HP StorageWorks 4000 Enterprise Virtual Array (EVA4000)

Data sheet





With the HP StorageWorks 4000 Enterprise Virtual Array (EVA4000), you get a high performance, high capacity and high availability "virtual" array storage solution. Not only does this solution save time, space and costs compared to traditionally architected storage, it is supported by a powerfully simple suite of management software making it easy for users to achieve the highest level of productivity.

The HP StorageWorks EVA4000 is ideal for organizations where there is a critical need for improved storage utilization and scalability. If you have application-specific demands for consistently high transaction I/O the HP StorageWorks EVA4000 is the solution for you. It provides easy capacity expansion, instantaneous replication and simplified storage administration. When combined with the HP StorageWorks Command View EVA software, the HP StorageWorks EVA4000 provides a comprehensive solution designed to simplify and maximize performance.

From the new Foundation Service Solution—
the base level of service included with each
EVA—to Critical Service—the support for
mission-critical environments—HP offers a full
spectrum of complimentary HP StorageWorks
EVA hardware and software product services.

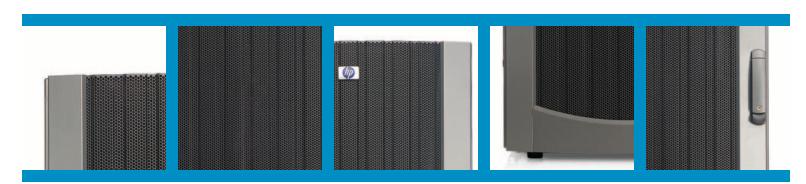
Software solutions

In conjunction with HP StorageWorks EVA hardware products, HP offers a wide range of software products to help you manage your environment and get the most from your EVA devices.

The HP StorageWorks 4000 Enterprise Virtual Array is designed to provide a powerful, yet simple, storage solution for customers in the mid-range marketplace. Understanding your need to reduce or eliminate time, space and cost issues that storage solutions include, HP created the HP StorageWorks EVA4000 to provide the scalability, flexibility and availability you need.



The HP StorageWorks EVA4000 supports up to 16.8 TB and any combination of Fibre Channel and FATA drives and all Vraid types.



- HP StorageWorks Command View EVA—Command
 View EVA is a comprehensive software suite designed
 to take advantage of EVA virtualization technology to
 simplify array management. It provides a powerfully
 simple storage management experience when
 compared to managing storage using traditional array
 approaches without compromising application availability.
 HP StorageWorks Command View EVA scales from
 SMB to enterprise. It offers storage administrators the
 industry's easiest approach to configuring and provisioning storage at the lowest cost. This software suite
 is required with use of HP StorageWorks EVA devices.
- HP StorageWorks Business Copy EVA—Business Copy EVA is a unique, powerfully simple integrated management and point-in-time solution. Its an easy to use, efficient and cost-effective business continuance application offering quick implementation and accelerated payback. This is an optional software package for use with HP StorageWorks EVA devices.
- HP StorageWorks Continuous Access EVA—Continuous Access EVA is an integrated manage and remote replication solution. It provides an easy to use, efficient and cost-effective business continuance application offering quick implementation and accelerated payback. This is an optional software package for use with HP StorageWorks EVA devices.

- HP StorageWorks Secure Path—Secure Path eliminates lost data or system downtime because of a lost connection to the host. The Secure Path products are targeted for enterprise customers with mission-critical applications. This is an optional software package for use with HP StorageWorks EVA devices.
- Multi-path failover software—There is different multipath software available for individual operating systems (OS). Some of these software packages are native to the OS, others are available on HP's website and can be downloaded free of charge. These are optional software packages for use with HP StorageWorks EVA devices.
- HP StorageWorks Fast Recovery Solution for Windows® 2003—Fast Recovery Solution for Windows 2003 software manages the recovery of Microsoft® Exchange and SQL databases from a single graphical user interface in minutes, without moving the data outside the disk array, while other databases remain online. This is an optional software package for use with HP StorageWorks EVA devices.

For more information on storage software solutions, please visit http://h18006.www1.hp.com/storage/software.html

ISEE, the remote service tool for HP StorageWorks EVA devices, provides, at no additional cost, event monitoring and proactive diagnostic capability via transmission of EVA status to the HP Service Center for proactive problem resolution.

Key features and benefits

- Simplicity without compromise: the HP StorageWorks EVA4000 supports HP StorageWorks Command View EVA Software Suite for simplified and automated mid-range enterprise storage area networks (SANs) and a lower total cost of ownership. Easy to manage online LUN growth helps to automatically optimize performance. As a member of the EVA family, the HP StorageWorks EVA4000 provides excellent ease-of-use features.
- Growth without limits: the HP StorageWorks EVA4000 provides increased throughput using new controllers that provide twice the cache mirroring ports for improved I/O performance. The outstanding virtualization features of the HP StorageWorks EVA4000 help ensure all the disks in the array are used more efficiently, keeping them all busier and eliminating bottlenecks that lower performance. The HP StorageWorks EVA4000 also provides the ability to add physical disks online quickly to get the storage capacity you need without the restrictions typically associated with adding disks online with traditional arrays.
- Virtualization: state-of-the-art design improves performance, disk usage and allows for easy dynamic storage expansion. When new disks are added to groups, the controller automatically distributes the data and removes potential hot spots.

- Virtually instantaneous Snapclone: allows for immediate use of the clone copy, saving significant time.
- Virtually capacity-free Snapshot (Vsnap): very efficient low cost option. Saves disk space and improves disk utilization efficiency.
- High capacity: supports up to 16.8 TB of storage capacity, with any combination of high performance Fibre Channel (FC) and/or low cost Fibre Attached Technology Adapted (FATA) drives with any of the supported Vraid types. Can quickly and easily add physical disks online.
- Support: enables effectiveness of deployment and delivers the proactive services required to help maintain a stable, highly available EVA4000 storage platform over time.
- Remote service tools: if you're managing a 24x7 business
 with little tolerance for unplanned downtime, HP Instant
 Support Enterprise Edition (ISEE) with proactive remote
 monitoring can help keep your IT infrastructure highly
 available. ISEE, the remote service tool for HP EVA
 devices, provides, at no additional cost, event monitoring
 and proactive diagnostic capability via transmission of
 EVA status to the HP Service Center for proactive
 problem resolution.

Technical specifications

HP StorageWorks 4000 Enterprise Virtual Array (EVA4000)



Temperature	Operating: 50° to 95° F/ 10° to 35° C, reduce rating by 1° F for each 1000 ft altitude (1.8°C/1,000 m) Non-operating: -40° to 150° F/ -40° to 66° C				
Dimensions (HxWxD)	42U EVA cabinet 36U EVA cabinet 22U EVA cabinet HP Rack System/E41	78.7 × 24.0 × 39.7 in (199.9 × 60.96 × 100.8 cm) 68.6 × 24.0 × 39.7 in (174.24 × 60.96 × 100.8 cm) 43.0 × 24.0 × 39.7 in (109.22 × 60.96 × 100.8 cm) 77.20 × 23.47 × 39.22 in (196.11 × 59.62 × 99.62 cm)			
	HP Rack System/E33 HP Rack System/E25	63.20 x 23.47 x 39.22 in (160.53 x 59.62 x 99.62 cm) 49.20 x 23.47 x 39.22 in (124.97 x 59.62 x 99.62 cm)			
Model differences	EVA4000 2C1D to 2C4D – 14 to 56 drive slots				
Maximum capacity	Using any combination of high performance drives and 250 GB low cost FATA drives, the EVA4000 can support up to a maximum capacity of 16.8 TB (with the largest capacity drives available) with any Vraid type supported. Total usable capacity will vary based upon the desired combination of disk redundancy chosen, Vraid 0, Vraid 1 and Vraid 5.				
Supported operating system platforms	Windows 2000 Server SP3 and SP4, and Advanced Server SP3 and SP4; Windows 2003 Standard Edition (32/64-bit), Server Enterprise Edition (32/64-bit), Extended Systems (64-bit), and DataCenter Edition (64-bit); HP-UX v11.0, 11i v1 (PA-RISC), 11.23Pl (PA-RISC and IA64); HP Tru64 5.1b; OpenVMS 7.3·2., OpenVMS 8.2 on Integrity Servers (IA64) and on AlphaServer systems (planned support late 2005); Sun Solaris 8, 9, 10; IBM AIX 5.2, 5.3; Linux: Red Hat EL AS 2.1 (32/64-bit) U5, U6; Red Hat EL AS 3.0 (32/64-bit) U3, U4; Red Hat EL AS 4.0 (32/64-bit); United Linux (32/64-bit) UL1.0/SLES8 SP3; SUSE/SLES9 (32/64-bit); Novell NetWare 5.1, 6.5 (planned support late 2005); VMWare ESX, GSX, WSX (planned support late 2005)				
Altitude	Operating: 50° to 95° F/ 10° to 35° C, reduce rating by 1° F for each 1000 ft altitude (1.8° C/ $1,000$ m) Non-operating: -40° to 151° F/ -40° to 65° C				
Humidity range	Operating: 10% to 90% non-condensing Non-operating: up to 95% non-condensing				
Data Protection with HP StorageWorks Enterprise Modular Library (EML) E-Series	The EML E-Series capacity points are ideal for use with the HP StorageWorks EVA. As additional capacity or performance is added to the EVA, the EML can be scaled to meet it. Adding HP OpenView Storage Data Protector completes the data protection solution. For more information on the HP StorageWorks EML E-Series visit www.hp.com/go/tape				
Ordering information					
Product number/SKU	Product name	Description			
AD554A	HP EVA4000 2C1D Array	Four M5314A 3U dual-redundant FC Loop 14-bay disk enclosures, 4U dual HSV200 controller assemblies			
T4256A		1U dual Fibre Channel (FC) Loop switches, mounting hardware and cables. Note: A cabinet is required.			
T4256A	HP EVA XCS v5.0 Media Kit	1U dual Fibre Channel (FC) Loop switches, mounting hardware and cables. <i>Note: A cabinet is required.</i> HP XCS v5.0 Media Kit for dual HSV210 or HSV200 controllers			
T4256A	HP EVA XCS v5.0 Media Kit HP StorageWorks Command View EVA v4.0				
T4256A	HP StorageWorks Command View	HP XCS v5.0 Media Kit for dual HSV210 or HSV200 controllers Command View EVA v4.0 is required to operate with the components of the HP XCS v5.0 Media Kit.			
	HP StorageWorks Command View EVA v4.0	HP XCS v5.0 Media Kit for dual HSV210 or HSV200 controllers Command View EVA v4.0 is required to operate with the components of the HP XCS v5.0 Media Kit. For more information on this product please visit http://h18006.www1.hp.com/storage/software.html Secure Path software is used to manage multiple paths between hosts and storage systems. It enables high availability through robust path management and optimizes performance with I/O load balancing. Secure Path support is available for multiple operating systems. Visit			
Options	HP StorageWorks Command View EVA v4.0 HP StorageWorks Secure Path	HP XCS v5.0 Media Kit for dual HSV210 or HSV200 controllers Command View EVA v4.0 is required to operate with the components of the HP XCS v5.0 Media Kit. For more information on this product please visit http://h18006.www1.hp.com/storage/software.html Secure Path software is used to manage multiple paths between hosts and storage systems. It enables high availability through robust path management and optimizes performance with I/O load balancing. Secure Path support is available for multiple operating systems. Visit			
Options Note: One of the following cab	HP StorageWorks Command View EVA v4.0 HP StorageWorks Secure Path	HP XCS v5.0 Media Kit for dual HSV210 or HSV200 controllers Command View EVA v4.0 is required to operate with the components of the HP XCS v5.0 Media Kit. For more information on this product please visit http://h18006.www1.hp.com/storage/software.html Secure Path software is used to manage multiple paths between hosts and storage systems. It enables high availability through robust path management and optimizes performance with I/O load balancing. Secure Path support is available for multiple operating systems. Visit http://h18006.www1.hp.com/products/storage/software/securepath/index.html for details.			
Options	HP StorageWorks Command View EVA v4.0 HP StorageWorks Secure Path inets is required with an order for an EVA40	HP XCS v5.0 Media Kit for dual HSV210 or HSV200 controllers Command View EVA v4.0 is required to operate with the components of the HP XCS v5.0 Media Kit. For more information on this product please visit http://h18006.www1.hp.com/storage/software.html Secure Path software is used to manage multiple paths between hosts and storage systems. It enables high availability through robust path management and optimizes performance with I/O load balancing. Secure Path support is available for multiple operating systems. Visit http://h18006.www1.hp.com/products/storage/software/securepath/index.html for details.			

Ordering information

HP StorageWorks 4000 Enterprise Virtual Array (EVA4000)



Product number/SKU	Product name	Description		
Options				
338044-B21	36U EVA Cabinet 60Hz	One 36U 10K rack with redundant 60Hz PDUs (based on Series 10,000 rack system)		
338045-B21	36U EVA Cabinet 50Hz	One 36U 10K rack with redundant 50Hz PDUs (based on Series 10,000 rack system)		
AD573A	36U 100V EVA Cabinet	One 36U 10K rack with redundant 100V PDUs for EVA3000		
338046-B21	22U EVA Cabinet 60Hz	One 22U 10K rack with redundant 60Hz PDUs (based on Series 10,000 rack system)		
338047-B21	22U EVA Cabinet 50Hz	One 22U 10K rack with redundant 50Hz PDUs (based on Series 10,000 rack system)		
A4902A	HP Rack System/E41 (41U, quartz)	One 41U System/E rack - PDUs sold separately		
A4902D	HP Rack System/E41 (41U, graphite)	One 41U System/E rack - PDUs sold separately		
A4901A	HP Rack System/E33 (33U, quartz)	One 33U System/E rack - PDUs sold separately		
A4901D	HP Rack System/E33 (33U, graphite)	One 33U System/E rack - PDUs sold separately		
A4900A	HP Rack System/E25 (25U, quartz)	One 25U System/E rack - PDUs sold separately		
Note: A minimum of 4 drives	(below) per drive enclosure are required for fac	ctory configured orders.		
238921-B23 #0D1	72 GB 10K rpm FC disk Factory Integrated (Excluding Europe, Middle East and Africa (EMEA))	72 GB 10K rpm dual-port 2Gb FC-AL 1-inch disk drive factory integrated		
238921-B22 #0D1	72 GB 10K rpm FC disk Factory Integrated (EMEA)	72 GB 10K rpm dual-port 2Gb FC-AL 1-inch disk drive		
238921-B22	72 GB 10K rpm FC disk Upgrade	72 GB 10K rpm dual-port 2Gb FC-AL 1-inch disk drive upgrade		
293556-B23 #0D1	146 GB 10K rpm FC disk Factory Integrated (excluding EMEA)	146 GB 10K rpm dual-port 2Gb FC-AL 1-inch (2.54 cm) drive factory integrated		
293556-B22 #0D1	146 GB 10K rpm FC disk Factory Integrated (EMEA)	146 GB 10K rpm dual-port 2Gb FC-AL 1-inch disk drive		
293556-B22	146 GB 10K rpm FC disk Upgrade	146 GB 10K rpm dual-port 2Gb FC-AL 1-inch (2.54 cm) drive Upgrade		
364622-B23 #0D1	300 GB 10K rpm FC disk Factory Integrated (Excluding EMEA)	300 GB 10K rpm dual-port 2Gb FC-AL 1-inch (2.54 cm) drive factory integrated		
364622-B22 #0D1	300 GB 10K rpm FC disk Factory Integrated (EMEA)	300 GB 10K rpm dual-port 2Gb FC-AL 1-inch (2.54 cm) drive factory integrated		
364622-B22	300 GB 10K rpm FC disk Upgrade	300 GB 10K rpm dual-port 2Gb FC-AL 1-inch (2.54 cm) drive upgrade		
293568-B23 #0D1	72 GB 15K rpm FC disk Factory Integrated (Excluding EMEA)	72 GB 15K rpm dual-port 2Gb FC-AL 1-inch disk drive factory integrated		
293568-B22 #0D1	72 GB 15K rpm FC disk Factory Integrated (EMEA)	72 GB 15K rpm dual-port 2Gb FC-AL 1-inch disk		
293568-B22	72 GB 15K rpm FC disk Upgrade	72 GB 15K rpm dual-port 2Gb FC-AL 1-inch disk drive upgrade		
364621-B23 #0D1	146 GB 15K rpm FC disk Factory Integrated (Excluding EMEA)	146 GB 15K rpm dual-port 2Gb FC-AL 1-inch disk drive factory integrated		
364621-B22 #0D1	146 GB 15K rpm FC disk Factory Integrated (EMEA)	146 GB 15K rpm dual-port 2Gb FC-AL 1-inch disk drive		

Ordering information

HP StorageWorks 4000 Enterprise Virtual Array (EVA4000)



146 GB 15K rpm FC disk Upgrade 250 GB Fibre Attached Technology Adapted (FATA) disk Factory Integrated (Excluding EMEA) 250 GB FATA disk Factory Integrated (EMEA) 250 GB FATA disk Upgrade 1t, with the fist installation of 250 GB FATA EVA4000/6000 Controller Pair HP M5314A FC Drive Enclosure Factory Integrated	146 GB 15K rpm dual-port 2Gb FC-AL 1-inch disk drive 250 GB FATA disk dual-port 2Gb FC hybrid disk drive factory integrated 250 GB FATA disk dual-port 2Gb FC hybrid disk drive factory integrated 250 GB FATA disk dual-port 2Gb FC hybrid disk drive upgrade TA add-on drives on an EVA, is a minimum of 8 FATA drives to create the new near-online disk group. 4U dual HSV200 controller pair assemblies for Field Install M5314A 3U FC Drive Enclosure for Field Install	
Adapted (FATA) disk Factory Integrated (Excluding EMEA) 250 GB FATA disk Factory Integrated (EMEA) 250 GB FATA disk Upgrade at, with the fist installation of 250 GB FATA EVA4000/6000 Controller Pair HP M5314A FC Drive Enclosure HP M5314A FC Drive Enclosure	250 GB FATA disk dual-port 2Gb FC hybrid disk drive factory integrated 250 GB FATA disk dual-port 2Gb FC hybrid disk drive upgrade TA add-on drives on an EVA, is a minimum of 8 FATA drives to create the new near-online disk group. 4U dual HSV200 controller pair assemblies for Field Install M5314A 3U FC Drive Enclosure for Field Install	
Integrated (EMEA) 250 GB FATA disk Upgrade 11, with the fist installation of 250 GB FA EVA4000/6000 Controller Pair HP M5314A FC Drive Enclosure HP M5314A FC Drive Enclosure	250 GB FATA disk dual-port 2Gb FC hybrid disk drive upgrade TA add-on drives on an EVA, is a minimum of 8 FATA drives to create the new near-online disk group. 4U dual HSV200 controller pair assemblies for Field Install M5314A 3U FC Drive Enclosure for Field Install	
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EVA4000/6000 Controller Pair HP M5314A FC Drive Enclosure HP M5314A FC Drive Enclosure	4U dual HSV200 controller pair assemblies for Field Install M5314A 3U FC Drive Enclosure for Field Install	
HP M5314A FC Drive Enclosure HP M5314A FC Drive Enclosure	M5314A 3U FC Drive Enclosure for Field Install	
HP M5314A FC Drive Enclosure		
	11507 (1 0)1507 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
raciory integrated	M5314A 3U FC Drive Enclosure Factory Integrated	
HP EVA Dual Loop Switch Option	FC Loop Switch option to field upgrade an EVA4000 to an EVA6000	
HP EVA Dual Loop Switch Option Factory Integrated	FC Loop Switch option to include in an EVA4000 (for planned future expansion)	
2-meter LC-LC Multi-Mode Fibre Cable	2-meter LC-LC Multi-Mode Fibre Cable used to interconnect EVA4000 to switches (with LC connectors) or switches to FC Host Bus Adapters (HBAs) (with LC connectors)	
5-meter LC-LC Multi-Mode Fibre Cable	5-meter LC-LC Multi-Mode Fibre Cable used to interconnect EVA4000 to switches (with LC connectors) or switches to FC HBAs (with LC connectors)	
15-meter LC-LC Multi-Mode Fibre Cable	15-meter LC-LC Multi-Mode Fibre Cable used to interconnect EVA4000 to switches (with LC connectors) or switches to FC HBAs (with LC connectors)	
30-meter LC-LC Multi-Mode Fibre Cable	30-meter LC-LC Multi-Mode Fibre Cable used to interconnect EVA4000 to switches (with LC connectors) switches to FC HBAs (with LC connectors)	
50-meter LC-LC Multi-Mode Fibre Cable	50-meter LC-LC Multi-Mode Fibre Cable used to interconnect EVA4000 to switches (with LC connectors) or switches to FC HBAs (with LC connectors)	
HP StorageWorks Continuous Access EVA	Continuous Access EVA v2.1 is a storage-based application that performs replication between HP StorageWorks Enterprise Virtual Arrays. Continuous Access EVA utilizes leading edge HP technologies to perform point-in-time local replication, highly available Fibre Channel multi-path support, dual FC fabric, nearline data protector and campus, metro or continental SAN extensions. For more information, visit http://h18006.www1.hp.com/products/storage/software/conaccesseva/index.html	
HP StorageWorks Business Copy EVA	Business Copy EVA v3.0 is a storage-based application that performs local replication. It is sold by utilized capacity. For ordering information and part numbers, please visit http://h18006.www1.hp.com/storage/software.html	
HP StorageWorks SAN components	The HP StorageWorks SAN integrates best-in-class networking components to deliver a complete connectivity platform for end-to-end network storage solutions. HP's fabric portfolio includes: HBAs, directors, switches, SAN extenders, NAS heads, iSCSI routers, and fabric software. HP SAN Infrastructure components deliver the network storage infrastructure for the Adaptive Enterprise.	
Host Bus Adapters (HBAs) and SAN switches	For details on SAN infrastructure components and storage compatibility information, please visit http://h18006.www1.hp.com/storage/saninfrastructure.html For complete information of supported SAN components please visit www.hp.com/go/san	
	Factory Integrated 2-meter LC-IC Multi-Mode Fibre Cable 5-meter LC-IC Multi-Mode Fibre Cable 15-meter LC-IC Multi-Mode Fibre Cable 30-meter LC-IC Multi-Mode Fibre Cable 50-meter LC-IC Multi-Mode Fibre Cable HP StorageWorks Continuous Access EVA HP StorageWorks Business Copy EVA HP StorageWorks SAN components Host Bus Adapters (HBAs) and	

Warranty and support

HP StorageWorks 4000 Enterprise Virtual Array (EVA4000)



Warranty and services included with the EVA

EVA factory warranty includes Array Installation and Startup Service, 2-year hardware support, with 4-hour response on a 24x7 basis, as well as 2-year, 24x7 XCS phone-in support and updates. HP warrants only that the software media will be free of physical defects for a period of ninety (90) days from delivery. In countries where available, your HP Limited Warranty includes Customer Self Repair warranty services. Please refer to HP's Limited Warranty Statement for further details: http://h18006.www1.hp.com/products/storageworks/warranty.html. For more information about HP's Global Limited Warranty and Technical Support, visit ftp://ftp.compaq.com/pub/products/storageworks/warranty/EN_321708-008.pdf

HP Care Pack Services

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. HP Care Pack warranty extensions 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. HP Care Pack availability may vary by country and product.

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. You benefit from these convenient service packages as they provide consistent, predictable levels of support across your entire department or business; ease budget planning with fixed-cost support that includes parts and labor; and give you direct access to proven technical and problem-solving expertise.

Supporting your Adaptive Enterprise journey: HP Services helps you make an Adaptive Enterprise real for your organization. The breadth, depth and quality of HP hardware and software support services can help you improve the performance of your IT support processes and resolve the complex software and hardware problems that tax user productivity. HP Care Pack services help you increase IT environment stability, efficiency and agility from the desktop to the data center and improve the productivity of your employees.

Extend your product warranty with a wide choice of cost-saving support packages. HP Care Pack Services are sold by HP and HP authorized enterprise and commercial resellers. Services for customers purchasing via direct and enterprise resellers are quoted using HP order configuration tools. Additional information about HP Care Pack Service features and benefits is available at www.hp.com/hps/carepack/services/.

Key for HP Care Pack Service availability in the table below:

E = Service available for customers purchasing direct and via enterprise resellers

C = Service available for customers purchasing via commercial resellers

na = Service not applicable

HP Care Pack Services Deployment and Per E HP Installation HP Installation & Startup HP Implementation	vent Services	Service Available na Included E		
HP Care Pack Services Availability Services	1 yr	3 yr	4 yr	5 yr
HP 4-hour, 24x7 Hardware Support	n/a	E/C	E/C	E/C
HP Software Support	E/C	E/C	E/C	E/C
HP Software Support 24x7	E/C	E/C	E/C	E/C
HP Support Plus	E/C	E/C	E/C	E/C
HP Support Plus 24	E/C	E/C	E/C	E/C
HP Proactive Essentials 24x7 Unlimited	E/C	E/C	E/C	E/C
HP Proactive 24 Service	E	E	É	É
HP Critical Service	Е	Е	Е	Е

To find HP Care Pack Services available via HP authorized commercial resellers, visit http://h30125.www3.hp.com/csn/salesmktg/elfpack/elf_nonlkup_ctrylang.asp?code=ELNL

Recommended services

HP SAN Solution Service: Quickly realize the benefit of your SAN investment while reducing overall cost of ownership; fast, expert implementation that guards against unexpected compatibility issues, minimizes disruption to your business and optimizes performance; and provides a fully installed, configured and documented SAN with scalability that allows for additional capacity as your business grows.

HP Critical Services: Boost business productivity through increased server, storage, networking, and applications availability; minimize business losses caused by IT downtime; reduce risk and improve efficiency by proactively managing changes across your IT environment; resolve complex problems quickly through direct access to HP Services expertise and hands-on assistance; rapidly access single-source support from a team familiar with your business and technology infrastructure; and free your IT staff to focus on strategic business issues.

HP Proactive 24: Enhanced operational effectiveness and availability with proactive problem identification and solutions recommendations; partner with technical experts who help coordinate support, provide hands-on assistance, and share industry best practices and HP know-how with your staff; rapidly access single-source support spanning your environment from servers to storage to networking; obtain personalized services tailored to your business environment and objectives; anticipate necessary change—and execute it correctly the first time; and efficiently manage infrastructure resources to meet your performance objectives.

HP StorageWorks 4000 Enterprise Virtual Array (EVA4000)

ecommended services (continued)	HP Support Plus 24: 24x7 4-hour on-site hardware support; material and parts included; work to completion for hardware support; 24x7 2-hour response XCS phone-in assistance; remote problem diagnosis and support; escalation management; software product and documentation updates; license to use and copy software product updates; and software electronic support.		
	HP Software Maintenance Service: Improve the productivity of system managers and operators; improve system performance and reduce downtime due to software defects; expedite problem resolution through expert-level technical resources; enjoy consistent service coverage across geographicall dispersed sites; update HP and selected third-party software at a predictable cost; take advantage of subscription savings on software updates; and keep your license compliancy up-to-date.		
eployment and per event ervice descriptions	Availability Assessment for SANs: Recommendations for reducing or eliminating risks to the availability of your SAN infrastructure. SAN Solution Service: You get a powerful network storage solution up-and-running quickly and efficiently with minimum disruption and rapid returns on your SAN investment.		
	Data Migration: Transfers your critical information to a new or reconfigured storage array in an open systems environment—across a data center or around the world. Data Replication Solution Service: Ensures a timely, cost-effective deployment of your data replication solution cuts risk and shortens your time-to-results.		
Support	HP eSupport is a portfolio of technology-based services that assist you with managing your business environment—from the desktop to the data center. Support portal: The HP support portal provides one-stop access to the information, tools and services you need to manage the daily operations of your IT environment. Features include: Access to self-solve tools (including search technical knowledge base); efficient logging and tracking of suppor cases; collaboration with other business and IT professionals; download of patches and drivers; access to diagnostic tools; and proactive notification of relevant information. Access to certain features of the support portal requires an HP service agreement. To access the support portal, visit		
	www.hp.com/support HP Instant Support Enterprise Edition (ISEE) provides a single remote monitoring and support solution for your IT data center. ISEE uses continuous hardware event monitoring and automated notification to identify and prevent potential critical problems. ISEE is a feature of HP Hardware Support Onsite Service with Next-Day response or better, Proactive Essentials, Proactive 24, Critical Service and warranty support for the selected products. For more information or to download ISEE, visit www.hp.com/go/instantsupport.		
P education services	Training for the Enterprise Virtual Array is now offered as part of HP comprehensive curriculum of HP Storage, Storage Management, and IT Service Management courses. These courses will provide the training required to realize the full potential of your HP EVA Virtual Array storage solutions, optimize your systems and SAN for highest efficiency, and achieve better return on your IT investments. For more information about HP Education Services for Storage and SAN, visit http://education.hp.com/curr-storsan.htm.		
dditional services information	For more information about Deployment, Per Event, Consulting and Education services for HP Storage, visit www.hp.com/hps/storage/ For more information about HP Care Pack Services for Storage, visit www.hp.com/hps/carepack/storage/cp_networked.html For more information about HP Storage Software, services and updates, visit http://h18006.www1.hp.com/storage/software.html If you have specific questions, contact your local HP representative. Contact information for a representative in your area can be found at "Contact HP" on www.hp.com.		
wards	HP IT Resource Center (ITRC) and HP Business Support Center (BSC) were selected as two of the Association of Support Professional's (ASP) Top award winners in its seventh annual Ten Best Web Support Sites competition for 2004, an award that showcases excellence in online service a support. www.hp.com/hpinfo/newsroom/press/2004/040616a.html HP earned the No. 1 ranking in customer satisfaction among vendors of corporate information technology (IT) service and support, according to newly released Technology Business Research Inc.'s Corporate IT Service and Support survey covering the first quarter of 2004. www.hp.com/hpinfo/newsroom/press/2004/040624a.html		
inancial 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.		
P Customer Support	HP Customer Support provides a broad spectrum of services to commercial and enterprise customers, including performance and availability services are 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.		
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