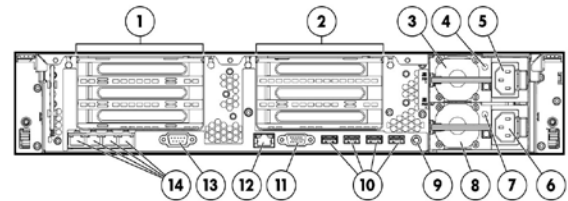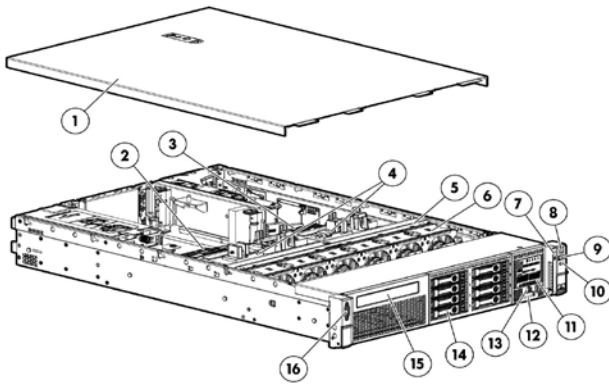## Overview

HPE ProLiant DL385p Generation 8 (Gen8)

With enhanced innovations in performance, feature flexibility, and management capabilities, the DL385p Gen8 is the price/performance choice for your virtualization, database, and high performance computing workloads.

Front View:

1. Quick removal access panel
2. Second AMD Processor
3. First AMD Processor
4. (24) DDR3 DIMM slots
5. Air Baffle
6. Hot-plug fans, full N+1 redundancy
7. Health LED
8. Power On/Standby button & system power LED button
9. USB connector
10. UID LED
11. Systems Insight Display
12. Asset Tag
13. USB connector
14. 8 SFF HDD Bays

15. Optional Slim Optical Bay
16. Video connector

Rear View:

1. PCIe Slots (Slots 1-3 top to bottom)
2. PCIe Slots (Slots 4-6 top to bottom)
3. Power supply 1
4. Power supply 1 Power LED
5. Power supply 1 Power connection
6. Power supply 2 Power connection
7. Power supply 2 Power LED
8. Power supply 2
9. UID LED
10. USB connectors (4)
11. Video connector
12. iLO connector
13. Serial connector
14. FlexibleLOM ports (Shown: 4 ports 1Gb each-Port 1-4 starting Right to Left)

What's New

- Support for PCIe Accelerators.
- New HDD offering.

Standard Features

Processor One of the following depending on model	**Sixteen-Core Processors** AMD Opteron™ 6386SE (2.8GHz/16-core/16MB/140W TDP) Processor AMD Opteron™ 6380 (2.5GHz/16-core/16MB/115W TDP) Processor AMD Opteron™ 6378 (2.4GHz/16-core/16MB/115W TDP) Processor AMD Opteron™ 6376 (2.3GHz/16-core/16MB/115W TDP) Processor AMD Opteron™ 6366HE (1.8GHz/16-core/16MB/85W TDP) Processor **Twelve-Core Processors** AMD Opteron™ 6348 (2.8GHz/12-core/16MB/115W TDP) Processor AMD Opteron™ 6344 (2.6GHz/12-core/16MB/115W TDP) Processor **Eight-Core Processors** AMD Opteron™ 6328(3.2GHz/8-core/16MB/115W TDP) Processor AMD Opteron™ 6320 (2.8GHz/8-core/16MB/115W TDP) Processor **Quad-Core Processors** AMD Opteron™ 6308 (3.5GHz/4-core/16MB/115W TDP) Processor **NOTE:** Mixing different processor models is not supported. **NOTE:** All processors support up to 1600MHz DDR3 memory speeds.
Cache Memory	16MB (2x8MB) Level 3
Chipset	AMD SR5690 Northbridge and SP5100 Southbridge
Upgradeability	Upgradeable to 2 processors Up to 24 DIMM slots available for higher memory capacities FlexibleLOM connector for 1Gb or 10Gb networking options 8SFF (plus optional upgrade of 8SFF for up to 16SFF drives-requires second Smart Array) and other Models with 8LFF, 12LFF, or 25SFF hard drive bays Optional 3-slot PCIe 2.0 riser (x16, x8, x8) **NOTE:** The second processor must be installed to take advantage of the optional 3-slot riser. Redundant Power Supply Optical Drive (available on 8SFF and 8LFF Models only)
On System Management Chipset	HPE iLO (Firmware: HPE iLO 4) **NOTE:** For more information, visit: **http://www.hp.com/go/ilo**
Memory Protection	Advanced ECC Online Spare

Memory One of the following depending on model	Type	HPE SmartMemory
		DDR3 Load Reduced (LRDIMM) and Registered (RDIMM)
	DIMM Slots Available	24 (12 DIMM slots per processor/4 channels per processor/3 DIMMs per channel)
	Storage Centric Model	16GB (2x8GB) PC3-10600R (DDR3-1333) Registered DIMMS
	Dedicated Workload	32GB (4x8GB) PC3-10600R (DDR3-1333) Registered DIMMS

Standard Features

	Model
Maximized Consolidation Model	32GB (4x8GB) PC3-10600R (DDR3-1333) Registered DIMMS
Maximum Capacity (LDIMM)	768GB (24 x 32GB LRDIMM @ 800MHz)
Maximum Capacity (RDIMM)	364GB (24 slots x 16GB RDIMM @1600MHz) **NOTE:** Requires 2nd processor installed

NOTE: HPE memory from previous generation servers may not provide the same performance with the HPE ProLiant DL385p Gen8 Servers as HPE SmartMemory will.
NOTE: To realize the performance memory capabilities listed in this document, HPE SmartMemory is required. For additional information, please see the **HPE SmartMemory QuickSpecs**.
NOTE: If only one processor is installed, only half the DIMM slots are available.
NOTE: Depending on the memory configuration, the memory speed may run at 1600MHz, 1333MHz, 1066MHz or lower. Please see Memory Population Table or the Online Memory Configuration Tool at: **http://www.hp.com/go/ddr3memory-configurator**.

Network Controller
One of the following depending on model

HPE ProLiant Gen8 servers offer a new networking technology - FlexibleLOM. The HPE ProLiant DL385p Gen8 server offers the customer the choice of 1 Gigabit and/or 10 Gigabit networking solutions. For additional details see the Networking Section of this document. Only one FlexibleLOM may fit on a single server - see PCIe solutions for additional networking.

HPE Ethernet 1Gb 4-port 331FLR Adapter

Expansion Slots

PCIe Riser #1
(Standard)

Expansion Slots #	Technology	Bus Width**	Connector Width	Bus Number*	Form Factor	Notes
1	PCIe 2.0	X8	X16	5	Full Length, Full Height Slot	For Processor 1
2	PCIe 2.0	X8	X8	8	Half Length, Full Height Slot	For Processor 1
3	PCIe 2.0	X4	X8	11	Half Length, Full Height Slot	For Processor 1

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number
** Indicates the number of physical electrical lanes running to the connector.
NOTE: When populating the second optional riser slot, the second processor must be installed.

PCIe Riser #2
(Optional - Requires 2nd Processor)

Expansion Slots #	Technology	Bus Width**	Connector Width	Bus Number*	Form Factor	Notes
4	PCIe 2.0	X16	X16	65	Full length, full height slot	For Processor 2
5	PCIe 2.0	X8	X16	68	Half length, full height slot	For Processor 2
6	PCIe 2.0	X8	X8	71	Half length, full height slot	For Processor 2

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus

Standard Features

assignment number.
** Indicates the number of physical electrical lanes running to the connector.
NOTE: When populating the second optional riser slot, the second processor must be installed.

HPE Server ROM	HPE ROM (Read Only Memory) is now digitally signed using the HPE Corporate Signing Service. This signature is verified before the flash process starts, reducing accidental programming and preventing malicious efforts to corrupt system ROM.

HPE ROM provides for essential initialization and validation of hardware components before control is passed to the customer-installed operating system. The ROM also provides the capability of booting from various fixed media (HDD, CD-ROM) and removable media (USB), to continue operation to the operating system.

HPE ROM performs very early configuration of the video controller, to allow monitoring of initialization progress via an attached monitor. If configuration or hardware errors are discovered during this early phase of hardware initialization, suitable messages are now displayed on the connected monitor. Additionally, these configuration or hardware errors are logged to the Integrated Management Log (IML) to assist in diagnosis.

The HPE ProLiant ROM is used to configure the following:

- Processor and chipset status registers
- System memory, memory map, and memory initialization
- System hardware configuration (Integrated PCI devices and optional PCIe cards).
- Customer-specific BIOS configuration (using the HPE ROM-Based Setup Utility (RBSU).

NOTE: For further information, please refer to the HPE RBSU (ROM based setup utility) user guide: **http://www.hp.com/support/rbsu**. |

Storage Controller One of the following depending on model	Entry Model	HPE Smart Array P420i/ZM (RAID 0/1)
	Storage Centric Model	HPE Smart Array P420i/512MB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)
	Dedicated Workload Model	HPE Smart Array P420i/1GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)
	Maximized Consolidation Model	HPE Smart Array P420i/2GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)

Internal Storage Devices	Diskette Drive	None	
	Optical Drive	Optional: DVD-ROM, DVD-RW **NOTE:** Not Available on 8+8 LFF, 12LFF or 25SFF Models.	
	Hard Drives	None ship standard	
	Drive Bays One of the following depending on model	Entry Model	8-SFF drive bays(additional 8-SFF option)
		Storage Centric Model	12-LFF drive bays
		Dedicated Workload Model	8-SFF drive bays total with options for DVD OR optional second 8-SFF drive bay set (total of 16SFF drive bays, no DVD) **NOTE:** Optional 2nd 8-SFF drive kit requires 2nd Smart Array Controller (PCIe) for support recommend HPE Smart Array P420 PCI card).
		Maximized Consolidation Model	25-SFF drive bays total
		NOTE: For best performance on the 25 Small Form Factor drive cage where less than 25 drives are installed you will need to balance the drives	

Standard Features

on the backplane's two expanders. Drive bays 1-12 are on routed to expander 1 and drive bays 13-25 are routed to expander number 2. Example: if a customer purchases 16 drives, they should split 8 drives on expander 1 and 8 drives on expander 2 for optimal performance.
NOTE: HPE ProLiant DL385p series servers offer both LFF and SFF versions. The optical drive bay is not available with +8SFF drive bay upgrade, 12-LFF, or 25-SFF drive bay models.
NOTE: 8-LFF, 12-LFF, and 25-SFF versions are not upgradeable options from the standard 8SFF model, or vice versa.
NOTE: All Pre-configured Models come populated with some hard drive blanks installed. Should the customer need additional hard drive blanks, they can order more using either P/N 666987-B21: HPE SFF Gen8 Hard Drive Blank Kit or P/N 666986-B21: HPE LFF Gen8 Hard Drive Blank Kit. These part numbers for single HDD blanks below are also provided should the customer require replacement HDD blanks for their server.
NOTE: All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.

Maximum Internal Storage			
	Hot Plug SFF SAS	50.0TB	25 x 2.0TB (on 25 SFF Drive Bay Models)
	Hot Plug SFF SATA	50.0TB	25 x 2.0TB (on 25 SFF Drive Bay Models)
	Hot Plug LFF SAS	96.0TB	12 x 8TB (on 12 LFF Drive Bay Models)
	Hot Plug LFF SATA	96.0TB	12 x 8TB (on 12 LFF Drive Bay Models)
	Hot Plug SFF SAS SSD	48.0TB	25 x 1.92TB (on 25 SFF Drive Bay Models)
	Hot Plug LFF SATA SSD	19.2TB	12 x 1.6TB (on 12 LFF Drive Bay Models)

NOTE: Storage capacities may vary depending on Models/Drive Cages and Hard Drives selected.

Interfaces		
	Serial	1 (Back)
	Video	2 (1 front, 1 back) not active simultaneously
	FlexibleLOM Network Ports	All pre-configured models come standard with 4 x 1GB ports (See HPE Networking section below for more details and options)
	HPE iLO Remote Management Network Port	1 Gb Dedicated
	SD Slot	1 Internal Secure
	USB 2.0 Ports	Up to 8 total: up to 2 front, 4 back, 2 internal

Industry Standard Compliance	
	ACPI 2.0b Compliant
	PCIe 2.0 Compliant
	PXE Support
	WOL Support
	Microsoft® Logo certifications
	USB 2.0 Compliant

Server Power Cords All Pre-configured Models servers ship with a high voltage server to PDU power cord.
NOTE: HPE ProLiant DL servers no longer ship standard with a 12-foot NEMA 5-15P to C13 power cord that connects to 110V US wall outlets in a home or office. ProLiant DL servers are primarily connected to power distribution units (PDUs) in data center racks and now ship standard with a PDU 6-foot C-14 to C13 power cord (A0K02A). If a user wishes to power a ProLiant DL server using a 110V receptacle (NEMA-15), the 6-foot NEMA 5-15 to C13 power cord must be ordered separately (AF556A). See Power Cords section for Worldwide Power Cord options.

Standard Features

Power Specifications   To review typical system power ratings use the HPE Power Advisor which is available via the online tool located at URL: **http://www.hp.com/go/proliant-energy-efficient** or **http://www.hp.com/go/hppoweradvisor**.

> **NOTE:** Power Specification and Technical Content for supported power supplies can be found at: **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111541**

Common Slot Power Supply

> **NOTE:** Mixing of power supplies in the same server is not supported. All power supplies inside a server must be exactly the same model. Mixing Gold, Platinum, and Platinum Plus certified power supplies is not supported.

The HPE Common Slot (CS) power supplies allow for commonality of power supplies across a wide range of ProLiant and Integrity servers, as well as HPE Storage solutions, and are designed to provide the highest power supply efficiency without degrading system performance. HPE CS power supplies are tested by the Electric Power Research Institute (EPRI) and certified through the ECOS 80 Plus power supply program. HPE CS power supply options provide efficiency ratings of up to 94% (80 Plus Platinum) and are available in three power output options - 460W, 750W, and 1200W - allowing the customer to "right-size" a power supply for their specific server configuration. All HPE Common Slot power sources are UL, CE Mark Compliant, hot-plug and support redundant configurations.

> **NOTE:** Mixing of power supplies in the same server is not supported. All power supplies must be of the same output and efficiency rating. If non-matched power supplies are inserted you will get errors and operation will fail.

HPE CS Platinum Plus power supplies are required when enabling the HPE Intelligent Power Discovery (IPD) solution. IPD is the first technology to create an automated, energy-aware network between IT systems and facilities. This allows your company to reclaim millions of dollars in wasted power capacity and downtime costs across data centers. For more information on the HPE IPD solution, go to **http://www.hp.com/go/ipd**.

It is highly recommended that you use the HPE Power Advisor in defining the "Right-Size" power supply for your needs. HPE Power Advisor can be accessed at: **http://www.hp.com/go/hppoweradvisor**.

> **NOTE:** The 80 PLUS program is a unique forum that unites electric utilities, the computer industry, and consumers in an effort to bring energy efficient technology solutions to the marketplace. 80 Plus independently tests power supply efficiency and publicly posts the results on **http://www.80plus.org**.

Redundant Power: Optional (1+ 1 or n+n redundant) power supplies can be purchased through power supply option kits (see Power Supplies for part numbers).

> **NOTE:** Power Specification and Technical Content for supported power supplies can be found at: **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111541**

System Fans   2P Models have (6) (N+1 redundancy standard)
One of the following
depending on model   1P Models have (4) (N+1 redundancy standard)

Required Cabling   For required cabling information, refer to the Hewlett Packard Enterprise Web site at: **http://www.hp.com/servers/dl385p-gen8**

Operating Systems and   **Microsoft Windows Server**

Standard Features

Virtualization Software Support for ProLiant Servers	**Red Hat Enterprise Linux (RHEL)** **SUSE Linux Enterprise Server (SLES)** **VMware** **Citrix XenServer** **NOTE:** For more information on the HPE Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our Support Matrix at: **http://www.hp.com/go/ossupport** and our driver download page: **http://www.hp.com/support/DL385pGen8**

Graphics	Integrated Matrox G200 video standard • 1280 x 1024 (32 bpp) • 1920 x 1200 (16 bpp) HPE iLO 4 On System Management Memory • 16 MB Flash • 256 MB DDR 3 with ECC (112 MB after ECC and video)

Form Factor One of the following depending on model	2U Rack form factor **NOTE:** All pre-configured Models ship with Ball-Bearing sliding rails and cable management arm. Any customer configured models must select the appropriate Rail Kit when configuring. 8 SFF Drive Bay Version: 3.44 (8.74 cm) Height x 17.54" (44.55 cm) Width x 27.5" (69.85 cm) Length 8 LFF Drive Bay Version: 3.44 (8.74 cm) Height x 17.54" (44.55 cm) Width x 29.5" (74.94cm) Length 12 LFF Drive Bay Version: 3.44 (8.74 cm) Height x 17.54" (44.55 cm) Width x 29.5" (74.94cm) Length 25 SFF Drive Bay Version: 3.44 (8.74 cm) Height x 17.54" (44.55 cm) Width x 27.5" (69.85 cm) Length

On System Management	HPE iLO Management Engine	HPE iLO Management Engine is a comprehensive set of embedded management features supporting the complete lifecycle of the server, from initial deployment, through ongoing management, to service alerting and remote support. HPE iLO Management Engine comes standard on all HPE ProLiant Gen8 servers. The HPE iLO Management Engine portfolio includes: • **HPE iLO:** The HPE iLO (Integrated Lights-Out) management processor is the core foundation for the HPE iLO Management Engine • **HPE Agentless Management:** Provides built in server health monitoring and alerting capability without OS agents, that starts working the moment a power cord and an Ethernet cable are connected. • **HPE Active Health System:** Always on, continuous monitoring for increased stability and shorter downtimes; 100% configuration history; Health and service alerts and easy export and upload to Service and Support. • **HPE Intelligent Provisioning:** Lets customers provision and configure a single server without any separate media. No more SmartStart CDs or Smart Update Firmware DVD are needed.

Standard Features

- To start Intelligent Provisioning:
  - ▫ Press the F10 key during the ProLiant Gen8 server boot process (also known as power on self-test or POST).
  - ▫ Please go to the Intelligent Provisioning website at **http://www.hp.com/go/intelligentprovisioning** for additional information and to view usage videos.
  - ▫ Use the Service Pack for ProLiant (SPP) at **http://www.hp.com/go/spp** to get firmware and software updates.
- HPE iLO Mobile App: Enables the ability to access, deploy, and manage your server anytime from anywhere from select smartphones and mobile devices. For additional information please visit: **http://www.hp.com/go/ilo/mobileapp**

NOTE: For more information, visit: **http://www.hp.com/go/ilo** or HPE iLO Management Engine technologies whitepaper

HPE Insight management	HPE Service Pack for ProLiant	HPE Service Pack for ProLiant (SPP) and HPE Smart Update Manager (HPE SUM) provide a comprehensive approach to firmware and system software maintenance. Together they provide better operating stability and ensure maximum uptime. The SPP will be updated at a predictable cadence, typically coinciding with new Hewlett Packard Enterprise server hardware launches. By enabling firmware to be updated online and integrating firmware and system software updates in one operation, HPE SUM and the SPP offer faster updates of individual servers and dramatically faster updates of entire BladeSystem enclosures. Further improving system uptime and stability is the fact that Hewlett Packard Enterprise provides 12 months of support for each Service Pack for ProLiant release.

The user experience around HPE SUM and the SPP has been improved in several ways, starting with the web download. A single web page provides access to a single download containing both the latest version of HPE SUM and the latest SPP. Optional smaller subsets with only specific types of servers or specific operating systems are offered to save on download time. The HPE SUM application provides a straightforward, intuitive user interface that guides the user through the steps of discovery, analyses and update, providing comprehensive information on available updates, criticality and interdependencies. This information is also available in reports. By providing the option of multiple local or shared repositories which can be easily updated from hpe.com, HPE SUM provides the tools to optimize stability and consistency throughout the company. While HPE SUM and the SPP recommend the combinations of firmware and system software that Hewlett Packard Enterprise has found to be the best practice, the application gives customers the flexibility to set their own specific baseline.

The Service Pack for ProLiant has been rigorously tested with specific attention for interaction between firmware, drivers and agents. This testing ensures the highest quality as well as providing the input for HPE SUM to deploy updates taking into account all interdependencies, when determining the correct updates and order of update deployment.

NOTE: The Service Pack for ProLiant (which includes HPE SUM) can be

Standard Features

downloaded from **http://www.hp.com/go/spp/download**. More information can be found: **http://www.hp.com/go/SmartUpdate**, **http://www.hp.com/go/spp** and **http://www.hp.com/go/hpsum**

Security	Power-on password
	Serial interface control
	Administrator's password

Warranty

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

NOTE: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:

http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html

Optional Features

HPE Insight management	HPE Insight Control	HPE Insight Control, a product option, delivers essential infrastructure management that can help save time and money by making it easy to deploy, migrate, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. HPE InsightControl also supports Location and Power Discovery Services to automate many configuration, asset tracking, and power management tasks to speed implementation and prevent downtime. For more information, see **http://www.hp.com/go/insightcontrol**. HPE Insight Control includes one year of 24 x 7 HPE Software Technical Support and Update Service ensuring rapid access to Hewlett Packard Enterprise support staff and proactive delivery of software updates. For more information about this service, see: **http://www.hp.com/services/insight**.
	HPE iLO Advanced	HPE Integrated Lights-Out Advanced License a product option, providing smart remote server management without compromise. iLO Advanced unlocks the full set of remote administration functionality for all HPE ProLiant servers by activating the full Virtual Keyboard Video and Mouse remote console, multi-user collaboration, console record and replay, GUI-based and scripted virtual media and virtual folders, and enhanced security and power management functionality. For more information, see: **http://www.hp.com/go/iloadvanced**
	HPE Matrix Operating Environment	The HPE Matrix Operating Environment (Matrix OE) for ProLiant and Integrity servers is an integrated command center that helps you instantly adjust to dynamic business demands. This advanced infrastructure management software lets you reduce the cost of common data center tasks by up to 40 percent while keeping pace with your changing business. The HPE Matrix OE includes the automated provisioning, optimization, and recovery management capabilities for HPE CloudSystem Matrix, the ideal platform for private cloud and Infrastructure as a Service (IaaS). **NOTE:** For more information, visit: **http://www.hp.com/go/matrixoe**
High Performance Clusters	HPE Cluster Platforms	HPE Cluster Platforms are specifically engineered, factory-integrated large-scale ProLiant clusters optimized for High Performance Computing, with a choice of servers, networks and software. Operating system options include specially priced offerings for Red Hat Enterprise Linux and SUSE Linux Enterprise Server, as well as Microsoft Windows HPC Server. A Cluster Platform Configurator simplifies ordering. **http://www.hp.com/go/clusters**
	HPE HPC Interconnects	High Performance Computing (HPC) interconnect technologies are available for this server as part of the HPE Cluster Platform portfolio. These high-speed InfiniBand and Gigabit interconnects are fully supported by Hewlett Packard Enterprise when integrated within an HPE cluster. Flexible, validated solutions can be defined with the help of configuration tools. **http://www.hp.com/techservers/clusters/ucp/index.html**
	HPE Insight Cluster Management Utility	HPE Insight Cluster Management Utility (CMU) is an HPE-licensed and HPE-supported suite of tools that are used for lifecycle management of hyperscale clusters of Linux ProLiant systems. CMU includes software for the centralized provisioning, management and monitoring of nodes. CMU makes the administration of clusters user friendly, efficient, and effective. **http://www.hp.com/go/cmu**

Optional Features

Storage Software	Whether you need to solve a specific data protection, archiving, or storage command and control challenge, or deliver on strategic consolidation, compliance, or continuity initiatives, look no further than HPE storage software. Our storage software helps you reduce costs, simplify storage infrastructure, protect vital assets and respond faster to business opportunities.

Storage software that gets the job done:

- **Data Protection and Recovery Software**
  Whether you're a large enterprise or a smaller business, HPE data protection and recovery software will cost-effectively protect you against disaster and ensure business continuity.
- **Data Archive and Migration Software**
  The HPE storage software enables you to comply with data retention and retrieval requirements, improve application performance, and reduce costs by efficiently migrating infrequently accessed or less valuable data to lower cost storage.
- **Storage Resource Management Software (SRM)**
  The HPE storage resource management software reduces operational costs and provides the command and control foundation you need to efficiently manage and visualize your physical and virtual environments.
- **Data Replication Software**
  Hewlett Packard Enterprise offers array-based and host-based replication software for use in disaster recovery, testing, application development and reporting.
- **Storage Device Management Software**
  Maximize your investment in HPE storage and networking with software that enables hardware-specific configuration, performance tuning and connectivity management.
- **HPE StoreVirtual VSA**
  With HPE StoreVirtual VSA you can use the power of virtualization to turn a set of heterogeneous and disconnected physical disk drives in your servers and storage devices into a single pool of logical storage capacity.

NOTE: For more information available Storage Software including QuickSpecs, please see:
http://www.hp.com/go/storage/software.

HPE Insight Online	HPE Insight Online is a new addition to the HPE Support Center for one stop, secure access to product and HPE support information personalized to your IT environment. Insight Online can automatically display devices remotely monitored by HPE Insight Remote Support. With Insight Online's easy navigation you can efficiently track your IT support contracts and device status from anywhere and at anytime. **http://www.hp.com/go/insightonline**
HPE Proactive Insight experience	Prevent problems with innovative, automated monitoring tools and proactive services. The HPE Proactive Insight experience consist of using Insight Online, Insight Remote Support, and Proactive Care Support Service as one integrated solution. The Proactive Insight experience provides you with expert advice and personalized, cloud-based automated IT support, helping to prevent unplanned down time and solve problems quickly. For more information, visit: **http://www.hp.com/go/proactiveinsightexperience**
Factory Express Portfolio for Servers and Storage	HPE Factory Express offers configuration, customization, integration and deployment services for Hewlett Packard Enterprise servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. Hewlett Packard Enterprise products supported through Factory Express include a wide array of servers and storage: HPE Integrity, HPE ProLiant, HPE ProLiant Server Blades, HPE BladeSystem, HPE 9000 servers as well as the MSAxxxx, EVA7xxx, EVA, XP, rackable tape |

Optional Features

libraries and configurable network switches.

For more information on Factory Express services for your specific server model please contact your sales representative or go to: **http://www.hp.com/go/factory-express**.

HPE Simple Configurator SCE is a guided self-service tool to help sales and non-technical people provide customers with initial configurations in 3 to 5 minutes. You may then send the configuration on for configuration help, or use in your existing ordering processes. If you require "custom" rack configuration or configuration for products not available in SCE, please contact the HPE Customer Business Center or an Authorized Partner for assistance. **http://www.hp.com/products/configurator**

Service and Support

Service and Support	**HPE Technology Services for Industry Standard Servers**
	HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to Hewlett Packard Enterprise to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.
	Protect your business beyond warranty with HPE Care Pack Services
	HPE Care Pack Services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the term you select.

Optimized Care	**Optimized Care : Supports maintaining servers at optimum performance availability**
	HPE Proactive Care with 6 hour call-to-repair commitment, three year Care Pack Service
	HPE Proactive Care helps prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to Hewlett Packard Enterprise. This Care Pack Service combines three years' proactive reporting and advice with our highest level reactive coverage and enhanced escalation management, the Hewlett Packard Enterprise 24x7, six hour call-to-repair hardware commitment. Hewlett Packard Enterprise is the only leading manufacturer who makes this level of coverage available as a standard service offering for your most valuable servers. Service includes 24x7 collaborative software support for leading industry standard software running on your HPE ProLiant server. **https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf**

Standard Care	**Standard Care : Service recommendation that maintains high level of server availability**
	HPE Proactive Care with 24x7 coverage, three year Care Pack Service
	HPE Proactive Care helps prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to Hewlett Packard Enterprise. This Care Pack Service combines three years' proactive reporting and advice with our 24x7 coverage and enhanced escalation management, four hour hardware response time and two hour call back for software questions on leading industry standard software running on your HPE ProLiant server. **https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf**

Related Services	**HPE ProLiant Server Hardware Installation**
	Provides for the basic hardware installation of Hewlett Packard Enterprise branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner. **https://www.hpe.com/h20195/V2/GetPDF.aspx/5981-9356EN.pdf**
	Factory Express for Servers and storage
	HPE Factory Express offers configuration, customization, integration and deployment services for Hewlett Packard Enterprise servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed. For more information on Factory Express services for your specific server model please contact your sales representative or go to: **http://www.hp.com/go/factory-express**.
	Data Privacy Services
	Protect your data through better media management. HPE Data privacy services help manage and protect sensitive data to reduce the risk of unauthorized access to private information and help meet compliance requirements. Our retention services allow you to keep drives and other devices upon failure, our removal services provide convenient data sanitization and our recovery services allow you to safely retire IT assets and capture any remaining value from the hardware.

Service and Support

http://www.hp.com/services/dataprivacy

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

Get connected to Hewlett Packard Enterprise to improve your support experience	Connecting products to Hewlett Packard Enterprise will help prevent problems with 24x7monitoring, prefailure alerts, automatic call logging, and parts dispatch. With Connected products, you can have a dashboard to manage your IT anywhere, anytime, from any device.
HPE Support Center	Personalized online support portal with access to information, tools and experts to support Hewlett Packard Enterprise business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers. Learn more **http://www.hp.com/go/hpsc** The HPE Support Center Mobile App* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime. HPE Insight Remote Support and HPE Support Center are available at no additional cost with a Hewlett Packard Enterprise warranty, HPE Care Pack or Hewlett Packard Enterprise contractual support agreement. *HPE' Support Center Mobile App is subject to local availability
Warranty / Service Coverage	For ProLiant servers and storage systems, the services cover HPE-branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as external monitors up to 22"; these items will be covered at the same service level and for the same coverage period as the server unless the maximum supported lifetime and/or the maximum usage limitation has been exceeded. Coverage of the UPS battery is not included; standard warranty terms and conditions apply. The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. It does not apply to any exchange of Disk or SSD/Flash Drives that have not failed. SSD/Flash Drives that are specified by Hewlett Packard Enterprise as consumable parts and/or that have exceeded maximum supported lifetime and/or the maximum usage limit as set forth in the manufacturer's operating manual or the technical data sheet are not eligible for the defective media retention service feature option.
For more information	To learn more on HPE ProLiant servers, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or visit: **http://www.hp.com/services/proliant**

Pre-configured Models

NOTE: Pre-configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.
NOTE: Hewlett Packard Enterprise does not allow factory integration of options into pre-configured models. Any additional options purchased will be shipped separately.
NOTE: All Pre-configured Models come populated with some hard drive blanks installed. Should the customer need additional hard drive blanks, they can order more using either P/N 666987-B21: HPE SFF Gen8 Hard Drive Blank Kit or P/N 666986-B21: HPE LFF Gen8 Hard Drive Blank Kit.

Entry Model

HP ProLiant DL385p Gen8 6320 1P 4GB-R P420i/ZM Hot Plug 8 SFF 460W PS Server 710723-001	**Processor(s)**	(1) AMD Opteron™ 6320 (2.8GHz/8-core/16MB/115W TDP) Processor
	Cache Memory	16MB (2x8MB) Level 3
	Memory	4GB (1x4GB) PC3-10600R (DDR3-1333) Registered DIMMS **NOTE:** Up to 24 DIMM slots available with 2nd Processor installed (12 DIMM Slots per processor).
	Network Controller	HPE Ethernet 1Gb 4-port 331FLR Adapter
	Storage Controller	HPE Smart Array P420i/ZM (RAID 0/1)
	Hard Drive	None ship standard; includes 6 SFF hard drive blanks, 2 open drive bays for drives(P/N 666987-B21: HPE SFF Gen8 Hard Drive Blank Kit available for additional blanks)
	Internal Storage	8SFF SAS/SATA/SSD HDD Bays
	Optical Drive Bay	Optional Slim Optical Bay (SATA DVD-RW/ROM Optical Drive)
	PCI-Express Slots	3 PCIe slots **NOTE:** 3 additional PCIe slots available with optional PCIe Riser Cage #2-requires second processor.
	Power Supply	(1) HPE 460W CS Gold Hot Plug Power Supply (92% Efficient)
	Fans	(4) (N+1 redundancy standard)
	Management	HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control
	Form Factor	Rack (2U), HPE Friction Rail Kit Standard/ No Cable Management Arm included **NOTE:** The HPE 1U Gen8 Cable Management Arm is not available when using Friction Rails. To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (p/n 695539-001). **CAUTION:** Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
	Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.

Storage Centric Models

HP ProLiant DL385p Gen8 6320 1P 16GB-R	**Processor(s)**	(1) AMD Opteron™ 6320 (2.8GHz/8-core/16MB/115W TDP) Processor
	Cache Memory	16MB (2x8MB) Level 3

Pre-configured Models

P420i/512 Hot Plug 12 LFF 750W PS Server 703930-001	**Memory**	16GB (2x8GB) PC3-10600R (DDR3-1333) Registered DIMMS **NOTE:** Up to 24 DIMM slots available with 2nd Processor installed (12 DIMM Slots per processor).
	Network Controller	HPE Ethernet 1Gb 4-port 331FLR Adapter
	Storage Controller	HPE Smart Array P420i/512MB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)
	Hard Drive	None ship standard; drive cage includes 10 LFF hard drive blanks, 2 open drive bays for drives(P/N 666986-B21: HPE LFF Gen8 Hard Drive Blank Kit available for additional blanks)
	Internal Storage	12 LFF SAS/SATA HDD Bays
	Optical Drive Bay	None available
	PCI-Express Slots	3 PCIe slots **NOTE:** 3 additional PCIe slots available with optional PCIe Riser Cage #2-requires second processor.
	Power Supply	(1) HPE 750W CS Platinum Plus Hot Plug Power Supply (94% Efficient)
	Fans	(4) (N+1 redundancy standard)
	Management	HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control
	Form Factor	Rack (2U), HPE Ball Bearing Rail Kit /Cable Management Arm standard **NOTE:** The HPE 1U Gen8 Cable Management Arm is not available when using Friction Rails. To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (p/n 695539-001). **CAUTION:** Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
	Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.

Dedicated Workload Models
NOTE: This Model is Energy Star Certified.

HP ProLiant DL385p Gen8 6344 2P 32GB-R P420i/1GB Hot Plug 8 SFF 2x750W PS Svr 703931-001	**Processor(s)**	(2) AMD Opteron™ 6344 (2.6GHz/12-core/16MB/115W TDP) Processors
	Cache Memory	16MB (2x8MB) Level 3
	Memory	32GB (4x8GB) PC3-10600R (DDR3-1333) Registered DIMMS **NOTE:** Up to 24 DIMM slots available with 2nd Processor installed (12 DIMM Slots per processor).
	Network Controller	HPE Ethernet 1Gb 4-port 331FLR Adapter
	Storage Controller	HPE Smart Array P420i/1GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)
	Hard Drive	None ship standard; includes 6 SFF hard drive blanks, 2 open drive bays for drives(P/N 666987-B21: HPE SFF Gen8 Hard Drive Blank Kit available for additional blanks)
	Internal Storage	8 SFF SAS/SATA HDD Bays Optional: +8 SFF (total of 16) SFF SAS/SATA HDD Bays (requires additional PCI controller)
	Optical Drive Bay	Optional Slim Optical Bay (SATA DVD-RW /ROM Optical Drive)
	PCI-Express Slots	6 PCIe slots **NOTE:** Includes PCIe Riser Cage #2.
	Power Supply	(2) HPE 750W CS Platinum Plus Hot Plug Power Supplies (94% Efficient)
	Fans	(6) (N+1 redundancy standard)

Pre-configured Models

Management	HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control	
Form Factor	Rack (2U), HPE Ball Bearing Rail Kit /Cable Management Arm standard **NOTE:** The HPE 1U Gen8 Cable Management Arm is not available when using Friction Rails. To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (p/n 695539-001). **CAUTION:** Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.	
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.	

Maximized Consolidation Models
NOTE: These Models are Energy Star Certified.

HP ProLiant DL385p Gen8 6376 2P 32GB-R P420i/2GB Hot Plug 25 SFF 2x750W PS Svr
703932-001

Processor(s)	(2) AMD Opteron™ 6376 (2.3GHz/16-core/16MB/115W TDP) Processors
Cache Memory	16MB (2x8MB) Level 3
Memory	32GB (4x8GB) PC3-10600R (DDR3-1333) Registered DIMMS **NOTE:** Up to 24 DIMM slots available with 2nd Processor installed (12 DIMM Slots per processor).
Network Controller	HPE Ethernet 1Gb 4-port 331FLR Adapter
Storage Controller	HPE Smart Array P420i/2GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)
Hard Drive	None ship standard; includes 23 SFF hard drive blanks, 2 open drive bays for drives (P/N 666987-B21: HPE SFF Gen8 Hard Drive Blank Kit available for additional blanks)
Internal Storage	25 SFF SAS/SATA HDD Bays
Optical Drive Bay	None Available
PCI-Express Slots	6 PCIe slots **NOTE:** Includes PCIe Riser Cage #2.
Power Supply	(2) HPE 750W CS Platinum Plus Hot Plug Power Supplies (94% Efficient)
Fans	(6) (N+1 redundancy standard)
Management	HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control
Form Factor	Rack (2U), HPE Ball Bearing Rail Kit /Cable Management Arm standard **NOTE:** The HPE 1U Gen8 Cable Management Arm is not available when using Friction Rails. To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (p/n 695539-001). **CAUTION:** Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.

Smart Buy Models

HP ProLiant DL385p Gen8 6320 2.8GHz 8-core 1P 8GB-R P420i/1GB Hot Plug 8 SFF 460W PS US Server/S-Buy 828439-S01	**Processor(s)**	(1) AMD Opteron™ 6320 (2.8GHz/8-core/16MB/115W TDP) Processor
	Cache Memory	16MB (2x8MB) Level 3
	Memory	8GB (1x8GB) PC3-12800R (DDR3-1333) CAS-11 Memory
	Network Controller	HPE Ethernet 1Gb 4-port 331FLR Adapter
	Storage Controller	HPE Smart Array P420i/ZM (RAID 0/1)
	Hard Drive	None ship standard
	Internal Storage	8 SFF SAS/SATA/SSD HDD Bays
	Optical Drive Bay	Optional Slim Optical Bay (SATA DVD-RW/ROM Optical Drive)
	PCI-Express Slots	3 PCIe slots
	Power Supply	(1) HPE 460W CS Gold Hot Plug Power Supply (92% Efficient)
	Fans	(4) (N+1 redundancy standard)
	Management	HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control
	Form Factor	Rack (2U), HPE Friction Rail Kit Standard/No Cable Management Arm included **CAUTION:** Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
	Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.
HP ProLiant DL385p Gen8 6348 2.8GHz 12-core 1P 8GB-R P420i/1GB Hot Plug 25-SFF 750W PS US Server/S-Buy 710724-S01	**Processor(s)**	(1) AMD Opteron™ 6348 (2.8GHz/12-core/16MB/115W TDP) Processor
	Cache Memory	16MB (2x8MB) Level 3
	Memory	8GB (1x8GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory
	Network Controller	HPE Ethernet 1Gb 4-port 331FLR Adapter
	Storage Controller	HPE Smart Array P420i/1GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)
	Hard Drive	None ship standard; includes 23 SFF hard drive blanks, 2 open drive bays for drives
	Internal Storage	25 SFF SAS/SATA/SSD HDD Bays
	Optical Drive Bay	None available
	PCI-Express Slots	3 PCIe slots
	Power Supply	(2) HPE 750W CS Platinum Plus Hot Plug Power Supplies (94% Efficient)
	Fans	(4) (N+1 redundancy standard)
	Management	HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control
	Form Factor	Rack (2U), HPE Ball Bearing Rail Kit/Cable Management Arm standard **CAUTION:** Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
	Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.
HP ProLiant DL385p	**Processor(s)**	(2) AMD Opteron™ 6376 (2.3GHz/16-core/16MB/115W TDP) Processor

Smart Buy Models

Gen8 6376 2.3GHz 16-core 2P 16GB-R Hot Plug 8-SFF 750W RPS US Server/S-Buy
710725-S01

Cache Memory	16MB (2x8MB) Level 3
Memory	16GB (2x8GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory
Network Controller	HPE Ethernet 1Gb 4-port 331FLR Adapter
Storage Controller	HPE Smart Array P420i/1GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)
Hard Drive	None ship standard; includes 6 SFF hard drive blanks, 2 open drive bays for drives
Internal Storage	8 SFF SAS/SATA/SSD HDD Bays
Optical Drive Bay	HPE 12.7mm Slim SATA DVD-RW JackBlack Optical Drive
PCI-Express Slots	6 PCIe slots
Power Supply	(2) HPE 750W CS Platinum Plus Hot Plug Power Supplies (94% Efficient)
Fans	(6) (N+1 redundancy standard)
Management	HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control
Form Factor	Rack (2U), HPE Ball Bearing Rail Kit/Cable Management Arm standard **CAUTION:** Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.

Configuration Information - Factory Integrated Models

NOTE: This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an Hewlett Packard Enterprise approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.
NOTE: Factory Integrated Models must start with a CTO Server.
NOTE: FIO indicates that this option is only available as a factory installable option.
NOTE: All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.

Step 1: Base Configuration (choose one of the following configurable models)

HPE Models   HP ProLiant DL385p Gen8 8 SFF Configure-to-order Server   653203-B21

Factory Integrated Model ships with:

Drive Cage - 8-SFF Drive Bays available (See hard drives in Section 4 for options)
SID-Systems Insight Display Included
24 DIMM slots for RDIMM or LRDIMM memory installation
Smart Array P420i Controller w/ Zero Memory (ZM)
I/O slots - 3 Slots come standard:

- Slot 1 - FL/FH x8 PCIe 2.0 (x16 connector)
- Slot 2 - HL/FH x8 PCIe 2.0 (x8 connector)
- Slot 3 - HL/FH x4 PCIe 2.0 (x8 connector)
- Additional PCIe Slots may be added with the 2nd Riser Cage option.

System Fans - 4 standard (2 additional fans included with second processor)
Drive Cage - 8SFF (drive blanks installed dependent on number of drives ordered)
USB - 4 Rear, 2 Front, 2 Internal, 1 SD slot
HPE iLO Management Engine (iLO4)
NOTE: Smart Array Cache options, Hard drives, Optical drives, Flexible NICs*, Power Supply* and Rail/CMA Kits not included in the base configuration - choose these from Steps 2 or 4 below in Options section. Additional 8-SFF Drive option requires additional HPE Smart Array Controller.
* This is a required selection.

HP ProLiant DL385p Gen8 8 LFF Configure-to-order Server   669804-B21

Factory Integrated Model ships with:

Drive Cage - 8-LFF Drive Bays available (See hard drives in Section 4 for options)
Pop Out SID-Systems Insight Display Included
24 DIMM slots for RDIMM or LRDIMM memory installation
Smart Array P420i Controller w/ Zero Memory (ZM)
I/O slots - 3 Slots come standard:

- Slot 1 - FL/FH x8 PCIe 2.0 (x16 connector)
- Slot 2 - HL/FH x8 PCIe 2.0 (x8 connector)
- Slot 3 - HL/FH x4 PCIe 2.0 (x8 connector)
- Additional PCIe Slots may be added with the 2nd Riser Cage option.

System Fans - 4 standard (2 additional fans included with second processor)
Drive Cage - 8LFF (drive blanks installed dependent on number of drives ordered)
USB - 4 Rear, 2 Front, 2 Internal, 1 SD slot
HPE iLO Management Engine (iLO4)
NOTE: Smart Array Cache options, Hard drives, Optical drives, Flexible NICs*, Power Supply* and Rail/CMA Kits not included in the base configuration - choose these from Steps 2 or 4 below in Options section.

Configuration Information - Factory Integrated Models

* Required selection.

HP ProLiant DL385p Gen8 12 LFF Configure-to-order Server   669805-B21

Factory Integrated Model ships with:

Drive Cage - 12-LFF Drive Bays available (See hard drives in Section 4 for options)
NO SID-Systems Insight Display Included
24 DIMM slots for RDIMM and LRDIMM memory installation
Smart Array P420i Controller w/ Zero Memory (ZM)
I/O slots - 3 Slots come standard:

- Slot 1 - FL/FH x8 PCIe 2.0 (x16 connector)
- Slot 2 - HL/FH x8 PCIe 2.0 (x8 connector)
- Slot 3 - HL/FH x4 PCIe 2.0 (x8 connector)
- Additional PCIe Slots may be added with the 2nd Riser Cage option.

System Fans - 4 standard (2 additional fans included with second processor)
USB - 4 Rear, 2 Front, 2 Internal, 1 SD slot
HPE iLO Management Engine (iLO4)
NOTE: Customers can only choose from 135W processors or lower in this configure-to-order model.
NOTE: Smart Array Cache options, Hard drives, Flexible NICs*, Power Supply* and Rail/CMA Kits not included in the base configuration - choose these from Steps 2 or 4 below in Options section.
* Required selection.

HP ProLiant DL385p Gen8 25 SFF Configure-to-order Server   669803-B21

Factory Integrated Model ships with:

Drive Cage - 25-SFF Drive Bays available (See hard drives in Section 4 for options)
NO SID-Systems Insight Display Included
24 DIMM slots for RDIMM, LRDIMM, and UDIMM memory installation
1 FlexibleLOM connector (see Step2: HPE Flexible NIC section below for NIC choices to populate the embedded connector)
Smart Array P420i Controller w/ Zero Memory (ZM)
I/O slots - 3 Slots come standard:

- Slot 1 - FL/FH x8 PCIe 2.0 (x16 connector)
- Slot 2 - HL/FH x8 PCIe 2.0 (x8 connector)
- Slot 3 - HL/FH x4 PCIe 2.0 (x8 connector)
- Additional Slots may be added via selection from the "PCI Information and Options" subsection

System Fans - 4 standard (2 additional fans included with second processor)
Drive Cage - 12LFF (drive blanks installed dependent on number of drives ordered)
USB - 4 Rear, 2 Front, 2 Internal, 1 SD slot
HPE iLO Management Engine (iLO4)
NOTE: Customers can only choose from 135W processors or lower in this configure-to-order model.
NOTE: Smart Array Cache options, Hard drives, Flexible NICs*, Power Supply* and Rail/CMA Kits not included in the base configuration - choose these from Steps 2 or 4 below in Options section.
* Required selection.

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

Configuration Information - Factory Integrated Models

HPE Processors	NOTE: All processors support up to 1600MHz DDR3 memory speeds. NOTE: The 12LFF and 25SFF CTO Server models do not support processor greater than 135W	
	Sixteen-Core Processors	
	HP DL385p Gen8 AMD Opteron™ 6386SE (2.8GHz/16-core/16MB/140W) FIO Processor Kit	703939-L21
	HP DL385p Gen8 AMD Opteron™ 6380 (2.5GHz/16-core/16MB/115W) FIO Processor Kit	703941-L21
	HP DL385p Gen8 AMD Opteron™ 6378 (2.4GHz/16-core/16MB/115W) FIO Processor Kit	703943-L21
	HP DL385p Gen8 AMD Opteron™ 6376 (2.3GHz/16-core/16MB/115W) FIO Processor Kit	703946-L21
	HP DL385p Gen8 AMD Opteron™ 6366HE (1.8GHz/16-core/16MB/85W) FIO Processor Kit	703950-L21
	Twelve-Core Processors	
	HP DL385p Gen8 AMD Opteron™ 6348 (2.8GHz/12-core/16MB/115W) FIO Processor Kit	703952-L21
	HP DL385p Gen8 AMD Opteron™ 6344 (2.6GHz/12-core/16MB/115W) FIO Processor Kit	703954-L21
	Eight-Core Processors	
	HP DL385p Gen8 AMD Opteron™ 6328 (3.2GHz/8-core/16MB/115W) FIO Processor Kit	703958-L21
	HP DL385p Gen8 AMD Opteron™ 6320 (2.8GHz/8-core/16MB/115W) FIO Processor Kit	703960-L21
	Quad-Core Processors	
	HP DL385p Gen8 AMD Opteron™ 6308 (3.5GHz/4-core/16MB/115W) FIO Processor Kit	703962-L21
HPE Memory	NOTE: To realize the performance memory capabilities listed in this document, HPE SmartMemory is recommended. For additional information, please see the **HPE SmartMemory QuickSpecs**.	
	Registered DIMMs (RDIMMs)	
	HP 8GB (1x8GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	647879-B21
	HP 16GB (1x16GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647883-B21
	HP 16GB (1x16GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	672633-B21
	Load Reduced DIMMs(LRDIMMs)	
	HP 32GB (1x32GB) Quad Rank x4 PC3L-10600L (DDR3-1333) Load Reduced CAS-9 Low Voltage Memory Kit	647885-B21

NOTE: HPE memory from previous generation servers may not provide the same performance with the HPE ProLiant DL385p Gen8 Servers as HPE SmartMemory will.
NOTE: If only one processor is installed, only half the DIMM slots are available.
NOTE: Depending on the memory configuration, the memory speed may run at 1600MHz, 1333MHz, 1066MHz or lower. Please see Memory Population Table or the Online Memory Configuration Tool at: **http://www.hp.com/go/ddr3memory-configurator**.
NOTE: All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory

Configuration Information - Factory Integrated Models

Configuration Tool: **http://www.hp.com/go/ddr3memory-configurator**.

HPE Networking	**FlexibleLOM Adapters**	
	NOTE: The HPE ProLiant DL385p Gen8 server requires one FlexibleLOM to be installed in the FlexibleLOM slot.	
	HP Ethernet 1Gb 4-port 331FLR FIO Adapter	684208-B21
	HP Ethernet 10Gb 2-port 530FLR-SFP+ FIO Adapter	684210-B21
	HP FlexFabric 10Gb 2-port 554FLR-SFP+ FIO Adapter	684213-B21
	HP Ethernet 1Gb 4-port 366FLR FIO Adapter	684217-B21
	HP Ethernet 10Gb 2-port 560FLR-SFP+ FIO Adapter	684218-B21
	HP FlexFabric 10Gb 2-port 526FLR-SFP+ FIO Adapter	684219-B21
	HP Ethernet 10Gb 2-port 561FLR-T FIO Adapter	700700-B21
	HP FlexFabric 10Gb 2-port 534FLR-SFP+ FIO Adapter	700752-B21
	HP FlexFabric 10Gb 2-port 533FLR-T FIO Adapter	700760-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: **http://www.hp.com/go/ProLiantNICs**.	
HPE Power Supplies	**NOTE:** Mixing of power supplies in the same server is not supported. All power supplies inside a server must be exactly the same model. Mixing Gold, Platinum, and Platinum Plus certified power supplies is not supported.	
	NOTE: Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: **http://www.hp.com/go/hppoweradvisor**.	
	HPE Common Slot Platinum Plus Power Supply Kits	
	NOTE: The following Power Supplies offer 94% Efficiency with support for Intelligent Power Discovery.	
	HP 460W Common Slot Platinum Plus Hot Plug Power Supply Kit	656362-B21
	HP 750W Common Slot Platinum Plus Hot Plug Power Supply Kit	656363-B21
	HP 1200W Common Slot Platinum Plus Hot Plug Power Supply Kit	656364-B21
	HPE Common Slot Gold Power Supplies	
	NOTE: The following Power Supplies offer 92% efficiency.	
	HP 460W CS Gold Ht Plg Power Supply Kit	503296-B21
	HP 750W Common Slot Gold Hot Plug Power Supply Kit	512327-B21
	HPE Common Slot -48VDC Power Supplies	
	HP 750W Common Slot -48VDC Hot Plug Power Supply Kit	636673-B21
	NOTE: The HPE 750W Common Slot -48VDC power supply does not ship with a power cable. It has been designed with a terminal block connection allowing for custom design of power cords by the user.	
	NOTE: Option Kits for AC power supplies include the power supply and one PDU IEC cable.	
	NOTE: HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). For a full list of optional HPE power cords please go to **http://www.hp.com/products/powercords**	
	NOTE: Power Specification and Technical Content for supported power supplies can be found at: **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111541**	

Step 3: Choose Additional Factory Integratable Options (only one of the following from each list unless otherwise noted)

Configuration Information - Factory Integrated Models

HPE Rack Kits	**NOTE:** Rail kits are optional for Gen8 and are no longer included standard with the server (except pre-configured/Smart Buy Models). The customer has the choice to not include rail kits with their server purchase, but it is recommended. **NOTE:** HPE 2U Ball Bearing Rail Kits and Easy Install Rail Kits provide full serviceability of the server while in the Rack and have the option to include a CMA. HPE 2U Friction Rail Kits ARE NOT serviceable in the Rack and must be removed from the rack and do not include CMA. **NOTE:** Additional HPE Rack Kit options can be found in "Step 4: Additional Options, HPE Rack Options - Rail Kits" section of this QuickSpecs. Only FIO options are listed here. **NOTE:** To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (p/n 695539-001). **CAUTION:** Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.	
	HP 2U FIO Friction Rail Kit **NOTE:** No in-rack serviceability.	663476-B21
HPE Insight Software	HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle Single Server FIO License	C6N36A
	HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle FIO Electronic License	C6N36ABE
Converged Infrastructure Management Software	**HPE OneView with iLO Advanced - Server hardware required on same purchase order**	
	HP OneView for DL ProLiant including 3yr 24x7 Support FIO 1 Server LTU	E5Y43A
	HPE OneView without iLO Advanced - Server hardware required on same purchase order	
	HP OneView w/o iLO including 3yr 24x7 Support FIO 1 Server LTU	P8B31A

Step 4: Choose Additional Options for Factory Integration from Core and Additional Options sections below.

Core Options

HPE Unique Options	HP DL380/DL385 Gen8 8 Small Form Factor Hard Drive Backplane Cage Kit	662883-B21
	NOTE: With upgrade of 8SFF Cage/Bkpln, there is no Optical Drive support.	
	NOTE: All cables necessary for proper installation of the 8SFF Cage are included with this Kit.	
	NOTE: With upgrade of 8SFF Cage/Bkpln, an additional storage controller is required. Please go to the Storage Controller section for options available.	
	HP DL385p Gen8 x16 2x8 PCI-E Riser Kit	653214-B21
	NOTE: 2nd Riser Cage requires 2nd Processor.	

HPE Processors	**Sixteen-Core Processors**	
	NOTE: All support up to 1600MHz DDR3 memory speeds.	
	HP DL385p Gen8 AMD Opteron™ 6386SE (2.8GHz/16-core/16MB/140W) Processor Kit	703939-B21
	HP DL385p Gen8 AMD Opteron™ 6380 (2.5GHz/16-core/16MB/115W) Processor Kit	703941-B21
	HP DL385p Gen8 AMD Opteron™ 6378 (2.4GHz/16-core/16MB/115W) Processor Kit	703943-B21
	HP DL385p Gen8 AMD Opteron™ 6376 (2.3GHz/16-core/16MB/115W) Processor Kit	703946-B21
	HP DL385p Gen8 AMD Opteron™ 6366HE (1.8GHz/16-core/16MB/85W) Processor Kit	703950-B21
	Twelve-Core Processors	
	HP DL385p Gen8 AMD Opteron™ 6348 (2.8GHz/12-core/16MB/115W) Processor Kit	703952-B21
	HP DL385p Gen8 AMD Opteron™ 6344 (2.6GHz/12-core/16MB/115W) Processor Kit	703954-B21
	Eight-Core Processors	
	HP DL385p Gen8 AMD Opteron™ 6328 (3.2GHz/8-core/16MB/115W) Processor Kit	703958-B21
	HP DL385p Gen8 AMD Opteron™ 6320 (2.8GHz/8-core/16MB/115W) Processor Kit	703960-B21
	Quad-Core Processors	
	HP DL385p Gen8 AMD Opteron™ 6308 (3.5GHz/4-core/16MB/115W) Processor Kit	703962-B21
	NOTE: Up to 2 processors supported in all models.	
	NOTE: DDR3 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.	

HPE Memory	**NOTE:** To realize the performance memory capabilities listed in this document, HPE SmartMemory is recommended. For additional information, please see the **HPE SmartMemory QuickSpecs**.	
	Registered DIMMs (RDIMMs)	
	HP 8GB (1x8GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	647879-B21
	HP 16GB (1x16GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647883-B21

Core Options

	HP 16GB (1x16GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	672633-B21

Load Reduced DIMMs (LRDIMMs)

HP 32GB (1x32GB) Quad Rank x4 PC3L-10600L (DDR3-1333) Load Reduced CAS-9 Low Voltage Memory Kit	647885-B21

NOTE: HPE memory from previous generation servers may not provide the same performance with the HPE ProLiant DL385p Gen8 Servers as HPE SmartMemory will.
NOTE: If only one processor is installed, only half the DIMM slots are available.
NOTE: Depending on the memory configuration, the memory speed may run at 1600MHz, 1333MHz, 1066MHz or lower. Please see Memory Population Table or the Online Memory Configuration Tool at: **http://www.hp.com/go/ddr3memory-configurator**.
NOTE: All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool: **http://www.hp.com/go/ddr3memory-configurator**.

HPE Optical Drives

HP 12.7mm Slim SATA DVD-ROM JackBlack Optical Drive	652232-B21
HP 12.7mm Slim SATA DVD-RW JackBlack Optical Drive	652235-B21

NOTE: Not Available on 8+8 LFF, 12LFF or 25SFF Models.

HPE Hard Drives

NOTE: The HPE ProLiant DL385p Gen8 Smart Storage solutions are equipped with entirely re-designed Small Form Factor (SFF 2.5 in) and Large Form Factor (LFF 3.5 in) hot plug carriers for HPE Qualified Hard Drives and Solid State Drives. These new carriers provide status, location and activity indicators as well as caution indicators for "Do Not Remove".
NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.
NOTE: Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

12G SAS Hot Plug SmartDrive SFF (2.5-inch) Enterprise Drives

HP 600GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759212-B21
HP 450GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759210-B21
HP 300GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759208-B21
HP 1.2TB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	781518-B21
HP 900GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	785069-B21
HP 600GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	781516-B21
HP 300GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	785067-B21

12G SAS Hot Plug SmartDrive LFF (3.5-inch) Converter Enterprise Drives

HP 600GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	765424-B21
HP 450GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	737394-B21
HP 300GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	737261-B21

12G SAS Hot Plug LFF (3.5in) 7.2K MDLSC HDD

HPE 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	818367-B21
HPE 2TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	818365-B21

Core Options

12G SAS Hot Plug SFF (2.5-inch) SC 512e Drives

HP 2TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765466-B21
HP 1TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765464-B21
HP 600GB 12G SAS 15K rpm SFF (2.5-inch) SC 512e Enterprise 3yr Warranty Hard Drive	748387-B21

12G SAS Hot Plug SFF (2.5-inch) Midline (MDL) Drives

HPE 1TB 12G SAS 7.2K rpm SFF (2.5in) SC Midline 1yr Warranty Hard Drive	832514-B21

12G SAS Hot Plug LFF (3.5-inch) Midline (MDL) 512e Drives

HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765259-B21
HP 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765257-B21

12G SAS Hot Plug LFF (3.5-inch) SC 512e Performance Drives

HP 8TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793703-B21
HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793699-B21
HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793671-B21
HP 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793669-B21

6G SAS Hot Plug with SmartDrive SFF (2.5-inch) Enterprise Drives

HP 1.8TB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 512e 3yr Warranty Hard Drive	791034-B21

12G SAS SFF (2.5in) RI-3 SC Solid State Drives

HPE 3.84TB 12G SAS Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816576-B21

12G SAS SFF (2.5in) MU-3 SC Solid State Drives

HPE 3.2TB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822567-B21
HPE 400GB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822555-B21

6G SAS Hot Plug SmartDrive LFF (3.5-inch) Midline Drives

HP 6TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	761477-B21
HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652766-B21
HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652753-B21

6G SATA 2.5in WI-PLP SCC Solid State Drives

HP 1.2TB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804680-B21
HP 800GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804674-B21
HP 400GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804668-B21
HP 200GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804642-B21
HP 800GB 6G SATA Write Intensive-2 LFF 3.5-in LPC 3yr Wty Solid State Drive	831725-B21

6G SATA 2.5in MU-PLP SCC Solid State Drives

HP 1.6TB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804634-B21
HP 800GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804628-B21
HP 480GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	832417-B21
HP 200GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804616-B21

6G SATA 2.5in RI-PLP SCC Solid State Drives

HP 1.6TB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804608-B21
HP 800GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804602-B21
HP 480GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804596-B21
HP 240GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804590-B21

Core Options

HP 120GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804584-B21
HP 80GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804578-B21

6G SATA 2.5in WI-PLP SC Solid State Drives

HP 1.2TB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804677-B21
HP 800GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804671-B21
HP 400GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804665-B21
HP 200GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804639-B21

6G SATA 2.5in MU-PLP SC Solid State Drives

HP 1.6TB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804631-B21
HP 800GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804625-B21
HP 480GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	832414-B21
HP 200GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804613-B21

6G SATA 2.5in RI-PLP SC Solid State Drives

HP 1.6TB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804605-B21
HP 800GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804599-B21
HP 480GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804593-B21
HP 240GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804587-B21
HP 120GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804581-B21
HP 80GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804575-B21

6G SATA Hot Plug SFF (2.5-inch) SC 512e Drives

HP 2TB 6G SATA 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765455-B21
HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765453-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111744

6G SATA Hot Plug with SmartDrive SFF (2.5-inch) Midline (MDL) Drives

HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655710-B21

6G SATA Hot Plug MU-3 SFF (2.5-inch) SC Solid State Drives

HP 1.92TB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	817011-B21
HP 960GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816995-B21
HP 480GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816985-B21

6G SATA Hot Plug RI-3 SFF (2.5-inch) SC Solid State Drives

HP 3.84TB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816929-B21

6G SATA Hot Plug LFF (3.5-inch) RI-3 SCC SSD

HP 3.84TB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816933-B21

6G SATA Hot Plug LFF (3.5-inch) MU-3 SCC SSD

HP 960GB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816999-B21
HP 480GB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816989-B21

6G SATA Hot Plug with SmartDrive LFF (3.5-inch) Midline (MDL) Drives

HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793683-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	753874-B21
HP 4TB 6G SATA 7.2k rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	693687-B21
HP 3TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	628061-B21
HP 2TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658079-B21

Core Options

HP 1TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	657750-B21
HP 500GB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658071-B21

6G SATA Hot Plug LFF (3.5-inch) Midline (MDL) 512e Drives

HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drives	793665-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793667-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765255-B21
HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765253-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111725

12G SAS Mainstream Endurance Hot Plug SFF (2.5-inch) Enterprise Mainstream H2 Solid State Drives

HP 1.6TB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779176-B21
HP 800GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779172-B21
HP 400GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779168-B21
HP 200GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779164-B21

12G SAS Hot Plug SFF (2.5-inch) SC Read/Write Intensive Solid State Drives

HP 1.92TB 12G SAS Read Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802891-B21
HP 800GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802586-B21
HP 400GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802582-B21
HP 200GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802578-B21

6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Value M1 Solid State Drive

HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764929-B21
HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764927-B21
HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764925-B21
HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764923-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154378

Hard Drive Kits
NOTE: All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.

HP Small Form Factor Hard Drive Blank Kit	666987-B21
HP Large Form Factor Hard Drive Blank Kit	666986-B21
HP DL380/DL385 Gen8 8 Small Form Factor Hard Drive Backplane Cage Kit	662883-B21

HPE Networking   **Gigabit Server adapters**

Core Options

HP NC365T 4-port Ethernet Server Adapter	593722-B21
HP Ethernet 1Gb 4-port 331T Adapter	647594-B21
HP Ethernet 1Gb 2-port 332T Adapter	615732-B21
HP Ethernet 1Gb 2-port 361T Adapter	652497-B21

10 Gigabit Server Adapters

NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately.

HP NC523SFP 10Gb 2-port Server Adapter	593717-B21
HP NC552SFP 10Gb 2-port Ethernet Server Adapter	614203-B21
HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter	629138-B21
HP Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HP Ethernet 10Gb 2-port 530T Adapter	656596-B21
HP FlexFabric 10Gb 2-port 533FLR-T Adapter	700759-B21
HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter	700751-B21
HP FlexFabric 10Gb 2-port 556FLR-SFP+ FIO Adapter	732456-B21

NOTE: This is a FIO only part.

HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21
HP Ethernet 10Gb 2-port 561FLR-T Adapter	700699-B21
HP Ethernet 10Gb 2-port 561T Adapter	716591-B21
HP Ethernet 10Gb 2-port 570SFP+ Adapter	718904-B21

FlexibleLOM Adapters

HP Ethernet 1Gb 4-port 331FLR Adapter	629135-B21
HP Ethernet 1Gb 4-port 366FLR Adapter	665240-B21
HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter	647581-B21
HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter	629142-B21
HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	665243-B21
HP Ethernet 10Gb 2-port 570FLR-SFP+ Adapter	717491-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information: **http://www.hp.com/go/ProLiantNICs**

HPE InfiniBand	HP Infiniband FDR/Ethernet 10Gb/40Gb 2-port 544QSFP Adapter	649281-B21

NOTE: For the following two InfiniBand Adapters, only 1 FlexibleLOM can be added to the server, which is selected in Step 2 for the "Configuration Information - Factory Integrated Models" section. These two options are for upgrade or change from original configuration.

HP Infiniband FDR/Ethernet 10Gb/40Gb 2-port 544FLR-QSFP Adapter	649282-B21
HP InfiniBand FDR 2-port 545QSFP Adapter	702211-B21

NOTE: FLR Indicates new HPE FlexibleLOM Adapter series.

NOTE: Please see the QuickSpecs for additional information: **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154440**

HPE I/O Expansion Options	HP DL385p Gen8 x16 2x8 PCI-E Riser Kit	653214-B21

NOTE: 2nd Riser Cage requires 2nd Processor.

HPE Power Supplies   **NOTE:** Mixing of power supplies in the same server is not supported. All power

Core Options

supplies inside a server must be exactly the same model. Mixing Gold, Platinum, and Platinum Plus certified power supplies is not supported.

NOTE: Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at:
http://www.hp.com/go/hppoweradvisor.

HPE Common Slot Platinum Plus Power Supply Kits

NOTE: The following Power Supplies offer 94% Efficiency with support for Intelligent Power Discovery.

HP 460W Common Slot Platinum Plus Hot Plug Power Supply Kit	656362-B21
HP 750W Common Slot Platinum Plus Hot Plug Power Supply Kit	656363-B21
HP 1200W Common Slot Platinum Plus Hot Plug Power Supply Kit	656364-B21

HPE Common Slot Gold Power Supplies

NOTE: The following Power Supplies offer 92% Efficiency.

HP 460W CS Gold Ht Plg Power Supply Kit	503296-B21
HP 750W Common Slot Gold Hot Plug Power Supply Kit	512327-B21

HPE Common Slot -48VDC Power Supplies

NOTE: The following Power Supplies offer 92% Efficiency.

HP 750W Common Slot -48VDC Hot Plug Power Supply Kit	636673-B21

NOTE: The HPE 750W Common Slot -48VDC power supply does not ship with a power cable. It has been designed with a terminal block connection allowing for custom design of power cords by the user.

NOTE: Option Kits contain optional power supply, an IEC power cable and PDU IEC cables.

NOTE: HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). For a full list of optional HPE power cords please go to **http://www.hp.com/products/powercords**

NOTE: Power Specification and Technical Content for supported power supplies can be found at:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111541

Additional Options

NOTE: Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an Hewlett Packard Enterprise approved configurator. Contact your local sales representative for additional information.

HPE Insight Software	**HPE Insight Control**	
	HP Insight Control including 1yr 24x7 Technical Support and Updates Single Server License	C6N27A
	HP Insight Control including 1yr 24x7 Technical Support and Updates Electronic License	C6N28ABE
	HP Insight Management Media Kit	C6N31A

NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.

NOTE: Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HPE Software Technical Support and Update Service.

NOTE: Licenses ship without media. The HPE Insight Control Media Kit can be ordered separately, or can be downloaded at:
http://www.hp.com/go/insightupdates.

NOTE: For additional license options please see the QuickSpecs at:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04123391

HPE Integrated Lights-Out (iLO) Advanced for ProLiant

HP iLO Advanced including 1yr 24x7 Technical Support and Updates E-LTU	E6U59ABE
HP iLO Advanced including 3yr 24x7 Technical Support and Updates E-LTU	E6U64ABE
HP iLO Advanced including 1yr 24x7 Technical Support and Updates Single Server License	512485-B21
HP iLO Advanced 1 Server License with 3yr 24x7 Tech Support and Updates	BD505A

NOTE: For additional license options please see the QuickSpecs at:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154343

NOTE: For more information, visit: **http://www.hp.com/go/ilo**

Converged Infrastructure Management Software	**HPE OneView**	
	HPE OneView with iLO Advanced	
	HP OneView Media Kit Phys No Lic	E5Y37A
	HP OneView incl 3yr 24x7 Supp Phys 1 Svr Lic	E5Y34A
	HP OneView incl 3yr 24x7 Supp Flex Qty E-LTU	E5Y35AAE
	HP Operations Analytics for HP OneView LTU	K8G29A
	HP Operations Analytics for HP OneView E-LTU	K8G29AAE
	HPE OneView without iLO Advanced	
	HP OneView w/o iLO including 3yr 24x7 Support 1 Server LTU	P8B24A
	HP OneView w/o iLO including 3yr 24x7 Support Flex Quantity E-LTU	P8B26AAE

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111367

High Performance Clusters	**HPE Cluster Management Utility**	
	HP Insight Cluster Management Utility 1yr 24x7 Flexible License	QL803B

Additional Options

| | HP Insight Cluster Management Utility 3yr 24x7 Flexible License | BD476A |
| | HP Insight Cluster Management Utility for ConvergedSystem 3yr 24x7 Flexible License | G2E81A |

NOTE: These part numbers can be used to purchase one certificate for multiple licenses and support with a single activation key. Each license is for one node (server). Customer will receive a printed end user license agreement and license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online in order to obtain a license key. Customer also will receive a support agreement.

| | HP Insight Cluster Management Utility Media | BD477A |

NOTE: For additional license kits please see the QuickSpecs at
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111735

| **HPE I/O Accelerator Options** | **Second Generation Accelerators** | |
| | HP 1205GB Multi Level Cell G2 PCIe ioDrive2 for ProLiant Servers | 673646-B21 |

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111683

HPE PCIe Workload Accelerator Options	**Light Endurance (LE) PCIe Workload Accelerators**	
	HP 5.2TB FH/HL Light Endurance (LE) PCIe Workload Accelerator	775672-B21
	HP 2.6TB HH/HL Light Endurance (LE) PCIe Workload Accelerator	775670-B21
	HP 1.3TB HH/HL Light Endurance (LE) PCIe Workload Accelerator	775668-B21
	HP 1.0TB HH/HL Light Endurance (LE) PCIe Workload Accelerator	775666-B21
	Value Endurance (VE) PCIe Workload Accelerators	
	HP 1.3TB HH/HL Value Endurance (VE) PCIe Workload Accelerator	763834-B21
	HP 1.6TB HH/HL Value Endurance (VE) PCIe Workload Accelerator	763836-B21
	HP 3.2TB HH/HL Value Endurance (VE) PCIe Workload Accelerator	763838-B21
	HP 6.4TB FH/HL Value Endurance (VE) PCIe Workload Accelerator	763840-B21
	Read Intensive (RI) PCIe Workload Accelerators	
	HPE 1.3TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831733-B21
	HPE 1.6TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831735-B21
	HPE 3.2TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831737-B21
	HPE 6.4TB Read Intensive-2 FH/HL PCIe Workload Accelerator	831739-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04123190

| **HPE Security** | HP Trusted Platform Module Option | 488069-B21 |

NOTE: The TPM (Trusted Platform Module) is a microcontroller chip that can securely store artifacts used to authenticate the server platform. These artifacts can include passwords, certificates and encryption keys. Windows® BitLocker™ Drive Encryption (BitLocker) is a data protection feature available in Windows Server® 2008. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module (TPM) version 1.2. The TPM works with BitLocker to help protect user data and to ensure that a server running Windows Server 2008 has not been tampered with while the system was offline. For more information about TPM, including a white paper, go to: **http://www.hp.com/go/TPM**.
NOTE: ProLiant OS pre-installed units will come with the partition required for TPM deployment.

Additional Options

> **NOTE:** The TPM key is unique to every TPM deployed server and must be retained. Misplacing or losing the key could result in data loss.

HP 2U Security Bezel Kit	666988-B21

HPE Storage Controllers	**SAS Controllers**	
	Smart Array P222 Controller	
	HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller	631667-B21
	Smart Array P420 Controller	
	HP Smart Array P420/1GB FBWC 6Gb 2-ports Int SAS Controller	631670-B21
	HP Smart Array P420/2GB FBWC 6Gb 2-ports Int SAS Controller	631671-B21
	Smart Array P421 Controller	
	HP Smart Array P421/1GB FBWC 6Gb 2-ports Ext SAS Controller	631673-B21
	Smart Array P430 Controller	
	HP Smart Array P430/4GB FBWC 12Gb 1-port Int SAS Controller	698530-B21
	HP Smart Array P430/2GB FBWC 12Gb 1-port Int SAS Controller	698529-B21
	Smart Array P431 Controller	
	HP Smart Array P431/4GB FBWC 12Gb 2-ports Ext SAS Controller	698532-B21
	HP Smart Array P431/2GB FBWC 12Gb 2-ports Ext SAS Controller	698531-B21
	Smart Array P830 Controller	
	HP Smart Array P830/4GB FBWC 12Gb 2-ports Int SAS Controller	698533-B21
	Optional Upgrades	
	HP 1GB P-series Smart Array Flash Backed Write Cache	631679-B21
	HP 2GB P-series Smart Array Flash Backed Write Cache	631681-B21
	HP 512MB P-series Smart Array Flash Backed Write Cache	661069-B21
	HP SmartCache No Media 24x7 Technical Support 1 Svr License	D7S26A
	HP SmartCache No Media 24x7 Technical Support Flexible License	D7S27A
	HP SmartCache No Media 24x7 Technical Support Electronic License	D7S27AAE
	HP Secure Encryption per Svr Entitlement	C9A82AAE
	HPE Cable Options	
	HP DL38x/DL360 Gen8 Embedded SATA Cable Kit	664009-B21
	HP Mini SAS/Straight to Straight 25 SFF Bypass Cable Assembly	726974-B21
	HP Mini SAS Straight to Straight 37in Cable Assembly	662897-B21
	HP Mini SAS/Straight to Straight Offset Bypass Cable Assembly	697611-B21
	HP Mini SAS/Straight to Straight Short Bypass Cable Assembly	697691-B21
	HP DL38Xp Gen8 8 Large Form Factor (LFF) P430/830 Cable Kit	729270-B21
	HP DL38Xp Gen8 12 Large Form Factor (LFF) P430/830 Cable Kit	729272-B21
	HP DL38Xp Gen8 25 Small Form Factor (SFF) P430/830 Cable Kit	729274-B21
	HP 6G SAS P430/830 Secondary Cable Kit	729276-B21
	HP 6G SAS P430/830 Primary Cable Kit	729278-B21

> **NOTE:** Please see the QuickSpecs for Technical Specifications and additional information:
> **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111474** (Smart Array P222 Controller)
> **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111382** (Smart Array P430 Controller)
> **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111365**

Additional Options

(Smart Array P431 Controller)
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111534
(Smart Array P420 Controller)
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111533
(Smart Array P421 Controller)
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04227582
(Smart Array P830 Controller)

Host Bus Adapter

HP H220 Host Bus Adapter	650933-B21
HP H221 PCIe 3.0 SAS Host Bus Adapter	729552-B21
HP H222 Host Bus Adapter	650926-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111455
(HBA 220)
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111475
(HBA 221)
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111514
(HBA 222)

HPE Disk Enclosures

HP D3600 Enclosure	QW968A
HP D3700 Enclosure	QW967A

NOTE: See the D3000 Disk Enclosure QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04227611

HP D2600 Disk Enclosure	AJ940A
HP D2700 Disk Enclosure	AJ941A

NOTE: See the D2000 Disk Enclosure QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111697

HP D6000 Dual I/O Module Disk Enclosure	QQ695A

NOTE: See the D6000 Disk Enclosure QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111505

HPE Tape Backup

NOTE: For the complete range of tape drives, autoloaders, libraries and media see: **http://www.hp.com/go/tape**. For hardware and software compatibility of HPE tape backup products see: **http://www.hp.com/storage/SPOCK**
NOTE: For Internal drives to be connected to DL servers please make sure that you order rack mount kit as well.

HP StoreEver LTO-5 Ultrium 3000 SAS External Tape Drive	EH958B
HP StoreEver LTO-6 Ultrium 6250 Tape Drive in 1U Rack-mount Kit	C0L99A
HP StoreEver LTO-6 Ultrium 6650 SAS External Tape Drive	EH964A
HP StoreEver LTO-6 Ultrium 6250 External Tape Drive	EH970A
HPE StoreEver 1/8 G2 LTO-6 Ultrium 6250 Fibre Channel Tape Autoloader	C0H19A

NOTE: Please see the QuickSpecs for additional part numbers, Technical Specifications, and additional information:

Additional Options

https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111633

HPE Tape Storage Systems	**HPE StoreEver MSL6480**	
	HPE StoreEver MSL6480 Scalable Base Module	QU625A
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111416**	
HPE Disk Backup	**NOTE:** For the complete range of RDX drives and media see: **http://www.hp.com/go/rdx**. For hardware and software compatibility of HPE disk backup products see: **http://www.hp.com/storage/SPOCK**.	
	HPE RDX Removable Disk Backup System	
	HP RDX 2TB USB3.0 External Disk Backup System	E7X53B
	HP RDX+ 1TB External Backup System	B7B69B
	HP RDX+ 500GB External Backup System	B7B66B
	HP RDX+ External Docking System	C8S07B
	NOTE: Please see the QuickSpecs for additional part numbers, Technical Specifications, and additional information: **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111633**	
HPE Storage Options	**Storage Fibre Channel HBA**	
	NOTE: For the complete listing of Fibre Channel Host Bus Adapters for Windows 2000, Windows Server 2003 and Linux, please see: **http://h18006.www1.hp.com/storage/saninfrastructure/hba.html**	
	Brocade Fibre Channel HBAs	
	HP 81B 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AP769B
	HP 82B 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AP770B
	Emulex Fibre Channel HBAs	
	HP 81E 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AJ762B
	HP 82E 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ763B
	HP StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter	C8R38A
	HP StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter	C8R39A
	QLogic Fibre Channel HBAs	
	HP 81Q 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AK344A
	HP 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ764A
	HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter	QW971A
	HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter	QW972A
	Converged Network Adapter	
	HP StoreFabric CN1200E 10Gb Converged Network Adapter	E7Y06A
	HP CN1100E Dual Port Converged Network Adapter	BK835A
	HP CN1000Q Dual Port Converged Network Adapter	BS668A
	HP StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A
HPE Uninterruptible Power Systems	**HPE DirectFlow Three Phase UPS**	
	Power Unit (1U UPS)	
	HP R12000 DirectFlow - 1U Rackmount Uninterruptible Power System	G9Y75A
	HP R12000 DirectFlow - POD 1U Rackmount Uninterruptible Power System	AF478A

Additional Options

Input/Output Module Options for 1U UPS

NOTE: Choose one I/O Module per UPS.

HP 30A 400-415 Volt Three Phase NA R10000 DirectFlow UPS IEC309 Input/Output Module	AF489A
HP 30A 480 Volt Three Phase NA R12000 DirectFlow UPS L22-30 Input/Output Module	AF491A
HP 30A 480 Volt Three Phase NA R12000 DirectFlow UPS IEC309 Input/Output Module	AF492A
HP 30A 400-415 Volt Three Phase NA R12000 DirectFlow UPS IEC309 Input/Output Module	G9Y76A

NOTE: All Input/Output Modules support dual output outlets except the AF484A.

HPE Tower UPS

HPE T750 G4 UPS Models

HP T750 G4 NA/JP Uninterruptible Power System	J2P85A

HPE T1000 G4 UPS Models

HP T1000 G4 NA/JP Uninterruptible Power System	J2P86A

HPE T1500 G4 UPS Models

HP T1500 G4 NA/JP Uninterruptible Power System	J2P87A

HPE Rack/Tower UPS

HPE R/T2200 G4 UPS Models

HP R/T2200 G4 NA/JP Uninterruptible Power System	J2R00A
HP R/T2200 G4 Extended Runtime Module	J2R09A

HPE R/T3000 G4 UPS Models

HP R/T3000 G4 Low Voltage NA/JP Uninterruptible Power System	J2R01A
HP R/T3000 G4 High Voltage NA/JP Uninterruptible Power System	J2R02A
HP R/T3000 G4 Extended Runtime Module	J2R10A

HPE R1500 G4 Uninterruptible Power Supply (UPS)

HP R1500 G4 NA Uninterruptible Power System	J2Q99A

R5000 Uninterruptible Power System (UPS)

HP R5000 3U L630 High Voltage NA/JP Uninterruptible Power System	AF460A

NOTE: Please see the QuickSpecs for additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04155299

R7000 Uninterruptible Power System (UPS)

HP R7000 4U 50A High Voltage NA/JP Uninterruptible Power System	AF462A

NOTE: Please see the QuickSpecs for additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04155297

NOTE: For additional information on HPE Uninterruptible Power Systems please go to: **http://www.hp.com/servers/rackups**.
NOTE: For additional information on sizing your server, please reference: **http://www.upssizer.com**.
NOTE: Please see the UPS and PDU cable matrix's on the HPE Power Protection and Management page. Under Power Cords, click on the "HPE Power Cord Matrix" link. That link will list cable descriptions, requirements, and specifications for UPS and PDU units. Please see the following link:
http://www.hp.com/products/powercords.

HPE Basic Power   **HPE Basic Power Distribution Unit: 1U/0U Version**

Additional Options

Distribution Units (PDU)	HPE Basic 1.9kVA/L5-20P 16A/120V Outlets (12) 5-20R/Horizontal NA/JP PDU	H5M54A
	HPE Basic 3.6kVA/60320 C20 Detachable 16A/230V Outlets (12) C13/Horizontal WW PDU	H5M56A
	HPE Basic Power Distribution Unit: Half Height Version	
	HPE Basic 2.8kVA/L5-30P 24A/120V Outlets (18) 5-20R/Vertical NA/JP PDU	H5M55A
	HPE Basic 4.9kVA/60320 C20 Detachable 16A/230V Outlets (20) C13/Vertical WW PDU	H5M57A
	HPE Basic 4.9kVA/L6-30P 24A/208V Outlets (20) C13/Vertical NA/JP PDU	H5M58A
	HPE Basic 3Ph 8.6kVA/L15-30P 24A/208V Outlets (18) C13/Vertical NA/JP PDU	H5M61A
	HPE Basic Power Distribution Unit: Mid Height Version	
	HPE Basic 4.9kVA/L6-30P 24A/208V Outlets (24) C13 (6) C19/Vertical NA/JP PDU	H5M59A
	HPE Basic 8.3kVA/CS8265C 40A/208V Outlets (30) C13 (6) C19/Vertical NA PDU	H5M60A
	HPE Basic 9.2kVA/50A Terminal Block 40A/230V Outlets (30) C13 (6) C19/Vertical WW PDU	H5M75A
	HPE Basic 3Ph 5.7kVA/ L21-20P 16A/120-208V Outlets (24) C13 (3) 5-20R/Vertical NA/JP PDU	H5M63A
	HPE Basic 3Ph 8.6kVA/L21-30P 24A/120-208V Outlets (24) C13 (3) C19 (3) 5-20R/Vertical NA/JP PDU	H5M64A
	HPE Basic 3Ph 8.6kVA/L15-30P 24A/208V Outlets (24) C13 (6) C19/Vertical NA/JP PDU	H5M62A
	HPE Basic Power Distribution Unit: Full Height Version	
	HPE Basic 3Ph 11kVA/60309 16A/240V Outlets (36) C13 (6) C19/Vertical NA PDU	H5M67A
	HPE Basic Power Distribution Unit: 480/277 Volt Version	
	HP 800VA - 277V Input / 230V Output NA Rack Mount Transformer	H3X09A
	NOTE: Please see the QuickSpecs for additional information: **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111250**	
	NOTE: Additional HPE Power Distribution Units are available. For a complete list of all HPE PDUs and additional information please visit **http://www.hp.com/go/rackandpower**	

HPE Metered Power Distribution Units (PDU)	**HPE Remote Monitored Power Distribution Unit: 1U Version**	
	HPE Metered 2.8kVA/L5-30P 24A/120V Outlets (12) 5-20R/Horizontal NA/JP PDU	D9N43A
	HPE Metered 3.6kVA/60320 C20 Detachable 16A/230V Outlets (12) C13/Horizontal WW PDU	D9N46A
	HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (12) C13/Horizontal NA/JP PDU	D9N44A
	HPE Remote Monitored Power Distribution Unit: Half Height Version	
	HPE Metered 3.6kVA/60320 C20 Detachable 16A/230V Outlets (16) C13/Vertical WW PDU	D9N45A
	HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (12) C13/Vertical NA/JP PDU	G9Z05A
	HPE Remote Monitored Power Distribution Unit: Mid Height Version	
	HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (4) C19/Vertical NA/JP PDU	D9N47A
	HPE Metered 3Ph 8.6kVA/L15-30P 24A/208V Outlets (18) C13 (3) C19/Vertical NA/JP PDU	D9N51A
	HPE Metered 3Ph 5.7kVA/L21-20P 16A/120-208V Outlets (13) C13 (3)5-20R/Vertical NA/JP PDU	D9N52A

Additional Options

HPE Metered 3Ph 8.6kVA/L21-30P 24A/120-208V Outlets (18) C13 (3) C19 (3) 5-20R/Vertical NA/JP PDU	D9N53A
HPE Remote Monitored Power Distribution Unit: Full Height Version	
HPE Metered 8.3kVA/CS8265C 40A/208V Outlets (30) C13 (3) C19/Vertical NA PDU	D9N49A
HPE Metered 3Ph 14.4kVA/CS8365C 40A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N58A
HPE Metered 3Ph 16.6kVA/60309 32A-30A 5-wire 24A/230V Outlets (30) C13 (3) C19/Vertical NA/JP PDU	D9N61A
HPE Metered 3Ph 16.6kVA/60309 32A-30A 5-wire 24A/230V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N62A
HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (24) C13 (3) C19/Vertical NA/JP PDU	D9N54A
HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N59A
HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	G9Z07A
HPE Metered 3Ph 19.9kVA/L22-30P 24A/277V Outlets (30) RF-203P-HP/Vertical NA PDU	D9N63A
HPE Environmental Sensor for Remote Monitored PDUs	
HP Environmental Sensor for Remote Monitored and Managed PDUs	E2D53A
HPE Remote Monitored Power Distribution Unit: 1U Version	
HPE Metered 2.8kVA/L5-30P 24A/120V Outlets (12) 5-20R/Horizontal NA/JP PDU	D9N43A
HPE Metered 3.6kVA/60320 C20 Detachable 16A/230V Outlets (12) C13/Horizontal WW PDU	D9N46A
NOTE: Please see the QuickSpecs for additional information: **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04229513**	

HPE Intelligent Power Distribution Unit (PDU)	**iPDU Core Units**	
	HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF520A
	HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF521A
	HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF522A
	HPE Intelligent Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF533A
	HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU	AF523A
	HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 60A 4-wire 48A/208V (12) C19/Horizontal NA/JP PDU	AF535A
	HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 30A 5-wire 24A/240V (12) C19/Horizontal NA/JP PDU	AF537A
	iPDU Kits with Standard Extension Bars	
	HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU	AF531A
	HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU	AF532A

Additional Options

iPDU Extension Bars

HP 5xC13 Intelligent PDU Extension Bar G2 Kit	AF547A
HP 5xC13 Outlets Power and UID LEDs Pair Standard Extension Bar	AF528A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04128194
NOTE: Additional HPE Power Distribution Units are available. For a complete list of all HPE PDUs and additional information please visit:
http://www.hp.com/go/rackandpower.

HPE Metered and Switched Power Distribution Units (PDU)	**Half Height Models**	
	HPE Metered Switched 3.6kVA/60320 C20 Detachable 16A/230V Outlets (7) C13 (1) C19/Vertical WW PDU	H8B49A
	Full Height Models	
	HPE Metered Switched 2.8kVA/L5-30P 24A/120V Outlets (24) 5-20R /Vertical NA/JP PDU	H8B48A
	HPE Metered Switched 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (4) C19/Vertical NA/JP PDU	H8B50A
	HPE Metered Switched 3Ph 8.6kVA/L15-30P 24A/208V Outlets (18) C13 (6) C19/Vertical NA/JP PDU	H8B52A
	HPE Metered Switched 3Ph 8.6kVA/L2190-30P 24A/208V Outlets (23) C13 C19 (1) 520R/Vertical NA/JP PDU	H8B53A
	HPE Metered Switched 3Ph 14.4kVA/CS8365C 40A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	H8B55A
	HPE Metered Switched 3Ph 17.3kVA/60309 4-wire 48A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	H8B56A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHtml.aspx?docname=c04376687

HPE Rack Series	**HPE Intelligent Series Rack**	
	HP 36U 600mm x 1075mm Enterprise Pallet Rack	BW895A
	HP 36U 600mm x 1075mm Enterprise Shock Rack	BW896A
	HP 42U 600mm x 1075mm Enterprise Pallet Rack	BW903A
	HP 42U 600mm x 1075mm Enterprise Shock Rack	BW904A
	HP 47U 600mm x 1075mm Enterprise Pallet Rack	BW911A
	HP 47U 600mm x 1075mm Enterprise Shock Rack	BW912A

NOTE: Please see the QuickSpecs for Technical Specifications such as height, width, depth, weight, and color:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04128240
NOTE: For additional information regarding Rack Cabinets, please see the following URL: **http://www.hp.com/go/rackandpower**.

HPE Rack Options	**HPE LCD8500 1U Rackmount Console Kit Models**	
	HP LCD8500 1U US Rackmount Console Kit	AF630A
	HP LCD8500 1U US TAA Rackmount Console Kit	AF645A
	HPE LCD8500 1U Rackmount Console Kit Options	
	HP Kit LCD 1.83m Latch Display Port Cable	G7T29A
	HP Location Discovery Services LCD8500 Kit	TL052A

Additional Options

HP Rack LED Light Kit	BW939A

HPE Location Discovery Services

HP 36U Location Discovery Kit	BW945A
HP 42U Location Discovery Kit	BW946A
HP 47U Location Discovery Kit	BW947A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/gethtml.aspx?docname=c04123199

HPE USB Keyboard and Mouse

HP USB BFR with PVC Free US Keyboard/Mouse Kit	631341-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04168349

HPE Server Console Switches

HP 0x1x8 G3 KVM Console Switch	AF651A
HP 0x2x16 G3 KVM Console Switch	AF652A
HP TAA 0x2x16 G3 KVM Console Switch	AF653A
HP USB Remote Access Key for G3 KVM Console Switches	AF650A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04128391

HPE Server Console Switch G2 with Virtual Media & CAC

HP 0x2x16 KVM Server Console Switch G2 with Virtual Media CAC Software	AF618A
HP 0x2x32 KVM Server Console Switch G2 with Virtual Media CAC Software	AF619A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04168373

HPE IP Console Switch G2 with Virtual Media & CAC

HP 1x4 USB/PS2 KVM Console Switch	AF611A
HP 1x1Ex8 KVM IP Console Switch G2 with Virtual Media CAC Software	AF620A
HP 2x1Ex16 KVM IP Console Switch G2 with Virtual Media CAC Software	AF621A
HP 4x1Ex32 KVM IP Console Switch G2 with Virtual Media CAC Software	AF622A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04230853

Rail Kits
NOTE: Rail kits are optional for Gen8 and are no longer included standard with the server (except pre-configured/Smart Buy Models). The customer has the choice to not include rail kits with their server purchase, but it is recommended.
NOTE: HPE 2U Ball Bearing and Easy Install Rail Kits provide full serviceability of the server while in the Rack and are available with a CMA. HPE 2U Friction Rail Kits ARE NOT serviceable in the Rack and must be removed from the rack and do not include CMA.
NOTE: The HPE 1U Gen8 Cable Management Arm is not available when using Friction Rails. To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (p/n 695539-001).
CAUTION: Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation

Additional Options

instructions for proper tools and number of people to use for any installation.

HP 2U Large Form Factor Ball Bearing Gen8 Rail Kit with CMA	663480-B21

NOTE: HPE 2U Ball Bearing Rail Kits provide full serviceability of the server while in the Rack and include a CMA.

HP 2U Small Form Factor Ball Bearing Gen8 Rail Kit with CMA	663478-B21

NOTE: HPE 2U Ball Bearing Rail Kits provide full serviceability of the server while in the Rack and include a CMA.

HP 2U Cable Management Arm for Easy Install Rail Kit	733664-B21
HP 2U Small Form Factor Easy Install Rail Kit with CMA	733668-B21
HP 2U Large Form Factor Easy Install Rail Kit with CMA	733670-B21
HP 2U Small Form Factor Easy Install Rail Kit	733660-B21
HP 2U Large Form Factor Easy Install Rail Kit	733662-B21

HPE USB and SD Options

HPE Flash Media Kits for USB Drives

NOTE: HPE qualified blank USB key for use with HPE ProLiant servers that support the VMware virtualization environment and other HPE value-add software. Hewlett Packard Enterprise recommends this industry standard USB flash device for use with VMware ESXi. USB device must be installed in the internal slot of the ProLiant server for use with VMware ESXi. Refer to HPE VMware Getting Started Guide for installation instructions.

HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit	737953-B21

HPE Enterprise Mainstream Flash Media Kits for Memory Cards

HP 8GB SD Enterprise Mainstream Flash Media Kit	726113-B21
HP 32GB SD Enterprise Mainstream Flash Media Kit	700136-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04123175

HPE Care Pack Services

Proactive Care

NOTE: Collaborative Support plus Proactive services delivered by the onshore, local language Advanced Solution Center (ASC), end-to-end case ownership from a Technical Solution Specialists and Technical Account Manager who remotely delivers firmware/software revision management, proactive scans and incident trend reports. Recommended for customers running a virtualized infrastructure and/or customers who desire an enhanced call support experience.

HPE 3 year Proactive Care 24x7 ProLiant DL38x(p) Service	U2Z50E
HPE 3 year Proactive Care 24x7 with DMR ProLiant DL38x(p) Service	U2Z53E
HPE 3 year Proactive Care Call to Repair ProLiant DL38x(p) Service	U2Z56E
HPE 3 year Proactive Care Call to Repair 24x7 with DMR ProLiant DL38x(p) Service	U2Z59E
HPE 3 year Proactive Care 24x7 ProLiant DL38x(p) with Insight Control Service	U3N23E
HPE 3 year Proactive Care 24x7 with DMR DL38x(p) with Insight Control Service	U3N26E
HPE 3 year Proactive Care Call to Repair ProLiant DL38x(p) with Insight Control Service	U3N29E
HPE 3 year Proactive Care Call to Repair 24x7 with DMR DL38x(p) w/Insight Control Service	U3N32E
HPE 3 year Proactive Care 24x7 with CDMR DL38x(p) Service	U9B55E
HPE 3 year Proactive Care Call to Repair with CDMR DL38x(p) Service	U9B58E
HPE 3 year Proactive Care 24x7 with CDMR DL38x(p) w/IC Service	U9B73E
HPE 3 year Proactive Care Call to Repair with CDMR DL38x(p)wIC Service	U9B76E

Additional Options

HPE 3 year Proactive Care Call to Repair ProLiant DL38x(p) with Insight Control Service	U3N29E
HPE 3 year Proactive Care Call to Repair 24x7 with DMR DL38x(p) w/Insight Control Service	U3N32E

Installation Services

NOTE: Reduce the time required to get your system up and running and help minimize disruptions to your business.

HPE Install ProLiant DL38x(p) Service	U4554E
HPE Installation and Startup DL38x(p) Service	U4555E

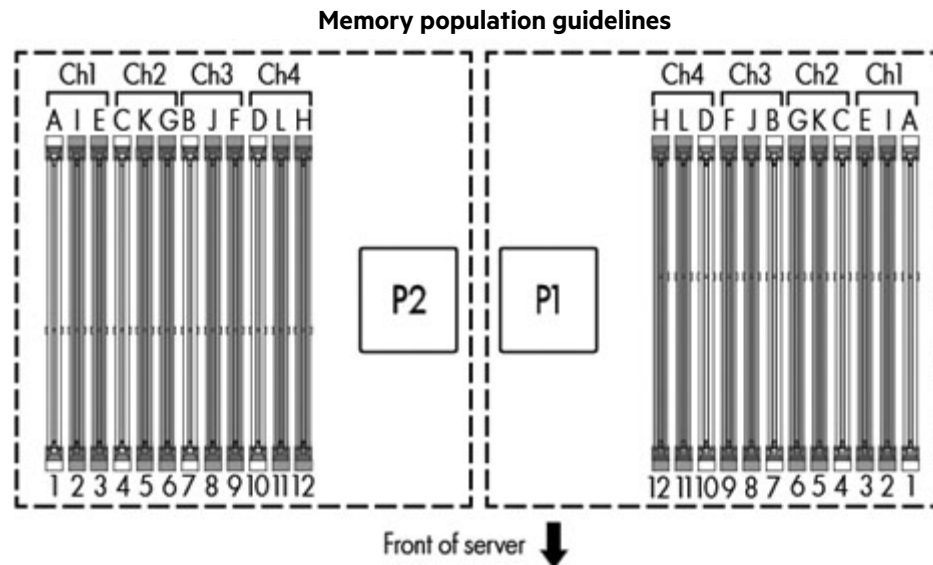**NOTE:** For more information, customer/resellers can contact:

http://www.hp.com/services/carepack

Memory

For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool:
http://www.hp.com/go/ddr3memory-configurator

Memory Subsystem Architecture
Each AMD Opteron family processor socket contains four memory channels that support three DIMMs each for a total of twelve (12) DIMM per installed processor or a grand total of twenty-four (24) DIMMs for the server. Up to 32GB capacity DIMMs are supported for 768GB of memory (24 DIMM slots x 32GB per DIMM).

Memory population guidelines

Front of server

General Memory Population Rules and Guidelines:

- White DIMM slots denote the first slot of a channel. For 1 DPC (DIMM per channel) populate white slots only.
- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors and to load the channels similarly whenever possible.
- RDIMMs operating at either 1.35V or 1.5V may be mixed in any order, but the system will power them at the higher voltage.
- RDIMMs and LRDIMMs are supported up to 3 DIMMs per channel.
- The DL385p Gen8 RBSU has options to set memory for Performance or Power modes. In Performance Mode all memory whether 1.35V DIMMs or 1.5V DIMMs will be set to 1.5V. In Power Mode all memory whether 1.35V or 1.5V will be set to 1.35V for power savings.
- DIMMs of different speeds may be mixed in any order; the server will select a common optimal speed.
- The maximum memory speed is a function of the memory type and memory configuration.
- The maximum memory capacity is a function of the memory type and number of installed processors.
- HPE memory from previous generation servers is not qualified on the DL385p Gen8 Server. Certain HPE SmartMemory features such as memory authentication and enhanced performance may not be supported.
- To realize the performance memory capabilities listed in this document, HPE SmartMemory is required. For additional information, please see the HPE SmartMemory QuickSpecs at:
  https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111535.
- For memory population rules and additional memory guidelines, please see the DL385p Gen8 user guide at
  http://www.hpe.com/support.

Memory

DL385p Gen8 Supported Memory Bandwidth and Capacity				
DIMM Type	**Registered DIMMS**			**Load Reduced (LRDIMMs)**
DIMM Rank	**Single Rank (1R)**	**Dual Rank (2R)**		**Quad Rank (4R)**
DIMM Capacity	8GB	16GB	16GB	32GB
DIMM Native Speed (MHz)	1600	1333	1600	1066
Voltage	Std	LV	Std	LV
SLOTS THAT CAN BE POPULATED				
24 slot servers	24	24	24	24
MAXIMUM CAPACITY (GB)[1]				
24 slot servers	192	384	384	768
POPULATED DIMM SPEED (MHz)				
1 DIMM Per Channel	1600	1333	1600	1333
2 DIMM Per Channel	1600	1333/1066[2]	1600	1333
3 DIMM Per Channel	1066	1066/800[3]	1066	800[4]
	[1] Maximum capacity will vary based on individual server platform. [2] Ultra Low Voltage 8GB and 16GB dual rank operate at 1066MT/s speed in 2 DPC configurations. [3] Ultra Low Voltage 8GB and 16GB dual rank operate at 800MT/s speed in 3 DPC configurations. [4] LRDIMM capable of 3 DIMMs per channel.			

DIMM slot and configuration diagram
Population order; start with "A" first, "B" second, "C" third, etc.
When one processor is installed, install DIMMs in sequential alphabetic order: A, B, C, D, E, F …
When two processors are installed, install DIMMs in sequential
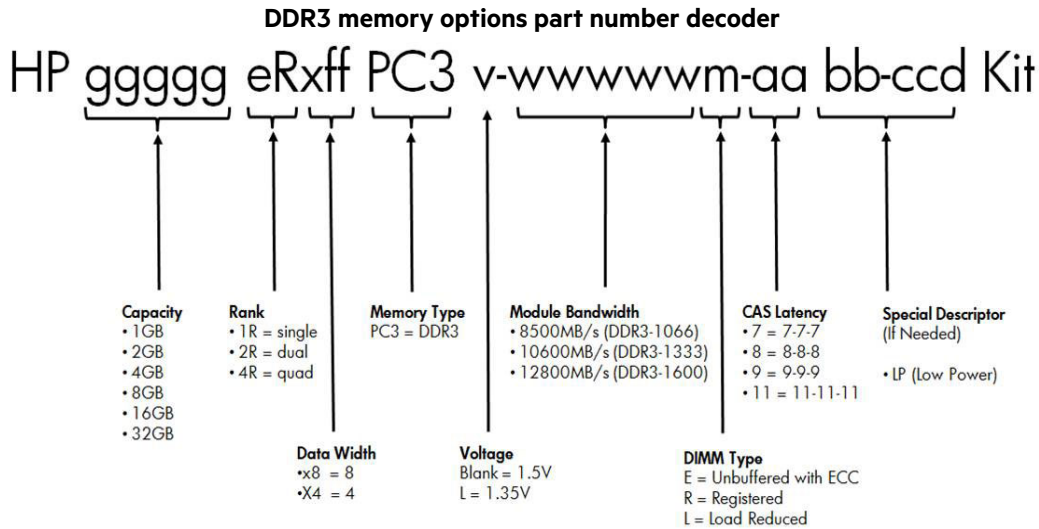alphabetic order: CPU1-A, CPU2-A,CPU1-B,CPU2-B,CPU1-C, CP2-C

24 DIMM SLOTS (12 per CPU node)					
	slot #	population order	slot #	population order	
Chnl 1	1	A	1	A	Chnl 1
	2	I	2	I	
	3	E	3	E	
Chnl 2	4	C	4	C	Chnl 2
	5	K	5	K	
	6	G	6	G	
CPU1			**CPU2**		
Chnl 3	7	B	7	B	Chnl 3
	8	J	8	J	
	9	F	9	F	
Chnl 4	10	D	10	D	Chnl 4
	11	L	11	L	
	12	H	12	H	

NOTE: Capacity references are rounded to the common Gigabyte values.

- 1GB = 1024MB

Memory

- 2GB = 2048MB
- 4GB = 4096MB
- 8GB = 8192MB
- 16GB = 16384MB
- 32GB = 32768MB

DDR3 memory options part number decoder

HP ggggg eRxff PC3 v-wwwwwm-aa bb-ccd Kit

Capacity	Rank	Memory Type	Module Bandwidth	CAS Latency	Special Descriptor
• 1GB	• 1R = single	PC3 = DDR3	• 8500MB/s (DDR3-1066)	• 7 = 7-7-7	(If Needed)
• 2GB	• 2R = dual		• 10600MB/s (DDR3-1333)	• 8 = 8-8-8	
• 4GB	• 4R = quad		• 12800MB/s (DDR3-1600)	• 9 = 9-9-9	• LP (Low Power)
• 8GB				• 11 = 11-11-11	
• 16GB					
• 32GB					

Data Width
- x8 = 8
- X4 = 4

Voltage
Blank = 1.5V
L = 1.35V

DIMM Type
E = Unbuffered with ECC
R = Registered
L = Load Reduced

Following are memory options available from HPE:

HPE Memory

NOTE: To realize the performance memory capabilities listed in this document, HPE SmartMemory is recommended. For additional information, please see the HPE SmartMemory QuickSpecs at:
https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111535

Registered DIMMs (RDIMMs)

HP 8GB (1x8GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	647879-B21
HP 16GB (1x16GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647883-B21
HP 16GB (1x16GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	672633-B21

Load Reduced DIMMs (LRDIMMs)

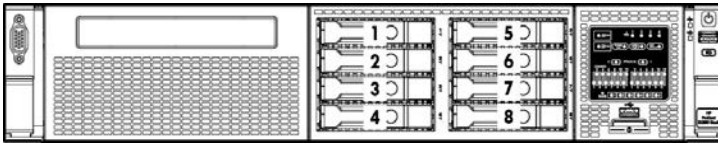|	
HP 32GB (1x32GB) Quad Rank x4 PC3L-10600L (DDR3-1333) Load Reduced CAS-9 Low Voltage Memory Kit	647885-B21

NOTE: HPE memory from previous generation servers may not provide the same performance with the HPE ProLiant DL385p Gen8 Servers as HPE SmartMemory will.

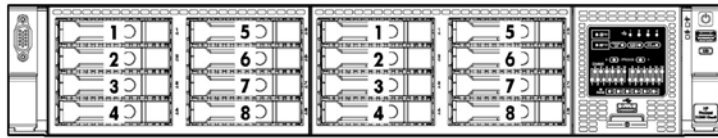NOTE: If only one processor is installed, only half the DIMM slots are available.

NOTE: Depending on the memory configuration, the memory speed may run at 1600MHz, 1333MHz, 1066MHz or lower. Please see Memory Population Table or the Online Memory Configuration Tool at: **http://www.hp.com/go/ddr3memory-configurator**.

NOTE: All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool: **http://www.hp.com/go/ddr3memory-configurator**.
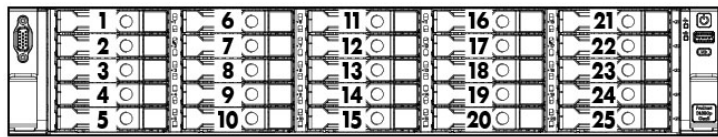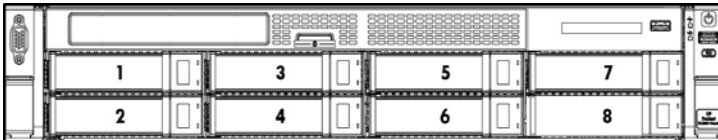
Storage

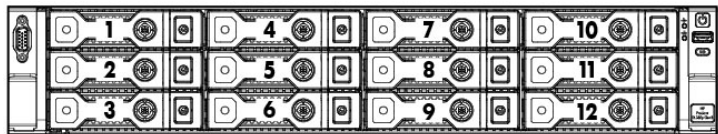|	
1-8	Eight SFF SAS hot plug drive bays
1-8, 1-8	Sixteen SFF SAS hot plug drive bays. Built-In Smart Array manages first 8 drives. Requires 2nd Smart Array Controller for second option of 8 drives. **NOTE:** This configuration does not support optical drive.
1-25	Twenty Five SFF SAS hot plug drive bays **NOTE:** This configuration does not support SID or optical drive.
1-8	Eight LFF SAS hot plug drive bays. **NOTE:** This configuration supports a pop-out SID.
1-12	Twelve LFF SAS hot plug drive bays **NOTE:** This configuration does not support SID or optical drive.

Maximum Storage Capacity - (SAS/SATA HDD)

Internal	48TB (12 x 4TB SATA LFF with twelve LFF drive bays)
External	200TB (200 x 1TB SAS SFF)
Total	248TB

Technical Specifications

System Unit	**Dimensions** (H x W x D) (with bezel)	SFF Drives: 3.44 x 17.54 x 27.50 in (8.73 x 44.55 x 69.85 cm)
		LFF Drives: 3.44 x 17.54 x 29.50 in (8.73 x 44.55 x 74.93 cm)
	Weight (approximate)	Maximum (all LFF hard drives, power supply, and processor installed)
		61.00 lb (27.66 kg)
		Minimum (one SFF hard drive, power supply, and processor installed, ODD not installed)
		41.0 lb (18.59 kg)
	Input Requirements (per power supply)	Rated Line Voltage
		100 to 120 VAC
		200 to 240 VAC
		Rated Input Current
		For 1200 W Power Supply: 10 A (at 100 VAC), 4.9 A (at 200 VAC)
		For 750 W Power Supply: 8.9 A (at 100 VAC), 4.3 A (at 200 VAC)
		For 460 W Power Supply: 5.5 A (at 100 VAC), 2.6 A (at 200 VAC)
		Rated Input Frequency
		50 to 60 Hz
		Rated Input Power
		For 1200 W Power Supply: 930 W (at 100 VAC), 1348 W (at 200 VAC)
		For 750 W Power Supply: 857 W (at 100 VAC), 824 W (at 200 VAC)
		For 460 W Power Supply: 526 W (at 100 VAC), 505 W (at 200 VAC)
	BTU Rating	Maximum
		For 1200 W Power Supply: 3530 BTU/hr (at 100 VAC), 4600 BTU/hr (at 200 VAC)
		For 750 W Power Supply: 2925 BTU/hr (at 100 VAC), 2812 BTU/hr (at 200 VAC)
		For 460 W Power Supply: 1794 BTU/hr (at 100 VAC), 1725 BTU/hr (at 200 VAC)
	Power Supply Output (per power supply)	Rated Steady-State Power
		For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC)
		For 750 W Power Supply: 750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC)
		For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)

Technical Specifications

		Maximum Peak Power	For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC) For 750 W Power Supply: 750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC) For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)
System Inlet Temperature		Operating	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 304.8 m (1.8°F per every 1000 ft) above sea level to a maximum of 3048 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
		Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
Relative Humidity (non-condensing)		Operating	10% to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
		Non-operating	5% to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
Altitude		Operating	3048 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
		Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Acoustic Noise — Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

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

Idle

	LWAd	5.5 B
	LpAm	37 dBA

Operating

	LWAd	5.5 B
	LpAm	37 dBA

Emissions Classification (EMC)	FCC Rating	Class A
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt

Technical Specifications

15; ICES-003; CNS13438; GB9254; K22;K24;
EN 61000-3-2; EN 61000-3-3; EN 60950-1;
IEC 60950-1

NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.
NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

HPE Smart Array P420i Controller		
Dimensions	Embedded	
Disk Drive and Enclosure Interface - Transfer Rate	6Gb/s SAS (Serial Attached SCSI)	
	3Gb/s SATA (Serial ATA)	
SAS Connectors	2 internal 4X connectors	
Cache Memory Speed	DDR2-800MHz with 40 or 72-bit wide bus	
Server Interface	x4 PCIe 2.0 provides 2GB/s maximum bandwidth	
SAS Speed	(8) 6Gb/s SAS links provide 4.8GB/s maximum bandwidth	
Cache Memory	Zero Memory RAID has no cache memory 40-bit 256MB ECC protected cache (battery upgrade available) 72-bit 512MB BBWC or 72-bit 512MB and 1G FBWC Zero Memory, Up to 2 logical volumes (8 physical drives)	
Logical Drives Supported	Up to 64 logical drives with cache	
Host Memory Addressing	64-bit, supporting greater than 4GB server memory space	
RAID Support	RAID 6, 60 (Advanced Data Guarding)	
	RAID 5, 50 (Distributed Data Guarding)	
	NOTE: A minimum of 512 MB cache is required to enable RAID 5, 50, 6, 60. **NOTE:** HPE Smart Array Advanced Pack (SAAP 2.0) is no longer required to enable RAID 6 & 60 (Advanced Data Guarding). However, controller must be in firmware version 4.68 (or later).	
	RAID 1+0 (Striping & Mirroring)	
	RAID 0 (Striping), RAID 1 (Mirroring)	

HPE Ethernet 1Gb 4-port 331FLR Adapter		
Network Interface Compatibility	10Base-T/100Base-TX/1000Base-TX	
	EEE 802.3 10Base-T	
	IEEE 802.3ab 1000Base-T	
	IEEE 802.3u 100Base-TX	
	IEEE 802.3ad 1000Base-TX	
	IEEE 802.1p 100Base-TX	
	IEEE 802.1q 100Base-TX	
Data Transfer Method	PCI Express, four lanes (x4)	
Number of Ports	4	
Controller	BCM5719	
Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s per port, 40 Mb/s Combined
	10Base-T (Full-Duplex)	20 Mb/s per port, 80 Mb/s Combined
	100Base-TX (Half-	100 Mb/s per port, 400 Mb/s Combined

Technical Specifications

		Duplex)	
		100Base-TX (Full-Duplex)	200 Mb/s per port, 800 Mb/s Combined
		1000Base-TX (Half Duplex)	1000Mb/s per port, 4000 Mb/s Combined
		1000Base-TX (Full Duplex)	2000Mb/s per port, 8000 Mb/s Combined
	Connector	Two RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000Base-TX	Category 5 or higher UTP; up to 328 ft (100 m)

HPE Ethernet 10Gb 2-port 530FLR-SFP+ Adapter	**Network Interface**	10Base-T/100Base-TX/1000Base-TX	
	Compatibility	EEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
		IEEE 802.3u 100Base-TX	
		IEEE 802.3ad 1000Base-TX	
		IEEE 802.1p 100Base-TX	
		IEEE 802.1q 100Base-TX	
	Data Transfer Method	PCI Express, four lanes (x4)	
	Controller	BCM57810S	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s
		10Base-T (Full-Duplex)	20 Mb/s
		100Base-TX (Half-Duplex)	100 Mb/s
		100Base-TX (Full-Duplex)	200 Mb/s
		1000Base-TX (Half and Full-Duplex)	2000Mb/s
	Connector	Two SFP+	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		100Base-TX	Category 5 or higher UTP; up to 328 ft (100 m)
		1000BaseTX	Category 5 or higher UTP; up to 328 ft (100 m)
Environment-friendly Products and Approach	**End-of-life Management and Recycling**	Hewlett Packard Enterprise offers end-of-life HPE product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: **http://www.hp.com/go/green**. To recycle your product, please go to: **http://www.hp.com/go/green** or contact your nearest Hewlett Packard Enterprise sales office. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.	
		The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site at: **http://www.hp.com/go/green**. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.	

Summary of Changes

Date	Version History	Action	Description of Change
28-Oct-2016	From Version 47 to 48	Removed	Obsolete Hard Drives were removed from the QuickSpecs.
31-Mar-2016	From Version 46 to 47	Changed	Memory section was revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
16-Feb-2016	From Version 45 to 46	Added	New Hard Drives offering was added to the HPE Hard Drives section. New HPE PCIe Workload Accelerator and HPE Disk Backup options were added.
		Changed	Additional Options section was revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
17-Dec-2015	From Version 44 to 45	Added	Smart Buy models were added to the NA version.
01-Dec-2015	From Version 43 to 44	Added	New Hard Drives offering was added to HPE Hard Drives section. Added new HPE PCIe Workload Accelerators.
		Changed	What's New was updated.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
28-Sep-2015	From Version 42 to 43	Added	Added new 6Gb SATA Solid State Drives. Added new HPE OneView management software.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
17-Aug-2015	From Version 41 to 42	Added	New Solid State Drives offering was added to HPE Hard Drives section.
01-Jun-2015	From Version 40 to 41	Added	New Hard Drives were added to Core Options.
		Changed	Maximun Internal Storage section was revised.
		Removed	Obsolete SKUs were removed from Core Options and Additional Options.
30-Mar-2015	From Version 39 to 40	Added	Added new Hard Drives to Core Options.
		Changed	What's New and Standard Features were revised.
		Removed	Obsolete processors were removed from QuickSpecs.
09-Feb-2015	From Version 38 to 39	Added	New Hard Drives, DirectFlow UPS, Rack and Tower G4 Models, LCD8500 1U Rackmount Models and Options were added to the Additional Options section.
		Changed	Service and Support section was revised. HPE Uninterruptible Power Systems and HPE Rack Options in Additional Options section were revised.
01-Dec-2014	From Version 37 to 38	Added	HPE 1.6TB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive and HPE 1.6TB 6G SATA Value Endurance LFF 3.5-in SC Converter Enterprise Value 3yr Wty Solid State Drive were added to HPE Hard Drives.
		Removed	Proactive Care Services (U3N17E, U3N29E, and U3N32E), Collaborative Support, and Installation support (UD940E) were removed from HPE Care Pack Services.
01-Nov-2014	From Version 36 to 37	Changed	Version number was increased in sequence to match Product Bulletin version number.
01-Nov-2014	From Version 35 to 36	Changed	Service and Support section was revised.
29-Sep-2014	From Version 34 to 35	Added	New Solid State Drives were added. HPE Managed Power Distribution Units (maPDU) was added to Additional Options.
		Changed	Service and Support section was revised. HPE Hard Drives was revised in Core Options section.
		Removed	Obsolete part numbers were removed.

Summary of Changes

09-Sep-2014	From Version 33 to 34	Changed	Minor change made to the Memory section.
18-Aug-2014	From Version 32 to 33	Added	New Hard Drives were added. HPE Remote mPDUs half height version were added.
		Changed	Core Options, Additional Options
10-Jun-2014	From Version 31 to 32	Added	Configuration Information – Factory Integrated Models – Note added to HPE ProLiant DL385p Gen8 12 LFF Configure-to-order Server and HPE ProLiant DL385p Gen8 25 SFF Configure-to-order Server. 12G SAS VE SFF (2.5-inch) SC EV Solid State Drives and 12G SAS VE LFF (3.5-inch) SCC EV Solid State Drives were added to Hard Drives. Light Endurance (LE) PCIe Workload Accelerators was added to HPE PCIe Workload Accelerator Options. HPE RDX500 USB3.0 External Disk Backup System, HPE RDX1000 USB3.0 External Disk Backup System, HPE RDX 2TB USB3.0 External Disk Backup System and HPE RDX USB3.0 External Docking Station were added to HPE RDX Removable Disk Backup System. HPE RDX Removable Disk Backup Systems DL Module was added to HPE Disk Backup.
		Changed	Core Options, Additional Options and Memory were revised. HPE Remote Monitoring Power Distribution Units (mPDU) was revised.
		Removed	HPE 8GB (1x8GB) Dual Rank x4 PC3U-10600R (DDR3-1333) Registered CAS-9 Ultra Low Voltage Memory Kit and HPE 16GB (1x16GB) Dual Rank x4 PC3U-10600R (DDR3-1333) Registered CAS-9 Ultra Low Voltage Memory Kit were removed from Memory. 800GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive, 200GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive, 400GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive and 200GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive were removed from Hard Drives.
09-May-2014	From Version 30 to 31	Changed	Service and Support, Storage Controllers, Disk Enclosures, and Basic and Remote Monitoring Power Distribution Units were revised.
31-Mar-2014	From Version 29 to 30	Changed	Hard Drives, HPE InfiniBand, Insight Software, Storage Controllers, Tape Backup, Storage Options, Rack Options, and HPE Care Pack Series were revised.
07-Mar-2014	From Version 28 to 29	Changed	Changes were made in the North America and Canada versions.
01-Mar-2014	From Version 27 to 28	Changed	Changes were made in the North America and Canada versions.
18-Feb-2014	From Version 26 to 27	Changed	Hard Drives, HPE InfiniBand, HPE Rack Options, and Storage Controllers were revised.
23-Jan-2014	From Version 25 to 26	Changed	Changes made to the North America and Canada versions only.
13-Dec-2013	From Version 24 to 25	Changed	Processors and Converged Infrastructure Management Software were revised HPE 1.2TB 6G SAS 10k rpm SFF SC Dual Port Enterprise 3yr Warranty Hard Drive was added and 3G SATA MLC Hot Plug SFF and LFF Enterprise Mainstream Solid State Drives were

Summary of Changes

			removed from Hard Drives HPE Basic Power Distribution Units and HPE Remote Monitoring Power Distribution Units were revised in Additional Options First Generation Accelerators were removed from I/O Accelerator Options HPE Power Distribution Units was removed from Additional Options HPE SmartCache and HPE H221 PCIe 3.0 SAS Host Bus Adapter were added to Storage Controllers
15-Nov-2013	From Version 23 to 24	Changed	Minor change made to the Core Options/ Hard Drives Section.
10-Oct-2013	From Version 22 to 23	Added	Converged Infrastructure Management Software was added HPE 600GB 6G SATA Value Endurance SFF and LFF SC Enterprise Value Solid State Drives and HPE 300GB 6G SATA Value Endurance SFF and LFF SC Enterprise Value Solid State Drives were added to Hard Drives HPE Ethernet 10Gb 2-port 570SFP+ Adapter and HPE Ethernet 10Gb 2-port 570FLR-SFP+ Adapter were added to Networking Mainstream Endurance (ME) PCIe Workload Accelerators were added to HPE PCIe Workload Accelerator Options HPE Remote Monitoring Power Distribution Units were added to Additional Options HPE 8GB SD Enterprise Mainstream Flash Media Kit was added to HPE USB and SD Options
10-Sep-2013	From Version 21 to 22	Changed	Models, Core Options, and Additional Options were revised.
24-Jul-2013	From Version 20 to 21	Changed	Supported Memory and Bandwidth chart was revised in the Memory section.
15-Jul-2013	From Version 19 to 20	Changed	HPE Disk Backup was revised in Additional Options.
17-May-2013	From Version 18 to 19	Changed	Changes made to the following Sections Standard Features- Maximum Internal Storage Configuration Information- Step 3, HPE Insight Software Core Options- HPE Unique Options, HPE Hard Drives, HPE Infiniband, HPE I/O Expansion Options Additional Options- HPE PCLe Workload Accelerator, HPE Storage Controllers, HPE Intelligent Power Distribution Units (iPDU), HPE Basic Power Distribution Units, HPE Rack Options, HPE USB and SD Options, HPE Care Pack Services
05-Apr-2013	From Version 17 to 18	Added	Additional Options: Added Note to HPE Tape Backup section.
25-Mar-2013	From Version 16 to 17	Added	Configurations Options: Added a NOTE to the HPE Power Supplies section. Core Options: Added a NOTE to the HPE Power Supplies section.
		Removed	Additional Options: Removed 641027-B21, 600282-B21 and 600279-B21 from the HPE I/O Accelerator Options section.
15-Mar-2013	From Version 15 to 16	Changed	Changes made to the following sections: Models Configuration Information - Step 1 Core - HPE Optical Drives
27-Feb-2013	From Version 14 to 15	Changed	Changes made to the Optional Features, Core and Additional options sections.
19-Feb-2013	From Version 13 to	Changed	Changes made to the Models, Configuration Information and

Summary of Changes

	14		Options sections.
12-Dec-2012	From Version 12 to 13	Changed	Changes made to the North America and Canada versions only.
10-Dec-2012	From Version 11 to 12	Changed	Correction was made to remove a duplication in the Processors section of Standard Features.
04-Dec-2012	From Version 9 to 11	Changed	Changes were made throughout the QuickSpecs.
28-Sep-2012	From Version 8 to 9	Changed	Change made throughout the Quick Spec.
24-Sep-2012	From Version 7 to 8	Changed	Change made in Standard Features, Optional Features and Technical Specifications sections.
31-Aug-2012	From Version 6 to 7	Changed	Change made in Models, Configuration Information and Additional Options sections.
27-Aug-2012	From Version 5 to 6	Changed	Change made in Standard Features section.
22-Aug-2012	From Version 4 to 5	Changed	Changes made in Technical Specifications.
17-Aug-2012	From Version 3 to 4	Changed	Changes made throughout the QuickSpecs.
09-Jul-2012	From Version 2 to 3	Changed	Changes made in the North America and Canada versions only.
15-Jun-2012	From Version 1 to 2	Changed	Changes made in Configuration Information and Core Options.

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