HP StorageWorks All-in-One Storage Systems

Data sheet

HP StorageWorks 400 All-in-One Storage System

HP StorageWorks All-in-One SB600c Storage Blade

HP StorageWorks 1200 All-in-One Storage System

HP StorageWorks 600 All-in-One Storage System
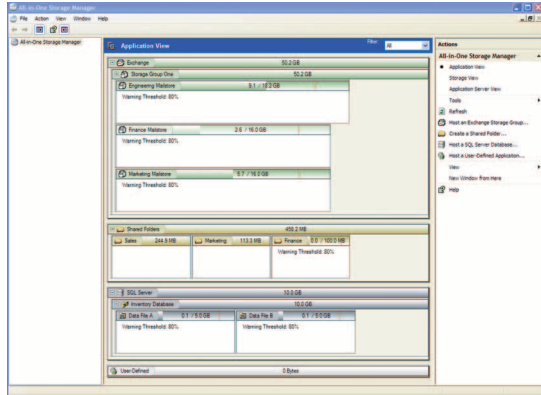

Simple. Affordable. Reliable.

Imagine an integrated solution that could provide shared storage for application servers, enhanced file serving for end-user clients, and data protection for your critical information. These are the key functions of HP All-in-One (AiO) Storage and together, they allow businesses to lower costs, increase efficiencies and respond to rapid data growth. HP StorageWorks All-in-One Storage Systems are radically simple, integrated and affordable network storage solutions that enable small and midsize companies to easily manage, grow and protect their data without requiring them to become storage experts. These systems are designed to be deployed and managed by IT generalists with no storage expertise and deliver everything you need to lower the cost and complexity of rapidly growing data storage environments. The revolutionary All-in-One Storage Manager (ASM) interface reduces the time,

expense, and expertise required to keep up with rapidly growing applications. ASM decreases the complexity of storage by abstracting the underlying storage tasks and presenting network storage in familiar application-centric terms, providing a simple way to control data growth. IT generalists can look like storage experts with tools to set up shared folders and iSCSI target storage for hosts running Windows Server, Linux, VMware ESX Server, and more. Tight integration with Microsoft Exchange and SQL Server enables painless data migration. Quickly and easily set up or expand data areas, move data from capacity-constrained servers, manage disk-based backup areas, implement data protection policies, consolidate backup, replicate data between sites and more.

Finally, a simple, affordable and reliable network storage solution that dynamically adapts to the needs of your business; providing many of the management, consolidation and data protection features typically reserved for higher-priced products.
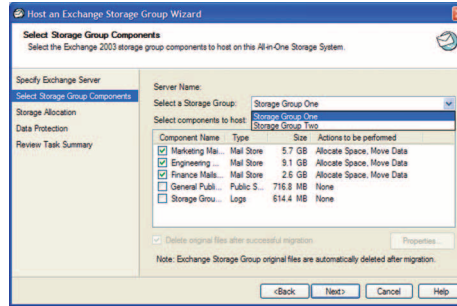
All-in-One Storage Manager
A single interface to manage storage and data protection from an application-centric point of view.

Setup and migration tools
IT generalists can quickly and easily set up storage and migrate data using best-practice wizards.

Features and benefits

- **Breakthrough simplicity that lowers the cost and complexity of data management**—The intuitive All-in-One Storage Manager interface radically simplifies the growth, management and protection of data by hiding complexity and enabling storage to be a turnkey resource. Designed for IT generalists with no storage expertise, these systems can be set up and actively serving files in less than 30 minutes.

- **Integrated and adaptive storage solutions to enable business growth**—Managed through a single interface, HP All-in-One Storage Systems provide shared application storage (iSCSI SAN), file serving (NAS) and data protection below the cost of separate products and without the need to change your infrastructure.

- **Application-centric storage management simplifies operation and lowers costs**—It is easy to manage because it uses terms and functions familiar to application administrators. It includes end-to-end iSCSI management for Windows Servers plus iSCSI provisioning for other iSCSI initiators (Linux, VMware, etc.). It provides data migration wizards for Microsoft Exchange 2003/2007 and SQL Server 2000/2005.

- **Best-practice toolkit makes every IT administrator look like a storage expert**—All-in-One Storage Systems include tools to easily migrate and manage data using best-practice settings. For example, a Microsoft Exchange Storage Group can be set up expertly and migrated in less than ten mouse clicks, saving you time and reducing the risk to your business.

- **Shared storage for growing application servers (iSCSI SAN) enables efficient use of capacity**—Sharing storage between servers is more efficient and costs less to manage over time when compared to adding more drives to individual servers. Sharing storage helps you get the most from your storage investments while enabling easier growth.

- **Enhanced file serving for end-user clients (NAS) to improve productivity and collaboration**—Tuned for faster CIFS/NFS file serving performance (beyond standard Windows® servers), Single Instance Storage (SIS) can improve capacity utilization by 30 percent or more by eliminating duplicate files within shared volumes. Full text-search capabilities increase the speed of end-user searches.

- **Comprehensive and integrated data protection to enable easy rollback and disaster recovery**—It provides an easy mechanism to manage disk-based snapshots for easy rollback, integrated data protection software for offsite and archive, hot plug disk drives (RAID), and hardware redundancy. Data can also be replicated to another system for enhanced disaster recovery using HP StorageWorks Storage Mirroring (All-in-One Edition).

- **Easy to deploy and manage so you can focus on your core business**—The industry-standard iSCSI interface provides the benefits of shared SAN storage on a traditional TCP/IP network. HP ProLiant hardware offers reliability, low TCO and easy support. The All-in-One Storage Manager quickly walks administrators through all setup and management tasks.

- **Award-winning warranty, support and trouble shooting tools to provide worry-free operation**—HP All-in-One Storage Systems can send alerts for various events, such as an impending disk failure, which reduces the potential for downtime. Our world-class support organization and partner network enable you to quickly recover in the case of a problem.

2

Technical specifications

	HP StorageWorks 400 All-in-One Storage System	HP StorageWorks 600 All-in-One Storage System	HP StorageWorks 1200 All-in-One Storage System	HP StorageWorks All-in-One SB600c Storage Blade
Processor	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	Quad-core Intel Xeon E5345 2.33 GHz/1333 MHz FSB
Cache	2 x 2 MB L2	1 x 4 MB L2	2 x 2 MB L2	2 x 4 MB L2
RAM standard/maximum	1 GB/4 GB	1 GB/4 GB	2 GB/4 GB	2 GB/4 GB
Hard drives	4 hot plug SATA HDDs	6 hot plug SATA or SAS HDDs	12 hot plug SATA or SAS HDDs	8 hot plug SAS HDDs
Storage included	1.0 TB SATA (250 GB)	1.5 TB SATA (250 GB) 3.0 TB SATA (500 GB) 876 GB SAS (146 GB) 1.8 TB SAS (300 GB)	3.0 TB SATA (250 GB) 6.0 TB SATA (500 GB) 9.0 TB SATA (750 GB) 1.7 TB SAS (146 GB) 3.6 TB SAS (300 GB)	1.16 TB SAS (146 GB)
Storage expansion	MSA20	MSA20/30/50/60/70	MSA50/60/70	N/A
Remote management	iPMI 2.0	iLO	iLO	iLO2
Redundant power/fans	No	Standard	Standard	N/A
Form factor	1U (rack)	5U (tower or rack)	2U (rack)	(2) half-height c-Class blades (server/storage)
Expansion slots	(2) PCI-X 64-bit 133-MHz expansions slots	(3) x4 PCI-Express (x8 connectors) (1) 64-bit, 133-MHz 3.3V PCI-X (2) 64-bit, 100-MHz 3.3V PCI-X	(1) x8 full height PCI-Express (x8 connectors; occupied by P400 controller) (1) x8 half-height PCI-Express x1	(2) additional I/O expansion slots via mezzanine card
Network controller	Embedded dual-port Broadcom 5751 and 5721 10/100/1000	Embedded NC373i multifunction gigabit network adapter with TCP/IP offload engine plus additional dual-port NC7170 10/100/1000T	Embedded NC324i PCIe dual-port gigabit server adapter	Integrated single-port NC373i multifunction gigabit server adapter
Replication features	Microsoft® DFS-R included; support for HP Storage Mirroring software (All-in-One Edition)	Microsoft DFS-R included; support for HP Storage Mirroring software (All-in-One Edition)	Microsoft DFS-R included; support for HP Storage Mirroring software (All-in-One Edition)	Microsoft DFS-R included; support for HP Storage Mirroring software (All-in-One Edition)
Storage controller	4-port hardware RAID controller (RAID 0/1/5/10)	Smart Array E200i Controller with 128 MB BBWC (RAID 0/1/5/10)	Smart Array P400/512 MB Controller with BBWC (with ADG; x1 through x8, RAID 0/1/5/6/10)	E200i and P400
File serving support	CIFS and NFS	CIFS and NFS	CIFS and NFS	CIFS and NFS
iSCSI initiator support	Compliant with iSCSI industry standards including iSCSI initiator support for Microsoft, Linux, VMware ESX and more	Compliant with iSCSI industry standards including iSCSI initiator support for Microsoft, Linux, VMware ESX and more	Compliant with iSCSI industry standards including iSCSI initiator support for Microsoft, Linux, VMware ESX and more	Compliant with iSCSI industry standards including iSCSI initiator support for Microsoft, Linux, VMware ESX and more
Operating system	Microsoft Windows® Storage Server 2003 R2 (Standard Edition)	Microsoft Windows® Storage Server 2003 R2 (Standard Edition)	Microsoft Windows® Storage Server 2003 R2 (Standard Edition)	Microsoft Windows® Storage Server 2003 R2 (Standard Edition)
Data protection features	• Hardware RAID (0, 1, 5, 10) • Snapshots (512 per volume) • Integrated tape backup software (HP Data Protector Express) • Optional SCSI HBA for connection to tape backup hardware	• Hardware RAID (0, 1, 5, 6, 10) • Snapshots (512 per volume) • Integrated tape backup software (HP Data Protector Express) • Optional SCSI HBA for connection to tape backup hardware	• Hardware RAID (0, 1, 5, 6 with ADG/10) • Snapshots (512 per volume) • Integrated tape backup software (HP Data Protector Express) • Optional SCSI HBA for connection to tape backup hardware	• Hardware RAID (0, 1, 5) • Snapshots (448 per volume) • Integrated tape backup software (HP Data Protector Express)
Hardware warranty	3-year parts exchange, 1-year labor, 1-year on-site next business day response	3-year parts exchange, 3-year labor, 3-year on-site next business day response	3-year parts exchange, 3-year labor, 3-year on-site next-business-day response	3-year parts exchange, 3-year labor, 3-year on-site next-business-day response
Software support	1 year, 9 hours/day, 5 days/week of software advisory and remedial software telephone support	1 year, 9 hours/day, 5 days/week of software advisory and remedial software telephone support	1 year, 9 hours/day, 5 days/week of software advisory and remedial software telephone support	1 year, 9 hours/day, 5 days/week of software advisory and remedial software telephone support

Warranty and services

HP basic software warranty provides that the software media will be free of physical defects for a period of 90 days from delivery. In addition to this basic software warranty, HP also includes, as part of the product, a one-year Software Support Care Pack that provides phone-in support nine hours a day, five days a week for all the bundled software, including the WSS2003 R2 operating system, the iSCSI functionality, the Data Protector Express application and the enhanced All-in-One Storage Manager (ASM) GUI.

The HP AiO600 and AiO1200 come with a 3-3-3 hardware warranty (three-year parts exchange, three-year labor, and three-year on-site, next business day response) for product hardware.

The HP AiO400 comes with a 3-1-1 hardware warranty (three-year parts exchange, one-year labor, and one-year on-site, next business day response) for product hardware.

HP warrants only that the software media will be free of physical defects for a period of 90 days from delivery. For more information about our Global Limited Warranty and Technical Support, visit **www.hp.com/products/storageworks/warranty**.

HP Care Pack Services

HP Care Pack Services offer upgraded service levels to extend and expand your standard product warranty with 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 extensions 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, contact your local HP representative authorized HP business partner, or visit **www.hp.com/services/storage_carepacks**.

Additional HP support services

HP Services provides a broad spectrum of assistance to commercial and enterprise customers for their HP or multi-vendor environments: performance and availability services, proactive mission-critical services, and support management services for deployment of the entire IT infrastructure. For more information on these services, contact your HP representative, authorized HP business partner, or visit **www.hp.com/hps/storage**.

Education services

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 even remotely assisted instruction learning that combines the best of traditional classroom training (including its live instructor and labs) with the best of online training (no traveling 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, contact your HP representative, authorized HP business partner, or visit **http://education.hp.com/curr-storsan.htm**.

Financial services

HP Financial Services provides innovative financing and financial asset management programs to help customers cost-effectively acquire, manage and ultimately retire their HP solutions. For more information on these services, please contact your HP representative or visit **www.hp.com/go/hpfinancialservices**.

For more information

For more information about the HP StorageWorks All-in-One Storage System and HP BladeSystem, visit **www.hp.com/go/AiOstorage** and **www.hp.com/go/BladeSystem**.

Our channel partners work cooperatively to bring solutions to market that provide our customers with the most support and value available. To find out more, visit **www.hp.com/go/AiOStorage** or contact your local HP channel partner.

HP Services

HP Services provide continuous care and support expertise with committed responses designed to meet your IT and business needs. To fully capitalize on your HP StorageWorks All-in-One Storage System capabilities requires a service partner who thoroughly understands your server technology and systems environment. HP Services, an industry leader in provision of multi-vendor support solutions, provides a range of services designed to meet the varying needs of your business.

HP has a number of HP All-in-One Storage Systems support offerings to help you speedily deploy and increase system uptime.

• **Support Plus Service**—Minimum recommended service support offerings, designed to verify that you have access to expert assistance whenever needed

• **Support Plus 24 Service**—Cost-effective combined hardware and software support service, designed to extend HP Services committed response as well as speeding resolution of more complex inter-operability problems

• **Proactive 24 Service**—Highest HP Support service level, recommended to help increase IT performance and availability and to improve IT management—with comprehensive, consistent and integrated hardware and software support, both proactive and reactive

As one of the world's leading providers of network and storage services, HP and our HP-authorized Channel Partners have a proven track record in providing storage solutions, including many thousands of successful SAN and NAS implementations. With 69,000 service professionals in 170 countries, HP has been providing consistent storage solutions for over 30 years across the globe. HP is a leader in open, non-outsourced network storage support worldwide, and we offer world-class expertise in storage consolidation, storage management and business continuity

For more information about HP services and support, contact your HP sales representative or HP-authorized Channel Partner. Or, visit **www.hp.com/hps/storage**.

Windows
Storage Server 2003 R2

InfoWorld 2007 TECHNOLOGY OF THE YEAR AWARD

For more information, visit: www.hp.com/go/AiOstorage

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