Data sheet

HP Apollo 6000 System

Performance for your budget

Rack-scale solutions with better density, performance, power efficiency, and cost of ownership, starting with single-threaded application workloads.

"We are seeing up to a 35 percent performance increase in our EDA workloads; we have deployed more than 5,000 of these servers, achieving better rack density and power efficiency, while delivering higher application performance to Intel silicon design engineers."

– Kim Stevenson, Intel CIO

The demand for more compute performance for applications used by engineering design automation (EDA), risk modeling, or life sciences is relentless. If you work with single-threaded application workloads like these, your success depends on optimizing performance with maximum efficiency and cost-effectiveness along with easy management for large-scale deployments.

To address those challenges, HP 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 and the right economics so you can get the most out of your infrastructure—and your budget.

Better performance per core, watt, and square foot

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

- Per core—Two 1P servers per tray with Intel® Xeon® E3-1200 v3 series processors with up to four cores each increase performance per core for single threaded applications over a 2P blade.
- Per watt—The external power shelf supports up to 6 chassis, and the HP 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 160 HP ProLiant XL220a Servers in one 48U rack, using 60% less space than competing blades.
- With flexibility—HP rack-level innovations give you the flexibility to fit 20 servers in the space of five traditional servers (5U), and power up to 120 servers with a single power shelf. The HP Innovation Zone also allows for NIC, FlexibleLOM options to fit your workload needs while increasing cost savings.

• With savings—The first available server tray, the HP ProLiant XL220a, is a great fit for single-threaded applications. Take advantage of compute, storage, and accelerator tray options as they become available in the same modular HP Apollo a6000 Chassis.

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

Technical specifications

	HP Apollo a6000 Chassis	HP Apollo 6000 Power Shelf	HP ProLiant XL220a Gen8 v2 Server 2 nodes per tray, spec below is per node
Form factor	5U (H) x 44.81cm (W) x 86.23cm (D) 5U (H) x 17.64 in (W) x 33.95 in (D) Supports 10 single-slot trays max	1.5U (H) x 44.81cm (W) x 78.44cm (D) 1.5U (H) x 17.64 in (W) x 30.88 in (D) Supports 6 power supplies max	5U (H) x 4.33cm (W) x 70.79cm (D) 5U (H) x 1.70 in (W) x 27.87 in (D)
System fans	Five hot-plug, double rotor, redundant fans	N/A	N/A
Power supply type	N/A	HP 2650W Platinum hot-plug power supply HP 2400W Platinum hot-plug power supply	N/A
Max power	N/A	15.9kW (6 x 2650W power supply) 14.4kW (6 x 2400W power supply)	N/A
AC Input	N/A	Single-phased or 3-phased AC input	N/A
Redundancy	N/A	N, N+1, N+N	N/A
Processor family	N/A	N/A	Intel Xeon E3-1200 v3 processor family
Processor cache	N/A	N/A	8MB L3
Chipset	N/A	N/A	Intel C222 series chipset
Number of processors	N/A	N/A	One
Processor cores available	N/A	N/A	Four

	HP Apollo a6000 Chassis	HP Apollo 6000 Power Shelf	HP ProLiant XL220a Gen8 v2 Server 2 nodes per tray, spec below is per node
Max processor speed	N/A	N/A	3.7GHz (Turbo 4.1GHz)
Drive description	N/A	N/A	Two SFF SAS/SATA/SSD
Supported drives	N/A	N/A	Hot-plug 2.5-inch SAS/SATA/SSD
Memory slots	N/A	N/A	Four DIMM slots
Memory Max	N/A	N/A	32GB
Memory type	N/A	N/A	PC3 -12800E UDIMMs DDR3 PC3L-12800E UDIMMs DDR3 PC3L-10600E UDIMMs DDR3
Memory protection	N/A	N/A	ECC
Network controller	N/A	N/A	1GbE, 10GbE adapters
Storage controller	N/A	N/A	Requires either an H220 SAS Host Bus Adapter or HP Smart Array P430 2GB or 4GB FBWC controller
Expansion slots	N/A	N/A	Two PCIe: One PCIe x8 Gen3, low profile slot One PCIe x8 Gen3, low profile FlexibleLOM slot
SUV ports	N/A	N/A	One Serial/USB/Video port
Management	N/A	N/A	HP iLO (Firmware: HP iLO 4) Advanced Power Manager
OS support	N/A	N/A	Microsoft Windows Server Red Hat Enterprise Linux SUSE Linux Enterprise Server

HP Financing for HP Apollo 6000 and 8000 Systems
Having access to technology on terms that align to your business needs is critical, and HP 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.

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

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4AA5-3038ENW, June 2014