



Hewlett Packard
Enterprise

HPE Apollo pc40 Server

User Guide

Abstract:

This guide provides an overview of the HPE Apollo pc40 server.

Part Number: 007-6488-002

Published: January 2018

Edition: Revision 2

Notices

The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Confidential computer software. Valid license from Hewlett Packard Enterprise required for possession, use, or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Links to third-party websites take you outside the Hewlett Packard Enterprise website. Hewlett Packard Enterprise has no control over and is not responsible for information outside the Hewlett Packard Enterprise website.

Acknowledgments

Intel[®], Itanium[®], Pentium[®], Intel Inside[®], and the Intel Inside logo are trademarks of Intel Corporation in the United States and other countries.

Microsoft[®] and Windows[®] are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Adobe[®] and Acrobat[®] are trademarks of Adobe Systems Incorporated.

Java[®] and Oracle[®] are registered trademarks of Oracle and/or its affiliates.

UNIX[®] is a registered trademark of The Open Group.

Preface

About this Manual

This manual provides a brief summary of the HPE Apollo pc40 server. The HPE Apollo pc40 server is a 1U dual socket server featuring up to four NVIDIA® Tesla® GPUs and based on the Intel® Xeon® Processor Scalable Family. The HPE Apollo pc40 Server is an optimized, industry-standard server for deep learning and high performance computing (HPC) workloads that uses the PCIe form factor for greater choice in GPU selection. Please refer to the HPE Apollo pc40 server data sheet and QuickSpecs (www.hpe.com/servers/apollo-pc40) for a system overview, standard features, warranty information, service and support information, configuration information, and technical specifications. Installation and maintenance should be performed by experienced technicians only.

Warnings

Special attention should be given to the following symbols used in this manual.



Warning! Indicates important information given to prevent equipment/property damage or personal injury.



Warning! Indicates high voltage may be encountered when performing a procedure.

Contents

Chapter 1 Introduction

1.1 Overview.....	6
1.2 Unpacking the System	6
1.3 System Features	9
1.4 Server Chassis Features.....	9
Control Panel	9
1.5 Motherboard Layout	11
Quick Reference Table.....	12

Chapter 2 Server Installation

2.1 Overview.....	14
2.2 Preparing for Setup.....	14
Choosing a Setup Location.....	14
Rack Precautions	14
Server Precautions.....	15
Rack Mounting Considerations	15
Ambient Operating Temperature.....	15
Airflow.....	15
Mechanical Loading.....	15
Circuit Overloading	16
Reliable Ground.....	16
2.3 Installing the Rails.....	17
Identifying the Rails.....	17
Releasing the Inner Rail.....	18
Installing The Inner Rails on the Chassis	19
Installing the Outer Rails on the Rack	20
Installing the System into the Rack	21
Removing the System From the Rack.....	22
Removing the Outer Rails From the Rack.....	23

Chapter 3 Maintenance and Component Installation

3.1 Removing Power	24
3.2 Accessing the System.....	24
3.3 Chassis Hard Drives	26
Externally Accessible Drives.....	26
Internal Drives.....	27
Power Supply	28
Replacing a Power Supply Module	28

Appendix A BIOS Error Codes and System Specifications

Chapter 1

Introduction

1.1 Overview

This chapter provides a brief outline of the functions and features of the HPE Apollo pc40 server. The HPE Apollo pc40 server is a 1U dual socket server featuring up to four NVIDIA® Tesla® GPUs and based on the Intel® Xeon® Processor Scalable Family. The HPE Apollo pc40 Server is an optimized, industry-standard server for deep learning and high performance computing (HPC) workloads that uses the PCIe form factor for greater choice in GPU selection.

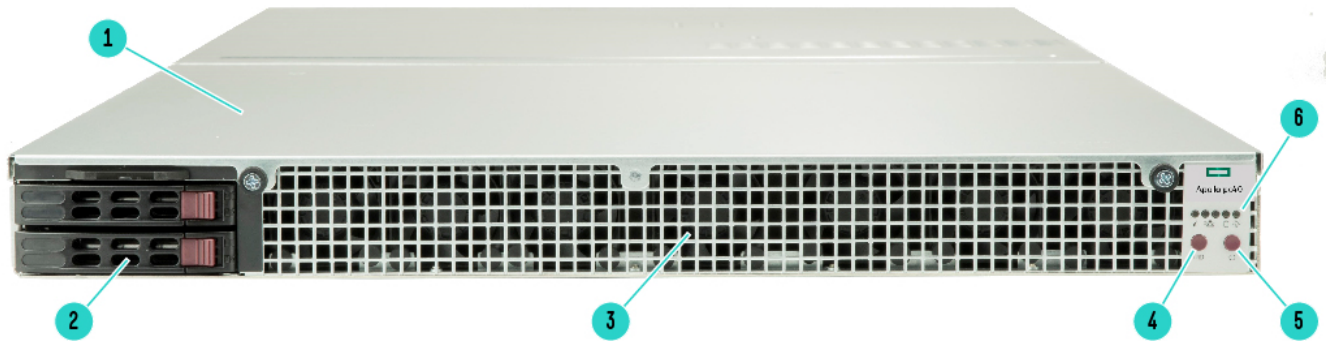
In addition to the motherboard and chassis, several important parts that are included with the system. See QuickSpecs at: www.hpe.com/servers/apollo-pc40 for additional details.

1.2 Unpacking the System

Inspect the box the HPE Apollo pc40 server was shipped in and note if it was damaged in any way. If any equipment appears damaged, please file a damage claim with the carrier who delivered it.

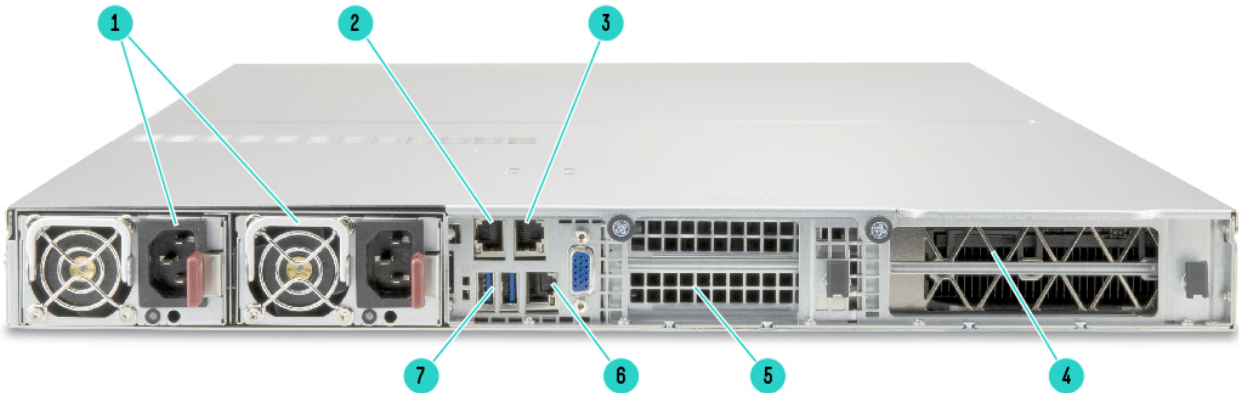
Decide on a suitable location for the rack unit that will hold the server. It should be situated in a clean, dust-free area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated. It will also require a grounded AC power outlet nearby. Be sure to read the precautions and considerations (refer to information at the end of this document).

The illustrations below provide an overview of the front and rear features of the HPE Apollo pc40 server. The following page shows a top view of the system.



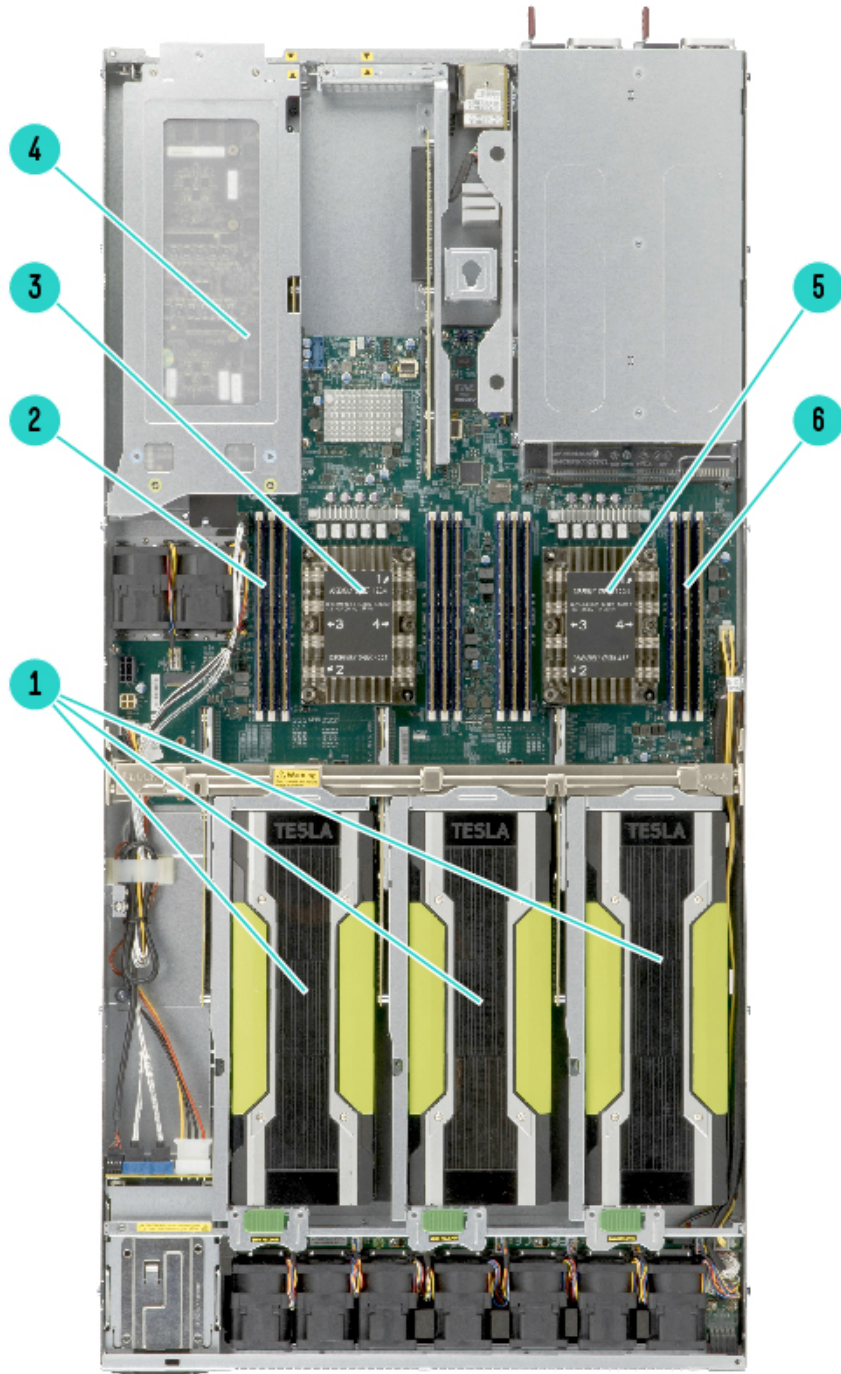
Front View

- | Item | Description |
|------|--------------------------------------|
| 1. | HPE Apollo pc40 Chassis (1U) |
| 2. | 2 SFF Hot-swap SATA Drive Bays |
| 3. | Internal Fans |
| 4. | Unit Identification (UID) LED/button |
| 5. | Power Button |
| 6. | Status LEDs |



Rear View

- | Item | Description |
|------|--|
| 1. | Two 2000W Titanium level power supplies |
| 2. | Embedded 10GbE NIC 1 |
| 3. | Embedded 10GbE NIC 2 |
| 4. | One double-wide GPU or two full-height PCIe Gen3 x16 slots |
| 5. | Two low-profile PCIe Gen3 x16 slots |
| 6. | Dedicated IPMI LAN port |
| 7. | Two USB 3.0 Connectors |



Top View

Item Description

1. Full-height/Full-length PCIe 3 x16 slots for GPUs
2. DIMMs for processor 1
3. Processor 1
4. Full-height/Full-length PCIe Gen3 x16 slot for GPU or two PCIe Gen3 x16 slots
5. Processor 2
6. DIMMs for processor 2

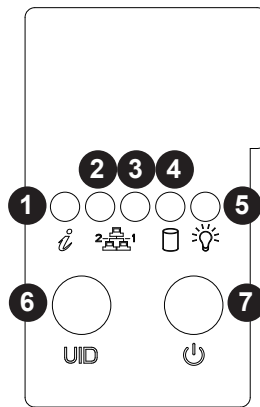
1.3 System Features

For a complete list of system features, please refer to the HPE Apollo pc40 QuickSpecs at: www.hpe.com/servers/apollo-pc40

1.4 Server Chassis Features

Control Panel

The switches and LEDs located on the control panel are described below.



Control Panel View

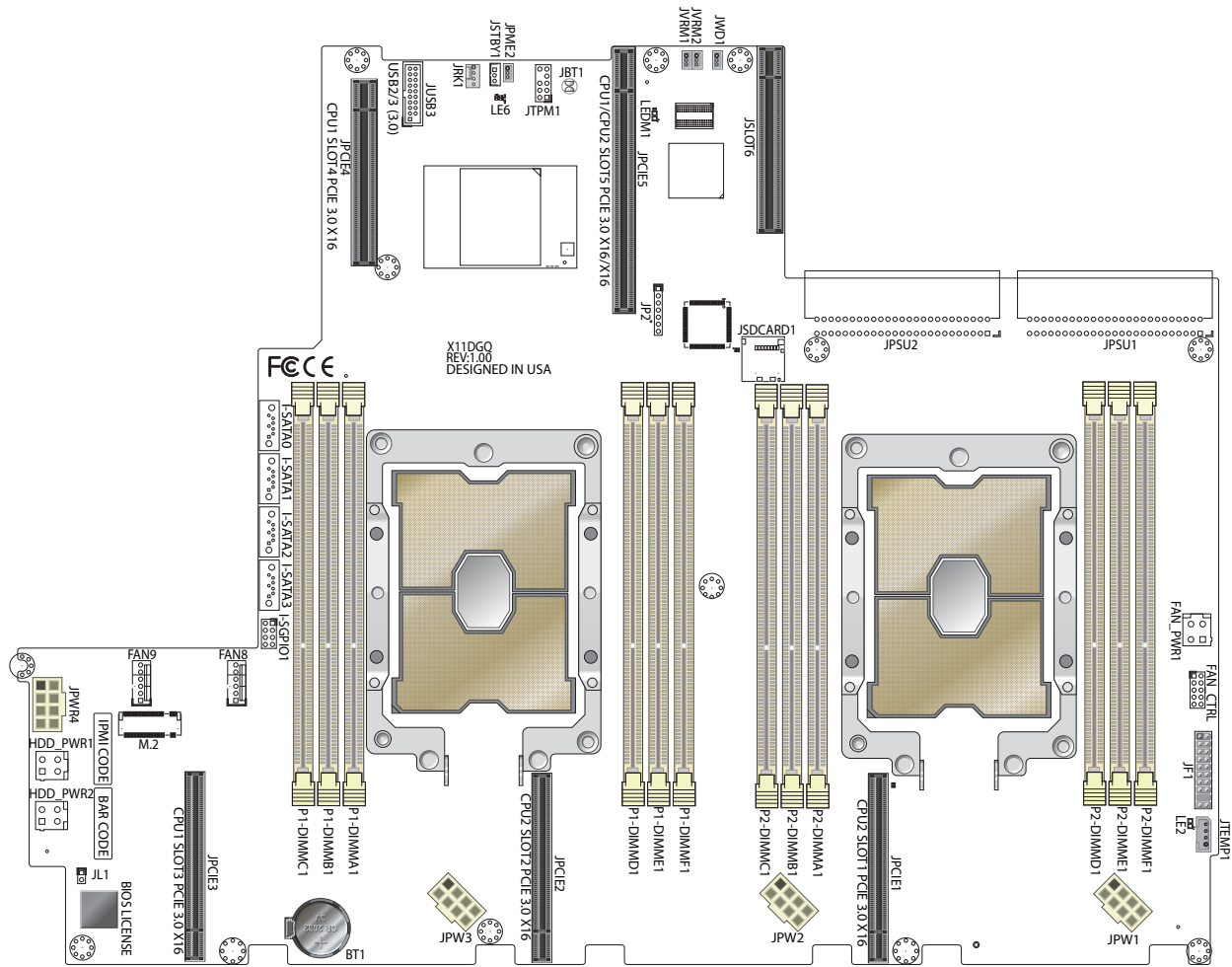
Control Panel Features		
Item	Feature	Description
1	Information LED	See table on the following page.
2	NIC2 LED	Indicates network activity on the LAN2 port when flashin
3	NIC1 LED	Indicates network activity on the LAN1 port when flashin
4	HDD LED	Indicates activity on the hard drive when flashin
5	Power LED	Indicates power is being supplied to the system power supply units. This LED should normally be illuminated when the system is operating.
6	UID LED	The unit identification (UID) button turns on or off the blue light function of the Information LED and the blue LED on the rear of the chassis. These are used to locate the server in large racks and server banks.
7	Power Button	The main power button is used to apply or remove power from the power supply to the server. Turning off system power with this button removes the main power but maintains standby power. To perform many maintenance tasks, you must also unplug system before servicing

Information LED	
Status	Description
Continuously on and red	An overheat condition has occurred. (This may be caused by cable congestion.)
Blinking red (1Hz)	Fan failure, check for an inoperative fan.
Solid blue	Local UID has been activated. Use this function to locate the server in a rackmount environment.
Blinking blue	Remote UID is on. Use this function to identify the server from a remote location.

Note: The HPE Apollo pc40 server is only considered to be N+1 in the 200-240V range; the 100-127V range requires both power supplies to be operating.

1.5 Motherboard Layout

Below is a layout of the HPE Apollo pc40 server motherboard with jumper, connector and LED locations shown. See the table on the following page for descriptions.



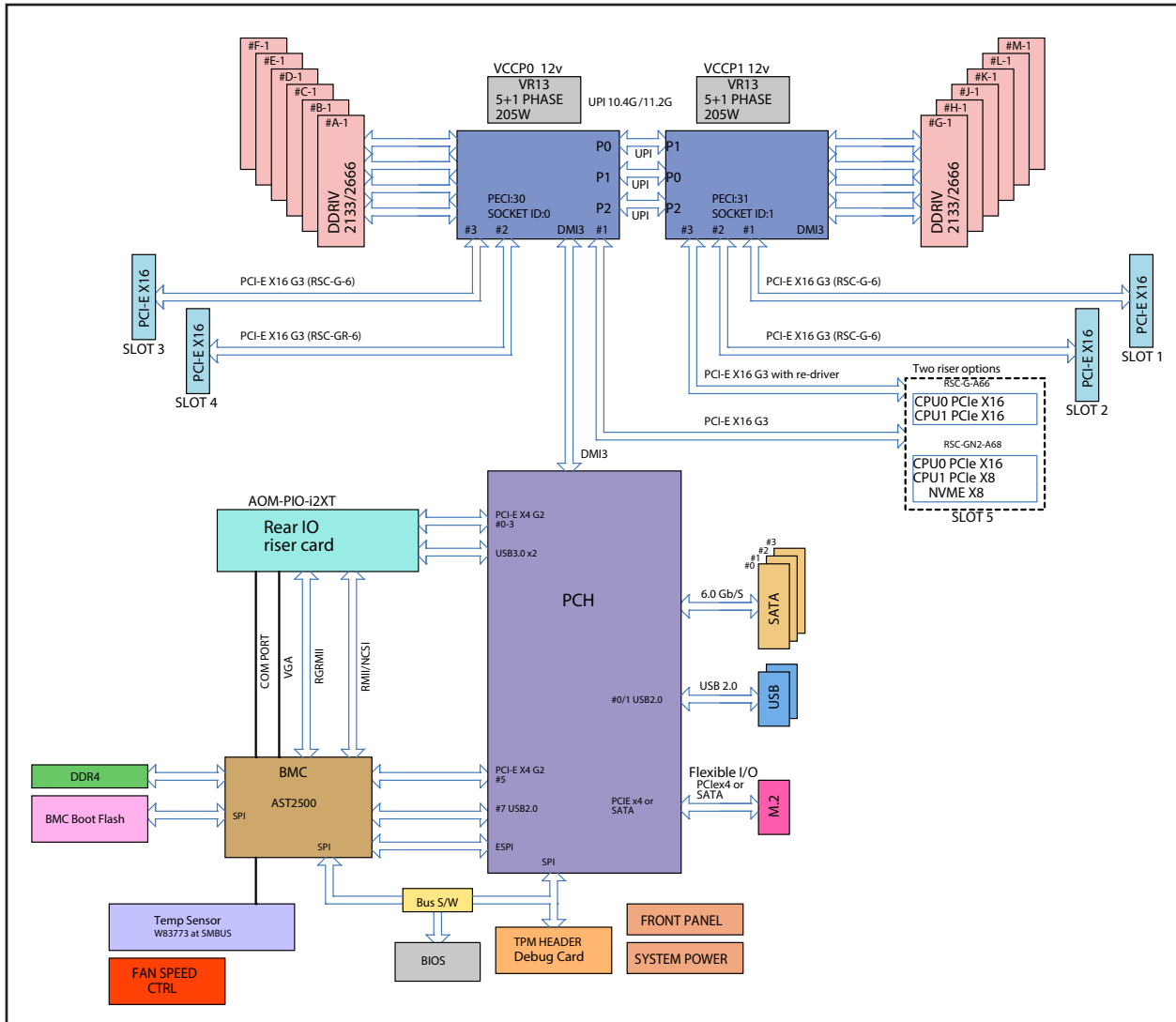
Motherboard Layout

Quick Reference Table

Jumper	Description	Default Setting See
JBT1	Clear CMOS	
JPME2	ME ManufactureMode	Pins 1-2 (Normal) Pins
JVRM1/JVRM2	I2C Bus for VRM	1-2 (BMC: Normal) Pins
JWD1	Watch Dog Timer Enable	1-2 (Reset)

Connectors	Description
Battery (BT1)	Onboard CMOS Battery
FAN8/FAN9	CPU/System Cooling Fan Headers
FAN_CTRL	Fan 1-7 control header
FAN_PWR1	Power connector for front fans
JF1	Front control panel header
JL1	Chassis intrusion header
JP2	CPLD programming header
HDD_PWR1/2	Power connectors for HDD devices
JPWR1~4	12V 8-pin GPU power supply connectors
JRK1	RAID key header
JPSU1~2	Power supply input
JSCARD1	Micro SD card slot
JSTBY1	Standby power header
JTPM1	TPM (Trusted Platform Module)/Port 80 Header
JTEMP1	Front control panel temperature header
JUSB3	USB 3.0 header
(I-)SATA0~3	Intel® SATA 3.0 Connectors from Intel PCH SATA controller
I-SGPIO1	Serial Link General Purpose I/O Header

LED	Description	State	Status
LEDM1	BMC Heartbeat LED	Green	BMC Normal
LE2	Onboard Power LED	Green	Power On
LE6	Power Status LED	Green/Red Red	Power On/Standby



Intel PCH C621 Chipset: System Block Diagram

Note: This is a general block diagram and may not exactly represent the features on your motherboard. See the QuickSpecs at www.hpe.com/servers/apollo-pc40 for additional information.

Chapter 2

Server Installation

2.1 Overview

This chapter provides advice and instructions for mounting your system in a server rack.

Caution: Electrostatic Discharge (ESD) can damage electronic components. To prevent such damage to PCBs (printed circuit boards), it is important to use a grounded wrist strap, handle all PCBs by their edges and keep them in anti-static bags when not in use.

2.2 Preparing for Setup

The box in which the system was shipped should include the rackmount hardware needed to install it into the rack. Please read this section in its entirety before you begin the installation.

Choosing a Setup Location

- The system should be situated in a clean, dust-free area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated.
- Leave enough clearance in front of the rack so that you can open the front door completely (~25 inches) and approximately 30 inches of clearance in the back of the rack to allow sufficient space for airflow and access when servicing.
- This product should be installed only in a Restricted Access Location (dedicated equipment rooms, service closets, etc.).
- This product is not suitable for use with visual display workplace devices according to §2 of the German Ordinance for Work with Visual Display Units.

Rack Precautions

- Ensure that the leveling jacks on the bottom of the rack are extended to the floor so that the full weight of the rack rests on them.

-
-
- In single rack installations, stabilizers should be attached to the rack. In multiple rack installations, the racks should be coupled together.
 - Always make sure the rack is stable before extending a server or other component from the rack.
 - You should extend only one server or component at a time - extending two or more simultaneously may cause the rack to become unstable.

Server Precautions

- Review the electrical and general safety precautions - refer to reference links at the end of this document
- Determine the placement of each component in the rack *before* you install the rails.
- Install the heaviest server components at the bottom of the rack first and then work your way up.
- Use a regulating uninterruptible power supply (UPS) to protect the server from power surges and voltage spikes and to keep your system operating in case of a power failure.
- Allow any drives and power supply modules to cool before touching them.
- When not servicing, always keep the front door of the rack and all covers/panels on the servers closed to maintain proper cooling.

Rack Mounting Considerations

Ambient Operating Temperature

If installed in a closed or multi-unit rack assembly, the ambient operating temperature of the rack environment may be greater than the room's ambient temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature (TMRA).

Airflow

Equipment should be mounted into a rack so that the amount of airflow required for safe operation is not compromised.

Mechanical Loading

Equipment should be mounted into a rack so that a hazardous condition does not arise due to uneven mechanical loading.

Circuit Overloading

Consideration should be given to the connection of the equipment to the power supply circuitry and the effect that any possible overloading of circuits might have on overcurrent protection and power supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Reliable Ground

A reliable ground must be maintained at all times. To ensure this, the rack itself should be grounded. Particular attention should be given to power supply connections other than the direct connections to the branch circuit (i.e. the use of power strips, etc.).



To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

- This unit should be mounted at the bottom of the rack if it is the only unit in the rack.
- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.

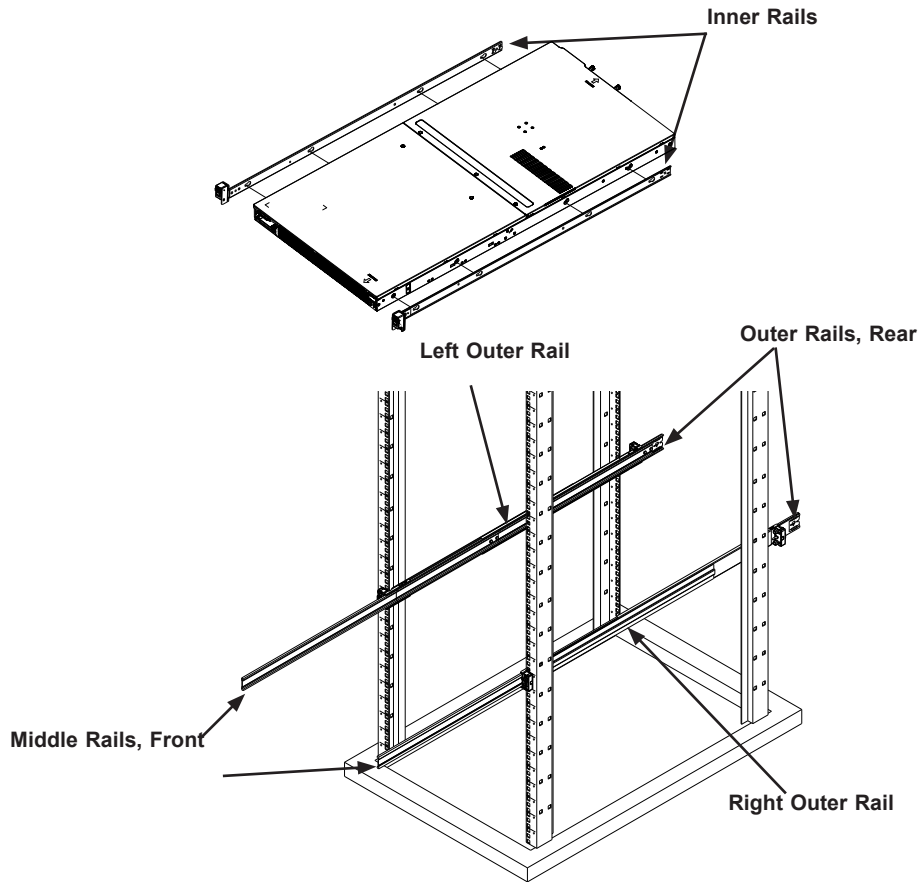
2.3 Installing the Rails

This section provides information on installing the chassis into a rack unit with the rails provided. There are a variety of rack units on the market, which may mean that the assembly procedure will differ slightly from the instructions provided. You should also refer to the installation instructions that came with the rack unit you are using.

Note: This rail will fit a rack between 27" and 32" deep.

Identifying the Rails

The chassis package includes two rail assemblies in the rack mounting kit. Each assembly consists of three sections: an inner rail that secures directly to the chassis, an outer rail that secures to the rack, and a middle rail that slides in the outer rail. These assemblies are specifically designed for the left and right side of the chassis.



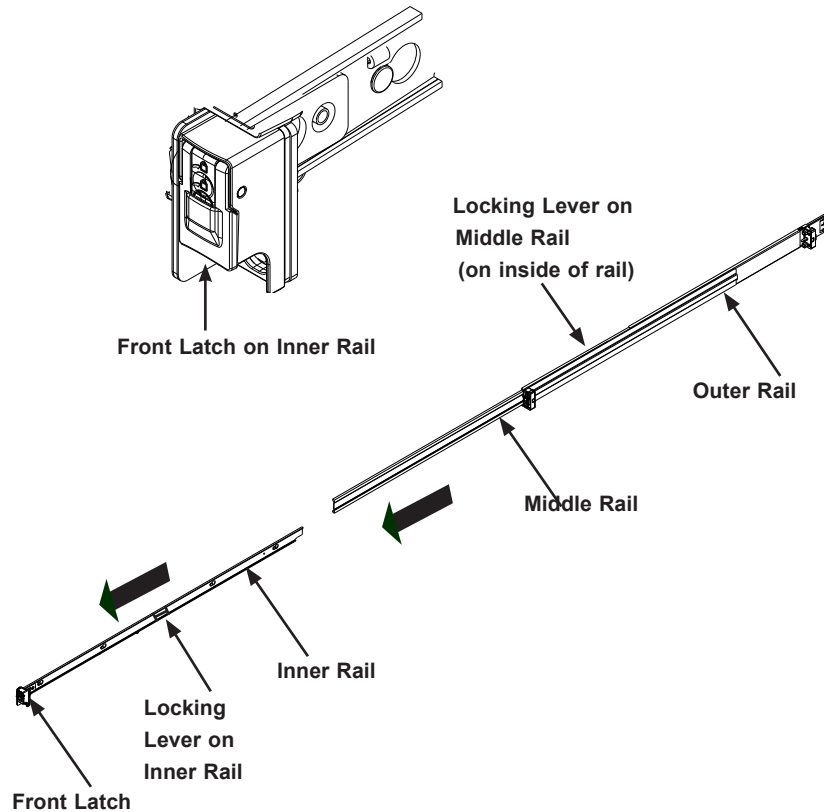
Identifying the Rail Sections

Releasing the Inner Rail

To mount the rail onto the chassis, first release the inner rail from the outer and middle rails.

Releasing the Inner Rail from the Middle and Outer Rails

1. Lift the auto-lock latch and pull the inner rail until it is fully extended.
2. Press down the locking lever on the inside of the inner rail to release the inner rail.
Continue to pull the inner rail out of the middle rail.



Extending the Rails and Releasing the Inner Rail

Note: Both front chassis rails and the rack rails have a locking tab, which serves two functions. First, it locks the server into place when installed and pushed fully into the rack (its normal operating position). In addition, these tabs lock the server in place when fully extended from the rack. This prevents the server from coming completely out of the rack when pulled out for servicing.

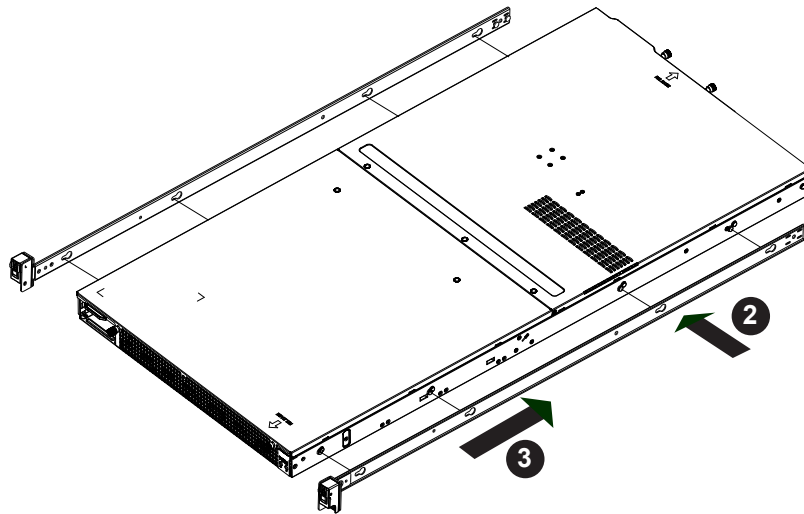


Warning: Stability hazard. The rack stabilizing mechanism must be in place, or the rack must be bolted to the floor before you slide the unit out for servicing. Failure to stabilize the rack can cause the rack to tip over.

Installing The Inner Rails on the Chassis

Installing the Inner Rails

1. Identify the left and right inner rails.
2. Place the inner rail firmly against the side of the chassis, aligning the T-studs on the side of the chassis with the slotted holes in the inner rail.
3. Slide the inner rail toward the rear of the chassis and under the T-studs.
4. An optional screw can be used to secure the rail to the chassis.



Installing the Inner Rails



Slide rail mounted equipment is not to be used as a shelf or a work space.

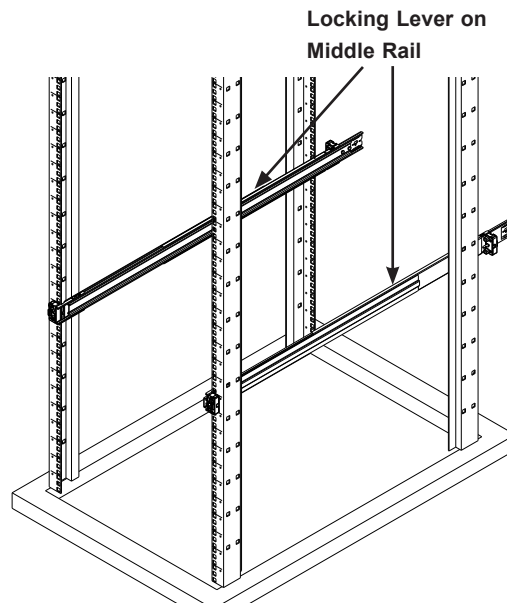


Warning: do not pick up the server with the front handles. They are designed to pull the system from a rack only.

Installing the Outer Rails on the Rack

Installing the Outer Rails

1. Confirm that the left and right outer rails have been correctly identified
2. Release the small locking lever on the inside of the middle rail and push the middle rail back into the outer rail.
3. Insert the square pins at the front of the outer rail into the square holes on the front of the rack. Push until the latch snaps into place.
4. The outer rail is actually two pieces that slide to lengthen. Pull out the rear of the outer rail, adjusting the length until the square pin assembly passes, then fits against the back of the rear post. Be careful to keep the rail level.
5. Insert the square pins at the rear of the outer rail into the square holes on the rear of the rack. Push until the latch snaps into place.
6. Repeat for the other outer rail.



Installing the Outer Rails

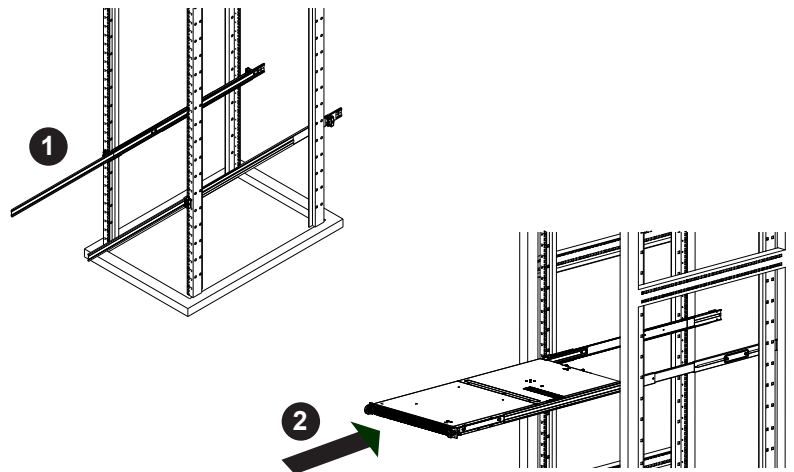
Note: Figure is for illustrative purposes only. Always install servers to the bottom of a rack first

Installing the System into the Rack

After the rails are installed on the chassis and on the rack, the server can be installed in the rack. Be sure to use sufficient personnel to lift it safely.

Installing the Chassis into a Rack

1. Pull the middle rail out of the front of the outer rail and make sure that the ball bearing shuttle is locked at the front of the middle rail.
2. Align the inner rails on the chassis with the front of the middle rails and then push evenly on both sides of the chassis. When partially in, the locking levers will stop further progress.
3. Press down the locking levers on the inner rails and push the chassis all the way into the rack. The front latches will click into place.



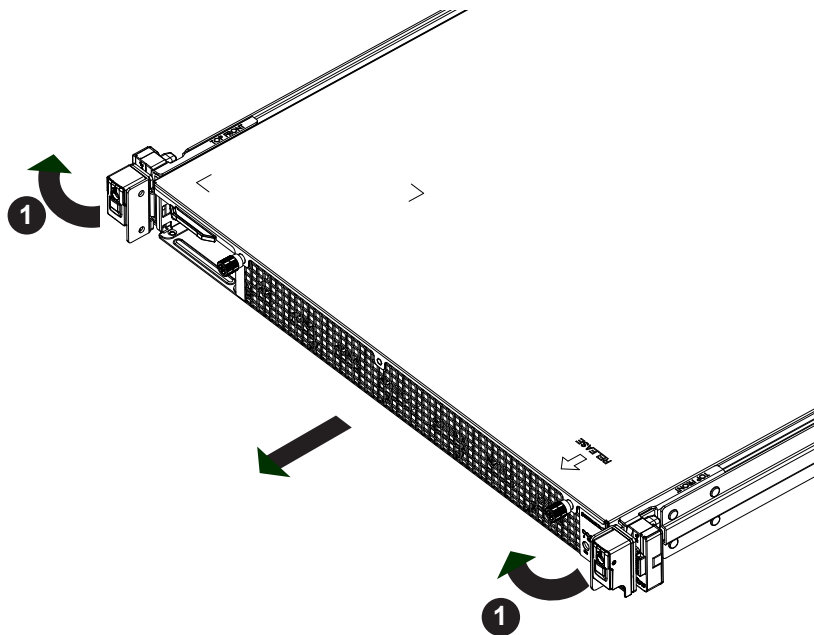
Installing the System into the Rack

Note: Figure is for illustrative purposes only. Always install servers to the bottom of a rack first

Removing the System From the Rack

1. Lift the auto-lock latches and pull the chassis out the front of the rack until it stops.
2. To remove the chassis from the rack completely, press the release latches on each of the inner rails downward simultaneously and continue to pull the chassis out of the rack.

Caution! It is dangerous for a single person to off-load the heavy chassis from the rack without assistance. Be sure to have sufficient assistance supporting the chassis when removing it from the rack or use a lift.



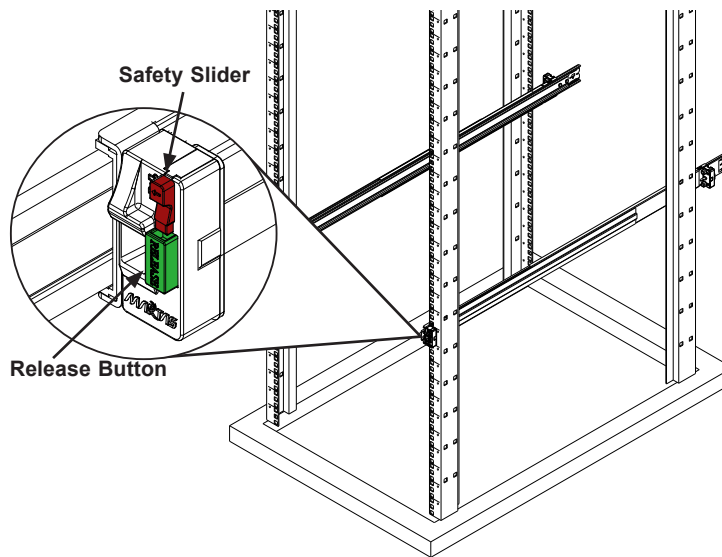
Removing the System from the Rack

Removing the Outer Rails From the Rack

In the uncommon event that it is necessary to remove the outer rails from the rack, follow these instructions. The chassis must be out of the rack.

Releasing the Outer Rails

1. On the front of the outer rail, slide the small plastic safety slider (red in drawing) up and hold it while pushing the plastic release button (green in drawing) just below it.
2. While holding the release button in, pull the outer rail forward to disengage the pins and the front of the rail from the rack.
3. Support the front of the outer and middle rail assembly while releasing the rear.
4. Remove the outer rail from the rear of the rack in the same way as the front. Slide the safety slider up and push and hold the release button, then pull the rear pins out of the rack and remove the rail.



Removing the Outer Rails

Chapter 3

Maintenance and Component Installation

This chapter provides instructions on installing and replacing system components that a customer may perform. To prevent compatibility issues, only use components that match the specifications and/or part numbers given.

Installation or replacement of most components require that power first be removed from the system. Please follow the procedures given in each section.

3.1 Removing Power

Use the following procedure to ensure that power has been removed from the system. This step is necessary when removing or installing non hot-swap components or when replacing a non-redundant power supply.

1. Use the operating system to power down the system.
2. After the system has completely shut-down, disconnect the AC power cord(s) from the power strip or outlet. (If your system has more than one power supply, remove the AC power cords from all power supply modules.)
3. Disconnect the power cord(s) from the power supply module(s).

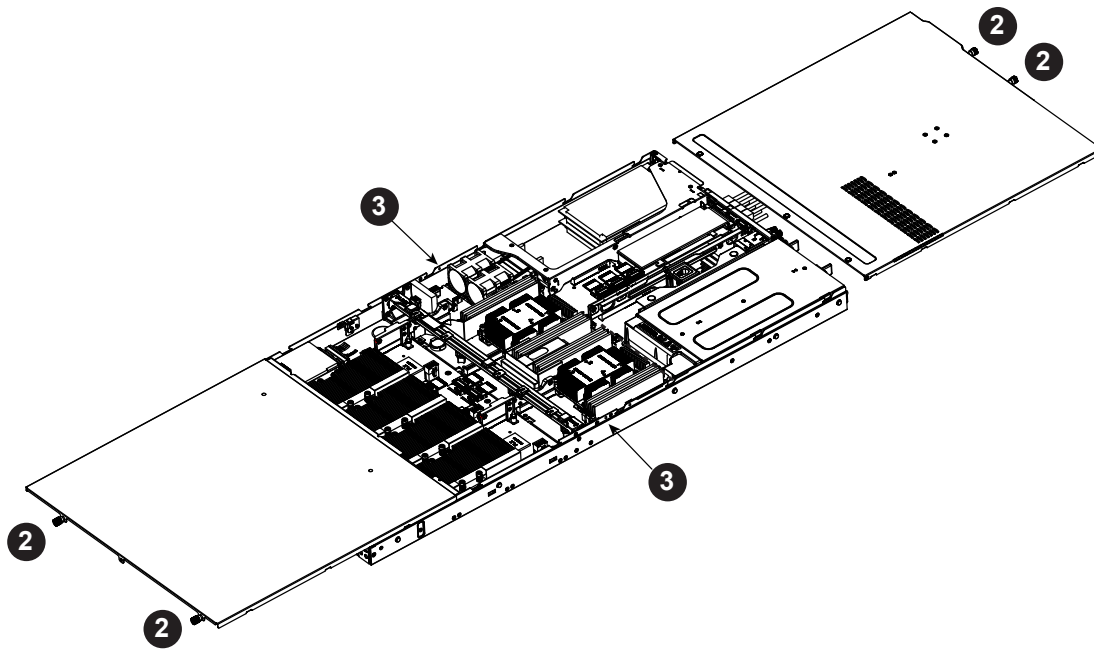
3.2 Accessing the System

The HPE Apollo pc40 server features a removable two-piece top cover, which allows easy access to the inside of the chassis.

Removing the Top Cover

1. Begin by removing power from the system as described in Section 3.1.
2. Unscrew the two thumb screws on the end of the chassis.
3. Remove the screws securing the cover to each side of the chassis.
4. Pull the cover towards the end of the chassis and off. See the following figure.

Warning: Except for short periods of time, do not operate the server without the cover in place. The chassis cover must be in place to allow for proper airflow and to prevent overheating.



Removing the Chassis Cover

3.3 Chassis Hard Drives

The HPE Apollo pc40 server has two externally accessible hot-swap 2.5" drive bays and space for two internal fixed 2.5" drives..

The hard drives are mounted in drive carriers to simplify their installation and removal from the chassis. (Both procedures may be done without removing power from the system.)

Externally Accessible Drives

The two hot-swap drives are mounted in drive carriers to simplify their installation and removal from the chassis. System power may remain on when removing carriers with drives installed. These carriers also help promote proper airflow for the drive bays. For this reason, even carriers without drives must remain in the chassis.

Removing a Hot-Swap Drive Carrier

1. Push the release button on the carrier. This extends the carrier handle.
2. Swing the handle fully out.
3. Grasp the handle and use it to pull the drive carrier out of its bay.

Mounting a Drive in a Drive Carrier

1. To add a new drive, install it into the carrier with the printed circuit board side facing down so that the mounting holes align with those in the carrier.
2. Secure the drive to the carrier with the screws provided, then push the carrier completely into the drive bay. You should hear a *click* when the drive is fully inserted. This indicates that the carrier has been fully seated and connected to the midplane, which automatically makes the power and logic connections to the hard drive.

Removing a Drive from a Drive Carrier

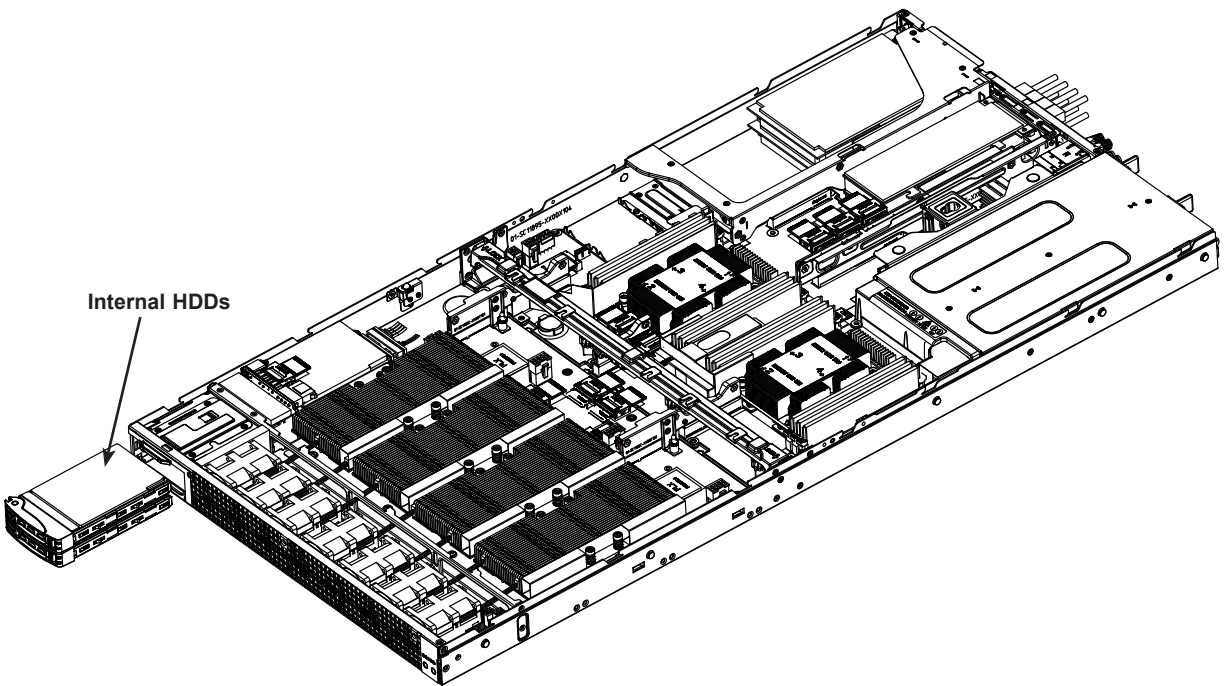
1. Remove the screws that secure the hard drive to the carrier and separate the hard drive from the carrier.
2. Replace the carrier back into the drive bay.

Internal Drives

The system supports one or two 2.5" fixed hard disk drives when using the included mounting bracket.

Installing Internal Drives

1. Begin by removing power from the system as described in Section 3.1.
2. Remove the chassis cover as described in Section 3.2.
3. Mount the drives in the bracket, securing them with screws.
4. Secure the bracket onto the chassis floor .
5. Attach cables from the drives to the motherboard.



Installing Internal Drives

Power Supply

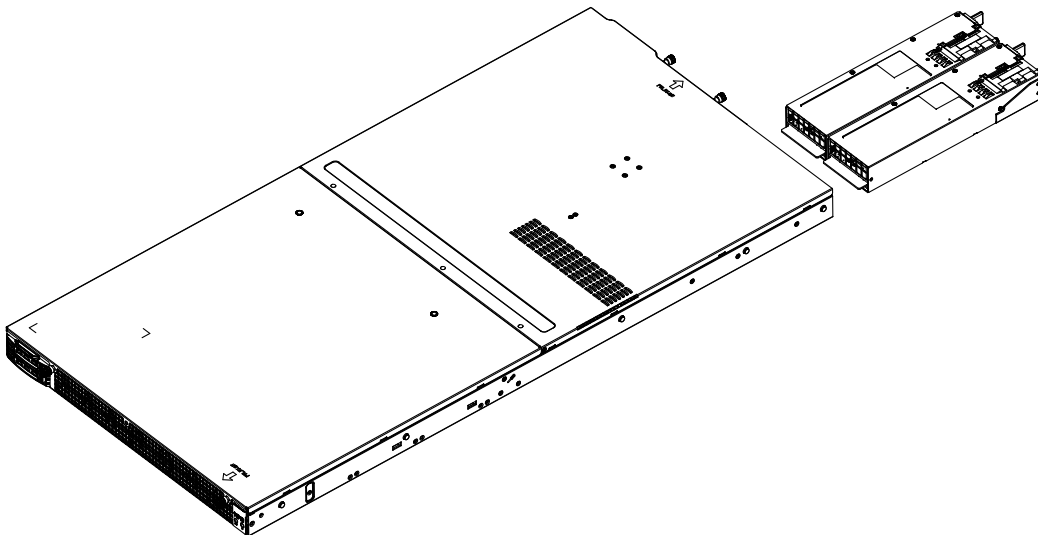
The HPE Apollo pc40 server has a 2000W redundant power supply consisting of two power modules. Each has an auto-switching capability, which enables it to automatically sense and operate with a 100V to 240V input voltage.

Replacing a Power Supply Module

If either of the two power supply modules fail, the other module will take the full load and allow the system to continue operation without interruption. The Power Fail LED will illuminate and remain on until the failed unit has been replaced. Replace the failed hot-swap unit with another identical power supply unit. The power supply modules can be replaced without powering down the system.

Replacing the Power Supply

1. Unplug the AC power cord from the failed power supply module.
2. Depress the release button on the power supply module.
3. Use the handle to pull the module straight out of the chassis.
4. Push the new power supply unit into the power bay until it clicks.
5. Plug the AC power cord back into the unit and power up the server.



Removing/Replacing a Power Supply

Note: The HPE Apollo pc40 server is only considered to be N+1 in the 200-240V range; the 100-127V range requires both power supplies to be operating.

Appendix A

BIOS Error Codes and System Specifications

A-1 BIOS Error Beep (POST) Codes

During the POST (Power-On Self-Test) routines, which are performed each time the system is powered on, errors may occur.

Non-fatal errors are those which, in most cases, allow the system to continue the boot-up process. The error messages normally appear on the screen.

Fatal errors are those which will not allow the system to continue the boot-up procedure. If a fatal error occurs, you should consult with your system manufacturer for possible repairs.

These fatal errors are usually communicated through a series of audible beeps. The numbers on the fatal error list (on the following page) correspond to the number of beeps for the corresponding error. All errors listed, with the exception of Beep Code 8, are fatal errors.

BIOS Error Beep (POST) Codes		
Beep Code	Error Message	Description
1 short	Refresh	Circuits have been reset (Ready to power up)
5 short, 1 long	Memory error	No memory detected in system
5 long, 2 short	Display memory read/write error	Video adapter missing or with faulty memory
1 long continuous	System OH	System overheat condition

A-2 Additional BIOS POST Codes

When BIOS performs the Power On Self Test, it writes checkpoint codes to I/O port 0080h. If the computer cannot complete the boot process, a diagnostic card can be attached to the computer to read I/O port 0080h.

System Specifications

System specifications for your HPE Apollo pc40 server can be found in the QuickSpecs document. Refer to www.hpe.com/servers/apollo-pc40

Websites

General websites

Hewlett Packard Enterprise Information Library

www.hpe.com/info/EIL

Single Point of Connectivity Knowledge (SPOCK) Storage compatibility matrix

www.hpe.com/storage/spock

Storage white papers and analyst reports

www.hpe.com/storage/whitepapers

For additional websites, see **Support and other resources**.

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 customer self repair (CSR) programs allow you to repair your product. If a CSR part needs to be replaced, it will be shipped directly to you so that you can install it at your convenience. Some parts do not qualify for CSR. Your Hewlett Packard Enterprise authorized service provider will determine whether a repair can be accomplished by CSR.

For more information about CSR, contact your local service provider or go to the CSR website:

<http://www.hpe.com/support/selfrepair>

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

Warranty information

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

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

Additional warranty information

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

Documentation feedback

Hewlett Packard Enterprise is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback (**docsfeedback@hpe.com**). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.