

# HP StorageWorks 6000 Virtual Library System

Data sheet



Integrating seamlessly into the existing environment, the HP StorageWorks 6000 Virtual Library System improves the performance and reliability of your data protection process.

Integrating seamlessly into existing backup applications and processes, the HP StorageWorks 6000 Virtual Library System (HP VLS6000) accelerates backup performance in complex SAN environments while improving overall reliability. Emulating popular tape libraries and tape drives, the HP VLS6000 matches the existing data protection environment, removing the need to change backup software or monitoring policies. By emulating multiple tape drives simultaneously, more backup jobs can be done in parallel resulting in reduced backup times. Additionally, because the data resides on disk, single file restores are exceptionally fast.

The HP VLS6000 simplifies your SAN environment by providing more virtual devices while maintaining the manageability of a single system. As your environment changes, the HP VLS6000 adapts to it—host masking and mapping ensure that only the appropriate hosts have access to the HP VLS6000. As storage requirements grow, it matches the environment by scaling both capacity and performance.

## Features and benefits

- **Seamless integration into current backup and recovery processes**—The HP VLS6000 is deployed, managed and operated just like a tape library minimizing disruptions to your environment.

- **Improved backup and recovery performance**—Because of its ability to receive many data streams at the same time, the HP VLS6000 maximizes the number of simultaneous backup jobs thus reducing your backup window. Restore jobs happen very quickly as the data remains on disk; eliminating tape movement and mounting time.

- **Investment protection through scaling both capacity and performance**—Environments and needs change, and so does the HP VLS6000. As capacity kits are added to the system, the performance also increases. Additionally, when new higher capacity SATA hard drives are available, the upgrade is as simple as migrating the data off your HP VLS6000, replacing the old HDDs with the new and rebooting—providing twice the capacity for the cost of the disks.

- **Efficient use of storage capacity**—Compression enables up to two times the amount of data to be stored in the HP VLS6000. The compression engine can be enabled or disabled as the environment requires.

- **High availability features provide resilience in the face of component failures**—The storage component of the HP VLS6000 is based on the HP StorageWorks Modular Smart Array 20 (MSA20) enclosure, providing redundant power and cooling as well as hot-swap hard drives.

## HP StorageWorks 6000 Virtual Library System



	HP 6105 Virtual Library System	HP 6510 Virtual Library System	HP 6840 Virtual Library System*
<b>Base capacity</b>	3 TB raw 2.5 TB usable	6 TB raw 5 TB usable	12 TB raw 10 TB usable
<b>Maximum capacity</b>	6 TB raw 5 TB usable	12 TB raw 10 TB usable	48 TB raw 40 TB usable
	NOTE: Accepts one additional capacity expansion unit (AF730A)		
<b>Performance by configuration</b>	2.5 TB usable — 115 MB/s (0.4 TB/hr) 5 TB usable—225 MB/s (0.8 TB/hr) 7.5 TB usable—n/a 10 TB usable—n/a 12.5–20 TB usable—n/a 22.5–40 TB usable—n/a	2.5 TB usable—n/a 5 TB usable—225 MB/s (0.8 TB/hr) 7.5 TB usable—337 MB/s (1.2 TB/hr) 10 TB usable—450 MB/s (1.6 TB/hr) 12.5–20 TB usable—n/a 22.5–40 TB usable—n/a	2.5 TB usable—n/a 5 TB usable—n/a 7.5 TB usable—n/a 10 TB usable—450 MB/s (1.6 TB/hr) 12.5–20 TB usable—530 MB/s (1.9 TB/hr) 22.5–40 TB usable—575 MB/s (2.1 TB/hr)
	NOTE: Maximum measured performance values. Actual performance is dependent on environment.		
<b>Number of virtual libraries</b>	1 to 16	1 to 16	1 to 16
<b>Number of virtual tape drives</b>	1 to 64	1 to 64	1 to 64
<b>RAID level</b>	RAID 5	RAID 5	RAID 5
<b>Operating temperature</b>	50° to 95° F (10° to 35° C )	50° to 95° F (10° to 35° C )	50° to 95° F (10° to 35° C )
<b>Shipping temperature</b>	–40° to 150° F (–40° to 66° C)	–40° to 150° F (–40° to 66° C)	–40° to 150° F (–40° to 66° C)
<b>Operating humidity</b>	40% to 60%	40% to 60%	40% to 60%

### Ordering information

Part number/SKU	Product name	Description
AF728A	HP 6105 Virtual Library System	2.5 TB Virtual Library System
AF729A	HP 6510 Virtual Library System	5 TB Virtual Library System
AG051A	HP 6840 Virtual Library System*	10 TB Virtual Library System

### Options

AF730A	HP 6000 Virtual Library System 2.5 TB Capacity Bundle	Contains MSA20 storage enclosure with twelve 250 GB SATA HDDs and VLS6000 Capacity License
T4259A	HP 6000 Virtual Library System Capacity License	Requires additional MSA20 enclosure and twelve 250 GB SATA HDDs, VLS6000 capacity license, LTU per additional shelf

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<b>What's included</b>	<b>HP 6105 Virtual Library System</b> HP VLS6100 node; HP MSA20 storage enclosure (335921-B21) configured with twelve 250 GB SATA disk drives (349239-B21); Serial cable; Command View Tape Library Software CD; Installation poster; HP VLS6000 Documentation CD; HP Command View Tape Library Software Documentation CD; System recovery CD
	<b>HP 6510 Virtual Library System</b> HP VLS6500 node; Two HP MSA20 storage enclosure (335921-B21) each configured with twelve 250 GB SATA disk drives (349239-B21); Serial cable; Command View Tape Library Software CD; Installation poster; HP VLS6000 Documentation CD; HP Command View Tape Library Software Documentation CD; System recovery CD
	<b>HP 6840 Virtual Library System*</b> HP VLS6800 node; Four HP StorageWorks MSA20 Storage Enclosure (335921-B21) each configured with twelve 250 GB SATA disk drives (349239-B21); Serial cable; Command View Tape Library Software CD; Installation poster; HP 6000 Virtual Library System Documentation CD; HP Command View Tape Library Software Documentation CD; System recovery CD
	<b>HP 6000 Virtual Library System 2.5 TB Capacity Bundle</b> HP VLS6000 Capacity License (T4259A); HP MSA20 storage enclosure (335921-B21) configured with twelve 250 GB SATA disk drives (349239-B21); Installation poster
	<b>HP 6000 Virtual Library System Capacity License</b> Includes license to add capacity to a VLS 6000 system. Note: this license is only needed for customers who have MSA20s on site that they wish to re-deploy as part of an existing VLS 6000 system. For customers who simply wish to add capacity, and do not have existing storage on hand, purchase the HP 6000 Virtual Library System 2.5 TB Capacity Bundle

<b>Warranty service and support</b>	HP provides a 1-year, next-day, on-site, limited warranty for the HP VLS6000 hardware, plus 9x5 phone support for the duration of the warranty. All hard drive modules have a 1-year, parts exchange, limited warranty, with next business day response, plus 9x5 phone support for the duration of the warranty. For more information about HP's Global Limited Warranty and Technical Support, visit: <a href="http://h18006.www1.hp.com/products/storageworks/warranty.html">http://h18006.www1.hp.com/products/storageworks/warranty.html</a>
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<b>Warranty and support options</b>	HP Care Pack Services offer upgraded service levels to extend and expand your standard product warranty with 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. For many products, post-warranty HP Care Pack Services are available when your original warranty has expired.
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## Why purchase an HP Care Pack service?

Your standard warranty protects against product defects. HP Care Pack Services help you guard against unplanned downtime, which can reduce your productivity and profitability. These convenient service packages:

- Protect your investment in HP products
- Provide consistent, predictable levels of support across your entire department or business
- Ease budget planning with fixed-cost support that includes parts and labor
- Give you direct access to proven technical and problem-solving expertise
- Offer a choice of response-time and repair-time commitments
- Deliver prompt, measurable results
- Are available whenever and wherever you do business

HP Care Pack availability may vary by country and product.

<b>Service options</b>	<b>HP Installation and Startup for HP StorageWorks</b> <ul style="list-style-type: none"><li>• Provides for the implementation of the HP StorageWorks VLS6000 products in SAN environments (ESL/ESL E/EML E/MSL service also available), including the installation of all VLS6000 hardware.</li><li>• Minimizes implementation-related disruptions to your environment and helps ensure increased system reliability and more effective data management</li></ul>
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Due to the complexities involved with the initial installation of a HP Virtual Library System into a SAN environment, Hewlett Packard recommends that the SAN Implementation Service (HA124A1) is purchased. This service covers pre-installation preparation activities, installation and configuration of VLS6000 hardware, configuration of hosts (up to five, additional handled via HA124A1 5B2 per additional 10) and switches, verification testing and customer orientation.

For more information please visit: [http://www.hp.com/hps/storage/ns\\_info.html#related](http://www.hp.com/hps/storage/ns_info.html#related)

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## Financial Services

HP Financial Services provides innovative financing and financial asset management programs to help you cost-effectively acquire, manage and ultimately retire your HP solutions. For more information on these services, please contact your HP sales representative or find us on the web at: [www.hp.com/go/hpfinancialservices](http://www.hp.com/go/hpfinancialservices).

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## HP Customer Support

HP Customer Support provides a broad spectrum of services to commercial and enterprise customers, including performance and availability services such as proactive mission-critical services and support management services for deployment of the entire IT infrastructure, including HP and multivendor environments. For more information on these services, contact your HP sales representative or visit [www.hp.com/hps/support](http://www.hp.com/hps/support).

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## For more information

For more information about the HP StorageWorks 6000 Virtual Library System, go to: [www.hp.com/go/tape](http://www.hp.com/go/tape).

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To learn more, visit [www.hp.com/go/tape](http://www.hp.com/go/tape)

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