HP StorageWorks Data Protection

Family guide

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HP StorageWorks Enterprise Backup Solutions (EBS) are fully certified and supported data protection solutions – from entry-level workgroups to enterprise-level datacentres.

HP data protection

HP data protection offers data backup solutions that help to reduce the impact of performing routine backup on the availability of the production server. A robust collection of storage media is available so that your data will be there when you need it. You can easily automate your data storage processes that reduce potential errors and management costs.

Simplicity

HP StorageWorks simplifies IT to reduce costs and complexity, increase worker productivity and provide users with quick access to the right data.

- **Reduce IT costs and complexity:** HP StorageWorks delivers easy-to-install, easy-to-manage and easy-to-support storage solutions that help customers lower their total cost of ownership (TCO) and reduce the complexity of their storage environment.
- **Increase worker productivity:** HP StorageWorks delivers the tools to simplify storage administration and automate tasks – allowing administrators to focus their time on fine-tuning and innovating IT.
- **Provide quick access to the right data:** HP StorageWorks simplifies the search and retrieval of information, helps businesses meet or exceed the requirements associated with the growing list of government regulations for data retention and mitigates the risk of non-compliance.

Agility

HP StorageWorks allows you to make rapid IT changes to adapt in real time to business needs, drive IT changes to create competitive advantages, and provide your data both protection and availability.

- **Adapt in real time:** HP StorageWorks delivers integrated IT consolidation and information lifecycle management (ILM) solutions providing the agility needed to respond quickly to changing business needs.
- **Create competitive advantages:** The extensive HP portfolio of storage solutions, best-of-breed products and world-class storage services enable customers to implement the RIGHT storage solution – the right technology, the right level of performance, the right capacity, the right cost, the right scalability and the right upgradeability.
- **Protected and available data:** HP StorageWorks delivers storage solutions that meet customers' specific recovery time and recovery point objectives by providing tape- and disk-based backup to meet customers' backup and recovery performance and cost requirements, local and remote replication to enable quick recovery in case of downtime, and mission-critical clusters to provide five 9s+ uptime.

Value

HP StorageWorks solutions offer you investment protection and great value through real-time scalability to meet demands for more storage performance, capacity and capability, plus an efficient use of IT resources and proactive management of all your data throughout its lifecycle, satisfying compliance directives.

- **Real-time scalability:** HP StorageWorks delivers superior investment protection today and tomorrow. Today, HP customers are able to use their products longer than competitive solutions. Tomorrow, HP customers can integrate their StorageWorks products into the HP StorageWorks Grid, concurrently scaling both performance and capacity.
- **Efficient use of IT resources:** HP StorageWorks consolidation and tiered storage solutions free up IT administrators to innovate IT and deliver improved capacity utilisation.
- **Proactive lifecycle management:** Using ILM policies, HP StorageWorks automatically and transparently moves files, e-mails and database records to and from a choice of archives – increasing performance of production servers and yet making data easily accessible for regulatory compliance or other reasons.
- **Enterprise backup solutions:** HP StorageWorks Enterprise Backup Solutions (EBS) are fully certified and supported data protection solutions – from entry-level workgroups to enterprise-level datacentres. EBS 1-2-3 is a step-by-step guide to help you design, configure and implement a data protection solution.

HP StorageWorks DAT tape drives

Protect your small or medium business with a dependable range of DAT drives from HP that balance price and performance with a range of capacity points, performance and connectivity options.

Entry-level

	HP StorageWorks DAT 40 Tape Drive Dependable entry-level backup solution	**HP StorageWorks DAT 72 Tape Drive** Dependable backup solution	**HP StorageWorks DAT 160 Tape Drive** Highest DAT capacity and performance available
Interface	SCSI, USB	SCSI, USB	SCSI, SAS, USB
Recording technology	DDS-4	DAT 72	DAT 160
OBDR support	Yes	Yes	Yes
Compressed storage capacity	40 GB	72 GB	160 GB
Form factor	5.25 inches, half-height	5.25 inches, half-height	5.25 inches, half-height
Compressed transfer rate	22 GB/hr	22 GB/hr	50 GB/hr
WORM support	No	No	Yes
Warranty and services included	3 years, next business day, parts exchange, limited warranty, plus 9x5 phone support	3 years, next business day, parts exchange, limited warranty, plus 9x5 phone support	3 years, next business day, parts exchange, limited warranty, plus 9x5 phone support
Recommended services	Hardware installation Hardware support 3 years, 4 hr 24x7 *	Hardware installation Hardware support 3 years, 4 hr 24x7 *	Hardware installation Hardware support 3 years, 4 hr 24x7*

*Additional levels of service available

HP StorageWorks LTO Ultrium tape drives

HP StorageWorks LTO Ultrium tape drives offer broad compatibility, support for One-Button Disaster Recovery (OBDR), manageability and legendary HP support.

Mid-range

New

	HP StorageWorks LTO Ultrium 232 Tape Drive Enterprise-class capacity, performance and reliability	**HP StorageWorks LTO Ultrium 448 Tape Drive** Best mix of features and value	**HP StorageWorks LTO Ultrium 448c Tape Blade** Integrated data protection for BladeSystem c-Class	**HP StorageWorks SB920c Tape Blade** Integrated data protection for BladeSystem c-Class
Recording technology	LTO Ultrium 1	LTO Ultrium 2	LTO Ultrium 2	LTO Ultrium 3
Compressed capacity (2:1)	200 GB	400 GB	400 GB	800 GB
Sustained transfer rate (compressed 2:1)	115 GB/hr	173 GB/hr	173 GB/hr	432 GB/hr
Buffer size	64 MB	64 MB	64 MB	64 MB
Interface	Wide Ultra2 SCSI (LVD)	Ultra160 SCSI (LVD) or 3 GB/sec SAS	3 GB/sec SAS	3 GB/sec SAS
Form factor	5.25 inch half-height	5.25 inch half-height	Half-height BladeSystem c-Class blade form factor	Half-height BladeSystem c-Class blade form factor
Encryption capability	No	No	No	No
WORM capability	No	No	No	Yes
Warranty and services included	3 years, next business day, parts exchange, limited warranty, plus 9x5 phone support	3 years, next business day, parts exchange, limited warranty, plus 9x5 phone support	3 years, next business day, parts exchange, limited warranty, plus 9x5 phone support	3 years, next business day, parts exchange, limited warranty, plus 9x5 phone support
Recommended services	Hardware installation Hardware support 3 years, 4 hr 24x7*	Hardware installation Hardware support 3 years, 4 hr 24x7*	Hardware installation Hardware support 3 years, 4 hr 24x7*	Hardware installation Hardware support 3 years, 4 hr 24x7*

*Additional levels of service available

HP StorageWorks LTO Ultrium tape drives (continued)

HP StorageWorks LTO Ultrium tape drives offer broad compatibility, support for One-Button Disaster Recovery (OBDR), manageability and legendary HP support.

	High-end		New	New
	HP StorageWorks LTO Ultrium 920 Tape Drive Excellent solution for storage intensive environments	**HP StorageWorks LTO Ultrium 960 Tape Drive** High-capacity feature reduces costs, provides greater storage consolidation	**HP StorageWorks LTO-4 Ultrium 1760 Tape Drive** Fourth-generation of LTO tape drive technology designed for direct attached storage	**HP StorageWorks LTO-4 Ultrium 1840 Tape Drive** Fourth-generation of LTO tape drive technology designed for medium and enterprise markets
Recording technology	LTO Ultrium 3	LTO Ultrium 3	LTO Ultrium 4	LTO Ultrium 4
Compressed capacity (2:1)	800 GB	800 GB	1.6 TB	1.6 TB
Sustained transfer rate (compressed 2:1)	432 GB/hr	576 GB/hr	576 GB/hr	864 GB/hr
Buffer size	64 MB	128 MB	128 MB	128 MB
Interface	Ultra320 SCSI (LVD) or 3 GB/sec SAS	Ultra320 SCSI (LVDS)	3 GB/sec SAS	Ultra320 SCSI (LVDS) or 3 GB/sec SAS
Form factor	5.25 inch half-height	5.25 inch full-height	5.25 inch half-height	5.25 inch full-height
Encryption capability	No	No	AES 256-bit	AES 256-bit
WORM capability	Yes	Yes	Yes	Yes
Warranty and services included	3 years, next business day, parts exchange, limited warranty, plus 9x5 phone support	3 years, next business day, parts exchange, limited warranty, plus 9x5 phone support	3 years, next business day, parts exchange, limited warranty, plus 9x5 phone support	3 years, next business day, parts exchange, limited warranty, plus 9x5 phone support
Recommended services	Hardware installation Hardware support 3 years, 4 hr 24x7*	Hardware installation Hardware support 3 years, 4 hr 24x7*	Hardware installation Hardware support 3 years, 4 hr 24x7*	Hardware installation Hardware support 3 years, 4 hr 24x7*

*Additional levels of service available

HP StorageWorks tape autoloaders

Automated backup that is easy to install and easy to use. HP StorageWorks tape autoloaders are an ideal backup solution for small to medium companies with limited IT support or remote sites of larger companies.

	Entry-level	Mid-range
	HP StorageWorks DAT 72x10 Tape Autoloader Low-cost, entry-level automated backup solution	**HP StorageWorks 1/8 G2 Tape Autoloader** High capacity and standard features in a compact form factor
Tape drives supported	DAT 72	LTO-4 Ultrium 1760 LTO-3 Ultrium 920 LTO-2 Ultrium 448 LTO-1 Ultrium 232
Number of cartridge slots	10	8
Maximum capacity (compressed 2:1)	720 GB**	12.8 TB
Maximum sustained transfer rate (compressed 2:1)	21 GB/hr	345.6 GB/hr
Form factor	1U	1U
Interface	Ultra160 LVD/SE SCSI	3Gb/sec SAS (LTO Ultrium 1760 and 920) Ultra320 LVD/SE SCSI (LTO Ultrium 920) Ultra160 LVD/SE SCSI (LTO Ultrium 448 and 232)
Warranty and services included	1 year, next business day, parts exchange, limited warranty, plus 9x5 phone support	1 year, next business day, parts exchange, limited warranty, plus 9x5 phone support
Recommended services	Hardware installation Hardware support 3 years, 4 hr 24x7*	Hardware installation Hardware support 3 years, 4 hr 24x7*

*Additional levels of service available
**Not recommended as a 720 GB tape drive

HP StorageWorks business-class tape libraries

HP StorageWorks business-class tape libraries provide centralised backup in a single automated device, freeing valuable IT resources for more strategic work. These libraries are ideal for medium to large IT networks, with or without a storage area network (SAN), experiencing uncertain data growth.

	Entry-level	Mid-range	High-end
	HP StorageWorks MSL2024 Tape Library High-capacity data storage	**HP StorageWorks MSL4048 Tape Library** Lots of storage in a small space	**HP StorageWorks MSL8096 Tape Library** Full-featured with exceptional storage density
Number and type of tape drives supported	1 LTO-4 Ultrium 1840 1-2 LTO-4 Ultrium 1760 1 LTO-3 Ultrium 960 1-2 LTO-3 Ultrium 920 1-2 LTO-2 Ultrium 448	1-2 LTO-4 Ultrium 1840 1-4 LTO-4 Ultrium 1760 1-2 LTO-3 Ultrium 960 1-4 LTO-3 Ultrium 920	2–4: LTO-4 Ultrium 1840 2–4: LTO-4 Ultrium 1760 2–4: LTO-3 Ultrium 960 2–4: LTO-3 Ultrium 920
Number of cartridge slots	24	48	96
Maximum capacity (compressed 2:1)	38.4 TB	76.8 TB	153.6 TB
Maximum sustained transfer rate (compressed 2:1)	1.1 TB/hr (2 drives)	2.3 TB/hr (4 drives)	3.4 TB/hr (4 drives)
Interface	4 GB native Fibre Channel Ultra320 LVD/SE Ultra160 LVD/SE 3 GB/sec SAS	4 GB native Fibre Channel Ultra320 LVD/SE 3 GB/sec SAS	4 GB native Fibre Channel Ultra320 LVD/SE 3 GB/sec SAS
Form factor	2U	4U	8U
Warranty and services included	1 year, next business day, parts exchange, limited warranty, plus 9x5 phone support	1 year, next business day, parts exchange, limited warranty, plus 9x5 phone support	1 year, next business day, on-site, limited warranty, plus 9x5 phone support
Recommended services	Hardware I&S service Hardware support 3 years, 4 hr 24x7*	Hardware I&S service Hardware support 3 years, 4 hr 24x7*	Hardware I&S service Hardware support 3 years, 4 hr 24x7*

* Additional levels of service available

HP StorageWorks business-class tape libraries (continued)

HP StorageWorks business-class tape libraries provide centralised backup in a single automated device, freeing valuable IT resources for more strategic work. These libraries are ideal for medium to large IT networks, with or without a storage area network (SAN), experiencing uncertain data growth.

High-end

	HP StorageWorks MSL6026/6052 Tape Libraries Scalable, flexible and manageable	**HP StorageWorks MSL6030/6060 Tape Libraries** Scalable, flexible and manageable
Number and type of tape drive supported	1 – 16: SDLT 600 (multi-unit)	1–16: LTO-4 Ultrium 1840 (multi-unit) 1–16: LTO-3 Ultrium 960
Number of cartridge slots	26–208 (multi-unit)	30–240 (multi-unit)
Maximum capacity (2:1 compression)	124.8 TB	384 TB
Maximum sustained transfer rate (compression)	4.2 TB/hr (16 drive, multi-unit configuration)	13.8 TB/hr (16 drive, multi-unit configuration)
Interface	2 GB Fibre Channel Ultra160 LVD/SE SCSI	4 GB Fibre Channel Ultra320 LVD/SE SCSI
Form factor	5U/10U	5U/10U
Warranty and services included	1 year, next business day, on-site, limited	1 year, next business day, on-site, limited
Recommended services	Hardware I&S service Hardware support 3 years, 4 hr 24x7*	Hardware I&S service Hardware support 3 years, 4 hr 24x7*

*Additional levels of service available

HP StorageWorks enterprise-class tape libraries

HP StorageWorks enterprise-class tape libraries provide highly reliable backup and restore solutions for the mission-critical data storage requirements of high-end enterprise customers.

High-end

	HP StorageWorks EML E-Series Tape Library Scalable, manageable, reliable	**HP StorageWorks ESL E-Series Tape Library** Enterprise-class reliability, performance, capacity and storage density
Tape Drives Supported	LTO-4 Ultrium 1840, LTO-3 Ultrium 960	LTO-4 Ultrium 1840, LTO-3 Ultrium 960,SDLT 600
Maximum number of tape drives	1 to 16	1 to 44
Maximum number of cartridge slots	71 to 505 (note: 8 tape drives maximum with 505 slots)	322 to 3,546 LTO tapes 286 to 3,138 SDLT tapes
Maximum capacity (compressed 2:1)	818 TB	5,673 TB
Maximum sustained transfer rate (compressed 2:1)	13.8 TB/hr 7.2 TB/hr	38.0 TB/hr 19.8 TB/hr 11.4 TB/hr
Encryption capable	Yes, with LTO-4	Yes, with LTO-4
Form factor	12U, 24U, 32U or 40U	Freestanding
Interface	Fibre Channel Note: (4 GB/2 GB/1 GB multi-mode optical)	Fibre Channel Note: (4 GB/2 GB/1 GB multi-mode optical)
Warranty and services included	EML Hardware: The warranty for this product consists of 1 year on-site, next business day. EML Software: HP provides 1 year, 9x5 phone support. For business-critical requirements, the level of support may be increased through a full range of upgrade products.	1 year, next business day, on-site, limited warranty, plus 9x5 phone support
Recommended services	Hardware I&S service Hardware support 3 years, 4 hr 24x7*	Hardware I&S service Hardware support 3 years, 4 hr 24x7*

*Additional levels of service available

HP StorageWorks Secure Key Manager

HP StorageWorks Secure Key Manager reduces your risk of a costly data breach and reputation damage while improving regulatory compliance with centralised secure encryption key management for HP LTO-4 enterprise tape libraries.

High-end

New

HP StorageWorks Secure Key Manager
Centralised secure encryption key management for HP LTO4 enterprise libraries unlike independent software vendor (ISV) and library-hosted solutions that are not hardened appliances nor automatic replication architectures

Key generation	Advanced Encryption Standard with 256-bit keys (AES-256)
Security standards	FIPS 140-2 Level 2 (validation pending) Note: The Federal Information Processing Standard (FIPS) Publication 140-2 is a U.S. government computer security standard used to accredit cryptographic modules.
Operating system	Hardened embedded Linux OS
Physical security	Dual locking bezel with high-security pick-resistant locks and tamper-evident enclosure seals
Audit logs	Digitally signed logs
Number of clients supported	Five (5) EML/ESL tape library licences included per node
Key granularity	Key per cartridge and key per library partition
Client IOP	Extensible to emerging key management standards
Form factor	1U rack mountable
Clustering and failover	Multi-node multi-site clustering, automatic key and policy synchronisation, failover and recovery; > 20 nodes supported
Warranty and services included	1 year parts/0 labour/0 on-site

HP StorageWorks disk-based backup systems

Integrating seamlessly into existing backup applications and processes, HP StorageWorks disk-based backup systems are designed to accelerate backup and restore performance while improving overall reliability.

Entry-level

New

	D2D110 Backup System 1 TB D2D Backup System	**D2D120 Backup System** 2 TB D2D Backup System	**D2D130 Backup System** 3 TB D2D Backup System
Total raw capacity	1 TB	2 TB	3 TB
Total usable capacity	750 GB	1.5 TB	2.25 TB
Performance (maximum data transfer rate)	50 MB/sec	50 MB/sec	50 MB/sec
Number of device interfaces	1	1	1
Type of device interfaces	iSCSI	iSCSI	iSCSI
Maximum number of servers supported per D2D system	6	6	6
Disk drive capacity, type	250 GB SATA	500 GB SATA	750 GB SATA
Disk drive form factor	3.5 inch	3.5 inch	3.5 inch
Disk drive speed	7,200 rpm	7,200 rpm	7,200 rpm
Number of disk drives	4	4	4
Tape devices emulated	HP LTO-2 and LTO-3 tape drives and 1/8 autoloaders	HP LTO-2 and LTO-3 tape drives and 1/8 autoloaders	HP LTO-2 and LTO-3 tape drives and 1/8 autoloaders
Maximum number of tape devices emulated	6	6	6
Maximum number of virtual tape cartridges emulated	96	96	96
Warranty and services included	1/1/1 Includes 1 year, next business day parts exchange warranty, plus 9x5 phone support for the duration of the warranty	1/1/1 Includes 1 year, next business day, parts exchange warranty, plus 9x5 phone support for the duration of the warranty	1/1/1 Includes 1 year, next business day, parts exchange warranty, plus 9x5 phone support for the duration of the warranty
Form factor	Tower	Tower	Tower
Recommended services	Hardware installation Hardware support 3 year, 4 hr 24x7*	Hardware installation Hardware support 3 year, 4 hr 24x7*	Hardware installation Hardware support 3 year, 4 hr 24x7*

*Additional levels of service available

HP StorageWorks disk-based backup systems (continued)

Integrating seamlessly into existing backup applications and processes, HP StorageWorks disk-based backup systems are designed to accelerate backup and restore performance while improving overall reliability.

Mid-range

	HP StorageWorks 6000 Virtual Library System Ideal for small to medium SAN environments	**HP StorageWorks 1000i Virtual Library System** Unattended backup and restores	**HP StorageWorks 9000 Virtual Library System** Ideal for large to enterprise SAN environments	**HP StorageWorks 12000 Virtual Library System EVA Gateway** Accelerates backup performance in large SAN environments using EVAs
Base capacity	4.4 TB	2 TB	30 TB	30 TB
Maximum capacity (2:1 data compression)	105.6TB	1.5 TB Note: preconfigured with RAID 5	600 TB	1,080 TB Note: Total capacity enablement standard on base unit = 50 TB (25 LUNs). Additional capacity may be enabled by adding licences. Total capacity is limited by 256 LUNs and 2 TB per LUN and then taking into account 2:1 data compression.
Maximum performance	600 MB/sec	58 MB/sec	4,800 MB/sec Note: with 8 nodes and 2:1 compression	4,800 MB/sec Note: with 8 nodes and 2:1 compression
Base form factor	3U	1U	9U Note: FC infrastructure kit will take an additional 4U.	2U per node
Full configuration form factor	18U	1U	76U Note: FC infrastructure kit will take an additional 4U.	N/A Note: Form factor is determined by number of nodes and EVA arrays.
Number of virtual drives	128 Note: Firmware version 1.1.0 or higher required	12 Note: Each VLS1000i system can configure up to 12 virtual tape drives with a maximum of 6 designated as virtual tape autoloaders.	1024 Note: 128 per node	1024 Note: 128 per node
Number of virtual libraries	16	6 Note: Each VLS1000i system can configure up to 12 virtual tape drives with a maximum of 6 designated as virtual tape autoloaders.	16 Note: per node	128 Note: 16 per node
Interface	Four 4 GB Fibre Channel	One iSCSI (Gigabit Ethernet)	Four 4GB Fibre Channel Note: per node	Four 4GB Fibre Channel Note: per node
Warranty and services included	1 year, next business day, on-site, limited warranty, plus 9x5 phone support for the duration of the warranty.	1 year, parts exchange, limited warranty, with next business day response, plus 9x5 phone support for the duration of the warranty.	1 year, next-day, on-site, limited warranty for the HP StorageWorks VLS9000 hardware, plus 9x5 phone support for the duration of the warranty.	Includes 1 year, next business day, parts exchange
Recommended services	Hardware I&S Service Hardware Support 3 year, 4 hr 24x7*	Hardware I&S service Hardware support 3 year, 4 hr 24x7*	Hardware I&S service Hardware support 3 year, 4 hr 24x7*	Hardware I&S service Hardware support 3 year, 4 hr 24x7*

*Additional levels of service available

HP storage media and tape options

The best hardware deserves the best media. So if you are buying an HP storage solution, then choose HP-branded media. The HP brand is your guarantee that the media has been developed and tested as part of a complete storage solution, to give you increased reliability in any given environment.

LTO Ultrium family

DAT family

LTO Ultrium – Tested for more efficient performance on HP LTO Ultrium drives, HP LTO Ultrium RW/WORM cartridges meet all your demands for high data security, availability and reliability, high storage density, ease of management and scalable storage and backup performance. With a six generation roadmap LTO Ultrium is a technology enterprises can invest in with confidence.

- **New** – The recent launch of HP LTO4 Ultrium Storage Media offers the most advanced capabilities on tape. With an increased capacity of 1.6TB and transfer speeds of up to 240 MB/sec less tapes are needed to store increasing amounts of data. For extra security HP LTO4 Ultrium is available in WORM and now offers AES-256 bit encryption.
- HP LTO3 and LTO4 Ultrium are available in two versions – HP LTO Ultrium RW for backup/restore operations and HP LTO Ultrium WORM for compliant, permanent and tamper-proof archives. The HP LTO Ultrium portfolio includes a choice of custom and non-custom labelled cartridges for improved handling and precision in automated libraries, plus a complete range of LTO Ultrium Storage Media Kits to enable any small business to run competent, regular backups without expert help.

DDS – HP DDS data cartridges meet the exacting mechanical, environmental and durability specifications of computer applications. Tested to durability specifications twice as rigorous as those required by the DDS logo tests, an HP DDS cartridge can consistently do an excellent job – in the toughest environment and for the whole of its archival life. HP DAT 160 data cartridges provide a compressed capacity of up to 160 GB and are exhaustively tested for increased reliability and restore performance.

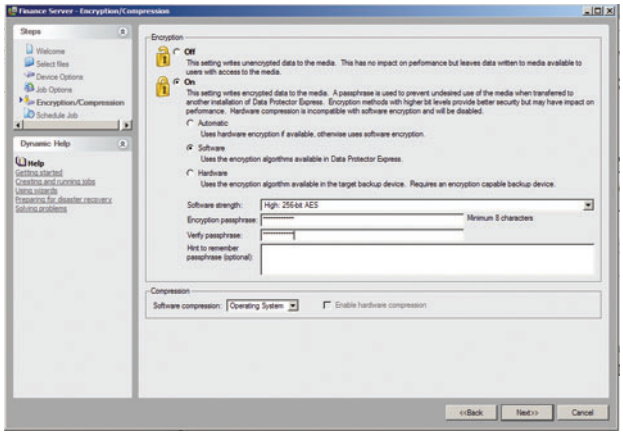
DLT, AIT and Travan – HP also supplies Super DLTtape, DLTtape IV, AIT and Travan media. All products that carry the HP brand are tested to extremes to verify increased reliability for restore.

HP optical – HP 5.25-inch optical discs come with a 100-year, 100-per cent, defect-free warranty, and are engineered to meet and surpass International Organisation for Standardisation (ISO)/International Electrotechnical Commission (IEC)/American National Standards Institute (ANSI) standards. It all adds up to total peace of mind in large-scale, high-security, permanent storage applications such as integrated document management and e-mail archiving.

Bar code labelled media – At no extra cost, HP Linear Tape Open (LTO) Ultrium and Super Digital Linear Tape (SDLT) cartridges can be supplied with non-custom bar code labels to enable accurate automated retrieval every time. HP LTO Ultrium and SDLT non-custom labelled cartridges can be bought off the shelf, with a bar code sequence pre-determined by HP, from your reseller.

HP StorageWorks Rack-Mount Kit Family

The HP StorageWorks Rack-Mount Kits provide a high density, rack-mountable tape drive solution for both direct-attach small computer system interface (SCSI), serial-attached SCSI (SAS) and universal serial bus (USB) backup and archiving applications. The Rack-Mount Kit family is ideal for customers who have rack environments and are looking for a tape backup solution with a smaller footprint. HP StorageWorks Rack-Mount Kits are supported on HP ProLiant and AlphaServer platforms. HP StorageWorks DAT and LTO Ultrium drives support HP StorageWorks One Button Disaster Recovery that allows you to restore your entire system at the touch of a button without the need for system disks or software CDs, and HP StorageWorks Library and Tape Tools which helps make installation, management and troubleshooting easier.



HP Data Protector Express software

Server backup: Data Protection Express is an easy-to-use backup and recovery software solution for small and mid-sized organisations.

Easy to implement

- Simple, modular product and licensing structure
- Local language support in nine different languages
- All features available on Windows®, Linux and NetWare
- Easily add network backup of additional machines or online backup of applications as needed

Excellent value and low risk

- All components licensed and priced the same for all supported operating systems
- Includes support for backup and recovery of an unlimited number of networked Windows desktops
- Includes one-year support and access to upgrades and service packs

Easy to use and manage

- Intuitive and customisable interface is extremely easy to use and does not require user training.
- Customisation includes role-based security with profiles to allow access to specific functions for specific users.
- Management of the entire backup environment can be done from any system – no need for a dedicated user interface console.

Robust

- Bare Metal Disaster Recovery option gets your system operational again fast.
- Automated media and device failover, even across media servers adds resilience to hardware failure.

Backup data encryption

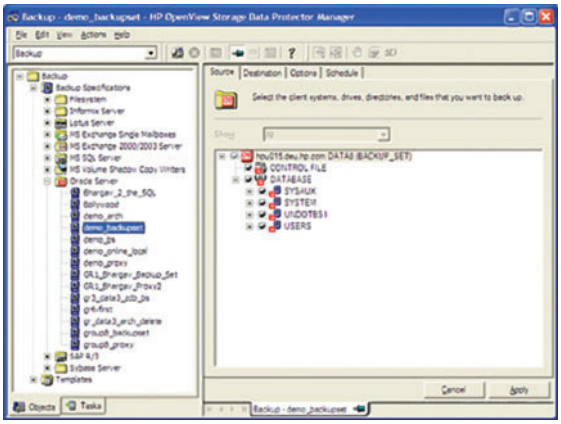
- Secures data against unauthorised access
- Encryption in the software supports secure backups to any device
- Also supports Ultrium LTO-4 data encryption

High performance, advanced features

- Easily add network backup of additional machines or online backup of applications as needed
- Reduces the backup window with open file backup and online application backup agents
- Disk-to-disk-to-any (D2D2Any) option extends D2D backup capabilities

Upgrade from HP Data Protector Express Single Server Edition.

- Data Protector Express Single Server Edition included with all HP StorageWorks tape drives and tape autoloaders
- Easily upgrade to Data Protector Express with all jobs and setting retained
- Upgrade is available using a pre-discounted part number (BB117ET) to all HP StorageWorks tape drives and tape autoloader customers



HP Data Protector software

A complete backup and recovery solution for medium, large and enterprise-class organisations

NetworkWorld
Clear Choice, December 2006

Robust backup solution
HP Data Protector software is designed for the most demanding 24x7 environments and offers automated high-performance backup and recovery from disk or tape.

Easy to deploy and use
HP Data Protector software is both easy to deploy and use. Installation is simple and has a fully automated software distribution of agent software to all connected clients, including a centralised licensing facility that reduces complexity. Competitive solutions fail to deliver this level of automation.

Reduced backup windows
HP Data Protector software enables you to respond to the needs for 24x7 application availability, by integrating techniques to reduce backup windows. These include online backup, open file backup or zero downtime backup (local and remote replication).

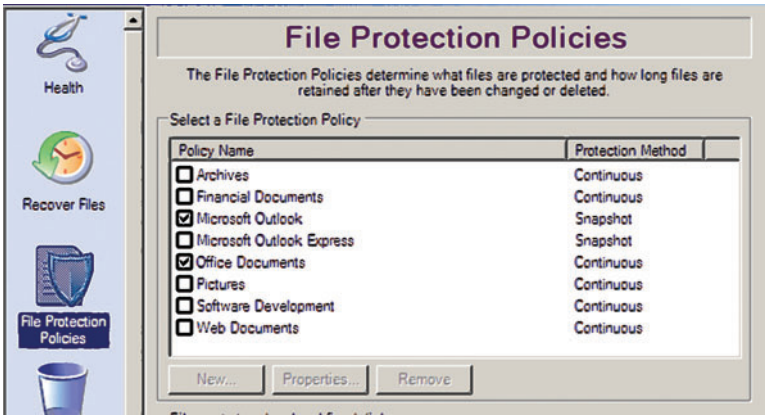
Recovery of terabytes of data in minutes
Utilising instant recovery, HP Data Protector software meets the demands of the most complex enterprises for specific recovery time and recovery point objectives, and enables critical data to be recovered within minutes.

Zero downtime backup and instant recovery support the latest HP StorageWorks XP24000 Disk Array and Command View EVA software, designed to respond to your needs for 24x7 application availability.

Extended platform support for disaster recovery
Recover your system with one of the six different Bare Metal Disaster Recovery methods that are uniquely integrated into HP Data Protector software. These methods allow you to boot from either CD, DVD or tape, and can be easily deployed with simple, on-screen instructions.

HP Data Protector's extensive support of all major operating systems, applications, databases, drives, libraries and disk arrays helps you create solutions that meet your unique and changing infrastructure requirements. See **www.hp.com/go/dataprotector** for the latest support matrices and further information.

First-class support
As with all HP backup and restore solutions, HP Data Protector is fully supported by HP, so you can rest assured that if anything happens we're there to help.



HP Data Protector for Notebooks and Desktops software

PC data protection: continuous client data protection for notebooks and desktops that delivers efficient and economical protection for the increasing amounts of data stored at the 'edge' of the organisation

Key features and benefits

- Continuous, automatic protection of selected data on up to 1,000 networked notebooks and desktops
- Protection when mobile and when connected
- Low 'help-desk' costs because of self-service file recovery and integration with Microsoft Internet Explorer
- Local version store allows recovery after files are accidentally deleted or corrupted
- Network data vault allows data recovery after hard disk drive fails or machine is lost
- Space and network efficient with protected files compressed
- Secure and robust with protected files stored in one or more network locations and can be encrypted for added protection

For more information, visit the HP Data Protector for Notebooks and Desktops website at **www.hp.com/go/dataprotector/notebooks**.

Ordering information

BB621A HP Data Protector for Notebooks and Desktops, 10 Pack

BB622A HP Data Protector for Notebooks and Desktops, 25 Pack

BB623A HP Data Protector for Notebooks and Desktops, 100 Pack

Note: Data Protector for Notebooks and Desktops consists of:

- Data Protector for Notebooks and Desktops Administration Server
- The Data Vault – one or more network backup locations
- Data Protector for Notebooks and Desktops Agents

When the Data Protector for Notebooks and Desktops clients are purchased, the licence to use the Data Protector for Notebooks and Desktops Administration Server is also granted. The Data Protector for Notebooks and Desktops Administration Server is used to configure the Data Vault and the backup policies for the clients.

Warranty and included services

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

HP Care Pack Services

Extend and expand your standard product warranty
HP Care Pack Services offer 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 extension 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, visit **www.hp.com/services/storage_carepacks**.

Note: HP Care Pack portfolio is available (including hardware installation services and uplifted service levels).

Additional HP Support Services

Provide support for your critical data.
HP Services provides a broad spectrum of services to commercial and enterprise customers, including performance and availability services such as proactive mission-critical services, as well as support management services for deployment of the entire IT infrastructure, including HP and multi-vendor environments. For more information on these services, visit **www.hp.com/hps/storage**.

HP Education Services

Provide a strong commitment to training your work force.
HP offers a variety of training methods to fit your needs including traditional instructor-led courses at one of our 120 training centres worldwide, on-site training customised to your needs in your facility, or remotely assisted instruction learning that combines the best of traditional classroom training (including live instructor and labs) with the best of online training (no travel required). 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, visit **http://education.hp.com/curr-storsan.htm**.

HP Factory Express

Get more from your IT investment.
While your StorageWorks solution is in the HP factory, consider having HP do the labour-intensive tasks such as software loading, component installation and any needed customisation, configuration or integration. HP Factory Express delivers your HP StorageWorks solution ready to go – right out of the box – with a portfolio of pre-defined and pre-priced, factory-based solutions and deployment services that support HP StorageWorks devices and infrastructure. For more information on HP Factory Express, visit **www.hp.com/go/factoryexpress**.

To learn more

For more information on HP StorageWorks nearline data protection solutions, please contact your HP representative, authorised HP reseller or visit **www.hp.com/go/tape**.

HP Storage Media

At HP, we set the highest standards in the industry for our storage media. As a drive and media specialist, we know the extremes to which end users put both hardware and tape. In order to display the HP brand, cartridges must pass exhaustive laboratory tests that go far beyond the requirements of industry standard logo specifications.

Our goal is to provide improved quality and performance for backup operations and, most importantly, for restoring your data when you need it most.

The HP brand specification sets uncompromising standards for important areas such as:

- Environmental testing across a range of temperature and humidity climates. The aim of the test: to enable cartridges to perform as well in New York or London as they will in Singapore or São Paulo.
- Archive durability tests to provide peace of mind that data stored on HP tapes will still be there for decades to come.
- Thousands of shoeshine and load/unload procedures for the most uncompromising automation environments.
- Drop testing to simulate transportation around your datacentre or to an off-site vault.

Having achieved these unrelenting standards, we continuously test and monitor the quality of every batch of media that is destined to bear the HP logo.

HP storage media test facilities in the United States operate 24x7x365, providing over 170,000 different tests across 1.2 million hours each year.

Our tests prove that, when compared with other leading brands, HP LTO Ultrium data cartridges, for example, can deliver twice the data capacity per backup and three times as many continuously successful backup and restore cycles over the life of the cartridge.

For further details, contact your HP sales representative or visit **www.hp.com/go/storagemedia**.

For more information, visit hp.com/go/tape

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