Overview

HPE Solutions for Qumulo

HPE, together with Qumulo, effectively addresses your growing unstructured data needs - scale and manage billions of files with instant control at low cost and high performance, on-prem, off-prem, or spanning both - now and into the future. The HPE Solutions for Qumulo file data platform technology allow you to symmetrically grow capacity and performance, reaching petabyte scale, on purpose-built HPE Apollo Gen10 and HPE ProLiant Gen10 Plus platforms. With Qumulo and HPE's carefully selected configurations optimized for price, performance, and capacity requirements, you can create, transform, and deliver your unstructured file data at massive scale and unmatched performance and ease..

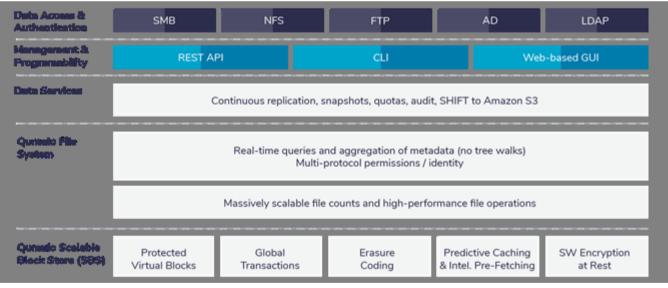
What's new

- The HPE ProLiant DL325 Gen10 Plus 291TB 100Gb All-NVMe Flash Node, an ideal solution for extreme performance workloads in a compact 1U format, provides the right combination of scale and density.
- The HPE all-NVMe solution is special-built for Qumulo using a ProLiant DL325 Gen10 Plus with 9x 15.36TB drives (R8F01A) and two disk packs of 5x 15.36TB (2x R8F02A) for a total of 19 NVMe drives.

For further information, please consult with your HPE representative

What's Included in the Qumulo Software Subscription

With high availability HPE Apollo 4200 and HPE ProLiant DL325 servers running Qumulo software, customers get a density-optimized 1U or 2U rack mount file storage solution offering either All-NVMe Flash in 34TB, 145TB, or 291TB capacity nodes, a Hybrid solution in 36TB, 90TB, or 192TB capacity nodes or a dense Archive at 336TB raw capacity per node.



What's Included in the Qumulo Software Subscription

Overview

Models	
Description	SKU
HPE Apollo and ProLiant Nodes for Qumulo	
HPE ProLiant DL325 Gen10 Plus 34TB 100Gb All-NVMe Flash Node for Qumulo	R3B88A
HPE ProLiant DL325 Gen10 Plus 145TB 100Gb All-NVMe Flash Node for Qumulo	R3B89A
HPE ProLiant DL325 Gen10 Plus 139TB All-NVMe Flash Node for Qumulo	R8F01A
Notes: See Step1 in configuration Information Section (Page 6)	
HPE 76TB (5x15.36TB) Smart Carrier All-NVMe Flash Drive Bundle for Qumulo	R8F02A
Notes: See Step1 in configuration Information Section (Page 6)	
HPE Apollo 4200 Gen10 36TB Hybrid Node for Qumulo	R6A40A
HPE Apollo 4200 Gen10 36TB Hybrid Node with 25Gb NIC for Qumulo	R6F64A
HPE Apollo 4200 Gen10 90TB Hybrid Node for Qumulo	R3W48A
HPE Apollo 4200 Gen10 90TB Hybrid Node with 25Gb NIC for Qumulo	R6F65A
HPE Apollo 4200 Gen10 192TB Hybrid Node for Qumulo	R3W49A
HPE Apollo 4200 Gen10 192TB Hybrid Node with 100Gb NIC for Qumulo	R6F66A
HPE Apollo 4200 Gen10 336TB Archive Node for Qumulo	R3W51A
HPE Apollo 4200 Gen10 336TB Archive Node with 25Gb NIC for Qumulo	R6F67A
Qumulo 1TB Tier F1 Subscription and Support Electronic License to Use (E-LTU)	
Qumulo Tier F1 1TB 1yr Subscription and Support E-LTU	R3W40AAE
Qumulo Tier F1 1TB 3yr Subscription and Support E-LTU	R3W42AAE
Qumulo Tier F1 1TB 5yr Subscription and Support E-LTU	R3W44AAE
Qumulo 1TB Tier H1 Subscription and Support Electronic License to Use (E-LTU)	
Qumulo File Fabric 1TB Tier H1 12-month Subscription and Support E-LTU	R0G81AAE
Qumulo File Fabric 1TB Tier H1 36-month Subscription and Support E-LTU	R0G83AAE
Qumulo File Fabric 1TB Tier H1 60-month Subscription and Support E-LTU	R0G85AAE
Qumulo 1TB Tier H3 Subscription and Support Electronic License to Use (E-LTU)	
Qumulo File Fabric 1TB Tier H3 1yr Subscription and Support E-LTU	R0W31AAE
Qumulo File Fabric 1TB Tier H3 3yr Subscription and Support E-LTU	R0W33AAE
Qumulo File Fabric 1TB Tier H3 5yr Subscription and Support E-LTU	R0W35AAE
Qumulo Professional Services	
Qumulo Installation and Advanced Training Service per Day	R0G89AAE
Qumulo Systems Health Check Service	R0G90AAE
Qumulo for Amazon Web Services	
Qumulo Software for Amazon Web Services 1TB 1yr Subscription and Support E-LTU	R3K09AAE
Qumulo Software for Amazon Web Services 1TB 2yr Subscription and Support E-LTU	R3K10AAE
Qumulo Software for Amazon Web Services 1TB 3yr Subscription and Support E-LTU	R3K11AAE
Qumulo for Google Cloud Platform	
Qumulo Software for Google Cloud Platform 1TB 1yr Subscription and Support E-LTU	R4D69AAE
Qumulo Software for Google Cloud Platform 1TB 2yr Subscription and Support E-LTU	R4D70AAE
Qumulo Software for Google Cloud Platform 1TB 3yr Subscription and Support E-LTU	R4D71AAE

Standard Features

Key benefits of HPE servers with Qumulo

• High-performance, Enterprise-proven Scale-out File Data Platform

- Scale to billions of files with Qumulo's file data platform that handles small files as efficiently as large ones. There is no practical limit to scale, whether capacity, performance, file or node count. User files can occupy 100% of provisioned capacity without performance or management issues.
- Sophisticated data protection including highly efficient erasure coding, replication, snapshots, and software encryption, enable the fastest re-protect times in the industry. The auditing capability is simple to configure. The encryption is always on and securely protects data at all times.
- Cross Protocol Permissions (XPP) seamlessly manages SMB and POSIX permissions, preserving ACL inheritance for worry-free collaboration across protocols and client operating systems. XPP is fully automatic and requires no configuration.

• Your Data Where You Want it, Scaling On-premises and in Hybrid Cloud Environments

- Store your data anywhere and get multiple GB/s of performance for your workloads both on- and off- premises. You get scalable performance regardless of the number of files or file sizes.
- Leverage continuous replication to make cloud a part of your business continuity strategy. Cloud continuity replication policies move the data where it's needed providing operating across storage clusters, whether on-premises or in the cloud. Qumulo automatically keeps data consistent.
- Use the cloud when you need it. Access compute capability not available in your data center. With Qumulo SHIFT for AmazonTM S3 you can copy your data to native S3 to leverage applications, as well as AI and ML capabilities, hosted in the cloud. AmazonTM S3 enables easy collaboration around the world
- Freely move data between on-premises and native cloud in AWS and Google Cloud without file conversion or rewriting apps because the same Qumulo platform runs natively in both. Simple subscription pricing covers all features, updates, performance enhancements and the licenses are transferable..

• Eliminate Data Blindness with Real-time Visibility and Control of Your Storage Infrastructure

- Real-time analytics help save time and money while increasing performance, allowing admins to pinpoint problems and effectively control how storage is used while providing visibility into storage capacity usage patterns by IP address or directory path.
- Instantly see usage, activity, and throughput at any level of the unified directory structure, no matter how large or how active the system is, whether Qumulo is running on-premises or in the cloud.. Easily identify problem areas, hot spots and optimize workload distribution across the file system.
- Leverage real-time information via analytics to set quotas in real-time. Directory-based capacity quotas give
 administrators instant control over storage allocation. Capacity quotas can be applied to any directory, even nested
 ones. Moving a directory with a quota is easy.
- Automate everything, eliminating redundant tasks! The RESTful API enables you to programmatically configure infrastructure, eliminate administrative tasks and automate IT management.

• Ultra-dense and Secure Storage Server

- The HPE solutions for Qumulo are built using HPE Apollo and ProLiant servers. These build on years of proven leadership with an architecture optimized for Software-Defined Storage. Its unique design allows customers to save valuable data center space through a standard rack depth chassis
- HPE ProLiant DL325 Gen10 Plus systems are all-NVMe nodes, built on the 2nd generation AMDTM EPYC 7402P series processor family with 24 cores, and HPE Smart Memory up to 3200 MT/s DDR4 memory.
- HPE Apollo 4200 Systems are an SSD-first hybrid architecture that optimizes cost and performance. You can simultaneously get the speed benefits of SSD and the economic advantages of HDD.

Standard Features

 – HPE's Active Health System is an industry-first technology providing continuous, proactive health monitoring of over 1,600 system parameters and 100% of configuration changes. Cloud-based monitoring proactively detects potential problems including historical trend data about system usage.

- HPE iLO5 Silicon Root of Trust and the built-in 256-bit AES encryption protects your systems and data from threats and malicious activities. No separate licenses or anything to manage. And switched ON by default.

HPE ProLiant DL325 Gen10 Plus nodes : All-NVMe Flash			
Specifications (per node)	34TB All-NVMe Flash Node (R3B88A)	145TB All-NVMe Flash Node (R3B89A)	291TB All-NVMe Flash Node (R8F01A+2x R8F02A))
All-NVMe Disk Drive Capacity (raw)	34TB	145TB	291TB
NVMe drives	9 x 3.84TB NVMe RI SC U.3 PM1733 SSD	19 x 7.68TB NVMe RI SC U.3 PM1733 SSD	19 x 15.36TB NVMe RI SC U.3 PM1733 SSD
CPU	1 x AMD EPYC 7402P (2.8	GHz/24-core)	
Memory	128GB (PC4-3200AA-R)		
Networking Ports	Vetworking Ports 2x HPE Ethernet 100Gb 2-port QSFP56 Adapters (Included - dedicate frontend and backend traffics)		
Management Ports Dedicated iLO5 1Gb base T(RJ-45) Management Port (Includes iLO Advanced Electronic License with 3yr Support on iLO Licensed Features)			
Power and Cooling	8 system fans shipped as s	standard	
Form Factor	1U rack mount		

HPE Apollo 4200 Gen10 nodes : Hybrid			
Specifications (per	36TB Hybrid Node	90TB Hybrid Node	192TB Hybrid Node
node)	(R6F64A & R6A40A)	(R6F65A & R3W48A)	(R6F66A & R3W49A)
Hard Disk Drive	36TB	90TB	192TB
Storage Capacity			
(raw)			
Logical Flash Cache	1.44TB	2.88TB	5.76TB
Capacity			
HDDs	9 x 4TB 6G SATA 7.2K LFF 512e HDD	9 x 10TB 6G SATA 7.2K LFF 512e HDD	24 x 8TB 6G SATA 7.2K LFF 512e HDD
CPU	1 x Intel Xeon Xeon-Silver 4210R (2.4GHz/10- core/100W)	1 x Intel Xeon Xeon-Silver 4210 (2.2GHz/10- core/85W)	2 x Intel Xeon Xeon-Silver 4210R (2.4GHz/10- core/100W)
Memory	64GB (DDR4-2933 CAS- 21-21-21 Registered Memory)	64GB (DDR4-2933 CAS- 21-21-21 Registered Memory)	128GB (DDR4-2933 CAS-21- 21-21 Registered Memory)
Networking Ports	HPE Ethernet 10/25Gb 2- port 640SFP28 Adapter (optional on R6A40A; included on R6F64A)	HPE Ethernet 10/25Gb 2- port 640SFP28 Adapter(optional on R6A48A; included on R6F65A)	HPE Ethernet 100Gb 2-port 841QSFP28 Adapter (optional on R6A49A; included on R6F66A)
Management Ports	Dedicated iLO5 1Gb base T (Includes iLO Advanced Ele Features)		·
Power and Cooling	10 system fans shipped as	standard	
Form Factor	2U rack mount		

Standard Features

HPE Apollo 4200 G	en10 nodes : Archive
Specifications (per	336TB Archive Node (R6F67A & R3W51A)
node)	
Hard Disk Drive	336TB
Storage Capacity	
(raw)	
Logical Flash Cache	7.68TB
Capacity	
HDDs	24 x 14TB 6G SATA 7.2K LFF 512e HDD
CPU	1 x Intel Xeon Xeon-Silver 4210 (2.2GHz/10-core/85W)
Memory	128GB (DDR4-2933 CAS-21-21-21 Registered Memory)
Networking Ports	HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter (optional on R6A51A; included
	on R6F67A)
Management Ports	Dedicated iLO5 1Gb base T(RJ-45) Management Port
Power and Cooling	10 system fans shipped as standard
Form Factor	2U rack mount

Service and Support

Apollo 4200 Gen10 and ProLiant Gen10 Plus Servers Hardware Warranty

This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of HPE Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HPE Pointnext operational services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

Notes: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite 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://h17007.www1.hpe.com/us/en/enterprise/servers/warranty/.

Qumulo Customer Success Program

Service and Support for the Qumulo File Data Platform products are provided directly by Qumulo. Details on Qumulo's Customer Success Program can be found here: <u>https://qumulo.com/resources/terms-hub/support-offerings/</u>

Qumulo licensors service delivery organization will be responsible for responding with a call, assigning a severity level to the call, and determining the service Severity Level acceptable to Hewlett Packard Enterprise customer. The support request will be processed by Qumulo in accordance with the Severity Level agreed upon.

For any Qumulo warranty support and generic queries please email: support@qumulo.com

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 QuickSpecs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.

Configuration Information

The ProLiant DL325 Gen10 Plus and Apollo 4200 for Qumulo solution is configured as follows:

Step 1

Select HPE ProLiant DL325 All-NVMe Flash, Apollo 4200 Hybrid or Archive Qumulo nodes (required)

Notes: A minimum of four nodes are required to operate a HPE Qumulo cluster. Description	SKU
HPE ProLiant DL325 Gen10 Plus 34TB 100Gb All-NVMe Flash Node for Qumulo	R3B88A
Notes: SKU R3B88A includes 2 x HPE Ethernet HDR100/EN 100Gb 2-port QSFP56	Noboo/(
Adapter(P23666-B21). These network cards cannot be removed and no additional network cards	
added.	
HPE ProLiant DL325 Gen10 Plus 145TB 100Gb All-NVMe Flash Node for Qumulo	R3B89A
Notes: SKU R3B89A includes 2 x HPE Ethernet HDR100/EN 100Gb 2-port QSFP56	
Adapter(P23666-B21). These network cards cannot be removed and no additional network cards added.	
HPE ProLiant DL325 Gen10 Plus 139TB All-NVMe Flash Node for Qumulo	R8F01A
Notes : The 291TB solution include 1x R8F01A with 2x R8F02A (All-NVMe Drive Bundle) and 2 x HPE Ethernet HDR100/EN 100Gb 2-port QSFP56 Adapter(P23666-B21). These network cards cannot be removed and no additional network cards added	
HPE Apollo 4200 Gen10 36TB Hybrid Node for Qumulo	R6A40A
Notes: Select network card in Step 1a below.	
·	
HPE Apollo 4200 Gen10 36TB Hybrid Node with 25Gb NIC for Qumulo	R6F64A
Notes: SKU R6F64A includes 1 x HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter (817753-B21). This network card cannot be removed and no additional network cards added.	
HPE Apollo 4200 Gen10 90TB Hybrid Node for Qumulo	R3W48A
Notes: Select network card in Step 1a below.	
HPE Apollo 4200 Gen10 90TB Hybrid Node with 25Gb NIC for Qumulo	R6F65A
Notes: SKU R6F65A includes 1 x HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter (817753-	
B21). This network card cannot be removed and no additional network cards added.	
HPE Apollo 4200 Gen10 192TB Hybrid Node for Qumulo	R3W49A
Notes: Select network card in Step 1a below.	
HPE Apollo 4200 Gen10 192TB Hybrid Node with 100Gb NIC for Qumulo	R6F66A
Notes: SKU R6F66A includes 1 x HPE Infiniband EDR/Ethernet 100Gb 2-port 841QSFP28	
Adapter (872726-B21). This network card cannot be removed and no additional network cards added.	
HPE Apollo 4200 Gen10 336TB Archive Node for Qumulo	R3W51A
Notes: Select network card in Step 1a below.	
HPE Apollo 4200 Gen10 336TB Archive Node with 25Gb NIC for Qumulo	R6F67A
Notes: SKU R6F65A includes 1 x HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter (817753-	
B21). This network card cannot be removed and no additional network cards added.	
Step 1a	
Select Network Adapter	
HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	817753-B21
Notes:	

Order Quantity 1 of 817753-B21 for the Apollo 4200 Gen10 36TB, 90TB Hybrid or 336TB Archive Node (SKU R6A40A, R3W48A and R3W51A) as the default network adapter for a Qumulo cluster consisting of Gen10 nodes only.

Configuration Information

If adding an Apollo 4200 Gen10 90TB Hybrid or 336TB Archive Node to an existing Qumulo cluster using Apollo 4200 Gen9 Qumulo Nodes then you should order SKU 872726-B21 below as the network adapter. This adapter can negotiate down to 40Gb to run at the same speed as the 40Gb Network Adapters used in the Apollo 4200 Gen9 Qumulo Nodes.

Description

SKU 872726-B21

HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter Notes:

Order Quantity 1 of 872726-B21-B21 for the Apollo 4200 Gen10 192TB Hybrid Node (SKU R3W49A) as the default network adapter for a Qumulo cluster consisting of Apollo 4200 Gen10 or Gen9 Qumulo Nodes. A Qumulo cluster with all Apollo 4200 Gen10 Nodes will run at 100Gb and a cluster with both Apollo 4200 Gen10 and Gen9 Nodes will run at 40Gb.

A 40Gb Network Adapter is included with all Apollo 4200 Gen9 nodes (SKUs Q2S17A, Q2S16A and R0P01A) and cannot be changed or upgraded.

Step 2

Select Qumulo Software and Support E-LTU (required)	
Qumulo Tier F1 1TB 1yr Subscription and Support E-LTU	R3W40AAE
Qumulo Tier F1 1TB 3yr Subscription and Support E-LTU	R3W42AAE
Qumulo Tier F1 1TB 5yr Subscription and Support E-LTU	R3W44AAE
Notes:	

Number of 1TB E-LTUs ordered must match raw capacity of each Qumulo Node that the E-LTU is installed on. As an example one ProLiant DL325Gen10 Plus All-NVMe Flash Node for Qumulo (R3B88A) requires 34 x R3W40AAE or R3W42AAE or R3W44AAE.

E-LTUs R3W40AAE or R3W42AAE or R3W44AAE can only be installed on the ProLiant DL325Gen10 Plus for Qumulo SKUs R3B88A or R3B89A.

Qumulo File Fabric 1TB Tier H1 12-month Subscription and Support E-LTU	R0G81AAE
Qumulo File Fabric 1TB Tier H1 36-month Subscription and Support E-LTU	R0G83AAE
Qumulo File Fabric 1TB Tier H1 60-month Subscription and Support E-LTU	R0G85AAE
Notes:	

Number of 1TB E-LTUs ordered must match raw capacity of each Qumulo Node that the E-LTU is installed on. As an example one Apollo 4200 192TB Hybrid Node for Qumulo (R3W49A) requires 192 x R0G81AAE or R0G83AAE or R0G85AAE.

E-LTUs R0G81AAE or R0G83AAE or R0G85AAE can only be installed on the Apollo 4200 for Qumulo SKUs R3W48A, R3W49A, R6A40A, R6F64A, R6F65A and R6F66A.

Qumulo File Fabric 1TB Tier H3 1yr Subscription and Support E-LTU	R0W31AAE
Qumulo File Fabric 1TB Tier H3 3yr Subscription and Support E-LTU	R0W33AAE
Qumulo File Fabric 1TB Tier H3 5yr Subscription and Support E-LTU	R0W35AAE
Notes:	

Number of 1TB E-LTUs ordered must match raw capacity of each Qumulo Node that the E-LTU is installed on. As an example one Apollo 4200 336TB Qumulo Archive node (R3W51A) requires 336 x R0W31AAE or R0W33AAE or R0W35AAE.

Configuration Information

E-LTUs R0W31AAE or R0W33AAE or R0W35AAE can only be installed on the Apollo 4200 for Qumulo SKUs R3W51A or R6F67A).

The Qumulo Customer Success Program is available as part of the Qumulo Subscription. You can contact Qumulo by telephone, Slack, email, or the web site 24x7 to report software or hardware issues. The Qumulo Customer Success team will help you to diagnose and resolve technical problems with your Qumulo cluster.

For more information: https://qumulo.com/terms-hub/support-offerings/#

Step 3

Select On-Site SSD and HDD Spares (recommended)

Notes: To minimize time to repair for defective SSDs or HDDs it is highly recommended to keep spares of these parts on site. The following formula should be used to determine the number of spares to have on site dependent on the number of nodes installed.

– For HPE SKU Qumulo nodes : R6A40A, R3W48A, R3W49A, R3W51A, R6F64A, R6F65A, R6F66A and R6F67A

o 4 to 10 nodes of installed - 1 SSD of each type in node and 2 HDDs for the entire cluster

- o 11 to 20 nodes installed- 1 SSDs of each type in node and 3 HDDs for the entire cluster
- o 21 to 50 nodes installed 1 SSDs of each type in node and 4 HDDs for the entire cluster

-For HPE SKU Qumulo nodes : R3B88A, R3B89A and R8F01A/ R8F02A

o 4 to 10 nodes of installed - 1x Boot drive and 1x Data drive for the entire cluster

o 11 to 20 nodes installed- 1x Boot drive and 2x Data drive for the entire cluster

o > 20 nodes installed - 1x Boot drive and 3x Data drive for the entire cluster

Description

R3B88A - ProLiant DL325 Gen10 Plus 34TB All-NVMe Flash Node for Qumulo NVMe spares	
HPE 960GB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD	P26538-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD	P16503-B21
R3B89A - ProLiant DL325 Gen10 Plus 145TB All-NVMe Flash Node for Qumulo NVMe spares	
HPE 960GB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD	P26538-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD	P26104-B21
R8F01A/ R8F02A - ProLiant DL325 Gen10 Plus 291TB All-NVMe Flash Node for Qumulo NVMe spares	
HPE 960GB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD	P26538-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD	P26109-B21
R6F67A or R3W51A - Apollo 4200 G10 336TB Archive Node for Qumulo SSD/HDD spares	
HPE 240GB SATA 6G Read Intensive SFF SC PM883 SSD	P04556-K21
HPE 1.92TB SATA 6G Mixed Use SFF SC 5300M SSD	P19951-K21
HPE 14TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	P09165-K21
R6F66A or R3W49A - Apollo 4200 G10 192TB Hybrid Node for Qumulo SSD/HDD spares	
HPE 240GB SATA 6G Read Intensive M.2 2280 5300B SSD	P19888-K21

SKU

Configuration Information

HPE 960GB SATA 6G Read Intensive SFF SC 5300P SSD	P19939-K21
HPE 8TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e HDD	834028-K21
F6F65A or R3W48A - Apollo 4200 G10 90TB Hybrid Node for Qumulo SSD/HDD spares	
HPE 480GB SATA 6G Read Intensive LFF LPC 5300P SSD	P19974-K21
HPE 960GB SATA 6G Mixed Use LFF LPC 5300M SSD	P19980-K21
HPE 10TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e HDD	P09161-K21
R6F64A or R6A40A- Apollo 4200 G10 36TB Hybrid Node for Qumulo SSD/HDD spares	
HPE 480GB SATA 6G Read Intensive LFF LPC 5300P SSD	P19974-K21
HPE 4TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty HDD	861683-K21

Step 4

Select Network Cables and Transceivers	
Description	SKU
HPE BladeSystem c-Class 40G QSFP+ to QSFP+ 15m Active Optical Cable	720211-B21
HPE BladeSystem c-Class QSFP+ to 4x10G SFP+ 15m Active Optical Cable	721076-B21
HPE X140 40G QSFP+ MPO SR4 Transceiver	JG325B
HPE FlexNetwork X240 40G QSFP+ QSFP+ 1m Direct Attach Copper Cable	JG326A
HPE FlexNetwork X240 40G QSFP+ QSFP+ 3m Direct Attach Copper Cable	JG327A
HPE FlexNetwork X240 40G QSFP+ QSFP+ 5m Direct Attach Copper Cable	JG328A
HPE X240 100G QSFP28 to QSFP28 3m Direct Attach Copper Cable	JL272A
HPE X240 100G QSFP28 to QSFP28 1m Direct Attach Copper Cable	JL271A

Step 5

Select Top-of-Rack HPE M-series Ethernet Switches (recommended: qty=2 for enterprise HA environment) HPE M-series Ethernet switch family offers industry-leading, high-bandwidth and the lowest-latency for a cost effective solution for Server and Storage connectivity. With cost-effective deployment options, 100GbE and beyond connectivity, M-series fabrics allows for implementing significant speed and architecture upgrades over time.

HPE M-series available with following models:

• 200/100GbE Ethernet Switches

- -<u>**SN2100M**</u> (16 x 100GbE)
- -<u>**SN2700M**</u> (32 x 100GbE)
- -<u>**SN3700M**</u> (32 x 200/100GbE)
- -<u>**SN4600M**</u> (64 x 100GbE)
- 1/10/25GbE Ethernet Switches:
 - -<u>SN2010M</u> (18 x 25GbE + 4 x 100GbE)

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-<u>SN2410M</u> (48 x 25GbE + 8 x 100GbE)
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HPE SN2010M 25GbE 18SFP28 4QSFP28 Power to Connector Airflow Half Width Switch HPE SN2100M 100GbE 8QSFP28 Power to Connector Airflow Half Width Switch

Q9E63A Q2F24A

Configuration Information

HPE SN2100M 100GbE 16QSFP28 Power to Connector Airflow Half Width Switch	Q2F23A
HPE SN2410M 25GbE 24SFP28 4QSFP28 Power to Connector Airflow Switch	Q6M27A
HPE SN2410M 25GbE 48SFP28 8QSFP28 Power to Connector Airflow Switch	Q2F22A
HPE SN2700M 100GbE 32QSFP28 Power to Connector Airflow Switch	Q2F21A
HPE SN3700cM 100GbE 32QSFP28 Power to Connector Airflow Switch	R3B14A
HPE SN3700M 200GbE 32QSFP56 Power to Connector Airflow Switch	R5Z74A
HPE SN4600cM 100GbE 64QSFP28 Power to Connector Airflow Switch	R6R24A
TAA Compliant Switches	
HPE SN2700M 100GbE 32QSFP28 Power to Connector Airflow TAA-compliant Switch	R0P71A
HPE SN2700M 100GbE 32QSFP28 Connector to Power Airflow TAA-compliant Switch	R0P72A
HPE SN2410M 25GbE 48SFP28 8QSFP28 Power to Connector Airflow TAA-compliant Switch	R0P73A
HPE SN2410M 25GbE 48SFP28 8QSFP28 Connector to Power Airflow TAA-compliant Switch	R0P74A
HPE SN2100M 100GbE 16QSFP28 Power to Connector Airflow Half Width TAA-compliant Switch	R0P75A
HPE SN2100M 100GbE 16QSFP28 Connector to Power Airflow Half Width TAA-compliant Switch	R0P76A

Notes: If a StoreFabric M-series switch is ordered information on cables and optics needed can be found in the StoreFabric M-series QuickSpecs:

- StoreFabric SN2100M QuickSpecs
- StoreFabric SN2410M QuickSpecs
- StoreFabric SN2700M QuickSpecs

Step 6

Select Qumulo Installation and Advanced Training Service (required)

Description

Qumulo Installation and Advanced Training Service per Day

SKU

R0G89AAE Qumulo will evaluate your site to make sure that it's ready, install the Qumulo software on the HPE Apollo 4200 Gen10 or HPE ProLiant DL325 Gen10 Plus servers, and hold an orientation session to get everyone on board. Also, trainers will teach your team all about administering an HPE Qumulo cluster. The teachers are experienced storage professionals with a practical, real-world approach. They'll make sure that everyone leaves the class with the skills they need for long-term success with your HPE Qumulo cluster.

Notes: R0G89AAE is required for each separate HPE Qumulo cluster to be installed. Up to 10 nodes per cluster can be installed for each R0G89AAE sku purchased. For every additional 10 nodes installed in a single cluster an additional R0G89AAE is required. This service is purchased on a per Day basis.

Step 7

Select Installation Service for HPE Apollo 4200 Qumulo nodes (recommended) HPE Apollo 2000/4200 Installation Service

HA113A1#5BY Or UM857E

Notes: Qty of 1 x HA113A1#5BY or UM875E per each HPE Apollo 4200 Gen 10 Qumulo node installed Select Installation Service for HPE ProLiant DL325 Gen10 Plus Qumulo nodes (required)

HPE Install ProLiant DL3xx Service

HA113A1#5A0 Or U4506E

HA114A1#5SE

H6SV4E

Notes: Qty of 1 x HA113A1#5A0 or U4506E per each HPE ProLiant DL325 Gen10 Plus Qumulo node installed

Step 8

Select HPE M-series installation service (recommended option if M-series switch is ordered) HPE StoreFabric M-series Eth Startup SVC HPE M-series Ethernet Switch Installation and Startup Service

Step 9

Select HPE Support for the HPE Qumulo nodes (required with DMR: Defective Media Retention) HPE Pointnext provides a comprehensive portfolio of support services including Foundation Care, Proactive Care and Datacenter Care including options for Next Business Day, 24x7 and 6 hour call-to-repair.

For additional information, see the links below.

- Foundation Care datasheet
- Proactive Care datasheet
- Datacenter Care

Notes: HPE requires aligning the term of the hardware support with the term of the software support. Foundation Care Call to Repair with DMR is the recommended service to purchase for HPE Qumulo Nodes.

Qumulo software renewal and co-term options for installed clusters		
Description	SKU	
Qumulo Software Fabric Subscription and Support Renewal E-LTU		
Qumulo Tier F1 1TB 1yr Subscription and Support Renewal E-LTU	R3W41AAE	
Qumulo Tier F1 1TB 3yr Subscription and Support Renewal E-LTU	R3W43AAE	
Qumulo Tier F1 1TB 5yr Subscription and Support Renewal E-LTU	R3W45AAE	
Notes: The skus above are used to renew the Qumulo software subscription and support license or ProLiant DL325 Gen10 Plus 34TB, 145TB and 291TB All-NVMe Flash nodes. The number of 1TB E- ordered must match raw capacity of each Qumulo node that the E-LTU is installed on. As an examp ProLiant DL325 Gen10 Plus 34TB Qumulo Node (R3B88A) requires 34 x R3W41AAE or R3W43AAI R3W45AAE depending on renewal term desired.	LTUs le one	
Qumulo File Fabric 1TB Tier H1 12-month Subscription and Support Renewal E-LTU	R0G82AAE	
Qumulo File Fabric 1TB Tier H1 36-month Subscription and Support Renewal E-LTU	R0G84AAE	
Qumulo File Fabric 1TB Tier H1 60-month Subscription and Support Renewal E-LTU	R0G86AAE	
Notes: The skus above are used to renew the Qumulo software subscription and support license on installed Apollo 4200 Gen10 36TB, 90TB and 192TB Hybrid nodes or the Apollo 4200 Gen9 90TB and 180TB Hybrid nodes only . The number of 1TB E-LTUs ordered must match raw capacity of each Qumulo node that the E-LTU is installed on. As an example one Apollo 4200 Gen10 192TB Qumulo Node (R3W49A) requires 192 x R0G82AAE or R0G84AAE or R0G86AAE depending on renewal term desired.		
Qumulo File Fabric 1TB Tier H3 1yr Subscription and Support Renewal	R0W32AAE	
Qumulo File Fabric 1TB Tier H3 3yr Subscription and Support Renewal	R0W34AAE	
Qumulo File Fabric 1TB Tier H3 5yr Subscription and Support Renewal	R0W36AAE	

Configuration Information

Notes: The skus above are used to renew the Qumulo software subscription and support license on installed Apollo 4200 Gen10 336TB and Apollo 4200 Gen9 288TB Qumulo Archive nodes only The number of 1TB E-LTUs ordered must match raw capacity of each 288TB Qumulo Archive node that the E-LTU is installed on. As an example one Apollo 4200 336TB Qumulo Archive Node (R3W51A) requires 336 x R0W32AAE or R0W34AAE or R0W36AAE depending on renewal term desired.

Qumulo File Fabric 1-month Co-term E-LTU

Qumulo Tier F1 1TB 1-month Subscription and Support Renewal E-LTU

Notes: This 1-month Co-term sku is used to re-balance Qumulo Tier F1 software subscription license terms on existing ProLiant DL325 Gen10 Plus 34TB, 145TB or 291TB Qumulo nodes when a new node is added to the cluster. As an example, you purchased 4 x HPE ProLiant Gen10 Plus Qumulo nodes with a 36 month Qumulo Tier F1 software subscription. Six months later you purchase another HPE ProLiant DL325 Gen10 Plus 34TB node with 36 month Qumulo Tier F1 subscriptions to add to original 4 node cluster. The cluster now has the 4 original nodes with 30 months of Qumulo subscriptions left and 1 node with 36 months of Qumulo subscriptions. You would therefore need to bring all Qumulo subscriptions on the 4 original 34TB nodes back up 36 months, by purchasing 6 x 34 Tier F1 1TB 1-month subscription (R6V52AAE) for each of the original four ProLiant DL325 Gen10 Plus 34TB Qumulo nodes.

Qumulo File Fabric 1TB Tier H1 1-month Subscription and Support E-LTU

Notes: This 1-month Co-term sku is used to re-balance Qumulo Tier H1 software subscription license terms on existing Apollo 4200 Gen10 36TB, 90TB and 192TB, or Apollo 4200 Gen9 90TB or 180TB Qumulo nodes when a new node is added to the cluster. As an example, you purchased 4 x HPE Apollo 4200 Gen10 192TB Qumulo nodes with a 36 month Qumulo Tier H1 software subscription. Six months later you purchase another HPE Apollo 4200 Gen10 192TB node with 36 month Qumulo Tier H1 subscriptions to add to original 4 node cluster. The cluster now has the 4 orginal nodes with 30 months of Qumulo subscriptions left and 1 node with 36 months of Qumulo subscriptions on the 4 original 192TB nodes back up 36 months, by purchasing 6 x 1TB Tier H1 1mo subscription (R0G87AAE) for each of the original four Apollo 4200 Gen10 4 x 192TB Qumulo Hybrid nodes.

Description

Qumulo File Fabric Tier H3 1TB 1-month Subscription and Support Renewal E-LTU

Notes: This 1-month Co-term sku is used to re-balance Qumulo Tier H3 software subscription license terms on existing Apollo 4200 Gen10 336TB or Apollo 4200 Gen9 288TB Qumulo Archive nodes when a new 336TB or 288TB node is added to the cluster. As an example, you purchased 4 x HPE Apollo 4200 Gen10 336TB Qumulo Archive nodes with a 36 month Qumulo Tier H3 software subscription. Six months later you purchase another HPE Apollo 4200 288TB node with 36 month Qumulo Tier H3 subscriptions to add to original 4 node cluster. The cluster now has the 4 original nodes with 30 months of Qumulo subscriptions and 1 node with 36 months of Qumulo subscriptions on the 4 original 336TB nodes back up to 36 months, by purchasing 6 x 1TB Tier H3 1mo subscription (R6V53AAE) for each of the original 4 x 336TB Qumulo Archive nodes.

Qumulo Health Check Service

Qumulo Systems Health Check Service

Notes: A periodic evaluation of your HPE Qumulo deployment ensures that you're getting the most out of your investment. Qumulo can perform a thorough systems health check that will let you know how well your cluster is performing now and the steps you can take to make that performance even better. Qumulo consultants will come on site, implement those improvements, and demonstrate the results.

Qumulo for cloud deployments

Moving from on-prem to the cloud allows organizations to focus on their core competencies, accelerate innovation, increase data security, build solutions, and reduce costs. Yet, most of the time it's file storage which remains the last piece of infrastructure on-prem, forcing users to choose between rewriting applications and

HPE Solutions for Qumulo

R6V52AAE

R0G87AAE

SKU

R6V53AAE

R0G90AAE

DA - 16214 Worldwide QuickSpecs — Version 25 — 8.2.2021

Configuration Information

workflows, and continuing to manage the on-prem infrastructure.

Qumulo is different. How? The enterprise-ready file system runs both on-prem and in the cloud, empowering users to move to the cloud on their terms. Qumulo eliminates the need to re-engineer business-critical workflows and applications while simultaneously reducing TCO, enabling users to take advantage of the hundreds of innovative services which reside in the cloud.

Qumulo for Amazon Web Services

Qumulo Software for Amazon Web Services 1TB 1yr Subscription and Support E-LTU	R3K09AAE
Qumulo Software for Amazon Web Services 1TB 2yr Subscription and Support E-LTU	R3K10AAE
Qumulo Software for Amazon Web Services 1TB 3yr Subscription and Support E-LTU	R3K11AAE
Qumulo for Google Cloud Platform	
Qumulo Software for Google Cloud Platform 1TB 1yr Subscription and Support E-LTU	R4D69AAE
Qumulo for Google Cloud Platform 1TB 2yr Subscription and Support E-LTU	R4D70AAE
Qumulo Software for Google Cloud Platform 1TB 3yr Subscription and Support E-LTU	R4D71AAE

Technical Specifications

HPE Apollo 4200 Gen10 Qumulo Unit

For more information on Apollo 4200 Gen10 see the QuickSpec

Dimensions (L x W x D) 3.44 x 17.63 x 32.50 in (8.75 x 44.80 x 82.55 cm) Apollo 4200 Gen10 based nodes Notes: Dimensions without Bezel.

Weight (approximate) Maximum:(Maximum - 24LFF chassis) 89.51 lb (40.6 kg) Apollo 4200 Gen10 based nodes

Input Requirements(per power supply) Range Line Voltage

- 100 to 120 VAC
- 200 to 240 VAC

BTU Rating

Maximum

For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only

Power Supply Output(per power supply)

- Rated Steady-State Power For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only
- Maximum Peak Power

For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only

System Inlet Temperature

• Standard Operating Support

10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed. System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).

• Extended Ambient Operating Support

For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° 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 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: http://www.hpe.com/servers/ashrae

System performance may be reduced if operating in the extended ambient operating range or with a fan fault.

• Non-operating

Technical Specifications

-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).

Relative Humidity

• Operating

Minimum to be the higher (more moisture) of -12°C (10.4°F) dew point or 8% relative humidity. Maximum to be the lower (less moisture) of 24°C (75.2°F) dew point or 90% relative humidity. (non-condensing)

• Non-operating

5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

Altitude

• Operating

3048 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

• Non-operating

9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

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).

Acoustic Noise				
Idle				
L WAd	5.2 B Maximum			
LpAm	36 dBA Maximum			
Operating				
L WAd	5.9 B Maximum			
LpAm	45 dBA Maximum			

Notes: Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.

HPE ProLiant DL325 Gen10 Plus Qumulo Unit

For more information on ProLiant DL325 Gen10 Plus see the <u>QuickSpec</u> Dimensions Short Chassis (2 cages) 4.28 X 43.46 X 82.62 cm (1.69 X 17.11 X 32.52 In)

Weight (approximate)

37.47 lb

Technical Specifications

Input Requirements(per power supply) Rated Line Voltage

- 100 to 120 VAC
- 200 to 240 VAC

BTU Rating

Maximum

For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only

Power Supply Output(per power supply) Rated Steady-State Power

- For 1600W Power Supply: 1600W (at 240 VAC), 1600W (at 240 VAC)
- For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China

only

Maximum Peak Power

- For 1600W Power Supply: 1600W (at 200 to 240 1VAC), 1600W (at 240 VAC) input for China only
- For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only

System Inlet Temperature Standard Operating Temperature

10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr).

The upper limit and rate of change may be limited by the type and number of options installed.

System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).

Extended Ambient Operating Temperature

For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° 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 3050 m (10,000 ft). The approved hardware configurations for this system are listed at

the URL:http://www.hpe.com/servers/ashrae

For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° 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 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:

http://www.hpe.com/servers/ashrae

System performance may be reduced if operating in the extended ambient operating range or with a fan fault.

Non-operating

-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).

Technical Specifications

Relative Humidity(non-condensing)

Operating 8% to 90% - Relative humidity (Rh), 28°C 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.

Altitude

Operating

3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Non-operating 9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

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). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.

Entry	Base	Perf	
4.8 B	4.4 B Base	4.4 B	
36 dBA	30 dBA	30 dBA	
Entry	Base	Perf	
4.8 B	4.5 B	4.8 B	
36 dBA	30 dBA	35 dBA	
	4.8 B 36 dBA Entry 4.8 B	4.8 B 4.4 B Base 36 dBA 30 dBA Entry Base 4.8 B 4.5 B	4.8 B 4.4 B Base 4.4 B 36 dBA 30 dBA 30 dBA Entry Base Perf 4.8 B 4.5 B 4.8 B

Notes:

- Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on

system configuration. Values are subject to change without notification and are for reference only.

- Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This

product or family of products is eligible to bear the appropriate compliance logos and statements.

- The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

HPE Smart Array

For latest information on HPE Smart Array Gen10 Controllers for HPE ProLiant DL, ML and Apollo Servers please refer to their QuickSpecs. (E208i-a,E208i-p,E208e-p,P408i-a,P408i-p,P408e-p,P816i-a)

Emissions Classification (EMC) - 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: http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Technical Specifications

Environment-friendly Products and Approach - End-of-life Management and Recycling Hewlett Packard Enterprise offers end-of-life product return, trade-in, and recycling programs, in many geographic areas, for our products. 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.

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 Chang4e	
02-Aug-2021	Version 15	Changed	Overview and Configuration Information sections were updated.	
06-Jul-2021	Version 14	Changed	HPE ProLiant DL325 Gen10 Plus 291TB All-NVMe Flash Qumulo nodes added	
06-Apr-2021	Version 13	Changed	Update the AMD processor description, added 7402P	
07-Dec-2020	Version 12	Changed	HPE ProLiant DL325 Gen10 Plus 34TB and 145TB Qumulo nodes added	
02-Nov-2020	Version 11	Changed	Update spare drives on the 90TB SKU	
06-Jul-2020	Version 10	Changed	Overview, Standard Features, Configuration Information, Service and Support Technical Specifications sections were updated.	
06-Jan-2020	Version 9	Changed	Standard Features and Configuration Information sections were updated.	
02-Dec-2019	Version 8	Changed	Overview, Standard Features, Configuration Information and Service and Support sections were updated.	
04-Nov-2019	Version 7	Changed	Overview, Standard Features, Configuration Information and Service and Support sections were updated.	
05-Aug-2019	Version 6	Changed		
03-Jun-2019	Version 5	Changed	Configuration Information section was updated.	
04-Mar-2019	Version 4	Changed	Service and Support Section was updated.	
05-Nov-2018	Version 3	Changed	Configuration Information section was updated.	
01-Oct-2018	Version 2	Changed	Overview, Configuration Information, Service and Support and Technical Specifications sections were updated. SKUs were added.	
04-Jun-2018	Version 1	New	New QuickSpecs	

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Ger updates

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