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## HP MSA 2040 Storage

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# HP MSA 2040 Storage



High-performance 8/16 Gb Fibre Channel (FC) array delivering entry-level and mid-market features to traditional MSA customers through Solid State Drives (SSDs) and latest host interconnects. Simple to deploy and simple to manage.

Changing storage needs for server customers now requires greater levels of performance and functionality at a lower cost of ownership. The next generation HP MSA 2040 Storage arrays raises the bar and uniquely addresses HP ProLiant customers' shared storage and data protection needs, reduces total cost of ownership while dramatically increasing performance using technologies such as SSDs, Snap and Volume copy and Replication.

The new HP MSA 2040 Storage arrays are positioned to provide an excellent value for customers needing increasing performance to support initiatives such as consolidation and virtualization. The MSA 2040 delivers this performance by leveraging new controller architecture with a new processor, four 8 Gb or 16 Gb FC ports with 4 GB cache per controller and using drive technologies such as SSDs.

The new MSA 2040 Storage ships standard with 64 Snapshots and Volume Copy enabled for increased data protection and allow replication with optional Remote Snap software.

## Product key benefits

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

- Choice of 8 Gb/16 Gb FC to match the configuration needs of infrastructure
- Deploy single or dual controllers depending on high-availability and budgetary requirements
- Select disk enclosures with large or small form factor drives with choice of high-performance SSDs, Enterprise-class SAS or SAS Midline drives based on application, performance, and budget needs
- Integrated setup and management tools for MSA are easy to manage for ProLiant/BladeSystem IT managers

### **Fast: The MSA 2040 sets new standards for \$/IOPS in entry SAN, 3x to 4x today's competition**

- New high-performance converged SAN controller offers 4x the performance of today's other entry-level SAN arrays
- 4 port converged SAN controller with 4 GB cache supporting FC translates into better application response time and ability to support more virtualized environments
- SSD support with integrated "wear gauge" helps improve application performance and allows customers to reduce their operating costs by reducing foot prints and power consumptions

### **Future proof: 2x the bandwidth and the first entry SAN with 16 Gb FC**

- Choice of 8/16 Gb FC to match the configuration needs of infrastructure
- 4th generation of MSA's unique Data-in-Place upgrades provide investment protection
- Host ports upgradeable by SFPs (8 Gb or 16 Gb FC) allows customers to manage their total cost of ownership lower

## Optional software

For more information on optional software, visit [hp.com/go/P2000](http://hp.com/go/P2000).

### **HP MSA Snapshot Software**

Optional HP MSA2000 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. Functionality is controller-based so no host resources are used, and they are space-efficient and provide copy-on-write capability.

### **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.

### **HP MSA Array Remote Snap Software**

Built on asynchronous replication technology that provides remote replication on the HP MSA 2040 and HP P2000 Arrays (FC, Combo FC/iSCSI, or iSCSI models), this software is based on existing Snapshot technology. It supports both Ethernet and FC interconnects and provides flexible options to your application environments. Protect your investment with Snapshot-based replication that enables local and remote recovery.

## Technical specifications



### HP MSA 2040 Storage

<b>Drive description</b>	199 SFF SAS/MDL SAS/SSD or 96 LFF SAS/MDL SAS Maximum including expansion, supported, depending on model
<b>Drive type</b>	Please refer to QuickSpecs for detailed info: <a href="http://h18004.www1.hp.com/products/quickspecs/14603_div/14603_div.pdf">http://h18004.www1.hp.com/products/quickspecs/14603_div/14603_div.pdf</a>
<b>Capacity</b>	Supported 288 TB maximum including expansion, depending on model
<b>Storage expansion options</b>	HP MSA 2040 LFF Disk Enclosure or D2700 2.5-inch disk enclosure
<b>Host interface</b>	8/16 Gb Fibre Channel (4) ports per controller
<b>Storage controllers</b>	(2) MSA 2040 SAN Controller supported
<b>SAN backup support</b>	Yes
<b>Storage mirroring 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 HP-UX 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, HP-UX, OpenVMS
<b>Form factor</b>	2U
<b>Warranty (parts-labor-onsite)</b>	3-0-0

## HP Factory Express

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)

## Customer Technical Training

Gain the skills you need with ExpertOne training and certification. 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)

#### Resources

#### QuickSpecs

#### Buy online

## Get the support you need

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 Backup Recovery Efficiency Analysis
- HP Backup Recovery Impact Analysis
- HP Backup Recovery Modernization

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

- MSA/P2000 Family Disk Array Installation and Startup Service
- HP Storage Data Migration Services
- HP Storage and Data Consultant Residency Service
- HP Proactive Select

**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 best performance and stability through deployment and proactive management practices  
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:  
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 Plus 24—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).

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