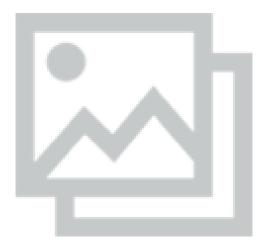
# HPE Apollo 4510 Gen10 System

Apollo 4500 System



## What's new

- The HPE NS204i-p OS Boot Device is a dedicated hardware RAID1 solution that enables automatic operating system mirroring on the two included M.2 NVMe SSDs.
- Support for HPE 128 GB / 256 GB / 512 GB Persistent Memory kits featuring Intel<sup>®</sup> Optane<sup>™</sup> DC persistent memory.
- Support for HPE 16 TB SAS and SATA Business Critical 7.2K HDDs increases the maximum raw capacity to 960 TB.

# Overview

Do you need a flexible and dense storage system for your scaleout object storage, archive, or data analytics solution?

The HPE Apollo 4510 Gen10 System offers revolutionary storage density in a 4U form factor that fits in Hewlett Packard Enterprise standard 1075 mm racks. It gives you the performance you need to run Big Data solutions such as object storage, data analytics, deep archive, or other data-intensive workloads, while also saving you valuable data center rack space. The HPE Apollo 4510 Gen10 System features support for dual Intel® Xeon® Processor Scalable Family processors, the full stack of HPE ProLiant management tools, and flexibility to configure

- Support for HPE Very Read Optimized (VRO) SATA SFF and LFF SSDs. VRO SSDs are QLC NAND-based and have variable endurance levels customized to certain workloads that are very read-centric.
- The Pensando Distributed Services Platform (DSP) delivers a powerful and scalable suite of software-defined network and security services like firewall, micro-segmentation and telemetry.
- Intel<sup>®</sup> Xeon<sup>®</sup> Scalable processors with up to 26 cores and memory speeds up to 2933 MT/s, featuring 6200R, 5200R and 4200R 2nd Generation models.

with a variety of power, controller, and network interface options. It holds up to sixty large form factor (LFF) SAS or SATA drives, so there's plenty of room for growth. And it also supports two hot-plug small form factor (SFF) SAS, SATA, or NVMe drives plus two internal M.2 NVMe drives for boot, caching, or hosting logs.

## **Features**

#### Dense Systems for Unstructured Data and Big Data Workloads

HPE Apollo 4510 Gen10 systems are designed with storage and compute capacity for enterprises embracing digital transformation (DX). This DX journey assumes that the enterprise is constantly collecting huge amounts of unstructured data across the organization.

HPE Apollo 4510 Gen10 is one of the market leaders in density-optimized data storage with co-located compute power (Intel Xeon processors) to address all the workload varieties in a modern enterprise.

Using a combination of SSDs and HDDs, customers can build a system with almost 1 petabyte (PB) of storage in just one server.

## Scale-out Ready Systems for Enterprise Customers

HPE Apollo 4510 Gen10 is the first building block for a resilient scale-out softwaredefined storage system that grows with demand, makes data visible for building data-driven use-cases, and constantly monitors underlying hardware, ultimately providing a seamless application experience.

Hewlett Packard Enterprise has partnered with Cohesity®, Qumulo®, and Scality to develop tightly integrated scale-out software solutions on top of HPE Apollo 4000 family of systems specifically targeted to address the rising scale of unstructured data.

Tight integration of software and hardware, and joint validations of scale-out systems with partners means no need for enterprise IT to stitch point products together.

#### **Built-in Global Intelligence and Data Protection**

HPE Apollo 4510 Gen10 systems are ready to support HPE InfoSight with the free HPE iLO Amplifier Pack installed. HPE InfoSight has analyzed over 1,250 trillion data points and is one of the leaders in transforming how storage is managed and supported.

Through cloud-based machine learning, HPE InfoSight has predicted and prevented thousands of disruptions from storage to applications and automated many support calls. This has ultimately increased infrastructure uptime for our customers.

HPE ILO 5 chipset, integrated in every HPE Apollo Gen10 server, provides an increased level of hardware security with its silicon root of trust and secure out-of-band management functionality.

iLO verifies protection against unauthorized users, strong authentication, extensive firmware protection, malware detection, and encryption of data, keystrokes and security keys.

Technical specifications	HPE Apollo 4510 Gen10 System
Drive supported	Large Form Factor 3.5 inch (LFF) SAS or SATA HDDs and SSDs; Small Form Factor 2.5 inch (SFF) SAS or SATA HDDs and SAS, SATA, or NVMe SSDs; M.2 NVMe SSDs
Supported chassis	HPE Apollo 4510 Gen10 Chassis
Memory	Sixteen (16) DIMM slots available (with 2 processors): 6 channels per processor / up to two (2) DIMMs per channel; Support for HPE DDR4 SmartMemory Registered (RDIMMs) and Load Reduced (LRDIMMs) plus HPE Persistent Memory (Intel Optane); Up to 1 TB total memory per processor (up to 512 GB Intel Optane per processor)
Network	Embedded HPE Ethernet 1Gb Ethernet 2-Port 331i Adapter plus FlexibleLOM expansion slot
Expansion slots	Up to three PCIe 3.0 slots (accessing all three slots requires two processors) plus FlexibleLOM expansion slot
Storage	Sixty (60) front-accessible Large Form Factor 3.5 inch (LFF) slots supporting SAS or SATA HDDs or SSDs; Two (2) front-accessible Small Form Factor 2.5 inch (SFF) slots supporting SAS or SATA HDDs or SAS, SATA, or NVMe SSDs; Two (2) internal M.2 slots supporting NVMe SSDs
Power	Support for up to four (4) 800W or 1600W hot-plug redundant power supplies with up to 96% efficiency
Management features	Standard: HPE iLO Scale-Out with Intelligent Provisioning (embedded); Support for: HPE iLO Amplifier, HPE InfoSight for Servers, HPE OneView; Optional: HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView Advanced
System fan features	Five (5) dual fan modules, shipped standard
Form factor	4U rack, fit compatible with HPE standard 1075 mm racks
Warranty	3/3/3 - System Warranty includes three years of parts, three years of labor, three years of onsite support with next business data response coverage. Additional HPE support and service coverage can be purchased through HPE Pointnext.

For additional technical

information, available models and

options, please reference the

QuickSpecs

# **HPE Pointnext Services**

<u>HPE Pointnext Services</u> brings together technology and expertise to help you drive your business forward and prepare for whatever is next.

## **Operational Services from HPE Pointnext Services**

<u>HPE Pointnext Tech Care</u> provides fast access to product-specific experts, an Al-driven digital experience, and general technical guidance to help enable constant innovation. We have reimagined IT support from the ground up to deliver faster answers and greater value. By continuously searching for better ways to do things—as opposed to just fixing things that break—HPE Pointnext Tech Care helps you focus on achieving your business goals.

<u>HPE Pointnext Complete Care</u> is a modular, edge-to-cloud IT environment service that provides a holistic approach to optimizing your entire IT environment, and achieving agreed upon IT outcomes and business goals through a personalized and customer-centric experience. All delivered by an assigned team of HPE Pointnext Services experts.

**HPE Integration and Performance Services** help you customize your experience at any stage of your product lifecycle with a menu of services based on individual needs, workloads, and technologies.

- Advise, design, and transform
- Deploy

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- Integrate and migrate Operate and improve
- Financial Services
- GreenLake Management Services
- Retire and sanitize
- IT Training and personal development

## Other related services

<u>HPE Education Services</u> delivers a comprehensive range of services to support your people as they expand their skills required for a digital transformation. Consult your HPE Sales Representative or Authorized Channel Partner of choice for any additional questions and support options.

**Defective Media Retention** is optional and allows you to retain Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

# **HPE GreenLake**

<u>HPE GreenLake</u> is HPE's market-leading IT 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. HPE GreenLake delivers public cloud services and infrastructure for workloads 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.



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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.

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