

# HPE Apollo 6000 System

Performance for your budget



“The power of the HPE Apollo 6000 System strengthens scientific research for Ghent University and allows our researchers to quickly test new hypotheses and explore areas like bioinformatics, weather prediction, fluid dynamics, nanotechnology, physics, computational chemistry, and linguistics. The ability to swiftly process massive amounts of data enables innovative analysis that opens up new worlds of research and exploration.”

– Ewald Pauwels, Scientific Coordinator for High-Performance Computing, Ghent University

Rack-scale solutions with better density, performance, power efficiency, and cost of ownership.

To address the growing demand for high-performance computing (HPC), and the relentless pursuit of efficiency, Hewlett Packard Enterprise has taken the lead on a new approach: thinking beyond just the server and designing a rack-level solution that gives you the right compute at the right economics so you can get the most out of your infrastructure—and your budget.

## Better performance per core, per watt, and per square foot

HPE Apollo 6000 System gives you the flexibility that leads to savings:

- Per core

- The **HPE ProLiant XL260a Server** tray is a 1P server with Intel® Xeon® Phi x200 series processor with up to seventy two cores, and on-board 16 GB MC-DRAM memory to provide higher performance for parallel application and improved memory bandwidth.

- The HPE ProLiant XL230a Gen9 Server tray is a 2P server tray with high-performance Intel Xeon E5-2600 v3/v4 series processors for HPC workloads.

- The HPE ProLiant XL250a Gen9 Server tray is a 2P server tray with up to two accelerator cards for better performance than CPU alone.

- Per watt—The HPE Apollo 6000 Power Shelf supports up to six chassis, and the HPE Advanced Power Manager dynamically monitors and manages power to save on energy.
- Per square foot—With 10 slots for server, storage, and/or accelerator trays per 5U chassis, you can fit up to 60 servers in one 42U rack.
- With flexibility—The HPE Apollo System accommodates up to 10 servers in the space of five traditional servers (5U), powering up to 60 servers with two power shelves. The HPE Innovation Zone also allows for FlexibleLOM options to fit your workload needs.

- With savings—The **HPE ProLiant XL260a Server** is a great fit for parallel processing applications in HPC workloads, while the new HPE ProLiant XL230a Server is a great fit for workloads such as seismic processing or virtualized hosting. The HPE ProLiant XL250a Server is designed to accelerate HPC workloads, including Life Sciences, with support for up to two accelerators. And you can take advantage of compute, storage, and accelerator tray options as they become available in the same modular HPE Apollo a6000 Chassis.

To round out your solution, Hewlett Packard Enterprise has a global team of award-winning **HPC services experts** available to help design, deploy, manage, and support your HPC environment and processes, including consulting, integration, outsourcing, and support. For example, **HPE Datacenter Care** is ideal for HPC environments, giving large-scale IT environments the flexibility and economies of scale to manage HPE and non-HPE hardware and software environments effectively.

## Technical specifications



**HPE Apollo a6000 Chassis**



**HPE Apollo 6000 Power Shelf**

	<b>HPE Apollo a6000 Chassis</b>	<b>HPE Apollo 6000 Power Shelf</b>
<b>Form factor</b>	5U (H) x 44.81 cm (W) x 86.23 cm (D) 5U (H) x 17.64 in. (W) x 33.95 in. (D) Supports 10 single-slot trays max	1.5U (H) x 44.81 cm (W) x 78.44 cm (D) 1.5U (H) x 17.64 in. (W) x 30.88 in. (D) Supports six power supplies max
<b>System fans</b>	Five hot-plug, double rotor, redundant fans	N/A
<b>Power supply type</b>	N/A	HPE 2,650 W Platinum hot-plug power supply HPE 2,400 W Platinum hot-plug power supply
<b>Max power</b>	N/A	15.9 kW (6 x 2,650 W power supply) 14.4 kW (6 x 2,400 W power supply)
<b>AC input</b>	N/A	Single-phase or three-phase AC input
<b>Redundancy</b>	N/A	N+0, N+1, and N+N

## Technical specifications



**HPE ProLiant XL260a Gen9 Server**

**HPE ProLiant XL230a Gen9 Server**

**HPE ProLiant XL250a Gen9 Server**

	<b>HPE ProLiant XL260a Gen9 Server</b>	<b>HPE ProLiant XL230a Gen9 Server</b>	<b>HPE ProLiant XL250a Gen9 Server</b>
<b>Form factor</b>	5U (H) x 4.33 cm (W) x 70.79 cm (D) 5U (H) x 1.70 in. (W) x 27.87 in. (D)	5U (H) x 4.33 cm (W) x 70.79 cm (D) 5U (H) x 1.70 in. (W) x 27.87 in. (D)	5U (H) x 8.66 cm (W) x 70.79 cm (D)
<b>Processor family</b>	Intel Xeon Phi x200 series	Intel Xeon E5-2600 v3/v4 series	Intel Xeon E5-2600 v3/v4 series
<b>Cores</b>	64/68/72	6/8/10/12/14/16/18/20/22	6/8/10/12/14/16/18/20/22
<b>Chipset</b>	Intel® C612 series chipset	Intel C612 series chipset	Intel C612 series chipset
<b>Number of processors</b>	1	2	2
<b>Max processor speed</b>	1.3 GHz (Turbo 1.7 GHz)	2.8 GHz	2.8 GHz
<b>Drive description</b>	4 SFF SATA or M.2	4 SFF SAS/SATA/SSD	6 SFF SAS/SATA/SSD
<b>Supported drives</b>	Hot-plug 2.5-inch SATA	Hot-plug 2.5-inch SAS/SATA/SSD	Hot-plug 2.5-inch SAS/SATA/SSD
<b>Memory slots</b>	6 DIMM slots	16 DIMM slots	16 DIMM slots
<b>Memory max</b>	384 GB (6 x 64 GB)	2048 GB (16 x 128 GB)	2048 GB (16 x 128 GB)
<b>Memory type, ECC</b>	DDR4; R-DIMM/LR-DIMM; 2,400 MHz	DDR4; R-DIMM/LR-DIMM; 2,133/2400 MHz	DDR4; R-DIMM/LR-DIMM; 2,133/2400 MHz
<b>Network options</b>	Network module supporting various fabric options: 10GbE, InfiniBand EDR, Intel Omni-Path	Network module supporting various FlexibleLOMs: 1GbE, 10GbE, and/or InfiniBand/Omni-Path	Network module supporting various FlexibleLOMs: 1GbE, 10GbE, and/or InfiniBand/Omni-Path
<b>Storage controller</b>	HPE H241 Smart Host Bus Adapter	1 HPE Dynamic Smart Array B140i SATA controller HPE H240 Host Bus Adapter	1 HPE Dynamic Smart Array B140i SATA controller HPE H240 Host Bus Adapter
<b>Expansion slots</b>	N/A	1 Internal PCIe: 1 PCIe x 16 Gen3, half-height 1 PCIe/FlexLOM I/O module (optional)	1 Internal PCIe: 1 PCIe x 16 Gen3, half-height 1 PCIe/FlexLOM I/O module (optional)
<b>Accelerator</b>	N/A	N/A	2 accelerator card slots supporting: Intel Xeon Phi 5110P/7120P NVIDIA® K40/K80/K1/M60 AMD S9150/S7150x2
<b>USB ports/SD</b>	1 Serial/USB/Video port Internal microSD	1 Serial/USB/Video port Internal microSD	1 Serial/USB/Video port Internal microSD
<b>Management</b>	HPE iLO (Firmware: HPE iLO 4) Option: HPE Advanced Power Manager	HPE iLO (Firmware: HPE iLO 4) Option: HPE Advanced Power Manager	HPE iLO (Firmware: HPE iLO 4) Option: HPE Advanced Power Manager
<b>OS support</b>	Red Hat® Enterprise Linux® SUSE Linux Enterprise Server	Microsoft® Windows Server Red Hat Enterprise Linux SUSE Linux Enterprise Server	Microsoft Windows Server Red Hat Enterprise Linux SUSE Linux Enterprise Server

## HPE Financing for HPE Apollo Systems

Having access to technology on terms that align to your business needs is critical, and **HPE Financial Services** is uniquely positioned to help accelerate your move to the data center of the future with a broad portfolio of flexible investment and transition solutions.

## Get started today

Solving complex scientific, engineering, and data analysis problems starts by partnering with Hewlett Packard Enterprise to get the solution for your most complex challenges.

Learn more at  
[\*\*hpe.com/go/apollo\*\*](http://hpe.com/go/apollo)



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