

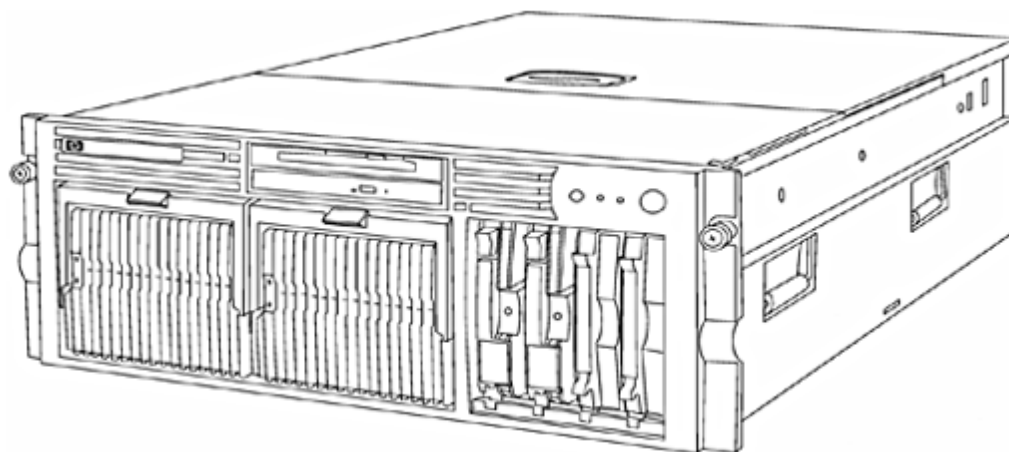
# QuickSpecs

## HP ProLiant DL585 Storage Server

### Overview

The HP ProLiant DL585 Storage Server is a network attached storage (NAS) gateway solution providing multi-protocol file and print serving for the enterprise and workgroups SAN environments. The DL585 Storage Server is ideal for customers with limited IT resources who require quick, simple, rapidly deployable, flexible storage and who need remote manageability. The DL585 Storage Server is a NAS/SAN fusion storage solution that offers ease of installation and simple management features that reduce overall total cost of ownership (TCO).

The DL585 Storage Server uses Microsoft's Windows Storage Server 2003 Release 2 (WSS 2003 R2) a dedicated file and print serving operating system designed for dependability, ease of integration and best value in networked storage. Plus, it comes with HP Global Services, providing cost-effective support to ensure continuous availability. The HP ProLiant DL585 Storage Server models are available with several supported storage arrays including: EVA 8000, EVA6000, EVA5000, EVA4000, EVA3000, XP, EMA, MA, VA, MSA1000 and MSA1500 cs.



HP ProLiant DL585 Storage Server

### What's New

- Improved productivity, more robust storage management and simple branch office integration with new Windows Storage Server 2003 Release 2 version of the operating system
- Easier to use, HP enhanced Microsoft Management Console - based User Interface

**What is a Storage Server?** HP uses the Storage Server product name to describe its Network Attached Storage (NAS) solutions. NAS solutions are specialized file-serving devices that provide support for heterogeneous files in a high-capacity package. NAS solutions also provide specific features to simplify the tasks and reduce the resources associated with data storage and management. The objective of NAS technology is to simplify manageability and improve data access to clients and applications. A NAS solution will generally provide network accessible storage to a mix of clients and servers running different operating systems.

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## HP ProLiant DL585 Storage Server

### Overview

#### Product Benefits

##### Benefits of the HP ProLiant Ready to deploy DL585 Storage Server

	The hardware is pre-configured and the Windows Storage Server 2003 Release 2 operating system is pre-installed from the factory allowing you to deploy the system in minutes
High performance	Support for up to four 2.2Ghz Dual Core AMD Opteron processors, up to 32GB of memory, and 8 expansion slots
Simple management	HP enhanced, Microsoft Management Console user interface enables system administrators to set up and manage the DL585 Storage Server in only a few short steps
System management	Supports remote management via User Interface, remote desktop or telnet. Integrated Lights Out technology provides additional remote management capabilities such as re-boot and system environmental monitoring.
Cost-effective	Unlike proprietary solutions, the DL585 is built on industry standard hardware and software allowing a very attractive price point for a NAS gateway
Reliable	2 to 4 processors, dual port Gbit NIC, HW RAID, Redundant power and cooling
Open	Supports all the major file serving protocols including SMB/CIFS, NFS, NCP, AppleTalk, HTTP and FTP

#### Product Features

##### ProLiant DL585 Storage Server

Processor	<ul style="list-style-type: none"><li>• Two 2.2 GHz Dual Core AMD Opteron processors standard, expandable to four</li></ul>
Memory	<ul style="list-style-type: none"><li>• 4 GB standard, expandable to 32GB</li></ul>
Operating System	<ul style="list-style-type: none"><li>• Windows Storage Server Release 2 2003 pre-installed. Includes:<ul style="list-style-type: none"><li>○ HP Enhanced, File Server Management Console</li><li>○ File Server Resource Manager for quotas, file screening and storage reporting</li><li>○ Print Server support<ul style="list-style-type: none"><li>▪ New print management console</li><li>▪ Unlimited printer support in Enterprise Edition</li></ul></li><li>○ Microsoft Services for Network File System (NFS)</li><li>○ Distributed File System Replication, including<ul style="list-style-type: none"><li>▪ DFS Management Console</li><li>▪ Configuration and Diagnostic Tools</li></ul></li></ul></li><li>• Unlimited Client Access License (CAL) included</li></ul>
Storage Controller	<ul style="list-style-type: none"><li>• Smart Array 5i Plus Controller (integrated on system board)</li></ul>
Internal Storage	<ul style="list-style-type: none"><li>• Two 36GB 15K RPM U320 SCSI 1" Hard Disk Drive for mirrored OS only (no user data)</li></ul>
External Storage	<ul style="list-style-type: none"><li>• User Data is stored on external SAN arrays attached to the HP ProLiant DL 585 Storage Server. The DL585 Storage Server supports XP, EVA, EMA, VA, MSA 1000 and MSA 1500 arrays.</li></ul>
Network Connections	<ul style="list-style-type: none"><li>• Embedded NC7782 Dual Port PCI-X 10/100/1000T Gigabit network adapter</li></ul>
Fans and Power Supplies	<ul style="list-style-type: none"><li>• Redundant Cooling Zones for major subsystems (Memory, I/O, CPUs) assure 7x24 cooling (7 total hot plug redundant fans, individually removable)</li><li>• 2 x 870-Watt (low line or high line) Hot Plug Power Supplies</li></ul>
Form Factor	<ul style="list-style-type: none"><li>• 4U rack mount</li></ul>

# QuickSpecs

## HP ProLiant DL585 Storage Server

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### Overview

#### Warranty

- The HP ProLiant DL585 Storage Server comes with a 3-3-3 warranty (3 years parts exchange, 3 years labor, and 3 years on-site, next business day response)

# QuickSpecs

## HP ProLiant DL585 Storage Server

### Software Components

#### Optional Software

- **HP Insight Manager** - The ProLiant DL585 Storage Server supports Insight Manager through SNMP. For more information on HP Insight Manager: <http://h18013.www1.hp.com/products/servers/management/hpsim/index.html>
- **HP OpenView Management tools** - The ProLiant DL585 Storage Server supports Open View through SNMP. For more information HP OpenView: <http://www.managementsoftware.hp.com/>
- **HP OpenView Storage Data Protector** - The HP OpenView Storage Data Protector software is enterprise data protection and disaster recovery, ensuring recovery from any disruption. Data Protector integrates a variety of techniques to eliminate backup and recovery windows. The capabilities to eliminate planned downtime range from online backup and backup of open files to zero-downtime, zero-impact backup. The software provides industry-leading instant recovery as well as several disaster recovery alternatives to eliminate unplanned downtime, allowing recovery of entire data centers in minutes.

Data Protector is enabling organizations to reduce costs by automating routine tasks to maximize the effectiveness of the data protection staff. For the price of an entry-level product, it provides the enterprise functionality customers need. Data Protector scales from single server to distributed enterprise, covering an extensive range of heterogeneous applications, operating environments and storage configurations with a single solution.

The ProLiant DL585 Storage Server supports using Data Protector as the backup software solution. For more information on HP OpenView Data Storage Protector:

<http://h18006.www1.hp.com/products/storage/software/dataprotector/index.html>

- **HP OpenView Storage Mirroring** - The ProLiant DL585 Storage Server supports using Storage Mirroring as the replication software solution (see Options section for more details)
- **Multi-pathing software** - For array multi-pathing support either HP StorageWorks SecurePath (for Windows) or HP MPIO DSM (for Windows) can be used with the HP ProLiant DL585 Storage Server. For more information on how to obtain multi-pathing software go to these links:  
Secure Path: <http://h18006.www1.hp.com/products/sanworks/secure-path/spwin.html>  
HP MPIO for Windows: <http://h18006.www1.hp.com/products/sanworks/softwaredrivers/multipathoptions/windows.html>

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## HP ProLiant DL585 Storage Server

### Compatibility

#### Compatibility – HBA Support

**NOTE:** HBA selection left to customer choice based on desired array support. Please see the following URL for additional information: <http://h18006.www1.hp.com/storage/saninfrastructure.html>.

#### Compatibility – SAN Support

HP StorageWorks Enterprise Virtual Array (EVA)	<a href="http://h18006.www1.hp.com/products/storageworks/eva8000/index.html">http://h18006.www1.hp.com/products/storageworks/eva8000/index.html</a>
EVA8000	<a href="http://h18006.www1.hp.com/products/storageworks/eva6000/index.html">http://h18006.www1.hp.com/products/storageworks/eva6000/index.html</a>
EVA6000	<a href="http://h18006.www1.hp.com/products/storageworks/enterprise/index.html">http://h18006.www1.hp.com/products/storageworks/enterprise/index.html</a>
EVA5000	<a href="http://h18006.www1.hp.com/products/storageworks/eva4000/index.html">http://h18006.www1.hp.com/products/storageworks/eva4000/index.html</a>
EVA4000	<a href="http://h18006.www1.hp.com/products/storageworks/eva3000/index.html">http://h18006.www1.hp.com/products/storageworks/eva3000/index.html</a>
EVA3000	
HP StorageWorks Virtual Array (VA)	<a href="http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7410/index.html">http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7410/index.html</a> (VA 7410)
VA 7410	<a href="http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7400/index.html">http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7400/index.html</a> (VA 7400)
VA 7400	<a href="http://h18006.www1.hp.com/products/storageworks/va7110/index.html">http://h18006.www1.hp.com/products/storageworks/va7110/index.html</a>
VA 7110	(VA 7110)
VA 7100	<a href="http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7100/index.html">http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7100/index.html</a> (VA 7100)
HP StorageWorks Enterprise Module Array (EMA)	<a href="http://h18006.www1.hp.com/products/storageworks/ema16000/index.html">http://h18006.www1.hp.com/products/storageworks/ema16000/index.html</a>
EMA16000	(EMA16000)
EMA12000 FC	<a href="http://h18006.www1.hp.com/products/storageworks/ma8kema12k/index.html">http://h18006.www1.hp.com/products/storageworks/ma8kema12k/index.html</a>
HP StorageWorks Module Array (MA)	<a href="http://h18006.www1.hp.com/products/storageworks/ma8kema12k/index.html">http://h18006.www1.hp.com/products/storageworks/ma8kema12k/index.html</a>
MA8000	(MA8000)
HP StorageWorks Disk Array XP	<a href="http://www.hp.com/products1/storage/products/disk_arrays/highend/xp1024/index.html">http://www.hp.com/products1/storage/products/disk_arrays/highend/xp1024/index.html</a> (XP1024)
XP1024	<a href="http://www.hp.com/products1/storage/products/disk_arrays/highend/xp128/index.html">http://www.hp.com/products1/storage/products/disk_arrays/highend/xp128/index.html</a> (XP128)
XP128	<a href="http://www.hp.com/products1/storage/products/disk_arrays/highend/xp48/index.html">http://www.hp.com/products1/storage/products/disk_arrays/highend/xp48/index.html</a> (XP48)
XP48	<a href="http://www.hp.com/products1/storage/products/disk_arrays/highend/xp512/index.html">http://www.hp.com/products1/storage/products/disk_arrays/highend/xp512/index.html</a> (XP512)
XP512	
HP StorageWorks Modular Smart Array 1000 (MSA)	<a href="http://h18006.www1.hp.com/products/storageworks/msa1000/index.html">http://h18006.www1.hp.com/products/storageworks/msa1000/index.html</a>
MSA1000	(MSA1000)
HP StorageWorks Modular Smart Array 1500 cs (MSA)	<a href="http://h18006.www1.hp.com/products/storageworks/msa1500cs/index.html">http://h18006.www1.hp.com/products/storageworks/msa1500cs/index.html</a>
MSA1500 cs	(MSA1500 cs)

# QuickSpecs

## HP ProLiant DL585 Storage Server

### Service and Support, HP Care Pack, and Warranty Information

**Warranty** The HP ProLiant DL585 Storage Server comes with a 3-3-3 warranty (3 years parts exchange, 3 years labor, and 3 years on-site, next business day response)

**Warranty Upgrade Options**

- Response – Upgrade on-site response from next business day 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

HP offers a portfolio of services ranging from Storage Design and Architecture that provides a complete multi-site design and implementation, to various levels of on-going maintenance support. Additionally the basic warranty service can be enhanced and/or HP Installation services can be purchased. Specifically HP Care Pack services include:

	Through channels	Through HP
Proactive 24 (P24)		HA111A1 thru A5 Band 8VJ
Support Plus for Storage	UC579A/UC579E UC581A/UC581E	HA110A1 thru A5 Band 8VJ
Support Plus 24 for Storage	UC580A/UC580E UC582A/UC582E	HA109A1 thru A5 Band 8VJ
Support Plus 24 for Storage (specifically for Clustering)	UA283A/UA283E UA285A/UA285E	HA110A1 thru A5 Band 4B8
Support Plus for Storage (specifically for Clustering)	UA282A/UA282E UA284A/UA284E	HA109A1 thru A5 Band 4B8

**HP Proactive 24**

- An integrated hardware and software support solution that combines efficient problem prevention with responsive technical assistance whenever you need it.
- Improves the effectiveness of technologies across your IT infrastructure, and also, establishes a collaborative relationship between you and HP that strengthens your IT team and gives you rapid access to our expertise as issues arise.

**HP Support Plus**

- Increases the performance and availability of your IT infrastructure with comprehensive, consistent hardware and software services. HP Services engineers deliver onsite hardware support and over-the-phone software support 13 hours per day, 5 days per week.
- Encompasses the HP ProLiant Storage Server products, selected multi-vendor hardware and provides trouble-shooting software problems which range from the Storage Server 2003 operating system to the available utilities. In addition, this service makes software updates available to you at substantial savings.
- Provides recovery and re-configuration assistance of the HP ProLiant Storage Server using the recovery disk and your saved configuration file.

**HP Support Plus 24**

Provides all the benefits of the regular Support Plus Care Pack, plus HP Services engineers are available to deliver onsite hardware and over-the-phone software support around-the-clock 365 days per year.



# QuickSpecs

## HP ProLiant DL585 Storage Server

### Service and Support, HP Care Pack, and Warranty Information

#### Software Product Services

- Standard HP warranty ensures Software media will be free of physical defects for a period of 90 days from delivery.
- These services are available to upgrade the warranty to (1 or 3) full year of 9 hours by 5 days (or 24x7) software advisory and remedial software telephone support, new version license rights, and media and documentation distribution service.

#### Hardware Product Services

- Installation services
- On-site maintenance (includes warranty support)
- Response time upgrades during the warranty period
- Post-warranty coverage
- RAID setup and performance consulting via statement of work
- Migration service consulting via statement of work

For additional hardware installation and maintenance information, please refer to the URLs listed below:  
[http://www.hp.com/hps/storage/ns\\_nas.html](http://www.hp.com/hps/storage/ns_nas.html)

- HP offers a portfolio of services ranging from Storage Design and Architecture that provides a complete multi-site design and implementation, to various levels of on-going maintenance support. Additionally the basic warranty service can be enhanced and/or HP Installation services can be purchased

Our Proactive 24 annuity service (with the SAN Module) allows continuous SAN/NAS growth by ensuring that your entire SAN/NAS is safely kept updated with analysis and recommendations on relevant, ongoing firmware (FW) changes and it ensures rapid resolution of complex SAN/NAS issues.

Our SAN Solution Service is a one-time review of your entire SAN/NAS and all the components (applications, HBAs, switches and FW, arrays etc) to ensure that all components are at tested, HP Certified levels. The HP SAN Design/Architecture Service provides as broad and as deep a review and recommendation as needed of how your SAN/NAS environment can be designed and implemented to meet your business storage needs.

The on-going support offerings include various response times (4 hour same day, next day, etc) as well as coverage periods (Monday - Friday, 24x7, 1 yr, 3 yr, etc). These services are available for both hardware and software to ensure all customer support needs are met and can be purchased from either value or volume channels.

Finally HP offers an optional migration service to assist the customer in moving to the newest product release. This may be in the form of a defined kit and service, or may alternatively be performed on a time & material basis.

HP Services allows the customer to leverage HP's experience in selecting and configuring the most widely used security features, and provides an environment that is immediately more available due to increased change control and significantly improved data security.

For more information on these and other service options, please contact any of our worldwide sales offices or visit our Web site at: [http://www.hp.com/hps/storage/ns\\_nas.html](http://www.hp.com/hps/storage/ns_nas.html)

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## HP ProLiant DL585 Storage Server

### Service and Support, HP Care Pack, and Warranty Information

#### Installation and Startup Services

The Installation and Startup Service package provides installation and configuration of HP StorageWorks products. Major categories of work could include:

- Pre-installation consulting and planning
- Hardware installation, configuration and verification
- RAID array configuration and initialization
- Installation, configuration and verification of StorageWorks software
- Service tools installed, configured and verified
- Customer orientation

#### Storage Service Packages

The Storage Services Packaging takes the existing storage product along with the existing services and creates a package of the storage hardware and appropriate services. The increased level of support provides for a higher level of storage system availability for the customer. The package includes 24x7 support with a 4-hour response for 3 years as well as installation and startup service.

#### Components

The following brick level options/components do not have individual HP Care Pack Services. These items will be included in product HP Care Pack Services into which they are installed.

Disk Drives	Tape Drives	CD/DVD ROM	SCSI Hubs in SBBs
Bus Converters	Backplane RAID Controllers	Power Supplies	Cabling



# QuickSpecs

## HP ProLiant DL585 Storage Server

### Product Configuration Wizard

In the following steps you will be guided through a series of steps to help you configure a customized model.

#### Step 1 – Order model

<b>HP ProLiant DL585 2.2 GHz Dual Core Storage Server</b> AE454A or AE454A#0D1 (Factory Rack Integration Option)	<b>Operating System</b> <b>Processor(s)</b> <b>Cache Memory</b> <b>Memory</b>  <b>Network Controller</b> <b>Storage Controller</b>  <b>Manageability</b>  <b>Hard Drive (internal storage)</b> <b>Cooling Fans</b> <b>Power Supplies</b> <b>Diskette Drive</b> <b>Optical Drives</b> <b>Form Factor</b> <b>Factory Racking</b>	Windows Storage Server 2003 Release 2, Enterprise Edition Two 2.2 GHz Dual Core AMD Opteron processors standard (up to 4 processors supported) 1MB L2 4 GB Memory 400-MHz Double Data Rate (DDR) SDRAM (PC3200 Registered SDRAM Memory with Advanced ECC functionality) HP NC7782 Dual Port PCI-X 1000T Gigabit Server Adapter (in a slot) Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board) Integrated Lights-Out (iLO) Standard management (integrated on system board) (Advance License included) Standard two 36.4-GB 15,000 rpm U320 Universal Hard Drives (1") (for mirrored OS internal to server) 7 Hot Plug Redundant Fans (individually removable) 2 x 870-Watt Hot Plug Power Supplies 1.44 MB Diskette Drive (slim line) Slimline DVD-ROM (8x24x) Rack 4U, 7 inches Factory integrates the Storage Server with other HP products such as HP ProLiant Servers. <b>NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.</b>
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#### Step 2 – add additional processors

<b>Processor</b>	2.2 GHz Dual Core AMD Opteron Processor Option Kit <b>NOTE: Must order two kits to expand the system from 2 to 4 processors</b>	383393-B21
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#### Step 3 – add additional memory

HP ProLiant DL585 Storage Server Models

##### Standard Memory

4096-MB 400 MHz Double Data Rate (DDR) SDRAM (PC3200 Registered SDRAM Memory With Advanced ECC Functionality)

##### Optional Memory

Expandable to 32 GB of Memory

**NOTE:** Chart does not represent all possible configurations

Standard Memory Summary		Standard Memory Board (Slots)							
		1	2	3	4	5	6	7	8
Standard	4096 MB	1024 MB	1024 MB	1024 MB	1024 MB	Empty	Empty	Empty	Empty

# QuickSpecs

## HP ProLiant DL585 Storage Server

### Product Configuration Wizard

<b>Optional Memory</b>	2GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 1GB)	376639-B21
	4GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 2GB)	379300-B21

### Step 4 – add cluster kit

With the following components, your storage capacity and performance can be scaled to new levels:

<b>Storage Server Cluster Kit</b>	ProLiant Storage Server Cluster Kit	331474-B21
	<b>NOTE:</b> Windows Storage Server 2003 Release 2 clusters can include up to eight nodes. One ProLiant Storage Server Cluster Kit (PN 331474-B21) is required for each node in a cluster.	

### Step 5 – add external storage array

<b>Array Support:</b> XP, EVA, EMA, MA, MSA1000, and MSA1500	Please see the Storage Array Systems QuickSpecs below to determine configuration requirements	External	Please see the URL's listed below appropriate Array QuickSpecs for the latest list of supported HBA's.
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<http://h18006.www1.hp.com/products/storageworks/enterprise/index.html> (EVA5000)

<http://h18006.www1.hp.com/products/storageworks/eva3000/index.html> (EVA3000)

[http://www.hp.com/products1/storage/products/disk\\_arrays/midrange/va7410/index.html](http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7410/index.html) (VA 7410)

[http://www.hp.com/products1/storage/products/disk\\_arrays/midrange/va7400/index.html](http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7400/index.html) (VA 7400)

<http://h18006.www1.hp.com/products/storageworks/va7110/index.html> (VA 7110)

[http://www.hp.com/products1/storage/products/disk\\_arrays/midrange/va7100/index.html](http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7100/index.html) (VA 7100)

<http://h18006.www1.hp.com/products/storageworks/ema16000/index.html> (EMA16000)

<http://h18006.www1.hp.com/products/storageworks/ma8kema12k/index.html> (EMA12000 FC)

<http://h18006.www1.hp.com/products/storageworks/ma8kema12k/index.html> (MA8000)

[http://www.hp.com/products1/storage/products/disk\\_arrays/highend/xp1024/index.html](http://www.hp.com/products1/storage/products/disk_arrays/highend/xp1024/index.html) (XP1024)

[http://www.hp.com/products1/storage/products/disk\\_arrays/highend/xp128/index.html](http://www.hp.com/products1/storage/products/disk_arrays/highend/xp128/index.html) (XP128)

[http://www.hp.com/products1/storage/products/disk\\_arrays/highend/xp48/index.html](http://www.hp.com/products1/storage/products/disk_arrays/highend/xp48/index.html) (XP48)

[http://www.hp.com/products1/storage/products/disk\\_arrays/highend/xp512/index.html](http://www.hp.com/products1/storage/products/disk_arrays/highend/xp512/index.html) (XP512)

<http://h18006.www1.hp.com/products/storageworks/msa1000/index.html> (MSA1000)

<http://h18006.www1.hp.com/products/storageworks/msa1500cs/index.html> (MSA1500 cs)

**NOTE:** For array multi-pathing support either HP StorageWorks SecurePath (for Windows) or HP MPIO DSM (for Windows) can be used with either model of the HP ProLiant DL585 Storage Server. For more information on how to obtain multi-pathing software go to these links:

Secure Path: <http://h18006.www1.hp.com/products/sanworks/secure-path/spwin.html>

HP MPIO for Windows: <http://h18006.www1.hp.com/products/sanworks/software/drivers/multipathoptions/windows.html>

### Product Configuration Wizard

HP ProLiant Storage Servers and third-party storage arrays/SAN interoperability statement

HP acknowledges that some third party storage arrays/SAN environments have been successfully tested for interoperability with the HP ProLiant Storage Server or HP StorageWorks NAS products. HP will provide support for the HP ProLiant Storage Servers or HP StorageWorks NAS products when connected to third-party storage arrays, but HP will not provide support on third party storage arrays/SAN unless specifically called out in an HP Support contract. HP may support the third party SAN environment attached to both the HP ProLiant Storage Servers or the HP StorageWorks NAS products when specifically under contract with HP, but that SAN coverage does not extend to supporting the SAN connectivity of the third-party array.

If a customer calls HP Services and the problem is determined to be caused by a third-party storage array or the storage arrays' connectivity into a non-HP supported SAN, the customer will be directed to contact the third-party storage array supplier for support. Please refer to the third-party supplier for information relating to specific support of their storage arrays with Windows Storage Server 2003 platforms.

### Step 6 – add network cards

**NOTE:** The system comes standard with an embedded HP NC7782 Dual Port PCI-X 1000T Gigabit Server Adapter. Select additional cards for higher performance and further redundancy.

<b>Communications</b>	HP NC150T PCI 4-port Gigabit 1000T Combo Switch Adapter	367132-B21
	HP NC310F PCI-X 1000SX Gigabit Server Adapter	368169-B21
	HP NC340T PCI-X 4-port Gigabit Server Adapter	391661-B21
	HP NC370F PCI-X Multifunction 1000SX Gigabit Server Adapter	374193-B22
	HP NC370T PCI-X Multifunction 1000T Gigabit Server Adapter	374191-B22
	HP NC1020 PCI 1000T Gigabit Server Adapter	353377-B21
	HP NC7170 PCI-X Dual Port 1000T Gigabit Server Adapter	313881-B21
	HP NC7771 PCI-X 1000T Gigabit Server Adapter	290563-B21
	<b>NOTE:</b> A minimum of 1 GB of memory per port is required for NC370x adapters, with a maximum of two NC370x ports permitted in a server.	
	HP NC570C PCI-X Dual-port 4x Fabric Adapter	376158-B21
	HP 24-Port 4x Fabric Copper Switch	376227-B21
	HP 4x Fabric 1m Copper Cable	376232-B21
	HP 4x Fabric 3m Copper Cable	376232-B22
	HP 4x Fabric 5m Copper Cable	376232-B23

For (TCP/IP Offload Engine) TOE support HP has qualified the following Alacritech products:

Alacritech 1000x1 Single Port Gigabit Server and Storage Accelerator Copper wire (Model Number: 2000-100007)

**NOTE:** To purchase or for additional information, please see the following URL:

[http://www.alacritech.com/html/1000x1\\_copper\\_accelerator.html](http://www.alacritech.com/html/1000x1_copper_accelerator.html)

Alacritech 1000x1 Single Port Gigabit Server and Storage Accelerator Fibre (Model Number: 2000-100009)

**NOTE:** To purchase or for additional information, please see the following URL:

[http://www.alacritech.com/html/1000x1\\_fiber\\_accelerator.html](http://www.alacritech.com/html/1000x1_fiber_accelerator.html)

Alacritech 100x4 Quad-Port Fast Ethernet Server Accelerator (Model Number: 2000-100000)

**NOTE:** To purchase or for additional information, please see the following URL:

<http://www.alacritech.com/html/100x4.html>

**NOTE:** Additional technical and purchasing information regarding Alacritech can be obtained at

<http://www.alacritech.com/hp>

### Product Configuration Wizard

## Step 7 – add Host Based Data Replication

HP OpenView Storage Mirroring (SM) is an ideal entry host-based software product for IP networks. SM does not require high bandwidth Fibre Channel networks, high capacity replication and zero down time service levels. Storage Mirroring provides near real-time full application or file recovery up to the last byte replication. SM is an excellent choice for low bandwidth; low storage volume changes and meets business recovery goals within tens of minutes or hours. The immediate return on investment is realized in the reduced management cost associated with branch or small offices networks.

Product Highlights:

- High availability with Microsoft Windows 2000/NT/2003 servers
- Application aware and supported with Exchange, SQL and Oracle
- Host-based remote storage copy with TCP/IP networks
- Data distribution one-to-many or 'fan-out' to multiple destinations
- Data migration utility for transferring large data projects
- Centralize backup, data protection and recovery operations
- Built in scheduler for off hours replication
- Built in network bandwidth utilization management
- Disaster recovery between source and destination failover sites
- Powered by NSI Software's Double-Take patented 'Sequential Transfer Asynchronous Replication' technology

Sequential transfer maintains write sequential across multiple files for data integrity

<b>Host Based Data</b>	HP OpenView Storage Mirroring v4.4.2 Media Kit	T2558AA
<b>Replication</b>	HP OpenView Storage Mirroring NAS Edition LTU 1	T3841AA
	HP OpenView Storage Mirroring NAS Edition LTU 10	T3842AA

For more information go to the [HP OpenView Storage Mirroring website at: http://h18006.www1.hp.com/products/storage/software/sm/index.html](http://h18006.www1.hp.com/products/storage/software/sm/index.html)

## Step 8 - add a Tape Backup Solution

### Tape Drives

**NOTE:** For the complete listing of Tape Drive offerings for this server, please visit: <http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html>

For recommended tape drive offerings for this HP ProLiant server see the following:

#### Hot Plug Tape Drives

HP StorageWorks DAT 72 SCSI Hot-plug Tape Drive (Carbon) Q1529A

#### USB Tape Drives

HP StorageWorks DAT 72 USB External Tape Drive (Carbonite) DW027A

**NOTE:** Requires purchase of the Adaptec USB2connect 3100LP USB adapter available at <http://www.adaptec.com>. Microsoft Windows support only.

#### External and Rack-Mount Ultrium Tape Drives

HP StorageWorks Ultrium 232 External Tape Drive (Carbonite) DW065B

HP StorageWorks Ultrium 460 External Tape Drive (Carbon) Q1520A

HP StorageWorks Ultrium 448 External Tape Drive (Carbonite) DW017B

HP StorageWorks Ultrium 960 External Tape Drive (Carbonite) Q1539B

HP StorageWorks 3U Rack-mount kit with one Ultrium 960 (Carbonite) Q1595A

**NOTE:** Please see the [HP StorageWorks Ultrium Tape Drive QuickSpecs](http://h18006.www1.hp.com/products/quickspecs/11739_div/11739_div.html) for additional options such as controllers, media, and other related items: [http://h18006.www1.hp.com/products/quickspecs/11739\\_div/11739\\_div.html](http://h18006.www1.hp.com/products/quickspecs/11739_div/11739_div.html) (Worldwide)

For an up-to-date listing of the latest O/S and software support details for HP Ultrium tape drives, please visit: <http://www.hp.com/go/connect>

### Product Configuration Wizard

#### Rack-Mount Tape Drive Enclosures

HP StorageWorks 1U Rack-Mount Kit A7445B

**NOTE:** The 1U Rack-mount Kit can support up to (2) half-height tape drives and is compatible with multiple Single-Ended and LVD SCSI tape drives including the DAT 24, DAT 40, DAT 72, DLT VS80, DLT VS160, Ultrium 215, Ultrium 232 and Ultrium 448 tape drives.

HP StorageWorks 1U USB Rack-Mount Kit A8007A

1U USB Cable Option Kit 396114-B21

**NOTE:** Converts a 1U SCSI rack-mount kit to a USB interface to support the USB tape drives.

HP StorageWorks 3U Rack-Mount Kit 274338-B22

**NOTE:** The 3U Rack-mount Kit can support up to (2) full-height or (4) half-height tape drives and compatible with multiple Single-Ended and LVD SCSI tape drives including DAT 24, DAT 40, DAT 72, DLT VS80, DLT VS160, SDLT 320, SDLT 600, Ultrium 215, Ultrium 230, Ultrium 232, Ultrium 460, Ultrium 448 and Ultrium 960 tape drives.

**NOTE:** Please see the Rack-Mount Tape Drive Kits QuickSpecs for additional information regarding these kits:

[http://h18000.www1.hp.com/products/quickspecs/10854\\_div/10854\\_div.HTML](http://h18000.www1.hp.com/products/quickspecs/10854_div/10854_div.HTML)  
(Worldwide)

#### Tape Autoloaders

##### DAT Autoloader

HP StorageWorks DAT 72x6 Autoloader (External) Q1567A

**NOTE:** Please see the DAT 72x6 Tape Autoloader QuickSpecs for additional options such as host bus adapters, controllers and media:

[http://h18006.www1.hp.com/products/quickspecs/11905\\_div/11905\\_div.html](http://h18006.www1.hp.com/products/quickspecs/11905_div/11905_div.html)  
(Worldwide)

##### HP StorageWorks 1/8 Tape Autoloader

HP StorageWorks 1/8 Ultrium 960 Tape Autoloader AF204A

HP StorageWorks 1/8 Ultrium 448 Tape Autoloader AF203A

HP StorageWorks 1/8 Ultrium 232 Tape Autoloader AF202A

1/8 Tape Autoloader Rackmount Kit C9268R

**NOTE:** Required to install the 1/8 tape autoloader in a standard 19-inch rack

**NOTE:** Please reference the 1/8 Tape Autoloader QuickSpecs at

<http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at

<http://www.hp.com/go/ebs>

# QuickSpecs

## HP ProLiant DL585 Storage Server

### Product Configuration Wizard

<b>Tape Libraries</b>	<p><b>HP StorageWorks MSL2024 Tape Library</b></p> <p>HP StorageWorks MSL2024 1 Ultrium 960 Drive Library AG115A</p> <p>HP StorageWorks MSL2024 1 Ultrium 448 Drive Library AG116A</p> <p>HP StorageWorks MSL2024 2 Ultrium 448 Drive Library AG117A</p> <p><b>HP StorageWorks MSL4048 Tape Library</b></p> <p>HP StorageWorks MSL4048 1 Ultrium 448 Drive Library AG320A</p> <p>HP StorageWorks MSL4048 2 Ultrium 448 Drive Library AG321A</p> <p>HP StorageWorks MSL4048 1 Ultrium 960 Drive Library AG322A</p> <p>HP StorageWorks MSL4048 2 Ultrium 960 Drive Library AG323A</p> <p><b>HP StorageWorks MSL6000 Tape Library</b></p> <p><b>Ultrium 960 technology</b></p> <p>HP StorageWorks MSL6030 1 Ultrium 960 Dr LVDS Library AD606A</p> <p>HP StorageWorks MSL6030 1 Ultrium 960 Dr FC Library AD608A</p> <p>HP StorageWorks MSL6030 2 Ultrium 960 Dr LVDS Library AD607A</p> <p>HP StorageWorks MSL6030 2 Ultrium 960 Dr FC Library AD609A</p> <p><b>Ultrium 460 technology</b></p> <p>HP StorageWorks MSL6030 1 Ultrium 460 Dr LVDS Library AD598A</p> <p>HP StorageWorks MSL6030 1 Ultrium 460 Dr FC Library AD600A</p> <p>HP StorageWorks MSL6030 2 Ultrium 460 Dr LVDS Library AD599A</p> <p>HP StorageWorks MSL6030 2 Ultrium 460 Dr FC Library AD601A</p> <p><b>NOTE:</b> Please reference the <a href="http://www.hp.com/go/automation">MSL2024</a>, <a href="http://www.hp.com/go/automation">MSL4048</a> and <a href="http://www.hp.com/go/automation">MSL6000 Tape Library QuickSpecs</a> at <a href="http://www.hp.com/go/automation">http://www.hp.com/go/automation</a> for additional information needed to create a complete solution; reference current compatibility information at <a href="http://www.hp.com/go/ebs">http://www.hp.com/go/ebs</a>.</p>
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### Step 9 - add UPS, rack and Power Distribution Unit (PDU)

<b>Uninterruptible Power Systems – Rack</b>	<p>HP UPS R1500 XR (1440VA, 1340 Watt), Low Voltage (NA) 204404-001</p> <p>HP UPS R1500 XR (1500VA, 1340 Watt), High Voltage (Int'l) 204404-B31</p> <p>HP UPS R1500 XR (1500VA, 1340 Watt), Low Voltage (Japan) 204404-291</p> <p>HP UPS R3000 XR (2880VA, 2700 Watt), Low Voltage (NA) 192186-001</p> <p>HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (NA) 192186-002</p> <p>HP UPS R3000 XR (2400VA, 2250 Watt), Low Voltage (Japan) 192186-291</p> <p>HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (Japan) 192186-292</p> <p>HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (Int'l - detachable cord) 192186-B31</p> <p>HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A IEC309 Plug) 192186-B32</p> <p>HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A CEE 7/7 SCHUKO Plug) 192186-B33</p> <p>HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A BS-546 Plug) 192186-AR1</p> <p>HP UPS R5500 XR (5000VA, 4500 Watt) High Voltage (NA/JPN, L6-30P) 326529-D71</p> <p>HP UPS R5500 XR (6000VA, 5400 Watt) High Voltage (Int'l, IEC-309) 326529-B31</p> <p>HP UPS R12000 XR N+x (12000VA, 12000 Watt) (WW-hardwired) 207552-B22</p> <p><b>NOTE:</b> The UPS R12000 XR has a hardwired input and output connection.</p>
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# QuickSpecs

## HP ProLiant DL585 Storage Server

### Product Configuration Wizard

<b>HP Monitored Power Distribution Unit (PDU)</b>	<b>HP Monitored Power Distribution Unit: Full Rack Version</b>	
	HP 17.3 kVA S2324 Monitored PDU- dual input, 3-phase, 24A (NA/JPN)	370959-D71
	HP 8.3 kVA S1324 Monitored PDU- single input, 3-phase, 24A (NA/JPN)	370960-D71
	HP 16.6 kVA S2140 Monitored PDU- dual input, 1-phase, 40A (NA/JPN)	370961-D71
	HP 8.6 S1140 Monitored PDU- single input, 1-phase, 40A (NA/JPN)	370962-D71
	HP 22.1 kVA S2316 Monitored PDU- dual input, 3-phase, 16A (INTL)	370963-B31
	HP 11 kVA S 1316 Monitored PDU- single input, 3-phase, 16A (INTL)	370964-B31
	HP 14.7 kVA S2132 Monitored PDU- dual input, 1-phase, 32A (INTL)	370965-B31
	HP 7.4 kVA S1132 Monitored PDU- single input, 1-phase, 32A (INTL)	370966-B31
	<b>HP Monitored Power Distribution Unit: Half Rack Version</b>	
	HP 17.3 kVA S348 Monitored PDU- single input, 3-phase, 60A (NA/JPN)	AF916A
	HP 22 kVA S332 Monitored PDU- single input, 3-phase, 32A (INTL)	AF917A

<b>Modular Power Distribution Units 1U/0U</b> (Up to 32 outlets) <b>NOTE:</b> 1U/0U mounting brackets shipped with the unit (optimized for 10000 and 9000 series racks).	HP Modular Power Distribution Units (mPDU), Low Volt Model, 24A (100-127 VAC) (NA, Japan)	252663-D71
	<b>NOTE:</b> This mPDU (252663-D71) may also be used to connect the low volt model of the UPS R3000 XR.	
	HP Modular Power Distribution Units (mPDU), High Volt Model, 24A (200-240 VAC) (NA, Japan)	252663-D72
	HP Modular Power Distribution Units (mPDU), High Volt Model, 32A (200-240 VAC) (Int'l)	252663-B31
	HP Modular Power Distribution Units (mPDU), High Volt Model, 40A (200-240 VAC) (WW)	252663-B21
	<b>NOTE:</b> This mPDU (252663-B21), 40A model has a hardwired input.	
	HP Modular Power Distribution Units (mPDU), High Volt Model, 16A (200-240 VAC) (WW)	252663-B24
<b>NOTE:</b> This PDU has a detachable input power cord and allows for adaptability to country specific power requirements. This model may also be used with the high volt UPS R3000 XR. For North America, need to order cable PN 340653-001.		
<b>NOTE:</b> Please see the following Modular Power Distribution Unit (Zero-U/1U Modular PDUs) QuickSpecs for additional options including shorter jumper cables and country specific power cords: <a href="http://h18000.www1.hp.com/products/quickspecs/11041_div/11041_div.HTML">http://h18000.www1.hp.com/products/quickspecs/11041_div/11041_div.HTML</a> (Worldwide)		

<b>USB Options</b>	HP USB 2-Button Optical Scroll Mouse (Carbonite/Silver)	DC172B
	USB 1.44-MB External Diskette Drive (Carbonite)	DC141B
	256MB HP Drive Key (USB 2.0)	PH657A

# QuickSpecs

## HP ProLiant DL585 Storage Server

### Product Configuration Wizard

<b>Third Party Rack Kit</b>	3rd Party Rack Kit (ALL) <b>NOTE:</b> The rack kit (PN 287528-B21) provides support for any rack, square hole or round hole, (including HP Rack System /E and HP Systems), with an adjustment range from 23 ½" - 34" deep. <b>NOTE:</b> The Third party rack kit is required for round hole racks or for square hole racks that do not conform to the adjustment range of the standard rail that ships with the server.	287528-B21
<b>Telco Rack Support</b>	Rack Adapter Kit <b>NOTE:</b> This kit allows HP rack servers to fit in racks that are 24" wide. <b>NOTE:</b> Support for all 2-post Telco racks requires the Third Party option kit 287528-B21, plus an additional option kit from Rack Solutions. The Rack Solutions brackets can be purchased at: <a href="http://www.racksolutions.com/hp">http://www.racksolutions.com/hp</a> .	332815-B21
<b>HP Rack 5000 Series</b> (Graphite Metallic)	HP 5642 Rack-Unassembled <b>NOTE:</b> Please see the HP Rack 5642 QuickSpecs for additional part numbers and Technical Specifications such as height, width, depth, weight, and color: <a href="http://h18000.www1.hp.com/products/quickspecs/12074_div/12074_div.HTML">http://h18000.www1.hp.com/products/quickspecs/12074_div/12074_div.HTML</a> (Worldwide) <b>NOTE:</b> For additional information regarding Rack Cabinets, please see the following URL: <a href="http://www.hp.com/go/rackandpower">http://www.hp.com/go/rackandpower</a> .	358254-B21
<b>HP Rack 10000 G2 Series</b> (Carbon/Graphite Metallic)	10642 G2 (42U) Rack Cabinet - Pallet 10642 G2 (42U) Rack Cabinet - Shock Pallet 10642 G2 (42U) Rack Cabinet - Crated 10642 G2 (42U) Rack Cabinet, with Extension - Shock Pallet 10642 G2 (42U) Rack Cabinet, without door - Shock Pallet 10642 G2 (42U) Rack Cabinet - with Extension, without door - Shock Pallet 10636 G2 (36U) Rack Cabinet - Pallet 10636 G2 (36U) Rack Cabinet - Shock Pallet 10636 G2 (36U) Rack Cabinet - Crated 10636 G2 (36U) Rack Cabinet , with Extension - Shock Pallet 10636 G2 (36U) Rack Cabinet, without door - Shock Pallet 10636 G2 (36U) Rack Cabinet, with Extension, without door - Shock Pallet <b>NOTE:</b> It is mandatory to use a shock pallet when shipping racks with equipment installed. <b>NOTE:</b> Please see the Rack 10000 G2 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color: <a href="http://h18000.www1.hp.com/products/quickspecs/12402_div/12402_div.HTML">http://h18000.www1.hp.com/products/quickspecs/12402_div/12402_div.HTML</a> (Worldwide) <b>NOTE:</b> For additional information regarding Rack Cabinets, please see the following URL: <a href="http://www.hp.com/go/rackandpower">http://www.hp.com/go/rackandpower</a> .	AF001A AF002A AF003A AF004A AF005A AF006A AF011A AF012A AF013A AF014A AF015A AF016A



# QuickSpecs

## HP ProLiant DL585 Storage Server

### Product Configuration Wizard

HP Rack 10000 Series (Graphite Metallic)	Rack, HP Infrastructure 42U (HV)	379005-001
	Rack, HP Infrastructure 42U (LV)	379006-001
	HP Rack S10614 (14U) Rack Cabinet - Shock Pallet	292302-B22
	HP Rack 10842 (42U, 800mm wide) - Pallet	257415-B21
	HP Rack 10842 (42U, 800mm wide) - Shock Pallet	257415-B22
	HP Rack 10647 (47U) - Pallet	245160-B21
	HP Rack 10647 (47U) - Crated	245160-B23
	HP Rack 10642 (42U) - Pallet	245161-B21
	HP Rack 10642 (42U) - Shock Pallet	245161-B22
	HP Rack 10642 (42U) - Crated	245161-B23
	HP Rack 10636 (36U) - Pallet	245162-B21
	HP Rack 10636 (36U) - Shock Pallet	245162-B22
	HP Rack 10636 (36U) - Crated	245162-B23
	HP Rack 10622 (22U) - Pallet	245163-B21
	HP Rack 10622 (22U) - Shock Pallet	245163-B22
	HP Rack 10622 (22U) - Crated	245163-B23

**NOTE:** xxxxx-B21 (pallet) used to ship empty racks shipped on a truck. -B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels).

xxxxx-B23 (crated) used for air shipments of empty racks.

**NOTE:** xxxxx-B21 (pallet) used to ship empty racks shipped on a truck. -B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels).

xxxxx-B23 (crated) used for air shipments of empty racks.

**NOTE:** Please see the Rack 10000 QuickSpecs for additional options and Technical Specifications such as height, width, depth, weight, and color:

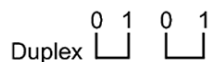
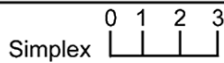
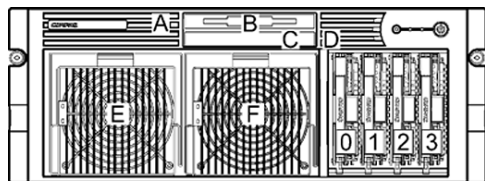
[http://h18000.www1.hp.com/products/quickspecs/10995\\_div/10995\\_div.HTML](http://h18000.www1.hp.com/products/quickspecs/10995_div/10995_div.HTML)  
(Worldwide)

**NOTE:** For additional information regarding Rack Cabinets, please see the following URL: <http://www.hp.com/go/rackandpower>.

# QuickSpecs

## HP ProLiant DL585 Storage Server

### Storage



SCSI IDs

Point	Item
A	Diskette Drive eject button
B	Ejectable: DVD (Slimline)
C	Ejectable: 1.44-MB Diskette Drive (Slimline)
D	DVD Drive eject button
E	870-Watt (low line or high line) Redundant Hot Plug Power Supply
F	870-Watt (low line or high line) Primary Hot Plug Power Supply
0-1	Hot Plug SCSI Drive Cage

**NOTE:** Maximum of two hard drives are supported. Hard drives are for user data and are based on the SAN chosen.

### Drive Support

	Quantity Supported	Position Supported	Controller
<b>Ejectable Slim Line Drives</b>			
1.44-MB slim-line Diskette Drive	Up to 1	C	Integrated
Slim-line DVD Drive	Up to 1	B	Integrated IDE

### Hard Drives

#### Ultra320 Hot Pluggable Drives

1-inch 36.4 GB 15,000 rpm	2 (for mirrored OS in server. User data drive support is dependent upon the array chosen)	0-1	Integrated Smart Array 5i Plus Controller
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**NOTE:** All U320 Universal Hard Drives are backward compatible to U2 or U3 speeds.

# QuickSpecs

## HP ProLiant DL585 Storage Server

### Storage

#### External Storage

Array Support: XP, EVA, EMA, MA, MSA1000, and MSA1500	Please see the Storage Array Systems QuickSpecs below to determine configuration requirements	External	Please see the URL's listed below appropriate Array QuickSpecs for the latest list of supported HBA's.
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- <http://h18006.www1.hp.com/products/storageworks/enterprise/index.html> (EVA5000)
- <http://h18006.www1.hp.com/products/storageworks/eva3000/index.html> (EVA3000)
- [http://www.hp.com/products1/storage/products/disk\\_arrays/midrange/va7410/index.html](http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7410/index.html) (VA 7410)
- [http://www.hp.com/products1/storage/products/disk\\_arrays/midrange/va7400/index.html](http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7400/index.html) (VA 7400)
- <http://h18006.www1.hp.com/products/storageworks/va7110/index.html> (VA 7110)
- [http://www.hp.com/products1/storage/products/disk\\_arrays/midrange/va7100/index.html](http://www.hp.com/products1/storage/products/disk_arrays/midrange/va7100/index.html) (VA 7100)
- <http://h18006.www1.hp.com/products/storageworks/ema16000/index.html> (EMA16000)
- <http://h18006.www1.hp.com/products/storageworks/ma8kema12k/index.html> (EMA12000 FC)
- <http://h18006.www1.hp.com/products/storageworks/ma8kema12k/index.html> (MA8000)
- [http://www.hp.com/products1/storage/products/disk\\_arrays/highend/xp1024/index.html](http://www.hp.com/products1/storage/products/disk_arrays/highend/xp1024/index.html) (XP1024)
- [http://www.hp.com/products1/storage/products/disk\\_arrays/highend/xp128/index.html](http://www.hp.com/products1/storage/products/disk_arrays/highend/xp128/index.html) (XP128)
- [http://www.hp.com/products1/storage/products/disk\\_arrays/highend/xp48/index.html](http://www.hp.com/products1/storage/products/disk_arrays/highend/xp48/index.html) (XP48)
- [http://www.hp.com/products1/storage/products/disk\\_arrays/highend/xp512/index.html](http://www.hp.com/products1/storage/products/disk_arrays/highend/xp512/index.html) (XP512)
- <http://h18006.www1.hp.com/products/storageworks/msa1000/index.html> (MSA1000)
- <http://h18006.www1.hp.com/products/storageworks/msa1500cs/index.html> (MSA1500 cs)

#### Tape Drives

**NOTE:** For an up-to-date listing of the latest O/S Support details for each of the Tape Drives listed below, please see the following:  
[http://h18000.www1.hp.com/products/quickspecs/North\\_America/10233.html](http://h18000.www1.hp.com/products/quickspecs/North_America/10233.html) (North America)  
<http://h18000.www1.hp.com/products/quickspecs/Division/10233.html> (Worldwide)

**NOTE:** For an up-to-date listing of the latest O/S Support details for each of the Tape Storage Systems listed below, please see the following:  
[http://h18000.www1.hp.com/products/quickspecs/North\\_America/10809.html](http://h18000.www1.hp.com/products/quickspecs/North_America/10809.html) (North America)  
<http://h18000.www1.hp.com/products/quickspecs/Division/10809.html> (Worldwide)

	Quantity Supported	Position Supported	Controller
Internal AIT 100-GB, Hot Plug	Up to 1	0 & 1 or 2 & 3	Smart Array 5i Controller (integrated on system board)
Internal AIT 50-GB, Hot Plug			
Internal AIT 35-GB, LVD, Hot Plug			
Internal 20/40-GB DAT, Hot Plug			



# QuickSpecs

## HP ProLiant DL585 Storage Server

### Power Specifications

<b>Operational Input Voltage Range</b> (Vrms)	90 to 264
<b>Frequency Range</b> (Nominal) (Hz)	47 to 63 (50/60)

<b>Nominal Input Voltage</b> (Vrms)	<b>100</b>	<b>115</b>	<b>208</b>	<b>220</b>	<b>230</b>	<b>240</b>
Max Rated Output Wattage Rating	800	800	800	800	800	800
Nominal Input Current (Arms)	11.7	9.9	5.2	4.9	4.7	4.5
Max Rated Input Wattage Rating (Watts)	1143	1111	1067	1067	1067	1053
Max. Rated VA (Volt-Amp)	1166	1134	1088	1088	1088	1074
Efficiency (%)	70	72	75	75	75	76
Power Factor	0.98	0.98	0.98	0.98	0.98	0.98
Leakage Current (mA)	0.43	0.50	0.90	0.96	1.00	1.04
Maximum Inrush Current (A peak)	25	25	25	25	25	25
Maximum Inrush Current duration (mS)	20	20	20	20	20	20

# QuickSpecs

## HP ProLiant DL585 Storage Server

### Technical Specifications

<b>File Protocol Support</b>	CIFS, NFS, NCP, AppleTalk, HTTP, FTP
<b>O/S Support</b>	Windows Storage Server 2003 Enterprise Edition, Release 2
<b>Dimensions (HxWxD)</b>	6.94 x 19 x 26.5 in (17.6 x 48.3 x 67.3 cm)
<b>Weight</b>	66 lb (29.9 kg)
<b>Data Transfer Method</b>	Fibre Channel
<b>Input Requirements</b>	Nominal Line Voltage 100 to 120 VAC/200 to 240 VAC Range Line Voltage 1135W @ 110 VAC/1125W @ 220 VAC Line Frequency 50 to 60 Hz Typical Input Current 12A (100 VAC), 9.8A (120 VAC), 4.9A (220 VAC)
<b>Maximum Number of Drives</b>	Dependent upon SAN array
<b>Power</b>	800W/800W (lowline/highline)
<b>Power Supply Weight</b>	
<b>Reliability Features</b>	Redundant OS, redundant power supplies, hot plug PCI
<b>Relative Humidity (non-condensing)</b>	<b>Operating</b> 10% to 70%
<b>Temperature Range</b>	<b>Operating</b> 50° to 95° F (10° to 35° C) <b>Shipping</b> -22° to 122° F (-30° to 50° C)
<b>Max BTUs</b>	4000 BTU
<b>Max Wet Bulb Temp</b>	101.7° F (38.7° C)

<b>1.44-MB Diskette Drive</b>	<b>Diskette Size</b>	3.5 in (8.89 cm)
	<b>LED Indicators</b> (front panel)	Green
	<b>Read/Write Capacity per Diskette</b> (high/mid/low density)	1.44 MB/1.2 MB/720 KB formatted
	<b>Drive Supported</b>	One
	<b>Drive Height</b>	0.50 in (1.27 cm)
	<b>Drive Rotation</b>	300/360/300 rpm
	<b>Transfer Rate</b> (high/mid/low)	500/500/250 Kb/s
	<b>Bytes/Sector</b>	512
	<b>Sectors/Track</b> (high/mid/low)	18/15/9
	<b>Tracks/Side</b> (high/low)	80/80
	<b>Access Times</b>	Track-to-Track 3/3/6 ms (high/mid/low) Average (high/mid/low) 174/94/94 ms Settling Time 15 ms Latency Average 100 ms/83.3 ms/100 ms
	<b>Cylinders</b> (high/low)	80/80
	<b>Read/Write Heads</b>	Two

# QuickSpecs

## HP ProLiant DL585 Storage Server

### Technical Specifications

<b>Slimline DVD-ROM (8x24x) Drive</b>	<b>Disk</b>	Applicable Disk	DVD-ROM DVD-R (Read Only) 4.7 GB/side DVD-RAM (Read Only) 2.6 GB/side DVD-RAM (Read Only) CD-ROM Mode-1 data disc CD-ROM Mode-2 data disc CD Audio disc CD-Extra CD-RW (Read Only) CD-R (Read Only) CD Text
	<b>Capacity</b>	DVD-ROM	DVD-SL/SS (DVD-5) 4.7 GB/per side DVD-DL/SS (DVD-9) 8.5 GB/per side DVD-DS/SL (DVD-10) 9.4 GB/per side DVD-DS/DL (DVD-18) 17.1 GB/per side
		DVD-R	3.95 GB/side
		DVD-ROM	2.6 GB/side
		DVD-ROM	4.7 GB/side
		CD-ROM	Mode-1 650 MB Mode-2 742 MB
		Diameter	120 mm, 80 mm (with adapter at vertical mounting mode)
		Loading Mechanism	Tray type Auto Loading
<b>Block Size</b>		DVD	2,048 bytes (Mode-1)
		CD	2,336 bytes (Mode-2)
<b>Interface</b>		EIDE (ATAPI)	
<b>Access Times (typical)</b>		Random	DVD-ROM < 150 ms, CD-ROM < 100 ms
		Full-Stroke	DVD-ROM < 240 ms, CD-ROM < 225 ms
<b>Audio Output Level</b>		Line-Out	CD 0.7 Vrms at 47 Kohms Load
<b>Data Transfer Rate (DVD-ROM)</b>		Single Layer	10.8 MB/sec
<b>Data Transfer Rate (CD-ROM)</b>		Single Layer	3.6 MB/sec
<b>Cache Buffer</b>		256 KB	
<b>Spin-up Time (typical)</b>		DVD-ROM: 19 seconds or less	
<b>MTBF</b>		60,000 Power On Hours (POH)	
<b>Ambient Temperatures</b>		Operating	41° to 113° F (5° to 45° C)
		Storage/Transportation	-22° to 140° F (-30° to 60° C)
<b>Relative Humidity</b>		Operating	15% to 85%
		Storage/Transportation	10% to 90%
<b>Dimensions</b>		(HxWxD, maximum)	0.5 x 5.04 x 5.09 in (12.7 x 128.0 x 129.4 mm)
<b>Shipping Dimensions</b>		(HxWxD, maximum)	10.83 x 8.38 x 4.00 in (27.58 x 21.28 x 10.16 cm)
		Shipping Weight	1.50 lb (0.68 kg)

# QuickSpecs

## HP ProLiant DL585 Storage Server

### Technical Specifications

Hot Plug Ultra320 SCSI Hard Drives	36.4 GB 10K	Capacity	36419.2 MB	
		Height	1.0 in (2.54 cm)	
		Width	4.0 in (10.16 cm)	
		Interface	Ultra320 SCSI	
		Transfer Rate Synchronous (Maximum)	320 MB/s	
		Seek Time (typical reads, including setting)	Single Track	0.55 ms
			Average	4.9 ms
			Full-Stroke	10.0 ms
		Rotational Speed	10,000 rpm	
		Physical Configuration	Bytes/Sector	512
	Logical Blocks		71,132,000	
	Operating Temperature	50° to 95° F (10° to 35° C)		

Integrated Smart Array 5i Plus Controller	Data Compatible with all Smart Array Controllers	Yes
	Instant Upgrades to other Smart Array Controllers	Yes
	Consistent Software Manageability Tools	Yes
	PCI-X Bus	64-bit, 100 MHz (integrated on system board)
	PCI-X Peak Data Transfer Rate	800 MB/s
	SCSI Protocols Supported	Ultra3, Ultra2
	SCSI Peak Data Transfer Rate	160 MB/s per channel <b>NOTE:</b> For ProLiant servers having TWO internal drive bays on separate SCSI ports: SCSI Peak Data Transfer Rate is 320 MB/s total; 160 MB/s per channel and Channels is 2.
	Channels	2 <b>NOTE:</b> For ProLiant servers having two internal drive bays on separate SCSI ports: SCSI Peak Data Transfer Rate is 320 MB/s total; 160 MB/s per channel and Channels is 2.
	SCSI Ports (external/internal)	0/2 <b>NOTE:</b> For ProLiant servers having two internal drive bays on separate SCSI ports: SCSI Peak Data Transfer Rate is 320 MB/s total; 160 MB/s per channel and Channels is 2.
	Drives Supported (maximum)	Maximum = total number of drives <b>NOTE:</b> Maximum is the total number of internal drives on each specific ProLiant server.
	Cache	64 MB Read/Write Cache
	Battery-Backed Write Cache	Yes
	RAID Support	0, 1, 1+0, 5

# QuickSpecs

## HP ProLiant DL585 Storage Server

### Technical Specifications

<b>Logical Drives</b> (maximum)	Maximum = total number of drives
<b>Online Configuration</b>	Yes
<b>Online Capacity Expansion</b>	Yes
<b>Logical Drive Capacity Extension</b>	Yes
<b>Online Stripe Size Migration</b>	Yes
<b>Online RAID Level Migration</b>	Yes
<b>Online Spare Support</b>	Yes
<b>Automatic Data Recovery</b>	Yes
<b>Drive Roaming</b>	Yes
<b>Redundant Controllers</b>	No

<b>Dual Port NC7782</b>	<b>Network Interface</b>	10/100/1000-T		
	<b>Compatibility</b>	IEEE 802.3 10Base-T IEEE 802.3ab 1000Base-T IEEE 802.3u 100Base-TX		
	<b>Data Transfer Method</b>	64-bit/133MHz PCI-X		
	<b>Network Transfer Rate</b>	10Base-T (Half-Duplex)	10 Mb/s	
		10Base-T (Full-Duplex)	20 Mb/s	
		100Base-TX (Half-Duplex)	100 Mb/s	
		100Base-TX (Full-Duplex)	200 Mb/s	
		1000Base-TX (Half and Full-Duplex)	2000 Mb/s	
	<b>Connector</b>	RJ-45		
	<b>Cable Support</b>	10Base-T	Category 3, 4 or 5 UTP up to 328 ft (100 m)	
10/100/1000Base-T		Category 5 UTP (2 pair); up to 328 ft (100 m)		

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