Overview

Secure Path is multi-path, high availability software that manages and maintains continuous data access to HP storage systems enabling no-single-point-of-failure (NSPoF) from server to storage. Secure Path is host-resident software that monitors the data paths between server and storage to increase availability of information. In the event that a path failure is detected, Secure Path fails over to an alternative path. When that path becomes available, Secure Path can automatically fail back to the original path. For Windows, Linux, SUN and HP-UX systems connected to the HP StorageWorks Enterprise Virtual Array or the HGS80 storage controllers, Secure Path can dynamically balance the workload among available paths to optimize system performance. Secure Path on the NetWare and IBM-AIX platforms provide static workload balancing.

- Secure Path v4.0C for Windows supports hosts connected to the HP StorageWorks Enterprise Virtual Array (EVA5000, EVA3000), HP StorageWorks Modular Array 8000 (MA8000)/Enterprise Modular Array 12000 (EMA12000)/Enterprise Modular Array 16000 (EMA16000), RAID Array 8000 (RA8000)/Enterprise Storage Array 12000 (ESA12000), Modular Array 6000 (MA6000) and the Modular Smart Array 1000 storage solutions. This release also supports hosts connected to the StorageWorks XP48/512, XP256, XP128/1024, XP10000, XP12000, VA7400/7100, and the VA7410/7110.
- Secure Path v3.0C for Linux supports hosts connected to the HP StorageWorks Enterprise Virtual Array (EVA5000, EVA3000), HP StorageWorks Modular Array 8000 (MA8000)/Enterprise Modular Array 12000 (EMA12000)/Enterprise Modular Array 16000 (EMA16000), RAID Array 8000 (RA8000)/Enterprise Storage Array 12000 (ESA12000), Modular Array 6000 (MA6000) and the Modular Smart Array 1000 (MSA1000) storage solutions.
- Secure Path v3.0F for HP-UX supports hosts connected to the HP StorageWorks Enterprise Virtual Array (EVA5000, EVA3000, EVA4000, EVA6000, EVA8000), HP StorageWorks Modular Array 8000 (MA8000)/Enterprise Modular Array 12000 (EMA12000)/Enterprise Modular Array 16000 (EMA16000), RAID Array 8000 (RA8000)/Enterprise Storage Array 12000 (ESA12000), and Modular Array 6000 (MA6000) storage solutions. This release also supports hosts connected to the StorageWorks XP48/512, XP256, XP128/1024, XP10000, XP12000, XP24000, VA740012000, /7100, and the VA7410/7110.
- Secure Path v3.0D for SUN, and v2.0D for IBM-AIX support hosts connected to the HP StorageWorks Enterprise Virtual Array (EVA5000, EVA3000), HP StorageWorks Modular Array 8000 (MA8000)/Enterprise Modular Array 12000 (EMA12000)/Enterprise Modular Array 16000 (EMA16000), RAID Array 8000 (RA8000)/Enterprise Storage Array 12000 (ESA12000), and Modular Array 6000 (MA6000) storage solutions.
- Secure Path v3.0C for NetWare supports Novell NetWare hosts connected to StorageWorks Enterprise Virtual Array (EVA5000, EVA3000), storage solutions. Secure Path v3.0B for NetWare supports MA8000/EMA12000/EMA16000, RA8000/ESA12000, and RA4100/4000 storage solutions.
- Secure Path v4.0C for Windows Workgroup Edition supports Windows hosts connected to Modular Smart Array 1000 (MSA1000), VA7400/7100, and VA7410/7110 storage solutions.
- Secure Path v3.0C for NetWare Workgroup Edition supports Novell NetWare hosts connected to MSA1000 storage solutions. The RAID Array 4100/4000 is supported with Secure Path for NetWare v3.0B Workgroup Edition, which ships with v3.0C.
- Secure Path v3.0C for Linux Workgroup Edition supports Linux hosts connected to MSA1000 storage solutions.
- Secure Path v3.0F for HP-UX Workgroup Edition supports HP-UX hosts connected to VA7400/7100, VA7410/7110 storage solutions.

NOTE: Check the Secure Path web site for the most current service packs, patches, updates, and downloads at:
http://h18006.www1.hp.com/products/sanworks/secure-path/index.html

QuickSpecs

Overview

Models

HP StorageWorks Secure Path v4.0C for Microsoft® Windows®
HP StorageWorks Secure Path v4.0C for Microsoft Windows Workgroup Edition
HP StorageWorks Secure Path v3.0D for Sun Solaris
HP StorageWorks Secure Path v3.0F for HP-UX
HP StorageWorks Secure Path v3.0F for HP-UX Workgroup Edition
HP StorageWorks Secure Path v2.0D for IBM-AIX
HP StorageWorks Secure Path v3.0C for NetWare
HP StorageWorks Secure Path v3.0C for NetWare Workgroup Edition
HP StorageWorks Secure Path v3.0C for Linux
HP StorageWorks Secure Path v3.0C for Linux Workgroup Edition

NOTE: For a list of part numbers, please see the "Ordering Information" section.

Benefits

Feature	Function	Benefit
Multiple path management; up to 32 paths/LUN depending on host	Reroutes I/O to functioning alternate path in case of hardware failure	No-single-point-of-failure from server to storage
Dynamic Load Balancing	Monitors and reroutes data to balance I/O load using the models as follows: round robin, least I/O, and least bandwidth on the Windows and Sun platforms and round robin on the Linux and HP-UX platforms.	Increased performance
Proactive path checking	In the background, determine failed path and take necessary action to ensure availability of path between host and storage	High availability
Remote Management with Secure Path Manager	Web-based graphical user interface Displays current path status and optimizes path utilization for Windows and NetWare hosts	Ease of use
Automatic failback	Online automatic return of storage sets to repaired preferred I/O path	Lights-out operation
LUN expansion with Windows 2000 dynamic disk support	Allows most maintenance without loss of services	Improved availability for 7 x 24 support
Partitioned LUNs across multiple hosts	Two or more hosts of the same type can share a partitioned RAID set, allowing maximum utilization of resources (Windows, Sun, Linux and HP-UX support only)	Storage consolidation

QuickSpecs

Standard Features

No-Single-Point-Of-Failure
Multiple path failover capability and redundant components architecture eliminate single points-of-failure from server to storage in a clustered or single server configuration. Secure Path supports up to 32 paths per LUN, depending on the host. See Technical Specifications below for more details.

High Availability
Secure Path provides high availability in complex SAN (storage area networks) ensuring application and data availability in enterprise solutions. Fibre Channel storage controllers provide redundant paths for continuous 24x7 data access. Redundant physical connections define separate physical "paths" in a Secure Path hardware configuration. Each path originates at an HBA port on the server and ends at a unique RAID controller port in the storage system.

Performance
Secure Path products provide automatic load distribution for Windows, Linux, Sun and HP-UX hosts across the available paths to optimize the performance of the storage controllers. Administrator-controlled load balancing capability is available for IBM AIX and NetWare hosts. Load balancing is supported with the XP, Virtual Array (VA), EVA5000, EVA3000, EVA4000, EVA6000, EVA8000, MA8000, EMA12000, EMA16000, RA8000, ESA12000, and MA6000 solutions.

Clustered Server Support
Secure Path provides cluster support for host-level fault tolerance and high system availability. Cluster software supported includes:

- Microsoft Cluster Server (MSCS)
- Oracle Parallel Server (OPS) on Microsoft Windows, and Oracle Real Application Clusters (RAC) on Microsoft Windows with EVA and MSA1000 and Linux with MSA1000
- SteelEye LifeKeeper for Linux (for 2 node clusters) (32-bit only)
- NetWare Cluster Server
- VERITAS Cluster Server (on Sun)
- Sun Clusters
- HP ServiceGuard for HP-UX and for Linux (2 node clusters)
- HACMP

Manageability
Windows and NetWare hosts are managed with Secure Path Manager v4 (SPM), a web-based management application that allows continuous monitoring of the multi-path environment, displays path status and alerts on significant events. Secure Path Manager presents a SAN-wide view of path connectivity between managed hosts and LUNs. Its easy to use interface allows users to customize paths and optimize availability and performance for the specific SAN.

Secure Path Manager runs on either the SAN Management Appliance or on a Windows 2000 server. Users can browse to Secure Path Manager using standard web browsers. Secure Path Manager allows the user to enable automatic load balancing to ensure maximum I/O efficiency, when managing the EVA5000, EVA3000, EVA4000, EVA6000, EVA8000, RA8000/ESA12000, MA8000/EMA12000/EMA16000, MA6000, XP, and VA storage solutions.

Sun and HP-UX hosts are managed with the Secure Path Management Tool (secure path manager), which is a command line application and has the following features:

Standard Features

- **Add** - Add a new device to the Secure Path configuration.
- **Alias** - Assign an alias to an object.
- **Delete** - Removes a device from the Secure Path configuration.
- **Display** - Displays information about configured Secure Path devices.
- **Log** - Sets logging to the console, system log file and email notification.
- **Notify** - Manage email address and event logging severity to each email recipient.
- **Prefer** - Assign a preferred attribute to a path (for HP-UX only)
- **Quiesce** - Move active I/O to an alternative object and temporarily remove selected object from use.
- **Restart** - Return a previously quiesced object to an active or available state.
- **Restore** - Restore one or more devices to their preferred I/O path.
- **Select** - Select a path for I/O. On the Sun platform, select also supports preferred path.
- **Set** - Enable or disable special driver functionality.
- **Uunalias** - Delete an alias.
- **Unprefer** - Remove a preferred path attribute (for HP-UX only)
- **Update** - Update the driver persistence file.

With Sun and HP-UX hosts, you are notified of changes in the state of the paths via the console, email or syslog. The Sun Spmgr tool supports command management from a remote host.

Linux hosts are also managed with the Secure Path Management Tool (secure path manager) and support the above commands with the exception of "add", "delete", and "update"

The Secure Path for IBM AIX Management tool (CamBex Fibre Channel Storage Management) includes the following options:

- **listdev** - Prints a list of all devices connected to the Fibre Channel adapters with status of the paths to the device.
- **listpath** - Displays information about the paths to a specific device.
- **unfail** - Changes the state parameter of a device path from Failed or from Standby to Online.
- **listadapt** - Lists the Fibre Channel adapters in the system.
- **config** - Configures paths to all devices that are connected to the adapter.
- **listall** - Displays full path, adapter and device information.

Multi-host Management   Secure Path Manager v4 also supports the concept of management groups (or profiles) to manage groups of hosts. One profile can have up to 128 hosts and up to 128 storage systems. Multiple profiles can be created to manage more hosts or storage systems. A profile can contain a mixture of clustered and non-clustered hosts.

Easy Upgrade   Secure Path for Microsoft Windows and Sun includes an upgrade process that quickly allows you to take advantage of the new features without reconfiguration of the storage systems. The upgrade procedure is designed to convert a current configuration to the new configuration.

Packaging   Software kit containing CD-ROM media, documentation and license.

Warranty   Standard Industry 90-day conformance.

Service and Support, HP Care Pack, and Warranty Information

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

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.

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.

Supporting your Adaptive Enterprise journey

HP Services helps you make the 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.

Warranty and Services Included with the Product   Includes one year of HP Software Support 24 x 7 (software technical support and software product and documentation updates), except for the Workgroup Editions. For the Workgroup Editions, HP Care Pack services are available separately.

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

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

---

Service and Support, HP Care Pack, and Warranty Information

Recommended Services   Three years of HP Software Support 24 x 7

- 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 geographically dispersed sites
- Update HP and selected third-party software at a predictable cost
- Take advantage of subscription savings on software updates

Software Installation

- Minimize business disruptions due to installation problems
- Keep your license compliancy up-to-date
- Cost-effectively obtain specialized expertise for a complex, one-time task
- Accelerate your time-to-ROI with HP installation expertise

Available HP Care Pack Services   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 http://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 applies to Work group edition
N/A = Service not applicable

HP Care Pack Services Deployment and Per Event Services	Service Available
HP Installation	E/C
HP Installation & Startup	N/A
HP Implementation	N/A

For more information about Deployment and Per Event Services for HP Storage, visit http://www.hp.com/hps/storage/.

HP Care Pack Services Availability Services	1 yr	3 yr	4 yr	5 yr
HP Software Support (WE version only)	E/C	E/C	N/A	N/A
HP Software Support 24x7	E=included/C	E/C	E	E
HP Support Plus (WE version only)	E	E	N/A	N/A
HP Support Plus 24	E	E	E	E
HP Proactive 24 Service	E	E	E	E
HP Critical Service	E	E	E	E

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

Service and Support, HP Care Pack, and Warranty Information

HP Care Pack Service Product Numbers	Part Number	Commercial HP Care Pack Service Description
	U9541E	HP CPe 1Y SW PIA 24x7 SPWIN WE LTU4.0C
	U9542E	HP CPe 3Y SW PIA 24x7 SPWIN WE LTU4.0C
	U9543E	HP CPe 1Y SWPIA24x7 SPWI/LX/HP/Nt WE1LT
	U9544E	HP CPe 3Y SWPIA24x7 SPWI/LX/HP/Nt WE1LT
	U9545E	HP CPe 1Y SW PIA24x7 SPWIN/LNX WE 8 LTU
	U9546E	HP Cpe 3Y SW PIA24x7 SPWIN/LNX WE 8 LTU
	U9547E	HP CPe 1Y SW PIA24x7 SPWIN/LX/HP WE 5LT
	U9548E	HP CPe 3Y SW PIA24x7 APWIN/LX/HP WE 5LT
	U9549E	HP CPe 1Y SW PIA24x7 SPWIN/LX/HP WE10LT
	U9550E	HP CPe 3Y SW PIA24x7 SPWIN/LX/HP WE10LT
	U9765E	HP CPe 1Y SW PIA24x7 SPWIN/LX/HP WE25LT
	U9766E	HP CPe 3Y SW PIA24x7 SPWIN/LX/HP WE25LT
	U9767E	HP CPe 1Y SW PIA24x7 SPWIN/LX/HP WE50LT
	U9768E	HP CPe 3Y SW PIA24x7 SPWIN/LX/HP WE50LT
	UC515E	HP CPe 1Y SW Support SP WIN WE LTU4.0Cv
	UC516E	HP CPe 3Y SW Support SP WIN WE LTU4.0C
	UC517E	HP CPe 1Y SW Support SPWIN/LX/HP/Nt WE1LT
	UC518E	HP CPe 3Y SW Support SPWIN/LX/HP/Nt WE1LT
	UC519E	HP CP3 1Y SW Support SPWIN/LNX WE 8 LTU
	UC520E	HP CP3 3Y SW Support SPWIN/LNX WE 8 LTU
	UC521E	HP CPe 1Y SW Support SPWIN/LX/HP WE 5 LT
	UC522E	HP CPe 3Y SW Support SPWIN/LX/HP WE 5 LT
	UC523E	HP CPe 1Y SW Support SPWIN/LX/HP WE 10 LT
	UC524E	HP CPe 3Y SW Support SPWIN/LX/HP WE 10 LT
	UC525E	HP CPe 1Y SW Support SPWIN/LX/HP WE 25 LT
	UC526E	HP CPe 3Y SW Support SPWIN/LX/HP WE 25 LT
	UC527E	HP CPe 1Y SW Support SPWIN/LX/HP WE 50 LT
	UC528E	HP CPe 3Y SW Support SPWIN/LX/HP WE 50 LT

eSupport

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 support cases
- Collaboration with other business and IT professionals
- Download of patches and drivers
- Access to diagnostic tools
- Proactive notification of relevant information

Access to certain features of the support portal requires an HP service agreement. To access the support portal, visit http://www.hp.com/support

QuickSpecs

Service and Support, HP Care Pack, and Warranty Information

HP Education Services	For more information about HP Education Services for Storage and SAN, visit http://education.hp.com/curr-storsan.htm

---

Awards	HP IT Resource Center (ITRC) and HP Business Support Center (BSC) were selected as two of the Association of Support Professional's (ASP) Top Ten award winners in its seventh annual Ten Best Web Support Sites competition for 2004, an award that showcases excellence in online service and support. http://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 the newly released Technology Business Research Inc.'s Corporate IT Service and Support survey covering the first quarter of 2004. http://www.hp.com/hpinfo/newsroom/press/2004/040624a.html

---

Additional Services Information	For more information about Deployment, Per Event, Consulting and Education services for HP Storage, visit: http://www.hp.com/hps/storage/
	For more information about HP Care Pack Services for Storage, visit: http://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" http://www.hp.com

QuickSpecs

Ordering Information

Order one Secure Path license for each host that you want to manage with Secure Path.

	Product Description	Part Number
Secure Path for Windows supports the EVA5000, EVA3000, RA8000/ESA12000, MA8000/EMA12000/ EMA16000, MA6000, XP10000,XP12000 and VA solutions	Secure Path v4.0C for Windows one license	165989-B25
	Secure Path v4.0C for Windows five licenses	231292-B25
	Secure Path v4.0C for Windows 10 licenses	231293-B25
	Secure Path v4.0C for Windows 25 licenses	231294-B25
	Secure Path v4.0C for Windows 50 licenses	231295-B25
	Secure Path v4.0C for Windows Upgrade	165988-B25
	Secure Path v4.0C for Windows for ProLiant BL line 8 licenses	325633-B23
Secure Path for Windows Japanese Edition supports the EVA5000, EVA3000, RA8000/ESA12000, MA8000/EMA12000/ EMA16000, and MA6000 solutions	Secure Path v4.0C for Windows Japanese Edition one license	291866-294
	Secure Path v4.0C for Windows Japanese Edition five licenses	291867-294
	Secure Path v4.0C for Windows Japanese Edition 10 licenses	291868-294
	Secure Path v4.0C for Windows Japanese Edition Upgrade	165988-293
Secure Path for Windows Workgroup Edition supports the MSA1000 and the VA solutions	Secure Path v4.0C for Windows Workgroup one license	213076-B26
	Secure Path v4.0C for Windows Workgroup Edition five licenses	231316-B26
	Secure Path v4.0C for Windows Workgroup Edition 10 licenses	231317-B26
	Secure Path v4.0C for Windows Workgroup Edition 25 licenses	231318-B26
	Secure Path v4.0C for Windows Workgroup Edition 50 licenses	231319-B26
	Secure Path v4.0C for Windows Workgroup Edition Upgrade License	261715-B24
	Secure Path v4.0C for Windows Workgroup Edition for ProLiant BL line 8 licenses	325634-B23
Secure Path for Windows Japanese Edition supports the MSA1000	Secure Path v4.0C for Windows Workgroup Edition Japanese Edition one license	291869-294
	Secure Path v4.0C for Windows Workgroup Edition Japanese Edition five licenses	291870-294
	Secure Path v4.0Cfor Windows Workgroup Edition Japanese Edition 10 licenses	291871-294
	Secure Path v4.0C for Windows Workgroup Edition Japanese Edition Upgrade	325634-293
Secure Path v3.0B for NetWare supports the RA8000/ESA12000, MA8000/EMA12000/ EMA16000, MA6000, RA4100 and RA4000 solutions	Secure Path v3.0B for NetWare one license	165993-B21
	Secure Path v3.0B for NetWare five licenses	231308-B21
	Secure Path v3.0B for NetWare 10 licenses	231309-B21
	Secure Path v3.0B for NetWare 25 licenses	231310-B21
	Secure Path v3.0B for NetWare 50 licenses	231311-B21
Secure Path v3.0C for NetWare supports the EVA5000, EVA3000, and MSA1000 solutions	Secure Path v3.0C for NetWare one license	165993-B22
	Secure Path v3.0C for NetWare five licenses	231308-B22
	Secure Path v3.0C for NetWare 10 licenses	231309-B22
	Secure Path v3.0C for NetWare 25 licenses	231310-B22
	Secure Path v3.0C for NetWare 50 licenses	231311-B22

Ordering Information

Secure Path for NetWare Workgroup Edition supports the MSA1000, RA4100 and RA4000 solutions	Secure Path v3.0C for NetWare Workgroup Edition one license	222411-B22
	Secure Path v3.0C for NetWare Workgroup Edition five licenses	231324-B22
	Secure Path v3.0C for NetWare Workgroup Edition 10 licenses	231325-B22
	Secure Path v3.0C for NetWare Workgroup Edition 25 licenses	231326-B22
	Secure Path v3.0C for NetWare Workgroup Edition 50 licenses	231327-B22
Secure Path for HP-UX supports the EVA5000, EVA3000, EVA 4000, EVA 6000, EVA 8000, RA8000/ESA12000, MA8000/EMA12000/ EMA16000, MA6000, XP 1024/128, XP 512/48, XP10000, XP12000, XP24000 and VA 7110/7410, VA 7X10 solutions	Secure Path v3.0F for HP-UX one license	T3549C
	Secure Path v3.0F for HP-UX five licenses	T3550C
	Secure Path v3.0F for HP-UX 10 licenses	T3551C
	Secure Path v3.0F for HP-UX 25 licenses	T3552C
	Secure Path v3.0F for HP-UX 50 licenses	T3553C
Secure Path for HP-UX Workgroup Edition supports the Virtual Array Solutions	Secure Path v3.0F for HP-UX Workgroup Edition one license	T3554C
	Secure Path v3.0F for HP-UX Workgroup Edition five licenses	T3555C
	Secure Path v3.0F for HP-UX Workgroup Edition 10 licenses	T3556C
	Secure Path v3.0F for HP-UX Workgroup Edition 25 licenses	T3557C
	Secure Path v3.0F for HP-UX Workgroup Edition 50 licenses	T3558C
Secure Path for Linux supports the EVA5000, EVA3000, RA8000/ ESA12000, MA8000/ EMA12000/ EMA16000, MA6000, and MSA1000 solutions	Secure Path v3.0C for Linux one license	T3575A
	Secure Path v3.0C for Linux five licenses	T3576A
	Secure Path v3.0C for Linux for ProLiant BL line 8 licenses	T3577A
	Secure Path v3.0C for Linux 10 licenses	T3578A
	Secure Path v3.0C for Linux 25 licenses	T3579A
	Secure Path v3.0C for Linux 50 licenses	T3580A
Secure Path for Linux Workgroup Edition supports the MSA1000 solutions	Secure Path v3.0C for Linux Workgroup Edition one license	T3581A
	Secure Path v3.0C for Linux Workgroup Edition five licenses	T3582A
	Secure Path v3.0C for Linux Workgroup Edition for ProLiant BL line 8 licenses	T3583A
	Secure Path v3.0C for Linux Workgroup Edition 10 licenses	T3584A
	Secure Path v3.0C for Linux Workgroup Edition 25 licenses	T3585A
	Secure Path v3.0C for Linux Workgroup Edition 50 licenses	T3586A

To upgrade from Secure Path v3.x for Microsoft Windows to Secure Path v4 for Microsoft Windows, order part 165988-B25 for the upgrade kit. If you have Secure Path for Sun v2.1, you may purchase the upgrade kit to migrate to v3.0C. Order part 165990-B24. Secure Path for Microsoft Windows is also included in the ProLiant Cluster HA/F500 kits. Secure Path for Microsoft Windows Workgroup Edition is included in the ProLiant Cluster HA/F200 for MSA1000 kits. Secure Path v3.1 for Windows for RA4100 and RA4000 is also included in the ProLiant Cluster HA/F200 cluster kit.

Secure Path software updates are available to download. Continue to check this site for future updates:
http://h18006.www1.hp.com/products/sanworks/softwaredrivers/securepath/index.html.

Technical Specifications

Shipping Dimensions

	Secure Path v4.0C for Windows	Secure Path v4.0C for Windows Workgroup Edition	Secure Path v3.0C for NetWare	Secure Path v3.0C for NetWare Workgroup Edition	Secure Path v3.0E for HP-UX Workgroup Edition
Height	9.125 in (23.18 cm)	9.125 in (23.18 cm)	9.125 in (23.18 cm)	9.125 in (23.18 cm)	9.125 in (23.18 cm)
Width	8.125 in (20.64 cm)	8.125 in (20.64 cm)	8.125 in (20.64 cm)	8.125 in (20.64 cm)	8.125 in (20.64 cm)
Depth	1.125 in (2.86 cm)	1.125 in (2.86 cm)	1.125 in (2.86 cm)	1.125 in (2.86 cm)	1.125 in (2.86 cm)
Weight	2 lb (0.91 kg)	2 lb (0.91 kg)	1 lb (0.45 kg)	1 lb (0.45 kg)	1 lb (0.45 kg)
		Secure Path v3.0F for HP-UX		Secure Path v3.0C for Linux	Secure Path v3.0C for Linux Workgroup Edition
Height		9.125 in (23.18 cm)		9.125 in (23.18 cm)	9.125 in (23.18 cm)
Width		8.125 in (20.64 cm)		8.125 in (20.64 cm)	8.125 in (20.64 cm)
Depth		1.125 in (2.86 cm)		1.125 in (2.86 cm)	1.125 in (2.86 cm)
Weight		1 lb (0.45 kg)		1 lb (0.45 kg)	1 lb (0.45 kg)

Windows

Basic Configuration

RA8000/ESA12000, MA8000/EMA12000/EMA16000, MA6000, and EVA5000, EVA3000, XP48/512, XP256, XP128/1024,XP10000, XP12000, VA7400/7100, VA7410/7110 solutions: Host with one or more HBAs and storage system with dual controllers Supports 32 paths/LUN.

MSA1000 and RA4000/4100 solutions: Host with multiple HBAs and storage system with dual controllers. Supports 2 paths/LUN.

Storage Controller Software

RA8000/ESA12000, MA8000/EMA12000/EMA16000, MA6000 solutions: Supports ACS v8.6 and ACS v8.7. EVA5000, EVA3000 solutions: Supports VCS v2.0, v3.0, v3.01.

MSA1000 solutions: MSA1000 controller firmware version 4.0

RA4000/4100 solutions: HP RA4X00 controller firmware version 2.60

XP 48/512: firmware 01.18.71.00, 01.19.03.00

XP 256: firmware 52.49.21.00, 52.49.23.00

XP 128/1024: firmware 21.05.06.00, 21.05.23.00
XP 10000: all firmware versions are supported
XP 12000: all firmware versions are supported

Operating System Support

Microsoft Windows NT® 4.0, Windows NT 4.0 Enterprise Edition Service Pack 6A, Microsoft Windows 2000 and Windows 2000 Advanced Server Service Pack 3 and Service Pack 4, Windows Server 2003 Standard Edition, Windows Server 2003 Enterprise Edition 32 bit version, Windows Server 2003 Enterprise Edition 64 bit version.

Please consult the array specifications for additional information on supported operating systems. Additional requirements may apply for specific OS version support with HP StorageWorks Secure Path v4.0C for Windows on any given array. For additional array information visit: http://welcome.hp.com/country/us/en/prodserv/storage.html.

MSA1000 solutions: Microsoft Windows NT 4.0, Windows NT 4.0 Enterprise Edition Service Pack 6A, Microsoft Windows 2000 and Windows 2000 Advanced Server Service Pack 3 and Service Pack 4, Windows Server 2003 Standard Edition, Windows Server 2003 Enterprise Edition 32 bit version, Windows Server 2003 Enterprise Edition 64 bit version.

Application Support

Microsoft Cluster Server, Oracle Parallel Server (OPS), and Oracle Real Application Clusters (RAC) on Windows with MSA1000 and EVA.

Technical Specifications

Host Adapters	HP StorageWorks 64-bit/33 MHz PCi-to-Fibre Channel host bus adapter, FCA2101 2 Gb FC HBA, FCA2355 dual channel 2 Gb HBA, FCA2214 PCI-X 64-bit 133 MHz 2Gb HBA, FCA2214DC Dual Channel PCI-X 64-bit 133 MHz 2 Gb HBA, FCA2404 PCI-X 64-bit 133 MHz 2 Gb HBA, FCA2404DC Dual Channel PCI-X 64-bit 133 MHz 2 Gb HBA, FCA2408, A7298A, Qlogic QLA2200, QLA2300, QLA2310, QLA2344 depending on the storage array. See the storage array QuickSpecs for details on supported HBAs.
Host Platform	ProLiant servers from HP or other leading x86 servers: rx2600, rx5670.

NetWare

Basic Configuration	Host with multiple HBAs and storage system with dual controllers. Supports 8 paths/LUN with EVA5000, EVA3000, RA8000/ESA12000, MA8000/EMA12000/EMA16000, MA6000 solutions and MSA1000 solutions and 2 paths/LUN with RA4100 and RA4000 solutions.
Storage Controller Software	EVA5000, EVA3000 solutions: Supports VCS v2.0, v3.0, v3.01
	MA6000, RA8000 and ESA12000: supports ACS v8.6f and ACS v8.7
	MSA1000 v2.38 and 4.0 firmware
	HP RA4X00 controller firmware: v2.58
Operating System Support	Novell NetWare v5.1, v6.0, v6.5
Application Support	NetWare Cluster Server (up to 6 nodes per cluster)
Host Adapters	120186-B21, FCA2210, depending on the storage array. See the storage array QuickSpecs for details on supported HBAs.
Host Platform	ProLiant or other leading x86 servers.

HP-UX

Basic Configuration	RA8000/ESA12000, MA8000/EMA12000/EMA16000, MA6000, EVA5000, EVA3000, EVA4000, EVA6000, EVA8000, XP48/512, XP256, XP128/1024, XP10000, XP12000, XP24000, VA740012000, /7100, VA7410/7110 solutions: Host with one or more HBAs and storage system with dual controllers Supports 32 paths/LUN.
	Support for 1-128 RAID systems per HP-UX host.
Storage Controller Software	RA8000/ESA12000, MA8000/EMA12000/EMA16000, MA6000 solutions: Supports ACS v8.6F, 8.6S and ACS v8.7-3F, 8.7-3S - HP-UX 11.0, 11l, 11.23 (P1), 11.23, 11.23 0409 (HP-UX 11i version 2)
	EVA5000, EVA3000 solutions: Supports VCS v2.0, v3.0, v3.01, 3.014. HP-UX 11.0, 11i, 11.23, 11.23 0409 (HP-UX 11i version 2)
	XP 48/512: firmware 01.18.71.00, 01.19.03.00
	XP 256: firmware 52.49.21.00, 52.49.23.00
	XP 128/1024: firmware 21.05.06.00, 21.05.23.00 XP 10000: all firmware supported XP 12000: all firmware supported XP 24000: all firmware supported
Operating System Support	HP-UX v11i v1.0 (32 and 64 bit PA RISC) and 11i v2, 11.23 , 11.23 0409 (HP-UX 11i version 2) HP-UX 11.0
Application Support	HP ServiceGuard v11.13, v11.14 or later. Veritas Cluster Server/File System/Volume Manager: VxVM and Secure Path are NOT supported for EVA4000/6000/8000, XP, VA (Active-Active) arrays. VxVM and Secure Path ARE supported for EVA-GL, HSG80 (Active-Passive) arrays.

Technical Specifications

Host Adapters	HP A5158A, HP A6795A for all supported HP server models. HP A6826A dual 2Gb HBA on 11.11, A6826A on 11.0. HP A9782A combo 2Gb FC & 1Gb Ethernet on 11.11, A9782A on 11.0, 11.23 and A6685A for K class servers only, (HP-UX 11.23 - IA 64 only with HBA A6795A)
	Support for 1-28 host adapters per HP-UX host, dependant on HP server capacity.
Host Platform	HP K, V class, rp2400 (A-class), rp5400 (L-class), rp7400 (N-class), rp8400, HP Integrity servers: rx5670, rx2600, zx6000, rx4640, rx7620, rx8620, and Superdome server models.

Linux

Basic Configuration	RA8000/ESA12000, MA8000/EMA12000/EMA16000, MA6000, and EVA5000, EVA3000, MSA1000 solutions: Host with one or more HBAs and storage system with dual controllers Supports 8 paths/LUN.
Storage Controller Software	RA8000/ESA12000, MA8000/EMA12000/EMA16000, MA6000 solutions: Supports ACS v8.7.
	EVA5000, EVA3000 solutions: Supports VCS v2.0, v3.0, v3.01.
	MSA1000 solutions: MSA1000 controller firmware version 4.0.
Operating System Support	United Linux 1.0/SLES 8 SP3 (32-bit) - Errata Kernel 2.4.21-123-smp United Linux 1.0/SLES 8 SP3 (64-bit) - Errata Kernel 2.4.21-44 Red Hat Enterprise Linux Advanced Server v3.0 Enterprise Kernel 2.4.21-4 (32-bit) Errata Kernel 2.4.21.ELsmp NOTE: Red Hat v3.0 U1 is NOT supported. Red Hat v3.0 U3 IS supported with a special patch that can be requested via the service escalation process. Red Hat Linux Advanced Server 2.1 U3 for IA64 support Kernel 2.4.18-e37smp SMP Red Hat Linux Advanced Server v3.0 (IA64) support Kernel 2.4.21smp SMP
Application Support	SteelEye LifeKeeper for Linux v4.2 and later (2 nodes per cluster - 32 bit only) Oracle 9i RAC for Linux
	HP ServiceGuard version 11.14
Host Adapters	QLA2340 (FCA2214), QLA2342 (FCA2214DC), A6826A Driver version 6.06.50. See the storage array QuickSpecs for details on supported HBAs.
Host Platform	ProLiant servers, HP Integrity servers: rx8620, rx7620, rx5670, rx4640, rx2600 and Superdome.