HPE Apollo 6500 Gen10 Plus System

What's new

- NVIDIA HGX A100 8-GPU and 4-GPU accelerators powered by NVIDIA A100 Tensor Core GPUs with NVLink; AMD Instinct MI100 accelerators; broad choice of PCIe GPU for HPC or AI.
- Single or dual processor systems with AMD EPYC™ 7003 Series processors, including the power, frequency, or core count processors to match your workload requirements.

Overview

Does your enterprise need to simplify management, reduce costs, and improve reliability and performance for high-performance computing (HPC) and AI workloads?

Built for the exascale era, the HPE Apollo 6500 Gen10 Plus System accelerates performance with NVIDIA® HGX A100 Tensor Core GPUs and AMD Instinct™ MI100 with Infinity Fabric™ accelerators to take on some of the most complex HPC and AI workloads. This purpose-built platform provides enhanced performance with premier graphics processing units (GPU), fast GPU interconnect, high-bandwidth fabric, and

- The HPE ProLiant XL645d Gen10 Plus is a single processor system for the NVIDIA HGX A100 4-GPU or AMD Instinct with 4 double-wide PCIe or 8 single-wide PCIe accelerators.
- The HPE ProLiant XL675d Gen10 Plus is a dual processor system for the NVIDIA HGX A100 8-GPU or AMD Instinct with 8 to 10 double-wide or 16 single-wide PCIe accelerators.
- Direct liquid cooling (DLC) delivered from Hewlett Packard Enterprise factories for increased efficiency and power density.
- Enterprise RAS with an easy access modular design, fully redundant power, security from the start with HPE iLO 5, and firmware with enhanced security from Silicon Root of Trust.

configurable GPU topology, providing rock-solid reliability, availability, and serviceability (RAS). Configure with single or dual processor options for a better balance of processor cores, memory, and I/O. Improve system flexibility with support for 4, 8, 10, or 16 GPUs and a broad selection of operating systems and options, all within a customized design to reduce costs, improve reliability, and provide leading serviceability.

Features

Accelerated Performance for the Most Complex HPC and AI Workloads

HPE Apollo 6500 Gen10 Plus System features your choice of accelerator technology from NVIDIA or AMD to support the most complex HPC simulations and AI models.

Offers high-speed fabrics whether traditional Ethernet, InfiniBand, and HPE Slingshot high-performance networking.

Get the most performance from your GPU with top-bin 280W processors tailored to the processor bandwidth, core count, and frequencies you need.

High-performance components demand high-performance power and cooling: designed to provide fully redundant power and cooling for top-bin CPU and up to 500W accelerators, this allows your system to be ready for the business challenges of today and tomorrow. [1]

Flexible to Meet Your Workloads and Data Center Requirements, and Exceed Capabilities

HPE Apollo 6500 Gen10 Plus System features accelerator technologies from NVIDIA and AMD.

Single or dual processor AMD EPYC servers offer a better balance of processor cores, memory, and I/O for HPC workloads.

Comprehensive selection of options includes high-performance HPE SmartMemory, HPE Smart Array Controllers, and other options to round out your solution.

A broad suite of Operating Software (OS) is available, whether HPE Cray OS, Microsoft Windows Server, Ubuntu, Red Hat®, or VMware®.

Choose from a wide range of Hewlett Packard Enterprise support, professional, and financial services that are right for your service-level agreement and budget.

Customized Design for Reduced Costs, Improved Reliability, and Leading Serviceability

HPE Apollo 6500 Gen10 Plus System is supported by Direct Liquid Cooling (DLC) systems that come pre-filled, fully integrated, racked, and ready to connect to facility water for improved cost of ownership, enhanced cooling, and higher power densities. [1]

Easy to service or upgrade with fully redundant power, easy-to-access modular design, dual rotor hot-swap fans, and rear-cabled fabrics are all fit into a standard 1075 mm deep rack to deploy quickly and efficiently.

Comprehensive Server Security and Management

HPE Apollo 6500 Gen10 Plus System offers HPE iLO5 with Silicon Root of Trust and the AMD Secure Processor, a dedicated security processor embedded in the AMD EPYC system on a chip (SoC), giving you advanced security. [2]

In the unlikely event of a firmware breach, enhanced security capabilities built into HPE Apollo 6500 Gen10 Plus System will be able to quickly and automatically recover the firmware to a previous known-good state, limiting system disruption. [3]

Firmware runtime validation provides a daily firmware check and alert of compromised code so that issues are contained, rather than impacting the system.

HPE Performance Cluster Manager is a fully integrated system management software offering administrators all the functionalities they need to manage their clusters.

A simple, resilient, and shared infrastructure with advanced security enables more efficient system management lowering your TCO.

Technical specifications

HPE Apollo 6500 Gen10 Plus System	
Processor core available	Up to 64 core processors
Processor name	Up to two 2nd Generation AMD EPYC 7000 Series, 280W supported
Memory	4 TB maximum, depending on server
Management features	HPE iLO 5, HPE OneView, HPE Performance Cluster Manager (HPCM)
Network	Choice of HPE high-speed Ethernet, InfiniBand, or HPE Slingshot
Form factor	6U chassis supporting either two HPE ProLiant XL645d Gen10 Plus Configure-to-order Server or a single HPE ProLiant XL675d Gen10 Plus Configure-to-order Server
Supported chassis	HPE Apollo d6500 Gen10 Plus Configure-to-order Chassis
Supported trays	HPE ProLiant XL645d Gen10 Plus Configure-to-order Server and HPE ProLiant XL675d Gen10 Plus Configure-to-order Server

[1] https://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=a00104981enw&skiphtml=1

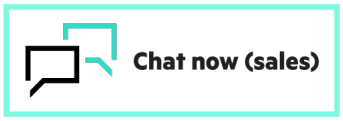
[2] https://community.hpe.com/t5/alliances/advanced-security-of-hpe-servers-with-amd-epyc-processors/ba-p/7039600#.X2UukGhKiUk
https://support.hpe.com/hpsc/swd/public/detail?swItemId=MTX-461320f580604c75aba3240a79
hpe.com/us/en/solutions/amd.html

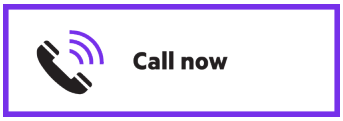
[3] https://community.hpe.com/t5/alliances/understanding-hpe-proliant-gen10-amp-ilo-5-security-modes/ba-p/7015682#.X2UvcWhKiUk
hpe.com/us/en/pdfViewer.html?docId=a00040457&parentPage=/us/en/solutions/infrastructure-security&resourceTitle=Server+System+Restore+Business+Whitepaper

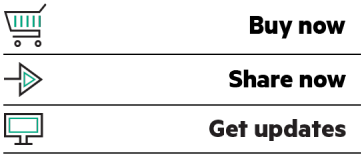
For additional technical information, available models and options, please reference the QuickSpecs

Make the right purchase decision.
Contact our presales specialists.

Call for availability







PSN1013092236USEN, August, 2023.

Hewlett Packard
Enterprise