

# HPE MSA 1050 Storage



HPE MSA **Storage** has been the industry-leading entry Fibre Channel (FC) SAN platform for the past eight years<sup>1</sup> with over 500,000 storage systems sold worldwide. Hewlett Packard Enterprise now completes the introduction of the fifth generation HPE MSA platform with HPE MSA 1050 Storage system.

Starting at \$5,500 USD, HPE MSA 1050 Storage brings affordable flash **storage** down to ever more price-sensitive customers. It is designed to meet entry-level storage requirements for businesses with budget constraints. With the lowest entry price point in the HPE storage portfolio and field-proven HPE ProLiant compatibility, HPE MSA 1050 Storage is the platform of choice for smaller SAS, iSCSI, and FC deployments with HPE servers.

Entry consolidation and virtualization initiatives are now well within your budgetary reach. HPE MSA 1050 Storage offers many of HPE MSA 2050 features but at lower entry price points. HPE **ProLiant** and **BladeSystem** administrators as well as IT generalists shall find storage management tasks simple and intuitive with the HPE MSA 1050.

## Key features and benefits

### Affordable, flash-ready storage with no dead ends

- HPE MSA 1050 Storage comes factory-configured with dual controllers and four host ports delivering 8 Gb FC, 1GbE iSCSI, 10GbE iSCSI, or 12 Gb SAS, depending on model.

- Moving to a modern flash-ready array improves performance and decreases latencies.

### Proven HPE ProLiant Gen10 compatible shared storage

- Continues the heritage of providing affordable, easy-to-use shared storage without a big learning curve
- Matches industrial design with HPE ProLiant Gen10 servers

### Advanced Virtualization services with a simplified licensing approach

- HPE MSA 1050 Storage leverages flash with easy-to-use, easy-to-maintain tiering, and read cache technologies.
- No storage expertise necessary—HPE MSA 1050 dynamically responds to workload changes, so you don't have to.

### Expandable and upgradable to meet new demands

- Add additional solid-state drives (SSDs), hard disk drives (HDDs), or disk expansion shelves for added performance and capacity
- Upgrade to the HPE MSA 2050 Storage through data-in-place upgrades—a simple 15-minute upgrade
- Mitigate risky and time-consuming data migration

<sup>1</sup> IDC WW Quarterly Enterprise Storage Systems Tracker, Q4 2016, based on vendor revenues



## Technical specifications



### HPE MSA 1050 Storage

<b>Drive description</b>	Up to 96 SFF SAS/MDL SAS or 48 LFF SAS/MDL SAS Maximum including expansion, depending on model
<b>Drive type</b>	10 TB 12G 7.2K LFF dual-port MDL SAS HDD 1.8 TB 12G 10K SFF dual-port SAS HDD 2 TB 12G 7.2K SFF dual-port MDL SAS HDD 3.2 TB SFF SSD
<b>Max. raw capacity</b>	480 TB maximum including expansion, depending on model
<b>Storage expansion options</b>	HPE MSA 2050 LFF disk enclosure HPE MSA 2050 SFF disk enclosure HPE MSA 1040 supports up to 3 disk enclosures.
<b>Host interface</b>	8 Gb FC 1GbE iSCSI 10GbE iSCSI 6 Gb/12 GB SAS
<b>Storage controllers</b>	HPE MSA 1050 2-port FC controller HPE MSA 1050 2-port 1GbE iSCSI controller HPE MSA 1050 2-port 10GbE iSCSI controller HPE MSA 1050 2-port 12Gb SAS controller Two controllers per system included
<b>SAN backup support</b>	Yes
<b>HPE Systems Insight Manager support</b>	Yes
<b>Compatible operating systems</b>	Microsoft® Windows Server® 2016 Microsoft Windows® 2012 Red Hat® Linux® SUSE Linux VMware® Detailed information available at <a href="http://hpe.com/storage/spock">hpe.com/storage/spock</a>
<b>Clustering support</b>	Microsoft Windows, Linux
<b>Form factor</b>	2U base array, 2U LFF or SFF disk enclosures
<b>Warranty (parts/labor/on-site)</b>	3/0/0—3-year parts only next business day, no labor, or on-site support



## HPE MSA software and data services

### HPE MSA 1050 Advanced Virtualization Software

Fifth-generation HPE MSA 1050 arrays support a powerful set of data services enabled with virtualized array system architecture. Supported virtualization features include thin provisioning, Redirect-on-Write snapshots, automated tiering of standard tier and archive tier, read cache, and wide striping. Advanced Virtualization functionality comes standard with HPE MSA 1050. A license is not required to take advantage of these powerful features.

### HPE MSA Performance Automated Tiering

HPE MSA Performance Automated Tiering engine moves data between available tiers based on the access characteristics of that data. Frequently accessed pages migrate to the highest available tier delivering improved I/Os to the application. Another feature of HPE MSA tiering engine is Archive Tiering where cold or less frequently accessed data can be moved to lower performance tiers. Pages are migrated between tiers automatically to enhance performance and reduce operational expenses.

HPE MSA Performance Automated Tiering functionality can be obtained with the optional HPE MSA Advanced Data Services LTU.

### HPE MSA Snapshot Software

HPE MSA Snapshot Software enables increased data protection by creating recovery points for your data, taking a picture of what your data was at the time of the snapshot. The snapshots are then maintained even as data continues to change. In the event of a failure, you can recover data to any previous snapshot. Snapshots are a great complement to tape or disk backup strategy.

A 64-snapshot license is included with all HPE MSA 1050 models. A total of 512 snapshots can be supported on HPE MSA 1050 with the purchase of the optional HPE MSA Advanced Data Services LTU.

### HPE MSA Volume Copy Software

HPE MSA Volume Copy Software makes a physical copy of the data to another set of disks within the same array. One of the benefits of HPE MSA Snapshot and Volume

Copy Software is the ability to mount a snap or volume copy to another server for backup, application testing, or data mining. HPE MSA Volume Copy Software is controller based, meaning no host resources are used. It provides a physical copy of data from one LUN to another with no server performance impact.

### HPE MSA Remote Snap Software

HPE MSA Remote Snap Software is storage-based asynchronous replication technology that provides both local and remote replication on HPE MSA 1050 arrays. HPE Remote Snap functionality is based on existing Snapshot technology. Supporting both Ethernet (iSCSI) and FC interconnects provide flexible options to your application environments. HPE MSA Remote Snap functionality can be obtained with the purchase of the optional HPE MSA Advanced Data Services LTU.

### HPE StoreEasy File Services

An HPE StoreEasy 3000 Gateway storage can add file, print, iSCSI, and management hosting services to an HPE MSA 1050 array. For more information, visit [hpe.com/storage/storeeasy](http://hpe.com/storage/storeeasy).

### HPE MSA Advanced Data Services Suite

The optional HPE MSA Advanced Data Services Suite includes the following software:

- HPE MSA Performance Automated Tiering LTU
- HPE MSA 512-Snapshot Software LTU
- HPE MSA Remote Snap Software LTU

This optional software suite licenses all software functionality on HPE MSA 1050.

## HPE Pointnext

HPE Pointnext leverages our strength in infrastructure, partner ecosystems, and end-to-end lifecycle experience to accelerate powerful, scalable IT solutions to provide you the assistance for faster time to value. **HPE Pointnext** provides a comprehensive portfolio including Advisory and Transformational, Professional, and Operational Services to help accelerate your digital transformation.



## Resources

### QuickSpecs

#### [HPE MSA 1050 Storage](#)

#### HPE Factory Express

HPE Factory Express offers configuration, customization, integration, and deployment services for HPE servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped, and deployed. HPE Factory Express offers service packages for simple configuration, racking, installation, complex configuration, and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HPE products supported through HPE Factory Express include a wide array of servers and storage: HPE Integrity, HPE ProLiant, HPE Apollo, HPE ProLiant server blades, HPE BladeSystem, HPE 9000 servers, as well as the HPE MSA family of storage systems.

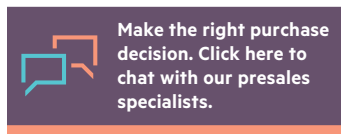
#### Customer Technical Training

The job responsibility of a storage administrator has evolved to one that needs to adapt to changes quickly. Companies need the right people with the right skills and expertise to manage immense volumes of data, making certain their teams maintain high levels of staff motivation and productivity. They should be able to view and manage storage ecosystems holistically and operate all components together—from services, applications, devices, and infrastructure.

#### HPE Financial Services

Optimize your IT investment strategy with new ways to acquire, pay for, and use technology, in lock-step with your business and transformation goals.

[hpe.com/solutions/hpefinancialservices](http://hpe.com/solutions/hpefinancialservices)



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## Operational Services

- **HPE Flexible Capacity**—With [HPE Flexible Capacity](#), you get the speed, scalability, and economics of the public cloud in the privacy of your data center. Gain the advantages of the public cloud—consumption-based payment and rapid scalability without worrying about capacity constraints. Reduce the heavy lifting needed to operate a data center. And retain the advantages that IT provides the business, such as control, security, and others. Deliver the right user experience, choose the right technology for the business, manage privacy and compliance, and manage the cost of IT. And, you have the option to use the public cloud when needed.

- **HPE Datacenter Care Service**—

**HPE Datacenter Care** helps improve IT stability and security, increase the value of IT, and enable agility and innovation. It is a structured framework of repeatable, tested, and globally available services building blocks. You can deploy, operate, and evolve your data center wherever you are on your IT journey. With HPE Datacenter Care, you benefit from a personalized relationship with Hewlett Packard Enterprise via a single point of accountability for HPE and others' products.

- **HPE Proactive Care Service**—

**HPE Proactive Care** gives customers an enhanced call experience. When your products are connected to Hewlett Packard Enterprise, we help you prevent problems and maintain IT stability by utilizing personalized proactive reports with recommendations and advice. This service includes available response times of next business day, 4-hour response, or 6-hour to repair with answers to software questions within two hours. This service also includes collaborative software support for independent software vendors (ISVs), such as Red Hat, VMware, Microsoft, and others running on your HPE servers.

- **HPE Foundation Care Service**—

**HPE Foundation Care** connects you to Hewlett Packard Enterprise 24x7 for assistance on resolving issues. This service includes available response times of next business day, 4-hour response, or 6-hour to repair with answers to software questions within two hours. Hewlett Packard Enterprise is a leading manufacturer who makes this level of coverage available as a standard service offering for your valuable servers. In addition, collaborative software support is included and provides troubleshooting assistance on industry-leading software running on your server. Simplify your support experience and make Hewlett Packard Enterprise your first call to help resolve hardware or software problems.

- **Advisory and Transformation Services**—

HPE Pointnext designs the transformation and builds a road map tuned to your unique challenges including Hybrid IT, Workload and Application Migration, Big Data, and the Intelligent Edge. Hewlett Packard Enterprise leverages proven architectures and blueprints, integrates HPE and partner products and solutions, and engages Professional and Operational Services teams from HPE Pointnext as needed.

- **Professional Services**—HPE Pointnext

creates and integrates configurations that get the most out of software and hardware and works with your preferred technologies to deliver the optimal solution. Services provided by the HPE Pointnext team, certified channel partners, or specialist delivery partners include installation and deployment services, mission-critical and technical services, and education services.

Learn more at  
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