HP Network Attached Storage

Family guide

File storage growth—the challenge

According to Enterprise Strategy Group (ESG), unstructured data (data not stored in a database or other organized structure) is growing exponentially throughout the IT environment. Unstructured file-based content accounted for 25,127 PB (or 76 percent of the archived capacity) in 2010.[1] Unstructured content is expected to constitute the vast majority of archived digital assets in the foreseeable future. Managing storage growth is a difficult task on the whole, but the distributed nature of unstructured file-based data adds to the challenge significantly and drives the need for improved file-serving solutions.

Rapid file-storage growth, driven by rich media—such as audio, video, graphics, backup files, and email—is impacting businesses now more than ever before. You not only require immediate access to increasing volumes of data, but government regulations and corporate governance are dictating what must be kept, for how long, and the speed with which it must be accessed. Therefore, it is critical that you invest in a cost-effective, modular, file-serving solution that can support your business now and well into the future. Consolidating file data with a dedicated Network Attached Storage (NAS) solution can help address your changing file-serving needs and reduce your cost of ownership by enabling simplified management, better resource utilization, centralized growth, and data protection.

HP NAS solutions—become change-ready to deal with your storage complexities

HP NAS solutions change and adapt to your fast-changing organizational storage needs by using virtualization, performance-enhanced file systems, and operating environments, as well as HP ProLiant and HP BladeSystem hardware. Together, these industry-standard building blocks allow you to implement change faster, scale farther, and respond to data growth more effectively.

Regardless of the size of your organization, HP NAS solutions enable you to control explosive file growth while reducing costs and simplifying data management. HP NAS solutions cover a wide range of customer needs and IT environments. The portfolio includes the following product families:

HP X1000 G2 Network Storage Systems
HP X1000 G2 Network Storage Systems provide a fast and easy way to add Windows®-powered unified shared storage to your small or medium IT environment. X1000 G2 Network Storage Systems offer you more for your money since they are multiprotocol file servers for Windows, UNIX®, and Linux, and also iSCSI storage for applications and virtual environments. Built on industry standards, the X1000 G2 Network Storage Systems is an economical and easy-to-manage solution for consolidating to centralized shared network storage.

The operating system is preinstalled and comes with HP X1000 Automated Storage Manager, so you'll be up and running in minutes.[2] To simplify management of your storage environment, visit **www.hp.com/go/X1000-G2**.

HP X3000 G2 Network Storage Systems
HP X3000 G2 Network Storage Systems boost the value of your array or SAN by adding Windows-powered, IP-based gateway services to it. You'll spend less time and effort on maintenance and deliver a better return on investment for your array or SAN when you consolidate to a single, unified storage pool that can serve files to your clients and provide block storage to your servers through multiple protocols (FC/iSCSI or SAS/iSCSI). Industry standards protect your investment by providing compatibility with your network and applications, and a Microsoft® Cluster Server (MSCS) license is included to provide high availability and reduce downtime. To understand how you can enhance your SAN infrastructure capabilities, visit **www.hp.com/go/X3000-G2**.

HP X5000 G2 Network Storage Systems
HP X5000 G2 Network Storage Systems help midsize companies control and file unstructured data cost efficiently. This two-node NAS cluster with shared storage is built on HP BladeSystem technology, integrated into a converged 3U chassis, and provides high availability and greater storage density in one platform. Storage technologies, such as file deduplication and iSCSI, provide unique storage features for these converged files and block I/O network attached storage appliances. HP and Windows Storage Server 2008 R2 management software provide simplified deployment and management. To learn more about highly available Windows-powered NAS, visit **www.hp.com/go/X5000-G2**.

HP X9000 Network Storage Systems
HP X9000 Network Storage Systems scale out beyond traditional NAS in both capacity and performance. Designed for scalability, flexibility, and cost efficiency, HP X9000 Network Storage Systems deliver excellent performance and a modular storage infrastructure to accommodate unprecedented storage growth. Central management allows the administrator to manage not just terabytes but multi-petabyte environments at the highest density available from HP. The pay-as-you-grow architecture and an all-inclusive feature set reduces storage overprovisioning or expensive add-ons. X9000 Network Storage Systems provide an ideal platform for organizations designing the next-generation data center. To understand how you can scale out beyond traditional NAS, visit **www.hp.com/go/X9000**.

[1] "Digital Archive Market Forecast", ESG Research Report 2010–2015, June 2010

[2] Based on HP internal tests, HP X1000/X3000 NAS labs, September 2010

HP X1000 G2 Network Storage Systems

Delivers Windows-powered unified network storage that is easy to install, manage, and fit as per your small, medium, or workgroup IT environment.

Technical specifications

	HP X1400 G2 Network Storage System	HP X1500 G2 Network Storage System
Models available	Base model 4 TB SATA model 8 TB SATA model	Base model 4 TB SATA model 8 TB SATA model
Supported operating systems	Microsoft Windows Storage Server 2008 R2, Standard x64 Edition Preinstalled	Microsoft Windows Storage Server 2008 R2, Standard x64 Edition Preinstalled
Drive type	(4) 1 TB 3G 7.2K LFF SATA included (4) 2 TB 3G 7.2K LFF MDL SATA included—Depending on model Base model has no drives included and requires that you select drive type and capacity to be integrated in the factory	(4) 1 TB 3G 7.2K LFF MDL SATA included (4) 2 TB 3G 7.2K LFF MDL SATA included—Depending on model Base model has no drives included and requires that you select drive type and capacity to be integrated in the factory
Processor	(1) Intel® Xeon® Processor E5503 (2.0 GHz) Standard	(1) Intel Xeon Processor E5503 (2.0 GHz) Standard
Maximum capacity	8 TB Raw Maximum internal capacity	16 TB Raw Maximum internal capacity supported
Storage expansion options	D2600, D2700, and MDS600	D2600, D2700, and MDS600
Storage controllers	(1) Smart Array P212/256 MB Controller with BBWC Included	(1) Smart Array P410/256 MB BBWC
Number of users	10–1,300	10–1,300
Form factor	1U	5U Tower
Warranty	3-year parts, 3-year labor, 3-year onsite support	3-year parts, 3-year labor, 3-year onsite support
QuickSpecs URL	http://h18000.www1.hp.com/products/quickspecs/13839_div/13839_div.pdf	

HP X1000 G2 Network Storage Systems (cont'd)

Delivers Windows-powered unified network storage that is easy to install, manage, and fit as per your small, medium, or workgroup IT environment.

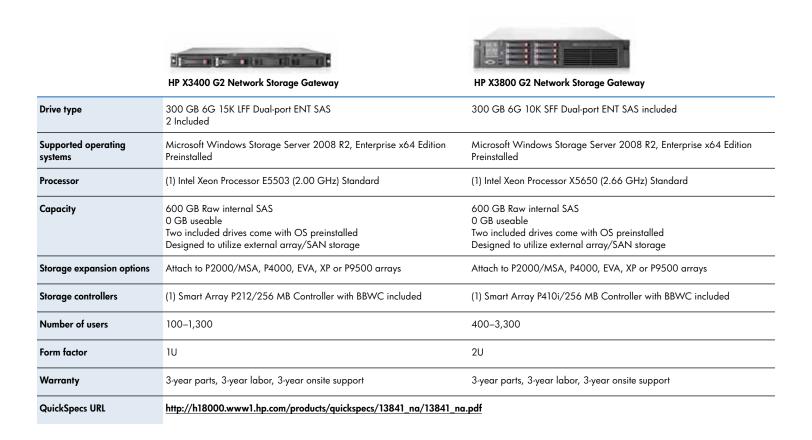## Technical specifications

	HP X1600 G2 Network Storage System	HP X1800 G2 Network Storage System
Models available	Base model 6 TB SATA model 6 TB SAS model 12 TB SATA model 13.8 TB SAS model 24 TB SATA model	Base model 4.8 TB SAS
Supported operating systems	Microsoft Windows Storage Server 2008 R2, Standard x64 Edition Preinstalled	Microsoft Windows Storage Server 2008 R2, Standard x64 Edition Preinstalled
Drive type	(2) 146 GB 6G 15K SFF Dual-port SAS included for preinstalled OS (6) 1 TB 3G 7.2K LFF SATA included (6) 2 TB 3G 7.2K LFF MDL SATA included (12) 2 TB 3G 7.2K LFF MDL SATA included (10) 600 GB 6G 10K SFF Dual-port ENT SAS included (23) 600 GB 6G 10K SFF Dual-port ENT SAS included—Depending on model	(2) 146 GB 3G 15K SFF Dual-port SAS included for preinstalled OS (8) 600 GB 6G 10K SFF Dual-port ENT SAS included—Depending on model
Processor	(1) Intel Xeon Processor E5520 (2.26 GHz) standard	(1) Intel Xeon E5640 (2.66 GHz) standard
Maximum capacity	24 TB Raw Maximum internal capacity	4.8 TB Raw internal SAS Maximum internal capacity
Storage expansion options	D2600, D2700, and MDS600	D2600, D2700, and MDS600
Storage controllers	(1) Smart Array P212: P212 includes 512 MB BBWC or (1) Smart Array P812: P812 includes 1 GB FBWC Depending on model	(1) Smart Array P812: P812 includes 1 GB FBWC
Number of users	100–3,400	100–3,300
Form factor	2U	2U
Warranty	3-year parts, 3-year labor, 3-year onsite support	3-year parts, 3-year labor, 3-year onsite support
QuickSpecs URL	http://h18000.www1.hp.com/products/quickspecs/13839_div/13839_div.pdf	

HP X3000 G2 Network Storage Systems

Add clusterable and easy-to-manage file, iSCSI, and management services to midrange and enterprise array/SAN environments and create unified network storage solutions.

Technical specifications

	HP X3400 G2 Network Storage Gateway	HP X3800 G2 Network Storage Gateway
Drive type	300 GB 6G 15K LFF Dual-port ENT SAS 2 Included	300 GB 6G 10K SFF Dual-port ENT SAS included
Supported operating systems	Microsoft Windows Storage Server 2008 R2, Enterprise x64 Edition Preinstalled	Microsoft Windows Storage Server 2008 R2, Enterprise x64 Edition Preinstalled
Processor	(1) Intel Xeon Processor E5503 (2.00 GHz) Standard	(1) Intel Xeon Processor X5650 (2.66 GHz) Standard
Capacity	600 GB Raw internal SAS 0 GB useable Two included drives come with OS preinstalled Designed to utilize external array/SAN storage	600 GB Raw internal SAS 0 GB useable Two included drives come with OS preinstalled Designed to utilize external array/SAN storage
Storage expansion options	Attach to P2000/MSA, P4000, EVA, XP or P9500 arrays	Attach to P2000/MSA, P4000, EVA, XP or P9500 arrays
Storage controllers	(1) Smart Array P212/256 MB Controller with BBWC included	(1) Smart Array P410i/256 MB Controller with BBWC included
Number of users	100–1,300	400–3,300
Form factor	1U	2U
Warranty	3-year parts, 3-year labor, 3-year onsite support	3-year parts, 3-year labor, 3-year onsite support
QuickSpecs URL	http://h18000.www1.hp.com/products/quickspecs/13841_na/13841_na.pdf	

HP X5000 G2 Network Storage Systems

Delivers a high availability, dense capacity mid-range Network Attached Storage appliance with advanced storage features for Windows server centric IT environments that demand 24x7 access to data.

Technical specifications

HP X5000 G2 Network Storage Systems

Drive type	300 GB 6G 10K SFF Dual-port ENT SAS (OS drives) 600 GB 6G 15K LFF Dual-port ENT SAS 1 TB 6G 7.2K LFF Dual-port MDL SAS 2 TB 6G 7.2K LFF Dual-port MDL SAS Supported
Supported operating systems	Windows, Unix, Linux
Processor	(2) Intel Xeon Processor (4 core) Standard; (1) Intel Xeon Processor E5620 per X5460sb server blade, (2) per server blade maximum
Capacity	32 TB Raw Internal SAS Maximum, depending on model
Storage expansion options	Up to (4) D2600 or (4) D2700 Disk Arrays; Cannot be intermixed
Storage controllers	(2) Smart Array P410i/256 MB; (2) P1210m 6 Gbps SAS Controller 1 GB FBWC; (1) SA P410i per server blade for internal SAS drives (O/S mirror); (1) P1210m per server blade for internal and external SAS data drives
Number of users	100–10000 Number of users dependent on the number of data drives, drive type, RAID setting, and LUN configurations
Form factor	3U
Warranty	3-year parts, 3-year labor, 3-year onsite support
QuickSpecs URL	http://h18000.www1.hp.com/products/quickspecs/14154_div/14154_div.pdf

HP Services—HP X1000 G2 Network Storage Systems, HP X3000 G2 Network Storage Systems, and HP X5000 G2 Network Storage Systems

HP Technology Services has a robust portfolio of packaged lifecycle-support solutions that enable you to enhance HP X1000 G2 Network Storage Systems/HP X3000 G2 Network Storage Systems/HP X5000 G2 Network Storage Systems support for better business outcomes.

Optimized care	Delivers increased performance and continuous availability of crucial HP X1000/X3000/X5000 G2 Network Storage Systems through deployment and proactive management practices. Optimized care includes: • HP Installation and Startup Service for X1000/X3000/X5000 Network Storage Systems • HP Support Plus 24 with additional 90 proactive select credits[3] OR 3-Year Critical Advantage Level 2 with additional 30 CA flexible credits[4]
Standard care	Maintains high level of X1000/X3000/X5000 G2 Network Storage Systems availability along with expert help to cut the cost and complexity of implementing and supporting storage. Standard care includes: • HP Installation and Startup Service for X1000/X3000/X5000 Network Storage Systems • HP Support Plus 24 with additional 60 proactive select credits[3]
Basic care	Delivers minimum recommended support service level with expert advice, implementation, and support. Basic care includes: • HP Installation and Startup Service for X1000/X3000/X5000 Network Storage Systems • HP Support Plus 24 with additional 30 proactive select credits[3]
Recommended additional service	HP Entry Storage Data Migration Service for Windows

All services come with Insight Remote Support, available at no additional cost—delivering remote monitoring, diagnosis, and problem resolution. Only HP brings together deep expertise, proactive and business critical support, and a strong partner network. For more information, visit **http://www.hp.com/services/storage**.

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[3] For environments where businesses can tolerate downtime

[4] For storage used by business-critical applications

HP related offerings

HP X1000 G2 Network Storage Systems	
Included software	**HP X1000 Automated Storage Manager (ASM) software:** HP X1000 Automated Storage Manager software radically simplifies creation, migration, growth, and protection of data stores by hiding complexity and presenting shared storage from an application point of view. With HP X1000 G2 Network Storage Systems, the software is designed for IT generalists with no storage expertise and includes tools to easily migrate and manage data using automated best-practices logic. Setup wizards that require only a few mouse clicks to expertly set up and protect data storage make the move to networked storage a quick and painless experience. **Microsoft iSCSI software Target:** Microsoft iSCSI software Target adds block storage capability to Windows Storage Server 2008 R2 and creates a single platform that delivers file, print, and application storage services, all over existing Ethernet networks. iSCSI software solution provides affordable application storage provisioning, protection, and availability for small and medium office environments. This also enables several features within HP ASM, including "Host an Exchange Storage Group" and "Host a SQL Server Database" wizards, with the ability to provision and manage storage for standards-compliant non-Windows iSCSI initiators such as VMware and Linux.
Optional software	**HP Data Protector Express software:** The base product is the Data Protector Express Backup Server. Installing the software creates the Data Protector Express Storage Domain. Options are available to add other machines to the Data Protector Express Storage Domain for protection and to introduce additional functionality. Installing HP Data Protector Express on X1000 Network Storage Systems enables data protection features within HP ASM, including backup of file shares or application stores using application-aware snapshots to tape, disk, or other removable media target. **HP Storage Mirroring software:** HP Storage Mirroring software provides host-based replication and failover to IP-based networks. Patented replication and failover technology continuously captures byte-level data changes as they occur in your production environment and replicates those changes to one or more servers in any location without geographic limitations. **Note:** An installable 60-day demo is available for download on **www.hp.com**. Installing enables replication features within HP ASM, including streamlined setup of near real-time replication of file shares or application stores to a remote target. **HP Storage Essentials NAS Manager software:** This software provides comprehensive management capabilities for HP X1000 G2 Network Storage Systems. Visualize your distributed HP NAS solutions and centrally manage their capacity, performance, events, and dependencies to provide NAS availability and performance, and also unify SAN and NAS management.

HP X3000 G2 Network Storage Systems	
Included software	**Microsoft iSCSI software Target:** Microsoft iSCSI software Target adds block storage capability to Windows Storage Server 2008 R2 and creates a single platform that delivers file, print, and application storage services, all over existing Ethernet networks. It is a powerful iSCSI software solution that provides affordable application storage provisioning, protection, and availability for small and medium office environments.
Optional software	**HP Storage Mirroring software:** HP Storage Mirroring software provides host-based replication and failover to IP-based networks. Patented replication and failover technology continuously captures byte-level data changes as they occur in your production environment and replicates those changes to one or more servers in any location without geographic limitations. **Note:** An installable 60-day demo is available for download on **www.hp.com**. For more information, visit: **http://www.hp.com/go/storageworks/storagemirroring**. **HP Command View EVA software:** HP Command View EVA software provides you with a powerfully simple storage management experience that automates and aggregates storage management to reduce complexity and increase productivity. Quickly and easily automate tasks such as configuring RAID groups. HP X3000 G2 Network Storage Gateways are excellent companion platforms for EVA arrays; not only can they host Command View EVA, but they also add file and iSCSI services to the array/SAN environment. **HP Data Protector software:** HP Data Protector software automates high-performance backup and recovery with scalable data protection from disk or tape to enable 24x7 business continuity while providing a compelling price-to-performance ratio. For more information, visit: **http://h18006.www1.hp.com/products/storage/software/dataprotector/index.html**. **HP Storage Essentials NAS Manager software:** It provides comprehensive management capabilities for HP X3000 G2 Network Storage Systems. Visualize your distributed HP NAS solutions and centrally manage their capacity, performance, events, and dependencies to provide NAS availability and performance and unify SAN and NAS management.

HP related offerings (cont'd)

HP X5000 G2 Network Storage Systems	
Included software	**Microsoft iSCSI software Target:** Microsoft iSCSI software Target adds block storage capability to Windows Storage Server 2008 R2 and creates a single platform that delivers file, print, and application storage services, all over existing Ethernet networks. It is a powerful iSCSI software solution that provides affordable application storage provisioning, protection, and availability for small and medium office environments.
Optional software	**HP Storage Mirroring software:** HP Storage Mirroring software provides host-based replication and failover to IP-based networks. Patented replication and failover technology continuously captures byte-level data changes as they occur in your production environment and replicates those changes to one or more servers in any location without geographic limitations. **Note:** An installable 60-day demo is available for download on **www.hp.com**. For more information, visit: **www.hp.com/go/storageworks/storagemirroring**. **HP Data Protector software:** HP Data Protector software automates high-performance backup and recovery with scalable data protection from disk or tape to enable 24x7 business continuity while providing a compelling price-to-performance ratio. For more information, visit: **http://h18006.www1.hp.com/products/storage/software/dataprotector/index.html**. **HP Storage Essentials NAS Manager software:** It provides comprehensive management capabilities for HP X3000 G2 Network Storage Systems. Visualize your distributed HP NAS solutions and centrally manage their capacity, performance, events, and dependencies to provide NAS availability and performance and unify SAN and NAS management.

HP X9000 Network Storage Systems

Delivers scale-out NAS capability to enterprise environments to efficiently manage explosive data growth and significantly improve performance of file serving applications.

Technical specifications

	X9300 Network Storage Gateway	X9320 Network Storage System	X9720 Network Storage System
Drive description	SSD, LFF FC, SAS and SATA, SFF FC, SAS and SATA	LFF MDL SAS or LFF ENT SAS	LFF MDL SAS
Drive type	Compatible with all drive types supported by HP 3PAR, P4000, P2000, P6000 EVA, and P9000 XP storage solutions	1 TB 6G 7.2K LFF Dual-port MDL SAS; 2 TB 6G 7.2K LFF Dual-port MDL SAS 600 GB 6G 15K LFF Dual-port ENT SAS 24-96 drives supported	1 TB 6G 7.2K LFF Dual-port MDL SAS 2 TB 6G 7.2K LFF Dual-port MDL SAS 82-656 drives supported
Capacity	Storage not included	14.4–192 TB	82 TB–1.3 PB
Number of storage blocks	0	1–4	1–8
Number of performance blocks	1	2	2–16
Transfer rate	Transfer rate will vary based on the external storage configuration utilized with the X9300 Gateway	Up to 3.5 GB/s throughput	Up to 3.2 GB/s throughput
Supporting operating systems	Red Hat Linux included	Red Hat Linux included	Red Hat Linux included
Form factor	2U Storage Gateway	8U–20U storage appliance	1 or 2 42U rack based storage appliance

HP Services—HP X9000 Network Storage Systems

HP Technology Services has a robust portfolio of packaged lifecycle support solutions that enable you to enhance X9000 Network Storage Systems support for better business outcomes.

Optimized care	Delivers enhanced performance and nearly continuous availability of crucial X9000 Network Storage Systems through deployment and proactive management practices. Optimized care includes: • HP Critical Advantage Level 2 with additional 90 CA flexible credits
Standard care	Maintains high level of X9000 Network Storage Systems availability along with expert help to cut cost and complexity of implementing and supporting storage. Standard care includes: • 3-Year HP Proactive 24 (P24) Service
Basic care	Delivers minimum recommended support service level with expert advice, implementation, and support. Basic care includes: • 3-Year HP Support Plus 24 with additional 30 Proactive Select Credits
Recommended installation service	• Installation and Startup Service • HP Enterprise NAS Implementation Service • HP Storage Data Migration Service

Only HP brings together deep expertise, proactive and business critical support, and a strong partner network.
For more information, visit **http://www.hp.com/services/storage**.

HP related offerings
Included capabilities and all-inclusive software services

HP X9000 Network Storage Systems	
Single global namespace that scales up to 16 PB	Conveniently manage up to 16 PB of data in a single global namespace and up to 1000+ nodes to evolve with your business needs. Flexibly mix and match storage topologies (SAN/NAS) within the single domain, to optimize performance and better leverage storage assets
Centralized management	More effectively manage file system provisioning, performance, and optimization from a centralized, single pane-of-glass management tool, reducing administrative loads and helping IT staff to be more productive
Automated data mobility and load balancing	Automated data mobility and load balancing that enables customers to respond quickly to changing demands and improve TCO
Integration management tools	Integration with higher level HP management tools that helps customers better manage the overall infrastructure and further reduce administrative loads. Frameworks supported include HP SIM, Storage Essentials, and Insight Remote Support to better serve customer support needs
Policy-based automatic data tiering	Non-disruptive and automated policy-based data tiering enables performance or capacity optimization for initial placement and automated movement between tiers
Protect and manage critical data	Ability to effectively protect and manage critical data with retention policies, WORM file immutability to ensure regulatory compliance, and broad ISV support for optimal solution support
Pay as you grow	Pay as you grow by easily adding nodes or storage components as requirements evolve. No need to overprovision your IT investments, you evolve with your business needs. The all-inclusive software model enables you have access to the data services you need to increase your investment
Standard-based components	Converged Infrastructure that reduces capital and operation costs. Built on ProLiant DNA with features like iLO, intelligent power, and Insight Remote Support to reduce operational overhead
Scale capacity and performance independently	Scale capacity and performance independently with fully distributed meta-data and multi-node architecture to avoid controller bottlenecks, eliminate hotspots, and enhance availability
Resilient for all workloads	Maintain growth and load-balance changing workloads without disruption for greater resiliency. The small addressable block size (4k) enables high performance for ALL workloads—small file random, large file sequential, mixed random and sequential workloads, and metadata intensive workloads
Easily add/replace nodes, and migrate storage components to new technologies	Easily add/replace nodes, and migrate storage components to new technologies without disruption for ultimate investment protection and future proofing. A single button data evacuation service enables a persistent data access layer with simple and secure change management
Rich set of all-inclusive data services	A rich set of all-inclusive data services improves operational flexibility and enables you to better manage your deployment. They include: policy based tiering, continuous remote replication, snapshots, automatic storage balancing, and data evacuation

Service and support

HP Factory Express

HP Factory Express provides customization and deployment services along with your storage and server purchases. You can customize hardware to your exact specifications in the factory—helping speed up the deployment. Visit: **www.hp.com/go/factoryexpress**

Customer Technical Training

We offer a variety of training courses on storage software, networking, archiving, and disk storage systems. Our classes are available in many delivery modalities—from traditional instructor-led courses at one of our 80 training centers worldwide to online and onsite training. Visit: **www.hp.com/learn/storage**

HP Financial Services

HP Financial Services provide innovative financing and financial asset management programs to help you acquire, manage, and ultimately retire your HP solutions. Visit: **www.hp.com/go/hpfinancialservices**

For more information

To understand how HP NAS solutions enable you to control explosive file growth while reducing costs and simplifying data management, visit **www.hp.com/go/nas**.

You can also visit our other related storage family guides:

• HP Tape and disk-to-disk Data Protection: **http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA1-9471ENW.pdf**

HP Services

Scalable, flexible, and reliable—like your storage

Your technology infrastructure has become your business infrastructure—where delivering successful business outcomes is the key goal. The HP integrated end-to-end storage solutions are specifically designed to help businesses address today's tough technology challenges associated with the explosion of rich digital content, mobility, security, and the need for efficient storage of data and access to real-time information when and where they need it. No other company in the industry matches the breadth and depth of the HP portfolio of service, its resources, and commitment to improve storage support in a heterogeneous infrastructure. HP Services can help you manage and evolve your storage environment so that you can facilitate future growth, decrease operational costs, and protect data while reducing risk.

To capitalize fully on your HP storage solution, you require a service partner who thoroughly understands your storage technology and system environment. With HP Services, you gain the advantage of established methodologies and the industry's broadest portfolio of integrated storage solutions for enhanced information management and optimization. For more information about HP services and support, visit **http://www8.hp.com/us/en/services/services-detail.html?compURI=tcm:245-808667&pageTitle=Storage-Technology-Services**.

To learn more about HP portfolios, visit:

• **www.hp.com/go/storageworks**
• **www.hp.com/go/nas**
• **www.hp.com/go/X9000**
• **www.hp.com/go/tape**
• **www.hp.com/go/storageblades**
• **www.hp.com/go/san**
• **www.hp.com/go/storageworks/software**
• **www.hp.com/go/product-selector**

Find out which network attached storage solution works best for your business, visit **www.hp.com/go/storage**.

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Get the insider view on tech trends, alerts, and HP solutions for better business outcomes