



## HP StorageWorks Arrays

Family Guide



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HP StorageWorks solutions deliver easy-to-install, easy-to-manage, and easy-to-support proven storage solutions that help you lower TCO and minimize the complexity of your storage environment.

## HP StorageWorks arrays: putting information to work

Storage is on top of everyone's mind these days. From the largest corporation to the smallest business, everyone is subject to growing volumes of information which must be kept and accessed. Increasing regulations from governments or corporate headquarters dictate what needs to be kept, how long it needs to be kept, and when it needs to be accessed. Therefore, it is critical for the life of your business that you have storage solutions that are up to the task and will grow with you as your business and needs change.

When implementing storage solutions into your existing environment, it is important to know that you're not simply using a stop-gap method for handling storage issues as they are currently. You need to know that you are investing in a long-term solution that will support your business well into the future and that all of the different components and options are compatible with one another. HP StorageWorks solutions deliver easy-to-install, easy-to-manage, and easy-to-support proven storage solutions that help you lower TCO and minimize the complexity of your storage environment.

Networked storage helps you keep large amounts of information continuously protected and yet readily accessible to the people who power your business. Given the importance of storage, HP is committed to meeting the full range of your storage needs—whether it's an entry-level modular array, an enterprise-class disk array, or an intelligent management software that enhances the potential of your hardware. This commitment has resulted in more customers choosing HP than any other vendor.

The HP StorageWorks disk array portfolio includes:

- **All-in-One Storage Systems**—providing simple, affordable networked storage (NAS and iSCSI SAN) with integrated data protection features and simplified management
- **Modular Smart Arrays**—low-cost, scalable, high-performance storage consolidation systems for entry-level to mid-range servers and storage area networks (SANs)
- **Enterprise Virtual Arrays**—an ideal storage solution for mid-range to enterprise-class environments that require high performance, high capacity and high availability
- **XP Disk Arrays**—enterprise-class storage systems that deliver the extreme reliability and availability needed for mission-critical applications and always-on environments

To gain the full value from your investments, you also need expert services across the IT lifecycle, intelligent software, advanced storage devices and system-enhancing options.

- **Services**—How important is it that your service partner provides a single point of ownership and accountability? Do they meet your service needs across your enterprise? Have you reached the mission-critical reliability you require to meet your business needs? From training and basic product support to selective outsourcing—our services help you realize the full potential of your technology and keep your environment up and running.
- **Management software**—Do you need a single interface to monitor and control your complex IT environment? Our management software allows you to align IT with business needs and automate error-prone processes, which simplifies and optimizes your infrastructure.
- **Storage**—Do you need help optimizing your storage resources, managing multi-vendor environments, and evolving to open architectures? Our network and direct-attached storage devices help you keep large amounts of information protected and readily accessible to people when needed.
- **Options**—Do you have everything you need to meet your infrastructure needs? Our server options—including memory, drives, processors, racks, operating system software, power and cooling—help optimize your solution by enhancing system performance and functionality.

# HP StorageWorks All-in-One Storage Systems

HP StorageWorks All-in-One Storage Systems are fully-integrated shared storage and file-serving solutions with integrated data protection designed to be deployed and managed by IT generalists with no storage expertise.

Entry-Level

New



**HP StorageWorks 400 All-in-One Storage System**  
Four-drive, entry-level All-in-One network storage



**HP StorageWorks 600 All-in-One Storage System**  
Six-drive All-in-One network storage with hardware redundancy and easy expandability



**HP StorageWorks 1200 All-in-One Storage System**  
Twelve-drive All-in-One network storage with high-performance internal capacity

<b>Number of processors</b>	1	1 (supports 2)	1
<b>Processor</b>	Dual-core Intel® Pentium® D (3.0 GHz)	Dual-core Intel Xeon 2.67 GHz/1333 MHz FSB	Dual-Core Intel Xeon 2.67 GHz/1066 MHz FSB
<b>Cache</b>	2 x 2 MB L2	1 x 4 MB L2	4 MB (2 x 2 MB) L2
<b>Host Support (iSCSI initiator)</b>	Interoperable with standards-compliant iSCSI initiators including those from Microsoft, Linux, BSD, AIX, Solaris and VMWare	Interoperable with standards-compliant iSCSI initiators including those from Microsoft, Linux, BSD, AIX, Solaris and VMWare	Interoperable with standards-compliant iSCSI initiators including those from Microsoft, Linux, BSD, AIX, Solaris and VMWare
<b>Memory</b>	1 GB (4 GB maximum)	1 GB (4 GB maximum)	1 GB (4 GB maximum)
<b>Remote management</b>	iPMI 2.0	iLO	iLO
<b>External storage expansion (via SmartArray Controller)</b>	Modular Smart Array 20	Modular Smart Array 30, 50, 60 and 70	Modular Smart Array 50, 60 and 70
<b>Drives supported</b>	(2) PCI-X 64-bit, 133-MHz expansions slots	(3) x4 PCI-Express (x8 connectors) (1) 64-bit, 133-MHz 3.3 V PCI-X (2) 64-bit, 100-MHz 3.3 V PCI-X	(1) x8 full height PCI-Express (x8 connectors) (occupied by P400 controller) (1) x8 half-height PCI-Express x1
<b>Internal storage included (by model)</b>	1 TB (4 x 250 GB SATA, hot plug)	1.5 TB (6 x 250 GB SATA, hot plug) 3.0 TB (6 x 500 GB SATA, hot plug) 876 GB [6 x 146 GB Serial Attached SCSI (SAS) hot plug]	3.0 TB (12 x 250 GB SATA, hot plug) 6.0 TB (12 x 500 GB SATA, hot plug) 9.0 TB (12 x 750GB SATA, hot plug) 1.7 TB SAS (12 x 146 GB SAS, hot plug) 3.6 TB SAS (12 x 300 GB SAS, hot plug)
<b>Rack height (form factor)</b>	1U (rack)	5U (tower or rack)	2U (rack)
<b>Warranty (parts/labor/on-site)</b>	3-year/1-year/1-year	3-year/3-year/3-year	3-year/3-year/3-year
<b>HP related offerings</b>			
<b>Services</b>	Support Plus Service (higher support levels also available) Support Plus 24 Service (higher support levels also available)	Support Plus 24 Service (higher support levels also available) Proactive 24 Service (higher support levels also available)	Support Plus 24 Service (higher support levels also available) Proactive 24 Service (higher support levels also available)
<b>Software</b>	Storage Mirroring	Storage Mirroring Systems Insight Manager	Storage Mirroring Systems Insight Manager
<b>Tape</b>	Ultrium 448 Tape Drive(s) 1/8 G2 Autoloader (with Ultrium 448) Tape Drive(s)	1/8 G2 Autoloader (with Ultrium 920) Tape Drive(s) Ultrium 920 Tape Drive(s)	1/8 G2 Autoloader (with Ultrium 920) Tape Drive(s) MSL2024 Tape Library [with Ultrium 920 and Ultrium 960 Tape Drive(s)]

# HP StorageWorks Modular Smart Arrays

The HP StorageWorks Modular Smart Array (MSA) family is ideal for organizations looking for entry/mid-range SANs and low cost DAS to SAN solutions.

Entry-Level



**HP StorageWorks 20 Modular Smart Array**  
SATA drive enclosure; capacity for direct attach or MSA

**HP StorageWorks 30 Modular Smart Array**  
Hard drive enclosure; capacity for direct attach or MSA (SB, DB and MI)

**HP StorageWorks 50 Modular Smart Array**  
SAS storage enclosure supporting SAS and SATA

	HP StorageWorks 20 Modular Smart Array	HP StorageWorks 30 Modular Smart Array	HP StorageWorks 50 Modular Smart Array
<b>Maximum number of drives</b>	Up to 12 SATA Large Form Factor (LFF) drives	Up to 14 SCSI drives	Up to 10 SAS or SATA Small Form Factor (SFF) drives
<b>Hard drives supported</b>	750 GB 1.5 G SATA 72K 3.5" 500 GB 1.5 G SATA 7.2K 3.5" 250 GB 1.5 G SATA 7.2K 3.5"	300 GB U320 10K 146 GB U320 10K 72 GB U320 10K 300 GB U320 15K 146 GB U320 15K 72 GB U320 15K 36 GB U320 15K	146 GB SAS 10K SFF 72 GB SAS 10K SFF 36 GB SAS 10K SFF 72 GB SAS 15K SFF 36 GB SAS 15K SFF 60 GB 1.5 G SATA 5.4K SFF
<b>Operating systems supported</b>	Microsoft® Windows® Server 2003 Microsoft Windows Server 2000 Novell NetWare 5.1, 6.5 Red Hat Linux SCO SuSE Linux	Microsoft Windows Server 2003 Microsoft Windows Server 2000 Windows NT Linux Novell NetWare Tru64 UNIX OpenVMS HP-UX (MSA30 MI only)	Microsoft Windows Server 2003 Microsoft Windows Server 2000 Linux Novell NetWare
<b>Maximum storage</b>	Up to 9 TB with SATA drives	Up to 4.2 TB with SCSI drives	Up to 1.44 TB with SAS drives Up to 1.6 TB with SATA drives
<b>Rack height</b>	2U	3U	1U
<b>Warranty (parts/labor/on-site)</b>	3-year/0/0	3-year/0/0	3-year/0/0
<b>HP related offerings</b>			
<b>Services</b>	Disk Array Installation and Startup Services Support Plus 24 Service (higher support levels also available)	Disk Array Installation and Startup Services Support Plus 24 Service (higher support levels also available)	Disk Array Installation and Startup Services Support Plus 24 Service (higher support levels also available)
<b>Software</b>	Storage Essentials Enterprise Edition Storage Mirroring	Storage Mirroring Data Protector Express	Storage Mirroring Data Protector Express

# HP StorageWorks Modular Smart Arrays (continued)

The HP StorageWorks Modular Smart Array (MSA) family is ideal for organizations looking for entry/mid-range SANs and low cost DAS to SAN solutions.

Mid range

New

New



## HP StorageWorks 60 Modular Smart Array

SATA drive enclosure; capacity for direct attach or MSA

## HP StorageWorks 70 Modular Smart Array

Hard drive enclosure; capacity for direct attach or MSA

<b>Maximum number of drives</b>	Up to 12 SATA LFF drives	Up to 25 SAS or SATA SFF drives
<b>Hard drives supported</b>	300 GB 15K SAS 3.5" 146 GB 15K SAS 3.5" 72 GB 15K SAS 3.5" 32 GB 15K SAS 3.5" 750 GB 1.5 G SATA 7.2K 3.5" 500 GB 1.5 G SATA 7.2K 3.5" 250 GB 1.5 G SATA 7.2K 3.5"	72 GB SAS 15K 2.5" 36 GB SAS 15K 2.5" 146 GB SAS 10K 2.5" 72 GB SAS 10K 2.5" 36 GB SAS 10K 2.5" 60 GB SATA 1.5 Gb 5,400 rpm 2.5"
<b>Operating systems supported</b>	Microsoft Windows 2003/R2 Standard Microsoft Windows 2003/R2 Standard x64 Microsoft Windows 2003/R2 Enterprise Microsoft Windows 2003/R2 Enterprise x64 Microsoft Windows 2003/R2 Web Microsoft Windows 2003/R2 SBS Novell Open Enterprise Server, NetWare 6.5 SPS SCO OpenServer 5.0.7, 6 SCO UnixWare 7.1.3, 7.1.4 Red Hat Enterprise Linux SuSE Linux Enterprise Server	Microsoft Windows 2003/R2 Standard Microsoft Windows 2003/R2 Standard x64 Microsoft Windows 2003/R2 Enterprise Microsoft Windows 2003/R2 Enterprise x64 Microsoft Windows 2003/R2 Web Microsoft Windows 2003/R2 SBS Novell Open Enterprise Server, NetWare 6.5 SPS SCO OpenServer 5.0.7, 6 SCO UnixWare 7.1.3, 7.1.4 Red Hat Enterprise Linux SuSE Linux Enterprise Server
<b>Maximum storage</b>	Up to 3.6 TB with SAS drives Up to 9 TB with SATA drives	Up to 3.6 TB with SAS drives Up to 1.5 TB with SATA drives
<b>Rack height</b>	2U	2U
<b>Warranty (parts/labor/on-site)</b>	3-year/0/0	3-year/0/0
<b>HP related offerings</b>		
<b>Services</b>	Disk Array Installation and Startup Services Support Plus 24 Service (higher support levels also available)	Disk Array Installation and Startup Services Support Plus 24 Service (higher support levels also available)
<b>Software</b>	Systems Insight Manager Storage Mirroring	Systems Insight Manager Storage Mirroring

# HP StorageWorks Modular Smart Arrays (continued)

The HP StorageWorks Modular Smart Array (MSA) family is ideal for organizations looking for entry/mid-range SANs and low cost DAS to SAN solutions.

Entry-Level



**HP StorageWorks 500 G2 Modular Smart Array**  
RAID storage for clustered server environments in SMB

**HP StorageWorks 1000 Modular Smart Array**  
Entry-level Fibre Channel SAN array leverages ProLiant technology

<b>Maximum number of drives</b>	Up to 14 SCSI	14, up to 42 SCSI with additional MSA30s (2)
<b>Hard drives supported</b>	72 GB U320 10K 146 GB U320 10K 300 GB U320 10K 36 GB U320 15K 72 GB U320 15K 146 GB U320 15K 300 GB U320 15K	72 GB U320 10K 146 GB U320 10K 300 GB U320 10K 36 GB U320 15K 72 GB U320 15K 146 GB U320 15K 300 GB U320 15K
<b>Cache</b>	256 MB, upgradeable to 512 MB per controller	256 MB, upgradeable to 512 MB per controller
<b>Operating systems supported</b>	Microsoft Windows Server 2003 Microsoft Windows Server 2000 Linux Novell NetWare Red Hat Enterprise Linux SuSE Linux Enterprise Server	Microsoft Windows Server 2003 Microsoft Windows Server 2000 Windows NT HP-UX Linux Novell NetWare OpenVMS Tru64 UNIX SCO
<b>Maximum storage</b>	4.2 TB with SCSI drives	12.6 TB with SCSI drives
<b>Rack height</b>	4U	4U
<b>Warranty (parts/labor/on-site)</b>	3-year/3-year/3-year	3-year/1-year/1-year
<b>HP related offerings</b>		
<b>Services</b>	Disk Array Installation and Startup Services Support Plus 24 Service (higher support levels also available)	Disk Array Installation and Startup Services Support Plus 24 Service (higher support levels also available)
<b>Software</b>	Storage Essentials Enterprise Edition Storage Virtual Replicator	Storage Essentials Standard Edition SRM Software Storage Mirroring

# HP StorageWorks Modular Smart Arrays (continued)

The HP StorageWorks Modular Smart Array (MSA) family is ideal for organizations looking for entry/mid-range SANs and low cost DAS to SAN solutions.

Entry-Level



**HP StorageWorks 1500cs Modular Smart Array**  
Low-cost, high-capacity SAN array for Fibre Channel networks

**HP StorageWorks 1510i Modular Smart Array**  
Entry-level iSCSI array for departments/remote offices

<b>Maximum number of drives</b>	Up to 56 SCSI drives in 4xMSA30 enclosures Up to 96 SATA drives in 8xMSA20 enclosures	Up to 56 SCSI drives in 4xMSA30 enclosures Up to 96 SATA drives in 8xMSA20 enclosures
<b>Hard drives supported</b>	72 GB U320 10K 146 GB U320 10K 300 GB U320 10K 36 GB U320 15K 72 GB U320 15K 146 GB U320 15K 300 GB U320 15K 250 GB 1.5 G SATA 7.2K 500 GB 1.5 G SATA 7.2K 750 GB SATA 7.2K	72 GB U320 10K 146 GB U320 10K 300 GB U320 10K 36 GB U320 15K 72 GB U320 15K 146 GB U320 15K 300 GB U320 15K 250 GB SATA 7.2K 500 GB SATA 7.2K 750 GB SATA 7.2K
<b>Cache</b>	256 MB, upgradeable to 512 MB per controller	256 MB, upgradeable to 512 MB per controller
<b>Operating systems supported</b>	Microsoft Windows Server 2003 Microsoft Windows Server 2000 and Advanced Server HP-UX Red Hat Linux Novell NetWare OpenVMS Tru64 UNIX SCO SuSE Linux SLES	Microsoft Windows Server 2003 (32 & 64 bit) Microsoft Windows Server 2000 SP4
<b>Maximum storage</b>	Up to 16.8 TB SCSI Up to 64 TB SATA	Up to 16.8 TB SCSI Up to 64 TB SATA
<b>Rack height</b>	2U (controller shelf)	2U (controller shelf)
<b>Warranty (parts/labor/on-site)</b>	3-year/1-year/1-year	3-year/1-year/1-year
<b>HP related offerings</b>		
<b>Services</b>	Disk Array Installation and Startup Services Support Plus 24 Service (higher support levels also available)	Disk Array Installation and Startup Services Proactive 24 Service (higher support levels also available)
<b>Software</b>	Storage Essentials Standard Edition SRM Software Storage Mirroring	Storage Essentials Standard Edition SRM Software Storage Mirroring

# HP StorageWorks Enterprise Virtual Arrays

HP StorageWorks Enterprise Virtual Array (EVA) devices provide outstanding total cost of ownership (TCO) to support business critical processes.

## Midrange



**HP StorageWorks 4000 Enterprise Virtual Array**  
Entry EVA that has unparalleled simplicity and lowest TCO



**HP StorageWorks 6000 Enterprise Virtual Array**  
Simple to deploy, strong performance with higher capacity



**HP StorageWorks 8000 Enterprise Virtual Array**  
Simple to manage, highest performance for enterprises and scalability

<b>Number of controllers</b>	2	2	2
<b>Hard drives supported</b>	146 GB 10K rpm dual-port 2/4 Gb/s FC-AL 1" 300 GB 10K rpm dual-port 2/4 Gb/s FC-AL 1" 72 GB 15K rpm dual-port 2/4 Gb/s FC-AL 1" 146 GB 15K rpm dual-port 2/4 Gb/s FC-AL 1" 300 GB 15K rpm dual-port 2/4 Gb/s FC-AL 1" 500 GB FATA disk dual-port 2 Gb FC Hybrid disk drive factory integrated	146 GB 10K rpm dual-port 2/4 Gb/s FC-AL 1" 300 GB 10K rpm dual-port 2/4 Gb/s FC-AL 1" 72 GB 15K rpm dual-port 2/4 Gb/s FC-AL 1" 146 GB 15K rpm dual-port 2/4 Gb/s FC-AL 1" 300 GB 15K rpm dual-port 2/4 Gb/s FC-AL 1" 500 GB FATA disk dual-port 2 Gb FC Hybrid disk drive factory integrated	146 GB 10K rpm dual-port 2/4 Gb/s FC-AL 1" 300 GB 10K rpm dual-port 2/4 Gb/s FC-AL 1" 72 GB 15K rpm dual-port 2/4 Gb/s FC-AL 1" 146 GB 15K rpm dual-port 2/4 Gb/s FC-AL 1" 300 GB 15K rpm dual-port 2/4 Gb/s FC-AL 1" 500 GB FATA disk dual-port 2 Gb FC Hybrid disk drive factory integrated
<b>Maximum number of drives</b>	8, 56 per controller pair	16, 112 per controller pair	8, 168 (one cabinet); Up to 240 (with utility cabinet)
<b>Cache (per controller)</b>	4 GB	4 GB	8 GB
<b>Disk drives, interface</b>	Dual-port 2/4 Gb/s FC-AL	Dual-port 2/4 Gb/s FC-AL	Dual-port 2/4 Gb/s FC-AL
<b>Operating systems supported</b>	Microsoft Windows 2000 Server and Advanced Server Microsoft Windows 2003 Standard/Enterprise (32/64-bit) and Extended/DataCenter (64-bit) HP-UX Linux Tru64 UNIX OpenVMS Sun Solaris IBM AIX Novell NetWare VMware	Microsoft Windows 2000 Server and Advanced Server Microsoft Windows 2003 Standard/Enterprise (32/64-bit) and Extended/DataCenter (64-bit) HP-UX Linux Tru64 UNIX OpenVMS Sun Solaris IBM AIX Novell NetWare VMware	Microsoft Windows 2000 Server and Advanced Server Microsoft Windows 2003 Standard/Enterprise (32/64-bit) and Extended/DataCenter (64-bit) HP-UX Linux Tru64 UNIX OpenVMS Sun Solaris IBM AIX Novell NetWare VMware
<b>Maximum storage</b>	.5 to 28 TB	1.2 to 56 TB	.5 to 120 TB
<b>Rack height</b>	42U	42U	42U
<b>Warranty (parts/labor/on-site)</b>	2-year/2-year/0	2-year/2-year/0	2-year/2-year/0
<b>HP related offerings</b>			
<b>Services</b>	SAN Solution Service Backup and Recovery Solution Service	SAN Solution Service Proactive 24 Service	SAN Solution Service Critical Service
<b>Software</b>	Continuous Access EVA Business Copy EVA	Command View EVA Storage Essentials Standard Edition SRM Software	Fast Recovery Solutions Cluster Extension EVA

# HP StorageWorks XP Disk Arrays

The HP StorageWorks XP Disk Array family provides the best reliability, availability, performance and capacity to address your mission-critical applications.

High-end

New



**HP StorageWorks XP10000 Disk Array**  
State-of-the-art reliability and “always-on” availability that starts at the size you need



**HP StorageWorks XP12000 Disk Array**  
Enterprise class reliability and “always-on” availability for mission-critical IT



**HP StorageWorks XP24000 Disk Array**  
Bulletproof storage solution for large enterprises requiring constant access to mission-critical data

<b>Maximum number of drives</b>	0–240 in one to two racks (120 drives per rack)	9–1152 in one to five cabinets	9–1152 in one to five cabinets
<b>Hard drives supported</b>	10k rpm 146/300 GB 15k rpm 73/146 GB	10k rpm 146/300 GB 15k rpm 73/146 GB	10k rpm 300 GB 15k rpm 73/146 GB
<b>Cache</b>	Up to 64 GB	Up to 256 GB	Up to 256 GB
<b>Maximum memory</b>	1–6 GB	1–12 GB	1–24 GB
<b>Operating systems supported</b>	HP-UX Microsoft Windows Sun Solaris IBM AIX VMware Linux Open VMS Tru64 NonStop Mainframe	HP-UX Microsoft Windows Sun Solaris IBM AIX VMware Linux Open VMS Tru64 NonStop Mainframe	HP-UX Microsoft Windows Sun Solaris IBM AIX VMware Linux Open VMS Tru64 NonStop Mainframe
<b>Maximum storage</b>	288 GB–69 TB (raw) 144 GB–51.8 TB (usable)	576 GB–332 TB (raw) 288 GB–290 TB (usable)	576 GB–332 TB (raw) 288 GB–290 TB (usable)
<b>Rack height</b>	75.6 inches	73.2 inches	75.6 inches
<b>Warranty (parts/labor/on-site)</b>	2-year/2-year/2-year	2-year/2-year/2-year	2-year/2-year/2-year
<b>HP related offerings</b>			
<b>Services</b>	Critical Service Proactive 24 Service	Critical Service Proactive 24 Service	Critical Service Proactive 24 Service
<b>Software</b>	XP Command View Advanced Edition XP External Storage	XP Disk/Cache Partition XP Continuous Access Journal	XP Thin Provisioning XP Array Manager

# HP StorageWorks arrays

## Supported and recommended HP servers

		Entry-level								Midrange			High-end			
		MSA20	MSA30	MSA50	MSA60	MSA70	MSA 500 G2	MSA 1000	MSA 1500 cs	MSA 1510i	EVA4000	EVA6000	EVA8000	XP10000 Disk Array	XP12000 Disk Array	XP24000 Disk Array
<b>HP ProLiant Servers</b>																
<b>Entry-class</b>	ML110 G3						o	o	o	o	o	o	o	o	o	o
	ML115						o	o	o	o	o	o	o	o	o	o
	DL140 G3						o	o	o	o	o	o	o	o	o	o
	DL145 G2						o	o	o	o	o	o	o	o	o	o
	ML150 G3						o	o	o	o	o	o	o	o	o	o
<b>Midrange</b>	ML310 G3	●	o	o	o	o	o	o	o	o	o	o	o	o	o	o
	DL320 G4	●	o	o	o	o	●	o	o	o	o	o	o	o	o	o
	ML350 G5	o	●	o	o	o	o	o	●	o	●	o	o	o	o	o
	DL360 G5	o	o	●	o	o	o	o	●	o	o	o	o	o	o	o
	DL365	o	o	●	o	o	o	o	●	o	o	o	o	o	o	o
	ML370 G5	o	o	●	o	o	o	o	●	o	o	o	o	o	o	o
	DL380 G5	●	o	o	o	o	o	o	o	●	●	o	o	o	o	o
	DL385	●	o	o	o	o	o	o	o	●	●	o	o	o	o	o
<b>High-end</b>	ML570 G4	o	●	o	o	o	●	o	o	o	o	o	o	o	o	o
	DL580 G4	o	●	o	o	o	o	o	●	o	●	o	o	o	o	o
	DL585	o	o	o	o	o	o	o	o	●	●	o	o	o	o	o
<b>p-Class</b>	BL20p G4						o	o	o	o	o	●	o	●	o	o
	BL25p						o	o	o	o	o	●	o	●	o	o
	BL35p						o	o	o	o	o	●	o	●	o	o
	BL45p						o	o	o	o	o	o	●	o	●	●
	Integrity BL60p						o	o	o	o	o	o	o	●	●	●
<b>c-Class</b>	BL460c						o	o	o	o	o	●	●	●	o	o
	BL465						o	o	o	o	o	●	●	●	o	o
	BL480c						o	o	o	o	o	o	o	●	●	●
	BL685						o	o	o	o	o	o	o	●	●	●
<b>HP Integrity Servers</b>																
<b>c-Class</b>	BL860c						o	●	o	o	●	●	o	o	o	o
<b>Entry-class</b>	rx2660						o	●	o	o	●	o	o	o	o	o
	rx3600						o	●	o	o	●	o	o	o	o	o
	rx6600						o	o	o	o	●	●	o	o	o	o
<b>Midrange</b>	rx7640			o	o	o	o	o	o	o	o	o	●	●	o	o
	rx8640			o	o	o	o	o	o	o	o	●	●	o	●	●
<b>High-end</b>	Superdome			o	o	o	o	o	o	o	o	o	o	●	●	●
<b>HP Integrity NonStop Servers</b>																
<b>Entry-class</b>	NS1000													●	●	●
<b>High-end</b>	NS14000													●	●	●
	NS16000													●	●	●

● Recommended for this product (best capacity match)  
o Supported for this product

Note: Please check with your HP account representative for support details.

# HP StorageWorks arrays

## Supported and recommended tape products

	Entry-level												Midrange			High-end		
	AIO400	AIO600	AIO1200	MSA20	MSA30	MSA50	MSA60	MSA70	MSA 500 G2	MSA 1000	MSA 1500 cs	MSA 1510i	EVA4000	EVA6000	EVA8000	XP10000 Disk Array	XP12000 Disk Array	XP24000 Disk Array
<b>HP StorageWorks Tape Products</b>																		
1/8 Tape Autoloader	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
1/8 G2 Tape Autoloader	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MSL 2024	○	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○
MSL 4048	○	○	○	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○
MSL 8096	○	○	○	○	○	○	○	○	○	●	●	●	○	○	○	○	○	○
EML 71e	○	○	○	○	○	○	○	○	○	○	○	○	●	●	●	○	○	○
EML 103e	○	○	○	○	○	○	○	○	○	○	○	○	●	●	●	○	○	○
EML 245e	○	○	○	○	○	○	○	○	○	○	○	○	●	●	●	○	○	○
EML 332e	○	○	○	○	○	○	○	○	○	○	○	○	●	●	●	○	○	○
EML 442e	○	○	○	○	○	○	○	○	○	○	○	○	●	●	●	○	○	○
ESL 712e	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
D2D Backup Solution 110/120	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
VLS1002i	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
VLS6105	○	○	○	○	○	●	●	●	●	●	○	○	○	○	○	○	○	○
VLS6109	○	○	○	○	●	●	●	●	●	●	●	●	●	●	●	○	○	○
VLS6510	○	○	○	○	●	●	●	●	●	●	○	○	●	●	●	○	○	○
VLS6518	○	○	○	○	●	●	●	●	○	●	●	●	●	●	●	●	●	●
VLS6840	○	○	○	○	●	○	○	○	○	○	●	●	○	●	●	●	●	●
VLS6870	○	○	○	○	●	○	○	○	○	○	●	●	○	●	●	●	●	●
VLS300 EVA Gateway	○	○	○	○	●	○	○	○	○	○	●	●	○	●	●	●	●	●

- Recommended for this product (best capacity match)
- Supported for this product

# HP StorageWorks array families<sup>1</sup>

HP StorageWorks 400 All-in-One Storage System



HP StorageWorks 600 All-in-One Storage System rack



HP StorageWorks 1200 All-in-One Storage System



HP StorageWorks 20 Modular Smart Array



HP StorageWorks 30 Modular Smart Array



HP StorageWorks 50 Modular Smart Array



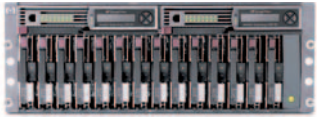
HP StorageWorks 60 Modular Smart Array



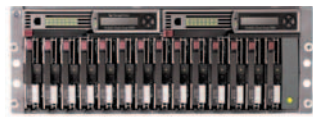
HP StorageWorks 70 Modular Smart Array



HP StorageWorks 500 G2 Modular Smart Array



HP StorageWorks 1000 Modular Smart Array



HP StorageWorks 1500cs Modular Smart Array



HP StorageWorks 1510i Modular Smart Array



HP StorageWorks 4000 Enterprise Virtual Array



HP StorageWorks 6000 Enterprise Virtual Array



HP StorageWorks 8000 Enterprise Virtual Array



HP StorageWorks XP10000 Disk Array



HP StorageWorks XP12000 Disk Array



HP StorageWorks XP24000 Disk Array



<sup>1</sup> Images are not to scale.

# HP related offerings

To gain the fullest value from your array investment, you will benefit from intelligent software and expert services across the IT lifecycle.

## HP software

HP provides software that allows you to align IT with business needs, automate error-prone processes and fine-tune your infrastructure.

<b>Storage resource management</b>	
Storage Essentials Enterprise Edition	HP Storage Essentials suite delivers integrated heterogeneous functionality for network (DAS, SAN, NAS) management, storage resource management, provisioning, backup reporting and application infrastructure monitoring. The suite consists of HP Storage Essentials Enterprise Edition and features a portfolio of value-added plug-ins.
Storage Essentials Standard Edition SRM Software	HP Storage Essentials Standard Edition helps midsize business with limited IT staff see the big picture, reduce complexity and gain control of their SAN infrastructure inventory for small to medium HP storage-based SANs consisting of HP EVA, HP MSA and HP NAS, HP EML E-series Tape, HBAs and switches, and affordably enjoy the benefits of Storage Resource Management software.
Systems Insight Manager	HP Systems Insight Manager (SIM), HP's unified server-storage management tool, helps maximize IT staff efficiency and hardware platform availability for small and large server deployments alike. It is designed for end-user setup, and its modular architecture enables systems administrators to plug in additional functionality as needed.
Command View EVA	HP StorageWorks Command View EVA is a comprehensive software suite designed to simplify array provisioning and management of the high-performance HP StorageWorks Enterprise Virtual Array (EVA) family of storage array products. For managing EVA with heterogeneous networked SAN devices, including servers and infrastructure, you can use HP Systems Insight Manager to do the job.
XP Command View Advanced Edition	HP StorageWorks XP Command View Advanced Edition software provides centralized, web-based management for multiple XP disk arrays. It reduces the total cost of XP array ownership by increasing the efficiency of storage administrators and saves time in the management of external storage.
XP Thin Provisioning	HP StorageWorks XP Thin Provisioning software allows you to reduce costs, accelerate return on investment, and reduce environmental impact by supplying disk storage capacity to your applications from a pool of virtualized storage and automatically allocating physical capacity as needed. Configure all of the capacity you will need in the future, but only buy the capacity you need today.
XP Array Manager	HP StorageWorks XP Array Manager software provides configuration and management of HP StorageWorks XP24000 Disk Array data volumes, provides the ability to allocate disk array resources, provides configuration, management and security for disk array accesses, and provides enhanced data security.
<b>Remote replication software</b>	
Continuous Access EVA	HP StorageWorks Continuous Access EVA software is an array-based application that utilizes a powerfully simple graphical user interface (GUI) to create, manage and configure remote replication on entire EVA product family.
XP Continuous Access	HP StorageWorks XP Continuous Access software products are high-availability remote replication and disaster recovery solutions that deliver host-independent real-time remote data replication between HP StorageWorks XP Disk Arrays. With seamless integration into a full spectrum of remote replication-based solutions, HP XP Continuous Access software can be deployed in solutions ranging from data migration to high-availability server clustering.
Storage Mirroring	HP StorageWorks Storage Mirroring provides host-based, real-time continuous replication for small and midsize business customers seeking a low-cost alternative to expensive fabric or array-based solutions. Patented replication and failover technology continuously captures byte-level changes as they happen and replicates those changes to one or more target servers at any location without geographic limitations.
<b>Local replication software</b>	
Business Copy EVA	HP StorageWorks Business Copy EVA software is an array-based application that utilizes a powerfully simple HP StorageWorks Replication Solutions Manager user interface to create, manage and configure local replication on the full EVA product family to meet business continuity and regulatory requirements.
XP Business Copy	HP StorageWorks XP Business Copy software creates local copies of data for businesses that are concerned about business continuity, and that need to reduce the cost of backups, accelerate recovery from failures, and simplify development and testing.
Storage Virtual Replicator	HP Storage Virtual Replicator server-based virtualization enables users to erase the physical boundaries of their storage units and provide flexible, simplified storage management for Microsoft Windows environments.
<b>Data Protection and Recovery software</b>	
Data Protector	HP Data Protector software automates high-performance backup and recovery, from disk or tape, over unlimited distances, to ensure 24x7 business continuity and maximize IT resource utilization. Data Protector simplifies the use of complex backup and recovery procedures with the fastest installation, automated routine tasks, and easy-to-use features.
Data Protector Express	HP Data Protector Express software provides simple and reliable backup and recovery for file servers, application servers and desktops that is suitable for organizations without dedicated IT staff.
<b>Business continuity software</b>	
Fast Recovery Solutions	HP StorageWorks Fast Recovery Solution (FRS) enables the instant recovery of Microsoft Exchange 2003 databases. Perfect for environments that require the highest level of availability, FRS is designed to allow application administrators to utilize the automated disaster recovery technologies built into HP StorageWorks Disk Arrays systems, without extensive storage training.
Cluster Extension EVA and XP	HP StorageWorks Cluster Extension EVA and XP software continues your critical applications within minutes or seconds after an event. It offers disaster tolerance against application downtime from fault, failure, or site disaster by extending clusters between data centers. It works seamlessly with your open-system clustering software and XP storage systems to automate fail-over and fail-back between sites.
<b>Storage device management software</b>	
XP External Storage	HP StorageWorks XP External Storage allows you to host XP Disk Array volumes on select external storage subsystems. You can use storage tiers and provision an XP Disk Array solution to optimize return on IT investment—allocating high-performance/high-availability native XP Disk Array capacity to your most mission-critical data while hosting less critical data on cost optimized external storage subsystems.
XP Disk/Cache Partition	This software can reduce storage costs by dividing a large HP StorageWorks XP12000 into smaller segments suitable for departmental usage, while retaining superb performance and high availability.

## HP Services

HP Services provide continuous care and support expertise with committed response times designed to meet your IT and business needs. To fully capitalize on your HP StorageWorks Array capabilities requires a service partner who thoroughly understands your storage and server technologies, as well as your systems environment. HP Services, an industry leader in the provision of multi-vendor support solutions, provides a range of services designed to meet the varying needs of your demanding business.

<b>Backup and Recovery Solution Service</b>	Scalable solution providing fast restore with reduced cost and reduced risk
<b>SAN Solution Service</b>	End technology services maximize your investment
<b>Critical Service</b>	Reduces impact of unplanned downtime and improves IT operational efficiency
<b>HP StorageWorks Disk Array Installation and Startup Service</b>	Proper installation of your storage hardware is crucial to help realize the maximum ROI
<b>Proactive 24 Service</b>	Improve uptime with responsive hardware and software services available 24x7
<b>Support Plus 24 Service</b>	Increase availability of your MSA IT infrastructure with comprehensive 24x7 hardware and software services
<b>HP Performance Analysis for the StorageWorks XP/EVA Disk Arrays</b>	Increases performance, stability and availability by identifying potential bottlenecks

## HP Care Pack Services

### **Extend and expand your standard product warranty**

HP Care Pack Services offer easy-to-buy, easy-to-use support packages that help you make the most of your hardware and software investments. They let you choose the support levels that meet your business requirements, from basic to mission-critical. They help you contain total cost of ownership.

HP Care Pack warranty extension can be purchased along with HP products to cost-effectively upgrade or extend your warranty. For many products, post-warranty HP Care Pack Services are available when your original warranty has expired. For more information on these services, visit [www.hp.com/services/storage\\_carepacks](http://www.hp.com/services/storage_carepacks).

## Additional HP Support Services

### **Provide support for your critical data**

HP Services provides a broad spectrum of services to commercial and enterprise customers, including performance and availability services such as proactive mission-critical services, as well as support management services for deployment of the entire IT infrastructure, including HP and multi-vendor environments. For more information on these services, visit [www.hp.com/hps/storage](http://www.hp.com/hps/storage).

## HP Education Services

### **Provide a strong commitment to training your work force**

HP offers a variety of training methods to fit your needs including traditional instructor-led courses at one of our 120 training centers worldwide, on-site training customized to your needs in your facility, or Remotely Assisted Instruction Learning that combines the best of traditional classroom training (including live instructor and labs) with the best of online training (no travel required). And, if you like learning on your own schedule at your own pace, make use of e-learning opportunities on the award-winning HP IT Resource Center, a “learning community” with extensive on-demand resources that can be accessed 24x7. For more information on these services, visit <http://education.hp.com/curr-storsan.htm>.

## HP Factory Express

### **Get more from your IT investment**

While your StorageWorks solution is in the HP factory, consider having HP do the labor-intensive tasks such as software loading, component installation and any needed customization, configuration or integration. HP Factory Express delivers your HP StorageWorks solution ready to go—right out of the box—with a portfolio of pre-defined and pre-priced factory-based solutions and deployment services that support HP StorageWorks devices and infrastructure. For more information on HP Factory Express, visit [www.hp.com/go/factoryexpress](http://www.hp.com/go/factoryexpress).

## HP Financial Services

### The smartest way to invest in IT

HP makes it easy on the balance sheet to put the power of the HP portfolio to work for you through HP Financial Services. HP Financial Services offers a complete array of leasing and financial lifecycle management services in more than 50 countries around the world. HP can help you transition from existing equipment to the latest technology, acquire a new solution cost-effectively, and manage that solution throughout its lifecycle. Our goal is to help you increase the return on your IT investment, reduce risk, and get the most from your HP solution. For more information on HP Financial Services, visit [www.hp.com/go/hpfinancialservices](http://www.hp.com/go/hpfinancialservices).

## HP Server Portfolios

What kind of server best suits your needs? What level of high availability and performance do you require? How many users will be supported? What operating system will you be using? Whether it's a departmental server, an enterprise data center or anything in between, HP is committed to meeting your exact needs. This commitment has resulted in more customers choosing HP servers than any other vendor's servers.\*

Our portfolio:

- **HP ProLiant servers**—offer a superior platform for your mainstream 32-bit and emerging 64-bit x86 applications. ProLiant servers are the world's top selling x86 industry-standard servers\*.
- **HP Integrity servers**—the premier choice for your most demanding workloads and applications running on HP-UX, OpenVMS, Microsoft Windows Server 2003, and Linux.

- **HP Integrity NonStop servers**—ideal when user service levels are paramount. They deliver the highest levels of availability, fail-safe data integrity and linear scalability for ultimate business continuity.

What can you do to simplify a growing, multi-server environment? How do you integrate all the moving parts and deliver business solutions on time and under budget?

- **HP BladeSystem**—a simple, modular infrastructure that is consolidated upfront to save you more time, energy and money—regardless of what you put inside. In one consolidated box, a BladeSystem supports ProLiant and Integrity server blades, StorageWorks storage offerings and a variety of virtual desktop and workstation solutions. With the essential IT elements built-in—compute, network, storage, management and power and cooling—the BladeSystem is a more efficient way to deliver reliable, cost effective services to your business.

## For more information

To learn more about HP StorageWorks Arrays, contact your local HP representative, your authorized HP reseller or visit: [www.hp.com/go/arrays](http://www.hp.com/go/arrays).

To learn more about HP server portfolios, contact your local HP representative, your authorized HP reseller or visit:

- [www.hp.com/go/proliant](http://www.hp.com/go/proliant)
- [www.hp.com/go/integrity](http://www.hp.com/go/integrity)
- [www.hp.com/go/nonstop](http://www.hp.com/go/nonstop)

\* Source: IDC Worldwide Quarterly Server Tracker, February 2007

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To learn more, visit [www.hp.com/go/storageworks](http://www.hp.com/go/storageworks)

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