RETIRED: This document has been officially retired, and the base products listed herein are now considered obsolete and are no longer available for sale. Consequently, the information contained within may no longer be current. This document is provided exclusively for reference and informational purposes.

Overview

HPE Apollo 2000 Chassis

The Apollo 2000 System is the enterprise bridge to scale-out architecture for traditional data centers delivering the space and cost savings of density-optimized infrastructure in a non-disruptive manner. It is a dense, multi-server platform that packs a lot of performance and workload capability into a small amount of datacenter space while delivering the efficiencies of a shared infrastructure.

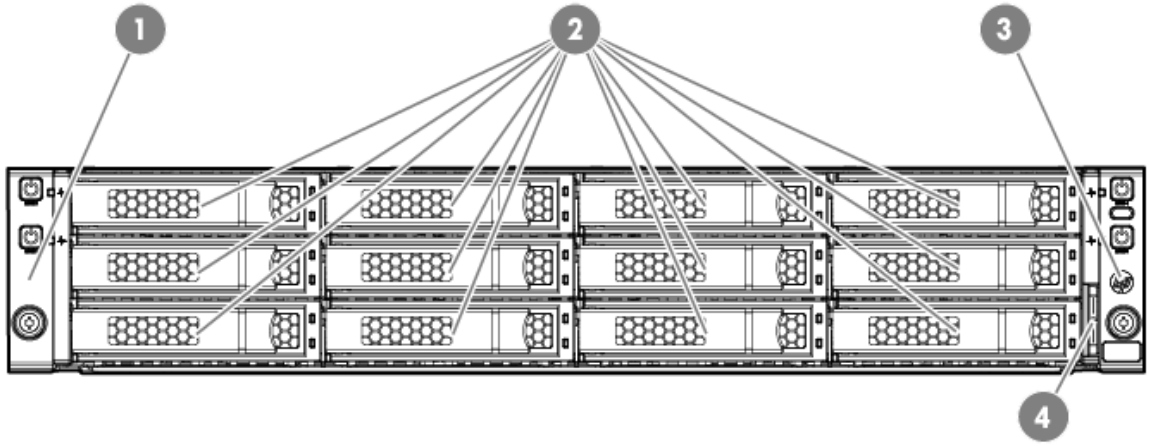
The Apollo 2000 System offers the configuration flexibility to support a variety of workloads, from remote site systems to large HPC clusters and everything in between. And it can be deployed cost-effectively starting with a single 2U, shared infrastructure chassis to meet the configuration needs of a wide variety of scale-out workloads.

The Apollo 2000 System is a density-optimized, 2U shared infrastructure chassis for up to 4 ProLiant Gen9 independent, hot-plug servers with all the traditional data center attributes – standard racks and cabling and rear-aisle serviceability access. A 42U rack fits up to 20 Apollo r2000 series chassis accommodating up to 80 servers per rack.

With Apollo 2000 System servers there is flexibility to tailor the system to the precise needs of each workload with compute and flexible I/O and storage options. Apollo 2000 System servers can be “mixed and matched” within a single chassis to support different applications and it can even be deployed with a single server, leaving room to scale as customer’s needs grow.

The Apollo 2000 chassis comes with 4 new generation single rotor fans and an additional 4 fans can be added for redundancy. The power can be managed by the HPE Advanced Power Manager (HPE APM) an optional rack level manager.

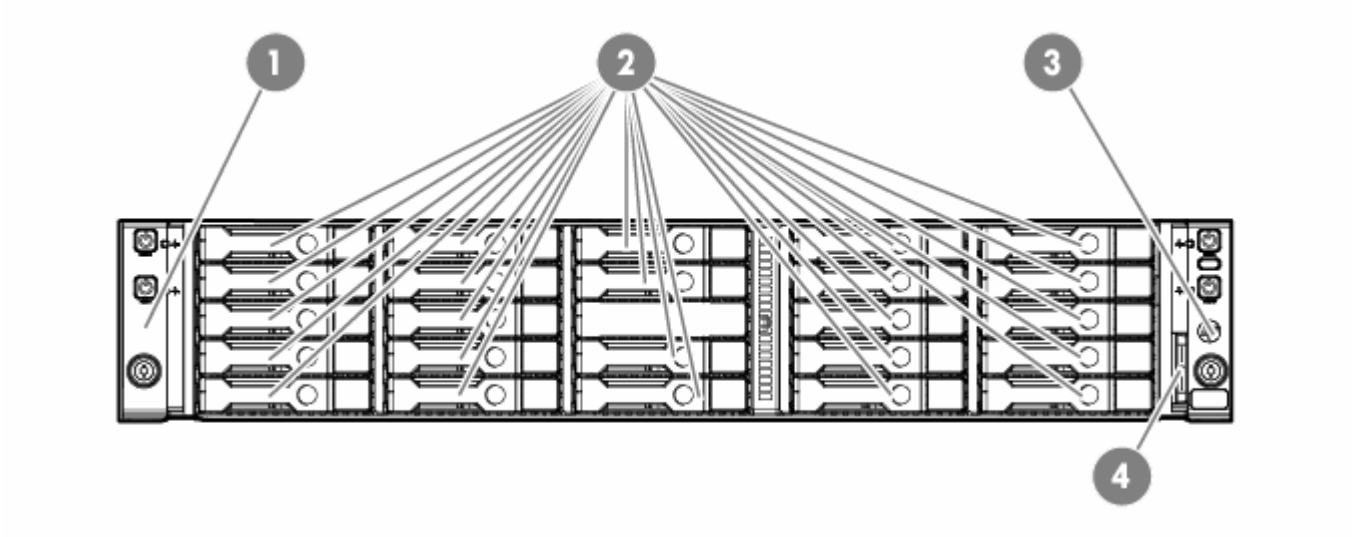
HPE Apollo r2200 Chassis – 12 LFF



Item	Description
1	Left bezel ear
2	Low-profile LFF hot-plug drives
3	Right bezel ear
4	Chassis serial label pull tab

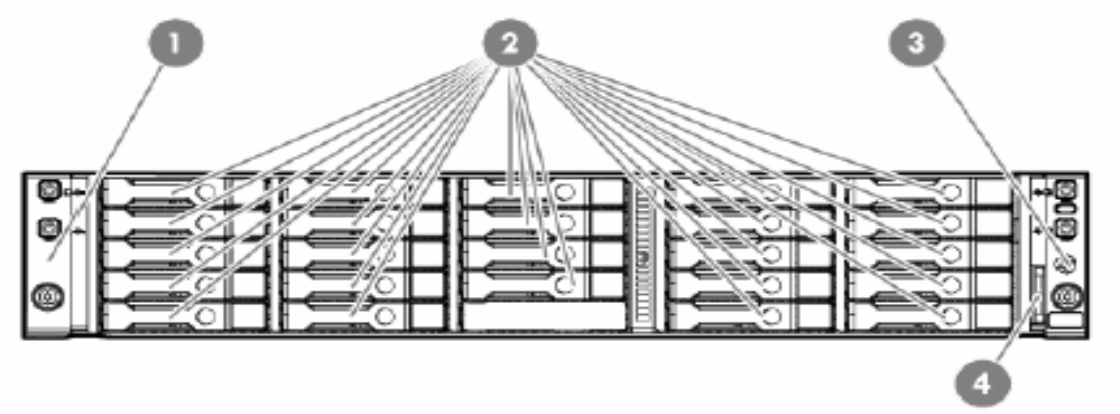
Overview

HPE Apollo r2600 Chassis – 24 SFF



Item	Description
1	Left bezel ear
2	Low-profile LFF hot-plug drives
3	Right bezel ear
4	Chassis serial label pull tab

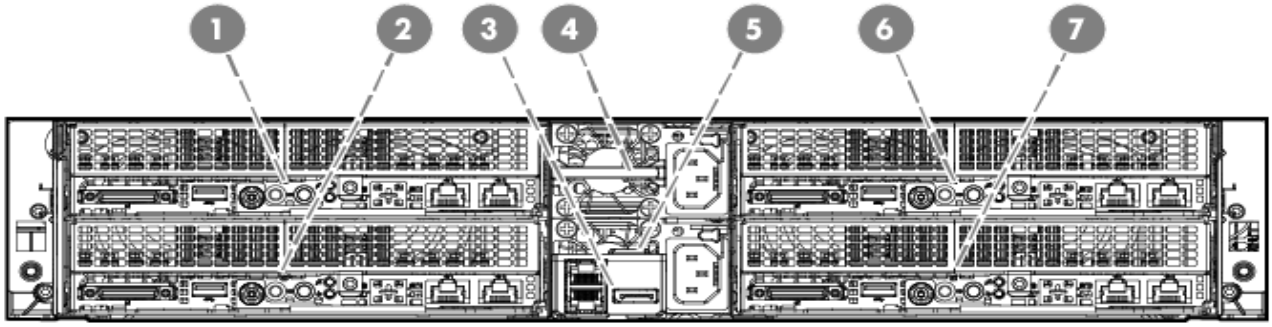
HPE Apollo r2800 Chassis -24 SFF



Item	Description
1	Left bezel ear
2	SFF HPE SmartDrives
3	Right bezel ear
4	Chassis serial label pull tab

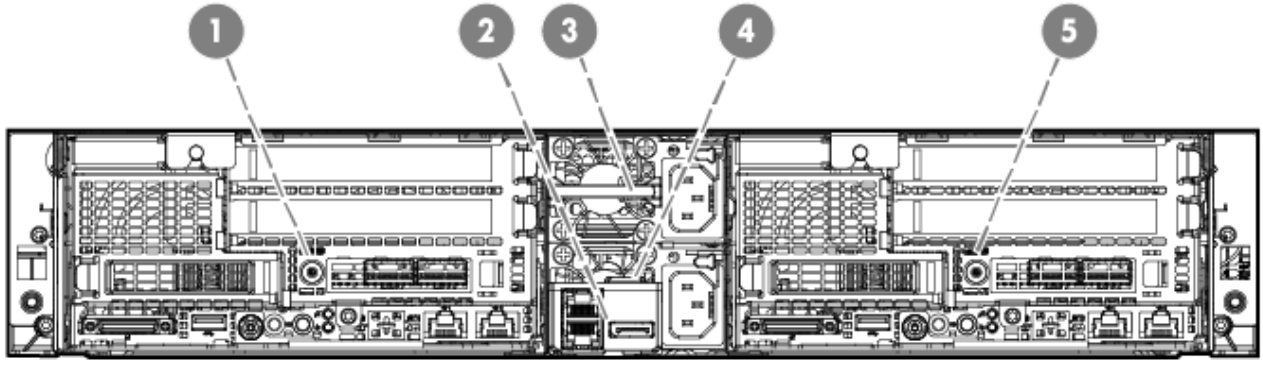
Overview

Chassis Rear Panel Components / Four 1U Nodes



Item	Description
1	Node 4
2	Node 3
3	RCM module
4	Power Supply 2
5	Power Supply 1
6	Node 2
7	Node 1

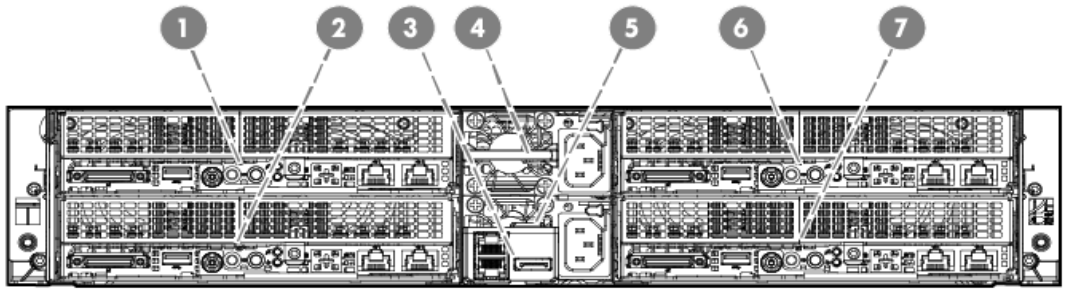
Chassis Rear panel Components / Two 2U Nodes



Item	Description
1	Node 3
2	RCM module
3	Power Supply 2

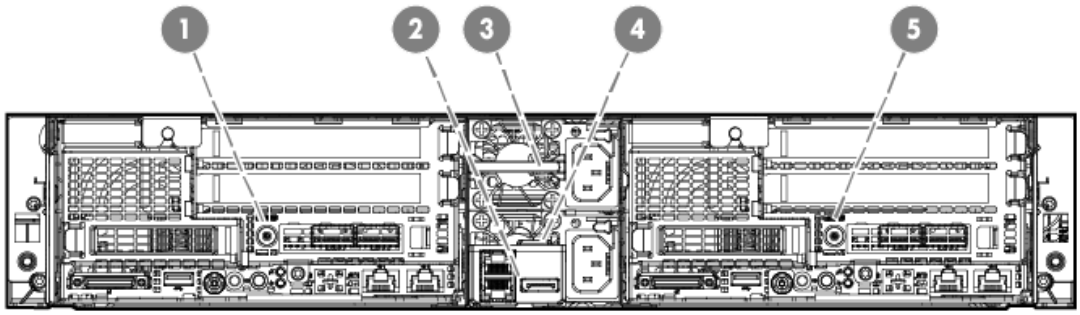
Overview

4	Power Supply 1
5	Node 1



Item	Description
1	Node 4
2	Node 3
3	RCM module
4	Power Supply 2
5	Power Supply 1
6	Node 2
7	Node 1

Chassis Rear panel Component / Two 2U Nodes



Item	Description
1	Node 3
2	RCM module
3	Power Supply 2
4	Power Supply 1
5	Node 1

Core Features

Chassis

There are 3 chassis options with different storage configurations

- HPE Apollo r2200 Chassis – 12 LFF hot-plug SAS or SATA HDDs or SSDs - allocated equally across server nodes
- HPE Apollo r2600 Chassis – 24 SFF hot-plug SAS or SATA HDDs or SSDs - allocated equally across server nodes
- HPE Apollo r2800 Chassis-24 SFF hot-plug SAS or SATA HDD or SSDs- allocated flexibly across server nodes

NOTE: r2800 supports flexible drive mapping enabling custom drive allocations to match workloads giving more flexible storage density for various applications. For more detail information about flexible mapping, visit http://h20628.www2.hp.com/km-ext/kmcsdirect/emr_na-c04604560-1

Each HPE Apollo 2000 Chassis is built with the following:

- **Four server slots for 1U or two server slots for 2U.**
- **Up to two (2) 800W/1400W power supply for the chassis HPE Thermal Logic technology for lower power consumption and airflow.**
- **Four (4) single rotor fans standard and an additional 4 fans can be added for redundancy.**

System Fans

The Chassis ships standard with 4 single rotor fan modules.

Server Tray Blank Kit

A chassis requires that four (4) server tray slots be populated with either an HPE ProLiant XL170r, XL190r server or an HPE Apollo 2000 Server Tray Blank Kit.

Rack Airflow Requirements

HPE Apollo 2000 Chassis

The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. For maximum cooling, HPE racks are recommended to allow these racks to be fully loaded with servers using the latest processors.

CAUTION: If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment.

CAUTION: Always use blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels will result in improper cooling that can lead to thermal damage.

Optional Features

HPE Insight Management software	Insight Management	Managing the growing number of servers can be complex and expensive for your organization. IT managers need to address changing business needs with tools that meet the challenges of managing today's complex Datacenters. HPE Insight Management lowers the cost of running your HPE ProLiant servers by providing you with best-in-class management tools, including HPE Insight Control, HPE Virtual Connect Enterprise Manager (VCEM), and HPE Insight Dynamics/Matrix Operating Environment. Insight Management increases your productivity and reduces your operating costs to get you higher value from your HPE ProLiant servers. Electronic download of Insight Management Media Insight Management software media is available for free download (not including license entitlement certificates) at this website: **http://www.hp.com/go/insightupdates**. Software media available for download includes: • HPE Insight Control • HPE Insight Control for Microsoft® System Center • HPE Insight Control for VMware vCenter Server • HPE Virtual Connect Enterprise Manager (VCEM) • HPE Insight Dynamics / Matrix Operating Environment Customers will receive an Insight Control or Insight Dynamics license entitlement certificate via physical shipment or email. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). One year of 24x7 Software Technical Support and Updates are included with your purchased licenses. Hewlett Packard Enterprise provides a complete range of installation and support services to ensure the successful deployment and operations of your server infrastructure. For more information about support services and licensing options, see the following website: **http://www.hp.com/go/insightsoftware** Insight Software Media Kit (DVDs) Physical media (DVDs) are also available for purchase from Hewlett Packard Enterprise or from your authorized reseller
	Service Pack for ProLiant	Customers should use the HPE Service Pack for ProLiant (SPP) to perform firmware, driver, and related software updates.

Optional Features

- SPP main webpage: **http://www.hp.com/go/spp**
- SPP downloads webpage: **http://www.hp.com/go/spp/download**

HPE Integrated Lights-Out (iLO)	HPE Integrated Lights-Out (iLO) simplifies server setup, health monitoring, power and thermal control, and lights-out remote administration of ProLiant SL, XL, ML, DL, and BL servers. HPE iLO functions without additional software and can be accessed from any location via a web browser. HPE iLO works hand-in-hand with HPE Systems Insight Manager, Insight Control and Insight Dynamics for ProLiant, helping customers unleash the value of the ProLiant platform and deliver the highest possible quality of IT service. For more information, visit: **http://www.hp.com/go/iLO.**
HPE Insight Control	HPE Insight Control, a product option, delivers essential infrastructure management that can help save time and money by making it easy to deploy, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. For more information, see **http://www.hp.com/go/insightcontrol**. HPE Insight Control includes one year of 24 x 7 HPE Software Technical Support and Update Service ensuring rapid access to Hewlett Packard Enterprise support staff and proactive delivery of software updates. For more information about this service, please visit: **http://www.hp.com/services/insight**.
HPE Matrix Operating Environment	The HPE Matrix Operating Environment (Matrix OE) for ProLiant and Integrity servers is an integrated command center that helps you instantly adjust to dynamic business demands. This advanced infrastructure management software lets you reduce the cost of common data center tasks by up to 40 percent while keeping pace with your changing business. The HPE Matrix OE includes the automated provisioning, optimization, and recovery management capabilities for HPE CloudSystem Matrix, the ideal platform for private cloud and Infrastructure as a Service (IaaS). **NOTE: For more information, visit: http://www.hp.com/go/matrixoe**.

HPE Advanced Power Manager

The HPE Advanced Power Manager (HPE APM) is an optional rack level solution. HPE APM will automatically discover hardware components and enable server level power on and off, server metering, aggregate dynamic power capping, configurable power-up dependencies and sequencing, consolidated Ethernet access to all resident iLOs, and asset management capabilities.

HPE APM features rack level event logging, RADIUS authentication, integrated serial concentrator, up to 11 local user accounts, read only service port, and supports SNMP, SSH, Syslogd, telnet.
NOTE: use either the HPE APM port or an iLO port to connect to a network.

Warranty

This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of Hewlett Packard Enterprise Authorized Channel Partners. Hardware diagnostic support and repair is available for one year from date of purchase. Support for software and initial setup is available

Optional Features

for 90 days from date of purchase. Enhancements to warranty services are available through HPE Care Pack services or customized service agreements. Hard drives have either a one year or three year warranty.

NOTE: **Server Warranty includes 1 year Parts, 1 year Labor, 1-year on-site support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at: http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html.**

NOTE: **In Asia Pacific, Japan and China, Server Warranty includes 3 years Parts, 3 year Labor, 3-year Onsite support with next business day response**

Service and Support

Service and Support

The support of HPE Apollo 2000 is at the Chassis level. Support purchased for the chassis covers the chassis and any other option part of this system

HPE Technology Services for Industry Standard Servers

HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to Hewlett Packard Enterprise to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.

Protect your business beyond warranty with HPE Care Pack Services

HPE Care Pack Services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the term you select.

Recommended HPE Care Pack Services for your HPE Apollo 2000

Optimized recommendation

Supports maintaining servers at optimum performance availability

3-Year HPE Proactive Care Service, 24x7, 4 hour response
This service gives you combined reactive and proactive support including rapid access to our Advanced Solution Center to manage and prevent problems and a Technical Support Specialist with a broad level of technical knowledge that will engage with additional technical expertise as needed from the Hewlett Packard Enterprise vast global resources.
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855enw.pdf

Standard recommendation

3-Year Foundation Care 24x7, Care Pack Service

HPE Foundation Care 24x7 connects you to Hewlett Packard Enterprise 24 hours a day, seven days a week for assistance on resolving issues. Hardware onsite response within four hours if needed; collaborative software included in this Care Pack service provides troubleshooting assistance on industry leading software running on your HPE server. Simplify your support experience and make Hewlett Packard Enterprise your first call for hardware or software questions.

http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en

Basic recommendation

3-Year Foundation Care NBD, Care Pack Service

HPE Foundation Care Next Business Day connects you to HPE during business hours for assistance on resolving issues – features next business day hardware onsite response if needed and software call back within two hours. Collaborative software support is included and provides troubleshooting assistance on industry leading software running on your server. Simplify your support experience and make Hewlett Packard Enterprise your first call for hardware or software questions.

http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en

Related Services

HPE Datacenter Care service

HPE Datacenter Care helps you improve IT stability and security, increase the value of IT, and enable agility and innovation. It is a structured framework of repeatable, tested, and globally available services "building blocks." You can deploy, operate, and evolve your datacenter wherever you are on your IT journey. With HPE Datacenter Care, you benefit from a personalized relationship with HPE via a single point of accountability for HPE and others' products. For more information, visit
http://www.hp.com/services/datacentercare

Service and Support

HPE ProLiant Server Hardware Installation
Provides for the basic hardware installation of Hewlett Packard Enterprise branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner.
http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN.pdf

Factory Express for Servers and storage

HPE Factory Express offers configuration, customization, integration and deployment services for Hewlett Packard Enterprise servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed. For more information on Factory Express services for your specific server model please contact your sales representative or go to: **http://www.hp.com/go/factory-express**.

Data Privacy Services

Protect your data through better media management. HPE Data privacy services help manage and protect sensitive data to reduce the risk of unauthorized access to private information and help meet compliance requirements. Our retention services allow you to keep drives and other devices upon failure, our removal services provide convenient data sanitization and our recovery services allow you to safely retire IT assets and capture any remaining value from the hardware.
http://www.hp.com/services/dataprivacy

Additional HPE Care Pack services can be found at: **http://www.hp.com/go/cpc**

Get connected to Hewlett Packard Enterprise to improve your support experience

Prevent problems with innovative, automated monitoring tools and proactive services. Combining Proactive Care Services with our remote support technology such as Insight Online provides you with expert advice and personalized, cloud-based automated IT support, helping to prevent unplanned down time and solve problems quickly. For more information, visit:
http://www.hp.com/go/proactiveinsightexperience

HPE Support Center

Personalized online support portal with access to information, tools and experts to support Hewlett Packard Enterprise business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers. Learn more **http://www.hp.com/go/hpsc**.

The HPE Support Center Mobile App allows you to resolve issues yourself or quickly connect to an agent for live support. Get access to personalized IT support anywhere, anytime.
These tools are available at no additional cost with an HPE warranty, HPE Care Pack Service or Hewlett Packard Enterprise contractual support agreement.
NOTE: HPE Support Center Mobile App is subject to local availability.

Parts and Materials

Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the
covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product QuickSpecss, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

Data Privacy

Let HPE Data Privacy Services help you control access to data and maintain compliance. We offer

Service and Support

retention services called Defective Media Retention (DMR) and Comprehensive Defective Material Retention (CDMR) as part of Foundation Care and Proactive Care that allow you to keep failed drives or other memory-retentive components to protect data that may reside. Our sanitization services should be used as part of tech refresh to help ensure no data lingers once the systems are taken out of service or repurposed. Our asset recovery service helps you responsibly retire IT assets. The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.

For more information

To learn more on services for HPE Apollo please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or visit: **http://www.hp.com/services/bladesystem.**

Configuration Information - Factory Integrated Models

Step 1: Choose a Chassis

HPE Chassis	HPE Apollo 2200 12LFF CTO Chassis	798152-B21
	HPE Apollo 2600 24SFF CTO Chassis	798153-B21
	HPE Apollo 2800 24 SFF w/Exp CTO Chassis	798154-B21

Step 2: Choose cooling options

HPE Cooling Options	HPE Apollo 2000 Server Tray Blank Kit **NOTE: Required for any non-populated slots in the chassis to prevent thermal related issues and required for APM 1.2 or APM 2.0**	798194-B21
	HPE Apollo 2000 FAN-module Kit **NOTE: Only required for APM 1.2**	800059-B21

Step 3: Choose the following rail kit and Bracket per chassis

HPE Rail Kits	HPE DL2000 Hardware Rail Kit 2000	611428-B21
	HPE t2500 Strap Shipping Bracket **NOTE: Hewlett Packard Enterprise recommends that a minimum of two people are required for all rack installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.**	740713-B21

Step 4: Choose Base configuration

Server Trays	HPE ProLiant XL170r Gen9 Tray	798155-B21
	HPE ProLiant XL190r Gen9 Tray **NOTE: Up to 4 single half width server trays (XL170r Gen9) can be added to the HPE Apollo 2000 Chassis.** **Up to 2 half width 2 U height server trays (XL190 Gen9) can be added to the HPE Apollo 2000 chassis**	798156-B21

Core Options

RCM Module	HPE Apollo 2000 RCM-module Kit **NOTE: This is an optional RCM (Rack Consolidation Management) module kit which allows iLO aggregation at the chassis level and also has the port for the HPE APM. The RCM Module consists of 2 iLO ports for redundancy. It can also be daisy chained to connect to a Top of the Rack (TOR) management switch.** **NOTE: If using the RCM module iLO port or the dedicated iLO management port module to connect to a network, the network must operate at a speed of 1Gb/s.**	798211-B21
Power Supply	HPE 800W FS Ti Ht Plg Pwr Supply Kit	720482-B21
	HPE 800W FS Univrsal Ht Plg Pwr Spply Kit	720484-B21
	HPE 800W FS Plat Ht Plg Pwr Supply Kit	720479-B21
	HPE 800W FS -48VDC Ht Plg Pwr Suhhpply Kit	720480-B21
	HPE 1400W FS Plat Pl Ht Plg Pwr Spply Kit	720620-B21
Security Hardware	HPE 2U Security Bezel Kit	666988-B21
HPE Advanced Power Manager	HPE Advanced Power Manager Kit **NOTE: Each HPE APM can connect up to 10 chassis via consolidated chassis management cable.**	741192-B21
	HPE 4M 20 Pin Consolidated Management Cable **NOTE: 1 cable per chassis.**	762048-B21

HPE Care Pack Services	Foundation Care **NOTE: HPE Foundation Care 24x7 connects you to Hewlett Packard Enterprise 24 hours a day, seven days a week for assistance on resolving issues. Hardware onsite response within four hours if needed; collaborative software included in this Care Pack service provides troubleshooting assistance on industry leading software running on your HPE server. Simplify your support experience and make Hewlett Packard Enterprise your first call for hardware or software questions.**	
	HPE 3 year 24x7 Apollo 2000 Proactive Care Service	U8AW3E
	HPE 3 year 24x7 Apollo 2000 Foundation Care Service	U8AW0E
	HPE 3 year NBD Apollo 2000 Foundation Care Service	U8AV1E
	Installation Services **NOTE: Reduce the time required to get your system up and running and help minimize disruptions to your business.**	
	HPE Installation Apollo 2000 Service2000	U5V60E
	HPE Installation Non-Standard Hours Apollo 2000 Service2000	U5V61E
	HPE Startup Apollo 2000 Service	U5V62E
	HPE Startup Non-Standard Hours Apollo 2000 Service	U5V63E

Technical Specifications

HPE Apollo 2200 Chassis	Dimensions	Height	3.44 in (8.73 cm)
		Width	17.64 in (44.80 cm)
		Depth	33.40 in (86.33 cm)
	Shipping Dimensions	Height	11.5 in (29.2 cm)
		Width	23 in (58.4 cm)
		Depth	38.74 in (98.4 cm)
	Chassis Weight	Empty	26.37 lb (11.94 kg)
	Max Enclosure Weight	Approximate	55.93 lb (25.37 kg)
	Temperature Range	Operating	50° to 95° F (10° to 35° C)
		Non-Operating	-22° to 140° F (-30° to 60° C)
	Relative Humidity	Operating	10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
		Non-Operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

NOTE: Operating temperature has an altitude derating of 1.8° F (1° C) per 1,000 ft (304.8 m). No direct sunlight. Upper operating limit is 10,000 ft (3,048 m) or 70Kpa/10.1 psia. Upper non-operating limit is 30,000 ft (9,144 m) or 30.3 KPa/4.4 psia. Storage maximum humidity of 95% is based on a maximum temperature of 113° F (45° C). Altitude maximum for storage is 70 KPa.

	Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).	
			Idle
		LWAd	7.1 Bels
		LpAm	54 dBA
			Operating
		LWAd	7.2 Bels
		LpAm	54 dBA
HPE Apollo 2600 Chassis	Dimensions	Height	3.44 in (8.73 cm)
		Width	17.64 in (44.81 cm)
		Depth	32.4 in (82.27 cm)
	Shipping Dimensions	Height	11.5 in (29.2 cm)
		Width	23 in (58.4 cm)
		Depth	37.12 in (94.3 cm)
	Chassis Weight	Empty	21.74 lb (9.86 kg)
	Max Enclosure Weight	Approximate	51.69 lb (23.45 kg)
	Temperature Range	Operating	50° to 95° F (10° to 35° C)

Technical Specifications

		Non-Operating	-22° to 140° F (-30° to 60° C)
	Relative Humidity	Operating	10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
		Non-Operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

NOTE: Operating temperature has an altitude derating of 1.8° F (1° C) per 1,000 ft (304.8 m). No direct sunlight. Upper operating limit is 10,000 ft (3,048 m) or 70Kpa/10.1 psia. Upper non-operating limit is 30,000 ft (9,144 m) or 30.3 KPa/4.4 psia. Storage maximum humidity of 95% is based on a maximum temperature of 113° F (45° C). Altitude maximum for storage is 70 KPa.

	Acoustic Noise (No data so far)	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).	
		Idle	
		LWAd	7.1 Bels
		LpAm	54 dBA
		Operating	
		LWAd	7.2 Bels
		LpAm	54 dBA
HPE Apollo 2800 Chassis	Dimensions	Height	3.44 in (8.73 cm)
		Width	17.64 in (44.81 cm)
		Depth	32.4 in (82.27 cm)
	Shipping Dimensions	Height	11.5 in (29.2 cm)
		Width	23 in (58.4 cm)
		Depth	37.12 in (94.3 cm)
	Chassis Weight	Empty	22.05 lb (10.00 kg)
	Max Enclosure Weight	Approximate	52.00 lb (23.50kg)
	Temperature Range	Operating	50° to 95° F (10° to 35° C)
		Non-Operating	-22° to 140° F (-30° to 60° C)
	Relative Humidity	Operating	10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
		Non-Operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

NOTE: Operating temperature has an altitude derating of 1.8° F (1° C) per 1,000 ft (304.8 m). No direct sunlight. Upper operating limit is 10,000 ft (3,048 m) or 70Kpa/10.1 psia. Upper non-operating limit is 30,000 ft (9,144 m) or 30.3 KPa/4.4 psia. Storage maximum humidity of 95% is based on a maximum temperature of 113° F (45° C). Altitude maximum for storage is 70 KPa.

Technical Specifications

Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).

	Idle
LWAd	7.1 Bels
LpAm	54 dBA
	Operating
LWAd	7.2 Bels
LpAm	54 dBA

Environmental-friendly Products and Approach	End-of-life Management and Recycling	Hewlett Packard Enterprise offers end-of-life Hewlett Packard Enterprise product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: **http://www.hp.com/go/green**. To recycle your product, please go to: **http://www.hp.com/go/green** or contact your nearest Hewlett Packard Enterprise sales office. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site at: **http://www.hp.com/go/green**. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

Date	Version History	Action	Description of Change
8-Jan-2016	From version 3 to 4	Changed	Correct errors and rebrand the document
9-Oct-2015	From version 2 to 3	Updated	Updates throughout the document
17-Aug-2015	From version 1 to 2	Updated	Updates throughout the document
30-Mar-2015	Version 1	Created	Create QuickSpecs for HPE Apollo 2000

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