




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 total cost of ownership (TCO) and decrease the complexity of your storage environment.



HP StorageWorks Arrays: Protect the lifeblood of your business.

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 can 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 can 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 decrease 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 your data, 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**—enabling low-cost, scalable, high performance storage consolidation through storage area networks (SANs) to meet entry-level to mid-range requirements
- **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**—class storage systems that deliver the extreme reliability and availability needed for mission-critical applications and always-on environments

The HP Portfolio:

HP offers the Integrity systems family—the most trusted brand for mission-critical applications. A multi-OS ecosystem running on HP-UX 11i, OpenVMS, Microsoft® Windows® Server 2003, Linux and NonStop, Integrity provides a unique combination of scalability, virtualization and availability enabling you to improve your business outcomes while decreasing costs and reducing risk.

In addition to the HP Integrity family, HP also offers the HP ProLiant servers family—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 since 3Q 1996*.

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

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

- **Services**—How important is it that your service partners provide 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 to meet your business requirements.
- **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 enhances your infrastructure.
- **Options**—Do you have everything you need to meet your infrastructure needs? Our server and storage options—including memory, drives, processors, racks, operating system software, power and cooling—help fine-tune your solution by enhancing system performance and functionality.

*Source: IDC, Worldwide Quarterly Server Tracker, August 2007

HP StorageWorks All-in-One Storage Systems

Unified solutions combining shared iSCSI SAN storage and customized NAS file—serving with integrated data protection designed to be deployed and managed by IT generalists with no storage expertise.

Entry-level



HP StorageWorks 400t All-in-One Storage System



HP StorageWorks 400r All-in-One Storage System



HP StorageWorks 600 All-in-One Storage System (AiO600)



HP StorageWorks 1200 All-in-One Storage System (AiO1200)

Description	Four-drive entry-level tower All-in-One network storage for smaller environments	Four-drive entry-level rackmount All-in-One network storage for smaller environments	Six-drive All-in-One network storage with hardware redundancy and easy expandability	Twelve-drive All-in-One network storage with high-performance internal capacity
Number of processors	1	1 (supports 2)	1 (supports 2)	1
Processor	Dual-Core Intel® Pentium® E2160 1.8 GHz with 1 x 1 MB L2 cache	Quad-Core Intel® Xeon® processor E5405 (2.00 GHz, 80W, 1333 MHz FSB)	Dual-core Intel Xeon® 2.67 GHz/1333 MHz FSB with 4 MB L2 cache	Dual-core Intel Xeon 2.67 GHz/1066 MHz FSB with 4 MB L2 cache
iSCSI initiator support	Interoperable with standards-compliant iSCSI initiators including those from Windows 2000, Windows Server 2003, VMware ESX Server 3, SUSE Linux Enterprise Server 10, Red Hat Enterprise Linux 5, and QLogic 40xx series iSCSI hardware HBAs.			
File serving support	Heterogeneous file serving with support for SMB/CIFS, NFS, AppleTalk, Novell, HTTP, FTP			
Memory	2 GB (4 GB maximum)	2 GB (4 GB maximum)	1 GB (4 GB maximum)	2 GB (4 GB maximum)
Remote management	Lights-Out 100	Lights-Out 100	iLO	iLO
External storage expansion (via SmartArray Controller)	none	MSA 50, 60, 70	MSA 20, 30, 50, 60 and 70	MSA 50, 60 and 70
Expansion slots	Full-height, half-length 32-bit/33 MHz PCI slot Full-height, half-length PCIe x1 slot Full-height, full-length PCIe x1 slot (x8 connector) Full-height, full-length PCIe x8 slot Lights-out 100c slot	Full-length, full-height PCIe x16 slot (occupied) Low-profile PCIe x4 slot (x8 connector)	(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
Internal hot-plug storage included (by model)	1 TB SATA (4 x 250 GB) 584 GB SAS (4 x 146 GB)	1 TB SATA (4 x 250 GB) 2 TB SATA (4 x 500 GB) 1.2 TB SAS (4 x 300 GB)	1.5 TB SATA (6 x 250 GB) 3.0 TB SATA (6 x 500 GB) 876 GB SAS (6 x 146 GB) 1.8 TB SAS (6 x 300 GB)	3.0 TB SATA (12 x 250 GB) 6.0 TB SATA (12 x 500 GB) 9.0 TB SATA (12 x 750 GB) 1.7 TB SAS (12 x 146 GB) 3.6 GB SAS (12 x 300 GB)
Rack height (form factor)	Micro Tower	1U (rack)	5U (tower or rack)	2U (rack)
Warranty (parts/labor/on-site)	1 year parts, 1 year labor, 1 year on-site support		3 years parts, 3 years labor, 3 years on-site support	
HP related offerings				
Services	Support Plus Service (higher support levels also available) Proactive 24 Service (higher support levels also available)			
Software	HP StorageWorks Storage Mirroring to replicate iSCSI array and file data to another system HP StorageWorks Data Protector Express Options to protect servers connected to the AiO			
Tape	SCSI Ultrium tape drives 1/8 G2 Autoloader (with Ultrium 448) Tape Drive(s)		1/8 G2 Autoloader (with Ultrium 920) Tape Drive(s) SCSI Ultrium tape drives	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 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 (SB, DB and MI); capacity for direct attach or to MSA array

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

Maximum storage	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 1.2 TB with SATA drives
Host interface	Ultra320 SCSI	SCSI	SAS
Maximum number of drives	Up to 12 SATA Large Form Factor (LFF) drives	Up to 14 SCSI drives	Up to 10 SAS and/or SATA Small Form Factor (SFF) drives
Hard drives supported	750 GB 1.5 Gb SATA 7.2K 3.5" 500 GB 1.5 Gb SATA 7.2K 3.5" 250 GB 1.5 Gb SATA 7.2K 3.5"	300 GB U320 10K 146 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 120 GB 1.5 Gb SATA 5.4K SFF 60 GB 1.5 Gb SATA 5.4K SFF
Operating systems supported	Windows Server 2003 Windows Server 2000 Windows Storage Server 2003 Novell NetWare 6.5 Red Hat Enterprise Linux 2.1 Red Hat Linux Enterprise Linux SUSE Linux Enterprise 9 (SLES9) SCO OpenServer 6.0.0 SCO UnixWare 7.1.3, SCO UnixWare 7.1.4 VMWare	Windows Server 2003 Windows Server 2000 Windows NT VMware Red Hat Linux SUSE Linux Novell NetWare Tru64 UNIX® OpenVMS (MSA30 MI only) HP-UX (MSA30 MI only)	Windows Server 2003 Windows Server 2000 Linux Novell NetWare VMWare
Rack height	2U	3U	1U
Warranty (parts/labor/on-site)	3 years parts, 0 year labor, 0 year on-site support	3 years parts, 0 year labor, 0 year on-site support	3 years parts, 0 year labor, 0 year on-site support
HP related offerings			
Services	Disk Array Installation and Startup Services Support Plus 24 Service (higher support levels also available)		
Software	Systems Insight Manager Array Configuration Utility (ACU)		

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 solutions.

Mid-range



HP StorageWorks 60 Modular Smart Array
SAS/SATA drive enclosure for direct attach

HP StorageWorks 70 Modular Smart Array
SAS/SATA drive enclosure for direct attach

Maximum storage	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 1.3 TB with SATA drives
Host interface	SAS	SAS
Maximum number of drives	Up to 12 SATA and/or SAS LFF drives	Up to 25 SAS or SATA SFF drives
Hard drives supported	146GB 3G 15K SAS 3.5" DP HDD 72GB 3G 15K SAS 3.5" DP HDD 300GB 3G 15K SAS 3.5" SP HDD 146GB 3G 15K SAS 3.5" SP HDD 72GB 3G 15K SAS 3.5" SP HDD 36GB 3G 15K SAS 3.5" SP HDD 750GB 1.5G SATA 7.2K 3.5" HDD w NCG 500GB 1.5G SATA 7.2K 3.5" HDD w NCG 250GB 1.5G SATA 7.2K 3.5" HDD	72GB 3G 15K SAS 2.5" SFF DP HDD 36GB 3G 15K SAS 2.5" SFF DP HDD 72GB 3G 15K SAS 2.5" SFF SP HDD 36GB 3G 15K SAS 2.5" SFF SP HDD 146GB 3G 10K SAS 2.5" SFF DP HDD 72GB 3G 10K SAS 2.5" SFF DP HDD 146GB 3G 10K SAS 2.5" SFF SP HDD 72GB 3G 10K SAS 2.5" SFF SP HDD 36GB 3G 10K SAS 2.5" SFF SP HDD 120GB 1.5G SATA 5.4K 2.5" SFF HDD 60GB 1.5G SATA 5.4K 2.5" SFF HDD
Operating systems supported	Windows 2003 HP-UX 11iv2 & 11iv3 Novell Open Enterprise Server, NetWare 6.5 SPS OVMS 8.31H SCO OpenServer 5.0.7, 6 SCO UnixWare 7.1.3, 7.1.4 Red Hat Enterprise Linux SUSE Linux Enterprise Server	Windows 2003 HP-UX 11iv2 & 11iv3 Novell Open Enterprise Server, NetWare 6.5 SPS OVMS 8.31H SCO OpenServer 5.0.7, 6 SCO UnixWare 7.1.3, 7.1.4 Red Hat Enterprise Linux SUSE Linux Enterprise Server
Rack height	2U	2U
Warranty (parts/labor/on-site)	3 years parts, 0 year labor, 0 year on-site support	3 years parts, 0 year labor, 0 year on-site support
HP related offerings		
Services	Disk Array Installation and Startup Services Support Plus 24 Service (higher support levels also available)	
Software	Systems Insight Manager Array Configuration Utility (ACU)	

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 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 Smart Array technology

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

Entry-level

New



New



HP StorageWorks 2000fc Modular Smart Array

4Gb Fibre Channel connected 2U storage area network (SAN) solution designed for small to medium size deployments or remote locations

HP StorageWorks 2000i Modular Smart Array

iSCSI connected 2U storage area network (SAN) solution designed for small to medium size deployments or remote locations

Maximum storage	36TB	36 TB
Host interface	4Gb Fibre Channel	iSCSI Gigabit Ethernet
Maximum number of drives	48	48
Hard drives supported	146 GB 15K RPM 3.5" SAS 300 GB 15K RPM 3.5" SAS 500 GB 7.2K RPM 3.5" SATA 750 GB 7.2K RPM 3.5" SATA	146 GB 15K RPM 3.5" SAS 300 GB 15K RPM 3.5" SAS 500 GB 7.2K RPM 3.5" SATA 750 GB 7.2K RPM 3.5" SATA
Cache	1 GB per controller	1 GB per controller
Operating systems supported	Microsoft Windows 2003 R2 Microsoft Windows 2003 X64 Red Hat Linux 5 SUSE Linux 10 VMware 3.5	Microsoft Windows 2003 R2 Microsoft Windows 2003 X64 Red Hat Linux 5 SUSE Linux 10 VMware 3.5
Rack height	2U (controller shelf)	2U (controller shelf)
Warranty (parts/labor/on-site)	3 years parts, 0 year labor, 0 year on-site support	3 years parts, 0 year labor, 0 year on-site support
HP related offerings		
Services	Disk Array Installation and Startup Services Support Plus 24 Service (higher support levels also available)	
Software	HP StorageWorks MSA2000 Snapshot Software HP StorageWorks MSA2000 Volume Copy Software HP StorageWorks Storage Mirroring	

HP StorageWorks Enterprise Virtual Arrays

HP StorageWorks Enterprise Virtual Array (EVA) devices provide outstanding TCO to support business-critical processes.

Mid-range



HP StorageWorks 4100 Enterprise Virtual Array
Entry EVA that has unparalleled simplicity and lowest TCO



HP StorageWorks 4400 Enterprise Virtual Array
Easy to deploy and affordable enterprise-class storage array functionality for the midsize customer

Maximum storage	56 TB	96 TB
Number of controllers	2	2
Hard drives supported	146 15K rpm 300 15K rpm 450 GB 15K rpm 400 GB 10K rpm 1TB FATA	
Maximum number of drives per enclosure	14	12
Cache (per controller)	4 GB	4 GB
Operating systems supported	HP-UX HP OpenVMS HP Tru64 UNIX Windows XP Professional* Windows 2000 Server Windows 2000 Advanced Server Windows 2003 Standard/Enterprise (32/64-bit) and Enterprise/DataCenter (IA64) Sun Solaris™ Linux IBM AIX Novell NetWare VMware Apple Mac OS X	HP-UX HP OpenVMS Linux Sun Solaris Windows 2003 Standard Edition (32-bit/x64) Windows 2003 Enterprise Edition (32-bit/x64) VMware Novell NetWare IBM AIX Apple Mac OS X
Warranty (parts/labor/on-site)	1 years parts, 1 years labor, 1 years on-site support	2 years parts, 2 years labor, 2 years on-site support
HP related offerings		
Services	SAN Solution Service Backup and Recovery Solution Service	
Software	Continuous Access EVA Business Copy EVA EVA Dynamic Capacity Manager Software	EVA Dynamic Capacity Manager Software

HP StorageWorks Enterprise Virtual Arrays (continued)

HP StorageWorks Enterprise Virtual Array (EVA) devices provide outstanding TCO to support business-critical processes.

Mid-range



HP StorageWorks 6100 Enterprise Virtual Array
Simple to deploy, strong performance with higher capacity



HP StorageWorks 8100 Enterprise Virtual Array
Simple to manage, highest performance for enterprise and scalability

Maximum storage	112 TB	240TB
Number of controllers	2	2
Hard drives supported	450 GB 15K rpm 300 GB 15K rpm 146 GB 15K rpm 300 GB 10K rpm 500 GB FATA 1 TB FATA	450 GB 15K rpm 300 GB 15K rpm 146 GB 15K rpm 300 GB 10K rpm 500 GB FATA 1 TB FATA
Maximum number of drives per enclosure	14	14
Cache (per controller)	4 GB	8 GB
Operating systems supported	HP-UX HP OpenVMS HP Tru64 UNIX Windows 2000 Server Windows 2000 Advanced Server Windows 2003 Standard/Enterprise (32/64-bit) and Enterprise/DataCenter (IA64) Sun Solaris Linux IBM AIX Novell NetWare VMware Apple Mac OS X	HP-UX HP OpenVMS HP Tru64 UNIX Windows 2000 Server Windows 2000 Advanced Server Windows 2003 Standard/Enterprise (32/64-bit) and Enterprise/DataCenter (IA64) Sun Solaris Linux IBM AIX Novell NetWare VMware Apple Mac OS X
Warranty (parts/labor/on-site)	2 years parts, 2 years labor, 2 years on-site support	2 years parts, 2 years labor, 2 years on-site support
HP related offerings		
Services	Backup and Recovery Solution Service Proactive 24 Service	SAN Solution Service Critical Service
Software	Command View EVA Storage Essentials Standard Edition SRM Software EVA Dynamic Capacity Manager Software	Application Recovery Manager Cluster Extension EVA EVA Dynamic Capacity Manager Software

HP StorageWorks XP Disk Arrays

The HP StorageWorks XP Disk Array family provides outstanding 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 XP20000 Disk Array
Bulletproof storage solution for entry-level enterprise environment requiring constant access to mission-critical data



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

Maximum storage	288 GB–69 TB (raw) 144 GB–51.8 TB (usable)	576 GB–332 TB (raw) 288 GB–290 TB (usable)	0 GB–177 TB (raw) 0 GB–155 TB (usable)	576 GB–851 TB (raw) 288 GB–745 TB (usable)
Maximum number of drives	0–240 in one to two racks (120 drives per rack)	9–1,152 in one to five cabinets	0–240 in one to two racks (120 drives per rack)	9–1,152 in one to five cabinets
Hard drives supported	All drives are dual-port FC-AL 73 GB 15K rpm 146 GB 10K rpm 146 GB 15K rpm 300 GB 10K rpm 300 GB 15K rpm	All drives are dual-port FC-AL 73 GB 15K rpm 146 GB 10K rpm 146 GB 15K rpm 300 GB 10K rpm 300 GB 15K rpm	All drives are dual-port FC-AL 73 GB FC 15K rpm 146 GB FC 15K rpm 300 GB FC 10K rpm 300 GB FC 15K rpm 750 GB SATA 7.2K rpm	All drives are dual-port FC-AL 73 GB FC 15K rpm 146 GB FC 15K rpm 300 GB FC 10K rpm 300 GB FC 15K rpm 750 GB SATA 7.2K rpm
Cache	Up to 64 GB	Up to 256 GB	Up to 64 GB	Up to 256 GB
Shared memory	1–6 GB	1–12 GB	1–14 GB	1–24 GB
Operating systems supported	HP-UX HP Tru64 HP OpenVMS HP NonStop Sun Solaris IBM AIX Microsoft Windows Linux Mainframe VMware MPE/iX NetWare IRIX	HP-UX HP Tru64 HP OpenVMS HP NonStop Sun Solaris IBM AIX Microsoft Windows Linux Mainframe VMware MPE/iX NetWare IRIX	HP-UX HP Tru64 HP OpenVMS HP NonStop Sun Solaris IBM AIX Microsoft Windows Linux Mainframe VMware	HP-UX HP Tru64 HP OpenVMS HP NonStop Sun Solaris IBM AIX Microsoft Windows Linux Mainframe VMware
Rack height	75.6 inches	73.2 inches	75.6 inches	75.6 inches
Warranty (parts/labor/on-site)	2 years parts, 2 years labor, 2 years on-site support	2 years parts, 2 years labor, 2 years on-site support	2 years parts, 2 years labor, 2 years on-site support	2 years parts, 2 years labor, 2 years on-site support
HP related offerings				
Services	Critical Service Proactive 24 Service			
Software	XP Command View Advanced Edition XP External Storage	XP Disk/Cache Partition XP Continuous Access Journal	XP Thin Provisioning XP External Storage	XP Thin Provisioning XP Array Manager

HP related offerings

To gain the fullest value from your array investment, you can 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.

Storage resource management	
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), our unified server-storage management tool, helps increase 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.
EVA Dynamic Capacity Management Software	HP StorageWorks EVA Dynamic Capacity Management Software is a comprehensive software solution that automates storage provisioning and improves capacity utilization on the HP StorageWorks Enterprise Virtual Array (EVA) family. Designed for the enterprise market, EVA Dynamic Capacity Management Software uses advanced automation to automatically “right-size” the file system and storage volumes to provide the highest levels of capacity utilization are achieved while reducing ongoing storage administration needs.
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 XP20000 and 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.
Remote replication software	
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 nearly 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.
Local replication software	
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.
Data protection and recovery software	
Data Protector	HP Data Protector software automates high-performance backup and recovery, from disk or tape, over unlimited distances, to enable 24x7 business continuity and increase 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.
Business continuity software	
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.
Storage device management software	
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 improve 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 enhanced external storage subsystems.
XP Disk/Cache Partition	This software can reduce storage costs by dividing a large HP StorageWorks XP Disk Array into smaller segments suitable for departmental usage, while retaining superb performance and high availability.

HP related offerings

HP services

HP offers the world's broadest storage and server portfolio, backed by focused innovation, world-class partners and integrated with best-in-class software and services to form outstanding customer solutions. HP Services provides nearly 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.

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

Leverage integrated service solutions for better business outcomes.

Competitive, IT organizations need an environment that's right for today and ready to evolve as your business needs change. HP Services meets this challenge with services designed to lower your IT costs, increase availability, reduce the complexity of multi-vendor services and accelerate system implementation.

- A key to business success is an agile IT infrastructure that adapts to changing needs while keeping the business running smoothly. Maintaining predictable service levels is one of the benefits of HP comprehensive support services. We cover the entire IT solution lifecycle, to help you design, deploy, integrate and manage an agile IT infrastructure—including convenient pre-packaged HP Care Pack Service options and custom support solutions.
- Break down costly technology silos, with our consulting and integration services that allow you to access, share and synchronize applications and data across your existing heterogeneous environment.
- Dream of having more time to focus more on your core competencies and less on day-to-day IT services? Our outsourcing services and global IT expertise can make this dream a reality.
- To speed product implementation, consider our factory-direct capabilities. Our plug-and-play solutions are integrated, tested and shipped in a fully configured rack. Included are pre-delivery site reviews, factory installation and configuration, on-site installation and product orientation.

- In today's fast-paced business environment, your employees need to quickly assimilate new IT skills. HP can help you achieve this goal with a variety of training services, including instructor-led courses, customized on-site training and innovative remotely assisted courses.

Capitalize on your IT environment capabilities with a service partner who thoroughly understands server, storage and network technology in a multi-vendor environment. HP working in partnership with HP Authorized Channel Partners has the expertise and skill. Whether your company is a medium-sized organization or a large global corporation, HP Services can help. To learn more, visit www.hp.com/hps/support.

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.

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**—are 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**—are 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 up front 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 on HP BladeSystems, visit www.hp.com/go/bladesystem.

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.

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

- www.hp.com/go/proliant
- www.hp.com/go/integrity
- www.hp.com/go/nonstop

To quickly find the HP storage products that fit your specific needs, visit www.hp.com/go/product-selector.

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

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