



HP StorageWorks X3400 Network Storage Gateway



HP StorageWorks X3800 Network Storage Gateway



HP StorageWorks X3800sb Network Storage Gateway Blade



HP StorageWorks X3000 Network Storage Systems

Data sheet

Adds clusterable and easy-to-manage file, iSCSI and management services to mid-range and Enterprise array/SAN environments to create unified network storage solutions.

You made the decision to invest in a storage array, but now you have found that you still have file and application servers which are not connected. You are still spending time managing islands of storage and your array is not meeting its full potential. Wouldn't it be nice to complete the consolidation to truly create one unified storage pool to expand and protect?

HP StorageWorks X3000 Network Storage Systems

boost the value of your array or SAN by adding Windows-powered IP-based gateway services to it. You get to spend less time and effort on maintenance and deliver a better return-on-investment for your array/SAN when you consolidate to a single, unified storage pool that can serve files to your clients and blocks to your servers using 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.

Features and benefits

Add value to an array investment

Gateway services

HP X3000 Network Storage Gateways are file- and iSCSI-bridges into a Fibre Channel or SAS array, or into a Fibre Channel SAN. They add IP-based data services, including file serving and iSCSI, in a package that can be clustered for high-availability and can host array management utilities.

Multi-protocol optimised file serving

In a Windows (SMB/CIFS) environment, there is no better way to serve files. In mixed environments, you get the flexibility of heterogeneous support for additional protocols like NFS, HTTP, FTP and WebDAV.

Microsoft® iSCSI Software Target	Microsoft iSCSI Software Target adds block storage capability to Windows Storage Server 2008 and creates a single platform that delivers file, print and application storage services, all over existing Ethernet networks.	Included
HP StorageWorks Storage Mirroring Software	HP Storage Mirroring Software provides host-based replication and failover to IP-based networks. For more information, visit www.hp.com/go/storageworks/storage mirroring	Optional
HP StorageWorks Command View EVA Software	HP StorageWorks Command View EVA Software provides you with a powerful simple storage management experience, automates and aggregates storage management to reduce complexity and increase productivity. For more information, visit http://h18006.www1.hp.com/products/storage/software/cmdvieweva/index.html	Optional

SAN management

X3000 Gateways can host a range of storage management applications, including HP StorageWorks Command View EVA Software. Once you add an X3000 Gateway for file/iSCSI services, it is like getting an array or SAN manager for free.

HA unified solutions

Small environments that thought high-availability shared storage was out of their price range can build affordable HA direct-attach unified (file/block) solutions with clustered X3000 Gateways and MSA2000 array storage. **Single SKU HA bundles now available – more details and ordering information can be found at X3000 QuickSpecs URL provided on page 3 under technical specification section.**

Print server support

Don't forget that X3000 Network Storage Systems can host print services too, offering additional consolidation benefits to your Windows print environment.

Do more with fewer resources

Be up and serving files quickly

The operating system is pre-installed, so it is a fast, safe and easy way to add gateway services to your array or SAN.

Tier block access to your SAN

Use X3000 Gateways as iSCSI bridges and you can drive a better return-on-investment for your array/SAN by using IP-based access to finish centralising all your application and virtual environment storage – and not only that for your mission-critical servers.

Consolidate to a single unified storage pool

If you are already consolidating your block storage onto an array or SAN, complete the job by adding file and iSCSI services to that storage pool. You can serve files to your clients and blocks to your servers through multiple protocols (FC/iSCSI or SAS/iSCSI), and have one thing to scale and protect.

Be more efficient with file serving space

Single Instance Storage (SIS) recovers up to 35 per cent of disk capacity by reducing the number of redundant files.

Familiar management look and feel

If you have used Microsoft Management Console (MMC) to manage a Windows server, you are probably already familiar with how to manage X3000 Network Storage Systems.

Protect and optimise your investment

HP ProLiant platforms

Relax – your investment is protected because you are not locked into proprietary hardware. You can take advantage of built-in functionality like Integrated Lights-Out 2 that lets you manage and troubleshoot remotely. X3000 models integrate with HP SIM and support HP ProLiant Support Pack.

Industry-standard components and interconnects

HP StorageWorks X3000 Network Storage Systems feature Quad-Core Intel® Xeon® processors, reliable SAS internal hot plug hard drives and support for a range of Fibre Channel and SAS HBAs for array/SAN connection. There is also an X3000 BladeSystem gateway (X3800sb).

Seamless integration into your environment

X3000 models are powered by Windows, so they integrate natively (not by emulation) into your Active Directory and DFS environments, and run your favourite antivirus, backup and storage management applications.

Ready for High Availability (HA)

With the included MSCS license, you can cluster X3000 Gateways to scale performance and/or reduce downtime. Pre-bundled single SKU HA solutions are now available to make it easier to order.

Storage-specific tools and features included

Get Quotas, File Screening, Storage Reporting, Volume Shadow Copy Service (VSS) Snapshots and Distributed File System (DFS) Replication – all at no extra cost.

Technical Specifications
**HP StorageWorks X3400
Network Storage Gateway**

**HP StorageWorks X3800
Network Storage Gateway**

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Network Storage Gateway Blade**


Operating System	Microsoft® Windows Storage Server 2008 Enterprise x64 Edition Note: Pre-installed	Microsoft® Windows Storage Server 2008 Enterprise x64 Edition Note: Pre-installed	Microsoft® Windows Storage Server 2008 Enterprise x64 Edition Note: Pre-installed
Management	MMC-based management interface accessible via HTTPS, Remote Desktop, Integrated Lights-Out 2 remote	MMC-based management interface accessible via HTTPS, Remote Desktop, Integrated Lights-Out 2 remote	MMC-based management interface accessible via HTTPS, Remote Desktop, Integrated Lights-Out 2 remote
Processor Name	Intel® Xeon® Processor E5405 2.00 GHz	Intel® Xeon® Processor E5530 2.40 GHz	Intel® Xeon® Processor L5520 2.26 GHz
Processors	1 standard	2 standard	2 standard
Standard Memory	2 GB	12 GB	8 GB
Maximum Memory	72 GB	128 GB	96 GB
Memory Type	DDR3 Registered (RDIMM) with ECC Capabilities	DDR3 Registered (RDIMM) with ECC Capabilities	PC3-10600R, DDR3 Registered (RDIMM) with ECC Capabilities
Drive Type	146 GB 3G 15K LFF Dual-port SAS (2) drives included for O/S mirror	146 GB 6G 10K SFF Dual-port SAS (2) drives included for O/S mirror	146 GB 3G 10K SFF Dual-port SAS (2) drives included for O/S mirror
Capacity	146 GB Raw Internal SAS 0 GB Useable Designed to utilise external array/SAN storage	146 GB Raw Internal SAS 0 GB Useable Designed to utilise external array/SAN storage	0 GB Useable X3000 Gateways are designed to utilise external array/SAN storage
Storage Expansion Options	Attach to EVA, MSA, XP and P4000 arrays/SANs	Attach to EVA, MSA, XP and P4000 arrays/SANs	Attach to EVA, MSA, XP and P4000 arrays/SANs
Network Adaptor	HP NC326i Integrated Dual Port Gigabit Server Adaptor	2 x HP NC382i Integrated Dual Port Multifunction Gigabit Server Adaptors with TCP/IP Offload Engine	Embedded Dual Port NC532i Multifunction Flex-10 10GbE Server Adaptor
Storage Controllers	HP Smart Array P212/256 MB Controller with battery-backed write cache (BBWC) or MSA2300sa G2 Controller	HP Smart Array P410i/256 MB Controller with BBWC or 2300fc G2 Controller	HP Smart Array P410i Controller
Expansion Slots	One open full-length/full-height x16 PCIe expansion slot	Six open (x4/x8) PCIe expansion slots	Two I/O expansion mezzanine slots
Number of Users	100–400	400–2,000	200–1,000
Form Factor	1U, 3U, 4U rack	2U rack	Half-height BladeSystem c-Class
Warranty	3 years parts, 3 years labour, 3 years on-site support with next business day response, 1 year software support	3 years parts, 3 years labour, 3 years on-site support with next business day response, 1 year software support	3 years parts, 3 years labour, 3 years on-site support with next business day response, 1 year software support

QuickSpec URL: http://h18000.www1.hp.com/products/quickspecs/13333_div/13333_div.pdf

QuickSpec URL: http://h18000.www1.hp.com/products/quickspecs/13334_div/13334_div.pdf

Warranty

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 Global Limited Warranty and Technical Support from HP, visit www.hp.com/products/storageworks/warranty

Service and Support

Factory Express

HP Factory Express is designed to help you get a better return from your IT investment by providing customisation, integration and deployment services along with your storage and server purchases. It provides predictable, trusted and tested IT solutions tailored to your business needs. We allow you to customise hardware to your exact specifications in the factory – helping to speed up deployment and free up internal resources. www.hp.com/go/factoryexpress

Customer Technical Training

Consider education as an integral part of your strategy to get the best return on investment for your HP storage solution. HP offers a range of training classes on storage software, networking, archiving and disk storage systems. Our classes are available in many delivery modalities from traditional instructor-led classes at one of our 80 training centres worldwide to on-site training customised to your needs or on line. www.hp.com/learn/storage

HP Financial Services

HP Financial Services provides innovative financing and financial asset management programmes 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

HP Services

HP Technology Services helps you take the worry out of deploying, supporting and managing your HP X3000 Network Storage Systems storage solution. Trust the services professionals at HP to boost availability and avoid costly downtime.

Recommended Services

- **3-Year HP Support Plus 24 Service:** For a higher return on your storage technology, this 3-year combined reactive support option delivers integrated on-site hardware/software support services available 24x7.
- **HP Installation and Startup Service for X3000 Storage Systems:** For smooth start-up and readily available access to and management of your critical data and applications.

Related Services

- **3-Year HP Proactive 24:** For improved stability, availability and operational effectiveness, this 3-year, integrated hardware and software support service combines industry leading technical assistance with proactive account services.
- **HP Entry Storage Data Migration Service for Windows:** Provides deployment services for HP StorageWorks Storage Mirroring Data Migration software.

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

Technology for better business outcomes

To learn more, visit www.hp.com/go/x3000 or www.hp.com/go/x3800sb

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