



HP StorageWorks D2D Backup Systems

Family data sheet

Provide flexible disk-based backup with StoreOnce deduplication enabling network-efficient data replication for scalable, cost-effective data protection of distributed environments.

Struggling with complex, distributed and costly data protection? You need a disk-based backup system that delivers leading price-performance, deduplicates backup data and automatically consolidates multiple servers into a single backup process.

The HP StorageWorks D2D Backup Systems with HP StoreOnce deduplication provide disk-based data protection for data centres and remote offices. Automate and consolidate the backup of multiple servers onto a single, rack-mountable device while improving reliability by reducing errors caused by media handling. All HP D2D Backup Systems feature

HP StoreOnce deduplication software for efficient, longer-term data retention on disk and enabling network efficient replication for a cost-effective way of transmitting data offsite for disaster recovery purposes. The D2D Backup Systems integrate seamlessly into your current IT environment and offer you the flexibility of both virtual tape library and NAS* targets.

* CIFS only on legacy systems



Key features and benefits

More data on disk with HP StoreOnce deduplication

HP StoreOnce deduplication reduces the disk space required to store backup data sets by typically 20x¹ without impacting backup performance. Retaining more backup data on disk for longer, enables greater data accessibility for rapid restore of lost or corrupt files and reduces downtime.

The D2D Backup Systems offer high performance multi-streaming with peak backup speeds of up to 4 TB/hour to a disk-based system instead of sequentially to a tape drive or tape autoloader, demonstrating that you can substantially reduce your backup window. Data independent deduplication simplifies operations by reducing tuning and tweaking.

Rapid restore of data for dependable and worry-free data protection

The HP StorageWorks D2D Backup Systems offer immediate access to backups for rapid restores. Proven Hardware RAID 5 and 6 technology reduces the risk of data loss due to failures.

Affordable disk-based data protection

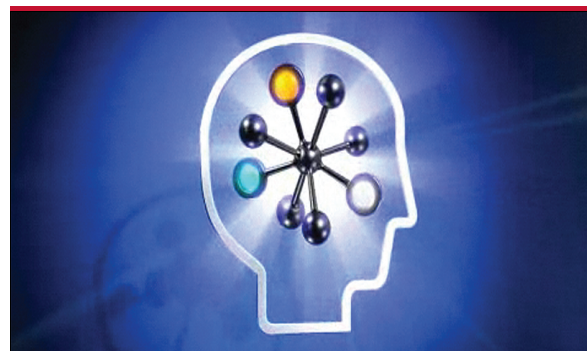
By delivering up to 40 per cent higher performance² deduplication and replication over comparable products, the HP D2D Backup Systems enable more affordable data protection. HP StoreOnce deduplication reduces network bandwidth needed for remote data replication.

More cost-effective replication enables automated, centralised backup of remote sites and delivers a practical disaster-recovery solution for data centres. The D2D Backup Systems offer scalability to 72 TB of usable capacity as your data storage requirements grow, with simple and cost-effective capacity upgrades that allow you to increase storage capacity without purchasing additional systems.

The D2D Backup Systems are rack-mountable backup appliances, supported by all leading backup applications. With choices of network interface, iSCSI or Fibre Channel (FC) and backup target, virtual tape library (VTL) and NAS* (CIFS/NFS), integrating into most IT environments.

* CIFS only for legacy systems EJ001A, EJ002A, EH938A, EH939A, EH941A, EH942A and EH999A.

Achieve reliable, straightforward and affordable data protection with HP StorageWorks D2D Backup Systems.



Automated and simplified backup process

HP StorageWorks D2D Backup Systems automate your backup processes allowing you to reduce the time spent managing your data protection. Implementing hands-free, unattended daily backup is especially valuable for environments with limited IT resources such as remote or branch offices.

The D2D Backup Systems can backup multiple servers through a standard Ethernet or FC network simultaneously to a disk-based solution at peak speeds of up to 4 TB per hour instead of sequentially to a tape drive or autoloader, meaning that you can substantially reduce your backup window.

The D2D Backup Systems have an intuitive Web-based browser interface allowing you to monitor locally or remotely, to view results or change settings. This self-managing device reduces routine maintenance. Replication manager provides management of a number of devices replicated to a central site.

Choice of targets for backup applications – VTL, NAS* (CIFS/NFS) or both, providing users with flexibility in how they configure their backups.

The D2D Backup Systems are self-managing backup appliances that require little, if any, routine maintenance. Unlike other disk-based storage devices, they do not require virus protection, defragmentation or LUN provisioning.

¹ Source: HP Dynamic Deduplication – achieving a 50:1 ratio white paper, <http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA2-0212ENW.pdf>

² Based on January 2011 pricing and performance comparisons between the HP D2D4324 and a Data Domain DD860 with 96 TB; performance comparison of D2D4324 with VTL and 8 Gb FC; performance comparison of DD860 controller with CIFS and 10GbE.

	D2D2500 Backup Systems	D2D4100 Backup Systems	D2D4300 Backup Systems
Models	HP D2D2502i Backup System HP D2D2504i Backup System	HP D2D4106i Backup System HP D2D4106fc Backup System HP D2D4112 Backup System	HP D2D4312 Backup System HP D2D4324 Backup System
Form factor	1U	2U scalable rack	4U scalable rack
Capacity	1.5 TB usable (D2D2502) 3 TB usable (D2D2504)	4.5 TB expandable to 9 TB usable (D2D4106) 9 TB expandable to 18 TB usable (D2D4112)	9 TB scalable to 36 TB usable (D2D4312) 18 TB scalable to 72 TB usable (D2D4324)
Transfer rate	325 GB/hr (D2D2502) 450 GB/hr (D2D2504)	800 GB/hr (D2D4106) 1.3 TB/hr (D2D4112)	D2D4312: 2.4 TB/hr maximum D2D4324: 4 TB/hr maximum
Number of virtual tape libraries and NAS targets	4 (D2D2502) 8 (D2D2504)	24 maximum	50 maximum
Number of virtual tape cartridges emulated	192 (D2D2502) 384 (D2D2504)	3,456 virtual	51,200 virtual
Tape devices emulated	LTO-2/LTO-3/LTO-4/LTO-5 tape drives in 1/8 G2 Autoloader, MSL2024, MSL4048 Tape Libraries, HP D2D Backup System generic library with HP D2D generic LTO tape drive	LTO-2/LTO-3/LTO-4/LTO-5 tape drives in 1/8 G2 Autoloader, MSL2024, MSL4048 Tape Libraries, HP D2D Backup System generic library with HP D2D generic LTO tape drive	LTO-2/LTO-3/LTO-4/LTO-5 tape drives in 1/8 G2 Autoloader, MSL2024, MSL4048 Tape Libraries, HP D2D Backup System generic library with HP D2D generic LTO tape drive
Deduplication	Powered by HP StoreOnce deduplication	Powered by HP StoreOnce deduplication	Powered by HP StoreOnce deduplication
Replication	Licensed by target available from www.hp.com/go/d2d	Licensed by target available from www.hp.com/go/d2d	Licensed by target available from www.hp.com/go/d2d
Targets for backup applications	NAS (NFS/CIFS) and VTL (iSCSI and FC)	NAS (NFS/CIFS) and VTL (iSCSI and FC)	NAS (NFS/CIFS) and VTL (iSCSI and FC)
Backup application support	For the latest information visit www.hp.com/go/connect	For the latest information visit www.hp.com/go/connect	For the latest information visit www.hp.com/go/connect
RAID Level	Hardware RAID 5	Hardware RAID 6	Hardware RAID 6
Host interface	1 Gb iSCSI, two ports per controller	4 Gb Fibre Channel, two ports per controller 1 Gb iSCSI, two ports per controller	8 Gb Fibre Channel, two ports per controller and 10 Gb/sec iSCSI, ports per controller
Storage expansion options	N/A	HP D2D4106 Upgrade Kit HP D2D4112/4312 Upgrade Kit	HP D2D4112/4312 Upgrade Kit D2D4324 capacity upgrade kit
Warranty (parts/labour/onsite)	1-year, next-day, parts exchange, limited warranty plus 9x5 telephone support for the duration of the warranty	1-year parts exchange, 1-year labour, 1-year on-site normal business hours next business day response, plus 9x5 telephone support for the duration of the warranty	1-year parts exchange, 1-year labour, 1-year on-site normal business hours next business day response, plus 9x5 telephone support for the duration of the warranty
QuickSpecs URL	http://h18000.www1.hp.com/products/quickspecs/13218_div/13218_div.pdf		

Service and support

HP Factory Express

HP Factory Express provides customisation and deployment services along with your storage and server purchases. You can customise hardware to your exact specifications in the factory – helping to speed deployment.

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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 centres worldwide to online and/or onsite training.

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HP Financial Services

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HP Services

HP Technology Services – consultants and support experts to solve your most complex infrastructure problems. We help keep your business running, no matter what. Boost availability and avoid downtime, trust our expertise to enhance your HP solution.

Recommended services

- **3-Year HP Support Plus 24 Service:** For a higher return on your storage technology, our 3-year combined reactive support service delivers integrated onsite hardware/software support services available 24x7x365, including access to HP technical resources, 4-hour response onsite hardware support and software updates.
- **HP Installation and Startup Service for D2D Backup System:** For efficient deployment and integration into your environment, this service provides the necessary activities required to deploy your D2D Backup System.
- **HP Backup and Recovery Solution Service:** To help you design an architecture that meets your requirements, this service deploys backup software, validates configuration and integrates the backup software solution into your infrastructure.

Related services

- **5-Year HP Support Plus 24:** Our 5-year combined reactive support service provides competitive pricing, less administration and a multi-year discount while delivering integrated onsite hardware/software support 24x7x365, including access to HP technical resources, 4-hour response onsite hardware support and software updates.

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To learn more about how you can provide disk-based data protection and automatic consolidation for your data centres and remote offices, visit www.hp.com/go/tape



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