

HPE Apollo 6500 Gen10 System

Apollo Systems



What's new

- Eight GPUs per server for faster and more economical deep learning system training compared to more servers with fewer GPUs each. Get more done, in less time.
- NVLink 2.0 connects GPUs at up to 300 GB/s for one of the world's most powerful computing servers. AI models that would consume days or weeks can now be trained in a few hours or minutes.
- Enterprise RAS with HPE iLO5, easy access

Overview

Do you need increased computing performance for high performance computing (HPC) and deep learning?

The HPE Apollo 6500 Gen10 System is an ideal HPC and deep learning platform providing unprecedented performance with industry leading [1] GPUs, fast GPU interconnect, high bandwidth fabric and a configurable GPU topology to match your workloads. The ability of computers to autonomously learn, predict, and adapt using massive data sets is driving innovation and competitive advantage across many industries and applications are driving these requirements. The system with

modular design, and 2+2 power supplies.

- Save system administration time and cost with HPE iLO5 for a lower TCO.
- The HPE ProLiant XL270d Gen10 server, the latest in the popular HPE Apollo 6500 system family.

rock-solid reliability, availability, and serviceability (RAS) features includes up to eight GPUs per server, NVLink 2.0 for fast GPU-to-GPU communication, Intel® Xeon® Scalable processors support, choice of high-speed / low latency fabric, and is workload enhanced using flexible configuration capabilities. While aimed at deep learning workloads, the system is suitable for complex simulation and modeling workloads.

Features

Accelerated Performance for GPU Intensive Workloads

The HPE Apollo 6500 Gen10 System supports up to eight GPUs delivering up to 125 Tflops single precision compute performance.

A powerful server host having high speed / low latency network, NVMe drives, and high speed HPE DDR4 SmartMemory.

Includes best in class accelerator technology with NVLink 2.0 that enables dedicated GPU-to-GPU communication for enhanced performance on deep learning and other HPC workloads.

Designed for reliability with today's most demanding accelerators. Dependable performance, with power and cooling designed around 350W accelerators and consistent signal integrity for reliable operations.

Flexibility for HPC and Deep Learning Environments

The HPE Apollo 6500 Gen10 System offers a choice of NVLink 2.0 for increased bandwidth and a PCIe option for traditional GPU support.

Multiple accelerator topologies supported - Hybrid Cube Mesh for NVLink; 4:1 or 8:1 GPU:CPU flexibility in PCIe.

Extensive storage options, with up to 16 front-accessible storage devices, SAS/SATA solid-state drives (SSDs) with up to four NVMe drives. Note: Embedded SATA SSD or M.2 for boot and NVME for high speed cache enabled for early shipments. Smart Array SAS, SAS SSD will be enabled in future release.

Comprehensive choice of enterprise options, Ubuntu® and Enterprise Linux® operating system choices from Red Hat®, SUSE®, CentOS, and HPE Pointnext support flexibility.

Resilient, Secure and Simple for Lower TCO

The HPE Apollo 6500 Gen10 System delivers resilient power with 2+2 power redundancy.

Efficient system management and security. HPE iLO5 enables saving time and cost. Also, this is one of world's most secure industry standard server using HPE iLO5.

Easy to service and upgrade with its easy access modular design and rear cabled fabrics.

All-in-one design with integrated power supplies simplifies deployment in a standard 1075 mm deep rack.

Technical specifications**HPE Apollo 6500 Gen10 System**

Processor family	Intel® Xeon® Scalable 8100 series and Intel® Xeon® Scalable 6100 series
Expansion slots	4 x16 PCIe Gen3 slots from GPU Module for high speed fabrics, and 1 x16 PCIe Gen3 FHHL slot on Motherboard
Memory	24 DIMM slots, HPE DDR4 SmartMemory
Power	Up to four 2200W Platinum power supplies, two included in standard configuration
Management features	Included: HPE iLO Standard (embedded) Optional: HPE iLO Advanced, HPE iLO Advanced Premium Security Edition
Network	Embedded Ethernet adapter with 4-ports and/or optional HPE FlexibleLOM and PCIe adapters for high speed networking. Additionally, 4 x16 PCIe Gen3 on GPU module for high speed fabrics such as InfiniBand and Intel® Omni-Path Architecture
Storage	1 HPE Smart Array S100i or 1 HPE Smart Array P408i-a or 1 HPE Smart Array P816i-a Note: Embedded SATA SSD or M.2 for boot and NVME for high speed cache enabled for early shipments. Smart Array SAS and SAS SSD will be enabled in a future release.
Form factor	Standard rack mount 4U, can fit into standard 1075 mm rack
System fan features	5 dual fan modules per server
Warranty	3/3/3 - Server Warranty includes three years of parts, three years of labor, three years of onsite support coverage. Additional information regarding worldwide limited warranty and technical support is available at: http://h20564.www2.hpe.com/hpsc/wc/public/home . Additional HPE support and service coverage for your product can be purchased locally. For information on availability of service upgrades and the cost for these service upgrades, refer to the HPE website at http://www.hpe.com/support

Additional resources

QuickSpecs

[hpe.com/h20195/v2/GetDocument.aspx?](http://hpe.com/h20195/v2/GetDocument.aspx?docname=a00039976enw)

[docname=a00039976enw](http://hpe.com/h20195/v2/GetDocument.aspx?docname=a00039976enw)

HPE Pointnext

HPE Pointnext leverages our breadth and depth of technical expertise and innovation to help to accelerate digital transformation. A comprehensive portfolio that includes—Advisory, Professional, and Operational Services is designed to help you evolve and grow today and into the future.

Operational Services

- **HPE Flexible Capacity** is a new consumption model to manage on-demand capacity, combining the agility and economics of public cloud with the security and performance of on-premises IT.
- **HPE Datacenter Care** offers a tailored operational support solution built on core deliverables. It includes hardware and software support, a team of experts to help personalize deliverables and share best practices, as well as optional building blocks to address specific IT and business needs.
- **HPE Proactive Care** is an integrated set of hardware and software support including an enhanced call experience with start to finish case management helping resolve incidents quickly and keeping IT reliable and stable.
- **HPE Foundation Care** helps when there is a hardware or software problem offering several response levels dependent on IT and business requirements.

Advisory Services includes design, strategy, road map, and other services to help enable the digital transformation journey, tuned to IT and business needs. Advisory Services helps customers on their journey to Hybrid IT, Big Data, and the Intelligent Edge.


Professional Services helps integrate the new solution with project management, installation and startup, relocation services, and more. We help mitigate risk to the business so there is no interruption when new technology is being integrated in the existing IT environment.

Call to action:

hpe.com/us/en/contact-hpe.html

[1] NVLink 2.0 provides industry leading performance with dedicated GPU-to-GPU communication

[2] Performance numbers are Peak Theoretical Performance numbers



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