

Overview

HP ProLiant Storage Server iSCSI Feature Pack software adds iSCSI target functionality to HP ProLiant Storage Server devices designed for small and medium businesses, enterprise departments and branch offices, and other environments wishing to implement low-cost storage networking and consolidation. The software creates a single, affordable storage platform that delivers file, print, and application storage services, all over existing Ethernet networks. HP iSCSI Feature Pack further enhance solution capability, ease-of-use, and value.

- HP ProLiant Storage Server iSCSI Feature Pack enables the single HP Storage Server (NAS) platform delivering file, print, and application storage services
 - Cost-effective storage consolidation solution - one Storage Server to manage, scale, and protect.
 - Easy, powerful, and affordable companion storage solution for Microsoft Exchange, Microsoft SQL Server, and Oracle application servers.
- HP ProLiant Application Storage Manager radically simplifies configuration and monitoring of Microsoft Exchange 2003 Storage Groups and Microsoft SQL Server 2000 databases hosted on HP ProLiant Storage Servers running HP iSCSI Feature Pack.
- HP ProLiant Application Storage Manager provides a single point of management for allocating and monitoring storage for file shares as well as iSCSI volumes.
- Enhanced feature upgrades for HP iSCSI Feature Pack (Snapshots, Clustering, Direct Backup, and Replication) add powerful and flexible functionality to the iSCSI Storage Server solution.

What's New

- Customers who will be using iSCSI with Windows Storage Server (WSS)2003 R2. Upgrade HP Storage iSCSI via <http://h20293.www2.hp.com/portal/swdepot/displayProductsList.do?category=NAS>
- Microsoft MMC-based management option.
- Additional iSCSI initiator support: Microsoft Windows v2, HP-UX (with ProLiant DL380 Storage Server only), and HP NC370T Multifunction Gigabit Server Adapter.
- New HP ProLiant Storage Server platform support: DL100 G2 and DL350 G4p Storage Servers.
- Additional NAS/SAN Gateway SAN Storage Support: All HP EVA Arrays

Models

HP ProLiant Storage Server iSCSI Feature Pack	Standalone Edition NOTE: Includes HP ProLiant Application Storage Manager software for WSS 2003 SP1. NOTE: For use on standalone HP ProLiant Storage Server products.	T3669A
	Gateway Edition NOTE: For use on gateway HP ProLiant Storage Server products.	T3670A
HP ProLiant Storage Server iSCSI Snapshots	Standalone Edition NOTE: Snapshots feature upgrade for T3669A NOTE: Includes a single license for iSCSI Agents Pack host agents at no charge; for use with Microsoft iSCSI initiators only	T3671A
	Gateway Edition NOTE: Snapshots feature upgrade for T3670A NOTE: Includes a single license for iSCSI Agents Pack host agents at no charge; for use with Microsoft iSCSI initiators only	T3672A
HP ProLiant Storage Server iSCSI Clustering	Gateway Edition NOTE: Clustering feature upgrade for T3670A; for use with Microsoft iSCSI initiators only	T3673A

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HP ProLiant Storage Server iSCSI Direct Backup	Standalone Edition NOTE: Direct backup feature upgrade for T3669A NOTE: Includes a single license for iSCSI Agents Pack host agents at no charge; for use with Microsoft iSCSI initiators only	T3674A
	Gateway Edition NOTE: Direct backup feature upgrade for T3670A. NOTE: Includes a single license for iSCSI Agents Pack host agents at no charge; for use with Microsoft iSCSI initiators only	T3675A
HP ProLiant Storage Server iSCSI Replication	Standalone Edition NOTE: Replication feature upgrade for T3669A NOTE: Includes a single license for iSCSI Agents Pack host agents at no charge; for use with Microsoft iSCSI initiators only	T4257A
	Gateway Edition NOTE: Replication feature upgrade for T3670A NOTE: Includes a single license for iSCSI Agents Pack host agents at no charge; for use with Microsoft iSCSI initiators only	T4258A
HP ProLiant Storage Server iSCSI Agents Pack	NOTE: Licenses installation of host agents on additional Microsoft Windows iSCSI initiators with all editions of iSCSI Snapshots, iSCSI Direct Backup, and iSCSI Replication.	T3696A

Feature List

HP ProLiant Storage Server iSCSI Feature Pack

- Add application storage (block) services to file and print services on HP ProLiant Storage Server (NAS) products
 - Uses well-understood and low-cost existing Ethernet connectivity
- Supported on HP ProLiant Storage Server (NAS) platforms designed for small and medium business and enterprise departmental / branch office environments
 - HP ProLiant ML110 Storage Server
 - HP ProLiant ML110 G2 Storage Server (except 320GB model)
 - HP ProLiant DL100 Storage Server
 - HP ProLiant DL100 G2 Storage Server
 - HP ProLiant DL100 G2 File Print Appliance
 - HP ProLiant ML350 G4 Storage Server
 - HP ProLiant ML350 G4p Storage Server
 - HP ProLiant ML370 G4 Storage Server
 - HP ProLiant DL380 G4 Storage Servers (Base, External SCSI, and External SATA models)
 - HP StorageWorks NAS 500s
 - HP StorageWorks NAS 1500s
 - HP StorageWorks NAS 2000s
 - HP ProLiant DL380 G4 Storage Server (SAN Storage model)-Gateway Edition only
 - HP StorageWorks NAS 4000s-Gateway Edition only
 - HP StorageWorks NAS 9000s-Gateway Edition only
 - HP ProLiant DL580 G2 Storage Server-Gateway Edition only
 - HP ProLiant DL585 Storage Server-Gateway Edition only
- Full integration with HP ProLiant Storage Server web management GUI
- MMC-based management interface available
- Designed for Windows logo certified on HP ProLiant Storage Servers by Microsoft
- Qualified to host Microsoft Exchange 2000 Server and Exchange 2003 Server Storage Groups
- Qualified to host Microsoft SQL Server 2000 databases
- Works with Oracle Database 9i and 10g
- Full-featured iSCSI target implementation
 - Compliant with IETF-ratified iSCSI specification

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- Up to 50 simultaneous initiators
- Support for LUN virtualization
- iSCSI over raw LUN or NTFS
- Qualified with Microsoft iSCSI initiators (v1, v2) for 32-bit servers, Cisco Open Source Linux initiator, HP-UX (with ProLiant DL380 Storage Server only), HP NC370T Multifunction Gigabit Server Adapter, and Adaptec 7211C iSCSI HBA
- HP Services 1-year standard business hours / standard business days phone support and right to new versions standard

HP ProLiant Application Storage Manager, used on Windows Storage Server 2003 SP1 only.

- Included with HP ProLiant Storage Server iSCSI Feature Pack Standalone Edition (T3669A).
- Works with HP iSCSI Feature Pack to deliver radically simple storage management for Microsoft Exchange 2003, Microsoft SQL Server 2000, iSCSI volumes and file shares running on Microsoft Windows 2003 application servers
- Supported HP ProLiant Storage Server (NAS) platforms:
 - HP ProLiant ML110 Storage Servers
 - HP ProLiant ML110 G2 Storage Server (except 320GB model)
 - HP ProLiant DL100 Storage Servers
 - HP ProLiant DL100 G2 Storage Server (except 320GB model)
 - HP ProLiant DL100 G2 File Print Appliance (except 320GB model)
 - HP ProLiant ML350 G4 Storage Servers
 - HP ProLiant ML350 G4p Storage Server
 - HP ProLiant ML370 G4 Storage Servers
 - HP ProLiant DL380 G4 Storage Servers (Base, External SCSI, and External SATA models)
 - HP StorageWorks NAS 500s
 - HP StorageWorks NAS 1500s
 - HP StorageWorks NAS 2000s

HP ProLiant Storage Server iSCSI Snapshots

- Snapshot functionality upgrade license for HP ProLiant Storage Server iSCSI Feature Pack.
- For use with Microsoft iSCSI initiators only.
- Safeguards against accidental deletions, file corruptions, and virus attacks by creating point-in-time images of data.
- Maintains 32 "point in time" images of each storage volume
- Ensures quiescence of application hosts running Microsoft Exchange, SQL Server, or Oracle Database to ensure that delta changes are replicated with 100% transactional integrity.
- Allows users or applications to request fast, space-efficient delta snapshots via Microsoft's Volume Shadow Copy Service (VSS) interface, and performs policy-based, automatic delta snapshots of application hosts to significantly reduce potential data loss and ensure business continuity.
- User may install and license one of the following included initiator-based snapshot agents: Microsoft VSS, Microsoft Exchange, Microsoft SQL Server, and Oracle Database agents for a single Microsoft iSCSI initiator.

HP ProLiant Storage Server iSCSI Clustering

- Clustering services upgrade license for HP ProLiant Storage Server iSCSI Feature Pack (Gateway Edition only).
- Activates two-node iSCSI target capability using Microsoft Cluster Services.
- Increases application server availability by eliminating a single point of failure via a dual network connection to the IP network, as well as a dual I/O channel to each storage device.

HP ProLiant Storage Server iSCSI Direct Backup

- Direct backup functionality upgrade license for HP ProLiant Storage Server iSCSI Feature Pack.
- For use with Microsoft iSCSI initiators only.
- Facilitates centralized, zero impact backup.
- Allows Administrators to leverage their backup software of choice to centralize the backup and recovery of application data stored using HP iSCSI Feature Pack directly from and to the HP Storage Server

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- User may install and license one of the following included initiator-based snapshot agents: Microsoft VSS, Microsoft Exchange, Microsoft SQL Server, and Oracle Database agents for a single Microsoft iSCSI initiator.

HP ProLiant Storage Server iSCSI Replication

- Replication functionality upgrade license for HP ProLiant Storage Server iSCSI Feature Pack.
- For use with Microsoft iSCSI initiators only.
- Replicates application host's iSCSI disks, over IP, to Disaster Recovery site to guard against site failure.
- The iSCSI Storage Server in the Disaster Recovery site tracks multiple versions of the 'replica' identified by time. Each replica can be mounted for R/W access.
- User may install and license one of the following included initiator-based snapshot agents: Microsoft VSS, Microsoft Exchange, Microsoft SQL Server, and Oracle Database agents for a single Microsoft iSCSI initiator.

HP ProLiant Storage Server iSCSI Agents Pack

- User may install and license one of the following included initiator-based snapshot agents: Microsoft VSS, Microsoft Exchange, Microsoft SQL Server, and Oracle Database agents for a single Microsoft iSCSI initiator. Requires previous purchase of HP ProLiant Storage Server iSCSI Snapshots, iSCSI Direct Backup, or iSCSI Replication for HP ProLiant Storage Server iSCSI Feature Pack.
- Required to install host agents on additional Microsoft Windows iSCSI initiators with all editions of iSCSI Snapshots, iSCSI Direct Backup, and iSCSI Replication. (agents and an agent license for a single iSCSI initiator are included with iSCSI Snapshots, iSCSI Direct Backup, and iSCSI Replication SKUs at no charge)
- Agents work seamlessly with iSCSI Snapshots, iSCSI Direct Backup, and iSCSI Replication services to notify the host to quiet activity on the disk before a snapshot is taken. This ensures that the resulting copy of data not only has "point-in-time consistency", but also has transactional integrity.

Customer Benefits

- HP ProLiant Storage Server iSCSI Feature Pack allows realization of a single storage platform delivering file, print, and application storage (block) services to small and medium business environments-one Storage Server to manage, scale, and protect.
 - Enables migration from multiple direct-attached storage devices to a consolidated storage model.
 - Ability to host Microsoft Exchange, Microsoft SQL Server, or Oracle Database server data stores on a Storage Server (NAS) device allows separation of storage from application servers, resulting in easier expansion and centralized management.
 - iSCSI technology leverages well-understood and low-cost existing Ethernet infrastructure, protecting and enhancing existing technology investments.
 - Industry-standard technologies: IETF iSCSI specification, Microsoft Windows Storage Server 2003, HP ProLiant Storage Server devices.
 - Management for the iSCSI Feature Pack integrates seamlessly into the HP Storage Server management GUI environment.
- HP ProLiant Application Storage Manager, for Windows Storage Server 2003 SP1, automates and simplifies management of Microsoft Exchange 2003 Storage Groups, Microsoft SQL Server 2000 databases, file shares, and other iSCSI volumes on HP iSCSI-enabled Storage Servers.
 - Reduces time and training required to setup and manage Microsoft Exchange 2003 Storage Groups and Microsoft SQL Server 2000 databases by eliminating process steps and multiple storage and application management interfaces
 - Automates 'best practices' storage configuration for Microsoft Exchange 2003 Storage Groups and Microsoft SQL Server 2000 Databases using iSCSI protocol.
 - Provides a single point of management for monitoring and allocating capacity of Microsoft Exchange 2003 Storage Groups, Microsoft SQL Server 2000 Databases, file shares, and iSCSI volumes.
- iSCSI Snapshots, Clustering, Direct Backup, and Replication upgrades enhance HP iSCSI Feature Pack functionality
 - iSCSI Snapshots can be used as a backup / restore strategy for application data stores hosted on a HP Storage Server- results in fast recovery to a point-in-time.
 - iSCSI Clustering adds the peace-of-mind of increased application server availability by enabling redundancy in storage

Overview

server architecture.

- iSCSI Direct Backup eliminates the need to purchase, deploy, and maintain backup software at each application server, and significantly reduces the administrative overhead associated with managing backup software on application servers
- iSCSI Replication reliably replicates application hosts' mission-critical data from a primary site to a disaster recovery site over IP. It does not require host intervention, relieving the host of unnecessary overhead. Recovery is quick and seamless, ensuring a resumption of business activities with 100% data integrity and minimal data loss.

Features/Functionality

HP ProLiant Storage Server iSCSI Feature Pack	Application Server Compatibility	Microsoft Exchange 2000 and Exchange 2003 Servers Microsoft SQL Server 2000 Oracle Database versions 9i and 10g
	HP Storage Server (NAS) Platform Support	HP ProLiant ML110 Storage Servers HP ProLiant ML110 G2 Storage Server (except 320GB model) HP ProLiant DL100 Storage Server HP ProLiant DL100 G2 Storage Server HP ProLiant DL100 G2 File Print Appliance HP ProLiant ML350 G4 Storage Server HP ProLiant ML350 G4p Storage Server HP ProLiant ML370 G4 Storage Server HP ProLiant DL380 G4 Storage Server(Base, External SCSI, and External SATA models) HP StorageWorks NAS 500s HP StorageWorks NAS 1500s HP StorageWorks NAS 2000s HP ProLiant DL380 Storage Server (SAN Storage model)-Gateway Edition only HP StorageWorks NAS 4000s-Gateway Edition only HP StorageWorks NAS 9000s-Gateway Edition only HP ProLiant DL580 G2 Storage Server-Gateway Edition only HP ProLiant DL585 Storage Server-Gateway Edition only
	iSCSI Initiator Support	Microsoft iSCSI Initiator v1 (32-bit version) Microsoft iSCSI Initiator v2 (32-bit version) Cisco Open Source Linux Driver v3.6.2 Adaptec 7211C iSCSI HBA HP NC370T PCI-X Multifunction Gigabit Server Adapter HP-UX 11i software initiator (with ProLiant DL380 Storage Server only)
	Standards	Microsoft Windows Storage Server 2003 HP ProLiant Storage Server (NAS) devices utilizing industry-standard 32-bit servers IETF-ratified iSCSI specification compliant Compatible with existing Ethernet networks
	Management	HP iSCSI Feature Pack integrates seamlessly into the HP ProLiant Storage Server management GUI Centralized file, print, and application store management via the Storage Server web GUI HP iSCSI Feature Pack now includes a Microsoft MMC-based management interface HP ASM can be the single iSCSI NAS management interface for file shares, iSCSI LUNs, and Microsoft Exchange and SQL data stores
	NAS/SAN Gateway SAN Storage Support	HP StorageWorks Modular Smart Array (MSA) series arrays HP StorageWorks Enterprise Virtual Array (EVA) series arrays

Features/Functionality

iSCSI Direct Backup Application Support

HP Openview Data Protector
Microsoft Windows NTBackup
Veritas Backup Exec v9
Veritas NetBackup v5
Yosemite TapeWare v7

HP ProLiant Application Storage Manager Windows Storage Server 2003 SP1

Application Server Compatibility HP Storage Server (NAS) Platform Support

Microsoft Exchange 2003 Server running on Microsoft Windows Server 2003

HP ProLiant ML110 Storage Server
HP ProLiant ML110 G2 Storage Server (except 320GB model)
HP ProLiant DL100 Storage Server
HP ProLiant DL100 G2 Storage Server (except 320GB model)
HP ProLiant DL100 G2 File Print Appliance (except 320GB model)
HP ProLiant ML350 G4 Storage Server
HP ProLiant ML350 G4p Storage Server
HP ProLiant ML370 G4 Storage Server
HP ProLiant DL380 G4 Storage Server (Base, External SCSI, and External SATA models)
HP StorageWorks NAS 500s
HP StorageWorks NAS 1500s
HP StorageWorks NAS 2000s

Operating System Support

- HP ProLiant Storage Server iSCSI Feature Pack and HP Application Storage Manager are licensed for use on HP ProLiant Storage Server and HP StorageWorks NAS products running Microsoft Windows Storage Server (WSS) 2003 operating system.

Hardware Prerequisites

- HP ProLiant Storage Server iSCSI Feature Pack supported platforms:
 - HP ProLiant ML110 Storage Server
 - HP ProLiant ML110 G2 Storage Server (except 320GB model)
 - HP ProLiant DL100 Storage Server
 - HP ProLiant DL100 G2 Storage Server
 - HP ProLiant DL100 G2 File Print Appliance
 - HP ProLiant ML350 G4 Storage Server
 - HP ProLiant ML350 G4p Storage Server
 - HP ProLiant ML370 G4 Storage Server
 - HP ProLiant DL380 G4 Storage Server (Base, External SCSI, and External SATA models)
 - HP StorageWorks NAS 500s
 - HP StorageWorks NAS 1500s
 - HP StorageWorks NAS 2000s
 - HP ProLiant DL380 Storage Server (SAN Storage model)-Gateway Edition only
 - HP StorageWorks NAS 4000s-Gateway Edition only
 - HP StorageWorks NAS 9000s-Gateway Edition only
 - HP ProLiant DL580 G2 Storage Server-Gateway Edition only
 - HP ProLiant DL585 Storage Server-Gateway Edition only
- HP ProLiant Application Storage Manager supported platforms:
 - HP ProLiant ML110 Storage Server
 - HP ProLiant ML110 G2 Storage Server (except 320GB model)

Features/Functionality

- HP ProLiant DL100 Storage Server
- HP ProLiant DL100 G2 Storage Server (except 320GB model)
- HP ProLiant DL100 G2 File Print Appliance (except 320GB model)
- HP ProLiant ML350 G4 Storage Server
- HP ProLiant ML350 G4p Storage Server
- HP ProLiant ML370 G4 Storage Server
- HP ProLiant DL380 G4 Storage Server (Base, External SCSI, and External SATA models)
- HP StorageWorks NAS 500s
- HP StorageWorks NAS 1500s
- HP StorageWorks NAS 2000s
- TCP/IP network connection
- 100 MB disk space for Windows installer files

Distribution Media

HP ProLiant Storage Server iSCSI Feature Pack (Standard or Gateway Edition) is available as a media and documentation kit for HP Storage Server (NAS) products running Microsoft Windows Storage Server 2003.

HP ProLiant Application Storage Manager is included with HP ProLiant Storage Server iSCSI Feature Pack (Standalone Edition, T3669A) as part of its media and documentation kit.

iSCSI Snapshots, iSCSI Clustering, iSCSI Direct Backup, iSCSI Replication, and iSCSI Agents Pack are available as license key upgrade and documentation kits.

Documentation

Additional information online:

HP home page: <http://www.hp.com>

HP ProLiant Storage Server (NAS) home page: <http://www.hp.com/go/storageservers> or <http://www.hp.com/go/nas>

HP ProLiant products home page: <http://www.hp.com/go/proliant>

HP StorageWorks products home page: <http://www.hp.com/go/storage>

HP Services home page: <http://www.hp.com/hps/storage/>

HP Technical Support home page: <http://www.hp.com/support>

HP Solutions: <http://www.hp.com/solutions>

Software Licensing

HP ProLiant Storage Server iSCSI Feature Pack LTUs (license to use) are per HP Storage Server (NAS) host installation and are activated by key code(s). Each software kit comes with license key retrieval instructions.

Features/Functionality

Software Product Services Product Support gives the customer access to HP's experienced technical support resources as well as access to HP's Information Services database for support on a variety of multi-vendor/multi-platform software products. Product support includes escalations and problem coordination with the appropriate engineering group. HP Services offer a variety of options to allow you to tailor your product service to meet the needs of your organization. Basic warranty on products can be uplifted from day one to ensure you receive the service you need when you need it.

Software standard services

- Standard 1-year standard business hours / standard business days of software advisory and remedial software telephone support, new version license rights for HP ProLiant Storage Server iSCSI Feature Pack installed on HP Storage Server (NAS) products running Microsoft Windows Storage Server (WSS) 2003 operating system, and media and documentation distribution services from HP Services.

Additional services

- Subscription services to provide automatic distribution of new releases on a renewable annual contract basis
- Telephone Service upgrades to basic per product support
- Tailored support contracts based on personalized statement of work: contact your local support centre via <http://www.hp.com/support/>.

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

Service and Support, HP Care Pack, and Warranty Information

- Software Support (Stand-alone software advisory and remedial software telephone support)
- Software Product Subscription (New version license rights for HP iSCSI Feature Pack family installations on HP Storage Server (NAS) products running Microsoft Windows Storage Server (WSS) 2003 operating system, and Media and documentation distribution service)
- Installation services available per statement of work (SOW)

These software product services are sold under HP Care Pack Services program and via customized contract-based services.

- HP Care Pack is defined as an upgrade to the product warranty attribute, available for a specific duration and hours of coverage.
- HP Care Pack is available for sale anytime during the warranty period for most products, but the commencement date will be the same as the Warranty Start Date (delivery date to end user customer). Proof of purchase may be required.
- HP Care Pack services are prepaid.
- Customers will have the ability to purchase HP Care Pack services to a 24x7 support service

Contact your local Services department for more details

For additional information on Software Product Services and HP Care Pack, as well as orderable part numbers, please refer to the URL: http://h18005.www1.hp.com/services/carepaq/us/priority/cp_storage.html.

For additional HP Care Pack (hardware & software and installation support) information as well as orderable part numbers, please refer to the URL listed below.

If you have specific questions about availability or how to obtain services contact your local HP representative. Contact information for your local area can be found at <http://h18006.www1.hp.com/storage/sanworks-support.html>.

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