HP StorageWorks 4400 Enterprise Virtual Array

Data sheet

The HP StorageWorks 4400 Enterprise Virtual Array (EVA4400) delivers virtual storage for the midsize business, providing enhanced performance, better capacity utilization, and easier management of on-demand storage activities, all at an affordable price.

The EVA4400 is a high-performance, scalable, reliable, and highly available storage solution that you can install in just a few hours. With broad operating system support and proven integration with Microsoft® Exchange, Oracle®, and SAP, the EVA4400 delivers real value with cost savings that include easy setup and self-repair capabilities. The EVA4400 is built on the HP StorageWorks 4100/6100/8100 EVA architecture with 99.999% availability for planned uptime, including dual-redundant design and high availability. The array supports robust local and remote replication capabilities to equip you with disaster tolerance and the ability to keep applications online during backup and restore. Spend less time managing your storage…and more time managing your business.

Features and benefits

- **Affordable enterprise-class storage array functionality**: Easily install, upgrade, and repair the EVA4400, which is priced affordably for midsize customers. EVA4400 Starter Kits are aggressively priced, easy to order and deploy first SAN solutions that are for specific market segments, including HP BladeSystem servers.

- **Virtualization to improve capacity and reduce management complexities**: Reduce management complexities typically found in traditional arrays by employing EVA virtualization capabilities to better utilize your management resources. Virtualization technology also helps optimize use of available capacity and reduces stranded storage.

- **Lower cost of ownership**: Reap the benefits of an attractive total cost of ownership with a more affordable and less complex solution than traditional arrays; easily order EVA4400 Starter Kits with single part number packages.

Technical specifications

Product name	EVA4400	EVA4400 with embedded switch
SKU part numbers	AG637A*	AG805A
Maximum number of drives (including expansion)	96*	96
Maximum capacity (including expansion)	96 TB*	96 TB
Maximum drives per enclosures	12*	12
Fibre Channel drive capacity, port quantity, speed	450 GB 15K rpm*, 300 GB 15K rpm*, 146 GB 15K rpm*, 400 GB 10K rpm*, 1 TB FATA*	450 GB 15K rpm, 300 GB 15K rpm, 146 GB 15K rpm, 400 GB 10K rpm, 1 TB FATA
Cache size per controller pair	4 GB*	4 GB
Fault-tolerant features	Dual redundant controllers*, power supplies*, fans*, power distribution units*	Dual redundant controllers, power supplies, fans, power distribution units, embedded switches
Hot plug support	Hot pluggable power supplies*, fans*, cache batteries*, I/O modules*, environmental monitoring units*, disks*	Hot pluggable power supplies, fans, cache batteries, I/O modules, environmental monitoring units, disks
Number/Type of controllers	2 HSV300 controllers*	2 HSV300-S controllers
Number/Type of enclosures	Up to 8 M6412 enclosures*	Up to 8 M6412 enclosures
Supported operating systems	HP-UX*, HP OpenVMS*, HP Tru64 UNIX®*, Linux*, Sun Solaris*, Windows® 2003 Standard Edition (32-bit/x64)*, Windows 2003 Enterprise Edition (32-bit/x64)*, VMware*, Novell NetWare, IBM AIX*, Apple Mac OS X*	HP-UX, HP OpenVMS, HP Tru64 UNIX, Linux, Sun Solaris, Windows 2003 Standard Edition (32-bit/x64), Windows 2003 Enterprise Edition (32-bit/x64), VMware, Novell NetWare, IBM AIX, Apple Mac OS X
Supported products	HP servers (HP-UX, ProLiant, AlphaServers)*, x86 servers*, Dell servers*, Sun servers*, IBM servers*	HP servers (HP-UX, ProLiant, AlphaServers), x86 servers, Dell servers, Sun servers, IBM servers
Warranty (parts/labor/onsite)	2 years parts, 2 years labor, 2 years onsite support with next business day (NBD) response*	2 years parts, 2 years labor, 2 years onsite support with next business day (NBD) response

* Applies to the Starter Kits also.

Technical specifications

Product name	EVA4400 Starter Kit with 146 GB 15K HDDs	EVA4400 Starter Kit with 400 GB 10K HDDs	EVA4400 Starter Kit for HP BladeSystem**
SKU part numbers	AJ693A	AJ697A	AJ701A
Bundled hardware	EVA4400 Dual-controller enclosure, M6412 12-bay HDD enclosure, 8 146 GB 15K HDDs	EVA4400 Dual-controller enclosure, M6412 12-bay HDD enclosure, 8 400 GB 10K HDDs	EVA4400 Dual-controller enclosure, M6412 12-bay HDD enclosure, factory integrated
Bundled software	Command View 8.0 SmartStart for HP EVA storage	Command View 8.0 SmartStart for HP EVA storage	Command View 8.0 SmartStart for HP EVA storage

** Requires purchase of HP BladeSystem and not available in EMEA.
See table above for more information.

- **Simplified integration of leading business applications**: Quickly deploy business intelligence, disaster recovery, and mail and messaging applications with EVA4400 Solution Blocks that provide blueprints for integration with Microsoft Exchange, Oracle, and SAP, combining the right server, storage, and application components.

- **Storage that keeps pace in the agile world of virtual servers**: Take advantage of an enhanced SAN solution—including a competitively priced EVA4400 Starter Kit for HP BladeSystem servers—that is easy to configure, provisions storage, and can respond quickly to change in a dynamic VMware environment.

- **Complete solution for storage and servers**: Leverage an easy-to-manage, simple solution that, when combined with HP BladeSystem, provides a complete solution of storage and servers that are managed together; cost-effectively add virtualized storage to a VMware environment with the EVA4400 Starter Kit for HP BladeSystem.

- **Easy and robust disaster recovery**: Protect data in the event of a service disruption with local and remote replication software, Business Copy EVA, and Continuous Access EVA—enabling fast, easy recovery.

HP StorageWorks Command View EVA software	HP Command View EVA software provides a comprehensive software suite designed to simplify, enhance, and maximize the high-performance EVA family of storage array products. It provides a powerfully simple storage management experience when compared to managing traditional arrays and their storage management products. For more information, please visit **http://h18006.www1.hp.com/products/storage/software/cmdvieweva/index.html**.	Required
HP StorageWorks Business Copy EVA software	HP Business Copy EVA offers a unique, powerfully simple integrated management and point-in-time solution in an easy-to-use, efficient, and cost-effective business continuance application, offering quick implementation and accelerated payback. For more information, please visit **http://h18006.www1.hp.com/products/storage/software/bizcopyeva/index.html**.	Optional
HP StorageWorks Continuous Access EVA software	HP Continuous Access EVA is a unique, powerfully simple integrated management and remote replication solution in an easy-to-use, efficient, and cost-effective business continuance application, offering quick implementation and accelerated payback. For more information, please visit **http://h18006.www1.hp.com/products/storage/software/conaccesseva/index.htm**.	Optional
HP StorageWorks EVA Dynamic Capacity Management software	HP EVA Dynamic Capacity Management is a comprehensive software solution that automates storage provisioning and improves capacity utilization on the HP StorageWorks Enterprise Virtual Array (EVA) family. For more information, please visit **http://h18006.www1.hp.com/products/storage/software/eva_dcm/index.html**.	Optional
HP StorageWorks Secure Path for HP-UX software	HP Secure Path for HP-UX eliminates lost data or system downtime because of a lost connection to the host. Secure Path for HP-UX is available for enterprise customers with mission-critical applications. Refer to **http://h18006.www1.hp.com/products/storage/software/securepath/index.html** for ordering information and part numbers for Secure Path.	Optional
Multi-path failover software	There is different multi-path software available for each operating system. Some of it is native to the OS, while some is available on a Web site and can be downloaded free of charge. The following is a list of software for each OS: • HP-UX—HP Secure Path v3.0F SP1, pvlinks native in HP-UX and VERITAS DMP • Windows—Full-featured MPIO, available from HP • Linux—QLogic Failover driver, available from QLogic/HP • HP Tru64 UNIX—native in OS • HP OpenVMS—native in OS • IBM AIX—MPIO native in OS • Sun Solaris—MPxIO native in OS, VERITAS DMP available from VERITAS • Novell NetWare—MPIO native in OS • VMware—MPIO native in OS • Mac OS X—ATTO failover driver, available from ATTO/HP For more information on other multi-path options, refer to **http://h18006.www1.hp.com/products/storage/software/multipathoptions/index.html**.	Optional
HP Systems Insight Manager software	HP Systems Insight Manager (SIM) is enclosed as an accessory with all HP StorageWorks arrays. HP SIM is the foundation for HP's unified server-storage strategy—it is packaged as value-add software for EVA and is included with the price of the EVA. The software is a customer-installable management application. HP SIM runs on Windows, Linux, and HP-UX, providing discovery and identification, fault management, security administration, asset reporting, and centralized configuration management across heterogeneous servers, storage, and infrastructure.	Required
HP Storage Essentials Standard Edition	HP Storage Essentials Standard Edition Storage Resource Management software and Systems Insight Manager with Command View EVA software provides a total solution that allows midsize businesses with limited IT staff to see the big picture, thereby reducing SAN complexity. It supports Windows and Linux servers with small-to-medium HP storage-based SANs, including HP EVA, HP MSA, HP NAS, HP EML Tape, HBAs, and fabric devices. HP Standard Edition SRM software unified server and storage toolset automates complex and manual storage processes and tasks with auto discovery, visualization, and topology mapping for quick device identification. The HP Standard Edition SRM software solution integrates with a rich assortment of HP software, including Systems Insight Manager and HP Storage Essentials software. For more information on HP Storage Essentials software, visit **http://h18006.www1.hp.com/products/storage/software/std-suite/index.html**.	Optional

For more information on the StorageWorks software listed above, please visit **www.hp.com/go/storageworks/software**.

Warranty services

The EVA4400 comes with a 2-year HP Global Limited Warranty and Technical Support, which includes 2 years of 9x5 hardware support, with next-business-day (NBD) response.

HP warranty and support features include Online Business Support Center and IT Resource Center, Remote Support, Technical Phone Support, Customer Self-Repair, Software Limited Warranty, and Onsite Warranty Service.

The EVA4400 is enabled for Customer Self-Repair for many of the replaceable parts and Customer Self-Update for XCS firmware updates. Customers who purchase an HP EVA Support Agreement have the option to perform Customer Self-Repair/Update or receive onsite support.

HP software warranty: HP warrants only that the software media will be free of physical defects for a period of ninety (90) days from delivery.

The following warranty upgrade options are available by purchasing one of our HP Care Pack services:

• **Response**—Upgrade your onsite next-business-day warranty to same day, 4 hours

• **Coverage**—Extend hours of coverage from 5 days x 9 hours to 7 days x 24 hours

• **Duration**—Select duration of coverage for a minimum period of 1 year or multiple years

For more information on these upgrade options, please refer to the following link: www.hp.com/services/storage_carepacks.

The EVA4400 is customer self-installable and can be easily installed within a few hours. HP Installation and Startup Services are optional and can be purchased. For more information on installation and startup options, please refer to the following link: www.hp.com/services/storage_carepacks.

For more information about HP Global Limited Warranty and Technical Support, visit: http://h18006.www1.hp.com/products/storageworks/warranty.html.

HP Care Pack services

HP Care Pack services are scalable, flexible, and reliable—like your storage. With HP Care Pack services, you can enhance technology operations, minimize risk, and drive business outcomes with easy-to-buy, easy-to-use scalable support packages for servers, storage, networking, desktops, mobile computing, printing and imaging, and software. These services extend your standard product warranty and let you choose the support levels that meet your business requirements—from basic to mission-critical—while helping you contain total cost of ownership. For more information on HP Storage Care Pack services, visit www.hp.com/services/storage_carepacks.

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 Financial Services, visit www.hp.com/go/hpfinancialservices.

HP Services

To fully capitalize on your HP StorageWorks 4400 Enterprise Virtual Array capabilities requires a service partner who thoroughly understands your server 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.

- **Support**: hardware and software HP Care Pack, integrated support, remote technologies, multivendor environment support services, and education services:
  - **Support Plus and Support Plus 24**—to extend HP Services committed response as well as speed resolution of more complex interoperability problems
  - **Proactive 24**—proactive and reactive integrated hardware and software support to help increase IT performance and availability and to improve IT management
  - **Critical Service**—comprehensive support solution for businesses that cannot tolerate downtime
  - **Remote Support**—HP Instant Support Enterprise Edition (ISEE) 24x7 remote and local monitoring for the entire business infrastructure—servers, storage, and networks

- **Deployment**: installation and startup, implementation, and Factory Express integration services
- **Availability**: mission-critical, data center and ITSM assessment and improvement services
- **Performance**: performance analysis, tuning and optimization, Vdisk/LUN design and implementation, and packaged assessment services
- **Solutions**: Storage Essentials, Data Migration, Backup and Recovery, Electronic Vaulting, Data Replication for Continuous Access, Disaster Tolerant Management, and Fast Recovery Services

Your IT 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.

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

To learn more, visit www.hp.com/go/eva4400

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