

# 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.
- The HPE ProLiant XL645d Gen10 Plus is a single processor system for the NVIDIA HGX A100 4-GPU or AMD Instinct with 4

## 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 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,

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.

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

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

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

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

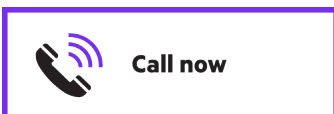
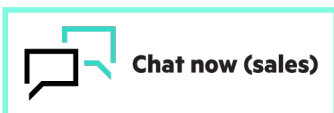
[3] <https://community.hp.com/t5/alliances/understanding-hpe-proliant-gen10-amp-ilo-5-security-modes/ba-p/7015682#.X2UvcWhKiUk>  
[hpe.com/us/en/pdfViewer.html?docId=a00040457&parentPage=/us/en/solutions/infrastructure-security&resourceTitle=Server+System+Restore+Business+Whitepaper](https://hpe.com/us/en/pdfViewer.html?docId=a00040457&parentPage=/us/en/solution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



## HPE Services

No matter where you are in your transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From strategy and planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

### Consulting services

Experts can help you map out your path to hybrid cloud and optimize your operations.

### Managed services

HPE runs your IT operations, giving you unified control, so can focus on innovation.

### Operational services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources.

- HPE Complete Care Service: a modular service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals. All delivered by an assigned team of HPE experts.
- HPE Tech Care Service: the operational service experience for HPE products. The service provides access to product specific experts, an AI driven digital experience, and general technical guidance to help reduce risk and search for ways to do things better.

### Lifecycle Services

Address your specific IT deployment project needs with tailored project management and deployment services.

### HPE Education Services

Training and certification designed for IT and business professionals across all industries. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options.

The Defective Media Retention (DMR) service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. Comprehensive Defective Material Retention (CDMR) allows you to keep all data retentive components.

## HPE GreenLake

HPE GreenLake edge-to-cloud platform is HPE's market-leading as-a-Service offering that brings the cloud experience to apps and data everywhere – data centers, multi-clouds, and edges – with one unified operating model, on premises, fully managed in a pay per use model.

If you are looking for more services, like **IT financing solutions**, please explore them [here](#).

Explore **HPE GreenLake**

© Copyright 2023 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Parts and Materials: HPE will provide HPE-supported replacement parts and materials required to maintain the covered hardware.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

AMD is a trademark of Advanced Micro Devices, Inc. Microsoft and Windows Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. NVIDIA, NVIDIA HGX, and NVLink are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. Red Hat is a registered trademark of Red Hat, Inc. in the United States and other countries. VMware is a registered trademark or trademark of VMware, Inc. and its subsidiaries in the United States and other jurisdictions. All third-party marks are property of their respective owners.

Image may differ from the actual product [PSN1013092236BREN](#), October, 2023.