QuickSpecs

Overview

HPE Apollo Systems for HPE Ezmeral Container Platform

What if your organization were able to confidently and cost-effectively deploy the infrastructure needed to deploy distributed environments for artificial intelligence, machine learning, and big data analytics? What discoveries and innovations could your organization uncover tomorrow if it only took minutes to provision containerized environments, rather than weeks or months?

The HPE Ezmeral Container Platform software provides a turn-key solution for running distributed data-intensive workloads and applications, unmodified in containers with the ability to scale compute and storage resources independently, to deliver the flexibility and elasticity required to support AI/ML/DL and Big Data workloads. As of March 2, 2020, this includes both the HPE Ezmeral Container Platform Software, as well as the HPE Ezmeral Machine Learning Ops software.

With HPE Ezmeral Container Platform Software and the optimized HPE Apollo building blocks for HPE Ezmeral Container Platform, Hewlett Packard Enterprise is making it easier for organizations to deliver a flexible and secure multi-tenant architecture, with the agility, flexibility and performance needed to address evolving workload and application requirements. You can deploy HPE Ezmeral Container Platform Software using pre-tested and optimized HPE Apollo hardware building blocks on-premises, as well as in hybrid IT architectures and in a multi-cloud model. The HPE Apollo building blocks are part of HPE's Elastic Platform for Analytics (EPA), a broader family of servers specifically designed to support advanced Analytics and AI/ML/DL.

HPE Apollo building blocks/configurations are optimized for the HPE Ezmeral Container Platform Software and are available in four different Apollo servers, each supporting unique use cases, with recommended options to tailor the configuration for your environment. Complimented by the HPE Ezmeral Container Platform's ability to scale compute and storage independently, the HPE Elastic Platform for Analytics, built on high-density Apollo platforms and HPE Select Systems, provides unparalleled flexibility to mix and match infrastructure to the specific needs of your workloads.

Overview

SKU designation		
XXXXXX**-X21** is SKU designation formed by a common six digit part number and a **-X21** suffix that identifies a SKU that is available across multiple server family lines. Refer to the table below to find the SKU suffix that applies to the specific server product line this option can be ordered with.		
-B21	**-H21**	**-K21**
COMPUTE Server Line	**SPECIALIZED COMPUTE Server Line**	**STORAGE Line**
HPE Cloudline CL2100/CL2200/CL2800/CL3100/CL4100/CL5200/CL5800 Servers HPE Composable Cloud for ProLiant DL HPE ProLiant BL460c/BL660c Servers HPE ProLiant DL20/DL160/DL180 Servers HPE ProLiant DL325/DL360/DL380/DL385/DL560/DL580 Servers HPE ProLiant DX360/DX380 Servers HPE ProLiant MicroServer HPE ProLiant for Microsoft Azure Stack HPE ProLiant ML30/ML110/ML350 Servers HPE Synergy 480/660 Systems HPE ProLiant DX170r/DX190r, DX2000 Servers HPE ProLiant DX560 Gen10 server HPE ProLiant DX4200 Gen10 server	HPE Apollo 35/40/70 Systems HPE Apollo 2000/6000 Servers HPE XL170r/XL190r/XL270d (Apollo 6500) Gen10 Server for HPE Ezmeral Container Platform Software HPE Converged System 300/500/700/750 HPE Edgeline Systems and Servers HPE Integrity BL860c i6/BL870c i6/BL890c i6 Server Blades HPE Integrity MC990 X Server HPE Integrity rx2800 i6 Server HPE Integrity Superdome HPE SGI 8600 System HPE Solutions for SAP HANA (TDI)	HPE Apollo 4200 Gen9/Gen10 Servers HPE Apollo 4200 Gen10 LFF Server for HPE Ezmeral Container Platform Software HPE Apollo 4510 Gen10 System HPE D2220sb/D2500sb Storage Blade HPE D3000/D6020/D8000 Disk Enclosures HPE Scalable Object Storage with Scality RING HPE SimpliVity 2600 HPE SimpliVity 325/380 Gen10 HPE Storage File Controllers HPE StoreEasy 1460/1560/1650/1660/1860
Disclaimer: This may not be a complete listing of applicable servers		

Standard Features

Summary Table

Model	HPE XL170r Gen10 Server for HPE Ezmeral Container Platform Software	HPE XL190r Gen10 Server for HPE Ezmeral Container Platform Software	HPE XL270d (Apollo 6500) Gen10 Server for HPE Ezmeral Container Platform Software	HPE Apollo 4200 Gen10 LFF Server for HPE Ezmeral Container Platform Software
Use Case	CPU only compute node for HPE Ezmeral Container Platform	GPU accelerated compute node for HPE Ezmeral Container Platform	Performance, High Density GPU compute node for HPE Ezmeral Container Platform	Up to 2 Intel Xeon Scalable Processors supported
Form Factor	1U half-width, 2P server, up to 4 per 2U Apollo r2600 chassis	2U half-width; up to 2 per 2U HPE Apollo r2600 Gen10 Chassis	4U standard rack	DDR4 SmartMemory DIMMs, minimum of 192GB, maximum of 1.5 TB memory
Processors	Up to 2 Intel Xeon Scalable Processors supported	Up to 2 Intel Xeon Scalable Processors supported	Up to 2 Intel Xeon Scalable Processors supported	HPE PCIe Workload Accelerators
Memory	DDR4 HPE SmartMemory minimum of 192GB, maximum of 1.5TB memory	DDR4 HPE SmartMemory minimum of 192GB, maximum of 1.5TB memory	DDR4 SmartMemory DIMMS, minimum of 192GB, maximum of 3TB of memory	Default 5 LP PCIe Gen3 (2 x 24, 2 x 16, and 1 x 8)
Accelerators	PCIe based workload accelerators	Up to 2 HPE NVIDIA GPU Computational	Multiple accelerator topologies supported - NVIDIA NVLink 2.0 with 4:1 or 8:1 GPU:CPU flexibility in PCIe; Maximum 8 GPUs	Embedded dual-port 1 GbE and PCIe slots supporting optional Infiniband EDR or Intel OPA or high speed Ethernet up to 100Gbps
Expansion Slots	1 PCIe 3.0 x16 expansion slots, 1 PCIe 3.0 x16 for FlexLOM	3 PCIe 3.0 x16, 1 PCIe 3.0 x8/16 FlexibleLOM	1 x 16 FHHL PCIe Gen3 System Board module; 4 x 16 PCIe low-profile Gen3 from GPU module	Up to 24 LFF front hot-pluggable drive bays plus 4 LFF rear storage cage
Network	Minimum of 1 Ethernet or Infiniband FlexLOM - 1Gb, 10Gb, 25Gb or 40Gb up to maximum of 100Gb	Minimum of 1 Ethernet or Infiniband FlexLOM - 1Gb, 10Gb, 25Gb or 40Gb up to maximum of 100Gb	4 x 1GbE single-port RJ-45; 4 x 16 Express slots supporting Infiniband EDR or Intel OPA or high speed Ethernet up to 100Gbps	HPE Integrated Lights-Out (HPE iLO)
Storage	Up to 24 SFF hot-plug SAS/SATA HDDs/SSDs or 16 SFF SAS/SATA	Up to 24 SFF hot-plug SAS/SATA HDDs/SSDs or 16 SFF SAS/SATA	Up to 16 max using two HPE DL38X Gen10 Premium 6 SFF SAS/SATA + 2 NVMe drive cages	Three years of parts, labor, and onsite support with next business day coverage included
Management	HPE Integrated Lights-Out (HPE iLO)	HPE Integrated Lights-Out (HPE iLO)	HPE Integrated Lights-Out (HPE iLO)	Up to 2 Intel Xeon Scalable Processors supported
Warranty	Three years of parts, labor, and onsite support with next business day coverage included	Three years of parts, labor, and onsite support with next business day coverage included	Three years of parts, labor, and onsite support with next business day coverage included	DDR4 SmartMemory DIMMs, minimum of 192GB, maximum of 1.5 TB memory

For more information about the HPE Ezmeral Container Software Platform, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00056658enw

For more information on the HPE Ezmeral ML Ops Software platform, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00067742enw

Service and Support

HPE Pointnext - Service and Support
Get the most from your HPE Products. Get the expertise you need at every step of your IT journey with **HPE Pointnext Services**. We help you lower your risks and overall costs using automation and methodologies that have been tested and refined by HPE experts through thousands of deployments globally. HPE Pointnext **Advisory Services**, focus on your business outcomes and goals, partnering with you to design your transformation and build a roadmap tuned to your unique challenges. Our **Professional** and **Operational Services** can be leveraged to speed up time-to-production, boost performance and accelerate your business. HPE Pointnext specializes in flawless and on-time implementation, on-budget execution, and creative configurations that get the most out of software and hardware alike.

Consume IT on your terms
HPE GreenLake brings the cloud experience directly to your apps and data wherever they are—the edge, colocations, or your data center. It delivers cloud services for on-premises IT infrastructure specifically tailored to your most demanding workloads. With a pay-per-use, scalable, point-and-click self-service experience that is managed for you, HPE GreenLake accelerates digital transformation in a distributed, edge-to-cloud world.
- Get faster time to market
- Save on TCO, align costs to business
- Scale quickly, meet unpredictable demand
- Simplify IT operations across your data centers and clouds

Managed services to run your IT operations
HPE GreenLake Management Services provides services that monitor, operate, and optimize your infrastructure and applications, delivered consistently and globally to give you unified control and let you focus on innovation.

Recommended Services
HPE Pointnext Tech Care.
HPE Pointnext Tech Care is the new operational service experience for HPE products. Tech Care goes beyond traditional support by providing access to product specific experts, an AI driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Pointnext Tech Care has been reimagined from the ground up to support a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Pointnext Tech Care is available in three response levels. Basic, which provides 9x5 business hour availability and a 2 hour response time. Essential which provides a 15 minute response time 24x7 for most enterprise level customers, and Critical which includes a 6 hour repair commitment where available and outage management response for severity 1 incidents.
https://www.hpe.com/services/techcare

HPE Pointnext Complete Care
HPE Pointnext Complete Care is a modular, edge-to-cloud IT environment service that provides a holistic approach to optimizing your entire IT environment and achieving agreed upon IT outcomes and business goals through a personalized and customer-centric experience. All delivered by an assigned team of HPE Pointnext Services experts. HPE Pointnext Complete Care provides:
- A complete coverage approach -- edge to cloud
- An assigned HPE team
- Modular and fully personalized engagement
- Enhanced Incident Management experience with priority access
- Digitally enabled and AI driven customer experience

https://www.hpe.com/services/completecare

Service and Support

Other Related Services
HPE Server Hardware Installation
Provides for the basic hardware installation of HPE branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner.
https://h20195.www2.hpe.com/V2/GetPDF.aspx/5981-9356ENW.pdf

HPE Ezmeral Container Platform Deployment and Integration Services
HPE Ezmeral Container Platform Service Overview
HPE Ezmeral Container Platform Deployment & Integration Services coordinates the app images planning, design, development, configuration and validation of the customer's new HPE Ezmeral Container Platform software framework. This service is delivered both remotely and on-site and is designed to help the customer quickly leverage the features and benefits of the HPE Ezmeral Container Platform Software. When the customer purchases this service, a HPE Ezmeral Container Platform specialist is assigned to work with them to help deploy and integrate their new HPE Ezmeral Container Platform product with the Customers IT infrastructure. In addition, the HPE Ezmeral Container Platform specialist also works with the customer to provide valuable knowledge transfer that can help them quickly take ownership of the new HPE Ezmeral Container Platform solution. These same services may also be applied to the HPE Ezmeral Machine Learning Ops Software. Information on the service features available under these advisory and professional services from **HPE Pointnext Services**.

HPE Ezmeral Container Platform Service Offerings
Service Planning
The following service offerings and attach rules apply equally to both the HPE Ezmeral Machine Learning Ops Software as well as the HPE Ezmeral Container Platform Software, even when the description only states "HPE Ezmeral Container Platform".
- HPE Ezmeral Container Platform quickstart configuration service
- HPE Ezmeral Container Platform essential configuration service
- HPE Ezmeral Container Platform advanced configuration service
- HPE Ezmeral Container Platform premium configuration service
- HPE Ezmeral Container Platform app store development service
- HPE Ezmeral Container Platform single image development service
- HPE Ezmeral Container Platform tailored image development service

Service Planning is delivered remotely and is designed to provide the Customer with a detailed plan and schedule for the delivery of the HPE Ezmeral Container Platform Services. During service planning, Hewlett Packard Enterprise will conduct remotely delivered service planning meetings with the Customers designated stakeholders to communicate the list of service activities and confirm that all pre-deployment prerequisites have been addressed. Hewlett Packard Enterprise will create a mutually agreeable project plan and schedule, and determine the appropriate mix of technical and business resources necessary to implement the project. As part of service planning, Hewlett Packard Enterprise will facilitate a big-data and data analytics workshop for each of the service options chosen. The workshop is designed to help determine and document the scope and requirements of the desired Use Case, its images and its operations. This is not a discrete saleable service but is offered as a prelude to the following service offerings.

HPE Ezmeral Container Platform Quickstart Configuration Service (HG0U6A1)
Provides a requirements assessment, solution development, design validation and configuration of HPE Ezmeral Container Platform with up to 1 single app images and up to 120 subscription SKUs. This service begins with the HPE facilitated big data analytics requirements workshop.

HPE Ezmeral Container Platform Essential Configuration Service (HU1E1A1)
Provides a requirements assessment, solution development, design validation and configuration of HPE Ezmeral Container Platform with up to 2 single app images and for more than 120 subscription SKUs and up to 240 subscription SKUs. This service begins with the HPE facilitated big data and data analytics requirements workshop.

Service and Support

HPE Ezmeral Container Platform Advanced Configuration Service (HU1E2A1)

Provides requirements assessment, solution development, design validation and configuration of HPE Ezmeral Container Platform with up to 4 single app images for more than 240 subscription SKUs and up to 480 subscription SKUs.

HPE Ezmeral Container Platform App Store Development Service (HU1E4A1)

Provides requirements assessment, solution development, design validation and configuration of the HPE Ezmeral Container Platform app store.

HPE Ezmeral Container Platform Single Image Development Service (HU1E5A1)

This service is designed to add-on as single image to the Customers app-store. Provides requirements assessment, solution development, design validation and configuration for a HPE Ezmeral Container Platform single image solution.

HPE Ezmeral Container Platform Knowledge Transfer

To close out the Development and Configuration for HPE Ezmeral Container Platform Software, the HPE Ezmeral Container Platform specialist will present the Customer with final documentation. Using the final documentation, the HPE Ezmeral Container Platform specialist will also provide a knowledge transfer session to the appropriate Customer stakeholders.
The activities associated with this service may include:

- Facilitating a knowledge transfer session to transfer of HPE Ezmeral Container Platform operational control to the Customer including:
- Provide an overview of the completed implementation, including the broad steps taken to achieve the implementation together with the functionality of the deployment
- Provide operational tips specific to HPE Ezmeral Container Platform such as user guides, cookbooks, best practices
- Updated design documents if applicable
- Provide examples of the use of HPE Ezmeral Container Platform functionality as applicable
- Describe examples of expansion possibilities or additional migration advantages
- Final validation that your HPE Ezmeral Container Platform environment is fully commissioned and operational
- Evaluate results against pre-defined objectives and determine next steps.

Service and Support

HPE Ezmeral Container Platform Premium Configuration Service (HU1E3A1)

Provides requirements assessment, solution development, design validation and configuration of HPE Ezmeral Container Platform Software with up to 6 single app images, or 6 notebooks or any combination of up to 6 app images and notebooks. It also include 1-tailored app image. This service covers deployments with over 480 subscription SKUs and up to 1200 subscription SKUs.

As part of any of these three respective configuration services, Hewlett Packard Enterprise will:
- Review and ensure the readiness of the necessary infrastructure for the deployment of the HPE Ezmeral Container Platform
- Install and configure the HPE Ezmeral Container Platform
- Install and configure Application Workbench
- Perform functionality testing all components.
- Create all Big Data applications images as agreed during the workshop
- Provide knowledge transfer to Customer stakeholders throughout delivery of the Service, which includes an overview of the HPE Ezmeral Container Platform Software, algorithm development and testing, Big Data tools, and application of those solutions to the Customers business.

Upon completion of the Service, the Customer will have a fully functional HPE Ezmeral Container Platform environment to manage the Big Data workload associated to the agreed Use Case. The following Deliverables will be provided to Customer in either hard or soft-copy depending on the Customers' requirements:
- Solution Requirements Document
- Solution Architecture Document
- Solution Deployment Plan
- Functional Test Plan
- Knowledge Transfer Plan
- Project Executive Summary

HPE Ezmeral Container Platform Custom Image Development Service (HU1E6A1)

Provides requirements assessment, solution development, design validation and configuration of for a HPE Ezmeral Container Platform tailored image solution.

As a prerequisite to these three development services, the customer must purchase either the HPE Ezmeral Container Platform Essential, Advanced or Premium configuration service. These respective configuration services are not a prerequisite if it is an expansion of an existing cluster subscription, or a repurchase of an existing subscription. During the delivery of this service Hewlett Packard Enterprise will:
- Conduct a Planning Workshop ("Workshop") to assess the Customer's Big Data and Data Analytics requirements.
- Determine and document the scope and requirements of the desired Use Cases, its images and its operations. Scope areas are, but not limited to:
  - Image Class definition
  - Data Ingestion
  - Data Storage
  - Data Processing + Machine Learning
  - View or Output
  - Business and Technical outcomes
- Assess the Customer's Analytics infrastructure, security policies and data governance models
- Create the App Store Image Design Document and Functional Testing Plan
- Develop and test the Application Images
- Deploy and test all aspects of the Application Cluster orchestration lifecycle

Upon completion of the Service the Customers will have fully functional Application Images associated to the agreed Use Case. The following Deliverables will be provided to Customer in either hard or soft-copy depending on the Customer's requirements:
- Application Images Solution Requirements Document

Service and Support

- Application Images Design Document
- Functional Test Plan
- Project Executive Summary

HPE Ezmeral Container Platform Knowledge Transfer

To close out the Development and Configuration for HPE Ezmeral Container Platform Software, the HPE Ezmeral Container Platform specialist will present the Customer with final documentation. Using the final documentation, the HPE Ezmeral Container Platform specialist will also provide a knowledge transfer session to the appropriate Customer stakeholders.

The activities associated with this service may include:
- Facilitating a knowledge transfer session to transfer of HPE Ezmeral Container Platform operational control to the Customer including:
- Provide an overview of the completed implementation, including the broad steps taken to achieve the implementation together with the functionality of the deployment
- Provide operational tips specific to HPE Ezmeral Container Platform such as user guides, cookbooks, best practices
- Updated design documents if applicable
- Provide examples of the use of HPE Ezmeral Container Platform functionality as applicable
- Describe examples of expansion possibilities or additional migration advantages
- Final validation that your HPE Ezmeral Container Platform environment is fully commissioned and operational
- Evaluate results against pre-defined objectives and determine next steps

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

HPE Apollo r2600 Chassis for HPE Ezmeral Container Platform Software

The HPE Apollo r2600 chassis for HPE Ezmeral Container Platform Software is one of five building blocks which delivers a scalable, high-density workload-optimized compute module, supporting HPE XL170r and XL190r Gen10 servers. As such it assists the XL170r and XL190r to be used as a Control Block, a Compute Block, Deep Learning Block, or as a Gateway Node.
Notes: This HPE Apollo r2600 Chassis for HPE Ezmeral Container Platform Software must include at least one HPE XL170r Gen10 Svr for HPE Ezmeral Container Platform or one HPE XL190r Gen10 Svr for HPE Ezmeral Container Platform Nodes.

For more information about the HPE Apollo r2600 Gen10 Chassis, refer to the QuickSpecs for the native version at
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00019876enw
For more information about the HPE Ezmeral Container Platform Software, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00056658enw
For more information on the HPE Ezmeral ML Ops Platform Software, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00067742enw

Description	SKU
Apollo r2600 Chassis	
HPE Apollo r2600 Gen10 24SFF Chassis for Ezmeral Container Platform	R0Q99A
Controller	
HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	P01366-B21
Hard Drive Options (HDDs and SSDs)	
Hot Plug SFF	
HPE 960GB SATA 6G Mixed Use SFF SC SM883 SSD	P09716-H21
HPE 1.92TB SATA 6G Mixed Use SFF SC SM883 SSD	P09722-H21
HPE 2TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD	765455-H21
HPE 1TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty HDD	655710-H21
HPE Small Form Factor Hard Drive Blank Kit	666987-B21
Cooling Options	
HPE r2x00 Gen10 Redundant Fan Module Kit	874308-B21
HPE Apollo 2000 Gen10 Server Node Blank Kit	874309-B21

Notes:
–   Min / Max Qty = 4 - (Total number of R0Q98A and/or R0R00A Nodes) required per chassis.
–   Max = 1 of this SKU per server.
–   If 830272-B21 is selected, that power supply only supports high line voltage (200VAC to 240VAC).

Configuration Information

Power Supplies

Power Supply Kits

Description	SKU
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865414-B21
HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit	865434-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21
HPE 1800W-2200W Flex Slot Platinum Hot Plug Power Supply Kit	876935-B21

Notes:
- If this any of the first three SKUs are selected, Then Min 1 / Max 1 880186-B21 (PSU Kit) is required per server.
- If 876935-B21 is selected, then Min 1 / Max 1 880189-B21 (PSU Kit) is required per server.
- If this 876935-B21 is selected, Then Min 1 / Max 2 of the following power cords are required. The Qty of Power Cords must = Qty of Power Supplies.
  - Q7F42A HPE Pwr Crd C15 US 2.5m Blk
  - Q7F45A HPE Pwr Crd C15 Europe 2.5m Blk
  - Q7F46A HPE Pwr Crd C15 UK 2.5m Blk
  - Q7F53A HPE Pwr Crd C15 China 2.5m Blk
  - Q7F57A HPE Jmp Crd C15 US 2.5m Blk
  - Q7F58A HPE Jmp Crd C15 Europe 2.5m Blk
  - Q7F59A HPE Jmp Crd C15 US 0.76m Blk
  - Q7F60A HPE Jmp Crd C15 Europe 0.76m Blk
  - Q7F61A HPE Jmp Crd C15 US 1.0m Blk
  - Q7F62A HPE Jmp Crd C15 Europe 1.0m Blk
  - R1C67A HPE C15-C14 IN 250V 2.5m Blk Jumper Cord
  - R1C68A HPE C15-C14 IN 250V 1m Blk Jumper Cord
- If 830272-B21 is selected, the show "The power supply selected only supports high line voltage (200VAC to 240VAC)."

Accessories

HPE r2x00 Gen10 Power Supply Unit Enablement Kit	880186-B21
HPE r2x00 Gen10 1800-2200W Redundant Power Supply Enablement Kit	880189-B21

Power Cord Options

HPE C15 - NEMA 6-20P 250V 15Amp Black 2.5m US Power Cord	Q7F42A
HPE C15 EU 250V 10Amp 2.5m Black Power Cord	Q7F45A
HPE C15 UK 250V 10Amp 2.5m Black Power Cord	Q7F46A
HPE C15 CN 250V 10Amp 2.5m Black Power Cord	Q7F53A
HPE C15 US 250V 10Amp 2.5m Black Jumper Cord	Q7F57A
HPE C15 EU 250V 10Amp 2.5m Black Jumper Cord	Q7F58A
HPE C15 US 250V 10Amp 0.76m Black Jumper Cord	Q7F59A
HPE C15 EU 250V 10Amp 0.76m Black Jumper Cord	Q7F60A
HPE C15 US 250V 10Amp 1m Black Jumper Cord	Q7F61A
HPE C15 EU 250V 10Amp 1m Black Jumper Cord	Q7F62A
HPE C15-C14 IN 250V 10Amp 2.5m Black Jumper Cord	R1C67A
HPE C15-C14 IN 250V 10Amp 1m Black Jumper Cord	R1C68A
HPE C13-C14 IN 250V 10Amp 2m Black Jumper Cord	R1C65A

Configuration Information

Description	SKU
Management Hardware	
HPE Apollo Platform Manager Kit	741192-B21
HPE Apollo 2000 Rack Consolidation Module Kit	798211-B21
HPE Apollo 2000 Rack Consolidation Module 2.0-1.0 Adapter Kit	800063-B21

Notes: Max = 1 of this sku per server.

Description	SKU
Rack Options	
HPE Apollo Platform Manager Distribution Module Kit	620002-B21
HPE Strap t2500 Shipping Bracket	740713-B21
HPE 2U Shelf-Mount Adjustable Rail Kit	822731-B21

Notes:
- Max = 1 of this sku per server.
- If R0Q99A is selected with #0D1(integrated to a rack), Then Min 1 / Max 1 of SKU is required per server

Description	SKU
Nodes	
HPE XL170r Gen10 Server for Ezmeral Container Platform	R0Q98A
HPE XL190r Gen10 Server for Ezmeral Container Platform	R0R00A

Notes:
- Refer to Configuration Section for each compute node
- If R0Q99A and R0R00A (XL190r) is selected, Then Min 1 / Max 2
- No mixing allowed.

HPE XL170r Gen10 Server for HPE Ezmeral Container Platform Software

CPU only compute node: HPE XL170r Gen10 Server for HPE Ezmeral Container Platform Software

For compute intensive workloads the HPE XL170r Gen10 Server for HPE Ezmeral Container Platform Software delivers up to four servers in a single 2U chassis. Each HPE XL170r server is serviced individually without impacting the operation of other servers sharing the same chassis to provide increased server uptime. Each server harnesses the performance of up to 2666 MHz memory (16 DIMM slots per server) and two Intel processors in an efficient solution that shares both power and cooling infrastructure. Within a HPE Ezmeral Container Platform cluster, the XL170r Gen10 Server may be used as a Control Block, a Gateway Node, or a Compute Block.

For more information about the HPE XL170r Gen10 Server, refer to the QuickSpecs for the native version at
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00022816enw
For more information about the HPE Ezmeral Container Platform Software, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00056658enw
or more information on the HPE Ezmeral ML Ops Platform Software, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00067742enw

Notes:
- When ordering the HPE XL170r Gen10 Server for HPE Ezmeral Container Platform Software, the XL170r server must be installed into the HPE Apollo r2600 Gen10 Chassis for HPE Ezmeral Container Platform Software (R0Q99A). If the HPE Apollo r2600 Chassis is not already onsite, then the HPE Apollo r2600 Chassis is required on the Quote.
- Up to four HPE XL170r Gen10 Servers for HPE Ezmeral Container Platform Software can be installed per r2600 Chassis.
- Please select one –L21 and one –B21 processor from the following list. For second processor, please select the same processor model with –B21. For example – if first processor selected is 874294-L21, then the second processor should be 874294-B21.

Configuration Information

Description	SKU
XL170d Base System & Apollo r2600 Chassis SKUs	
HPE XL170r Gen10 Server for Ezmeral Container Platform	R0Q98A
HPE Apollo r2600 Gen10 24SFF Chassis for Ezmeral Container Platform	R0Q99A

Notes: HPE XL170r Gen10 Server for HPE Ezmeral Container Platform Software may also be ordered with the HPE Ezmeral Machine Learning Ops Software

Step 1: Choose Processor Options

Xeon-Silver

Description	SKU
Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10315-B21
Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10315-L21
Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10316-B21
Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10316-L21
Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10317-B21
Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10317-L21
Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10318-B21
Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10318-L21
Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10319-B21
Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10319-L21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) Processor Kit for HPE ProLiant XL1x0r Gen10	P25128-B21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P25128-L21
Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10320-B21
Intel Xeon-Gold 5215M (2.5GHz/10-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10320-L21
Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10321-B21
Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10321-L21
Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10322-B21
Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10322-L21
Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10323-B21
Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10323-L21
Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10324-B21
Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10324-L21
Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10325-B21
Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10325-L21
Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10326-B21
Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10326-L21
Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10327-B21
Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10327-L21
Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10328-B21
Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10328-L21
Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10329-B21
Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10329-L21
Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P11835-B21
Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P11835-L21
Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P12324-B21

Configuration Information

Description	SKU
Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P12324-L21
Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) Processor Kit for HPE ProLiant XL1x0r Gen10	P12325-B21
Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P12325-L21
Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) Processor Kit for HPE ProLiant XL1x0r Gen10	P12326-B21
Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P12326-L21
Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	879591-B21
Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	879591-L21
Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	879595-B21
Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	879595-L21
Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) Processor Kit for HPE ProLiant XL1x0r Gen10	P19265-B21
Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P19265-L21
Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) Processor Kit for HPE ProLiant XL1x0r Gen10	P19266-B21
Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P19266-L21

Xeon-Gold

Description	SKU
Intel Xeon-Gold 6126 (2.6GHz/12-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	874283-B21
Intel Xeon-Gold 6126 (2.6GHz/12-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	874283-L21
Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) Processor Kit for HPE ProLiant XL1x0r Gen10	879581-B21
Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	879581-L21
Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) Processor Kit for HPE ProLiant XL1x0r Gen10	874290-B21
Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	874290-L21
Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	880671-B21
Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	880671-L21
Intel Xeon-Gold 5119T (1.9GHz/14-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	882040-L21
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P19269-B21
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P19269-L21
Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P19270-B21
Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P19270-L21
Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P25126-B21
Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P25126-L21
Intel Xeon-Bronze 3206R (1.9GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P19263-B21
Intel Xeon-Bronze 3206R (1.9GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P19263-L21

Description	SKU

Xeon-Platinum

Description	SKU
Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	874294-B21
Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	874294-L21
Intel Xeon-Platinumn 8164 (2.0GHz/26-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	874295-L21

Notes:
- Processor mixing of different frequencies and Wattage is not supported in any models. The same processor model should always be used when upgrading.
- The recommended processor is 1x P12324-L21 and P12324-B21 (12 Core/2.8GHz, 125W)

Step 2: Choose Memory Options
Registered DIMMs (RDIMMs)

Configuration Information

HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00920-H21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-H21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00924-H21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P00926-H21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00930-H21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	835955-H21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815100-H21

Load Reduced DIMMS (LRDIMMS)

HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit	815101-H21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P00926-H21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart Memory Kit	P00928-H21

Notes:
- Mixing is not allowed
- The only allowed Quantities are 12, 14 and 16
- The recommended memory option is 12x P00924-H21 (384GB)
- For maximum throughput the recommended configuration is six DIMMs per CPU. Seven or eight DIMMs per CPU while maximizing memory capacity results in an unbalanced configuration, which will reduce performance. For Gen10 memory performance guidelines, please refer to: **https://www.hpe.com/docs/memory-population-rules**.

Step 3: Choose Hard Drive Options (HDDs and SSDs)

Description	SKU
Hot Plug SFF	
HPE 960GB SATA 6G Mixed Use SFF SC SM883 SSD	P09716-H21
HPE 1.92TB SATA 6G Mixed Use SFF SC SM883 SSD	P09722-H21
HPE 2TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD	765455-H21
HPE 1TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty HDD	655710-H21
HPE 7.68TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19909-H21
HPE 6.4TB SAS 12G Mixed Use SFF SC PM1645a SSD	P19919-H21
HPE 3.84TB SAS 12G Read Intensive SFF SC PM5 SSD	P04521-H21
HPE 3.84TB SATA 6G Read Intensive SFF SC PM883 SSD	P04570-H21
HPE 3.84TB SATA 6G Read Intensive SFF SC S4510 SSD	P05946-H21
HPE 3.84TB SATA 6G Mixed Use SFF SC S4610 SSD	P05994-H21

Description	SKU
HPE 4TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD	P13697-H21
HPE 3.84TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18428-H21
HPE 3.84TB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18438-H21
HPE 3.84TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19907-H21
HPE 3.84TB SATA 6G Mixed Use SFF SC SM883 SSD	P21517-H21

Accessories

HPE Small Form Factor Hard Drive Blank Kit	666987-B21

Notes:
- Minimum of 3 drives are required per server.
- Recommended drives would be 2x P09716-H21 AND 3x P04539-H21 AND 1x 765455-H21

Configuration Information

– Intended purpose of recommended drive options: 2x P09716-H21 HPE 960GB SATA MU SFF SC DS SSD (boot drive configured w/RAID1), 3x P04539-H21 HPE 6.4TB SAS MU SFF SC DS SSD (node storage drives w/RAID5), and 1x 765455-H21 HPE 2TB SATA 7.2K SFF SC 512e DS HDD (Tenant storage w/RAID0)

Step 4: Choose Riser Card Options

HPE XL1x0r Gen10 Left Low Profile Riser Kit	874296-B21
HPE XL170r Gen10 FlexibleLOM Riser Kit	874298-B21

Notes: Min 1 / Max 1 of each kit required per server.

Step 5: Choose Infiniband Options

HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	879482-B21

Notes: Min 1 / Max 1 of any InfiniBand - FlexibleLOM and Networking - FlexibleLOM adapters.

Step 6: Choose Networking Options

FlexibleLOM

HPE Ethernet 1Gb 4-port FLR-T BCM5719 Adapter	629135-B22
HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter	665240-B21
HPE FlexFabric 10Gb 2-port FLR-SFP+ 57810S Adapter	700751-B21
HPE FlexFabric 10Gb 2-port FLR-T 57810S Adapter	700759-B21
HPE FlexFabric 10Gb 4-port FLR-T 57840S Adapter	764302-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM57414 Adapter	817709-B21
HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter	817721-B21
HPE Ethernet 10Gb 2-port FLR-T X550-AT2 Adapter	817745-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter	817749-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 QL41401-A2G Converged Network Adapter	867334-B21

Description	SKU
Media Module	
HPE Ethernet 1Gb 2-port 368T Media Module Adapter	866464-B21
HPE Ethernet 10Gb 2-port 568SFP+ Media Module Adapter	866467-B21
HPE XL1x0r Ethernet 10Gb 2-port 568FLR-MMT Adapter	868227-B21

Notes:
– Default (recommended) Qty 1x 817749-B21 HPE Eth 10/25Gb 2P 640FLR-SFP28 Adptr
– Media module adapter (MMT) does not consume PCIe or FlexLOM slots
– Default Qty 1x 866464-B21 HPE Eth 1Gb 2P 368FLR-MMT Adptr

Step 7: Choose Controllers & Controller Accessory Options

SAS

HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804394-B21
HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	830824-B21

Step 8: Choose HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software Subscriptions

Configuration Information

Each subscription SKU includes a term license to use on one physical CPU core or two virtual CPUs, plus the associated support with 24x7 or 9x5 coverage via an MCC, for the term of 1, 2, 3, 4 or 5 years for the HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops Software. For the duration of the term, the customer has rights to new versions of any of the respective software subscriptions they purchased.

Notes:
– The following end user information (entity that will own/utilize the subscription) will be required at the time of order to receive the electronic license from HPE license services:
  o End User Company Name
  o End User Company Address (please include the full address: street name, number, city, state, and zip code)
  o End User Customer contact name
  o End User Email Address
  o Reseller Name and Address
  o Distributor Name and Address

Option Codes

An option code must be specified when ordering the HPE Ezmeral Container Platform Select subscription or the HPE Ezmeral Machine Learning Ops Select Subscription. The option code specifies how the subscription will be deployed in the customer's environment.

New Cluster Subscription (New HPE Ezmeral Container Platform or HPE Machine Learning Ops cluster)	#001
Expansion of Existing Cluster Sub (Expanding an existing HPE Ezmeral Container Platform or HPE Machine Learning Ops cluster with more cores or servers)	#002
Repurchase for Existing Subscription (Repurchase of existing HPE Ezmeral Container Platform or HPE Machine Learning Ops Subscription)	#003

HPE Ezmeral Container Platform Select Subscriptions for HPE Apollo Building Blocks

HPE Ezmeral Container Platform "Select" subscriptions may only be configured and ordered with the HPE Apollo Building Blocks and other select HPE Servers (including Synergy SY480 (R3B69A), EdgeLine 4000 (R3B67A, R3B68A) and EdgeLine 8000 (R3B66A)). Customers intending to deploy HPE Ezmeral Container Platform software on other HPE Servers or non-HPE hardware platforms must order the HPE Ezmeral Container Platform Universal subscription.

Description	SKU
HPE Ezmeral Container Platform 1-year Select Subscription 24x7 Support E-LTU	R4T44AAE
HPE Ezmeral Container Platform 1-year Select Subscription 9x5 Support E-LTU	R4T45AAE
HPE Ezmeral Container Platform 2-year Select Subscription 24x7 Support E-LTU	R4T46AAE
HPE Ezmeral Container Platform 2-year Select Subscription 9x5 Support E-LTU	R4T47AAE
HPE Ezmeral Container Platform 3-year Select Subscription 24x7 Support E-LTU	R4T48AAE
HPE Ezmeral Container Platform 3-year Select Subscription 9x5 Support E-LTU	R4T49AAE
HPE Ezmeral Container Platform 4-year Select Subscription 24x7 Support E-LTU	R4T50AAE
HPE Ezmeral Container Platform 4-year Select Subscription 9x5 Support E-LTU	R4T51AAE
HPE Ezmeral Container Platform 5-year Select Subscription 24x7 Support E-LTU	R4T52AAE
HPE Ezmeral Container Platform 5-year Select Subscription 9x5 Support E-LTU	R4T53AAE

HPE Ezmeral Machine Learning Ops Select Subscriptions for HPE Apollo Building Blocks

HPE Ezmeral Machine Learning Ops "Select" subscriptions may only be configured and ordered with the HPE Apollo Building Blocks and other select HPE Servers (including Synergy SY480 (R3B69A), EdgeLine 4000 (R3B67A, R3B68A) and EdgeLine 8000 (R3B66A)).. Customers intending to deploy HPE Ezmeral Machine Learning Ops software on other HPE Servers or non-HPE hardware platforms must order the HPE Ezmeral Machine Learning Ops universal subscription.

HPE Ezmeral Machine Learning Ops 1-year Select Subscription 24x7 Support E-LTU	R4T64AAE
HPE Ezmeral Machine Learning Ops 1-year Select Subscription 9x5 Support E-LTU	R4T65AAE
HPE Ezmeral Machine Learning Ops 2-year Select Subscription 24x7 Support E-LTU	R4T66AAE
HPE Ezmeral Machine Learning Ops 2-year Select Subscription 9x5 Support E-LTU	R4T67AAE

Configuration Information

HPE Ezmeral Machine Learning Ops 3-year Select Subscription 24x7 Support E-LTU	R4T68AAE
HPE Ezmeral Machine Learning Ops 3-year Select Subscription 9x5 Support E-LTU	R4T69AAE
HPE Ezmeral Machine Learning Ops 4-year Select Subscription 24x7 Support E-LTU	R4T70AAE
HPE Ezmeral Machine Learning Ops 4-year Select Subscription 9x5 Support E-LTU	R4T71AAE
HPE Ezmeral Machine Learning Ops 5-year Select Subscription 24x7 Support E-LTU	R4T72AAE
HPE Ezmeral Machine Learning Ops 5-year Select Subscription 9x5 Support E-LTU	R4T73AAE

Notes: HPE Ezmeral Machine Learning Ops Software includes all the same functionality provided with the HPE Ezmeral Container Platform software

Total Server CPU Cores	HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software - Minimum Subs	HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software - Maximum Subs (Comprehends additional 30% for Virtual CPU's)
16	16	20
20	20	24
24	24	32
28	28	36
32	32	40
36	36	44
40	40	52
44	44	56
48	48	62

Step 9: Choose Service and Support

The following Services and Attach Rules apply equally to both the HPE Ezmeral Container Platform software and the HPE Ezmeral Machine Learning Ops Software, even when the Description only states "HPE Ezmeral Container Platform".

Description	SKU
HPE Ezmeral Container Platform Deployment and Integration Services	
HPE Ezmeral Platform Quickstart SVC	HG0U6A1
HPE Ezmeral Platform Essential SVC	HU1E1A1
HPE Ezmeral Platform Advanced SVC	HU1E2A1
HPE Ezmeral Platform Premium SVC	HU1E3A1
HPE Ezmeral Platform App Store Dev SVC	HU1E4A1
HPE Ezmeral Platform Image/ML Dev SVC	HU1E5A1
HPE Ezmeral Platform Tailor Img Dsgn SVC	HU1E6A1
HPE Ezmeral Platform Custom Cnslt SVC	HU1E7A1

Notes:
– For a new cluster deployment of up to 120 subscription SKUs, you must select HPE Ezmeral Container Platform QuickStart Configuration Service (HG0U6A1)
– For a new cluster deployment of above 120 subscription SKUs, but less than or equal to 240 subscription SKUs, you must select HPE Ezmeral Container Platform Essential Configuration Service (HU1E1A1)
– For a new cluster deployment above 240 subscription SKUs, but less than or equal to 480 subscription SKUs, you must select HPE Ezmeral Container Platform Advanced Configuration Service (HU1E2A1)
– For a new cluster deployment above 480 subscription SKUs but less than or equal to 1200 subscription SKUs, you must select HPE Ezmeral Container Platform Premium Configuration Service (HU1E3A1)
– For a new cluster deployment of greater than 1200 subscription SKUs, you must use the HPE Ezmeral Container Platform custom build SKU (HU1E7A1)

Configuration Information

Support on HPE Apollo servers

For the HPE Apollo Building Blocks and HPE Ezmeral Container Platform software or HPE Ezmeral Machine Learning Ops Software, HPE recommends HPE Tech Care. The customer will only receive a whole product support experience for the Apollo Building Blocks and the respective software if they order Tech Care. With any lower level Packaged Service the customer will need to log separate cases for Apollo hardware from cases filed for HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software. HPE Tech Care gives customers an enhanced call experience. When your products are connected to HPE, Tech Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice This Service combines three years proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.

Installation and Support Services

HPE Install ProLiant XL170r Gen10 Service	HA113A1#5BW
HPE Install Apollo r2600 24SFF-PREM Service	HA113A2#58Y
HPE Install ProLiant XL190r Gen10 Service	HA113A1#5BW
HPE Install Apollo 6500 Gen10 service	HA113A1#5VW
HPE Install Apollo 4200 Gen10 Service	HA113A1#58Y

Tech Care

HPE Tech Care 3 Year 24x7 Service	H1K92A3#xxx

Tech Care

HPE Tech Care 3 Year 24x7 Service	H7J34A3#xxx

Description	**SKU**

HPE Ezmeral Container Platform Customer Education

HPE Training Credit Data Analytics SVC	H9P13A1

Notes:
- For a new cluster deployment of up to 120 subscription SKUs, you must order 8 Big Data Training Credits
- For a new cluster deployment of above 120 subscription SKUs, but less than or equal to 240 subscription SKUs, you must order 8 Big Data Training Credits
- For a new cluster deployment above 240 subscription SKUs, but less than or equal to 480 subscription SKUs, you must order 14 Big Data Training Credits
- For a new cluster deployment above 480 subscription SKUs but less than or equal to 1200 subscription SKUs, you must order 22 Big Data Training Credits
- For a new cluster deployment above 1200 subscription SKUs, a custom training plan must be generated.

Additional Options

Solution Software Options

iLO Advanced

HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	512485-B21
HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features	512486-B21
HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features	512487-B21
HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	BD505A
HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features	BD506A
HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE

ProLiant Software

HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE

Configuration Information

SmartCache

HPE Smart Array SR SmartCache (Single Key/Single Server) LTU	D7S26A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) LTU	D7S27A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) E-LTU	D7S27AAE

Cloudera & Hortonworks

Cloudera Enterprise Basic Edition 1 Year Subscription per Node 24x7 Support E-LTU	G7M27AAE
Cloudera Enterprise Basic Edition 1 Year Subscription per Node 8x5 Support E-LTU	G7M28AAE
Cloudera Enterprise Data Hub Edition 1 Year Subscription per Node 24x7 Support E-LTU	G7M29AAE
Cloudera Enterprise Data Hub Edition 1 Year Subscription per Node 8x5 Support E-LTU	G7M30AAE
Cloudera Hortonworks Data Platform Enterprise Plus 1 Node 1yr 24x7 Support E-LTU	P9A25AAE
Cloudera Enterprise Basic Edition 3 Year Subscription per Node 8x5 Support E-LTU	P9A42AAE
Cloudera Enterprise Data Hub Edition 3 Year Subscription per Node 24x7 Support E-LTU	P9A43AAE
Cloudera Enterprise Data Hub Edition 3 Year Subscription per Node 8x5 Support E-LTU	P9A44AAE
Cloudera Enterprise Data Engineering Edition 1yr Subscription per Node 8x5 Bronze Support E-LTU	P9V12AAE
Cloudera Enterprise Data Engineering Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V13AAE
Cloudera Enterprise Operational Database Edition 1yr Subscription per Node 8x5 Bronze Support E-LTU	P9V14AAE
Cloudera Enterprise Operational Database Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V15AAE
Cloudera Enterprise Analytical Database Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V17AAE
Cloudera Enterprise Data Engineering Edition 3yr Subscription per Node 24x7 Gold Support E-LTU	P9V18AAE

HPC Software Products

HPE Performance Cluster Manager 1 Node 3yr 24x7 Support Perpetual LTU	Q9V60A
HPE Performance Cluster Manager 1 Node 3yr 24x7 Support Perpetual E-LTU	Q9V60AAE
HPE Performance Cluster Manager Media Kit	Q9V62A

Red Hat Enterprise Linux Server

Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 24x7 Support LTU	G3J28A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 24x7 Support E-LTU	G3J28AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 9x5 Support LTU	G3J29A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 9x5 Support E-LTU	G3J29AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 24x7 Support LTU	G3J30A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 24x7 Support E-LTU	G3J30AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 9x5 Support LTU	G3J31A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 9x5 Support E-LTU	G3J31AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 24x7 Support LTU	G3J32A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 24x7 Support E-LTU	G3J32AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 9x5 Support LTU	G3J33A
Red Hat Enterprise Linux Server 2 Sockets or Guests 5 Year Subscription 9x5 Support E-LTU	G3J33AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 24x7 Support LTU	G5J62A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 24x7 Support E-LTU	G5J62AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 9x5 Support LTU	G5J63A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 9x5 Support E-LTU	G5J63AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 24x7 Support LTU	G5J64A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 24x7 Support E-LTU	G5J64AAE

Description   **SKU**

Configuration Information

Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 9x5 Support LTU	G5J65A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 9x5 Support E-LTU	G5J65AAE
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 9x5 Support LTU	J8J35A
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 9x5 Support E-LTU	J8J35AAE
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 24x7 Support LTU	J8J36A
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 24x7 Support E-LTU	J8J36AAE

Notes: For more information about HPE's RHEL offering, refer to the QuickSpecs at
https://h20195.www2.hpe.com/v2/GetDocument.aspx?docname=c04123419

OneView Management Software

HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
HPE OneView including 3yr 24x7 Support Track 1-server LTU	E5Y36A
HPE OneView w/o iLO Advance including 3yr 24x7 Support Track 1-server LTU	E5Y40A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	E5Y44A
HPE OneView Upgrade from Insight Management including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y45AAE
HPE OneView Upgrade from Insight Management 3yr 24x7 Support 1-server LTU	F6Q91A
HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU	P8B24A
HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU	P8B25A
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE

HPE XL190r Gen10 Server for HPE Ezmeral Container Platform Software

GPU accelerated compute node: HPE XL190r Gen10 Server for HPE Ezmeral Container Platform Software
For GPU workloads the HPE XL190r delivers two servers in a single 2U Apollo r2600 chassis. The XL190r server has the same configuration options as the XL170r for CPU and memory and supports a single NVIDIA Graphics card. Within a HPE Ezmeral Container Platform Cluster, an HPE XL190r Gen10 Server would be used as an AI/Machine Learning Block.

For more information about the HPE XL190r Gen10 Server, refer to the QuickSpecs for the native version
at: **https://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=a00022817enw**
For more information about the HPE Ezmeral Container Platform, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00056658enw
For more information on the HPE Ezmeral ML Ops Software, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00067742enw
Notes:
– When ordering the HPE XL190r Gen10 Server for HPE Ezmeral Container Platform Software, the XL190r server must be installed into the HPE Apollo r2600 Gen10 Chassis for HPE Ezmeral Container Platform Software (R0Q99A). If the HPE Apollo r2600 Chassis is not already onsite, then the HPE Apollo r2600 Chassis is required on the Quote.
– Up to two HPE XL190r Gen10 Servers for HPE Ezmeral Container Platform Software can be installed per Apollo r2600 Chassis.
– Please select one –L21 and one –B21 processor from the following list. For second processor, please select the same processor model with –B21. For example – if first processor selected is 874294-L21, then the second processor should be 874294-B21.

Description	SKU
XL190d Base System & Apollo r2600 Chassis SKUs	
HPE XL190r Gen10 Server for Ezmeral Container Platform	R0R00A
HPE Apollo r2600 Gen10 24SFF Chassis for Ezmeral Container Platform	R0Q99A

Notes: HPE XL190r Gen10 Server for HPE Ezmeral Container Platform Software may also be ordered with the HPE Ezmeral Machine Learning Ops Software

Configuration Information

Step 1: Choose Processor Options

Xeon-Silver

Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10315-B21
Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10315-L21
Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10316-B21
Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10316-L21
Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10317-B21
Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10317-L21
Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10318-B21
Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10318-L21
Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10319-B21
Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10319-L21
Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10320-B21
Intel Xeon-Gold 5215M (2.5GHz/10-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10320-L21
Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10321-B21
Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10321-L21
Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10322-B21
Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10322-L21
Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10323-B21
Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10323-L21
Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10324-B21
Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10324-L21
Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10325-B21
Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P10325-L21
Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10326-B21
Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10326-L21
Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10327-B21
Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10327-L21
Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10328-B21
Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10328-L21
Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P10329-B21
Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P10329-L21
Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P11835-B21
Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P11835-L21
Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P12324-B21
Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P12324-L21
Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) Processor Kit for HPE ProLiant XL1x0r Gen10	P12325-B21
Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P12325-L21
Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) Processor Kit for HPE ProLiant XL1x0r Gen10	P12326-B21
Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	P12326-L21
Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	879591-B21
Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	879591-L21
Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) Processor Kit for HPE ProLiant XL1x0r Gen10	P19265-B21
Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P19265-L21

Configuration Information

Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) Processor Kit for HPE ProLiant XL1x0r Gen10	P19266-B21
Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P19266-L21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) Processor Kit for HPE ProLiant XL1x0r Gen10	P25128-B21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P25128-L21

Xeon-Gold

Intel Xeon-Gold 6126 (2.6GHz/12-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	874283-B21
Intel Xeon-Gold 6126 (2.6GHz/12-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	874283-L21
Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) Processor Kit for HPE ProLiant XL1x0r Gen10	879581-B21
Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	879581-L21
Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) Processor Kit for HPE ProLiant XL1x0r Gen10	874290-B21
Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	874290-L21
Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	880671-B21
Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10.	880671-L21
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10	P19269-B21
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P19269-L21
Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P19270-B21
Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P19270-L21
Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	P25126-B21
Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P25126-L21
Intel Xeon-Gold 5119T (1.9GHz/14-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	882040-L21
Intel Xeon-Bronze 3206R (1.9GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10	P19263-B21
Intel Xeon-Bronze 3206R (1.9GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	P19263-L21

Xeon-Platinum

Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10	874294-B21
Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	874294-L21
Intel Xeon-Platinumn 8164 (2.0GHz/26-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10	874295-L21

Notes:
- Processor mixing of different frequencies and Wattage is not supported in any models. The same processor model should always be used when upgrading.
- The recommended processor is 1x P12324-L21 and P12324-B21 (12 Core/2.8GHz, 125W)

Step 2: Choose Memory Options

Registered DIMMS

HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00920-H21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-H21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	835955-H21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815100-H21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00924-H21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P00926-H21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00930-H21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart Memory Kit	P00928-H21

Load Reduced DIMMS (LRDIMMS)

HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit	815101-H21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P00926-H21

Configuration Information

Step 3: Choose Hard Drive Options (HDDs and SSDs)

Hot Plug SFF

Description	SKU
HPE 960GB SATA 6G Mixed Use SFF SC SM883 SSD	P09716-H21
HPE 1TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty HDD	655710-H21
HPE 1.92TB SATA 6G Mixed Use SFF SC SM883 SSD	P09722-H21
HPE 2TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD	765455-H21
HPE 7.68TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19909-H21
HPE 6.4TB SAS 12G Mixed Use SFF SC PM1645a SSD	P19919-H21
HPE 7.68TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18430-H21
HPE 3.84TB SAS 12G Read Intensive SFF SC PM5 SSD	P04521-H21
HPE 3.84TB SATA 6G Read Intensive SFF SC PM883 SSD	P04570-H21
HPE 3.84TB SATA 6G Read Intensive SFF SC S4510 SSD	P05946-H21
HPE 3.84TB SATA 6G Mixed Use SFF SC S4610 SSD	P05994-H21
HPE 4TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD	P13697-H21
HPE 3.84TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18428-H21
HPE 3.84TB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18438-H21
HPE 3.84TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19907-H21
HPE 3.84TB SATA 6G Mixed Use SFF SC SM883 SSD	P21517-H21

HPE SFF HDD Blank Kit

Description	SKU
Accessories	
HPE Small Form Factor Hard Drive Blank Kit	666987-B21

Step 4: Choose Riser Card Options

HPE XL1x0r Gen10 Left Low Profile Riser Kit	874296-B21
HPE XL190r Gen10 FlexibleLOM Riser Kit	874847-B21

Step 5: Choose Infiniband Options

Configuration Information

PCIe

HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	825111-H21
HPE 100Gb 1-port OP101 QSFP28 x16 PCIe Gen3 with Intel Omni-Path Architecture Adapter	829335-B21
HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter	872725-H21
HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	872726-H21

Notes: Minimum of 0, Max of 3 of any InfiniBand - PCIe, Networking - PCIe, SAS Controllers - PCIe and Graphics - PCIe

FlexibleLOM

HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	879482-B21

Notes: Min 1 / Max 1 of any InfiniBand - FlexibleLOM and Networking - FlexibleLOM adapters.

Step 6: Choose Networking Options

Description	SKU

PCIe

HPE Ethernet 1Gb 2-port BASE-T BCM5720 Adapter	615732-B21
HPE Ethernet 1Gb 4-port BASE-T BCM5719 Adapter	647594-B21
HPE Ethernet 10Gb 2-port SFP+ 57810S Adapter	652503-B21
HPE Ethernet 10Gb 2-port BASE-T 57810S Adapter	656596-B21
HPE Ethernet 1Gb 4-port BASE-T I350-T4V2 Adapter	811546-B21
HPE Ethernet 10Gb 2-port BASE-T BCM57416 Adapter	813661-B21
HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter	817718-B21
HPE Ethernet 10Gb 2-port BASE-T X550-AT2 Adapter	817738-B21
HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	817753-B21
HPE Ethernet 10/25Gb 2-port SFP28 QL41401-A2G Adapter	867328-B21
HPE Ethernet 10Gb 2-port BASE-T QL41401-A2G Adapter	867707-B21
HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter	874253-B21

Notes: Minimum of 0, Max of 3 of any InfiniBand - PCIe, Networking - PCIe, SAS Controllers - PCIe and Graphics - PCIe

FlexibleLOM

HPE Ethernet 1Gb 4-port FLR-T BCM5719 Adapter	629135-B22
HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter	665240-B21
HPE FlexFabric 10Gb 2-port FLR-SFP+ 57810S Adapter	700751-B21
HPE FlexFabric 10Gb 2-port FLR-T 57810S Adapter	700759-B21
HPE FlexFabric 10Gb 4-port FLR-T 57840S Adapter	764302-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM57414 Adapter	817709-B21
HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter	817721-B21
HPE Ethernet 10Gb 2-port FLR-T X550-AT2 Adapter	817745-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter	817749-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 QL41401-A2G Converged Network Adapter	867334-B21

Notes:
– Min 1 / Max 1 of any InfiniBand - FlexibleLOM and Networking - FlexibleLOM adapters.
– Default (recommended) network FlexLOM option is 1x 817749-B21 HPE Eth 10/25Gb 2P 640FLR-SFP28 Adptr

Media Module

HPE Ethernet 1Gb 2-port 368T Media Module Adapter	866464-B21
HPE Ethernet 10Gb 2-port 568SFP+ Media Module Adapter	866467-B21

Configuration Information

HPE XL1x0r Ethernet 10Gb 2-port 568FLR-MMT Adapter	868227-B21

Notes:
– Does not consume PCIe Slot
– Default (recommended) is 1x 866464-B21 HPE Eth 1Gb 2P 368FLR-MMT Adptr

Step 7: Choose Controller & Controller Accessory Options

Description	SKU
SAS	
HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804394-B21
HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	830824-B21

Notes:
– If either SKU is selected, then Min 1 / Max 1 874785-B21 (Cbl Kit) is required per server.
– If SKU 830824 is selected, then Min 1 / Max 1 P01366-B21 (battery) is required per server.
– Min 0 / Max 4 of any InfiniBand - PCIe,Networking - PCIe, SAS Controllers - PCIe and Graphics - PCIe..
– Default (recommendation) is 1x 804394-B21 HPE Smart Array E208i-p SR Gen10 Ctrlr

Cable	
HPE XL190r Left E208ip/P408ip Cable Kit	874787-B21
Upgrade	
HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	P01366-B21

Notes: If R0R00A is selected as a STANDALONE server (not integrated to an Enclosure), Then this SKU must be quoted BTO at bottom of quote

Step 8: Choose Graphics Options

PCIe	
NVIDIA M10 Quad GPU Module for HPE	Q0J62A
NVIDIA T4 16GB Computational Accelerator for HPE	R0W29A
NVIDIA Quadro RTX 4000 Graphics Accelerator for HPE	R1F95A
NVIDIA Quadro RTX 8000 Graphics Accelerator for HPE	R1F97A
SXM2	
NVIDIA V100 SXM2 32GB Computational Accelerator for HPE	Q9U37A
Accessories	
HPE ProLiant XL190r Gen10 8-pin Cable Kit for NVIDIA Tesla T4 GPU	P19869-B21
HPE ProLiant XL190r Gen10 8-pin Cable Kit for NVIDIA Quadro RTX 4000 GPU	P19872-B21

Notes:
– Min 0 / Max 3 of any InfiniBand - PCIe, Networking - PCIe, SAS Controllers - PCIe and Graphics - PCIe.
– Mixing is not allowed
– Recommended GPU - 2x Q9U36A V100 PCIe 32GB Module

Configuration Information

Step 9: Choose HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software Subscriptions

Each subscription SKU includes a term license to use on one physical CPU core or two virtual CPUs, plus the associated support with 24x7 or 9x5 coverage via an MCC, for the term of 1, 2, 3, 4 or 5 years for the HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops Software. For the duration of the term, the customer has rights to new versions of the respective software.

Notes: The following end user information (entity that will own/utilize the subscription) will be required at the time of order to receive the electronic license from HPE license services:
- o   End User Company Name
- o   End User Company Address (please include the full address: street name, number, city, state, and zip code)
- o   End User Customer contact name
- o   End User Email Address
- o   Reseller Name and Address
- o   Distributor Name and Address

Option Codes
An option code must be specified when ordering the HPE Ezmeral Container Platform Select subscription or the HPE Ezmeral Machine Learning Ops Select Subscriptions. The option code specifies how the subscription will be deployed in the customer's environment

New Cluster Subscription (New HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops cluster)   #001

Expansion of Existing Cluster Sub (Expanding an existing HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops cluster with more cores or servers)   #002

Repurchase for Existing Subscription (Repurchase of Existing HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops Subscription)   #003

HPE Ezmeral Container Platform Select Subscriptions for HPE Apollo Building Blocks and "Select" Servers
HPE Ezmeral Container Platform "Select" subscriptions may only be configured and ordered with the HPE Apollo Building Blocks and other select HPE Servers (including Synergy SY480 (R3B69A), EdgeLine 4000 (R3B67A, R3B68A) and EdgeLine 8000 (R3B66A)). Customers intending to deploy HPE Ezmeral Container Platform software on other HPE Servers or non-HPE hardware platforms must order the HPE Ezmeral Container Platform Universal subscription.

Description	SKU
HPE Ezmeral Container Platform 1-year Select Subscription 24x7 Support E-LTU	R4T44AAE
HPE Ezmeral Container Platform 1-year Select Subscription 9x5 Support E-LTU	R4T45AAE
HPE Ezmeral Container Platform 2-year Select Subscription 24x7 Support E-LTU	R4T46AAE
HPE Ezmeral Container Platform 2-year Select Subscription 9x5 Support E-LTU	R4T47AAE
HPE Ezmeral Container Platform 3-year Select Subscription 24x7 Support E-LTU	R4T48AAE
HPE Ezmeral Container Platform 3-year Select Subscription 9x5 Support E-LTU	R4T49AAE
HPE Ezmeral Container Platform 4-year Select Subscription 24x7 Support E-LTU	R4T50AAE
HPE Ezmeral Container Platform 4-year Select Subscription 9x5 Support E-LTU	R4T51AAE
HPE Ezmeral Container Platform 5-year Select Subscription 24x7 Support E-LTU	R4T52AAE
HPE Ezmeral Container Platform 5-year Select Subscription 9x5 Support E-LTU	R4T53AAE

HPE Ezmeral Machine Learning Ops Select Subscriptions for HPE Apollo Building Blocks
HPE Ezmeral Machine Learning Ops "Select" subscriptions may only be configured and ordered with the HPE Apollo Building Blocks and other select HPE Servers (including Synergy SY480 (R3B69A), EdgeLine 4000 (R3B67A, R3B68A) and EdgeLine 8000 (R3B66A)). Customers intending to deploy HPE Ezmeral Machine Learning Ops software on other HPE Servers or non-HPE hardware platforms must order the HPE Ezmeral Machine Learning Ops universal subscription.

HPE Ezmeral Machine Learning Ops 1-year Select Subscription 24x7 Support E-LTU	R4T64AAE
HPE Ezmeral Machine Learning Ops 1-year Select Subscription 9x5 Support E-LTU	R4T65AAE
HPE Ezmeral Machine Learning Ops 2-year Select Subscription 24x7 Support E-LTU	R4T66AAE

Configuration Information

HPE Ezmeral Machine Learning Ops 2-year Select Subscription 9x5 Support E-LTU	R4T67AAE
HPE Ezmeral Machine Learning Ops 3-year Select Subscription 24x7 Support E-LTU	R4T68AAE
HPE Ezmeral Machine Learning Ops 3-year Select Subscription 9x5 Support E-LTU	R4T69AAE
HPE Ezmeral Machine Learning Ops 4-year Select Subscription 24x7 Support E-LTU	R4T70AAE
HPE Ezmeral Machine Learning Ops 4-year Select Subscription 9x5 Support E-LTU	R4T71AAE
HPE Ezmeral Machine Learning Ops 5-year Select Subscription 24x7 Support E-LTU	R4T72AAE
HPE Ezmeral Machine Learning Ops 5-year Select Subscription 9x5 Support E-LTU	R4T73AAE

Notes: HPE Ezmeral Machine Learning Ops Software includes all the same functionality provided with the HPE Ezmeral Container Platform software

Total Server CPU Cores	HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software - Minimum Subs	HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software - Maximum Subs (Comprehends additional 30% for Virtual CPU's)
16	16	20
20	20	24
24	24	32
28	28	36
32	32	40
36	36	44
40	40	52
44	44	56
48	48	62

Step 10: Choose Service and Support Options

The following Services and Attach Rules apply equally to both the HPE Ezmeral Container Platform Software and HPE Ezmeral Machine Learning Ops Software, even when the Description only states "HPE Ezmeral Container Platform".

HPE Ezmeral Container Platform Deployment and Integration Services

Description	SKU
HPE Ezmeral Platform Quickstart SVC	HG0U6A1
HPE Ezmeral Platform Essential SVC	HU1E1A1
HPE Ezmeral Platform Advanced SVC	HU1E2A1
HPE Ezmeral Platform Premium SVC	HU1E3A1
HPE Ezmeral Platform App Store Dev SVC	HU1E4A1
HPE Ezmeral Platform Image/ML Dev SVC	HU1E5A1
HPE Ezmeral Platform Tailor Img Dsgn SVC	HU1E6A1
HPE Ezmeral Platform Custom Cnslt SVC	HU1E7A1

Notes:
- For a new cluster deployment of up to 120 subscription SKUs, you must select HPE Container Platform QuickStart Configuration Service (HG0U6A1)
- For a new cluster deployment of above 120 subscription SKUs but less than or equal to 240 subscription SKUs, you must select HPE Ezmeral Container Platform Essential Configuration Service (HU1E1A1)
- For a new cluster deployment above 240 subscription SKUs, but less than or equal to 480 subscription SKUs, you must select HPE Ezmeral Container Platform Advanced Configuration Service (HU1E2A1)
- For a new cluster deployment above 480 subscription SKUs but less than or equal to 1200 subscription SKUs, you must select HPE Ezmeral Container Platform Premium Configuration Service (HU1E3A1)
- For a new cluster deployment of greater than 1200 subscription SKUs, you must use the HPE Ezmeral Container Platform custom build SKU (HU1E7A1)

Configuration Information

Support on HPE Apollo servers

For the HPE Apollo Building Blocks and HPE Ezmeral Container Platform software or HPE Ezmeral Machine Learning Ops Software, HPE recommends HPE Tech Care. The customer will only receive a whole product support experience for the Apollo Building Blocks and for the respective software if they order Tech Care. With any lower level Packaged Service the customer will need to log separate cases for Apollo hardware from cases filed for HPE Ezmeral Container Platform software or Ezmeral Machine Learning Ops Software. HPE Tech Care gives customers an enhanced call experience. When your products are connected to HPE, Tech Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice This Service combines three years proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers..

Description	SKU
Installation and Startup Services	
HPE Install ProLiant XL170r Gen10 Service	HA113A1#5BW
HPE Install Apollo r2600 24SFF-PREM Service	HA113A2#58Y
HPE Install ProLiant XL190r Gen10 Service	HA113A1#5BW
HPE Install Apollo 6500 Gen10 service	HA113A1#5VW
HPE Install Apollo 4200 Gen10 Service	HA113A1#58Y
Tech Care	
HPE Tech Care 3 Year 24x7 Service	H1K92A3#xxx
Tech Care	
HPE Tech Care 3 Year 24x7 Service	H7J34A3#xxx
HPE Ezmeral Container Platform Customer Education	
HPE Training Credit Data Analytics SVC	H9P13A1

Notes:

- For a new cluster deployment of up to 120 subscription SKUs, you must order 8 Big Data Training Credits
- For a new cluster deployment of above 120 subscription SKUs, but less than or equal to 240 subscription SKUs, you must order 8 Big Data Training Credits
- For a new cluster deployment above 240 subscription SKUs, but less than or equal to 480 subscription SKUs, you must order 14 Big Data Training Credits
- For a new cluster deployment above 480 subscription SKUs but less than or equal to 1200 subscription SKUs, you must order 22 Big Data Training Credits
- For a new cluster deployment of over 1200 subscription SKUs, a custom training plan must be generated.

Additional Options

Solution Software Options

iLO Advanced

HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	512485-B21
HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features	512486-B21
HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features	512487-B21
HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	BD505A
HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features	BD506A
HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE

ProLiant Software

HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE

Configuration Information

Description	SKU
SmartCache	
HPE Smart Array SR SmartCache (Single Key/Single Server) LTU	D7S26A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) LTU	D7S27A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) E-LTU	D7S27AAE
Cloudera & Hortonworks	
Cloudera Enterprise Basic Edition 1 Year Subscription per Node 24x7 Support E-LTU	G7M27AAE
Cloudera Enterprise Basic Edition 1 Year Subscription per Node 8x5 Support E-LTU	G7M28AAE
Cloudera Enterprise Data Hub Edition 1 Year Subscription per Node 24x7 Support E-LTU	G7M29AAE
Cloudera Enterprise Data Hub Edition 1 Year Subscription per Node 8x5 Support E-LTU	G7M30AAE
Cloudera Hortonworks Data Platform Enterprise Plus 1 Node 1yr 24x7 Support E-LTU	P9A25AAE
Cloudera Enterprise Basic Edition 3 Year Subscription per Node 8x5 Support E-LTU	P9A42AAE
Cloudera Enterprise Data Hub Edition 3 Year Subscription per Node 24x7 Support E-LTU	P9A43AAE
Cloudera Enterprise Data Hub Edition 3 Year Subscription per Node 8x5 Support E-LTU	P9A44AAE
Cloudera Enterprise Data Engineering Edition 1yr Subscription per Node 8x5 Bronze Support E-LTU	P9V12AAE
Cloudera Enterprise Data Engineering Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V13AAE
Cloudera Enterprise Operational Database Edition 1yr Subscription per Node 8x5 Bronze Support E-LTU	P9V14AAE
Cloudera Enterprise Operational Database Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V15AAE
Cloudera Enterprise Analytical Database Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V17AAE
Cloudera Enterprise Data Engineering Edition 3yr Subscription per Node 24x7 Gold Support E-LTU	P9V18AAE
HPC Software Products	
HPE Performance Cluster Manager 1 Node 3yr 24x7 Support Perpetual LTU	Q9V60A
HPE Performance Cluster Manager 1 Node 3yr 24x7 Support Perpetual E-LTU	Q9V60AAE
HPE Performance Cluster Manager Media Kit	Q9V62A
Red Hat Enterprise Linux Server	
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 24x7 Support LTU	G3J28A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 24x7 Support E-LTU	G3J28AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 9x5 Support LTU	G3J29A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 9x5 Support E-LTU	G3J29AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 24x7 Support LTU	G3J30A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 24x7 Support E-LTU	G3J30AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 9x5 Support LTU	G3J31A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 9x5 Support E-LTU	G3J31AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 24x7 Support LTU	G3J32A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 24x7 Support E-LTU	G3J32AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 9x5 Support LTU	G3J33A
Red Hat Enterprise Linux Server 2 Sockets or Guests 5 Year Subscription 9x5 Support E-LTU	G3J33AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 24x7 Support LTU	G5J62A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 24x7 Support E-LTU	G5J62AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 9x5 Support LTU	G5J63A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 9x5 Support E-LTU	G5J63AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 24x7 Support LTU	G5J64A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 24x7 Support E-LTU	G5J64AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 9x5 Support LTU	G5J65A

Configuration Information

Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 9x5 Support E-LTU	G5J65AAE
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 9x5 Support LTU	J8J35A
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 9x5 Support E-LTU	J8J35AAE
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 24x7 Support LTU	J8J36A
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 24x7 Support E-LTU	J8J36AAE

Notes: For more information about HPE's RHEL offering, refer to the QuickSpecs at
https://h20195.www2.hpe.com/v2/GetDocument.aspx?docname=c04123419

Description	SKU
OneView Management Software	
HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
HPE OneView including 3yr 24x7 Support Track 1-server LTU	E5Y36A
HPE OneView w/o iLO Advance including 3yr 24x7 Support Track 1-server LTU	E5Y40A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	E5Y44A
HPE OneView Upgrade from Insight Management including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y45AAE
HPE OneView Upgrade from Insight Management 3yr 24x7 Support 1-server LTU	F6Q91A
HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU	P8B24A
HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU	P8B25A
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE

HPE XL270d Gen10 Server for HPE Ezmeral Container Software

GPU performance compute node: HPE XL270d (Apollo 6500) Gen10 Server for HPE Ezmeral Container Software

The HPE Apollo 6500 Gen10 System and the HPE XL270d Server offer an ideal HPC and dedicated AI/ML/DL platform providing unprecedented density and performance with industry leading GPUs, fast GPU interconnect, high bandwidth fabric and a configurable GPU topology to match your workloads. The ability of computers to autonomously learn, predict, and adapt using massive data sets is driving innovation and competitive advantage across many industries and applications are driving these requirements. This system with rock-solid reliability, availability, and serviceability (RAS) features includes up to eight GPUs per server, NVLink for fast GPU-to-GPU communication, Intel® Xeon® Scalable processors support, choice of high-speed / low latency fabric, and is workload enhanced using flexible configuration capabilities. While aimed at deep learning workloads, the system is suitable for complex simulation and modeling workloads. For the HPE Ezmeral Container Platform software, the XL270d offers a higher density, high performance Ezmeral Machine Learning block.

For more information on the HPE XL270d (Apollo 6500) Gen10 Server, refer to the QuickSpecs for the native version at: **https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00039976enw.**
For more information about the HPE Ezmeral Container Platform, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00056658enw
For more information on the HPE Ezmeral ML Ops Software, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00067742enw

Description	SKU
XL270d Base System	
HPE XL270d Gen10 Server for Ezmeral Container Platform	R0R01A

Notes:
- HPE XL270d Gen10 Server for HPE Ezmeral Container Platform Software may also be ordered with the HPE Ezmeral Machine Learning Ops Software
- Please select one –L21 and one –B21 processor from the following list. For second processor, please select the same processor model with –B21. For example – if first processor selected is P10510-L21, then the second processor should be P10510-B21.

Configuration Information

Step 1: Choose Processor Options
Xeon-Silver

Description	SKU
Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P09588-B21
Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P09588-L21
Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P09589-B21
Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P09589-L21
Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P09590-B21
Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P09590-L21
Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P09591-B21
Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P09591-L21
Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P09610-B21
Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P09610-L21
Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant XL270d Gen10	P09611-B21
Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P09611-L21
Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) Processor Kit for HPE ProLiant XL270d Gen10	P09613-B21
Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P09613-L21
Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) Processor Kit for HPE ProLiant XL270d Gen10	P09615-B21
Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) FIO Processor Kit for HPE ProLiant XL270d Gen10.	P09615-L21
Intel Xeon-Gold 6254 (3.1GHz/18-core/200W) Processor Kit for HPE ProLiant XL270d Gen10	P09957-B21
Intel Xeon-Gold 6254 (3.1GHz/18-core/200W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P09957-L21

Description	SKU

Xeon-Gold

Description	SKU
Intel Xeon-Gold 6152 (2.1GHz/22-core/140W) Processor Kit for HPE ProLiant XL270d Gen10	P01277-B21
Intel Xeon-Gold 6152 (2.1GHz/22-core/140W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P01277-L21
Intel Xeon-Gold 6150 (2.7GHz/18-core/165W) Processor Kit for HPE ProLiant XL270d Gen10	P01278-B21
Intel Xeon-Gold 6150 (2.7GHz/18-core/165W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P01278-L21
Intel Xeon-Gold 6148 (2.4GHz/20-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P01279-B21
Intel Xeon-Gold 6148 (2.4GHz/20-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P01279-L21
Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P01280-B21
Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P01280-L21
Intel Xeon-Gold 6140 (2.3GHz/18-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P01281-B21
Intel Xeon-Gold 6140 (2.3GHz/18-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P01281-L21
Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P01282-B21
Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P01282-L21
Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) Processor Kit for HPE ProLiant XL270d Gen10	P01283-B21
Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P01283-L21
Intel Xeon-Gold 6126 (2.6GHz/12-core/120W) Processor Kit for HPE ProLiant XL270d Gen10	P01284-B21
Intel Xeon-Gold 6126 (2.6GHz/12-core/120W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P01284-L21
Intel Xeon-Gold 6140M (2.3GHz/18-core/140W) Processor Kit for HPE ProLiant XL270d Gen10	P02019-B21
Intel Xeon-Gold 6140M (2.3GHz/18-core/140W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P02019-L21
Intel Xeon-Gold 6142M (2.6GHz/16-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P02020-B21
Intel Xeon-Gold 6142M (2.6GHz/16-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P02020-L21
Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P08156-B21

Configuration Information

Description	SKU
Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P08156-L21
Intel Xeon-Gold 6146 (3.2GHz/12-core/165W) Processor Kit for HPE ProLiant XL270d Gen10	P09134-B21
Intel Xeon-Gold 6146 (3.2GHz/12-core/165W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P09134-L21
Intel Xeon-Gold 6130 (2.1GHz/16-core/125W) Processor Kit for HPE ProLiant XL270d Gen10	P09136-B21
Intel Xeon-Gold 6130 (2.1GHz/16-core/125W) FIO Processor Kit for HPE ProLiant XL270d Gen10.	P09136-L21
Intel Xeon-Gold 5120 (2.2GHz/14-core/105W) Processor Kit for HPE ProLiant XL270d Gen10	P09138-B21
Intel Xeon-Gold 5120 (2.2GHz/14-core/105W) FIO Processor Kit for HPE ProLiant XL270d Gen10.	P09138-L21
Intel Xeon-Gold 6154 (3.0GHz/18-core/200W) Processor Kit for HPE ProLiant XL270d Gen10.	P11490-B21
Intel Xeon-Gold 6154 (3.0GHz/18-core/200W) FIO Processor Kit for HPE ProLiant XL270d Gen10.	P11490-L21
Intel Xeon-Gold 6246 (3.3GHz/12-core/165W) Processor Kit for HPE ProLiant XL270d Gen10	P16870-B21
Intel Xeon-Gold 6246 (3.3GHz/12-core/165W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P16870-L21
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant XL270d Gen10	P24945-B21
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24945-L21
Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P24947-B21
Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24947-L21
Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P24949-B21
Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24949-L21
Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P24951-B21
Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24951-L21
Intel Xeon-Gold 6238R (2.2GHz/28-core/165W) Processor Kit for HPE ProLiant XL270d Gen10	P24953-B21
Intel Xeon-Gold 6238R (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24953-L21
Intel Xeon-Gold 6240R (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant XL270d Gen10	P24955-B21
Intel Xeon-Gold 6240R (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24955-L21
Intel Xeon-Gold 6242R (3.1GHz/20-core/205W) Processor Kit for HPE ProLiant XL270d Gen10	P24957-B21
Intel Xeon-Gold 6242R (3.1GHz/20-core/205W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24957-L21
Intel Xeon-Gold 6246R (3.4GHz/16-core/205W) Processor Kit for HPE ProLiant XL270d Gen10	P24959-B21
Intel Xeon-Gold 6246R (3.4GHz/16-core/205W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24959-L21
Intel Xeon-Gold 6248R (3.0GHz/24-core/205W) Processor Kit for HPE ProLiant XL270d Gen10	P24961-B21
Intel Xeon-Gold 6248R (3.0GHz/24-core/205W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24961-L21
Intel Xeon-Gold 6258R (2.7GHz/28-core/205W) Processor Kit for HPE ProLiant XL270d Gen10	P24967-B21
Intel Xeon-Gold 6258R (2.7GHz/28-core/205W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24967-L21

Description	SKU

Xeon Silver

Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) Processor Kit for HPE ProLiant XL270d Gen10	P16872-B21
Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P16872-L21
Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) Processor Kit for HPE ProLiant XL270d Gen10	P24939-B21
Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24939-L21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) Processor Kit for HPE ProLiant XL270d Gen10	P24941-B21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P24941-L21

Xeon-Platinum

Intel Xeon-Platinum 8270 (2.7GHz/26-core/205W) Processor Kit for HPE ProLiant XL270d Gen10	P10510-B21
Intel Xeon-Platinum 8270 (2.7GHz/26-core/205W) FIO Processor Kit for HPE ProLiant XL270d Gen10.	P10510-L21
Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) Processor Kit for HPE ProLiant XL270d Gen10	P10512-B21
Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) FIO Processor Kit for HPE ProLiant XL270d Gen10.	P10512-L21

Configuration Information

Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant XL270d Gen10	P10514-B21
Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant XL270d Gen10.	P10514-L21
Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) Processor Kit for HPE ProLiant XL270d Gen10	P12226-B21
Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P12226-L21
Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) Processor Kit for HPE ProLiant XL270d Gen10	P12227-B21
Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL270d Gen10.	P12227-L21
Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) Processor Kit for HPE ProLiant XL270d Gen10	P12228-B21
Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO Processor Kit for HPE ProLiant XL270d Gen10.	P12228-L21
Intel Xeon-Platinum 8176 (2.1GHz/28-core/165W) Processor Kit for HPE ProLiant XL270d Gen10	P01276-B21
Intel Xeon-Platinum 8176 (2.1GHz/28-core/165W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P01276-L21
Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) Processor Kit for HPE ProLiant XL270d Gen10	P09583-B21
Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P09583-L21
Intel Xeon-Gold 6240Y (2.6GHz/18-14-8-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P09609-B21
Intel Xeon-Gold 6240Y (2.6GHz/18-14-8-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P09609-L21
Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) Processor Kit for HPE ProLiant XL270d Gen10	P10488-B21
Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL270d Gen10.	P10488-L21
Intel Xeon-Platinum 8280 (2.7GHz/28-core/205W) Processor Kit for HPE ProLiant XL270d Gen10	P16874-B21
Intel Xeon-Platinum 8280 (2.7GHz/28-core/205W) FIO Processor Kit for HPE ProLiant XL270d Gen10	P16874-L21

Notes:
- Processor mixing of different frequencies and Wattage is not supported in any models. The same processor model should always be used when upgrading.
- Recommended Processor - 1x P12226-L21 and P12226-B21 (12 Core/2.7GHz, 125W)

Step 2: Choose Memory Options

Description	SKU
Registered Smart Memory Kit	
HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00920-H21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-H21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	835955-H21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815100-H21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00924-H21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00930-H21
Load Reduced Smart Memory Kit	
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit	815101-H21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P00926-H21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart Memory Kit	P00928-H21

Notes:
- Mixing is not allowed
- If any of these SKUs are selected, then only Qty 12, 16 and 24 are allowed.
- Recommended - 12x P00924-H21 (384GB)
- For maximum throughput the recommended configuration is six DIMMs per CPU. Seven or eight DIMMs per CPU while maximizing memory capacity results in an unbalanced configuration, which will reduce performance. For Gen10 memory performance guidelines, please refer to: **https://www.hpe.com/docs/memory-population-rules.**

Step 3: Choose Hard Drive Options (HDDs and SSDs)

Configuration Information

Drive Cage

HPE DL38X Gen10 Premium 6 SFF SAS/SATA + 2 NVMe or 8 SFF SAS/SATA Bay Kit	826690-B21

Notes: Drive Cage Capacity – MAX=8 of the following: SFF SAS/SATA drive AND/OR MAX=2 NVMe drive.

Hot Plug SFF

HPE 960GB SATA 6G Mixed Use SFF SC SM883 SSD	P09716-H21
HPE 1.92TB SATA 6G Mixed Use SFF SC SM883 SSD	P09722-H21
HPE 2TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD	765455-H21
HPE 1TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty HDD	832514-H21

Description	**SKU**
HPE 7.68TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19909-H21
HPE 15.36TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19911-H21
HPE 6.4TB SAS 12G Mixed Use SFF SC PM1645a SSD	P19919-H21
HPE 7.68TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18430-H21
HPE 3.84TB SAS 12G Read Intensive SFF SC PM5 SSD	P04521-H21
HPE 3.84TB SATA 6G Read Intensive SFF SC PM883 SSD	P04570-H21
HPE 3.84TB SATA 6G Read Intensive SFF SC S4510 SSD	P05946-H21
HPE 3.84TB SATA 6G Mixed Use SFF SC S4610 SSD	P05994-H21
HPE 4TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD	P13697-H21
HPE 3.84TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18428-H21
HPE 3.84TB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18438-H21
HPE 3.84TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19907-H21
HPE 3.84TB SATA 6G Mixed Use SFF SC SM883 SSD	P21517-H21

Notes:
–   If Qty = 9 to 16, Then Min 2 / Max 2 826690-B21 (Drive Bay) is required per server.
–   Recommended - 2x P09716-H21 HPE 960GB SATA MU SFF SC DS SSD AND 3x P04539-H21 HPE HPE 6.4TB SAS MU SFF SC DS SSD AND 1x 765455-H21 HPE 2TB SATA 7.2K SFF SC 512e DS HDD
–   Intended purpose of default storage selections: 2x P09716-H21 HPE 960GB SATA MU SFF SC DS SSD (boot drive configured w/RAID1), 3x P04539-H21 HPE HPE 6.4TB SAS MU SFF SC DS SSD (node storage drives w/RAID5) and 1x 765455-H21 HPE 2TB SATA 7.2K SFF SC 512e DS HDD (Tenant storage w/RAID0)

Configuration Information

Step 4: Choose Networking Options

Description	SKU
PCIe	
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	727055-B21
HPE Ethernet 10Gb 2-port BASE-T X550-AT2 Adapter	817738-B21
HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	817753-B21
HPE Ethernet 10/25Gb 2-port SFP28 QL41401-A2G Adapter	867328-B21
HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter	874253-B21

Notes: Min 0 / Max 5 of any InfiniBand - PCIe and Networking - PCIe, Controllers - SAS PCIe, Graphics PCIe

FlexibleLOM	
HPE Ethernet 1Gb 4-port FLR-T BCM5719 Adapter	629135-B22
HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter	665240-B21
HPE FlexFabric 10Gb 2-port FLR-SFP+ 57810S Adapter	700751-B21
HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter	727054-B21
HPE FlexFabric 10Gb 4-port FLR-T 57840S Adapter	764302-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter	817749-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 QL41401-A2G Converged Network Adapter	867334-B21

Notes:
– Recommended - 1x 817749-B21 HPE Eth 10/25Gb 2P 640FLR-SFP28 Adptr
– Does not consume PCIe Slot

Step 5: Choose Infiniband Options

HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	825111-H21
HPE 100Gb 1-port OP101 QSFP28 x16 PCIe Gen3 with Intel Omni-Path Architecture Adapter	829335-B21
HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter	872725-H21
HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	872726-H21
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	P06154-H21
HPE InfiniBand HDR PCIe3 Auxiliary Card with 350mm Cable Kit	P06154-H23
HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	P06250-H21
HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	P06251-H21

Step 6: Choose Controller Options

SAS – AROC

HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	804331-B21
HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller	804338-B21

Notes:
– If either of these SKUs are selected, Then Min 1 / Max 1 P01836-B22 (HW Raid) is required per server.]
– If either of these SKUs are selected, Then Min 1 / Max 1 P01366-B21 (battery) is required per server.]
– If the 804331 SKU is selected, then Min 1 / Max 1 830824-B21 (SAS PCIe) is required per server.]
– These do not consume a PCIe slot.
– Default (recommended) is 1x 804331-B21-HPE Smart Array P408i-a SR Gen10 Ctrlr

Configuration Information

Description	SKU
SAS – PCIe	
HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	830824-B21

Notes:
- Min 0 / Max 5 of any InfiniBand - PCIe and Networking - PCIe, Controllers - SAS PCIe, Graphics - PCIe.
- If this sku is selected, Then Min 1 P01836-B22 (HW RAID) is required per server.
- If this sku is selected, Then Min 1 P01366-B21 (battery) is required per server.
- If this sku Qty =1 per server, then Min 1 / Max 1 804331-B21 (SAS AROC) is required per server.

Smart Storage Battery	
HPE 96W Smart Storage Lithium-ion Battery with 260mm Cable Kit	P01367-B21
Smart Storage Power Cord	
HPE Apollo 2200W Platinum Hot Plug FIO Power Supply Kit	P01062-B22

Step 7: Choose Graphics Options

PCIe GPU Support	
HPE XL270d Gen10 8 SXM2 GPU FIO Module	P01786-B22
HPE XL270d Gen10 SXM2 Heat Sink FIO Kit	P02939-B22
HPE XL270d Gen10 PCIe GPU FIO Enablement Kit	P03032-B22
HPE XL270d Gen10 v2 8 PCIe GPU FIO Module	P13153-B22

Notes: Only one GPU enablement kit required for 8 GPUs

PCIe	
NVIDIA T4 16GB Computational Accelerator for HPE	R0W29A
NVIDIA Quadro RTX 8000 Graphics Accelerator for HPE	R1F97A
NVIDIA Quadro RTX 6000 Graphics Accelerator for HPE	R0Z45A
SXM2	
NVIDIA V100 SXM2 32GB Computational Accelerator for HPE	Q9U37A

Notes:
- Only one version of GPU can be supported, mixed GPU configurations not supported. Maximum of 8 GPU per GPU module.
- Recommended - 4x Q9U36A V100 PCIe 32GB Module

Modules	
HPE 4:1 GPU:CPU Topology Setting FIO Kit	P03826-B21
HPE 8:1 GPU:CPU Topology Setting FIO Kit	P03829-B21
HPE 4 GPU NVLink Topology A FIO Kit	P12231-B21
HPE 4 GPU NVLink Topology C FIO Kit	P12232-B21
HPE 4 GPU NVLink Topology B FIO Kit	P12237-B21

Notes: Only one topology may be set at a time. This can be reset in the field via BIOS to best match your workload.

HPE ProLiant SL6500 Peer to Peer GPU Mode FIO Kit	782400-B21
HPE ProLiant SL6500 High Performance Computing GPU Mode FIO Kit	782402-B21

Configuration Information

Notes: The two HPE part numbers above allow customers to order card counts QTY (2, 4 and 6) with the correct slot population to optimize performance and thermals for their workloads. Both can be chosen with either 4:1 or 8:1 topologies. For workloads that have a great deal of GPU to GPU communications, e.g. Deep Learning, the "HPE Peer to Peer GPU Mode FIO Kit" is recommended. Most traditional HPC workloads have little GPU to GPU communications and the HPE High Performance GPU Mode FIO Kit" configuration will optimize bandwidth back to the CPU and system main memory.

Description	SKU
NVLink GPU Support	
HPE XL270d Gen10 8 SXM2 GPU FIO Module	P01786-B22
HPE XL270d Gen10 SXM2 Heat Sink FIO Kit	P02939-B22

Notes:
- SXM-2 heatsink kit supports 4 x NVLink enabled SXM-2 GPU per kit
- Configurations of 4 or 8 SXM-2 GPU supported

NVIDIA V100 SXM2 32GB Computational Accelerator for HPE	Q9U37A

Notes: Only one version of GPU supported, mixed GPU configurations not supported. Maximum of 8 GPUs per GPU Module.

Step 8: Choose Power Supply & Cord Options

Power Supplies

HPE Apollo 2200W Platinum Hot Plug FIO Power Supply Kit	P01062-B22

Notes: If this sku is selected, Then Min 2 / Max 2 of the following power cords are required. Qty of Power Cords must = Qty of Power Supplies.
- o   HPE Pwr Crd C15 US 2.5m Blk
- o   HPE Pwr Crd C15 Europe 2.5m Blk
- o   HPE Pwr Crd C15 UK 2.5m Blk
- o   HPE Pwr Crd C15 China 2.5m Blk
- o   HPE Jmp Crd C15 US 2.5m Blk
- o   HPE Jmp Crd C15 Europe 2.5m Blk
- o   HPE Jmp Crd C15 US 0.76m Blk
- o   HPE Jmp Crd C15 Europe 0.76m Blk
- o   HPE Jmp Crd C15 US 1.0m Blk
- o   HPE Jmp Crd C15 Europe 1.0m Blk
- o   HPE C15-C14 IN 250V 2.5m Blk Jumper Cord
- o   HPE C15-C14 IN 250V 1m Blk Jumper Cord

Description	SKU
Power Cords	
HPE C15 - NEMA 6-20P 250V 15Amp Black 2.5m US Power Cord	Q7F42A
HPE C15 EU 250V 10Amp 2.5m Black Power Cord	Q7F45A
HPE C15 UK 250V 10Amp 2.5m Black Power Cord	Q7F46A
HPE C15 CN 250V 10Amp 2.5m Black Power Cord	Q7F53A
HPE C15 US 250V 10Amp 2.5m Black Jumper Cord	Q7F57A
HPE C15 EU 250V 10Amp 2.5m Black Jumper Cord	Q7F58A
HPE C15 US 250V 10Amp 0.76m Black Jumper Cord	Q7F59A
HPE C15 EU 250V 10Amp 0.76m Black Jumper Cord	Q7F60A
HPE C15 US 250V 10Amp 1m Black Jumper Cord	Q7F61A
HPE C15 EU 250V 10Amp 1m Black Jumper Cord	Q7F62A
HPE C15-C14 IN 250V 10Amp 2.5m Black Jumper Cord	R1C67A
HPE C15-C14 IN 250V 10Amp 1m Black Jumper Cord	R1C68A
HPE C13-C14 IN 250V 10Amp 2m Black Jumper Cord	R1C65A

Configuration Information

Step 9: Choose Rack Options

Description	SKU
HPE XL270d Gen10 Rail Kit	P02008-B21

Step 10: Choose HPE Ezmeral Container Platform software or HPE Ezmeral Machine Learning Ops Software Subscriptions

Each subscription SKU includes a term license to use on one physical CPU core or two virtual CPUs, plus the associated support with 24x7 or 9x5 coverage via an MCC, for the term of 1, 2, 3, 4 or 5 years for the HPE Ezmeral Container Platform or the HPE Ezmeral Machine Learning Ops Software. For the duration of the term, the customer has rights to new versions of the respective software.

Notes: The following end user information (entity that will own/utilize the subscription) will be required at the time of order to receive the electronic license from HPE license services:

- o End User Company Name
- o End User Company Address (please include the full address: street name, number, city, state, and zip code)
- o End User Customer contact name
- o End User Email Address
- o Reseller Name and Address
- o Distributor Name and Address

Option Codes

An option code must be specified when ordering the HPE Ezmeral Container Platform Select Subscription or the HPE Ezmeral Machine Learning Ops Select subscription. The option code specifies how the subscription will be deployed in the customer's environment

New Cluster Subscription (New HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops cluster)	#001
Expansion of Existing Cluster Sub (Expanding an existing HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops cluster with more cores or servers)	#002
Repurchase for Existing Subscription (Repurchase of existing HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops Subscription)	#003

HPE Ezmeral Container Platform Select Subscriptions for HPE Apollo Building Blocks

HPE Ezmeral Container Platform "Select" subscriptions may only be configured and ordered with the HPE Apollo Building Blocks and other select HPE Servers (including Synergy SY480 (R3B69A), EdgeLine 4000 (R3B67A, R3B68A) and EdgeLine 8000 (R3B66A)). Customers intending to deploy HPE Ezmeral Container Platform software on other HPE Servers or non-HPE hardware platforms must order the HPE Ezmeral Container Platform Universal subscription.

Description	SKU
HPE Ezmeral Container Platform 1-year Select Subscription 24x7 Support E-LTU	R4T44AAE
HPE Ezmeral Container Platform 1-year Select Subscription 9x5 Support E-LTU	R4T45AAE
HPE Ezmeral Container Platform 2-year Select Subscription 24x7 Support E-LTU	R4T46AAE
HPE Ezmeral Container Platform 2-year Select Subscription 9x5 Support E-LTU	R4T47AAE
HPE Ezmeral Container Platform 3-year Select Subscription 24x7 Support E-LTU	R4T48AAE
HPE Ezmeral Container Platform 3-year Select Subscription 9x5 Support E-LTU	R4T49AAE
HPE Ezmeral Container Platform 4-year Select Subscription 24x7 Support E-LTU	R4T50AAE
HPE Ezmeral Container Platform 4-year Select Subscription 9x5 Support E-LTU	R4T51AAE
HPE Ezmeral Container Platform 5-year Select Subscription 24x7 Support E-LTU	R4T52AAE
HPE Ezmeral Container Platform 5-year Select Subscription 9x5 Support E-LTU	R4T53AAE

HPE Ezmeral Machine Learning Ops Select Subscriptions for HPE Apollo Building Blocks

HPE Ezmeral Machine Learning Ops "Select" subscriptions may only be configured and ordered with the HPE Apollo Building Blocks and other select HPE Servers (including Synergy SY480 (R3B69A), EdgeLine 4000 (R3B67A, R3B68A) and EdgeLine

Configuration Information

8000 (R3B66A)).. Customers intending to deploy HPE Ezmeral Machine Learning Ops software on other HPE Servers or non-HPE hardware platforms must order the HPE Ezmeral Machine Learning Ops universal subscription.

HPE Ezmeral Machine Learning Ops 1yr Select Subscription 24x7 Support E-LTU	R4T64AAE
HPE Ezmeral Machine Learning Ops 1yr Select Subscription 9x5 Support E-LTU	R4T65AAE
HPE Ezmeral Machine Learning Ops 2yr Select Subscription 24x7 Support E-LTU	R4T66AAE
HPE Ezmeral Machine Learning Ops 2yr Select Subscription 9x5 Support E-LTU	R4T67AAE
HPE Ezmeral Machine Learning Ops 3yr Select Subscription 24x7 Support E-LTU	R4T68AAE
HPE Ezmeral Machine Learning Ops 3yr Select Subscription 9x5 Support E-LTU	R4T69AAE
HPE Ezmeral Machine Learning Ops 4yr Select Subscription 24x7 Support E-LTU	R4T70AAE
HPE Ezmeral Machine Learning Ops 4yr Select Subscription 9x5 Support E-LTU	R4T71AAE
HPE Ezmeral Machine Learning Ops 5yr Select Subscription 24x7 Support E-LTU	R4T72AAE
HPE Ezmeral Machine Learning Ops 5yr Select Subscription 9x5 Support E-LTU	R4T73AAE

Notes:
- HPE Ezmeral Machine Learning Ops Software includes all the same functionality provided with the HPE Ezmeral Container Platform software, as well as new Ezmeral Machine learning functionality delivered with HPE Ezmeral Machine Learning Ops Software
- A customer may order up to 30% more subscriptions than Apollo-based building block physical CPU cores at the time of purchasing the Apollo building block SKUs. These additional subscription SKUs are for deployment in public cloud to form a hybrid cloud cluster with the Apollo building blocks.

Total Server CPU Cores	HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software - Minimum Subs	HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software - Maximum Subs (Comprehends additional 30% for Virtual CPU's)
16	16	20
20	20	24
24	24	32
28	28	36
32	32	40
36	36	44
40	40	52
44	44	56
48	48	62

Step 11: Choose Service and Support Options

The following Services and Attach Rules apply equally to both the HPE Ezmeral Container Platform software as well as the HPE Ezmeral Machine Learning Ops Software, even when the Description only states "HPE Ezmeral Container Platform".

HPE Ezmeral Container Platform Deployment and Integration Services

Description	SKU
HPE Ezmeral Platform Quickstart SVC	HG0U6A1
HPE Ezmeral Platform Essential SVC	HU1E1A1
HPE Ezmeral Platform Advanced SVC	HU1E2A1
HPE Ezmeral Platform Premium SVC	HU1E3A1
HPE Ezmeral Platform App Store Dev SVC	HU1E4A1
HPE Ezmeral Platform Image/ML Dev SVC	HU1E5A1
HPE Ezmeral Platform Tailor Img Dsgn SVC	HU1E6A1
HPE Ezmeral Platform Custom Cnslt SVC	HU1E7A1

Configuration Information

Notes:
- For a new cluster deployment of up to 120 subscription SKUs, you must select HPE Ezmeral Container Platform Quickstart Configuration Service (HG0U6A1)
- For a new cluster deployment of above 120 subscription SKUs, but less than or equal to 240 subscription SKUs, you must select HPE Ezmeral Container Platform Essential Configuration Service (HU1E1A1)
- For a new cluster deployment above 240 subscription SKUs, but less than or equal to 480 subscription SKUs, you must select HPE Ezmeral Container Platform Advanced Configuration Service (HU1E2A1)
- For a new cluster deployment above 480 subscription SKUs but less than or equal to 1200 subscription SKUs, you must select HPE Ezmeral Container Platform Premium Configuration Service (HU1E3A1)
- For a new cluster deployment of greater than 1200 subscription SKUs, you must use the HPE Ezmeral Container Platform custom build SKU (HU1E7A1)

Support on HPE Apollo servers

For the HPE Apollo Building Blocks and HPE Ezmeral Container Platform software or HPE Ezmeral Machine Learning Ops Software, HPE recommends HPE Tech Care. The customer will only receive a whole product support experience for the Apollo Building Blocks and the respective software if they order Tech Care. With any lower level Packaged Service the customer will need to log separate cases for Apollo hardware from cases filed for HPE Ezmeral Container Platform or Ezmeral Machine Learning Ops Software. HPE Tech Care gives customers an enhanced call experience. When your products are connected to HPE, Tech Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice This Service combines three years proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.

Description	SKU
Installation and Startup Services	
HPE Install ProLiant XL170r Gen10 Service	HA113A1#5BW
HPE Install Apollo r2600 24SFF-PREM Service	HA113A2#58Y
HPE Install ProLiant XL190r Gen10 Service	HA113A1#5BW
HPE Install Apollo 6500 Gen10 service	HA113A1#5VW
HPE Install Apollo 4200 Gen10 Service	HA113A1#58Y
Tech Care	
HPE Tech Care 3 Year 24x7 Service	H1K92A3#xxx
Tech Care	
HPE Tech Care 3 Year 24x7 Service	H7J34A3#xxx
HPE Ezmeral Container Platform Customer Education	
HPE Training Credit Data Analytics SVC	H9P13A1

Notes:
- For a new cluster deployment of up to 120 subscription SKUs, you must order 8 Big Data Training credits
- For a new cluster deployment of above 120 subscription SKUs, but less than or equal to 240 subscription SKUs, you must order 8 Big Data Training Credits
- For a new cluster deployment above 240 subscription SKUs, but less than or equal to 480 subscription SKUs, you must order 14 Big Data Training Credits
- For a new cluster deployment above 480 subscription SKUs but less than or equal to 1200 subscription SKUs, you must order 22 Big Data Training Credits
- For a new cluster deployment of over 1200 subscription SKUs, a custom training plan must be generated.

Configuration Information

Additional Options

Solution Software Options

iLO Advanced

HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	512485-B21
HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features	512486-B21
HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features	512487-B21
HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	BD505A
HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features	BD506A
HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE

ProLiant Software

HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE

SmartCache

HPE Smart Array SR SmartCache (Single Key/Single Server) LTU	D7S26A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) LTU	D7S27A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) E-LTU	D7S27AAE

Cloudera & Hortonworks

Cloudera Enterprise Basic Edition 1 Year Subscription per Node 24x7 Support E-LTU	G7M27AAE
Cloudera Enterprise Basic Edition 1 Year Subscription per Node 8x5 Support E-LTU	G7M28AAE
Cloudera Enterprise Data Hub Edition 1 Year Subscription per Node 24x7 Support E-LTU	G7M29AAE
Cloudera Enterprise Data Hub Edition 1 Year Subscription per Node 8x5 Support E-LTU	G7M30AAE
Cloudera Hortonworks Data Platform Enterprise Plus 1 Node 1yr 24x7 Support E-LTU	P9A25AAE
Cloudera Enterprise Basic Edition 3 Year Subscription per Node 8x5 Support E-LTU	P9A42AAE
Cloudera Enterprise Data Hub Edition 3 Year Subscription per Node 24x7 Support E-LTU	P9A43AAE
Cloudera Enterprise Data Hub Edition 3 Year Subscription per Node 8x5 Support E-LTU	P9A44AAE
Cloudera Enterprise Data Engineering Edition 1yr Subscription per Node 8x5 Bronze Support E-LTU	P9V12AAE
Cloudera Enterprise Data Engineering Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V13AAE
Cloudera Enterprise Operational Database Edition 1yr Subscription per Node 8x5 Bronze Support E-LTU	P9V14AAE
Cloudera Enterprise Operational Database Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V15AAE
Cloudera Enterprise Analytical Database Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V17AAE
Cloudera Enterprise Data Engineering Edition 3yr Subscription per Node 24x7 Gold Support E-LTU	P9V18AAE

HPC Software Products

HPE Performance Cluster Manager 1 Node 3yr 24x7 Support Perpetual LTU	Q9V60A
HPE Performance Cluster Manager 1 Node 3yr 24x7 Support Perpetual E-LTU	Q9V60AAE
HPE Performance Cluster Manager Media Kit	Q9V62A

Configuration Information

Description	SKU
Red Hat Enterprise Linux Server	
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 24x7 Support LTU	G3J28A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 24x7 Support E-LTU	G3J28AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 9x5 Support LTU	G3J29A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 9x5 Support E-LTU	G3J29AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 24x7 Support LTU	G3J30A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 24x7 Support E-LTU	G3J30AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 9x5 Support LTU	G3J31A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 9x5 Support E-LTU	G3J31AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 24x7 Support LTU	G3J32A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 24x7 Support E-LTU	G3J32AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 9x5 Support LTU	G3J33A
Red Hat Enterprise Linux Server 2 Sockets or Guests 5 Year Subscription 9x5 Support E-LTU	G3J33AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 24x7 Support LTU	G5J62A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 24x7 Support E-LTU	G5J62AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 9x5 Support LTU	G5J63A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 9x5 Support E-LTU	G5J63AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 24x7 Support LTU	G5J64A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 24x7 Support E-LTU	G5J64AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 9x5 Support LTU	G5J65A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 9x5 Support E-LTU	G5J65AAE
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 9x5 Support LTU	J8J35A
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 9x5 Support E-LTU	J8J35AAE
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 24x7 Support LTU	J8J36A
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 24x7 Support E-LTU	J8J36AAE

Notes: For more information about HPE's RHEL offering, refer to the QuickSpecs at
https://h20195.www2.hpe.com/v2/GetDocument.aspx?docname=c04123419

Description	SKU
OneView Management Software	
HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
HPE OneView including 3yr 24x7 Support Track 1-server LTU	E5Y36A
HPE OneView w/o iLO Advance including 3yr 24x7 Support Track 1-server LTU	E5Y40A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	E5Y44A
HPE OneView Upgrade from Insight Management including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y45AAE
HPE OneView Upgrade from Insight Management 3yr 24x7 Support 1-server LTU	F6Q91A
HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU	P8B24A
HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU	P8B25A
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE

Configuration Information

HPE Apollo 4200 Gen10 Server for HPE Ezmeral Container Platform Software
Storage only or coupled (compute + storage) node: HPE Apollo 4200 Gen10 Server for HPE Ezmeral Container Platform Software

HPE Apollo 4200 Gen10 servers may be used as HPE Ezmeral Container Platform managed Tenant storage, or co-located server and storage (Symmetric). The second option is it may be used as non-HPE Ezmeral Container Platform managed storage. If the Apollo 4200 is used as a non-HPE Ezmeral Container Platform managed storage node only, a HPE Ezmeral Container Platform license subscription is not required for that node. However if it is used for HPE Ezmeral Container Platform Tenant Storage or as a co-located server, then a HPE Ezmeral Container Platform license subscription license is required (either the HPE Ezmeral Container Platform software, or the HPE Ezmeral Machine Learning Ops software).

When the Apollo 4200 Gen10 Server is used as a storage only node, it will typically be part of the HDFS storage layer, providing a single repository for Big Data. The HPE Apollo 4200 allows you to save valuable data center space through its unique density optimized 2U form factor which holds up to 28 LFF disks and with capacity for up to 224 TB per server. It has the ability to grow your Big Data solutions with an infrastructure that is ready to scale. Another benefit is that the HPE Apollo 4200 fits easily into standard racks with a depth of 32-inches per server – no special racks are required.

For more information about the HPE Apollo 4200 Gen10 Server, refer to the QuickSpecs for the native version at:
https://h20195.www2.hpe.com/v2/GetDocument.aspx?docname=a00056091enw.
For more information about the HPE Ezmeral Container Platform, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00056658enw
For more information on the HPE Ezmeral ML Ops Software, refer to the QuickSpecs at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00067742enw

Description	SKU
HPE Apollo 4200 Base System	
HPE Apollo 4200 Gen10 24LFF Server for Ezmeral Container Platform	R0R02A

Notes:
- HPE Apollo 4200 Gen10 Server for HPE Ezmeral Container Platform Software may also be ordered with the HPE Ezmeral Machine Learning Ops Software
- When using the Apollo 4200 Gen10 Server for HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software, you must choose the type of architecture it will be deployed into:
- HPE Ezmeral Container Platform Tenant Storage or Coupled Node – the Apollo 4200 is used as a storage only node for HPE Ezmeral Container Platform Tenant storage and managed by HPE Ezmeral Container Platform, or as a "Coupled" compute and storage node combined. In either case a HPE Ezmeral Container Platform Software subscription is required (Either HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops software)
- Non-HPE Ezmeral Container Platform managed storage - the Apollo 4200 may be used as a storage only node for an existing HDFS data lake and to be accessed via DataTap, but is not managed by HPE Ezmeral Container Platform software in which case no HPE Ezmeral Container Platform subscription is required.
- Please select one –L21 and one –B21 processor from the following list. For second processor, please select the same processor model with –B21. For example – if first processor selected is P08054-L21, then the second processor should be P08054-B21.

Configuration Information

Step 1: Choose Processor Options

Description	SKU
Xeon-Silver	
Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit for HPE Apollo 4200 Gen10.	P07903-B21
Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit for HPE Apollo 4200 Gen10.	P07903-L21
Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) Processor Kit for HPE Apollo 4200 Gen10	P07904-B21
Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit for HPE Apollo 4200 Gen10.	P07904-L21
Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) Processor Kit for HPE Apollo 4200 Gen10.	P07905-B21
Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO Processor Kit for HPE Apollo 4200 Gen10.	P07905-L21
Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) Processor Kit for HPE Apollo 4200 Gen10.	P07906-B21
Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO Processor Kit for HPE Apollo 4200 Gen10.	P07906-L21
Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) Processor Kit for HPE Apollo 4200 Gen10	P07907-B21
Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit for HPE Apollo 4200 Gen10.	P07907-L21
Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) Processor Kit for Apollo 4200 Gen10	P07908-B21
Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) FIO Processor Kit for Apollo 4200 Gen10.	P07908-L21
Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) Processor Kit for Apollo 4200 Gen10.	P07910-B21
Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO Processor Kit for Apollo 4200 Gen10	P07910-L21
Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) Processor Kit for Apollo 4200 Gen10.	P07911-B21
Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit for Apollo 4200 Gen10.	P07911-L21
Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) Processor Kit for Apollo 4200 Gen10	P07912-B21
Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit for Apollo 4200 Gen10.	P07912-L21
Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) Processor Kit for HPE Apollo 4200 Gen10	P07913-B21
Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO Processor Kit for Apollo 4200 Gen10.	P07913-L21
Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) Processor Kit for HPE Apollo 4200 Gen10	P07914-B21
Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO Processor Kit for HPE Apollo 4200 Gen10	P07914-L21
Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) Processor Kit for HPE Apollo 4200 Gen10.	P07915-B21
Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor Kit for HPE Apollo 4200 Gen10.	P07915-L21
Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) Processor Kit for HPE Apollo 4200 Gen10	P07916-B21
Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit for HPE Apollo 4200 Gen10.	P07916-L21
Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) Processor Kit for HPE Apollo 4200 Gen10.	P07917-B21
Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) FIO Processor Kit for HPE Apollo 4200 Gen10	P07917-L21
Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) Processor Kit for HPE Apollo 4200 Gen10.	P07918-B21
Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) FIO Processor Kit for HPE Apollo 4200 Gen10.	P07918-L21
Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) Processor Kit for Apollo 4200 Gen10	P12708-B21
Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO Processor Kit for Apollo 4200 Gen10.	P12708-L21
Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) Processor Kit for Apollo 4200 Gen10.	P12709-B21
Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO Processor Kit for Apollo 4200 Gen10.	P12709-L21
Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) Processor Kit for Apollo 4200 Gen10	P12710-B21
Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO Processor Kit for Apollo 4200 Gen10.	P12710-L21
Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) Processor Kit for HPE Apollo 4200 Gen10	P19701-B21
Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) FIO Processor Kit for HPE Apollo 4200 Gen10	P19701-L21
Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) Processor Kit for HPE Apollo 4200 Gen10	P19703-B21
Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) FIO Processor Kit for HPE Apollo 4200 Gen10	P19703-L21

Configuration Information

Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) Processor Kit for HPE Apollo 4200 Gen10	P19705-B21
Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) FIO Processor Kit for HPE Apollo 4200 Gen10	P19705-L21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) Processor Kit for HPE Apollo 4200 Gen10	P24701-B21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) FIO Processor Kit for HPE Apollo 4200 Gen10	P24701-L21
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) Processor Kit for HPE Apollo 4200 Gen10	P24702-B21
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) FIO Processor Kit for HPE Apollo 4200 Gen10	P24702-L21
Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) Processor Kit for HPE Apollo 4200 Gen10	P24703-B21
Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) FIO Processor Kit for HPE Apollo 4200 Gen10	P24703-L21
Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) Processor Kit for HPE Apollo 4200 Gen10	P24704-B21
Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) FIO Processor Kit for HPE Apollo 4200 Gen10	P24704-L21
Intel Xeon-Gold 6238R (2.2GHz/28-core/165W) Processor Kit for HPE Apollo 4200 Gen10	P24705-B21
Intel Xeon-Gold 6238R (2.2GHz/28-core/165W) FIO Processor Kit for HPE Apollo 4200 Gen10	P24705-L21
Intel Xeon-Gold 6240R (2.4GHz/24-core/165W) Processor Kit for HPE Apollo 4200 Gen10	P24706-B21
Intel Xeon-Gold 6240R (2.4GHz/24-core/165W) FIO Processor Kit for HPE Apollo 4200 Gen10	P24706-L21

Notes:
– Processor mixing of different frequencies and Wattage is not supported in any models. The same processor model should always be used when upgrading
– Recommended Processor -
– If HPE Ezmeral Container Platform Tenant Storage or Coupled is selected, Then recommendation is 1x P12708-B21 and 1x P12708-L21
– If Non-HPE Ezmeral Container Platform Managed Storage is selected, Then recommendation is 1x P07905-B21 and 1x P07905-L21

Step 2: Choose Memory Options [Category of SKUs]

Description	SKU
Registered Smart Memory Kit	
HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00920-K21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-K21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	835955-K21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00924-K21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815100-K21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00930-K21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P00926-K21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart Memory Kit	P00928-K21
HPE 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P11040-K21
Load Reduced Smart Memory Kit	
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit	815101-K21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart Memory Kit	P00928-K21

Notes:
– Mixing is not allowed
– The only allowed Quantities are 12, 14 and 16
– Recommendation for HPE Ezmeral Container Platform Tenant Storage or Coupled, as well as Non-HPE Ezmeral Container Platform Managed storage is the same - 12x P00924-K21

Configuration Information

– For maximum throughput the recommended configuration is six DIMMs per CPU. Seven or eight DIMMs per CPU while maximizing memory capacity results in an unbalanced configuration, which will reduce performance. For Gen10 memory performance guidelines, please refer to: **https://www.hpe.com/docs/memory-population-rules**

Step 3: Choose Hard Drive Options (HDDs and SSDs)

Drive Cage

HPE Apollo 4200 Gen10 4LFF Rear Drive Cage Kit	P07943-B21

Hot Plug LFF

HPE 1TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty HDD	861686-K21
HPE 2TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty HDD	861681-K21
HPE 4TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty HDD	861683-K21
HPE 8TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e HDD	834028-K21
HPE 6TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e HDD	861742-K21
HPE 12TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e HDD	881787-K21
HPE 2TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty HDD	833926-K21
HPE 4TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty HDD	833928-K21
HPE 6TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e HDD	861746-K21
HPE 8TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e HDD	834031-K21
HPE 12TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e HDD	881781-K21
HPE 14TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	P09165-K21

Hot Plug SFF

HPE 7.68TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18430-K21
HPE 6.4TB SAS 12G Mixed Use SFF SC PM1645a SSD	P19919-K21
HPE 7.68TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19909-K21
HPE 15.36TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19911-K21
HPE 3.84TB SAS 12G Read Intensive SFF SC PM5 SSD	P04521-K21
HPE 3.84TB SATA 6G Read Intensive SFF SC PM883 SSD	P04570-K21
HPE 3.84TB SATA 6G Read Intensive SFF SC S4510 SSD	P05946-K21
HPE 3.84TB SATA 6G Mixed Use SFF SC S4610 SSD	P05994-K21
HPE 4TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD	P13697-K21
HPE 3.84TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18428-K21
HPE 3.84TB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18438-K21
HPE 3.84TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19907-K21

Notes:
– If Select Purpose is Symmetric or "Coupled", then Min = 3 SSD drive is required per server.
– Recommended - Default
– If Deployment = HPE Ezmeral Container Platform Tenant Storage or Coupled Node, then recommendation is 2x P04531-K21 AND 24x 861742-K21
– If Deployment = Non-HPE Ezmeral Container Platform Managed Storage, Then recommendation is 2x P04531-K21 AND 24x 861683-K21
– Intended purpose of default storage selections:
– If Deployment = HPE Ezmeral Container Platform Tenant Storage or Coupled Node, 2x P04531-K21 (boot drive) and 24x 861742-K21 (Tenant Storage)
– If Deployment = Non-HPE Ezmeral Container Platform Managed Storage, 2x P04531-K21 (boot drive) and 24x 861683-K21 for HDFS expansion

Configuration Information

Step 4: Choose Factory Configuration Setting Options

Description	SKU
Controller State	
HPE Smart Array E/P SR FIO Controller Mode for Rear Storage	P09656-B21

Step 5: Choose Infiniband Options

PCIe

HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	825111-B21
HPE 100Gb 1-port OP101 QSFP28 x16 PCIe Gen3 with Intel Omni-Path Architecture Adapter	829335-B21
HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter	872725-B21
HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	872726-B21

Notes: PCIe 3.0 x8 // FH or LP = Min 0 / Max 5 of any InfiniBand - PCIe and Networking - PCIe, Controllers - SAS PCIe.
PCIe 3.0 x16 // FH or LP = Min 0 / Max 4 of any InfiniBand - PCIe and Networking - PCIe, Controllers - SAS PCIe.

Step 6: Choose Networking Options

PCIe

HPE Ethernet 10Gb 2-port SFP+ 57810S Adapter	652503-B21
HPE Ethernet 10Gb 2-port BASE-T 57810S Adapter	656596-B21
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	727055-B21
HPE Ethernet 10Gb 2-port BASE-T BCM57416 Adapter	813661-B21
HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter	817718-B21
HPE Ethernet 10Gb 2-port BASE-T X550-AT2 Adapter	817738-B21
HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	817753-B21
HPE Ethernet 10/25Gb 2-port SFP28 QL41401-A2G Adapter	867328-B21
HPE Ethernet 10Gb 2-port BASE-T QL41401-A2G Adapter	867707-B21
HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter	874253-B21
HPE Ethernet 40Gb 2-port QSFP+ XL710-QDA2 Adapter	P05891-B21

Notes:
– PCIe 3.0 x8 // FH or LP = Min 0 / Max 5 of any InfiniBand - PCIe and Networking - PCIe, Controllers - SAS PCIe.
– PCIe 3.0 x16 // FH or LP = Min 0 / Max 4 of any InfiniBand - PCIe and Networking - PCIe, Controllers - SAS PCIe.
– Recommended - is Qty 1x 817753-B21 HPE Eth 10/25Gb 2P 640SFP28 Adapter

Step 7: Choose Controller Options

Description	SKU
SAS PCIe	
HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	830824-B21

Notes:
– Min 0 / Max 5 of any InfiniBand - PCIe and Networking - PCIe, Controllers - SAS PCIe.
– PCIe 3.0 x8 // FH or LP = Min 0 / Max 5 of any InfiniBand - PCIe and Networking - PCIe, Controllers - SAS PCIe.
– PCIe 3.0 x16 // FH or LP = Min 0 / Max 4 of any InfiniBand - PCIe and Networking - PCIe, Controllers - SAS PCIe.

SAS AROC	
HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular LH Controller	869081-B21
HPE Smart Array P816i-a SR Gen10 (16 Int Lanes/4GB Cache/SmartCache) 12G SAS Modular LH Controller	869083-B21
HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804394-B21

Configuration Information

HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular LH Controller	869079-B21

Notes:
- Default (recommended) is 1x 869081-B21.
- [Insert note relevant to this step or specific SKU within this step.
- Does not consume a PCIe slot.

Upgrade

HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	P01366-B21

Step 8: Choose Power Supply and Rack Options

Power Supplies

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865414-B21

Notes:
- Mixing is not allowed.
- If 830272-B21 is selected – that power supply only supports high line voltage (200VAC to 240VAC).

Rack Options

HPE Apollo 4200 Gen9 FIO Strap Shipping Bracket	822640-B21
HPE 2U Shelf-Mount Adjustable Rail Kit	822731-B21

Notes:
- Max of 1 of this SKU per server.
- If R0Q99A is selected with #0D1(integrated to a rack), Then Min 1 / Max 1 of this SKU is required per server.
- Default (Recommended) is Qty 1x 822640-B21 HPE Apollo 4200 Gen9 FIO Strap Ship Brkt and 1x 822731-B21 HPE 2U Shelf-Mount Adjustable Rail Kit.

Step 9: Choose HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software Subscriptions

Each subscription SKU includes a term license to use on one physical CPU core or two virtual CPUs, plus the associated support with 24x7 or 9x5 coverage via an MCC, for the term of 1, 2, 3, 4 or 5 years for the HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops Software. For the duration of the term, the customer has rights to new versions of the respective software.

Notes: The following end user information (entity that will own/utilize the subscription) will be required at the time of order to receive the electronic license from HPE license services:
- End User Company Name
- End User Company Address (please include the full address: street name, number, city, state, and zip code)
- End User Customer contact name
- End User Email Address
- Reseller Name and Address
- Distributor Name and Address

Option Codes

An option code must be specified when ordering the HPE Ezmeral Container Platform Select subscription or the HPE Ezmeral Machine Learning Ops Select Subscriptions. The option code specifies how the subscription will be deployed in the customer's environment.

New Cluster Subscription (New HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops cluster)	#001
Expansion of Existing Cluster Sub (Expanding an existing HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops cluster with more cores or servers)	#002
Repurchase for Existing Subscription (Repurchase of Existing HPE Ezmeral Container Platform or HPE Ezmeral Machine Learning Ops Subscription)	#003

Configuration Information

HPE Ezmeral Container Platform Select Subscriptions for HPE Apollo Building Blocks

HPE Ezmeral Container Platform "Select" subscriptions may only be configured and ordered with the HPE Apollo Building Blocks and other select HPE Servers (including Synergy SY480 (R3B69A), EdgeLine 4000 (R3B67A, R3B68A) and EdgeLine 8000 (R3B66A)). Customers intending to deploy HPE Ezmeral Container Platform software on other HPE Servers or non-HPE hardware platforms must order the HPE Ezmeral Container Platform Universal subscription.

Description	SKU
HPE Ezmeral Container Platform 1-year Select Subscription 24x7 Support E-LTU	R4T44AAE
HPE Ezmeral Container Platform 1-year Select Subscription 9x5 Support E-LTU	R4T45AAE
HPE Ezmeral Container Platform 2-year Select Subscription 24x7 Support E-LTU	R4T46AAE
HPE Ezmeral Container Platform 2-year Select Subscription 9x5 Support E-LTU	R4T47AAE
HPE Ezmeral Container Platform 3-year Select Subscription 24x7 Support E-LTU	R4T48AAE
HPE Ezmeral Container Platform 3-year Select Subscription 9x5 Support E-LTU	R4T49AAE
HPE Ezmeral Container Platform 4-year Select Subscription 24x7 Support E-LTU	R4T50AAE
HPE Ezmeral Container Platform 4-year Select Subscription 9x5 Support E-LTU	R4T51AAE
HPE Ezmeral Container Platform 5-year Select Subscription 24x7 Support E-LTU	R4T52AAE
HPE Ezmeral Container Platform 5-year Select Subscription 9x5 Support E-LTU	R4T53AAE

HPE Ezmeral Machine Learning Ops Select Subscriptions for HPE Apollo Building Blocks

HPE Ezmeral Machine Learning Ops "Select" subscriptions may only be configured and ordered with the HPE Apollo Building Blocks and other select HPE Servers (including Synergy SY480 (R3B69A), EdgeLine 4000 (R3B67A, R3B68A) and EdgeLine 8000 (R3B66A)). Customers intending to deploy HPE Ezmeral Machine Learning Ops software on other HPE Servers or non-HPE hardware platforms must order the HPE Ezmeral Machine Learning Ops universal subscription.

HPE Ezmeral Machine Learning Ops 1-year Select Subscription 24x7 Support E-LTU	R4T64AAE
HPE Ezmeral Machine Learning Ops 1-year Select Subscription 9x5 Support E-LTU	R4T65AAE
HPE Ezmeral Machine Learning Ops 2-year Select Subscription 24x7 Support E-LTU	R4T66AAE
HPE Ezmeral Machine Learning Ops 2-year Select Subscription 9x5 Support E-LTU	R4T67AAE
HPE Ezmeral Machine Learning Ops 3-year Select Subscription 24x7 Support E-LTU	R4T68AAE
HPE Ezmeral Machine Learning Ops 3-year Select Subscription 9x5 Support E-LTU	R4T69AAE
HPE Ezmeral Machine Learning Ops 4-year Select Subscription 24x7 Support E-LTU	R4T70AAE
HPE Ezmeral Machine Learning Ops 4-year Select Subscription 9x5 Support E-LTU	R4T71AAE
HPE Ezmeral Machine Learning Ops 5-year Select Subscription 24x7 Support E-LTU	R4T72AAE
HPE Ezmeral Machine Learning Ops 5-year Select Subscription 9x5 Support E-LTU	R4T73AAE

Notes: HPE Ezmeral Machine Learning Ops Software includes all the same functionality provided with the HPE Ezmeral Container Platform software

Total Server CPU Cores	HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software - Minimum Subs	HPE Ezmeral Container Platform Software or HPE Ezmeral Machine Learning Ops Software - Maximum Subs (Comprehends additional 30% for Virtual CPU's)
16	16	20
20	20	24
24	24	32
28	28	36
32	32	40
36	36	44
40	40	52
44	44	56
48	48	62

Configuration Information

Step 10: Choose Services and Support

HPE Ezmeral Container Platform Deployment and Integration Services

The following Services and Attach Rules apply equally to both the HPE Ezmeral Container Platform Software as well as the HPE Ezmeral Machine Learning Ops Software, even when the Description only states "HPE Ezmeral Container Platform".

Description	SKU
HPE Ezmeral Platform Quickstart SVC	HG0U6A1
HPE Ezmeral Platform Essential SVC	HU1E1A1
HPE Ezmeral Platform Advanced SVC	HU1E2A1
HPE Ezmeral Platform Premium SVC	HU1E3A1
HPE Ezmeral Platform App Store Dev SVC	HU1E4A1
HPE Ezmeral Platform Image/ML Dev SVC	HU1E5A1
HPE Ezmeral Platform Tailor Img Dsgn SVC	HU1E6A1
HPE Ezmeral Platform Custom Cnslt SVC	HU1E7A1

Notes:
- For a new cluster deployment of up to 120 subscription SKUs, you must select HPE Ezmeral Container Platform QuickStart Configuration Service (HG0U6A1)
- For a new cluster deployment of above 120 subscription SKUs, but less than or equal to 240 subscription SKUs, you must select HPE Ezmeral Container Platform Essential Configuration Service(HU1E1A1)
- For a new cluster deployment above 240 subscription SKUs, but less than or equal to 480 subscription SKUs, you must select HPE Ezmeral Container Platform Advanced Configuration Service (HU1E2A1)
- For a new cluster deployment above 480 subscription SKUs but less than or equal to 1200 subscription SKUs, you must select HPE Ezmeral Container Platform Premium Configuration Service (HU1E3A1)
- For a new cluster deployment of greater than 1200 subscription SKUs, you must use the HPE Ezmeral Container Platform custom build SKU (HU1E7A1)

Support on HPE Apollo servers

For the HPE Apollo Building Blocks and HPE Ezmeral Container Software or HPE Ezmeral Machine Learning Ops Software, HPE recommends HPE Tech Care. The customer will only receive a whole product support experience for the Apollo Building Blocks and the respective software if they order Tech Care. With any lower level Packaged Service the customer will need to log separate cases for Apollo hardware from cases filed for HPE Ezmeral Container Platform software or HPE Ezmeral Machine Learning Ops Software. HPE Tech Care gives customers an enhanced call experience. When your products are connected to HPE, Tech Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice This Service combines three years proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.

Description	SKU
Installation and Startup Services	
HPE Install ProLiant XL170r Gen10 Service	HA113A1#5BW
HPE Install Apollo r2600 24SFF-PREM Service	HA113A2#58Y
HPE Install ProLiant XL190r Gen10 Service	HA113A1#5BW
HPE Install Apollo 6500 Gen10 service	HA113A1#5VW
HPE Install Apollo 4200 Gen10 Service	HA113A1#58Y
Tech Care	
HPE Tech Care 3 Year 24x7 Service	H1K92A3#xxx
Tech Care	
HPE Tech Care 3 Year 24x7 Service	H7J34A3#xxx

Configuration Information

HPE Ezmeral Container Platform Customer Education
Description

HPE Training Credit Data Analytics SVC   H9P13A1

Notes:
- For a new cluster deployment of up to 100 subscription SKUs, you must order 8 Big Data Training Credits
- For a new cluster deployment of above 100 subscription SKUs, but less than or equal to 240 subscription SKUs, you must order 8 Big Data Training Credits
- For a new cluster deployment above 240 subscription SKUs, but less than or equal to 480 subscription SKUs, you must order 14 Big Data Training Credits
- For a new cluster deployment above 480 subscription SKUs but less than or equal to 1200 subscription SKUs, you must order 22 Big Data Training Credits
- For a new cluster deployment of over 1200 subscription SKUs, a custom training plan must be generated.

Additional Options

Solution Software Options

Description	SKU
iLO Advanced	
HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	512485-B21
HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features	512486-B21
HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features	512487-B21
HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	BD505A
HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features	BD506A
HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE
ProLiant Software	
HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE
SmartCache	
HPE Smart Array SR SmartCache (Single Key/Single Server) LTU	D7S26A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) LTU	D7S27A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) E-LTU	D7S27AAE
Cloudera & Hortonworks	
Cloudera Enterprise Basic Edition 1 Year Subscription per Node 24x7 Support E-LTU	G7M27AAE
Cloudera Enterprise Basic Edition 1 Year Subscription per Node 8x5 Support E-LTU	G7M28AAE
Cloudera Enterprise Data Hub Edition 1 Year Subscription per Node 24x7 Support E-LTU	G7M29AAE
Cloudera Enterprise Data Hub Edition 1 Year Subscription per Node 8x5 Support E-LTU	G7M30AAE
Cloudera Hortonworks Data Platform Enterprise Plus 1 Node 1yr 24x7 Support E-LTU	P9A25AAE
Cloudera Enterprise Basic Edition 3 Year Subscription per Node 8x5 Support E-LTU	P9A42AAE
Cloudera Enterprise Data Hub Edition 3 Year Subscription per Node 24x7 Support E-LTU	P9A43AAE
Cloudera Enterprise Data Hub Edition 3 Year Subscription per Node 8x5 Support E-LTU	P9A44AAE
Cloudera Enterprise Data Engineering Edition 1yr Subscription per Node 8x5 Bronze Support E-LTU	P9V12AAE
Cloudera Enterprise Data Engineering Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V13AAE
Cloudera Enterprise Operational Database Edition 1yr Subscription per Node 8x5 Bronze Support E-LTU	P9V14AAE
Cloudera Enterprise Operational Database Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V15AAE
Cloudera Enterprise Analytical Database Edition 1yr Subscription per Node 24x7 Gold Support E-LTU	P9V17AAE

Configuration Information

Cloudera Enterprise Data Engineering Edition 3yr Subscription per Node 24x7 Gold Support E-LTU	P9V18AAE
Description	**SKU**
HPC Software Products	
HPE Performance Cluster Manager 1 Node 3yr 24x7 Support Perpetual LTU	Q9V60A
HPE Performance Cluster Manager 1 Node 3yr 24x7 Support Perpetual E-LTU	Q9V60AAE
HPE Performance Cluster Manager Media Kit	Q9V62A
Red Hat Enterprise Linux Server	
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 24x7 Support LTU	G3J28A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 24x7 Support E-LTU	G3J28AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 9x5 Support LTU	G3J29A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 1 Year Subscription 9x5 Support E-LTU	G3J29AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 24x7 Support LTU	G3J30A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 24x7 Support E-LTU	G3J30AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 9x5 Support LTU	G3J31A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 3 Year Subscription 9x5 Support E-LTU	G3J31AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 24x7 Support LTU	G3J32A
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 24x7 Support E-LTU	G3J32AAE
Red Hat Enterprise Linux Server 2 Sockets or 2 Guests 5 Year Subscription 9x5 Support LTU	G3J33A
Red Hat Enterprise Linux Server 2 Sockets or Guests 5 Year Subscription 9x5 Support E-LTU	G3J33AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 24x7 Support LTU	G5J62A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 24x7 Support E-LTU	G5J62AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 9x5 Support LTU	G5J63A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 1 Year Subscription 9x5 Support E-LTU	G5J63AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 24x7 Support LTU	G5J64A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 24x7 Support E-LTU	G5J64AAE
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 9x5 Support LTU	G5J65A
Red Hat Enterprise Linux Server 2 Sockets 4 Guests 3 Year Subscription 9x5 Support E-LTU	G5J65AAE
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 9x5 Support LTU	J8J35A
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 9x5 Support E-LTU	J8J35AAE
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 24x7 Support LTU	J8J36A
Red Hat Enterprise Linux Server 2 Sockets 1 Guest 1 Year Subscription 24x7 Support E-LTU	J8J36AAE

Notes: For more information about HPE's RHEL offering, refer to the QuickSpecs at
https://h20195.www2.hpe.com/v2/GetDocument.aspx?docname=c04123419

Configuration Information

Description	SKU
OneView Management Software	
HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
HPE OneView including 3yr 24x7 Support Track 1-server LTU	E5Y36A
HPE OneView w/o iLO Advance including 3yr 24x7 Support Track 1-server LTU	E5Y40A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	E5Y44A
HPE OneView Upgrade from Insight Management including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y45AAE
HPE OneView Upgrade from Insight Management 3yr 24x7 Support 1-server LTU	F6Q91A
HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU	P8B24A
HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU	P8B25A
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE

Technical Specifications

System Unit Specifications					
	HPE Apollo r2600 Gen10 Chassis	**HPE XL170r Gen10 Server**	**HPE XL190r Gen10 Server**	**HPE XL270d Gen10 Server**	**HPE Apollo 4200 Gen10 LFF Server**
Dimensions (L x W x D)	8.76 x 44.80 x 83.87 cm 3.45 x 17.64 x 33.02 in	4.13 x 18.45 x 65.80 cm 1.63 x 7.27 x 25.91 in	8.43 x 18.45 x 69.47 cm 3.32 x 7.27 x 27.36 in	17.5 x 43.9 x 85.1 cm 6.9 x 17.3 x 33.5 in	8.75 x 44.80 x 82.55 cm 3.44 x 17.63 x 32.50 in
Weight (approximate)	46.70kg 102.96 lb (max)	6.91 kg 15.23lb	11.39 kg 25.1 lb	59.0 kg 130.0 lbs	Min: 22.34 kg, 49.25 lb Max: 40.60 kg, 89.51 lb
Power input (per power supply)	Up to two (2) 800W/1400W 277VAC/1600W power supply for the chassis	Up to two (2) 800W/1400W 277VAC/1600W power supply for the chassis	Up to two (2) 800W/1400W 277VAC/1600W power supply for the chassis	200 to 240 VAC	100 to 120 VAC 200 to 240 VAC
BTU rating (maximum)	N/A	N/A	N/A	For 2200W Power Supply: 7507 BTU/hr (at 200VAC – 240VAC)	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

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 (2012/19/EU) 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 Change
15-Nov-2021	Version 7	Changed	Configuration Information and Service and Support sections were updated. Obsolete SKUs were removed.
03-Aug-2020	Version 6	Changed	QuickSpecs content and layout were updated.
06-Apr-2020	Version 5	Changed	All QuickSpecs sections were updated and Obso SKUs were removed.
02-Dec-2019	Version 4	Changed	Configuration Information and Additional Options Sections were updated.
04-Nov-2019	Version 3	Changed	Overview, Configuration Information and Additional Options Sections were updated.
03-Sep-2019	Version 2	Changed	Overview, Service and Support, Configuration Information and Additional Options sections were updated.
06-May-2019	Version 1	New	New QuickSpecs

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