HPE GreenLake

HPE servers—Portfolio at a glance

May 2023

Overview

- View the HPE server and storage portfolio at a high level
- Find the right products to drive infrastructure transformation
- Compare key specifications across the product line

Transform IT with software-defined infrastructure

Cloud is not a destination; it's a model for a better way of doing things. To ensure your private cloud experience mirrors that of the public cloud, you need a partner who can help you build private clouds and manage hybrid cloud successfully, with the flexibility to adapt to changing business needs, by transforming your technology, people, and processes and economics. HPE is uniquely positioned to accelerate your hybrid cloud strategy through world-class software-defined IT solutions, proven hybrid cloud expertise, and flexible consumption and economic options—all supporting your choice of clouds, workloads, and tools. hpe.com/us/en/solutions/data-center-infrastructure.html

HPE Synergy

Gain efficiency and control, and deploy IT resources quickly for any workload through a single interface. HPE Synergy, a powerful software-defined solution, enables you to compose fluid pools of physical and virtual compute, storage, and fabric resources into any configuration for any application. Learn more at hpe.com/synergy.

The HPE server family (hpe.com/servers)

A complete compute solution

The next-gen HPE ProLiant is engineered with a cloud experience, no matter if you choose a purchase or consumption model. From silicon to software, from factory to cloud, and from generation to generation, HPE ProLiant is engineered with a fundamental security approach to defend against increasingly complex threats through an uncompromising focus to constant security advancements that's built into our DNA. Get the performance you demand to accelerate any workload—from the data center to the edge—with HPE ProLiant compute that's engineered for your hybrid environment.

HPE ProLiant servers—HPE is committed to innovation, quality, and an excellent customer experience. Our approach to excellence in our innovation and quality is instilled across the product lifecycle, from our customer-first approach to design, to our supplier selection, quality, and management, to our world-class manufacturing and rigorous product testing, to our global support services, and network of channel partners. HPE ProLiant rack and tower servers, you can deliver a flexible software-defined approach that is built on a foundation of intelligence beginning with the server. HPE ProLiant is that intelligent compute foundation for hybrid cloud, delivering unmatched workload optimization, security and automation, all available as a service your hybrid cloud infrastructure.

HPE BladeSystem—HPE BladeSystem lets you transform legacy infrastructure and scale business performance while optimizing costs. With the powerful HPE OneView management, HPE BladeSystem puts your business on an agile, secure foundation and on the path to a composable experience. hpe.com/info/bladesystem

HPE Apollo—The HPE Apollo high-density server family is built for the highest levels of performance, scale, and efficiency. They are rack-scale compute, storage, networking, power, and cooling—massively scale-up and scale-out solutions, ideal for your Big Data analytics, object storage, high performance computing (HPC), and artificial intelligence (AI) workloads. hpe.com/info/apollo

HPE Data Solutions—When you need real-time business and maximum uptime, HPE Data Solutions are your ideal choice. This portfolio is unparalleled for its resiliency, availability, and security for critical data environments where business continuity is expected.

For industries that never stop, HPE NonStop Systems are uniquely designed for the very highest level of availability: an integrated solution stack with massive scalability, data integrity, and low TCO. hpe.com/info/nonstop. For your most demanding and critical SAP HANA®, Oracle® and SQL Server workloads, HPE Superdome Flex family delivers an unmatched combination of performance, availability, and reliability for data environments of any size. This is also an ideal platform to tackle AI and HPC workloads holistically. hpe.com/superdome.

HPE Server Options—Strengthen the foundation of your data center with high-caliber products that enhance system performance and functionality. HPE memory, drives, processors, racks, and power and cooling offerings are easy to manage and are tailored for HPE ProLiant, Integrity, and HPE storage systems. With HPE Qualified Options, you can be confident in your whole infrastructure. hpe.com/info/serveroptions

HPE Data center networking solutions—Built from HPE FlexNetwork Architecture, HPE Data center networking solutions meet the demanding needs of today's highly virtualized, large-scale application environments. HPE FlexFabric data center is the network foundation for the servers, storage, and software of converged infrastructure. This robust networking foundation helps you improve service levels and agility, enhance business continuity, and reduce operating costs. hpe.com/us/en/networking/data-center.html

Partner Software—HPE tests, certifies, and supports a broad range of partner OS and virtualization software on HPE ProLiant servers. HPE resells and provides service and support for Microsoft Windows Server, Red Hat® Enterprise Linux®, SUSE Linux Enterprise Server, Canonical Ubuntu Server, and VMware®. HPE also resells Cloudera, Hortonworks, Scality, and IBM Cloud Object Storage with support provided by the partner. For more information, visit the OS and virtualization website: hpe.com/info/ossupport.

HPE Server Management is an agile infrastructure management solution for accelerating IT service delivery and support. We provide a comprehensive set of server management capabilities designed to manage the lifecycle for the HPE Server portfolio to reduce the time, complexity, and cost of everyday IT management. hpe.com/us/en/servers/management.html

hpe.com/info/rackservers
hpe.com/info/towerservers
Security
Benchmarks

HPE Pointnext Services

Achieve maximum return from your IT investment

Get the expertise you need at every step of the IT journey with HPE Pointnext Services and Support. We help you lower your risks and costs using proven best practices, automation, and methodologies that have been tested and refined by HPE experts through thousands of implementations and deployments globally. With Advisory Services, we focus on your business outcomes and goals, partnering with you to design your transformation and build a road map tuned to your unique challenges. Our professional, operational, and technical services can be leveraged to speed up time-to-production, boost performance, and accelerate your business.

HPE Pointnext Services specializes in flawless and on-time implementation, on-budget implementation, and creative configurations that get the most out of software and hardware alike. We collaborate with your IT team from technical design to implementation, build to migration, distribution, and finally to operational consulting and service.

- Services and Support accelerates your digital transformation and gain the ability to operate from edge to cloud with strategic help, operational support, and training you need.
- HPE Pointnext Complete Care is our edge-to-cloud IT environment service that provides a holistic approach to optimizing your entire IT environment, and achieve agreed upon IT outcomes and business goals through a personalized and customer-centric experience.
- HPE Pointnext Tech Care a new service changing the definition of operational IT support.

Consume IT services on your terms, getting the specific value that you need for your business. HPE GreenLake enables you to scale easily by adding capacity in minutes, not months. You pay only for what you actually need, creating true pay-per-use outcomes. Simplify your IT planning, capacity forecasting, and cost allocation with HPE GreenLake.

Learn more about HPE Pointnext Services and Solutions for your business.

HPE ProLiant servers—10, 100, 300, 500 series

HPE ProLiant servers

			ML/DL10 series: Small scale server: Easy to buy and deploy		**ML/DL100 series:** Right-sized server: Balance of performance, efficiency, and manageability		
	 **MicroServer Gen10 Plus**	 **MicroServer Gen10**	 **ML30 Gen10**	 **DL20 Gen10**	 **ML110 Gen10**	 **DL160 Gen10**	 **DL180 Gen10**
Number of processors	1	1	1	1	1	1 or 2	1 or 2
Cores per processor	2/4	2/4	2/4/6	2/4/6	4/6/8/10/12/14/16	4/6/8/10/12/14/16/18/20/22/24	4/6/8/10/12/14/16/18/20/22/24/26
Processors supported	Intel® Xeon® E2200 series Intel® Pentium® G5400 series	AMD Opteron X3421 AMD Opteron X3216	Intel Xeon E-2200 series; Intel® Core™ i3-9100; Intel Pentium G5420	Intel Xeon E-2100 Series; Intel Core i3-8300; Intel Pentium G5400	Intel Xeon Scalable processor 5200, 4200, and 3200 series; Intel Xeon Scalable processor 5100, 4100, and 3100 series	Intel Xeon Scalable processor 8200, 6200, 5200, 4200, 3200 series; Intel Xeon Scalable processor 4100 and 3100 series	Intel Xeon Scalable processor 8200, 6200, 5200, 4200, 3200 series; Intel Xeon Scalable processor 4100 and 3100 series
Maximum processor frequency	3.8 GHz	3.4 GHz	3.8 GHz	3.8 GHz	3.8 GHz	3.8 GHz	3.8 GHz
Cache	Up to 8 MB L3	2 MB L2	Up to 12 MB L3	Up to 12 MB L3	Up to 22 MB	Up to 35.75 MB	Up to 35.75 MB
Maximum memory	32 GB (2 DIMM slots)	32 GB (2 DIMM slots)	64 GB (4 DIMM slots)	64 GB (4 DIMM slots)	192 GB (6 DIMM slots)	1 TB (16 DIMM slots)	1 TB (16 DIMM slots)
Persistent memory	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum storage drive bays	4 NHP LFF or 4 NHP SFF HDD/SSD	(4) LFF SATA Non-hot plug	(8) SFF SAS/SATA hot plug, (4) LFF SAS/SATA hot plug, or (4) LFF SATA Non-hot plug (1) M.2 NVMe SSD	(4) SFF + (2) SFF (2) LFF hot plug (2) LFF Non-hot plug	(16) SFF SAS/SATA HDD/SSD, (8) LFF SAS/SATA HDD/SSD, or (8) NHP LFF SATA HDD	8 + 2 SFF or 4 LFF HDD/SSD + M.2 SATA support	(8) + (24) SFF or (12) LFF SAS/SATA HDD/SSD + (2) SFF rear enablement kit + M.2 SATA support
Maximum internal storage	16 TB	16 TB	64 TB	91.8 TB	96 TB	48 TB	144 TB
I/O slots	Up to 1 PCIe 3.0	Up to 2 PCIe 3.0	Up to 4 PCIe 3.0	Up to 2 PCIe 3.0	Up to 5 PCIe 3.0	Up to 3 PCIe 3.0	Up to 6 PCIe 3.0
GPU	Optional Radeon Pro WX 2100	Optional AMD Radeon Pro WX 2100	(1) Single-wide, active, up to 75W	N/A	NVIDIA Quadro P2000 and AMD Radeon Pro WX 2100, NVIDIA Quadro RTX 4000	N/A	NVIDIA Quadro P2000
Operating systems and virtualization software supported	Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), VMware, Hyper-V, and ClearOS	ClearOS, Microsoft Windows Server	ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware	ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware	Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), VMware, Hyper-V, and ClearOS	Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), VMware, and Hyper-V	Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), VMware, and Hyper-V
Management	HPE iLO 5, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE InfoSight	N/A	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE InfoSight	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE OneView Advanced, HPE InfoSight	HPE iLO 5, HPE OneView Standard, HPE InfoSight, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE OneView Advanced, HPE InfoSight	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE OneView Advanced, HPE InfoSight
Form factor/chassis depth	Ultra-Micro Tower/9.65"	Ultra-Micro Tower/10"	Micro-ATX Tower (4U)/18.71"	Rack (1U)/15.05"	Tower (4.5U)/< 19"	Rack (1U)/24.1"	Rack (2U)/24.99"
Warranty—year(s) (parts/labor/on-site)	1/1/1	1/1/1	3/1/1 or 3/3/3 (depending on region)	3/3/3	3/3/3	3/3/3	3/3/3

HPE ProLiant servers—10, 100, 300, 500 series (continued)

HPE ProLiant servers

ML/DL300 series: Versatile server: Industry-leading portfolio offering flexible choices for multiworkload compute and storage













	ML350 Gen10	ML350 Gen11	DL320 Gen11	DL325 Gen10	DL325 Gen10 Plus v2	DL325 Gen10 Plus	DL325 Gen11	DL345 Gen10 Plus	DL345 Gen11	DL360 Gen10 Plus	DL360 Gen11	DL365 Gen10 Plus	DL365 Gen11
Number of processors	1 or 2	1 or 2	1	1	1	1	1	1	1	1 or 2	1 or 2	1 or 2	1 or 2
Cores per processor	4/6/8/10/12/14/16/18/20/22/24/26/28	8/12/16/18/20/24/28/32/36/40/44/48/52/56/60*	8 to 32 cores, depending on processor	8/16/24/32/64	8/16/24/28/32/48/56/64	8/16/24/32/64	16/24/32/48/64/84/96	8/16/24/28/32/48/56/64	16/24/32/48/64/84/96	4/6/8/10/12/14/16/18/22/24/26/28	8/12/16/18/20/24/28/32/36/40/44/48/52/ 56/60	8/16/24/28/32/48/56/64	16/24/32/48/64/84/96
Processors supported	Intel Xeon Scalable 8200 series; Intel Xeon Scalable 8100 series; Intel Xeon Scalable 6100 series; Intel Xeon Scalable 5100 series; Intel Xeon Scalable 4100 series; Intel Xeon Scalable 3100 series	Intel Xeon Scalable processor 8400, 6400, 5400, 4400, 3400 series	4th Generation Intel Xeon Scalable processors 3400, 4400, 5400, 6400 and 8400 series	AMD EPYC™ 7000 series processors	3rd Generation AMD EPYC 7000 Series	AMD EPYC 7000 Series	4th Generation AMD EPYC™ 9004 Series Processors	3rd Generation AMD EPYC 7000 Series	4th Generation AMD EPYC™ 9004 Series Processors	Intel Xeon Scalable processor 8200, 6200, 5200, 4200, 3200 series; Intel Xeon Scalable processor 8100, 6100, 5100, 4100, and 3100 series	Intel Xeon Scalable processor 8400, 6400, 5400, 4400, 3400 series	3rd Generation AMD EPYC 7000 Series	4th Generation AMD EPYC™ 9004 Series Processors
Maximum processor frequency	3.8 GHz	3.7 GHz	3.7 GHz	3.4 GHz	3.7 GHz	3.4 GHz	4.4 GHz	4.1 GHz	4.4 GHz	3.8 GHz	3.7 GHz	3.7 GHz	4.4 GHz
Cache	Up to 38.5 MB L3	112.5 MB	60 MB L3	Up to 256 MB L3	Up to 256 MB L3	Up to 256 MB	Up to 384 MB	Up to 256 MB L3	Up to 384 MB	Up to 38.5 MB	Up to 112.5 MB	Up to 256 MB L3	Up to 384 MB
Maximum memory	3 TB (24 DIMM slots)	8 TB/32/4800 MT/s	2 TB/16/4800 MT/s	2 TB (16 DIMM slots)	4 TB (16 DIMM Slots)	4 TB/3200 MT/s	3 TB/12/4800 MT/s	4 TB (16 DIMM Slots)	3 TB/12/4800 MT/s	3 TB (24 DIMM slots)	8 TB/32/4800 MT/s	8.0 TB with 256 GB DDR4	6 TB/24/4800 MT/s
Persistent memory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Up to (12) 16 GB NVDIMMs option (192 GB max.)**	N/A	N/A	N/A
Maximum storage drive bays	(24) SFF SAS/SATA HDD/SSD, (12) LFF SAS/SATA HDD/SSD, (8) NVMe SSD option, or (12) NHP LFF SATA HDD	24 SFF SAS/SATA/x1 NVMe or 12 LFF SAS/SATA HDD/SSD or 8 SFF x4 NVMe or 12 EDSFF 3.S 1T	Up to 4 LFF SAS/SATA HDDs or SSDs. Up to 8+2 SFF SAS/SATA HDDs or SATA/SAS/NVMe U.2 or U.3 SDDs, depending on model. Optional embedded 2 M.2 Boot SSD. Optional RAID 1 NVMe M.2 Boot device (Internal or external accessible from rear wall with 2x NVMe M.2 incorporated).	(4) LFF SAS/SATA HDD/SSD, (8) SFF SAS/SATA HDD/SSD + (2) SFF SAS/SATA HDD/SSD (10) SFF NVMe	4 LFF SAS/SATA, 8 SFF SAS/SATA/NVMe with optional 1x 2 SFF SAS/SATA or 1x 2 SFF NVMe	Up to 12 LFF/24 SFF/24 NVMe	**Front Drive Count** Up to 4 LFF HDD/SSD; SAS/SATA Up to 10 SFF HDD/SSD; SAS/SATA/NVMe Up to 20 EDSFF E3.S 1T NVMe	8 or 12 LFF SAS/SATA with 2 SFF rear drive optional 8 or 24 SFF SAS/SATA with 2 SFF rear drive optional, 24 SFF NVMe front bay with 2 SFF rear drive optional	**Front Drive Count** Up to 12 LFF HDD/SSD; SAS/SATA Up to 24 SFF HDD/SSD; SAS/SATA/NVMe Up to 36 EDSFF E3.S 1T NVMe **Mid Tray Drive Count** Up to 8 SFF SAS/SATA/NVMe OR Up to 4 LFF SAS/SATA **Rear Drive Count** Up to 2 SFF SAS/SATA/NVMe OR Up to 4 LFF SAS/SATA	(10) NVMe + (1) SFF or (8) + (2) + (1) SFF or (4) LFF + (1) SFF SAS/SATA HDD/SSD M.2 SATA/PCIe enabled, optional dual uFF M.2 Enablement Kits	10 NVMe + 1 SFF or 8 + 2 + 1 SFF or 4 LFF + 1 SFF SAS/SATA HDD/SSD M.2 SATA/PCIe enabled, optional dual uFF M.2 enablement kits	8 SFF SAS/SATA/NVMe with optional 1x 2 SFF SAS/SATA or 1x 2 SFF NVMe	Front Drive Count Up to 10 SFF HDD/SSD; SAS/SATA/NVMe Up to 20 EDSFF 3.S 1T*
Maximum internal storage	184 TB	368.64 TB (24 x15.36 TB)	76.8 TB	154 TB	459 TB	Up to 2 Single Width Active only	307.2 TB (20 x 15.36 TB)	399.36 TB	552.96 TB (36 x 15.36 TB)	153.6 TB	168+ TB	153.6 TB	153.6 TB
I/O slots	Up to 8 PCIe 3.0	Up to PCIe 5.0, 10 x8 or 4 x16/2 x8	2 PCIe Gen5 & 1 OCP 3.0 PCIe Gen5	3 PCIe 3.0	Up to 3 PCIe 4.0	Up to 3 PCIe 4.0	Up to 2x16 PCIe Gen5 Up to 2 OCP slots; both x8 default	UP to 4 PCIe 4.0	Up to 6x16 PCIe Gen5 Up to 2 OCP slots; both x8 default	Up to 3 PCIe 3.0	Up to 3 PCIe 5.0, 1 x 16, 1 x 8, 1 FH/¾ L, 1 FH/HL length	UP to 4 PCIe 4.0	Up to 2x16 PCIe Gen5 slots Up to 2 OCP slots; both x8 default
GPU	FL/FH double-wide and single-wide active and passive (4)	Single-/double-wide active/passive, up to 8SW/4DW	N/A	N/A	N/A	Up to 2 Single Width Active only	Up to 2 single-wide 75W or 2 double-wide 350W		Up to 4 single-wide 75W or 2 double-wide 350W	Single-wide and active to 9.5" (2) in length, up to 150W each	Single-wide and active to 9.5" (2) in length, up to 150W each		Up to 2 single-wide/2 double-wide
Operating systems and virtualization software supported	Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), VMware, Hyper-V, and ClearOS			ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware	ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware	ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware		ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware		ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware		ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware	
Management	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE OneView Advanced, HPE InfoSight	HPE iLO 6, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack, HPE GreenLake for Compute Ops Management Optional: HPE InfoSight, HPE iLO Advanced, HPE OneView Advanced	HPE iLO 6, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack, HPE GreenLake for Compute Ops Management Optional: HPE InfoSight, HPE iLO Advanced, HPE OneView Advanced	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE OneView Advanced, HPE InfoSight	Default: HPE iLO Standard with intelligent provisioning, HPE OneView Standard (requires download)	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE InfoSight HPE iLO Advance, HPE OneView Advanced HPE OneSphere	HPE iLO 6, HPE OneView Standard, intelligent provisioning, Smart Update, RESTful Interface Tool, HPE iLO Amplifier Pack, Active Health System, Active System Health Viewing, HPE GreenLake for Compute Ops Management Optional: HPE InfoSight, HPE iLO Advanced; HPE OneView Advanced	Default: HPE iLO Standard with intelligent provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced	HPE iLO 6, HPE OneView Standard, intelligent provisioning, Smart Update, RESTful Interface Tool, HPE iLO Amplifier Pack, Active Health System, Active System Health Viewing, HPE GreenLake for Compute Ops Management Optional: HPE InfoSight, HPE iLO Advanced; HPE OneView Advanced	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE OneView Advanced, HPE InfoSight	HPE iLO 6, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE InfoSight, HPE iLO Advanced, HPE OneView Advanced, HPE OneSphere. HPE GreenLake for Compute Ops Management	HPE iLO Standard with intelligent provisioning (embedded), HPE OneView Standard (requires download) HPE iLO Advanced (require license)	HPE iLO 6, HPE OneView Standard, intelligent provisioning, Smart Update, RESTful Interface Tool, HPE iLO Amplifier Pack, Active Health System, Active System Health Viewing, HPE GreenLake for Compute Ops Management Optional: HPE InfoSight, HPE iLO Advanced; HPE OneView Advanced
Form factor/chassis depth	Tower (4U)/25.5" or Rack (5U)/25.5"	Tower (4U)/28" or Rack (5U)/28"	Rack (1U)/24.21"	Rack (1U)/24.2"	1U Rack	1U, 31.8" (Up to 8 LFF/20 SFF) or 39.3" (12 LFF/24 SFF)	Rack (1U)/ 25.57" (SFF), 27.91" (LFF & EDSFF), 32.23" (GPU)	2U Rack, LFF Easy Install rails with optional CMA	Rack (2U)/25.45" (SFF & EDSFF), 26.11" (LFF), 31.45" (GPU)	Rack (1U)/27.81" (SFF), 29.5" (LFF)	Rack (1U)/27.81" (SFF), 29.5" (LFF)	1U Rack, SFF Easy Install rails without CMA	1U Rack, SFF Easy Install rails without CMA
Warranty—year(s) (parts/labor/on-site)	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3

* Intel Speed Select, 1-socket Optimized, NFV Optimized and VM Density Optimized processors.

** Supported on first generation Intel Xeon Scalable processors.

HPE ProLiant servers—10, 100, 300, 500 series (continued)

HPE ProLiant servers

	ML/DL300 series: Versatile server: Industry-leading portfolio offering flexible choices for multiworkload compute and storage								**DL500 series:** Scalable performance for business-critical workloads	
	 **DL380 Gen10 Plus**	 **DL380 Gen11**	 **DL380a Gen11**	 **DL385 Gen10**	 **DL385 Gen10 Plus**	 **DL385 Gen10 Plus v2**	 **DL385 Gen11**	 **RL300 Gen11**	 **DL560 Gen10**	 **DL580 Gen10**
Number of processors	1 or 2	1 or 2	2	1 or 2	1 or 2	1 or 2	1 or 2	1	1, 2, or 4	1, 2, 3, or 4
Cores per processor	4/6/8/10/12/14/16/18/20/22/24/26/28	8/12/16/18/20/24/28/32/36/40/44/48/52/56/60	16/24/32/36/40/44/48/52/56	8/16/24/32/64	8/16/24/32/64	8/16/24/32/48/56/64	16/24/32/48/64/84/96	80 to 128 cores	4/6/8/10/12/14/16/18/20/22/24/26/28	4/6/8/10/12/14/16/18/20/22/24/26/28
Processors supported	Intel Xeon Scalable processor 8200, 6200, 5200, 4200, 3200 series; Intel Xeon Scalable processor 8100, 6100, 5100, 4100, and 3100 series	Intel Xeon Scalable processor 8400, 6400, 5400, 4400, 3400 series	4th Generation Intel Xeon Scalable processors	AMD EPYC 7000 series processors	AMD EPYC 7000 Series	3rd Generation AMD EPYC 7000 Series	4th Generation AMD EPYC™ 9004 Series Processors	Ampere® Altra® and Ampere® Altra® Max	Intel Xeon Scalable processor 8200, 6200, 5200 series; Intel Xeon Scalable processor 8100, 6100, and 5100 series	Intel Xeon Scalable processor 8200, 6200, and 5200 series; Intel Xeon Scalable processor 8100, 6100, and 5100 series
Maximum processor frequency	3.8 GHz	3.7 GHz	3.7 GHz	3.4 GHz	3.4 GHz	3.7 GHz	4.4 GHz	3.0 GHz	3.8 GHz	3.8 GHz
Cache	Up to 38.5 MB	Up to 112.5 MB	Up to 105 MB	Up to 256 MB L3	Up to 256 MB	Up to 256 MB L3	Up to 384 MB	Up to 64 KB L1 I-cache, 64 KB L1 D-cache per core, 1 MB L2 cache per core	Up to 38.5 MB	38.5 MB
Maximum memory	3 TB (24 DIMM slots)	8 TB/32/4800 MT/s	Up to 3 TB 24 DIMMs for DDR5 memory up to 4800 MT/s	4 TB (32 DIMM slots)	8 TB/3200 MT/s	8.0 TB with 256 GB DDR4	Up to 6 TB 12 DIMMs for DDR5 memory up to 4800 MT/s	4.0 TB/16/3200 MT/s DDR4 ECC	6 TB (48 DIMM slots)	6 TB (48 DIMM slots)
Persistent memory	Up to (24) 16 GB NVDIMMs option (384 GB max.)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Up to (24) 16 GB NVDIMMs option (384 GB max.)**	Up to (24) 16 GB NVDIMMs option (384 GB max.)**
Maximum storage drive bays	(24) + (6) SFF SAS/SATA HDD/SSD or (12) + (4) + (3) LFF + (2) SFF SAS/SATA HDD/SSD or 20 NVMe PCI SSD, M.2 enabled, optional dual uFF M.2 Enablement Kits	24 + 6 SFF SAS/SATA HDD/SSD or 12 + 4 + 3 LFF + 2 SFF SAS/SATA HDD/SSD or 20 NVMe PCIe SSD	**Front Drive Count** Up to 8 SFF NVMe Up to 8 EDSFF E3.S	(8) LFF SAS/SATA HDD/SSD + UMB (12) LFF SAS/SATA/SSD + (4) LFF mid-plane + (3) LFF + (2) SFF rear drive bay (total 19 LFF + 2 SFF drives) (8) SFF SAS/SATA/SSD + optional UMB, SFF, or NVMe drive bay options (24) SFF SAS/SATA HDD/SSD + (6) SFF rear drives (total of 30 SFF drives) (24) NVMe PCI	38 SFF/20 LFF + 2 SFF max. HDD/SSD, 32 NVMe (x4) PCIe SSD	8 or 12 LFF SAS/SATA with 4 LFF mid drive optional, 4 LFF rear drive 8 or 24 SFF SAS/SATA with 8 SFF mid drive optional and 4 SFF rear drive optional, 16 SFF NVMe front bay with 8 SFF mid drive optional	**Front Drive Count** Up to 12 LFF HDD/SSD; SAS/SATA Up to 24 SFF HDD/SSD; SAS/SATA/NVMe Up to 36 EDSFF 3.S 1T* Up to 48 SFF HDD/SSD; SAS/SATA* **Mid Tray Count** Up to 8 SFF SAS/SATA/NVMe or Up to 4 LFF SAS/SATA **Rear Drive Count** Up to 2 SFF SAS/SATA/NVMe or Up to 4 LFF SAS/SATA	10 SFF NVMe SSDs or 8 SFF NVMe SSDs or 2 M.2 NVMe SSDs optional, depending on model	(24) SFF SAS/SATA HDD/SSD or (12) NVMe PCI SSD (optional), M.2 enabled, optional dual uFF enablement kits	(48) SFF SAS/SATA HDD/SSD (2) SFF SAS/SATA/NVMe, and (20) NVMe SSD option kits (optional)
Maximum internal storage	197+ TB	462 TB	122.88 TB NVMe 61.44 TB EDSFF	459 TB		428.4 TB	522.24 TB	38.4 TB	184 TB	368 TB
I/O slots	Up to 8 PCIe 3.0	Up to 8 PCIe 5.0	Up to 4x16 PCIe Gen5 slots Up to 2 OCP slots; both x16 default	8 PCIe 3.0	Up to 8 PCIe 4.0 + M.2 support in PCIe slot	UP to 4 PCIe 4.0	Up to 8x16 PCIe Gen5 slots Up to 2 OCP slots; both x8 default	4 PCIe Gen4, for detailed descriptions refer to the QuickSpecs	Up to 8 PCIe 3.0	16 PCIe 3.0
GPU	Single-wide (5)/double-wide (3) and active/passive up to 10.5*	Single-wide (8)/double-wide (3) and active/passive up to 10.5 cards	Up to 4 double-wide with the front GPU hybrid cage	Single-wide (5)/double-wide (3) and active/passive up to 10.5 cards	Single-/double-wide (8) and active/passive up to 10.5* (3)		Up to 8 single-wide/4 double-wide with the front GPU hybrid cage*		HL/FH (2)	FL/FH double-wide (4)
Operating systems and virtualization software supported	ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware			ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware	ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware	ClearOS, Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware			Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware	Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware
Management	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE OneView Advanced, HPE InfoSight	HPE iLO 6, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack, HPE GreenLake for Compute Ops Management Optional: HPE InfoSight, HPE iLO Advanced; HPE OneView Advanced, HPE OneSphere	Converged: HPE OneView and HPE iLO Advanced Supported: HPE Insight Online with enhanced mobile app Embedded: HPE iLO 6, SUM, RESTful Interface Tool, UEFI	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE OneView Advanced, HPE InfoSight	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE InfoSight HPE iLO Advance, HPE OneView Advanced HPE OneSphere	Default: HPE iLO Standard with intelligent provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced	Converged: HPE OneView and HPE iLO Advanced Supported: HPE Insight Online with enhanced mobile app Embedded: HPE iLO 6, SUM, RESTful Interface Tool, UEFI	Included—HPE iLO Standard and Advanced features	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE OneView Advanced, HPE InfoSight	HPE iLO 5, HPE OneView Standard, intelligent provisioning, Smart Update Manager, RESTful Interface Tool, HPE iLO Amplifier Pack Optional: HPE iLO Advanced, HPE OneView Advanced, HPE InfoSight
Form factor/chassis depth	Rack (2U)/26.75" (SFF), 28.75" (LFF)	Rack (2U)/28.62" (SFF), 28.82" (LFF)	2U 2P	Rack (2U)/28.75"	Rack (2U)/26.75" (SFF), 28.75" (LFF)	2U Rack	2U 1P 25.45" (SFF), 26.11" (LFF), 31.45" (GPU)*	1U 1P	Rack (2U)/29.75" (SFF)	Rack (4U)/29.75"
Warranty—year(s) (parts/labor/on-site)	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3

* Intel Speed Select, 1-socket Optimized, NFV Optimized and VM Density Optimized processors.

** Supported on first generation Intel Xeon Scalable processors.

HPE Synergy and HPE BladeSystem Compute and Storage Modules

Compute Modules

SY480 Gen10*

SY660 Gen10*

Number of processors	1 or 2		2 or 4	
Processors supported	Intel Xeon Scalable processors family—1st Generation****	Intel Xeon Scalable processors family—2nd Generation*****	Intel Xeon Scalable processors family—1st Generation****	Intel Xeon Scalable processors family—2nd Generation*****
Processors—Cores available	4 to 28		4 to 28	
Processors—Frequency	1.7 to 3.6 GHz	1.8 to 3.8 GHz	2.0 to 3.6 GHz	1.8 to 3.8 GHz
Memory slots	24	24	48	48
Memory capacity—Per socket	Up to 1.5 TB***	Up to 1, 2, or 4.5 TB***	Up to 6 TB***	Up to 1, 2, or 4.5 TB***
Memory speed	DDR4 @ 2666 MT/s***	DDR4 @ 2933 MT/s***	DDR4 @ 2666 MT/s***	DDR4 @ 2933 MT/s***
Persistent memory	N/A	Intel (256 GB, 512 GB, 1 TB)***	N/A	Intel (256 GB, 512 GB, 1 TB)***
Operating systems supported**	MS Win, RHEL, SLES**		MS Win, RHEL, SLES**	
Network ports	Up to 3 Mezzanine Slots for SAS, Ethernet, or Fibre Channel depending on configuration		Up to 6 Mezzanine Slots for SAS, Ethernet, or Fibre Channel depending on configuration	
Drives supported	2 SFF SAS/SATA or 2 SFF NVMe (optional) or 2 M.2 SATA and 2 Dual uFF, hot plug, depending on model		0 to 4 SFF SAS/SATA/NVMe SSDs and/or up to 8 uFF Flash and/or up to 4 internal M.2 drives	
Maximum internal storage	Up to 2 Drives + 40 w/ D3940 (up to 5 storage modules per frame) 204 max. drives per frame		Up to 4 Drives + 40 w/ D3940 (up to 4 storage modules per frame) 168 max. drives per frame	
I/O slots	Up to 3 available		Up to 6 available	
Management	HPE OneView		HPE OneView	
Form factor	Half-height, 12 per enclosure (mixing allowed)		Full-height, 6 per enclosure (mixing allowed)	
Warranty—year(s) (parts/labor/on-site)	3/3/3		3/3/3	

* For more details, please review QuickSpecs at hpe.com/psnow/doc/a00008520enw?from=app&section=search&isFutureVersion=true and hpe.com/psnow/doc/a00008522enw?from=app&section=search&isFutureVersion=true.
** For more information on HPE's certified and supported HPE ProLiant servers for OS and Virtualization software and latest listing of software drivers available for your server, please visit our Support Matrix at hpe.com/info/ossupport.
*** Capacity and Speed of Memory is highly dependent on version #, number of slots occupied and processor selected. See Memory Population Tables in individual Compute QuickSpecs for details.
**** Intel Xeon Scalable Family 100 Series (s1##aa) Bronze, Silver, Gold, and Platinum shelves.
***** Intel Xeon Scalable Family 200 Series (s2##aa) Bronze, Silver, Gold, and Platinum shelves.

Storage Modules

D3940 Storage Module

Max. drive quantity supported	1 to 40 small form factor (SFF) drives
Fabric	Supports 6G SATA and 12G SAS
Controller model	HPE Smart Array P416ie-m 12G SAS Mezzanine Controller
Controller RAID options	RAID 0, 1, 5, 6, 10, 50, 60, 1 ADM, 10 ADM, and HBA mode
Interconnect module	HPE Synergy 12 Gb SAS Connection Module with 12 internal ports
Drive mix	Choice to mix and match SAS/SATA, SSD/HDDs in each storage module, provisioned with servers in the same HPE Synergy frame
Logical array limitation	Must be composed with a single drive type
Max. SAS storage capacity per module	612 Terabytes (with 40 x 15.3 TB SAS RI SSDs)
Max. storage capacity per frame	3 Petabytes
Max. drives per frame	200 drives
Max. storage modules per frame	5 HPE Synergy D3940 storage modules
Composable storage	HPE OneView
Recommended HA storage/ fault tolerance	SAS SFF redundant paths require additional I/O module and SAS connection module. (SATA drives have a single port limitation, making them more vulnerable to failure than SAS drives.)
RAID	Support of RAID 0, 1, 5, 6, 10, 60, 1 ADM, 10 ADM presentation to OS as a volume and Software RAID

Frames

HPE Synergy 12000 Frame

Device bays	Up to 12 half-height, up to 6 full-height mixed configurations supported
Interconnect bays	Up to 6 Interconnect slots (3+3 redundant) with support for SAS, Ethernet, or Fibre Channel ICM fabrics
Power	Choice of up to 6 hot plug power supplies (3+3 redundancy): Single-phase only VAC 2650W each, HVDC, 277 VAC, or –48 VDC @ 2650W each. No mixing of PSUs.
Cooling	Centralized Cooling with 10 redundant fans
Management/ Appliances	Composer, powered by HPE OneView. Single or Dual redundant appliances for managing up to 250 Compute Modules over multiple racks. Image Streamer for managing server Boot environments.
Height	Rack Height (10U)

HPE BladeSystem

BL460c Gen10*

Number of processors	1 or 2	
Processors supported	4 to 26	4 to 26
Processors—Cores available	Intel Xeon Scalable processors family—1st Generation****	Intel Xeon Scalable processors family—2nd Generation*****
Processors—Frequency	1.7 to 3.6 GHz	1.8 to 3.8 GHz
Memory slots	16	16
Memory capacity—Per socket	Up to 1 TB***	Up to 1 TB***
Memory speed	DDR4 @ 2666 MT/s***	DDR4 @ 2933 MT/s***
Persistent memory	N/A	N/A
Operating systems supported**	MS Win, RHEL, SLES**	
Network ports	Up to 2 Mezzanine Slots for SAS, Ethernet, or Fibre Channel depending on configuration	
Drives supported	2 SFF SAS/SATA or 2 SFF NVMe (optional) or 2 M.2 SATA and 2 Dual uFF, hot plug, depending on model	
Maximum internal storage	Up to 2 Drives + 12 w/Expansion Drive	
I/O slots	Up to 2 available	
Management	OA, HPE OneView	
Form factor	Half-height, 16 per enclosure (mixing allowed)	
Warranty—year(s) (parts/labor/on-site)	3/3/3	

* For more details, please review QuickSpecs at hpe.com/psnow/doc/a00008517enw?from=app&section=search&isFutureVersion=true.
** For more information on HPE's certified and supported HPE ProLiant servers for OS and Virtualization software and latest listing of software drivers available for your server, please visit our Support Matrix at hpe.com/info/ossupport
*** Capacity and Speed of Memory is highly dependent on version #, number of slots occupied and processor selected. See Memory Population Tables in individual Compute QuickSpecs for details.
**** Intel Xeon Scalable Family 100 Series (s1##aa) Bronze, Silver, Gold, and Platinum shelves.
***** Intel Xeon Scalable Family 200 Series (s2##aa) Bronze, Silver, Gold, and Platinum shelves.

HPE storage blades

HPE D2500sb Storage Blade

Processors supported	N/A
Drives supported	Up to 12 hot plug SFF SAS or SATA HDDs or SAS/SATA SSDs
Maximum capacity	12 drives per storage blade and up to 8 storage blades in an enclosure provides an additional 368.64 TB maximum capacity to the HPE ProLiant BL460c Gen10 server blades
RAID support	RAID 0, 1, 5, 6, 10, 50, 60, 1 Advanced Data Mirroring (ADM), and 10 ADM
Form factor	Half-height, single-wide storage blade
Warranty—year(s) (parts/labor/on-site)	3/0/0 with warranty upgrade options

Enclosures

HPE BladeSystem c3000 Platinum Enclosure

HPE BladeSystem c7000 Platinum Enclosure

Device bays	Up to 8 half-height blades up to 4 full-height blades Mixed configurations supported	Up to 16 half-height, up to 8 full-height blades Mixed configurations supported
Interconnect bays	4 Interconnect bays. Interconnect bays with support for any I/O fabric.	8 Interconnect bays with support for any I/O fabric
Power	Choice of up to 6 hot plug power supply kits: Single-phase VAC up to 1200W each or –48 VDC up to 1200W each	Choice of up to 6 hot plug power supply kits: Single-phase or three-phase VAC up to 2650W each or –48 VDC up to 2650W each
Cooling	Cooling Centralized redundant fans up to 6 Active Cool fans	Centralized redundant fans up to 10 Active Cool fans
Management/ Appliances	Single Onboard Administrator—LAN and serial access, Redundant Onboard Administrator—LAN and serial access, optional HPE OneView	Single Onboard Administrator—LAN and serial access, Redundant Onboard Administrator—LAN and serial access, optional HPE OneView
Height	Rack Height (6U)	Rack Height (10U)

HPE Apollo Compute systems

HPE Apollo 70

HPE Apollo 70 System

HPE AR44z server

HPE AR64z server

Density/Scale	2U System, up to (4) 1U half width trays	2U system, up to (2) 2U half width trays
Processor	Marvell Thunder X2 processor; 28 or 32 cores; 165W or 180W	
Memory (type, channels, slots)	Supports up to 2666 MT/s DDR4; 8 channels, 16 slots	
Storage	Internal storage up to 8 LFF hot-plug SATA; 2 internal 2280 M.2	Internal storage up to 4 LFF hot-plug drives; 2 internal 2280 M.2
GPU Support	N/A	
System management	HPE Performance Cluster Manager (HPCM)	
OS Support	SUSE Linux Enterprise Server (SLES), Red Hat Enterprise Linux (RHEL)	
Power Supply—Hot Plug	Two 1600W platinum power supplies	
Interconnect	Choice of Ethernet (10 Gigabit), InfiniBand EDR/Ethernet 100 Gb	
Cooling	(8) Single rotor fans (standard)	
Security	N/A	
Storage Controller	Integrated SATA controller	
Warranty (parts, labor, on-site support)	3/3/3	
QuickSpecs URL	hpe.com/psnow/doc/a00039978enw?from=app&section=search&isFutureVersion=true	

HPE Apollo 2000 Gen10 System

HPE Apollo 2000 System

HPE ProLiant XL170r Gen10 server

HPE ProLiant XL190r Gen10 server

Density/Scale	2U system, up to (4) 1U half width trays	2U system, up to (2) 2U half width trays
Processor	Up to two Intel Xeon Scalable processors per server node, up to 150W; -F support on CPU 0	
Memory (type, channels, slots)	Supports up to 2666/2933 MT/s DDR4 SmartMemory; 6 channels, 16 slots	
Storage	Dependent on chassis selection (r2200, r2600, or r2800)	
	6 SFF HDD/SSD or up to 2 NVMe SSD option, 3 LFF HDD; 2 internal 2280 M.2 optional kit	12 SFF HDD/SSD or up to 4 NVMe SSD options, 6 LFF HDD; 2 internal 2280 M.2 optional kit
GPU Support	N/A	Up to (4) FH/FL
System management	HPE Performance Cluster Manager (HPCM), UEFI	
OS Support	Windows Server 2012 R2/2016/2019 (Most Recent Version), VMware ESXi™ 6.0 U3/6.5 U2/6.7 U1, Red Hat Enterprise Linux (RHEL) 7.6, SUSE Linux Enterprise Server (SLES) 12 SP4/15 SP1, CentOS	
Power Supply—Hot Plug	Two 800W/1400W, 277 VAC/1600W, 2200W (2018) HPE Apollo Platform Manager option for rack level management	
Interconnect	Choice of 1 Gigabit, 10 Gigabit, 25 Gigabit, InfiniBand, Omni-Path or FlexibleLOM	
Cooling	(4) Single rotor fans (standard) and an additional 4 rotor fans can be added for redundancy	
Security	HPE iLO 5, silicon root of trust from HPE, HPE iLO Advanced (Optional)	
Storage Controller	(1) HPE Smart Array S100i; optional HPE Smart Array PCIe card	
Warranty (parts, labor, on-site support)	3/3/3	
QuickSpecs URL	hpe.com/psnow/doc/a00022816enw?from=app&section=search&isFutureVersion=true hpe.com/psnow/doc/a00019876enw?from=app&section=search&isFutureVersion=true	hpe.com/psnow/doc/a00022817enw?from=app&section=search&isFutureVersion=true

HPE Apollo 2000 Gen10 Plus System

HPE Apollo 2000 Gen10 Plus System

HPE ProLiant XL225n Gen10 Plus server

Density/Scale	2U system, up to (4) 1U half width trays
Processor	Up to two AMD EPYC 7002 series Processors per server node, up to 200W+
Memory (type, channels, slots)	Supports up to 3200 MT/s DDR4 SmartMemory; 8 channels, 16 slots
Storage	Dependent on chassis selection (n2600 with multiback plane options including no backplane or up to 24 SFF drives) 6 SFF HDD/SSD or up to 2 NVMe SSD options 2 internal 22110 M.2 optional kit w/ HW RAID NVMe
GPU Support	N/A
System management	HPE Performance Cluster Manager (HPCM)
OS Support	Windows Server 2012 R2/2016/2019 (Most Recent Version), VMware ESXi 6.0 U3/6.5 U2/6.7 U1, Red Hat Enterprise Linux (RHEL) 7.6, SUSE Linux Enterprise Server (SLES) 12 SP4/15 SP1, CentOS, Ubuntu, Citrix XenServer
Power Supply—Hot Plug	Two 1600W/3000W HPE Apollo Platform Manager option for rack level management
Interconnect	Choice of Ethernet (1 Gigabit to 100 Gigabit), InfiniBand (100 Gb HDR or 200 Gb HDR) InfiniBand
Cooling	(5) Single rotor fans (standard) and an additional 2 rotor fans can be added for additional cooling
Security	HPE iLO 5, silicon root of trust from HPE, HPE iLO Advanced (Optional)
Storage Controller	(1) HPE Smart Array S100i; optional HPE Smart Array PCIe card
Warranty (parts, labor, on-site support)	3/3/3
QuickSpecs URL	hpe.com/psnow/doc/a00056110enw?from=app&section=search&isFutureVersion=true

HPE Apollo Compute systems (continued)

HPE Apollo 4200 Gen10 System

HPE Apollo 4200 Gen10 server

Form factor	2U rack server
Storage type	Front: Up to 24 LFF or 48 SFF in the two front HDD Cages Optional Rear HDD Cages: 4 LFF, 2 SFF + 2 HHHL PCIe (supports [2] uFF Dual M.2), or 6 NVMe Optional M.2 kits
Storage capacity	Up to 392 TB (24 + 4 LFF 14 TB HDD) Up to 7.8 PB per 42U rack (20 servers 14 TB HDD)
Storage controller	(1) HPE Smart Array S100i; optional HPE Smart Array cards; Up to 3 HPE Smart Array Gen10 Controllers
Processor family	Intel Xeon Scalable processors (8100, 6100/6200, 5100/5200, and 4100/4200 series)
Processor number	One or two per server
Processor cores available	Up to 28 cores/165W
Memory	Supports up to 2933 MT/s DDR4 SmartMemory 1 TB max. with 64 GB LRDIMM @ 2933 MT/s, 16 DIMM slots
Networking	Embedded dual 1 Gb NIC PCIe Standup ([1] 16x PCIe Gen3 slots from each processor)
Expansion slots	Up to 5 Low Profile PCIe Slots or up to 6 slots including 2 FHHL PCIe from riser support (extended from Slot 2) with 2 processors
Operating systems and virtualization SW	Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware
Management Recommended for Management at scale	HPE iLO 5 Management (standard), (2) HPE iLO dedicated management ports; intelligent provisioning (standard), UEFI, HPE iLO Advanced (optional), HPE OneView Advanced (optional)
Chassis (series)	HPE Apollo 4200
Systems fans features	Up to 10 fans with optional redundant fan kit (for redundancy)
Power supply type	(2) HPE 800W or 1600W, Flex Slot Power Supplies (AC/DC/277 VAC)
Warranty	3/3/3
QuickSpecs URL	hpe.com/psnow/doc/a00056091enw?from=app&section=search&isFutureVersion=true

HPE Apollo 4510 Gen10 System

HPE Apollo 4510 Gen10 System

Form factor	4U shared infrastructure chassis
Storage type	(60) LFF in front (2) driver drawers, side loaded; (2) SFF SAS/SATA/NVMe/SSD or (2) uFF Dual M.2 front loaded; (2) M.2 supported by internal riser
Storage capacity	Up to 960 TB per server (60 x 16 TB HDD) Over 9 PB in 42U rack (10 servers 16 TB HDD)
Storage controller	(1) HPE Smart Array S100i; optional HPE Smart Array cards
Processor family	Intel Xeon Scalable processors (8100, 6100/6200, 5100/5200, and 4100/4200 series)
Processor number	One or two per server
Processor cores available	Up to 26 cores/150W
Memory	Supports up to 2933 MT/s DDR4 SmartMemory 1 TB max. with 64 GB LRDIMM @ 2933 MT/s, 16 DIMM slots
Networking	2 x 1GbE embedded + Choice of FlexibleLOM + Standup
Expansion slots	Up to (3) PCIe slots: (1) LP PCIe slot and (2) FHHL PCIe slots; Two riser options
Operating systems and virtualization SW	Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and VMware
Management Recommended for Management at scale	HPE iLO 5 Management (standard), (2) HPE iLO dedicated management ports; intelligent provisioning (standard), UEFI, HPE iLO Advanced (optional), HPE OneView Advanced (optional)
Chassis (series)	HPE Apollo 4510 Chassis
Systems fans features	Hot plug rear serviceable N + 1 redundant dual fan modules
Power supply type	(4) HPE 800W or 1600W, Flex Slot Power Supplies (AC/DC/277 VAC) HPE Apollo Platform Manager option for rack level management
Warranty	3/3/3
QuickSpecs URL	hpe.com/psnow/doc/a00021866enw?from=app&section=search&isFutureVersion=true

HPE Apollo 6000 Gen10 System

HPE Apollo 6000 Gen10 System

HPE ProLiant XL230k Gen10 server

Density/Scale	12U system, up to (24) 1U half width trays
Processor	Up to two Intel Xeon Scalable processors
Memory (type, channels, slots)	Supports up to 2666/2933 MT/s DDR4 SmartMemory, 16 DIMM slots
Storage	Up to 4 SAS/SATA/NVMe
GPU Support	N/A
System management	HPE Performance Cluster Manager (HPCM)
OS Support	Microsoft Windows Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), VMware, CentOS
Power Supply—Hot Plug	HPE Apollo Power Shelf supports 1–3 HPE Apollo a6000 Chassis depending on power load; holds up to 6 power supplies: 2650W Platinum hot-plug (15.9 kW non-redundant) or 2400W Platinum hot-plug (14.4 kW non-redundant); power can be managed by an HPE Advanced Power Manager (APM) option at the server, chassis or power shelf level
Interconnect	Integrated 10 Gb Ethernet, EDR and Omni-Path fabric options
Cooling	(5) Dual rotor fans (standard)
Security	HPE iLO 5, silicon root of trust from HPE, HPE iLO Advanced (Optional)
Storage Controller	Embedded chipset SATA (s114i); optional HPE Smart Array PCIe card
Warranty (parts, labor, on-site support)	3/3/3
QuickSpecs URL	hpe.com/psnow/doc/a00016634enw?from=app&section=search&isFutureVersion=true hpe.com/psnow/doc/a00016641enw?from=app&section=search&isFutureVersion=true

HPE Apollo 6500 Gen10 System

HPE Apollo 6500 Gen10 System

HPE ProLiant XL270d Gen10 server

Density/Scale	4U system
Processor	Up to two Intel Xeon Scalable processors
Memory (type, channels, slots)	Supports up to 2933 MT/s DDR4 SmartMemory 3 TB Max, 24 DIMM slots
Storage	Up to 16 SAS/SATA SSD, or up to 4 NVMe SSD (optional), M.21
GPU Support	Up to 8 PCIe or SXM-2 NVLink GPU, Now supporting NVIDIA Quadro RTX GPU
System management	HPE Performance Cluster Manager (HPCM), HPE Container Platform
OS Support	Ubuntu and Enterprise OS choice
Power Supply—Hot Plug	Up to 4 HPE 2200W Platinum 80 Plus (2+2)
Interconnect	4 x 1GbE embedded Choice of FlexibleLOM + Standup
Cooling	Air cooled, 5 fan modules per server. One 80 mm dual rotor fan on top, one 60 mm single rotor fan on bottom.
Security	HPE iLO 5, silicon root of trust from HPE, HPE iLO Advanced (Optional)
Storage Controller	(1) HPE Smart Array S100i; optional HPE Flexible Smart Array and Smart Array PCIe card
Warranty (parts, labor, on-site support)	3/3/3
QuickSpecs URL	hpe.com/psnow/doc/a00039976enw?from=app&section=search&isFutureVersion=true

HPE Data Solutions

HPE Superdome Flex 280 server

	HPE Superdome Flex 280 server
Scalability and performance	• 3rd generation Intel Xeon Scalable processors, gold or platinum, up to 28 cores • Modular scale-up 5U building block/chassis (2 or 4 sockets per chassis) • "Glueless" modular architecture with 6 UPI links/processor for higher bandwidth and faster data rates • Scale from 2–8 sockets in 2-socket increments, with 16–224 cores • Designed to provide 64 GB to 24 TB of shared memory using DRAM only or in combination with persistent memory • Optional Intel® Optane™ persistent memory 200 series for HPE
I/O flexibility	• Balanced I/O for extreme performance – Up to 32 PCIe 3.0 cards with choice of 16-slot (all low profile) or 12-slot (FH/FW) – 16-slot: each CPU has support for two x8 and two x16 PCIe cards – 12-slot: each CPU has support for one x16 PCIe slot and one 300W GPU • Up to 20 SAS/SATA/NVMe drives with RAID & HW encryption • Up to 8 NVIDIA Quadro GPUs or up to 16 NVIDIA T4 GPUs; support for Intel Advisors • 1/10/25GbE, 16/32 Gb FC, IB EDR/Ethernet 100 GB, IB HDR • SAS, Multi-Rail LNet for Lustre; NVMe SSD • MPI, OpenMP
Extreme HPE Superdome RAS	• Advanced memory resiliency, Firmware First, analysis engine, self-healing • HPE Serviceguard for Linux • Enhanced security with silicon root of trust from HPE and TPM 2.0
Simplified User Experience	• Simplified management GUI • HPE OneView, OpenStack, Redfish API • Optional HPE GreenLake consumption model • HPE Pointnext Complete Care, HPE Proactive Care

HPE Mission Critical x86 servers

	HPE Superdome Flex
Unparalleled scale	• Modular scale-up architecture • Scales seamlessly from 4 to 32 sockets as a single system, with both Gold and Platinum processors • Designed to provide 768 GB–48 TB of shared memory • High bandwidth (13.3 GB/sec—bi-directional per link)/low latency (<400 ms) HPE Flex Grid • Intel Xeon Scalable processors, first—and second-generation, with up to 28 cores
Unbounded I/O	• Up to 128 PCIe standup cards, LP/FH PCIe
Optimum flexibility	• 4-socket chassis building blocks, low entry cost; HPE nPars • NVIDIA® GPUs, Intel Advisors • 1/10/25/100GbE, 16/32 Gb FC, IB EDR/Ethernet 100 GB, IB HDR • SAS, Multi-Rail LNet for Lustre; NVMe SSD • MPI, OpenMP
Extreme availability	• Advanced memory resilience, firmware first, analysis engine, self-healing • HPE Serviceguard for Linux
Simplified user experience	• HPE OneView, IRS, OpenStack, Redfish API • HPE Pointnext Complete Care, HPE Proactive Care

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