HPE Alletra Storage Server 4140

What's new

- Successor to the industry leading HPE Apollo 4510 Gen10 System.
- More data storage capacity and density for improved economics via the up to 53% increase in drive bays in the 68 LFF standard or 92 LFF extended rack depth 4U chassis
- More data throughput with up to 2X the bandwidth from new tri-mode storage controllers coupled with new Dynamic Channel Multiplexing technology and eight PCIe Gen5 NVMe SSDs for cache and metadata.

Overview

Are you looking for server-based data infrastructure with bulk economic capacity and high throughput for data-driven initiatives? The HPE Alletra Storage Server 4140 is specifically designed to run the data storage-intensive workloads that demand economic capacity yet high throughput to power you data-driven initiatives to success. From the largest data lakes and general purpose S3 API compatible Software-Defined Object Storage down to single node converged data protection systems for fast backup and rapid recovery, it delivers the capabilities you need at ideal economics with trusted security and a cloud operating experience. This includes the option to consume as-a-service via HPE GreenLake, enabling you to shift from owning and maintaining to simply utilizing it. HPE Alletra Storage Server

- More data processing with 4th generation Intel® Xeon® Scalable processors delivering improved performance plus DDR5 memory with up to 50%[1] more bandwidth.
- Enhanced zero trust security from silicon to software and factory to cloud with HPE Integrated Lights Out 6, including new support for the DMTF Security Protection Data Model.
- Cloud operating experience built on the HPE GreenLake Cloud Platform for simplified and automated lifecycle management including dramatically easier firmware management.

4000 systems provide the data infrastructure for any successful data-driven organization.

Features

Built for Data Applications

Optimized for your data-driven initiatives that demand bulk economic capacity with high throughput, the HPE Alletra Storage Server 4140 delivers exceptional data capacity with the right mix of data throughput and processing in a seamless to deploy and service 4U rackmount form factor.

Flexibly configure for the largest active data lakes, general purpose Software-Defined Object Storage, backup target storage, deep archives and other bulk data storage-intensive workloads with up to 60/84 LFF drives plus up to 8 new generation EDSFF NVMe drives, or up to 68/92 LFF drives only.

The balanced system architecture unleashes up to 50 GB/s (400 Gbps) of network bandwidth in and out of the system, up to 59 GB/s of data throughput from economic SAS/SATA nearline HDDs, and can be further accelerated up to 128 GB/s of bandwidth to PCIe Gen5 NVMe SSDs.

Unlock value from your data more quickly with one or two 4th generation Intel® Xeon® Scalable processors totaling up to 64 cores, coupled with up to 1.5 TB DDR5 memory operating at 4800 MT/s speed.

Secured End-to-End by Design

From silicon to software and factory to cloud, the HPE Alletra Storage Server 4140 is designed with zero trust security at its uncompromising core. Protect your customers, your organization, and your data from increasingly sophisticated and dangerous threats.

Physical drawer locks, logical Configuration Lock, Secure Boot, FIPS 140-2 Smart Encryption and Self-Encrypting Drives, and Secure Erase that meets NIST Guidelines for Media Sanitization protect your data throughout the lifecycle of your infrastructure all the way to end-of-life decommissioning.

HPE Integrated Lights Out 6 (iLO 6) extends the hardware root of trust from protecting server firmware to now also protecting select storage and network controller firmware. Support for the DMTF Security Protection Data Model provides certificate-based controller authentication.

The integrated Trusted Platform Module and IDevID that are part of a multi-factor authentication model enable the secure connection of your devices to the HPE GreenLake Cloud Platform while AES-256 encryption secures customer data within it.

Delivered with an Intuitive Cloud Experience

Simplify and transform your data infrastructure operations with the cloud experience for your HPE Alletra Storage Server 4140. Whether purchased or consumed as-a-service, you can now monitor and operate through intuitive fleet management SaaS and richer REST APIs.

Shift from owning and maintaining your server-based data infrastructure to simply consuming it as-a-service via HPE GreenLake, freeing up precious financial and people resources to accelerate other aspects of your data-driven initiatives.

HPE GreenLake for Compute Ops Management, a default option, delivers a centralized console for self-service and automated monitoring and operations such as health status and firmware management across your entire HPE Alletra Storage Server 4000 fleet.

Expanded DMTF Redfish® APIs enable you to programmatically manage and automate tasks and bulk actions, reducing risks as well as demands on your limited

IT resources particularly in large scale and geographically distributed deployments.

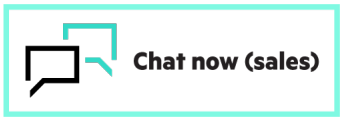
Technical specifications	HPE Alletra Storage Server 4140
Memory slots	24 DDR5 memory slots (12 per processor) for 1.5 TB maximum
Storage controller	1 or 2 32-port with 8 GB cache (consume expansion slots) and optional Intel® Virtual RAID on CPU (Intel® VROC)
Form factor	4U rack mount
Expansion slots	Up to 4 full-height half-length PCIe Gen5 slots and 2 OCP 3.0 slots with 2 processors installed
Network controller	Up to 2 PCIe full-height half-length and 2 OCP 3.0 controllers, up to 100 Gb/s 2-port (consume expansion slots)
Security	TPM 2.0, iDevID, Silicon Root of Trust, logical Configuration Lock, Secure Boot, Secure Start, optional controller-based Secure Encryption, optional Self-Encrypting Drives, optional Secure Erase, logical Configuration Lock, optional drive drawer security locks, optional HPE Server Security Optimized Service
Power specifications	4 HPE Flexible Slot (Flex Slot) Power Supplies of up to 2200W per Power Supply
Processor family	Single or dual 4th generation Intel® Xeon® Scalable processors
Dedicated boot device	Optional hardware mirrored dual M.2 NVMe SSDs or direct attached dual M.2 NVMe SSDs
Front drive bays	68 LFF SAS/SATA drives of 92 LFF SAS/SATA drives
Rear drive bays	Optional 8 E3.S 1Y Gen5 NVMe or 4 SFF Gen4 NVMe U.3 SSDs
Infrastructure management	HPE iLO 6 Standard, HPE iLO 6 Advanced upgradable with license HPE GreenLake for Compute Ops Management (subscription included) or optional HPE OneView (download required)
System cooling	6 hot-pluggable system quad-fan modules with N+1 rotor redundancy
Warranty	3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.

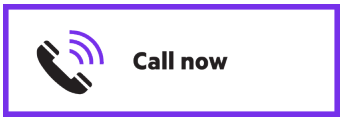
[1] 4800 MT/s versus 3200 MT/s for the 3rd generation Intel® Xeon® Scalable processors.

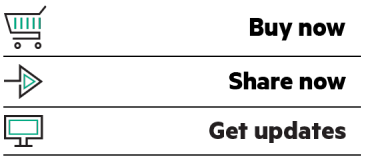
For additional technical information, available models and options, please reference the QuickSpecs

Make the right purchase decision. Contact our presales specialists.

Find a partner







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**

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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Hewlett Packard Enterprise