Data sheet

HPE MSA Gen7 Storage

HPE MSA 2070 16Gb Fibre Channel SFF TAA-compliant Storage (S1H49A)

What's new

- Customer configurable HPE MSA Gen7 storage array models and storage media options available through the HPE Smart Choice program.
- HPE Smart Choice MSA Gen7 all-flash storage array bundles with up to 92 TB of raw storage capacity included, supporting 16 or 32 Gb Fibre Channel, 10/25 GbE iSCSI, and 12 Gb SAS host connectivity.
- All MSA Gen6 and Gen7 storage array models are now fully certified for use with HPE Morpheus VM Essentials Software.
- MSA HDD and SSD media options supporting an increase in MSA Gen7 raw capacity of up to a maximum of 7.37 PB.

Overview

Looking for simple, high-performance, and low-cost shared storage that delivers application acceleration across all your server workloads? HPE MSA Storage has been the leading shared storage solution for HPE ProLiant servers for almost three decades. With over 600,000 storage arrays sold, MSA continues to deliver on its promise of simple, fast, and affordable storage for SMB customers. The HPE MSA Gen7 Storage array sets a new standard for entry-level shared storage by providing an affordable path to high-performance storage without compromising on the simplicity and reliability that its customers depend on. The MSA Gen7 array portfolio delivers up to 2x more system performance while supporting user scalability beyond 7 PB per array with new high-capacity media options. New Gen7 innovations supporting online system and media firmware updates, as well as simpler and faster access to the HPE MSA Health Check tool, reduce the complexity and time required for routine system maintenance.

Features

Simple - The Shared Storage System Anyone Can Use

Start with the unique and intuitive graphical user interface of HPE MSA Storage Management Utility (SMU) that provides step-by-step instructions and guided workflows to set up the array within minutes.

System monitoring and maintenance available through a simplified dashboard offers "at-a-glance" views of system alerts, performance, and capacity usage. New HPE MSA Gen7 innovations include support for online controller/media firmware updates as well as simpler and faster access to MSA Health Check.

System architecture supporting hot-swap controllers, drives, and power supplies, enabling users to quickly complete upgrades and maintenance with minimal downtime.

Fast - Real Performance You Can See and Feel

Next generation system architecture supporting incredibly fast performance for an entry-level storage solution. HPE MSA Gen7 Storage delivers up to 2x more IOPS (random) performance with up to 30% more system bandwidth (sequential) as compared to HPE MSA Gen6 Storage. [1]

Real-time, automated data tiering for hybrid configurations, optimizing the use of high-performance SSD media as well as lower-cost HDD storage within the same array. With minimal investment in SSDs, users can increase system IOPS by up to 4x versus HDD-only configurations. [2]

HPE MSA-DP+ advanced RAID technology eliminates the use of idle spare drives by distributing spare capacity across all drives in the disk group and enabling drive rebuild times that are up to 25x faster than traditional RAID. [3]

Affordable - Great Value Across All MSA Configurations

Start small and scale as needed with any combination of SSDs, Enterprise SAS HDDs, or Midline SAS HDDs. "Grow as you go" upgrades are available through low-cost HPE MSA SSD and HDD media 6-packs.

A wide range of HPE MSA Gen7 Storage array models, including value-driven solution bundles for hybrid-flash and all-flash configurations, provide a cost-effective path to high-performance storage on Day 1.

Minimize resources dedicated to daily maintenance and focus on business outcomes with HPE MSA Health Check. A cloud-based tool available to all MSA users at no additional charge, MSA Health Check uses MSA system logs to assess performance and configurations against HPE MSA best practice guidelines.

Technical specifications	HPE MSA 2070 16Gb Fibre Channel SFF TAA-compliant Storage
Product Number	S1H49A
Drive description	Up to twenty-four SFF HDD and/or SSD per base array
Capacity	Up to 7.37 PB with maximum capacity expansion
Storage expansion options	2U 24-drive SFF drive enclosure and/or 2U 12-drive LFF drive enclosure (add up to 9)
Storage controller	2x 16 Gb Fibre Channel 4-port Controller
Compatible operating systems	Windows Server®; VMware® vSphere®; Red Hat® Linux®; SUSE™ SLES; See HPE SPOCK for more details.
Form factor	2U rack mount
Warranty	Three-year limited warranty, parts exchange next business day delivery on all base arrays and drive enclosures. MSA drives and other options carry a separate warranty.
Energy efficiency	ENERGY STAR® Compliant
Host connectivity	16 Gb Fibre Channel
Drive form factor	SFF
Included drives	Drives not included
SED Drives Supported	Yes
Included transceivers	Transceivers not included

[1] Up to 2x performance increase compares HPE MSA Gen7 IOPS (783K) to HPE MSA Gen6 IOPS (395K).

[2] Testing performed by Demartek Test Labs comparing performance of HDD-only configurations versus hybrid-flash configurations utilizing both HDD and SSD media.

[3] Based on testing performed at HPE internal test labs.

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.

Advisory & Professional 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.

Support 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.

— **HPE Multivendor Services:** Single point of accountability for managing on-site hardware and software support for multivendor products. HPE experts help manage your IT across technologies and platforms for HPE and non-HPE technologies, acting as the single point of contact for your IT operational needs.

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

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

GreenLake

GreenLake is the cloud to run and manage your entire hybrid landscape—private, public, and edge. It helps you to:

— Streamline IT Operations across compute, storage, and networking without the chaos

— Unify and secure data, as you move faster

— Accelerate AI, from pilot to production

The result: greater operational efficiency, lower TCO, and faster AI delivery—all from one unified, intelligent platform built for today's hybrid enterprise.

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

Visit HPE.com

Chat now

© Copyright 2026 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.

Linux is the registered trademark of Linus Torvalds in the U.S. and other countries.
Windows and Windows Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
Red Hat is registered trademark of Red Hat, Inc. in the United States and other countries
ENERGY STAR is a registered mark owned by the U.S. government
VMware and vSphere are trademarks or registered trademark of VMware, LLC or its affiliates in the United States and other countries.
All third-party marks are property of their respective owners.

Image may differ from the actual product.

PSN1014862646TREN, September, 2026.

HEWLETT PACKARD ENTERPRISE

hpe.com