

HP Simply Storage Consolidation

Shared storage for file serving and application data

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HP Simply StorageWorks
Storage is easy when you choose HP

For most midsized and even small businesses, managing data is a major challenge. The growth of structured data from databases, e-mail, and other applications, as well as file data such as PDFs, audio, video, and graphics has been exponential. Furthermore, no end is in sight. According to IDC, the need for online data storage capacity is increasing at a rate of nearly 58 percent per year; by 2011, it is estimated that companies worldwide will require disk storage of more than 32,000 petabytes of data¹.

The increasing flood of data can lead to a host of problems, like added time and system slowdowns due to the sheer volume of data; added cost, in new equipment and especially in management overhead, to provide for all this data accumulation; and the added business risk that comes with larger data stores.

The temptation is to accommodate added data by increasing the number of servers and disk drives. But simply adding servers is not the answer—in fact, without planning, the direct attachment of additional drives or servers can create islands of storage, resulting in greater management requirements. Such an unplanned and reactive approach to storage is inefficient, raising costs while limiting flexibility and the capacity to respond to new business opportunities.

Furthermore, whenever multiple devices are deployed to serve the same basic need, risks increase because there are now multiple devices and file volumes to protect.

Failing to recognize that data storage must be managed as a critical resource often results in a very difficult environment to manage, a higher cost of ownership, less responsiveness to change and added risk to the business.

The answer: Consolidating storage with HP Simply StorageWorks solutions

HP network storage provides many advantages over the limitations of unplanned or direct attached storage. By consolidating storage into a dedicated resource, you can make your data available to any computer or server on the network—there are no isolated silos or islands of capacity. A dedicated, optimized network storage solution can reduce operating costs by simplifying management and improving capacity utilization.

¹ Source: 'Worldwide Disk Storage Systems 2007–2011 Forecast Update', IDC, 2007.

HP Simply StorageWorks overview

HP Simply StorageWorks delivers better business outcomes by bringing together tools, solutions, products, and services to help you navigate the storage landscape—and bridge the gap between data explosion and your IT infrastructure. With simple, affordable, and reliable storage and data protection solutions, HP and our channel partners can help you improve the efficiency, performance, and continuity of your business.

About this guide

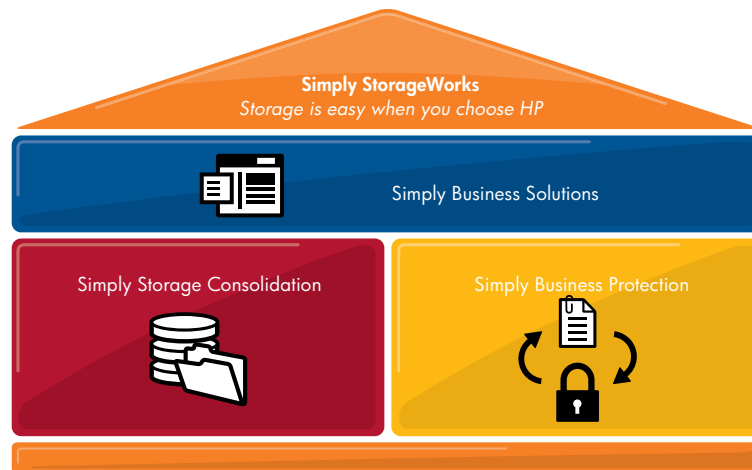
If you are trying to respond to data growth and business change, this guide can help. We present a portfolio of solutions along with real-world scenarios and product information that will help you take the next step toward a more efficient data environment. This guide is designed for someone with a basic understanding of storage technologies. If you need

to familiarize yourself with storage concepts first, be sure to read the [**HP Simply StorageWorks Introduction to Storage Technologies guide**](#). Data protection is another key area of storage. To learn more about how HP can help you make sure that your data is safe and more secure, see the [**HP Simply Business Protection solution guide**](#).

We understand that servers, business applications, and storage must work seamlessly together. To see more detailed information on specific business applications, we provide a series of Simply Business Solution briefs for targeted applications such as Microsoft® Exchange, VMware, and more. All of this information is available from your local HP resource or online at:

www.hp.com/storage/simple
(United States, Canada, and Latin America)

www.hp.com/apac/simple
(Asia, Australia, and New Zealand)



“One of the noticeable immediate benefits of the HP hardware platform is that the modular design of the hardware components, particularly the MSA, and the compact, all-inclusive rack assembly help us take advantage of our limited server room space.”

– Lisa Busch, Senior Director, Information Systems,
Marina Medical Billing Service, Inc.

Select the HP StorageWorks solution that suits your business best

Unified storage: Add affordable and expandable Windows-powered shared storage to your IT environment quickly and manage it more easily with HP StorageWorks X1000 and X3000 Network Storage Systems. These flexible and intelligent unified storage solutions offer file serving (NAS) and iSCSI (SAN) services, powerful management tools, ready expandability, and a variety of configurations to meet virtually any deployment need.

Shared DAS: For small, cost-effective deployments, HP offers disk array solutions that connect directly to your servers for simple management. The HP StorageWorks 2000sa G2 Modular Smart Array (MSA2000sa G2) disk array is an excellent way to increase your server storage capacity and set up a small cluster environment.

SAN disk arrays: HP SAN solutions provide shared disk capacity to servers over a dedicated iSCSI or Fibre Channel network. The disk array and SAN centralize storage and allow server applications direct access to disk resources like they were locally attached, for improved performance.

The HP StorageWorks SAN disk array family includes the HP StorageWorks 2000 G2 Modular Smart Array (MSA2000 G2) family, HP LeftHand P4000 SAN Solutions, and the HP StorageWorks Enterprise Virtual Array (EVA) family.

“We can immediately consolidate network storage and make it available to users. Consequently, users get faster service and our help desk gets fewer calls.”

– Jørgen Kjærlund, IT Manager, Atkins Danmark

Typical customer scenarios

Scenario 1: Unified storage for maximum flexibility

You have better things to do than worry about storage. You are juggling multiple management interfaces, security concerns, and shrinking backup windows—all while your users demand more and more space. You need a shared storage solution that is powerful and easy to manage, and you need it now.

HP StorageWorks X1000 Network Storage Systems are the fast and easy way to add Windows-powered shared storage to your IT environment. It is versatile unified storage, so you get more for your money since it can be a file server, an iSCSI target for application data storage, or both. You will spend less time and effort on maintenance and management once you consolidate to a single and centralized shared storage

system. Industry-standard building blocks protect your investment by providing compatibility with your network and applications, and the operating system is pre-installed.

Key features and benefits

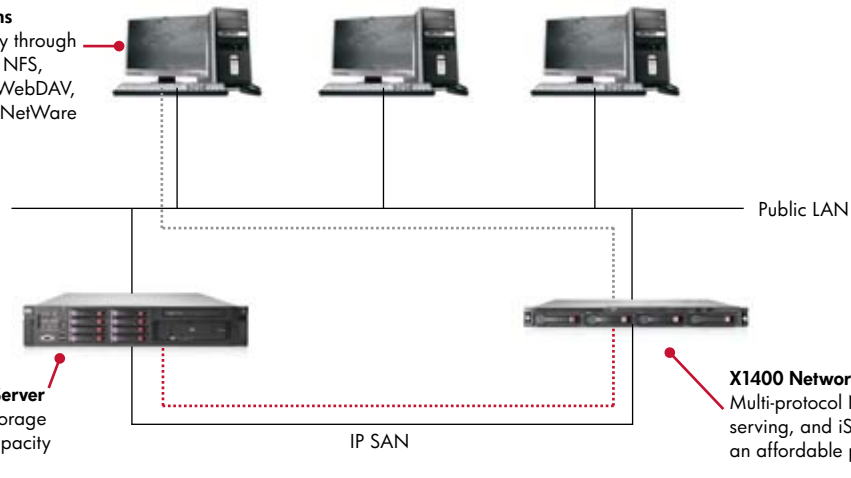
- **Get more for your money:** Versatile unified storage, so it can be a file server (or backup/replication target), an iSCSI target, or both.
- **Do more with fewer resources:** Everything is pre-installed and ready for turnkey deployment. Plus, the X1000 Automated Storage Manager software is like getting a storage expert in the box.
- **Protect your investment:** Built on industry standard ProLiant server hardware and taking advantage of the Windows Storage Server operating systems this solution integrates seamlessly into your existing environment and allows you to draw on your existing skill set.

Why an HP StorageWorks X1000 Network Storage System for this scenario?

- **Built to serve:** 20 percent faster and 35 percent more space efficient than a general purpose server.
- **Fast and easy deployment:** Uses the industry-standard ProLiant hardware and Windows software you already know.
- **Multi-protocol file serving:** It can be deployed in a wide range of heterogeneous file serving environments.

Client PCs and workstations

Connectivity through SMB/CIFS, NFS, HTTP, FTP, WebDAV, AppleTalk, NetWare



Application Server
Uses iSCSI storage to provide capacity expansion

X1400 Network Storage System
Multi-protocol NAS file sharing, print serving, and iSCSI application storage in an affordable package.

Real-world example: HP StorageWorks X1000 Network Storage System

Scenario: Heterogeneous file-serving environment in a small firm with 75 users. The firm also has a rapidly growing application server and has been researching iSCSI SANs as a way to scale their capacity.

Solution: Use of the X1000 Network Storage System means that there is only one file server to manage and allow its integrated, pre-configured storage to be used not only for file serving, secondary iSCSI storage, and print management.

For more information, visit:
www.hp.com/go/X1000



Scenario 2: HP shared DAS for the small business or workgroup

Shared DAS can be an excellent choice for small deployments where storage is managed by a server administrator. Shared DAS using an HP StorageWorks 2000sa G2 Modular Smart Array (MSA) is a good way for a small environment to allocate storage among a few servers—in a small application cluster, for example.

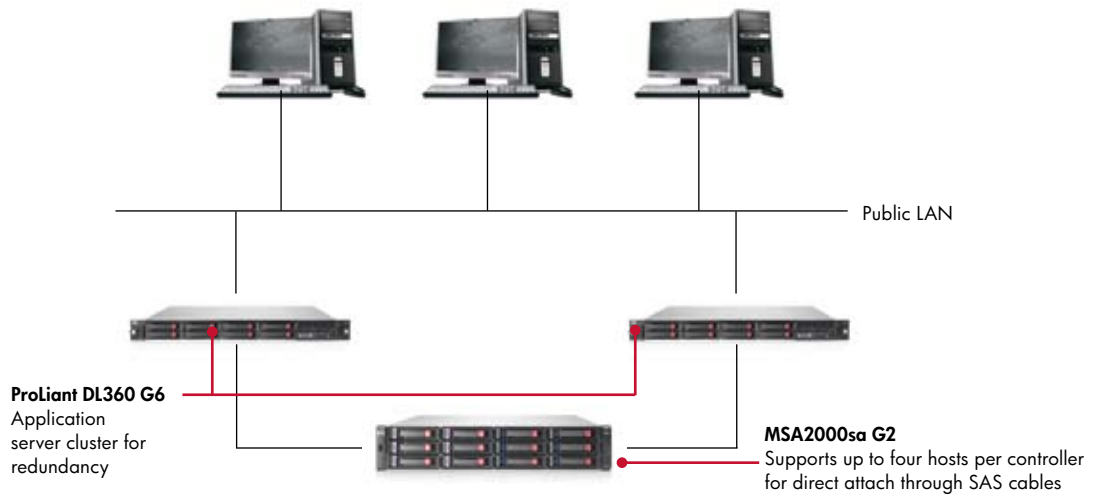
The SAS-connected MSA2000sa G2 provides shared storage without requiring any networking or switching infrastructure. This offers the best of both worlds: the ability to share storage among a few servers, but no requirement for a switched storage network. Available in single- and dual-controller configurations, the MSA2000sa G2 has optional snapshot and cloning software for enhanced availability.

Features of the HP MSA2000sa G2

- **Simple deployment:** For the server connection, the MSA2000sa G2 uses serial-attached SCSI (SAS), the ideal choice for connecting to a fixed number of servers without requiring a switch.
- **Flexibility in drive types and sizes:** Mix and match high performance, enterprise-class serial-attached SCSI (SAS) drives; and low-cost, high-capacity archival-class SATA.
- **Excellent scalability:** The modular design allows you to start small but supports future growth to 27 TB of LFF SAS or 60 TB of LFF SATA storage, or 29.7 TB of SFF SAS or 24.7 TB of SFF SATA storage
- **High availability for business continuity:** You get reduced risk of data loss, thanks to active controllers, dual-ported drives, RAID, redundant hardware, and snapshot options.

Why the MSA2000sa G2 for this scenario?

- **Fail-over to secondary server:** Two servers participating in a cluster share an MSA2000sa; if one fails the other takes over.
- **Easy setup and management:** A powerful controller and 1 GB cache provide support for up to four hosts. Because it is direct-attached, it can be managed by server application administrators.



Real-world example: Clustered database servers sharing DAS in an MSA2000sa G2

Scenario: A small business that wants to improve the reliability of its application deployment

Solution: A pair of HP ProLiant database servers, placed in a two-node cluster, with storage shared in an HP MSA2000sa G2. This is an easy and low-cost way to share storage among a small and fixed number of hosts. The capability to spread data across many small form factor hard drives improves performance.

For more information, visit:
www.hp.com/go/msa2000

Scenario 3: HP SAN disk array storage for your structured data

If your business has a great deal of structured data (sometimes called block data) on several servers running applications such as Oracle®, VMware, Microsoft SQL Server, or Microsoft Exchange, a SAN is often the best choice.

HP offers different types of SAN disk array solutions for different customer needs—first, the HP StorageWorks 2000 G2 Modular Smart Array (the MSA2000 G2), which easily handles the data requirements of a small or midsize business and provides excellent storage flexibility at an affordable price; or, the HP LeftHand P4000 SAN Solution is perfect for businesses that require affordable, high availability, and scalable performance; lastly, the Enterprise Virtual Array (EVA) is a true enterprise-class solution, designed for businesses that have—or expect to have—scalability and performance requirements that demand the highest levels of availability and performance.

Features of the HP MSA2000 G2 family

For a low-cost path to high availability, look to a Modular Smart Array such as the MSA2000fc G2 or MSA2000i G2.

- **Choice of host connections:** Choose Fibre Channel for larger, more demanding environments; or iSCSI for a SAN that can use standard Ethernet hardware.
- **Ease of management:** SAN management is easy, thanks to a powerful and intuitive set of management tools and a Web-based or CLI interface.
- **High availability:** These SAN solutions have redundant hardware and optional snapshot and clone capabilities, giving your small or medium-sized business a low-cost path to high availability.

Features of HP LeftHand P4000 SAN Solutions

HP LeftHand P4000 SAN Solutions deliver enterprise functionality on a clustered storage architecture which enhances virtual environments, simplifies scalability, and reduces costs.

- **Enterprise functionality with ‘pay as you grow’ deployment:** All P4000 SANs include the complete feature set and the clustered architecture enables you to start small and then add additional nodes to scale performance and capacity.
- **Superior availability and disaster recovery:** With features like integrated replication, snapshots, remote copy, and Network RAID your data will remain available in the event of a power, network, disk, controller, node, or site failure.
- **Scalable performance:** Each time an additional P4000 storage system is added to a cluster, all aspects—performance, capacity, redundancy of the SAN increase. This helps you avoid bottlenecks and costly controller upgrades.

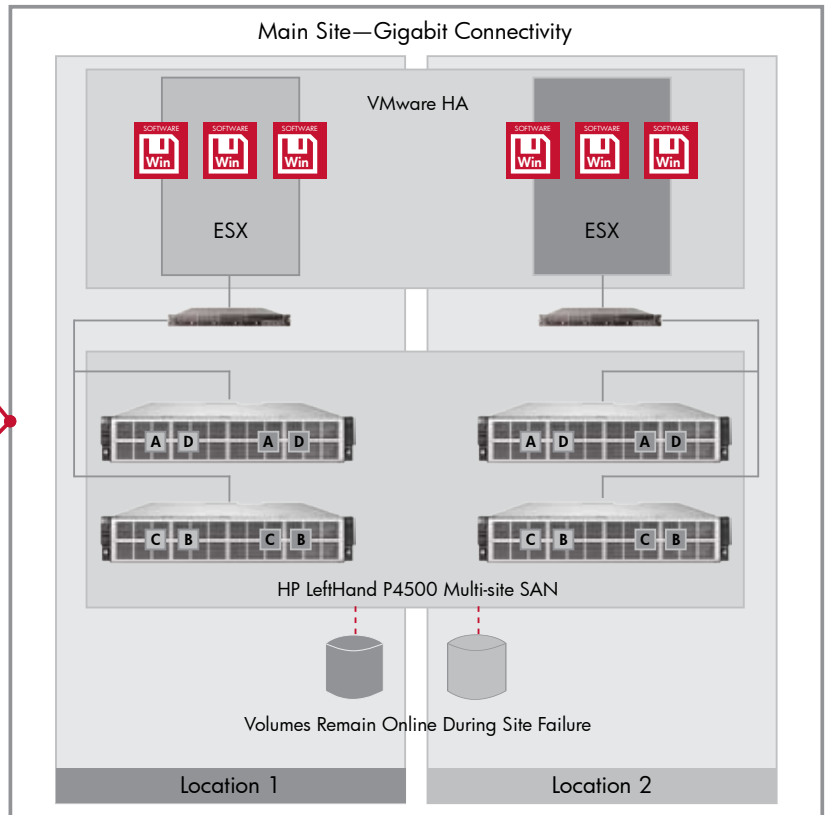
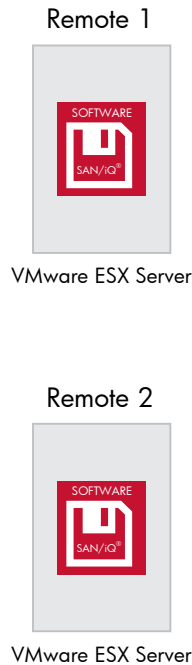
Features of the EVA4400

For mid-sized businesses with large volumes of data, an Enterprise Virtual Array such as the EVA4400 offers the ultimate in affordable, high-capacity storage.

- **Virtualized environment for easier management:** Virtualization reduces the installation complexity typically found in traditional arrays, keeping administrative overhead to a minimum. You can install the EVA4400 in only a few hours, freeing yourself to manage business priorities and not your storage solution.
- **High availability for planned uptime:** You can expect 99.999 percent availability, thanks in part to dual-redundant architecture that supports robust local and remote replication capabilities.
- **Enterprise-class scalability and connectivity:** The EVA4400 can scale to support more than 64 hosts and up to 96 terabytes of total storage, and can connect to hosts running Windows, Linux, VMware, UNIX®, and NetWare.

Why the HP LeftHand P4500 SAN?

- **Integrated high-availability:** Provides seamless failover of virtual machines in VMware HA environments.
- **Storage Clustering:** Clustered architecture allows for nodes to be strategically separated for real-time site protection.
- **Cost effective disaster recovery:** The HP LeftHand P4000 Replication for Remote Offices is included with the Multi-site SAN, and puts a replication client to work in every remote office using existing server resources.



Choose the right storage network

Fibre Channel: For larger, more demanding environments, Fibre Channel provides the highest levels of performance and scalability. Fibre Channel speeds are typically 4 GB per second, but 8 GB per second connectivity is now becoming more widely available.

iSCSI: For smaller IT environments, iSCSI (or IP) SANs are ideal. A dedicated Gigabit Ethernet network will provide sufficient bandwidth to connect several servers to a SAN storage device, either with standard network interface cards (NICs) or with optional TCP/IP offload engine (TOE) cards. iSCSI provides the benefits of shared storage for those with tight budgets and limited storage networking expertise.

Real-world example: HP LeftHand P4500 SAN

Scenario: A mid-size company with several remote sites is deploying a virtual server solution and needs shared storage to enable high availability. At the same time, they would like to setup site redundancy so they are protected against a major disaster.

Solution: HP ProLiant G6 servers running VMware ESX connected through iSCSI to an HP LeftHand P4500 Multi-site SAN in the primary site. Both the HP LeftHand SAN and the ESX cluster would be strategically located in separate buildings on the campus for real-time, multi-site protection. At each of the remote sites run a single HP ProLiant G6 server with VMware ESX and HP LeftHand P4000 Replication for Remote Offices. It would provide local primary storage and data could be replicated to the primary site for disaster recovery.

For more information on HP disk storage systems, visit:

www.hp.com/go/P4000

www.hp.com/go/MSA2000

www.hp.com/go/EVA4400

Scenario 4: Mixing NAS and SAN with unified storage gateways

Add IP-based gateway services to your enterprise or workgroup array/SAN quickly and manage them more easily with HP StorageWorks X3000 Network Storage Systems. These flexible and intelligent Windows-powered gateway solutions add file, print, iSCSI, and management services to an array or SAN, or they can be used in conjunction with array storage to build an affordable and highly-available unified storage solution.

HP StorageWorks X3000 Network Storage Systems are the fast and easy way to add Windows-powered IP-based gateway services (file, iSCSI, mgmt) to an array or SAN.

Key features and benefits

- Add value to your array investment: Use your SAN disk array to hold growing amounts of unstructured file data. Utilize the X3000 to host application services such as SAN management or backup.
- Do more with fewer resources: Tier your storage so that critical data is on high performance fibre channel disk and tier II data is available through iSCSI. Consolidate both file and block access to a single array for simplified growth and protection.
- Protect your investment: It's Windows, so it integrates seamlessly into your existing environment, runs your antivirus, and backup on the box, and has a familiar look and feel. Includes Microsoft Cluster Server (MSCS) license to provide high availability and reduce downtime.

For more information, visit:

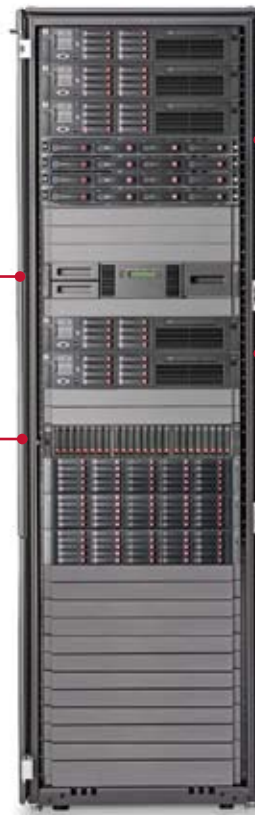
www.hp.com/go/X3000

Why an X3000 and MSA2000fc G2 for this scenario?

- **Pooled storage and central management:** File-serving and iSCSI gateway functionality allows clients and non-Fibre Channel-connected servers to gain the advantages of a SAN.
- **High availability:** The X3000 can be clustered for redundancy and load balancing.

MSA2024 Tape Library
High-capacity data protection in a small form factor

MSA2000fc G2



ProLiant DL380 G6 Servers
ProLiant DL320 G6 Servers
Application and core infrastructure servers

HP StorageWorks X3000 Network Storage Systems
Clustered unified storage solution for NAS file serving and iSCSI bridging using a SAN array for back-end storage.

Real-world example: NAS/SAN hybrid using a NAS gateway with a Fibre Channel SAN

Scenario: Mid-sized business that wants to gain the advantages of a SAN for its non-critical database servers and file servers.

Solution: Adding a cluster of two X3000 Network Storage Systems to the MSA2000fc G2 provides SAN access for application servers, as well as file serving to end-user clients and workstations, thus enabling centralization of all storage for improved utilization and lower management costs.

For more information, visit:

www.hp.com/go/X3000

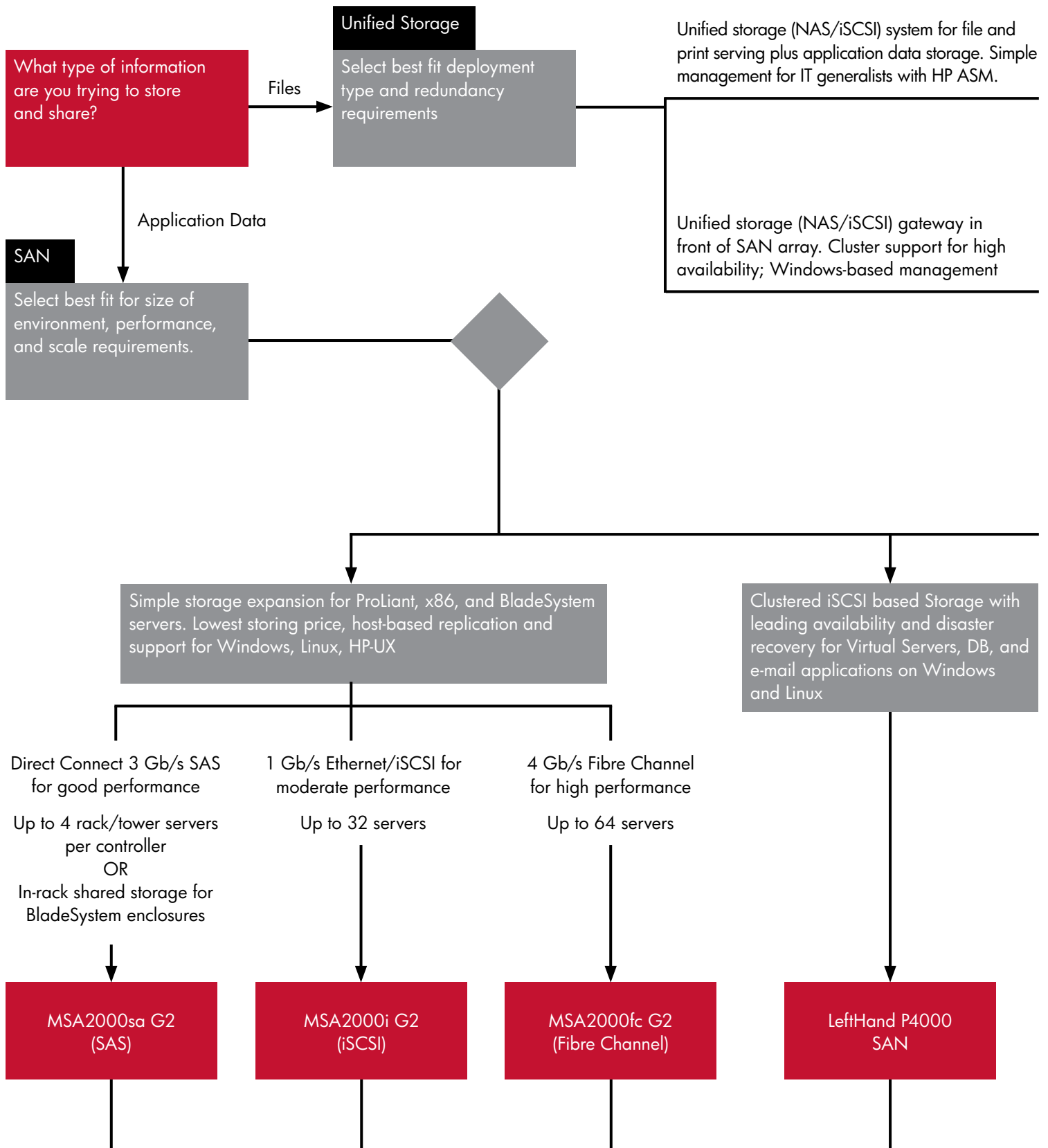
www.hp.com/go/msa2000

www.hp.com/go/eva4400

Choose the right solution

Which HP storage solution is right for you?

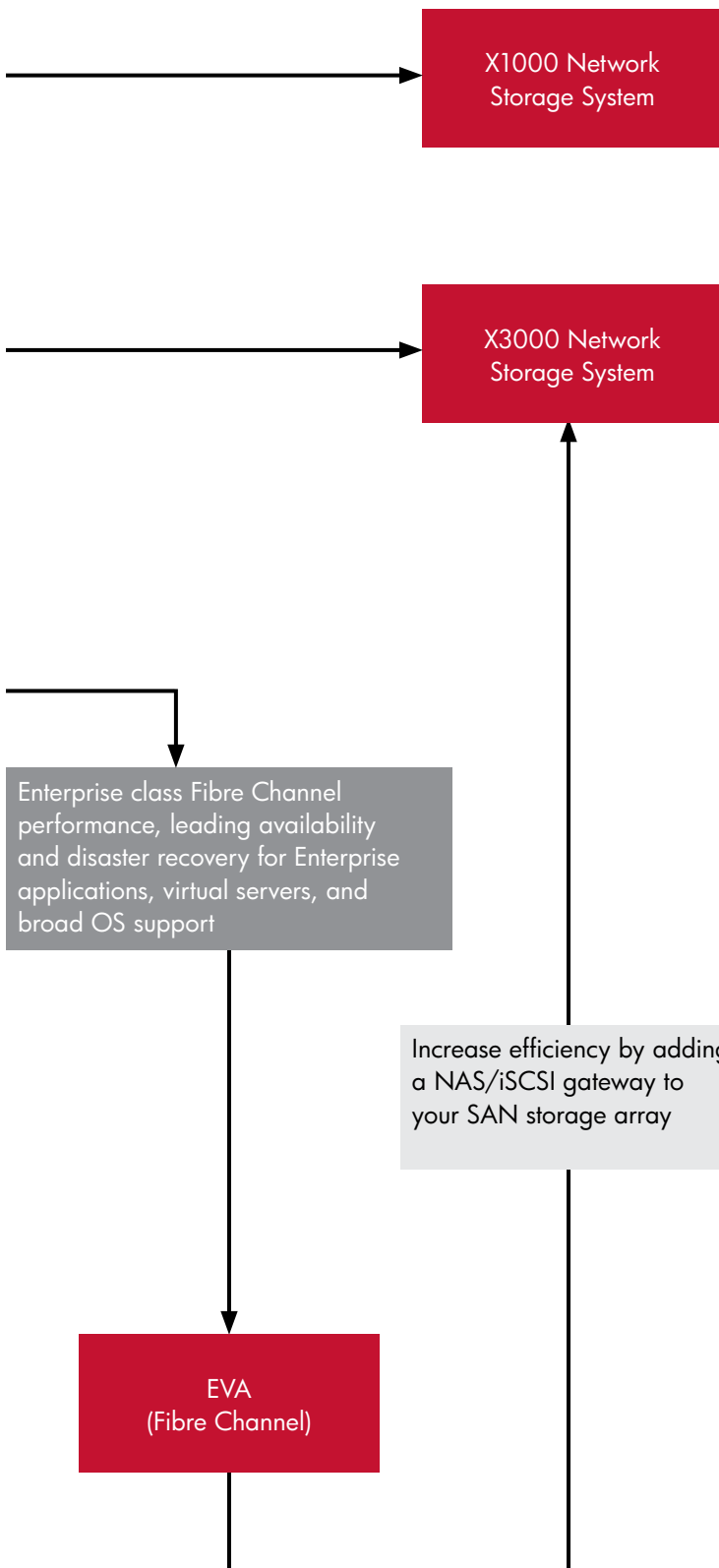
Use the following chart to help decide how best to consolidate your data.



Note: These product recommendations are a starting point for your investigation but this flow does not represent all possible decision factors. Your HP representative or channel partner can help you determine the best fit based on your business needs.

Simply Storage Consolidation decision tree

Note: These product recommendations are a starting point for your investigation, but this matrix does not represent all possible decision factors. Your HP representative or channel partner can help you determine the best fit based on your business needs.








Enhance your network storage solution with optional data services

Replication: The HP StorageWorks EVA family supports array-based replication, while the MSA, All-in-One and ProLiant Storage Servers support replication with HP StorageWorks Storage Mirroring software. The HP LeftHand P4000 SANs include replication and Network RAID as part of the standard feature set.

Snapshot and clone software: The MSA2000 provides additional levels of data protection with array-based snapshots.





HP Simply Storage Consolidation at a glance

Details of HP network storage products for small and midsized businesses

HP StorageWorks X1000 and X3000 Network Storage Systems					
Product Name	 HP X1400 Network Storage System	 HP X1600 Network Storage System	 HP X1800 Network Storage System	 HP X3400 Network Storage System	 HP X3800 Network Storage System
Description	A 1U rack-mount shared storage solution that delivers multi-protocol file sharing, print serving, and application storage in an affordable package. It is easy to install and manage, making it perfect for a small workgroup, small business or remote office.	A 2U 12-drive unified storage solution that delivers high capacity, easy expandability, and high performance with entry-level affordability. A great fit for small, medium, and workgroup environments.	Delivers enterprise-class performance, expandability, and flexibility. Plenty of room for additional options and built-in external SAS connections for additional disk enclosures make it the shared storage solution of choice for SMB, workgroup, and small enterprise environments.	The HP X3400 Network Storage Gateway is a 1U rack-mount solution that makes adding gateway services to an array or SAN more affordable than ever before.	With two quad-core Intel® Xeon® processors and six PCIe slots, the HP X3800 Network Storage Gateway sets the standard for performance and expandability in gateway services for your array or Fibre Channel SAN.
Models and Capacities	Base model with configure-to-order drives 2 TB SATA model (4 x 500 GB SATA) 4 TB SATA model (4 x 1 TB SATA)	Base model with configure-to-order drives 6 TB SATA model (6 x 1 TB SATA) 12 TB SATA model (12 x 1 TB SATA) 5.4 TB SAS model (12 x 450 GB 3G SAS)	Base model with configure-to-order drives) 2.4 TB SAS model (8 x 300 GB 6G SAS) 6 TB SATA model (6 x 1 TB SATA) 3.6 TB SAS model (12 x 300 GB 6G SAS)	Gateways have OS drives included and connect to an external SAN array to provide clusterable file, iSCSI, and management services	Gateways have OS drives included and connect to an external SAN array to provide clusterable file, iSCSI, and management services
Storage Controller	HP Smart Array P212/256MB Controller with battery-backed write cache (BBWC)	HP Smart Array P212/256MB Controller with BBWC	Embedded HP Smart Array P410i/256MB Controller with BBWC plus HP Smart Array P411/512MB Controller with BBWC	HP Smart Array P212/256MB Controller with BBWC	Embedded HP Smart Array P410i/256MB Controller with BBWC
Storage Expansion	MSA60, MSA70, D2700	MSA60, MSA70, D2700	MSA60, MSA70, D2700	Attach to MSA, P4000, or EVA arrays/SANs	Attach to EVA, MSA, XP, or P4000 arrays/SANs
Number of Users	10 to 200	100 to 600	200 to 1200	100 to 400	400 to 2000


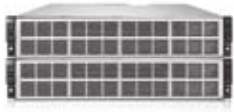

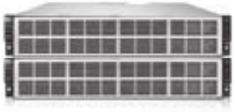
HP Simply Storage Consolidation at a glance (continued)

Details of HP network storage products for small and midsized businesses

HP StorageWorks Modular Smart Arrays				HP StorageWorks Enterprise Virtual Array family
	 MSA2000sa G2	 MSA2000i G2	 MSA2000fc G2	 EVA4400, EVA6400 and EVA8400
Number of servers	Fixed connection to up to 4 hosts per controller	Flexible iSCSI connection for up to 32 hosts	Flexible and scalable Fibre Channel connection for up to 64 hosts	High-performance enterprise-class solution for more than 64 hosts
Scalability	Scale up to 60 TB (SATA) or 29.7 TB (SAS)			324 TB Maximum depending on drive capacity
Redundancy	Redundant controllers, cooling and power supplies; optional snapshot and clone software			Redundant architecture and broad choice of software, including local and remote replication
Operating system	Microsoft Windows, Linux, VMware, HP-UX, OpenVMS, Integrated Citrix XenServer			Microsoft Windows, Linux, HP-UX, Tru64 UNIX, OpenVMS, Solaris, AIX, Novell NetWare, VMware, Macintosh

HP Simply Storage Consolidation at a glance (continued)

Details of HP network storage products for small and midsized businesses

HP LeftHand P4000 SAN Solutions				
				
Product Name	HP LeftHand P4500 21.6 TB SAS Multi-Site SAN Solution	HP LeftHand P4500 10.8 TB SAS Virtualization SAN Solution	HP LeftHand P4300 4.8 TB SAS Starter SAN Solution	HP LeftHand P4300 12 TB SATA Starter SAN Solution
Model Differentiator	Simplify high availability with a cost effective HP LeftHand P4500 Multi-Site HA SAN. Avoid downtime in the event of a site failure with a fully automated, synchronously replicated storage system	For virtualized environments, the P4500 Virtualization SAN provides optimized shared storage enabling cost effective high availability, scalable performance, and non-disruptive configuration changes.	Perfect for first time virtualization projects, the HP P4300 SAS Starter SAN delivers the performance and features required to simplify storage and grow non-disruptively with your environment.	Perfect for consolidating storage for Windows or Linux servers, the HP P4300 SATA Starter SAN delivers all features required to simplify storage and grow non-disruptively with your environment.
Host Interface	1Gb iSCSI optional upgrade to 10Gb iSCSI (CX4)			
Capacity	21.6 TB [starting] 324 TB [maximum]	10.8 TB [starting] 162 TB [maximum]	4.8 TB [starting] 72 TB [maximum]	12 TB [starting] 180 TB [maximum]
Availability	Hardware Features: Hot plug power supplies and hard drives; hardware RAID controller w/ BBWC (RAID 5, 6, and 10). Architecture: Clustered storage with Network RAID Levels (per volume) 0, 2, 3, 4 protect against double disk, system, and site failures.			
Supported Operating Systems	Microsoft Windows, Novell NetWare, Linux, HP-UX, Fedora, IBM AIX, VMware, Citrix XenServer, OS X Leopard			

Note: Other models and capacity points are available in some areas. For a full list of options please see the HP LeftHand P4000 QuickSpec

Complement your storage solution with HP Services

To capitalize fully on your HP storage solution requires a service partner who thoroughly understands your storage technology and systems 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.

Your technology infrastructure has become the business infrastructure—where delivering successful business outcomes is the key goal. HP 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.

Recommended services:

- **Support Plus/Support Plus 24** helps you increase the performance and availability of your infrastructure with comprehensive, consistent hardware, and software services. Working with the HP IT team, HP Services engineers deliver onsite hardware support and over-the-phone software support 13 hours per day, five days per week. Service coverage encompasses HP products and selected multi-vendor hardware and software.
- **HP Proactive 24 Service** is an integrated hardware and software support solution designed to help you get more from your IT investment. It combines industry-leading technical assistance with proactive account services to cover the whole infrastructure and to improve the stability, availability, and operational effectiveness of the IT environment.

- **HP Assessment Service for SANs** provides a snapshot of your SAN environment as well as recommendations for improving the availability levels and ongoing management of your storage devices and SAN environment.
- **HP Critical Service** increases availability and performance across your IT infrastructure with a powerful combination of proactive onsite technology expertise provided by HP-certified high-availability experts. Additionally, you have priority reactive assistance from the HP worldwide network of mission-critical response centers and remote support tools to monitor your environment for potential problems.

For more information about HP Services and support, contact your HP sales representative or HP Authorized Channel Partner, or visit www.hp.com/go/storageservices

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 Financial Services, please contact your HP representative or visit:

www.hp.com/go/hpfinancialservices

For more information

For information on Simply StorageWorks solutions, visit: www.hp.com/storage/simple (United States, Canada, and Latin America)

www.hp.com/apac/simple (Asia, Australia, and New Zealand)

Technology for better business outcomes

For information on Simply StorageWorks solutions, visit
www.hp.com/storage/simply (United States, Canada, and Latin America)
www.hp.com/apac/simply (Asia, Australia, and New Zealand)

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