



Hewlett Packard
Enterprise

HPE ProLiant DL20 Gen10 server

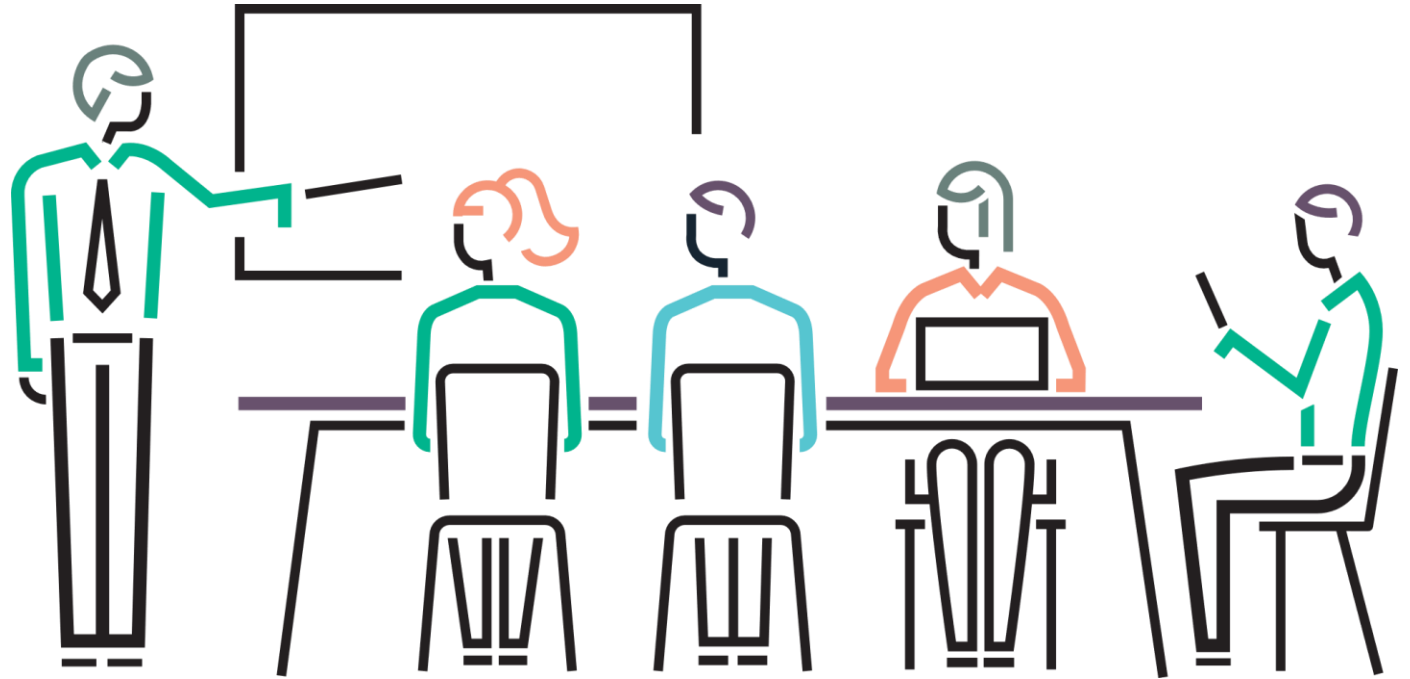
Product Overview

Tuesday, April 30, 2019



Table of contents

- Introducing/what's new
- Generational comparison
- Key features and benefits
- Front and interior system details
- Rear view system details
- System/block diagram
- WW BTO SKUs
- HPE ProLiant Gen10 OS Support
- HPE ProLiant Gen10 Qualified Options
- HPE ProLiant Gen 10 System Management technologies
- Always On TS Support for ISS & Support recommendations
- Where to learn more



What's new with ProLiant DL20 Gen10 server

The most compact and versatile rack server

- **Latest Intel Xeon processors**
- **2666 MT/s** HPE DDR4 Standard Memory UDIMM offering 8, 16 GB; Maximum 64 GB memory capacity supported
- **Enhanced Storage:** Up to 6 SFF drives and optional M.2 SSDs for boot
- **M.2 NVMe SSD onboard support**
- **Dedicated iLO port & serial port** option kit
- **Redundant Power Supplies** (500W & 800W 48VDC) options
- **SMB Offerings** to match different workloads
- Support for **Intel® SGX** (Software Guard Extensions)



HPE ProLiant DL20 Gen10 server

The most compact and versatile rack server

Introducing

Enterprise class capabilities in a compact dense server

Security innovations from HPE and Intel (SGX) provide your teams ease of mind

Outstanding configuration flexibility caters to a wide variety of requirements at an affordable price point

Flexible and affordable, the HPE ProLiant DL20 Gen10 tackles key workloads – from core small office needs like collaboration and file/print to advanced edge applications for service providers – in a space-saving 1U 15-inch chassis.

Built on the HPE-exclusive Silicon Root of Trust and offering three Intel processor families, enhanced memory options and highly-efficient AC or DC power supplies, the HPE ProLiant DL20 Gen10 is the ideal platform for focused Hybrid Cloud environments.



Top use cases of HPE ProLiant DL20 Gen10 server

1

On-Premises IT

Compact & versatile server for small-to-medium office environments:

- File sharing, print, & email server
- Small business applications e.g. accounting, HR, or finance
- Local backup and restore
- Unified Threat Management
- Virtualization
- Web & database server

2

Business Applications & Customized OEM Solutions

Enhanced computing power for greater application performance.

- Retail POS, analytics for stores, and inventory management systems
- Hospitality key card system, reservation, and payment systems
- Security applications for FSI
- Embedded server for customized OEM solutions

3

Scale out system for Service Providers

Scale-out friendly due to low acquisition cost

- SMS and MMS appliances that run along network
- Common edge of network workloads like IaaS and hardware platform for SaaS for internal applications
- Web hosting and serving

HPE ProLiant DL20 Gen10 to DL20 Gen9 compare

	ProLiant DL20 Gen10	ProLiant DL20 Gen9
Compute	1 Intel® Xeon® E-2XXX Series, 6 Cores; Intel® Pentium® and Intel® Core™ i3 4 core processors, PCIe 3.0, up to (2) available slot(s)	1 Intel® Xeon® E3-1200 v5/v6 Series, 4 Cores; Intel® Pentium® and Intel® Core™ i3 2 core processors, PCIe 3.0, up to (2) available slot(s)
Memory	(4) DDR4, up to 2666MHz (64 GB max)	(4) DDR4, up to 2400/2133MHz (64 GB max)
Storage	Standard HPE Smart Array S100i Software RAID Choice of HPE Smart Array Essential and Performance RAID Controllers for performance or additional features	Standard HPE Dynamic Smart Array B140i Choice of HPE Smart Array or HPE Smart HBA Controllers for performance or additional features
FBWC	4 GB/2 GB DDR3- 1866 MHz, 72-bit wide bus at 14.9 GB/s on P408i	4 GB/2 GB DDR3-1866 MHz, 72-bit wide bus at 14.9 GB/s on P440
Battery	HPE DL/ML/SL 12W Slim Smart Storage Battery to support the standup controllers	HPE DL/ML/SL 96W Smart Storage Battery to support the standup controllers
HPE SmartDrives	4 (+2) SFF / 2 LFF max, HDD/SSD, M.2 NVMe SSDs	4 SFF /2 LFF max, HDD/SSD, M.2 Enablement Kit
Networking	2x1GbE embedded + Choice of FlexibleLOM	2x1GbE embedded + Choice of FlexibleLOM
VGA/Serial/USB/SD Ports	USB3.0 Front (1), USB2.0 Front iLO Service Port (1), Internal USB3.0 (1) USB3.0 Rear (2)	1 rear video connector, rear 2 USB 3.0, + front 2 USB 2.0, 1 internal USB 3.0, MicroSD(internal)
GPU Support	Not Available	Up to 1 Single Width Passive
Management		
Converged	HPE OneView and HPE iLO Advanced	HPE iLO 4 v2.3(Advanced/Scale-out/Essentials Optional)
Support	HPE Insight Online with enhanced mobile application	HPE Insight Online with enhanced mobile appl
Embedded	HPE iLO 5 , SUM, RESTful Interface Tool, UEFI	HPE iLO 4 v2.3, HPE SUM, HPE RESTful Interface Tool, UEFI
Power & Cooling	290W Standard NHP PSU with up to 92% eff (80Plus Silver certified). 500W Flexible Slot Hot plug Redundant PSU* with 94% efficiency 800W Flexible slot 48VDC Hot plug Redundant PSU with 94% efficiency	290W Standard NHP PSU with up to 92% eff (80Plus Silver certified). 900W Redundant PSU with 92% efficiency (Gold)*
Industry Compliance	ASHRAE A3/A4, Energy Star Configuration	ASHRAE A3, Energy Star Configuration(only on DL20 SFF chassis with RPS)
Power Discovery Services	NA	NA
Location Discovery Services	NA	NA
Chassis Depth(rear to bezel)	15.05"	15.05"
Serviceability		
Friction Rail kit	Standard	Standard
Warranty	3/3/3	1/1/1

HPE ProLiant DL20 Gen10 server

The most compact and versatile rack server

Key selling points

- Short-depth chassis of 15.05-inch provides mobility to deploy in a wide variety of environments
- Affordable & Versatile: choose from light workloads to the most demanding.
- Offers outstanding configuration flexibility with 6 SFF / 2 LFF drives, 290W or 500W or 800W 48VDC Redundant Power Supply, FlexibleLOM and PCIe slots.

Ideal for...

- Small and Medium Businesses, Enterprises running General purpose (IT, web, file, print, email) workloads
- OEM, Transport and Retail & hospitality environments deploying Custom applications (PoS, ERP, Billing)
- Service Providers who want affordable, edge of network servers for scale out deployments.

Price positioning

- Standard 3-3-3
- US ILP* - Entry SATA with dual core processors starting @ \$969 to High Performance quad core processors with RPS @ \$2099

hpe.com/servers/dl20Gen10

Up to 1 Intel® Xeon® **E-2XXX** Series, 6 Cores Pentium and i3 2/4 core processor options

(4) **DDR4**, (64 GB max)

Up to **4+2 SFF/2 LFF** max, HDD/SSD, **M.2 2280 NVMe SSDs (optional)**

Standard HPE Smart Array **S100i** Software RAID Choice of HPE Smart Array **Essential** and **Performance** RAID Controllers for performance or additional features

2x1GbE embedded + Choice of **FlexibleLOM** + Standup

2 PCIe 3.0 slots

Dedicated port for HPE iLO5 (option)

HPE iLO 5, UEFI

290W Standard NHP PSU(80Plus Silver) with up to 92% eff.

500W Flexible slot Hot Plug Redundant PSU with 94% efficiency

800W 48VDC Flexible slot Hot Plug Redundant PSU with 94% efficiency

Standard **3-3-3 warranty**

HPE Secure Encryption & TPM option, Intel **SGX**

Replaces DL20 Gen9

Competition

- Dell R230
- Lenovo RS140
- Fujitsu RX1330M3
- IBM M3250
- Supermicro

Key competitive advantages

Redundant Power supply* without compromising on short-depth 15.05-inch
Embedded NIC + FlexibleLOM
HPE Qualified Flexible & affordable options in Drives and Power Supply
Performance gains with 12Gb HPE Smart Array and DDR4 memory
Embedded management stack

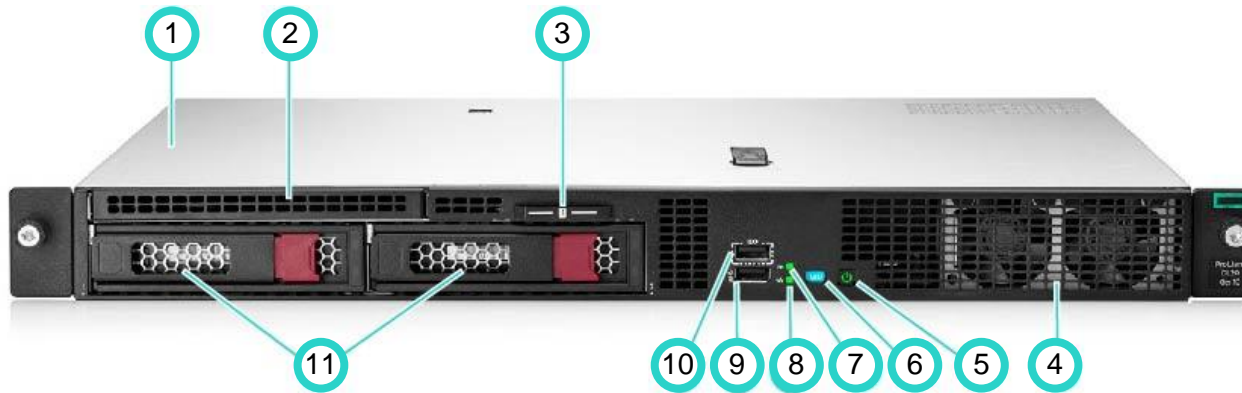
*US ILP and subject to change without notice

HPE ProLiant Gen10 1P Rack Interline Comparison

	ProLiant DL20 Gen10	ProLiant DL325 Gen10	ProLiant DL360 Gen10
Compute	(1) Intel® Xeon® E Processor Family up to 6 cores PCIe 3.0, up to three (2) available slot(s) + M.2 on riser	Up to (1) AMD® EPYC® 7000 series processor, 180W 32 cores, PCIe 3.0, up to (3) available slot(s)	Up to (2) Intel® Xeon® Processor Scalable Family up to 28 cores PCIe 3.0, up to three (3) available slot(s) + M.2 on riser
Memory	HPE Standard Memory (4) DDR4, up to 2666 MHz (64 GB max)	HPE Smart Memory (16) DDR4, up to 2666 MHz (2 TB max)	HPE Smart Memory (24) DDR4 6 channels per CPU, up to 2666MT/s (3.0 TB max)
Persistent Memory	Not Supported	Not Supported	Up to 192 GB Capacity - (12) 16 GB (2666 MT/s) NVDIMMs
Fans	3 Non Hot plug Non Redundant Fans	5-7 Hot Swappable Redundant Fans	Hot Plug standard redundant fans / High performance redundant fans
Storage			
HPE Smart Array	Standard HPE Dynamic Smart Array S100i Choice of HPE Smart Array Essential or Performance Controllers for performance or additional features	Standard HPE Dynamic Smart Array S100i Choice of HPE Smart Array Essential or Performance Controllers for performance or additional features	Standard HPE Smart Array S100i Software RAID Choice of HPE Smart Array Essential and Performance RAID Controllers for performance or additional features
HPE Drives	4 + 2 SFF/2 LFF Drives, HDD/SSD	8 + 2 SFF/4 LFF Smart Drives, HDD/SSD, 10 SFF NVMe	10 NVMe + 1 SFF / 8+2+1 SFF / 4 LFF + 1 SFF SAS/SATA HDD/SSD Plus M.2 SATA/PCIe and Dual uFF enablement kits
Networking	2x1GbE embedded + Choice of FlexibleLOM (FLOM slot) + Standup	4x1GbE embedded + Choice of FlexibleLOM (FLOM slot) + Standup	4x1GbE embedded + Choice of FlexibleLOM or Standup cards
VGA / Serial / USB /SD	(5) USB (2 front standard, 1 interior, 2 rear), optional serial	(4) USB 3.0 (1 front standard, 1 interior, 2 rear)	Front Display Port Option , Rear VGA & Optional Serial, 3 USB 3.0, Dual MicroSD
GPU Support	No GPU support	Up to 1 Single Width Active only	Two single-wide and active to 9.5" in length, up to 150 W each
Management			
Embedded	HPE iLO 5 Embedded iLO Physical Serial Port CLI Optional Dedicated iLO NIC Port	HPE iLO 5 4GB NAND includes: Embedded iLO Physical Serial Port CLI Dedicated iLO NIC Port	HPE OneView and HPE iLO Advanced HPE Insight Online with enhanced mobile appl HPE iLO 5 4GB NAND (embedded)
Power & Cooling			
Power supplies	290W Cabled Power Supply 94% 500W, 94% 48VDC 800W Flex Slot Power Supply	92% 550W power supply optimized 96%(Titanium), 500W, 800W, 1600W Flex Slot Power Supply	up to 96% eff. (Titanium) w/ Flexible Slot FF Hot Plug Redundant fans with optional High-Performance fans
Industry Compliance	ASHRAE A3 & A4	ASHRAE A3 & A4	ASHRAE A3 & A4, lower idle power, Energy Star
Power/Location DS	NA	NA	Supported / Unsupported
Chassis Depth	1U, 15.05"	1U, 24.2"	27.81" (SFF), 29.5" (LFF)
Security	Chassis Intrusion Detection / Digital signed firmware / TPM 2.0	Chassis Intrusion Detection / Digital signed firmware / TPM 2.0	Chassis Intrusion Detection / Digital signed firmware / TPM 2.0
Rail options	Friction Rails	Easy install (standard) and CMA	Easy install (standard), Ball bearing and CMA
Warranty	3/3/3	3/3/3	3/3/3
Other	HPE Qualified Options only	HPE Qualified Options only	HPE Qualified Options only

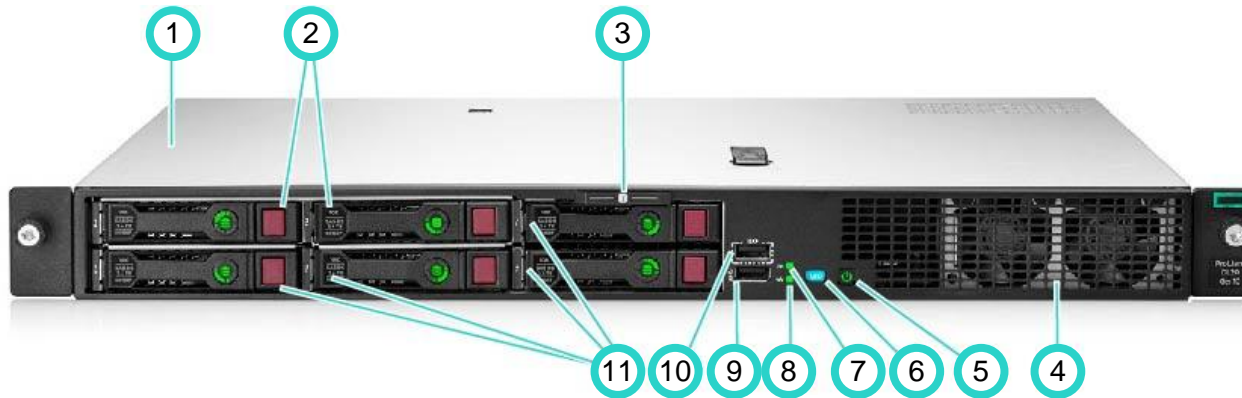
HPE ProLiant DL20 Gen10 server

Front system detail



2 LFF Front View

- | | |
|---|-------------------------------------|
| 1. Access Panel | 7. Health LED |
| 2. Optical drive bay | 8. NIC Status LED |
| 3. Serial number/iLO information pull tab | 9. USB 3.0 Port |
| 4. Front Fan Assembly | 10. iLO Service Port (USB) |
| 5. System Power LED | 11. Two-bay LFF hot-plug drive bays |
| 6. UID LED | |

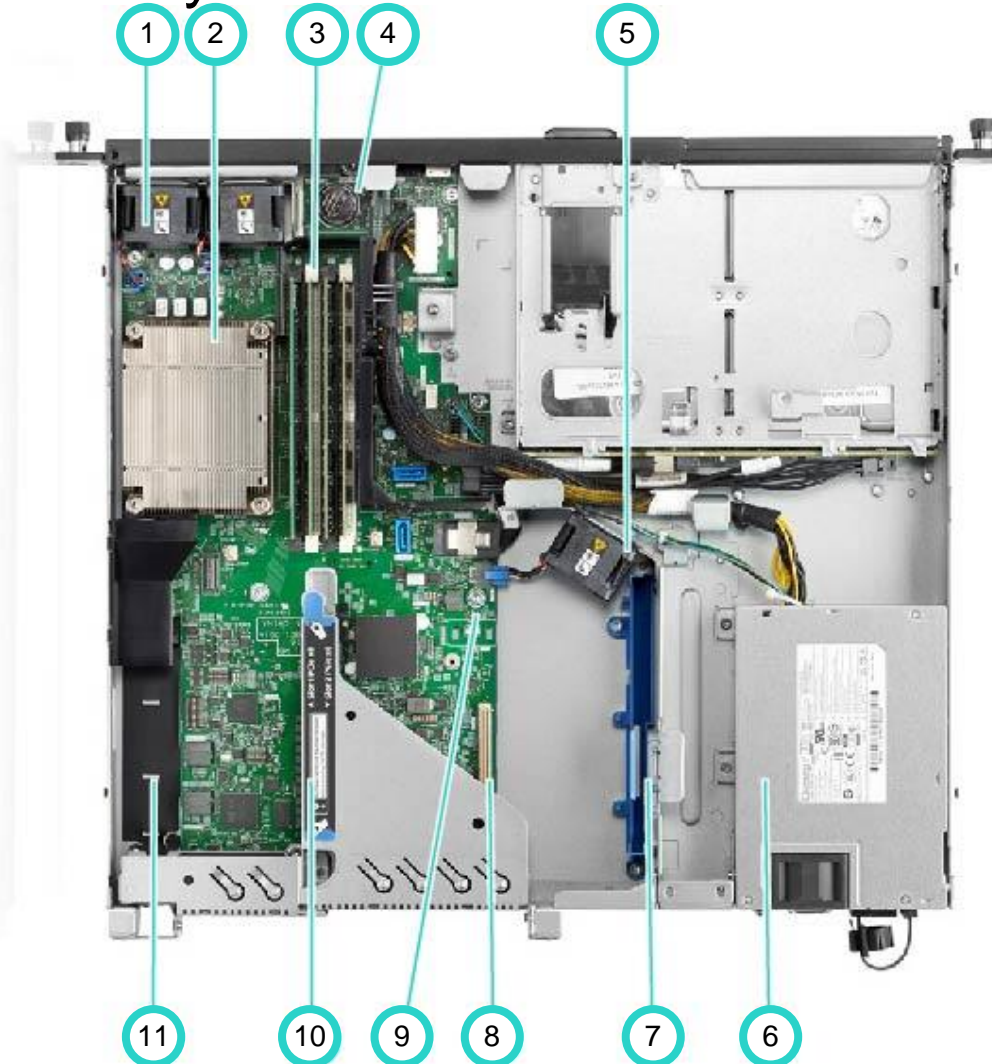


4 (+2) SFF Front View

- | | |
|---|-------------------------------|
| 1. Access Panel | 7. Health LED |
| 2. 2 SFF hot plug drive bays (optional) | 8. NIC Status LED |
| 3. Serial number/iLO information pull tab | 9. USB 3.0 Port |
| 4. Front Fan Assembly | 10. iLO Service Port (USB) |
| 5. System Power LED | 11. 4 SFF hot plug drive bays |
| 6. UID LED | |

HPE ProLiant DL20 Gen10 server

Interior of system detail

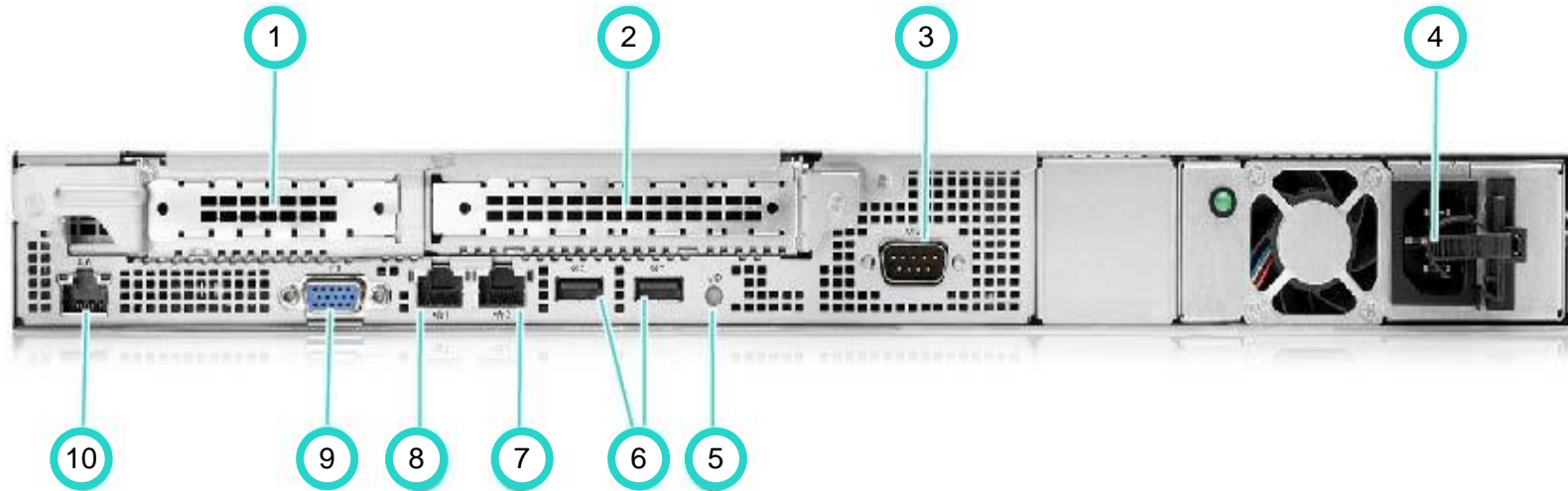


Internal View – Standard for all DL20 Gen10

- | | |
|---|-----------------------------------|
| 1. Fan cage shown with 2 fans | 8. Modular Smart Array connector |
| 2. Processor shown with heat sink | 9. Optional TPM 2.0 |
| 3. Four DDR4 DIMM Slots | 10. PCIe Riser |
| 4. System Battery | 11. Option: Dedicated iLO/M.2 SSD |
| 5. Central fan assembly (3 rd fan) | |
| 6. Power Supply (1x290W) | |
| 7. Optional Smart Storage Battery | |

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Rear view of system detail



Rear View – Standard for all DL20 Gen10

- | | |
|----------------------------------|---|
| 1. Slot 1 PCIe 3.0 | 6. Two USB 3.0 Ports |
| 2. Slot 2 PCIe 3.0 | 7. NIC Port (1Gb) |
| 3. Option: Serial Port | 8. NIC port (1Gb) /iLo port |
| 4. 290W Non hotplug Power Supply | 9. VGA port |
| 5. UID LED | 10. Option: Dedicated iLO Management Port |

HPE ProLiant DL20 Gen10 server

WW BTO SKUs

Feature	Entry1 NHP LFF	Entry2 NHP LFF	Performance1 HP LFF	Performance2 HP SFF	Solution HP SFF
Part Number	P06476-B21	P08335-B21	P06477-B21	P06478-B21	P06479-B21
Localization	WW, JPN,CHN, IND	WW, JPN,CHN, IND	WW, JPN,CHN, IND	WW, JPN,CHN, IND	WW, JPN,CHN
SMB SKU (offer)	No	Yes	Yes	Yes	Yes
Processor Model	Intel Pentium G5400	Intel Xeon E-2124	Intel Xeon E-2124	Intel Xeon E-2136	Intel Xeon E-2134
Heatsink	Standard	Standard	Standard	Standard	Standard
Fan	(3) fans (non red)		(3) fans (non red)	(3) fans (non red)	(3) fans (non red)
Number of Processors	(1)	(1)	(1)	(1)	(1)
Processor Spec (Cores/GHz/Watt)	3.7GHz/2-core/4MB/58W	3.3GHz/4-core/8MB/71W	3.3GHz/4-core/8MB/71W	3.3GHz/6-core/12MB/80W	3.5GHz/4-core/8MB/71W
Memory	8GB UDIMM (1x8 GB)	8GB UDIMM (1x8 GB)	16GB UDIMM (1x16 GB)	16GB UDIMM (1x16 GB)	16GB UDIMM (1x16 GB)
Storage Controller	S100i	S100i	S100i	S100i	S100i
Smart Storage Battery	No	No	No	No	No
Backplane	(2) LFF	(2) LFF	(2) LFF	(4) SFF	(4) SFF
HDD	None	None	None		
NIC	2x1Gb Embedded	2x1Gb Embedded	2x1Gb Embedded	2x1Gb Embedded	2x1Gb Embedded
System ROM	UEFI	UEFI	UEFI	UEFI	UEFI
Management	HPE iLO 5	HPE iLO 5	HPE iLO 5	HPE iLO 5	HPE iLO 5
Power Supply	1x290W	1x290W	1x290W	500W FS RPS	500W FS RPS
Expansion Slots	2xPCI-E	2xPCI-E	2xPCI-e	2xPCI-E	2xPCI-e
ODD	None	None	None	None	None
Rail Kit	Friction short rail kit	Friction short rail kit	Friction short rail kit	Friction short rail kit	Friction short rail kit
SID	No SID	No SID	No SID	No SID	No SID
Universal Media Bay	No	No	No	No	No
Warranty	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3

WW BTO SKUs, are available to order by both our direct customers and channel partner. The same hardware configurations will be available in all countries worldwide (some localization differences).

HPE ProLiant DL20 Gen10 server

CTO chassis options

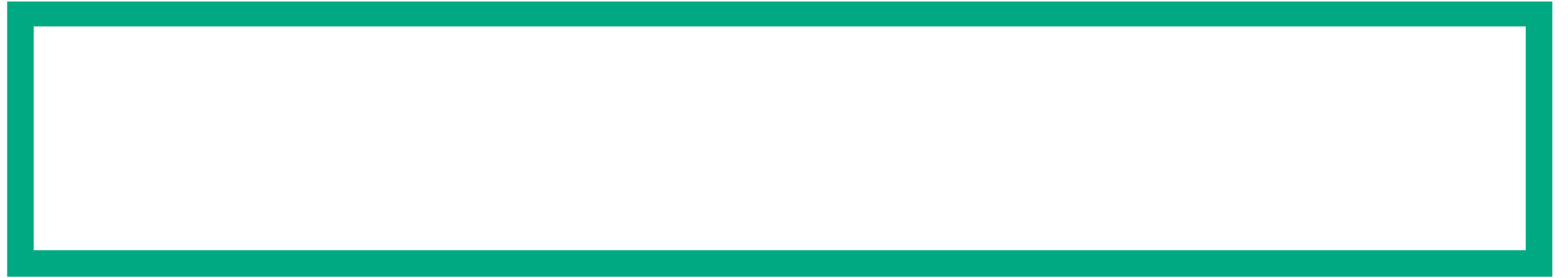
Category	SKU	Product Description
CTO Chassis	P06961-B21	HPE DL20 Gen10 NHP 2LFF CTO Server
	P06962-B21	HPE DL20 Gen10 2LFF CTO Server
	P06963-B21	HPE DL20 Gen10 4SFF CTO Server

HPE ProLiant DL20 Gen10 server

Unique options

Product description	SKU
HPE DL20 Gen10 x8x16 FlexibleLOM Riser Kit	P06667-B21
HPE DL20 Gen10 2SFF HDD Enablement Kit	P06671-B21
HPE DL20 Gen10 SFF ODD Enablement Kit	P06677-B21
HPE DL20 Gen10 LFF ODD Cable Kit	P06681-B21
HPE DL20 Gen10 M.2/SATA/2LFF/AROC Cable Kit	P06683-B21
HPE DL20/ML30 iLO/NIC/M.2/COM Enablement Kit	P06687-B21
HPE DL20 Gen10 2SFF SAS HDD Backplane Cable Kit	P08168-B21
HPE DL20 Gen10 Hot Plug Drive SAS Backplane Cable Kit	P08169-B21
HPE DL20 Gen10 NHP 2LFF SATA Backplane Cable Kit	P08170-B21
HPE DL20 Gen10 Latch Ear FIO Kit	P06716-B21
HPE DL20 Gen10 RPS Enablement FIO Kit	P06722-B21
HPE DL20 Gen10 290W FIO Power Supply Unit Kit	P06731-B21

For a full range of common options please see [QuickSpecs](#)



Processors

DL20 Gen10 Processor Support List

Intel® Xeon® E Processors								
Proc Model	E-2124	E-2126G	E-2134	E-2136	E-2144G	E-2174G	E-2176G	E-2186G
SMB	Entry Perf		Solution	Perf				
CTO	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RSL/ESL	R	E	R	R	E	E	Private	E
Wattage	71	80	71	80	71	71	80	95
Cores Count	4	6	4	6	4	4	6	6
Threads	4	6	8	12	8	8	12	12
Frequency (GHz)	3.3	3.3	3.5	3.3	3.6	3.8	3.7	3.8
Cache (MB)	8	12	8	12	8	8	12	12
Turbo	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Memory Speed (DDR4)	2666	2666	2666	2666	2666	2666	2666	2666
Intel® SGX ¹	No	No	No	No	No	Yes	Yes	Yes

Others	
Pentium G5400	Core i3-8300
Entry	
Yes	Yes
R	E
58	62
2	4
4	4
3.7	3.7
4	8
No	No
2400	2400
No	No

¹ HPE ProLiant DL20 Gen10 Server supports Intel® Software Guard Extension (Intel® SGX) technology. Only selective Intel® Xeon® E processors is supported.



OS Support

Getting the Best Out of HPE Compute

HPE ProLiant DL20 Gen10 Operating & Virtualization Support

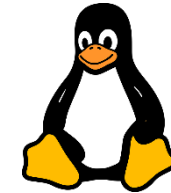
Microsoft Windows Server

Windows Server 2016



Linux

RHEL 7.5
SLES 12 SP3 w/ kiso (64 bit, includes KVM)
SLES 15 (64 bit, includes KVM)
CentOS 7.5



**Collaborative software support included in
HPE Proactive Care and Foundation Care Services**

Virtualization

VMware vSphere 6.5 U2
VMware vSphere 6.7
Microsoft Hyper-V Server 2016



ClearOS

ClearOS with an application marketplace, allows you build the IT solution that is just right for you. To learn more on what you can do or to download the software, see www.hpe.com/servers/clearos.

NOTE: Supports ProLiant 10, 100 and 300 Series Servers



Content subject to change

Please check www.hpe.com/info/ossupport for any operating systems not listed here or for the latest information.



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Thank you