

# HP MSA 1040 Storage



More affordable MSA arrays using the latest shared storage technologies delivering entry-level features to small and midsize customers—simple to deploy and simple to manage.

Entry consolidation and virtualization initiatives are now well within your budgetary reach. The new HP MSA 1040 Storage offers many of the MSA 2040 features but at lower entry price points. ProLiant and BladeSystems administrators as well as IT generalists will find storage management tasks simple and intuitive with MSA.

The MSA 1040 arrays leverage a new fourth-generation controller architecture with a new processor, 2-host ports and 4 GB cache per controller. Take advantage of the latest hard drive advances by selecting the HDD form factor and technology which best meet your application and budget requirements. Unlike many competing arrays, the MSA 1040 ships standard with intuitive management tools and powerful data services such as snapshots and Volume Copy for increased data protection.

## Key features and benefits

### Simple: Flexible architecture. Easy to setup. Easy to manage

- The integrated setup and management Web-based Interface (WBI) makes MSA easy to manage for ProLiant/BladeSystems administrators and IT generalists.
- Leverage the latest Large or Small Form Factor hard disk drives—choice of high-performance enterprise-class SAS or high-capacity SAS Midline drives based on application, performance and budget requirements.
- On-board management tools: augment OS and hypervisor views, navigate firmware upgrades, monitor array performance with ease, locally or remotely.

### Affordable: Popular configurations starting at \$6,500\* USD.

- Dual controller configurations are standard and available at single controller price points.
- More capacity/performance within your budget.
- Latest MSA technology for 25 percent lower cost.

\*US List Price (MSA 1040 base unit, dual 1GbE iSCSI controllers, no HDDs)

**Fast: The MSA 1040 delivers up to 50 percent more performance compared to P2000 G3.**

- The new MSA 1040 leverages the fourth-generation MSA technology, 2-port controllers with 4 GB Cache each, faster processor and a performance optimized I/O engine.
- Increased performance translates into better application response times and facilitates entry consolidation and virtualization initiatives.

**Futureproof: Built-in expandability along with an MSA 2040 upgrade option.**

- Add Disk Enclosures as needed to boost capacity and spindle count. Most low-cost entry arrays don't allow expansion.
- MSA Unique Data-in-Place upgrades eliminate time-consuming and risky data migrations.
- MSA 1040 allows a simple controller swap to flagship MSA 2040. Other value-priced arrays force you to compromise.

## HP MSA 1040 Storage

<b>Drive description</b>	(99) SFF SAS/MDL SAS or (48) LFF SAS/MDL SAS Maximum including expansion, depending on model
<b>Drive type</b>	Support for 6 Gb Enterprise SAS or SAS MDL drives Please refer to MSA 1040 <a href="#">QuickSpecs</a> for detailed hard drives info
<b>Capacity</b>	192 TB Maximum Maximum including expansion, depending on model
<b>Storage expansion options</b>	HP MSA 2040 LFF Disk Enclosure or D2700 SFF Disk Enclosure
<b>Host interface</b>	8 Gb Fibre Channel 1GbE iSCSI 10GbE iSCSI
<b>Storage controllers</b>	MSA 1040 2-port FC Controller MSA 1040 2-port 1GbE iSCSI Controller MSA 1040 2-port 10GbE iSCSI Controller
<b>SAN Backup support</b>	Yes
<b>Systems Insight Manager support</b>	Yes
<b>Compatible operating systems</b>	Microsoft® Windows® Server 2012 Microsoft Windows 2008 Microsoft Windows Hyper-V Red Hat® Linux SUSE Linux VMware ESXi 5.x Detailed information available at: <a href="http://hp.com/storage/spock">hp.com/storage/spock</a>
<b>Clustering support</b>	Windows, Linux
<b>Form factor</b>	2U
<b>Warranty (parts-labor-onsite)</b>	3/0/0

## The total package

An HP StoreEasy 3000 Gateway can add file, print, iSCSI, and management hosting services to an MSA 1040 array.

### HP MSA Snapshot Software

HP MSA 2000 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 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.

HP MSA 2000 Snapshot Software functionality is controller based so no host resources are used and they are space-efficient and provide copy-on-write capability. For more information visit: [hp.com/go/MSA](http://hp.com/go/MSA).

### HP Volume Copy Software

HP Volume Copy Software makes a physical copy of the data to another set of disks within the same array. One of the benefits of 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. HP 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. The P2000 G3 arrays ship standard with 64 snapshots and Volume Copy. For more information please visit: [hp.com/go/P2000](http://hp.com/go/P2000).

### HP MSA Array Remote Snap Software

HP MSA Remote Snap Software is storage based asynchronous replication technology that provides remote replication on the HP MSA 1040, MSA 2040, and HP P2000 Arrays (FC, Combo FC/iSCSI, or iSCSI models). HP Remote Snap functionality is based on existing snapshot technology. Supporting both Ethernet and Fibre Channel interconnects provides flexible options to your application environments. Protect your investment with snapshot based replication enabling local and remote recovery based on need. For more information please visit: [hp.com/go/RemoteSnap](http://hp.com/go/RemoteSnap).

## HP Services

Choose from a rich portfolio of services to make the most of HP Storage, so you can move with confidence to take full advantage of the broadest, most advanced portfolio in the industry.

**Discover, plan, and design**—understand your options and build it right from day one:

- HP Storage Efficiency Analysis
- HP Storage Impact Analysis
- HP Storage Modernization Service
- HP Storage Cloud Design Service

**Deploy and integrate**—increase uptime and decrease risk as you free up your resources:

- HP MSA Family Disk Array Installation and Startup Service
- HP Storage Data Migration Services
- HP Storage and Data Consultant Residency Service
- HP Proactive Select

## Resources

### QuickSpecs

### Buy online

HP Factory Express provides customization and deployment services along with your storage and server purchases. You can customize hardware to your exact specifications in the factory—helping speed deployment. [hp.com/go/factoryexpress](http://hp.com/go/factoryexpress)

Gain the skills you need with ExpertOne training and certification from HP. With HP Converged Storage training, you will accelerate your technology transition, improve operational performance, and get the best return on your HP investment. Our training is available when and where you need it, through flexible delivery options and a global training capability. [hp.com/learn/storage](http://hp.com/learn/storage)

Customize your IT lifecycle management, from acquisition of new IT, management of existing assets, and removal of unneeded equipment. [hp.com/go/hpfinancialservices](http://hp.com/go/hpfinancialservices)

**Operate and support**—meet service level agreements (SLAs) with the right support level. Choose from three levels of operate and support care:

- **Optimized Care**—Delivers the highest levels of performance and stability through deployment and proactive management practices

Support: HP Proactive Care 24x7—Plus, 20 credits per year

Additional options: HP Proactive Care Personalized Support (once per each new Proactive Care support environment), HP Personalized Support Additional Day, and an additional 10 HP Proactive Select credits per year

- **Standard Care**—maintains high level of uptime, along with expert help to cut the cost and complexity of implementation and support:

Support: HP Proactive Care 24x7—Plus, 10 credits per year

Additional options: HP Proactive Care Personalized Support (once per each new Proactive Care support environment), HP Personalized Support Additional Day, and an additional 10 HP Proactive Select credits per year

- **Basic Care**—Minimum recommended support

Support: HP Foundation Care 24x7—Plus, 10 credits per year

Additional options: 10 Proactive Select Credits per year

If none of our support recommendations meet your needs, we can tailor a service solution for your unique support requirements. Only HP brings together deep expertise, proactive and business critical support and a strong partner network—plus, a full set of infrastructure services designed to power a Converged Infrastructure. For more information visit [hp.com/services/storage](http://hp.com/services/storage).

**Warranty**—MSA standard 3-year parts only Next Business Day, no labor or on-site support

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