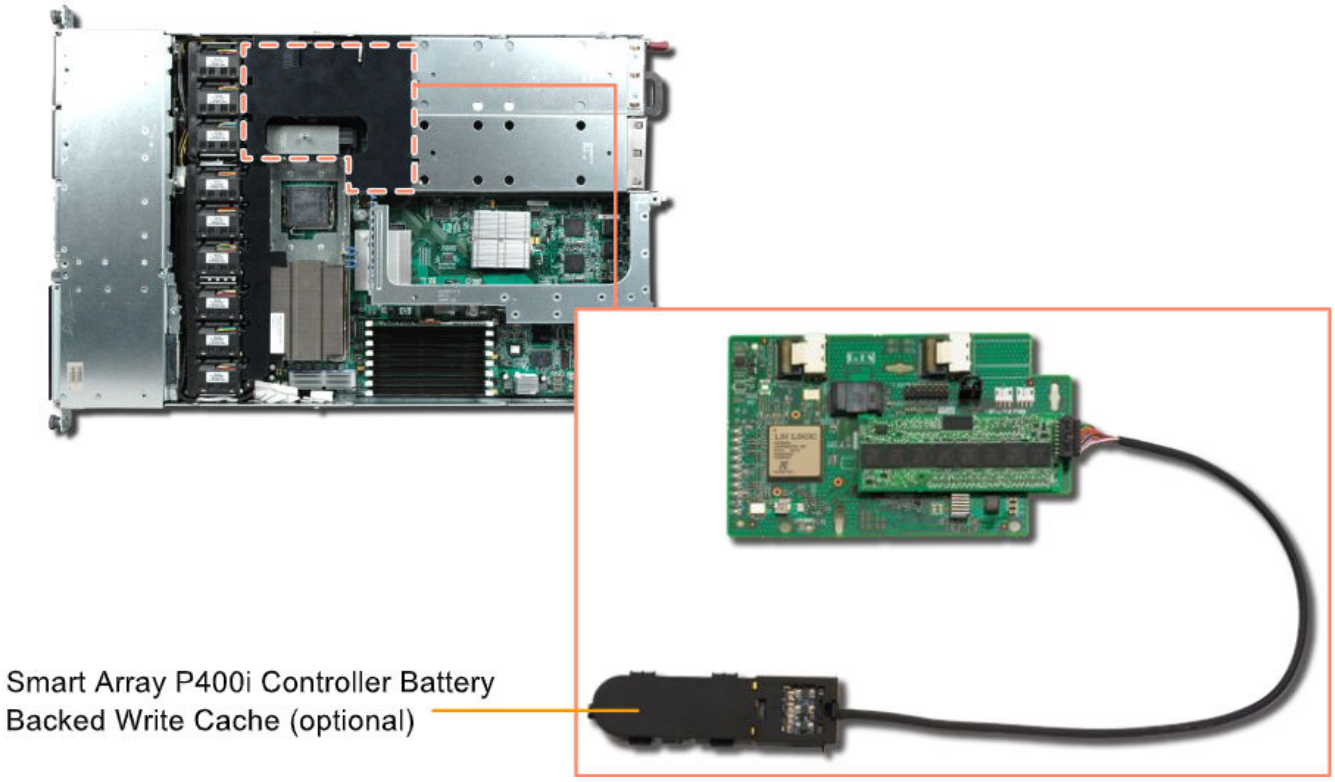
Subtopics

- **Processor and heat sink**
- **HPE Smart Array P400i Controller**
- **Power supply air baffle**
- **Processor air baffle**
- **PCI Riser assembly**
- **System memory**
- **System board**
- **Fan assembly**
- **Multibay backplane**
- **Multibay data cable**
- **SAS Backplane**

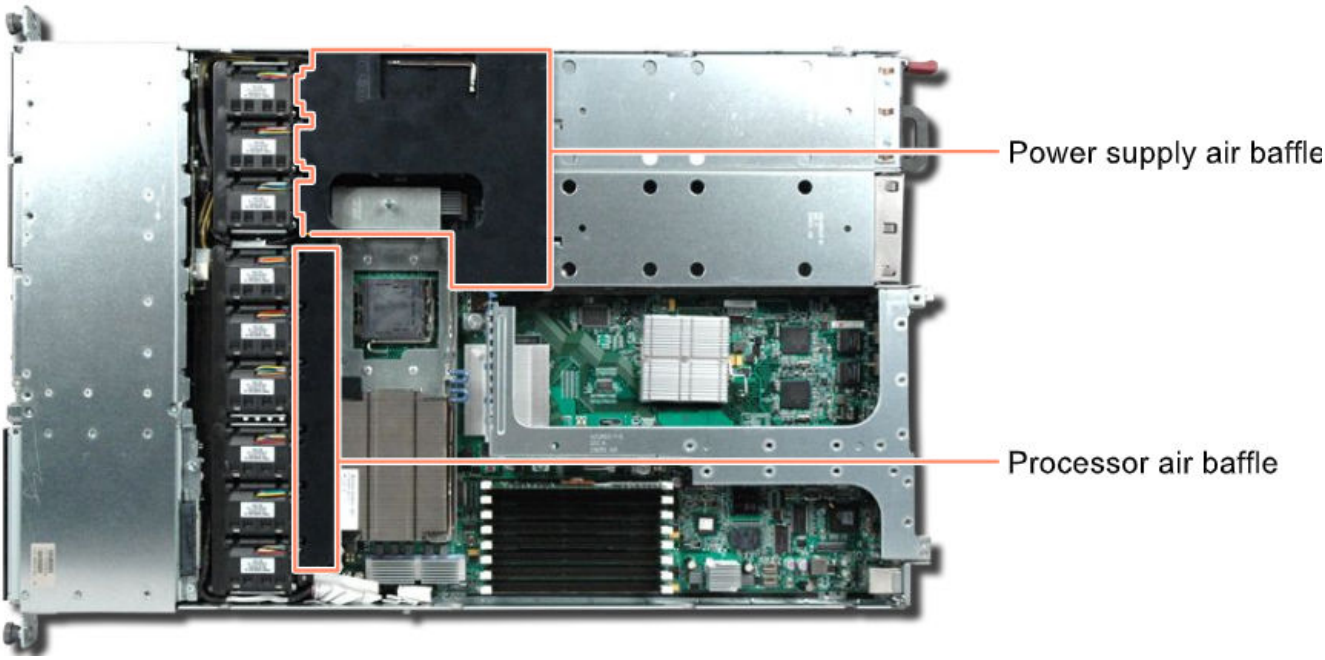
Processor and heat sink



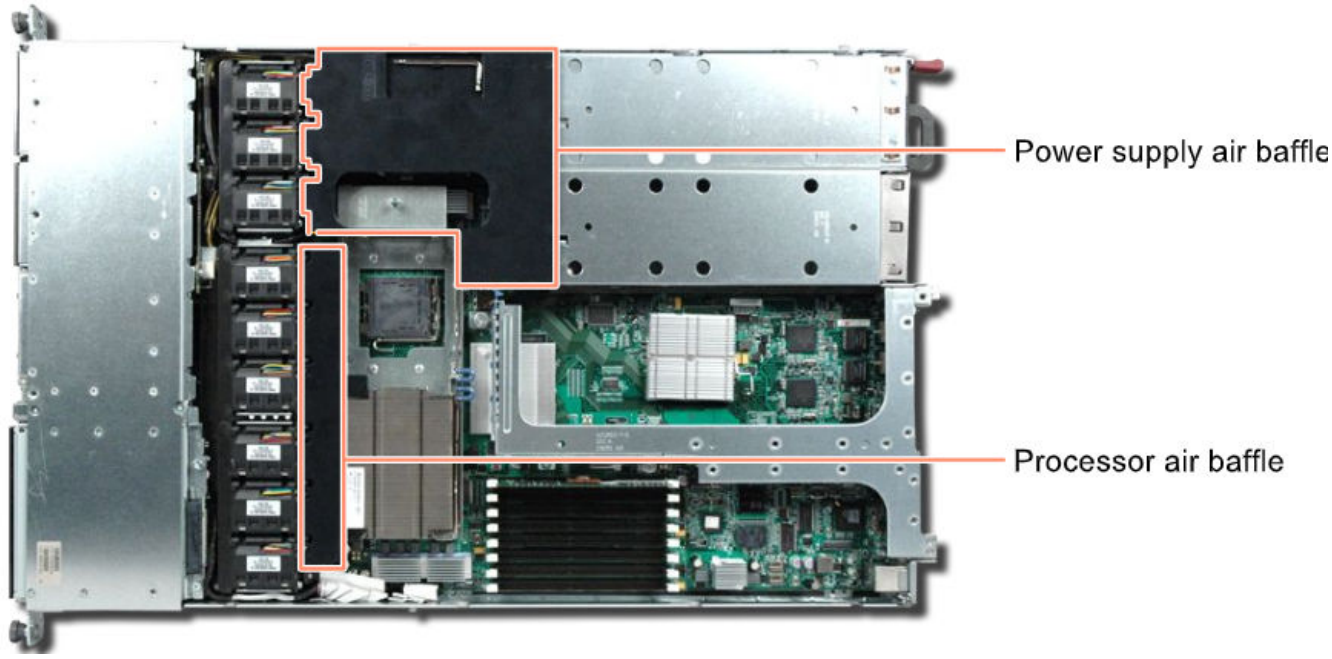
HPE Smart Array P400i Controller



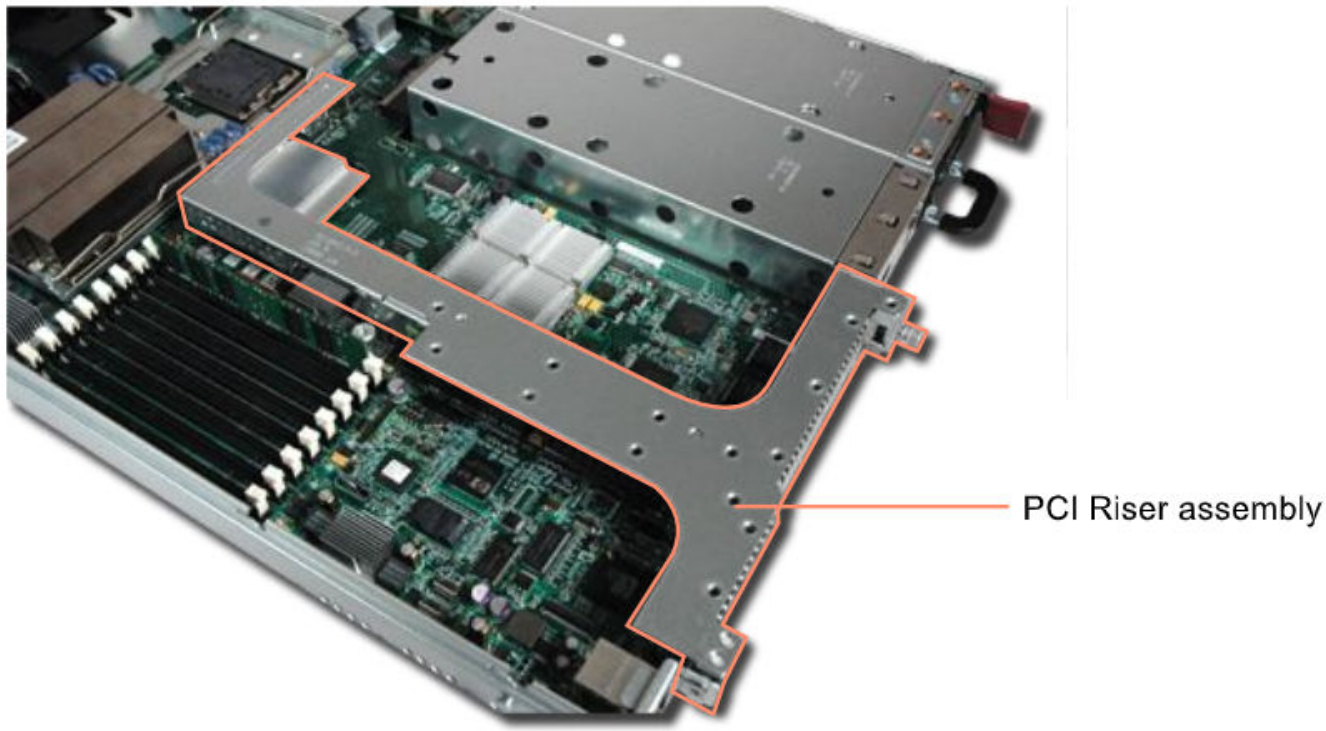
Power supply air baffle



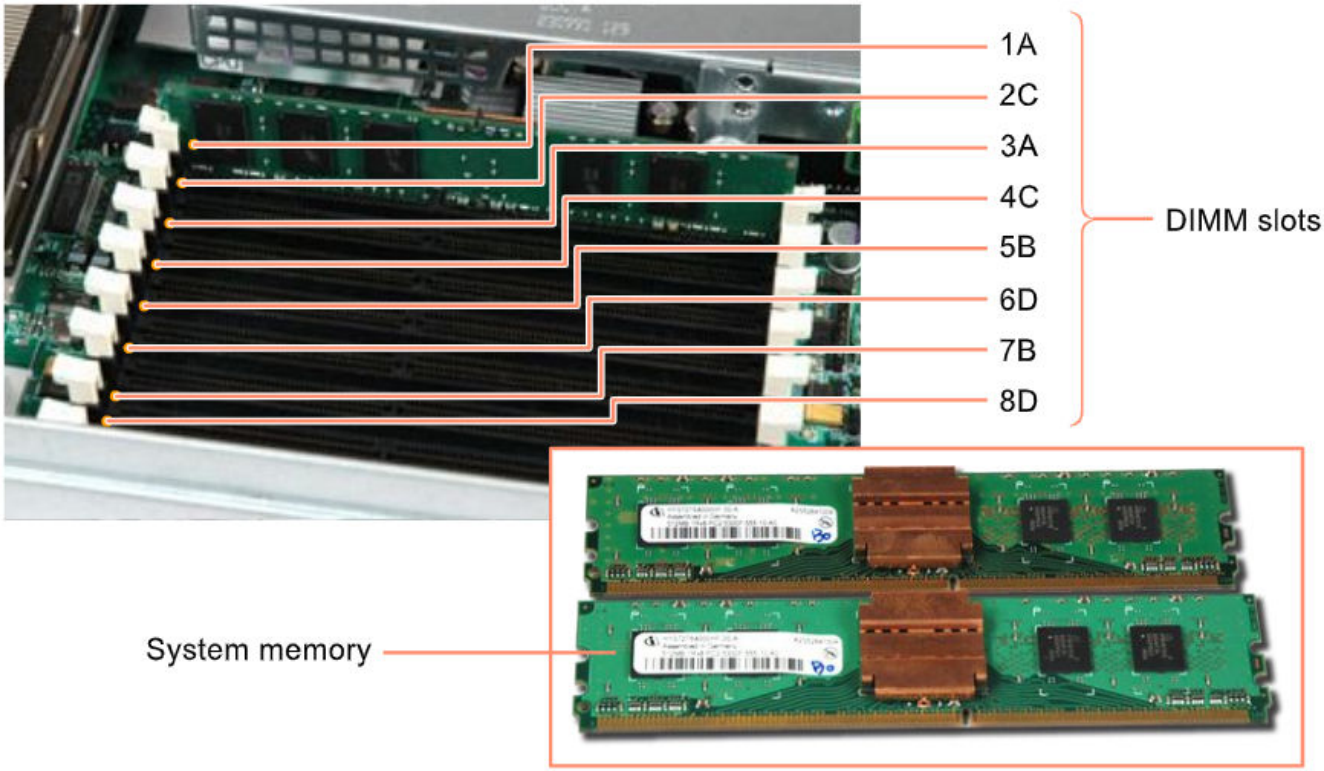
Processor air baffle



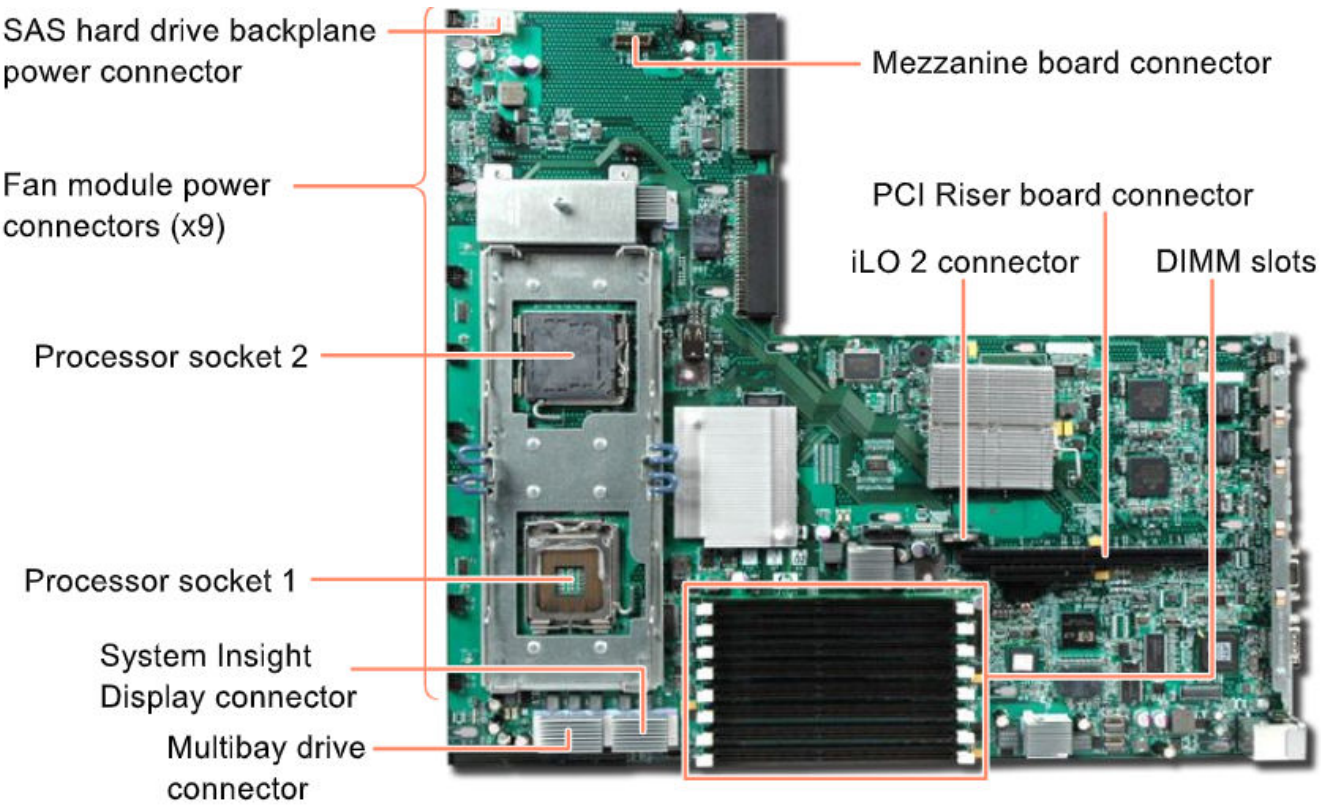
PCI Riser assembly



System memory



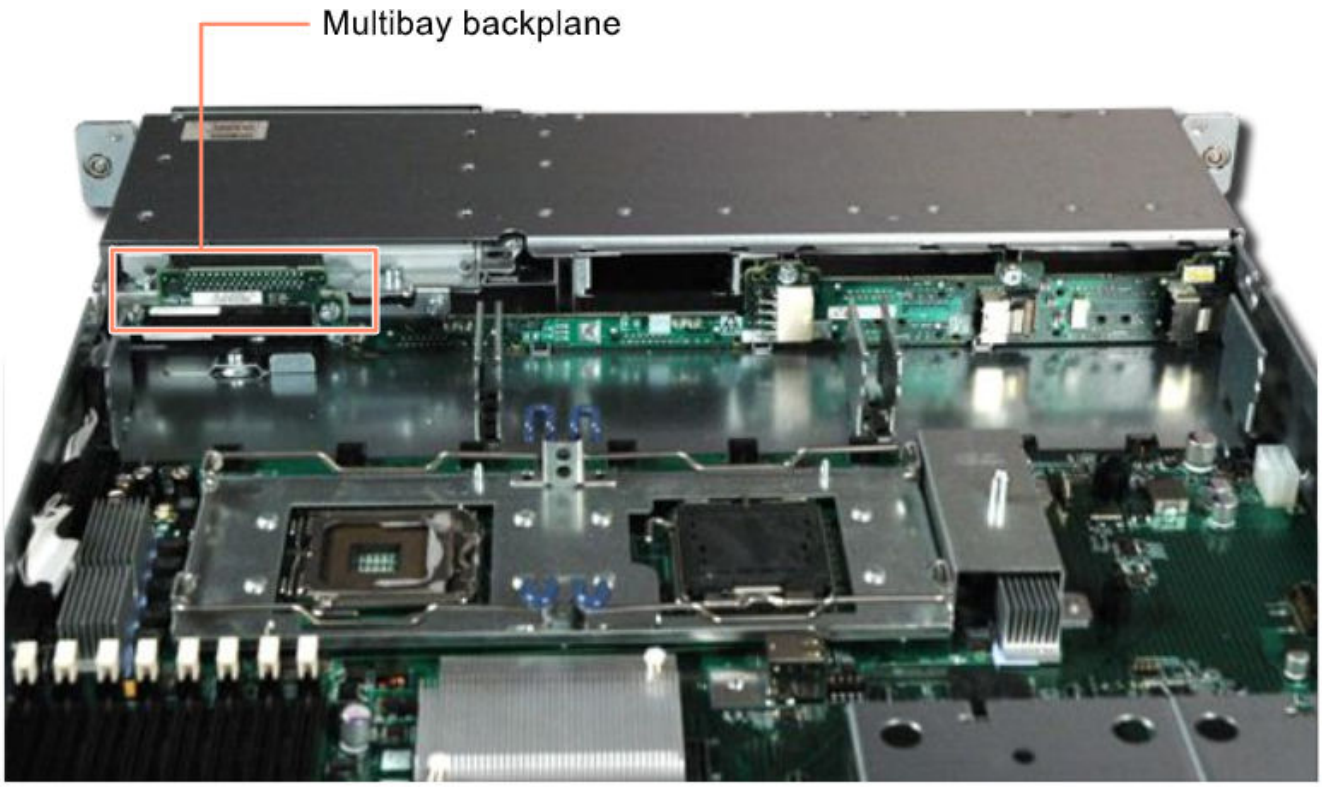
System board



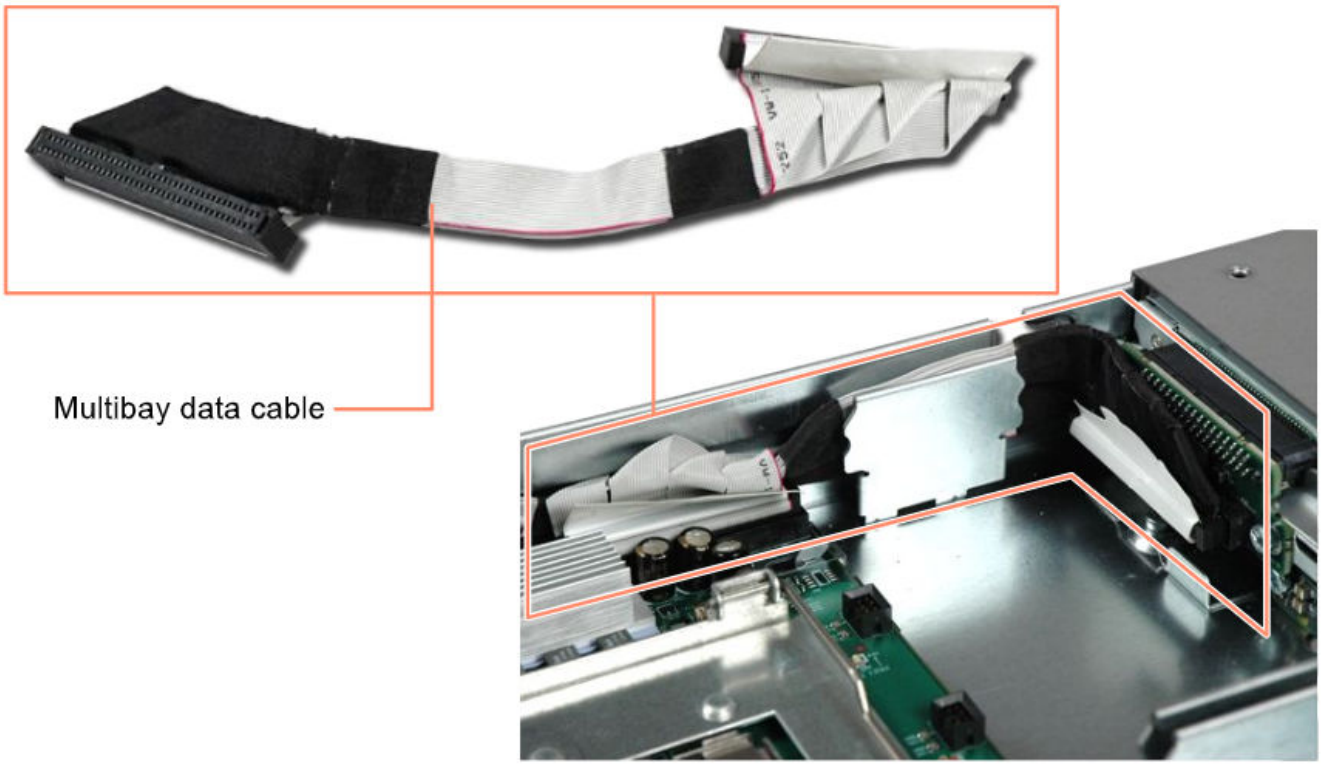
Fan assembly



Multibay backplane



Multibay data cable



SAS Backplane



Precautions

Before you begin

1. Put on your electrostatic discharge (ESD) wrist strap to avoid damaging any circuitry.
2. Remove all devices (such as diskettes and CD-ROMs) from the computer.
3. Power off the computer and any peripheral devices that are connected to it.
4. Disconnect the power cord from the electrical outlet and then from the computer. When the computer is plugged into an AC power source, there is always voltage applied to the system board. You must disconnect the power cord from the power source before opening the computer to prevent system board or component damage.
5. Disconnect all peripheral device cables from the computer.

Static electricity

Static electricity can damage electrical components. Before removing or replacing a component, touch a grounded metal object to discharge static electricity. Also observe the following precautions to prevent damage to electric components and accessories:

- To avoid hand contact, transport products in static-safe containers such as tubes, bags, or boxes.
- Protect all electrostatic parts and assemblies with conductive or approved containers or packaging.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free stations.
- Place items on a grounded surface before removing them from their container.
- Always be properly grounded when touching a sensitive component or assembly.
- Avoid contact with pins, leads, or circuitry.
- Place reusable electrostatic-sensitive parts from assemblies in protective packaging or conductive foam.

Dissassembly

- During disassembly, label each cable as you remove it, noting its position and routing. This will make the replacement of the cables much easier, and will ensure that the cables are rerouted properly to protect the cables.
- Keep all screws with the units removed. The screws used in the computer are of different thread sizes and lengths; using the wrong screw in a component could damage the unit.

Blanks

To prevent improper cooling and thermal damage, do not operate the server unless all bays are populated with either a component or a blank.

This means that:

- Unused hard drive bays require a blank.
- Unused PCI slots require a slot cover.
- An unused power supply bay requires a blank.
- Unused rack shelves require blanking panels.

Tools And Screws

Tools used in removal and replacement

- Torx-15 tool provided with server or Torx-15 screwdriver
- Torx-8 screwdriver

Screws

Torx-15 (T-15) screws





Note: If worn or damaged screwdriver tips are used, the small screw heads could become stripped, .

SAS Hard Drive

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SAS/SATA hard drive

Removing the SAS/SATA hard drive

1. Press the ejector latch to release the handle.
2. Grasp the handle.
3. Slide the drive from the server.

Replacing the SAS/SATA hard drive

1. Slide the drive into the bay until it connects to the backplane.

2. Press the handle so that it snaps in place under the ejector latch.

Power To The Server

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Power to the server

Note : For all non-hot plug procedures, you must remove power to the server.

1. Press the Power ON/Standby button.
2. Remove the power cord from the power supply.

Access Panel

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Access panel

Before you begin

Remove power to the server.

Removing the access panel

1. Unlock the hood latch with a T-15 screwdriver.
2. Lift up on the hood latch which slides the panel back.
3. Remove the access panel.

Replacing the access panel

1. Set the access panel onto the server about one-half inch from the opening.
2. Press and slide it in place.
3. Close and lock the latch.

DIMM

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DIMM

Before you begin

1. Remove power to the server.
2. Remove the access panel

Removing a DIMM

1. Press down on the latches on either side of the DIMM.
2. Pull the DIMM up and out of the server.

Replacing a DIMM

1. Align the DIMM with the slot and insert the DIMM firmly. When fully seated, the DIMM slot latches lock into place.

Optical Device

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Optical device

Before you begin

1. Remove power to the server.

Removing the optical device

1. Using a screwdriver, push the ejector button on the front of the server.
2. Pull the optical device out of the server.

Replacing the optical device

1. Slide the optical device into the bay with the serial number label facing up.
2. Push it in until it is flush with the front of the chassis.

Optical Device Cable

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Optical device cable

Before you begin

1. Remove power to the server.
2. Remove the access panel

Removing the optical device cable

1. Remove the fan assembly closest to the optical device.
2. Disconnect the cable from the optical device backplane.
3. Disconnect the cable from the system board.

Replacing the optical device cable

1. Reconnect the cable on the system board.
2. Reconnect the cable on the optical device backplane.
3. Route the cable in the channel between the chassis and fan assembly.

Multibay Backplane

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Multibay backplane

Before you begin

1. Remove power to the server.
2. Remove the optical device
3. Remove the hard drives and blanks.
4. Remove the access panel.
5. Remove the fan baffle and assemblies.

Removing the multibay backplane

1. Disconnect the data cable.
2. Remove (2) Torx-15 screws.
3. Lift the assembly out of the chassis.

Replacing the multibay backplane

1. Set the assembly on the chassis so that the screw holes line up with the holes on the chassis.
2. Replace the (2) Torx-15 screws.
3. Replace the data cable.

Systems Insight Display And LEDs

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Systems Insight Display and LEDs

Before you begin

1. Remove the optical device.
2. Remove the power to the server.
3. Remove the access panel.
4. Remove the fan baffle and assemblies.
5. Remove the optical device backplane and cable.
6. Remove the bezel.

Removing the Systems Insight Display and LEDs

1. Disconnect the data and power cable from the system board.
2. Remove (1) T-15 screw securing the Systems Insight Display board bracket to the chassis.
3. Slide the assembly out of the front of the chassis.

Replacing the Systems Insight Display and LEDs

1. Slide the assembly into the chassis.
2. Replace the screw to secure the assembly to the chassis.
3. Reconnect the data and power cable to the system board.

SAS/SATA Backplane

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SAS/SATA backplane

Before you begin

1. Remove power to the server.
2. Remove the optical device.
3. Remove the hard drives and blanks.
4. Remove the access panel.
5. Remove the fan baffle and assemblies.
6. Remove the air baffle.
7. Remove the optical device backplane.

Removing the SAS/SATA backplane

1. Disconnect the data cables from the controller.
2. Disconnect the power cable from the system board.
3. Remove the (3) T-15 screws.
4. Lift the backplane up and out of the server.

Replacing the SAS/SATA backplane

1. Notice the tab on the chassis. Insert the backplane so the slot slides over the tab.
2. Line the screw holes on the backplane with the holes on the chassis.
3. Press down to seat in the guides located on the chassis.
4. Replace the T-15 screws.

PCI Riser Bracket

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PCI riser bracket

Before you begin

1. Remove power to the server.
2. Remove the access panel.
3. Remove expansion boards if installed. (Not shown.)

Removing the PCI riser bracket

1. Loosen two thumbscrews on the rear of the server.
2. Loosen two thumbscrews on the system board.
3. Pull the riser board bracket up and out of the server.

Replacing the PCI riser bracket

1. Set the assembly on the connector.
2. Press down firmly for a secure connection.
3. Tighten all (4) thumbscrews.

Processor And Heatsink

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Processor and heatsink

Before you begin

1. Remove power to the server.
2. Remove the access panel.
3. If you are removing a second processor, remove the air baffle.
4. Remove the fan baffle.

Removing the processor and heatsink

1. Press to release and rotate the heatsink locking levers up and over about 160 degrees.
2. Lift the heatsink out of the server.
3. Press to release the processor locking lever and rotate it up.

4. Lift the processor locking cover.
5. Lift the processor up and out of the server.

Replacing or installing a processor and heatsink

1. Install the processor on the connector so that the triangle on the processor lines up with the notch on the connector.
2. Close the processor locking cover.
3. Rotate and press down the processor locking lever to secure the cover and processor.
4. Set the heatsink on the processor.
5. Rotate down and press to secure each heatsink locking lever.

Fan Assembly

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Fan assembly

Before you begin

1. Remove power to the server.
2. Remove the access panel.
3. Remove the fan baffle.
4. Remove the air baffle for the fan assembly.For the fan assembly closest to the controller, you will need to disconnect the data cables from the controller and tuck them away from the assembly so that they don't interfere with its removal.

Removing the fan assembly

1. Gently pull up on each connector for the fan assembly to release from the system board.
2. Pull the fan assembly up and out of the server.

Replacing the fan assembly

1. Tilt slightly and set the fan assembly on the connector.
2. Press the opposite side down until it clicks when the connection is made to the system board.

Storage Controller

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Storage controller

Before you begin

1. Remove power to the system
2. Remove the access panel
3. Remove the air baffle.

Removing the storage controller

1. Disconnect the data cables by pushing on the bracket to release and remove the cable.
2. Optionally, you can disconnect the power cable from the system board so that it doesnt interfere with the removal of the card.
3. Turn each of the three locking tabs counter-clockwise to unlock.
4. Pull the controller up to disconnect it from the system board.
5. Lift it out of the server.

Replacing the storage controller

1. Set the controller board on the connector so that the slots align with the locking tabs.
2. Turn each locking tab clockwise to secure the board.
3. Reconnect the power cable.
4. Reconnect the data cables by connecting and pushing each cable in until the bracket snaps and locks the cable in place.

System Board

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System board

Before you begin

1. Remove power to the server.

2. Remove the access panel.
3. Remove the riser cage.
4. Remove the fan baffle and fan assemblies.
5. Remove the air baffle and controller.
6. Remove the power supplies.
7. Remove the heatsink and processor.
8. Remove the DIMMs.
9. Disconnect the power and data cables.

Removing the system board

1. Push it forward to disengage the system board from the guides.
2. Lift it up and out of the server.

Replacing the system board

1. Position the system board over the server so that the processor and heatsink bracket is tilted down slightly toward the chassis.
2. Set it in place on the guides.
3. Push it back to engage it on the guides.

Power Supply

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Power supply

Note : This is a hot plug procedure if more than one power supply is installed.

Before you begin

1. Remove power to the server.
2. Remove the access panel.

Removing the power supply

1. From the rear of the server, pull the power supply ejector latch to one side.
2. Grasp the handle and pull the power supply out of the server.

Replacing the power supply

1. Insert the power supply into the bay handle down.
2. Slide the power supply in until it is flush with the rear of the server.

Power Supply Blank

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00001685en_us&noframe

Power supply blank

Before you begin

1. Remove power to the server.

Removing the power supply blank

1. With index finger and thumb grasp the blank and pull out of the rear of the server.

Bezel

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00001686en_us&noframe

Bezel

Before you begin

1. Remove power to the server.

Removing the bezel

1. Remove the serial number tab.
2. Remove the (2) T-8 screws from both sides of the chassis.
3. Remove the (2) T-8 screws from the top of the chassis.
4. Pull the bezel back and off of the front of the server.

Replacing the bezel

1. Set the bezel in place so that the slots on the bezel fit over the tabs on the bottom of the chassis.
2. Replace the two screws on the top of the chassis.

3. Replace the two screws on either side of the bezel.
4. Insert and slide the serial number tab back into the bezel and chassis.