

Overview

The HP ProLiant DL100 G2 Storage Server is an entry-level 1U rack mount Networked Attached Storage (NAS) solution that delivers easy to use, rapidly deployable networked storage with multi-protocol file sharing and print serving which is perfect for a small workgroup, small business or a remote office.

Windows Storage Server 2003 Release 2 (R2) operating system is pre-installed and includes storage specific management tools. The hardware is also pre-configured allowing the DL100 G2 Storage Server to be up and running in minutes.

The HP ProLiant DL100 G2 Storage Server is available in four different storage capacity models.

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 support heterogeneous files in a high-capacity storage solution on Ethernet based networks. 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 generally provides network accessible storage to a mix of clients and servers running different operating systems.

Product Features	Processor	<ul style="list-style-type: none">• (1) Intel Celeron D 2.8 GHz Single Core/533 MHz FSB - 256KB L2 Cache (320 GB and 640 GB Models)• (1) Intel Pentium D 2.8 GHz Dual Core/800 MHz FSB - 2MB L2 Cache (1TB and 2 TB Model)
	Memory	<ul style="list-style-type: none">• 512 MB of memory standard, expandable to 4 GB (320 GB and 640GB Models)• 1 GB of memory standard, expandable to 4 GB (1 TB and 2TB model)

Overview

Operating System	<ul style="list-style-type: none">• Windows Storage Server 2003 Release 2 pre-installed. Includes:• HP Enhanced, File Server Management Console<ul style="list-style-type: none">○ File Server Resource Manager for quotas, file screening and storage reporting○ Print Server support<ul style="list-style-type: none">▪ New print management console▪ Up 5 printers supported in Workgroup Edition▪ Unlimited printer support in Standard Edition○ Microsoft Services for Network File System (NFS)○ Distributed File System Replication, including<ul style="list-style-type: none">▪ DFS Management Console▪ Configuration and Diagnostic Tools○ Unlimited Client Access License (CAL) included
Storage Controller	<ul style="list-style-type: none">• Hardware based SATA RAID controller (640 GB, 1TB and 2TB models only)
Internal Storage	<ul style="list-style-type: none">• Front loading, hot plug, 7200 RPM SATA Hard Disk Drives<ul style="list-style-type: none">○ 2 x 160 GB (320 GB Model)○ 4 x 160 GB (640GB Model)○ 4 x 250GB (1TB Model)○ 4 x 500GB (2TB Model)
Optical Drive	<ul style="list-style-type: none">• 8x DVD-ROM internal
Expansion Slots	<ul style="list-style-type: none">• (2) PCI-X 64 bit 133 MHz expansion slots<ul style="list-style-type: none">○ (1) Full height, full length slot (for SCSI card for backup or SA642 controller for external storage expansion with MSA20)○ (1) Low profile, half length slot (occupied by HW RAID controller in 640GB, 1TB and 2TB models)
Network Controller Interfaces	<ul style="list-style-type: none">• Embedded Dual Port Broadcom 5751 10/100/1000 NIC• Serial - 1• Pointing Device (Mouse) - 1• Keyboard - 1• Network RJ45 - 2• USB - 4 (2 in front, 2 in back)
Manageability	<ul style="list-style-type: none">• Remote system management User Interface (UI), Remote Desktop or Telnet• Remote hardware management via Intelligent Platform Management Interface (IPMI) 2.0, Hitachi 2168 BMC controller
Form Factor	<ul style="list-style-type: none">• 1U rack mount
Power Supply	<ul style="list-style-type: none">• 350w (single, non-redundant)
Fans	<ul style="list-style-type: none">• 9 chassis fans, 2 power supply fans (non-redundant)
Warranty	<ul style="list-style-type: none">• The DL100 G2 Storage Server comes with a standard 3-1-1 warranty (3 years parts exchange, 1 year labor, and 1 year onsite, next business day response)

Software Components

Optional Software

- **HP OpenView Storage Mirroring** - The HP ProLiant ML350 G4p Storage Server supports using Storage Mirroring as the data replication software solution (see Options section for list of part numbers)
- **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
 - Asynchronous replication allows hosts to continue processing for maximum performance
- **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 HP ProLiant ML350 G4p 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>

Software Components

Non HP Software for Exchange Backup & Archive

- **Backup and Restore of Exchange Data** - HP has qualified CommVault Systems to provide simplified and cost-effective data management and protection solutions for HP ProLiant Storage Server customers. The solution helps SMB customers address the issues of growing business and regulatory compliance requirements for data retention, reduced data backup windows and increasing storage management administration cost and complexity. CommVault's QiNetix software suite running on an HP Storage Server device includes the following key features:
 - Complete protection and management of Microsoft Exchange and NAS data, including backup, restore (Database and Message Level), archiving and data migration to secondary storage devices.
 - Use of HP ProLiant Storage Server devices as backup and archive targets to stage Microsoft Exchange and other data.
 - Content-based indexing of Exchange data to assist in compliance and specific searching of Exchange e-mail text, e-mail attachments, and Window files.
 - Immediate ability to increase reliability and performance by staging data to the HP ProLiant Storage Server product and then to tape (D2D2T) seamlessly via CommVault QiNetix, including support for HP StorageWorks Magneto Optical Storage.

NOTE: For more information on CommVault QiNetix software for HP Storage Servers, please go to: http://www.commvault.com/hp/hp_nas.asp

NOTE: To order CommVault QiNetix software for HP Storage Servers:

U.S.: Call (877) 723-5091 or email partnersupport@commvault.com or

Europe: Email HPInfo@commvaultemea.com

Service and Support, HP Care Pack, and Warranty Information

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 The HP ProLiant DL100 G2 Storage comes with a 3-1-1 warranty (3 years parts exchange, 1 year labor and 1 year on-site, next business day response) for product hardware.

- Note that standard HP warranty ensures Software media will be free of physical defects for a period of 90 days from delivery. However the HP ProLiant DL100 G2 Storage Server products all come with a full year of 9 hours by 5 days software advisory and remedial software telephone support, new version license rights, and media and documentation distribution service.
- The HP ProLiant DL100 G2 Storage Server product software support can be uplifted to include
 - SW Phone-In, 24x7, 2 hr call back
 - SW Support for Storage, 24x7 2hr call back

For more information about HP's Global Limited Warranty and Technical Support, visit ftp://ftp.compaq.com/pub/products/storageworks/warranty/EN_321708-008.pdf

HP 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.

Service and Support, HP Care Pack, and Warranty Information

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.

- 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 not available for less than the product's warranty duration.
- 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.

For additional information on Product Services and HP Care Pack, as well as orderable part numbers, please refer to the URL: <http://www.hp.com/hps/carepack/>.

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://www.hp.com/services>.

Care Pack	Duration	Commercial reseller channels	Direct & Enterprise channels
Support Plus for Storage	1 year	available	HA110A1 - xxx
	3 years	available	HA110A3 - xxx
	4 years	n/a	HA110A4 - xxx
	5 years	n/a	HA110A5 - xxx
Support Plus 24 for Storage	1 year	available	HA109A1 - xxx
	3 years	available	HA109A3 - xxx
	4 years	n/a	HA109A4 - xxx
	5 years	n/a	HA109A5 - xxx
Proactive 24 (P24)	1 year	n/a	HA111A1 - xxx
	3 years	n/a	HA111A3 - xxx
	4 years	n/a	HA111A4 - xxx
	5 years	n/a	HA111A5 - xxx
SW Phone-In, 24x7, 2 hr call back	1 year	available	HA106A1 - xxx
	3 years	available	HA106A3 - xxx
	4 years	n/a	HA106A4 - xxx
	5 years	n/a	HA106A5 - xxx
SW Support for Storage, 24x7 2hr call back	1 year	available	HA107A1 - xxx
	3 years	available	HA107A3 - xxx
	4 years	n/a	HA107A4 - xxx
	5 years	n/a	HA107A5 - xxx

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

Deployment and Per Event Service Descriptions

The Installation service deployment activities will include:

- Unpacking the product, performing initial inspection, and setting up product hardware and power connectivity
- Connecting Customer-provided cables
- Setting the network address and setting appropriate domain variables in the NAS operating system
- Configuring the storage by creating a file share
- Configuring user mapping to make the share available for access

Care Pack	Duration	Commercial reseller channels	Direct & Enterprise channels
Installation for Storage (per event)	One time	available	HA113A1 - 5D6

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>

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 Professionals (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>

Service and Support, HP Care Pack, and Warranty Information

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>

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

Product Configuration Wizard

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

NOTE: Options ship separately and are not factory integrated.

Step 1 – Order model

NOTE: Four different internal capacity models are available, 320 GB, 640 GB, 1TB and 2TB based on raw storage capacity, not user storage. The File Print Appliance models are specially branded products that will be marketed and sold exclusively by HP's Printer Group as a replacement for the Print Server Appliance 4250.

Specifications for HP ProLiant DL100 G2 320GB Storage Server AE435A	Processor	(1) Intel Celeron D 2.8 GHz Single Core/533 MHz FSB - 256KB L2 Cache
	Memory	512 MB of Memory standard, expandable to 4 GB
	Operating System	Windows Storage Server 2003 Release 2, Workgroup Edition
	Storage Controller	None (OS supports Software RAID 0 and 1)
	Internal storage	<ul style="list-style-type: none">• Front loading, hot plug, 7200 RPM SATA Hard Disk Drives<ul style="list-style-type: none">○ 2 x 160 GB (320 GB raw capacity, 126 GB user capacity - RAID1)
	Expansion Slot	<ul style="list-style-type: none">• (2) PCI-X 64 bit 133 MHz expansion slots<ul style="list-style-type: none">○ Full height, full length slot○ Low profile, half length slot

Specifications for HP ProLiant DL100 G2 640GB Storage Server AE436A	Processor	(1) Intel Celeron D 2.8 GHz Single Core/533 MHz FSB - 256KB L2 Cache
	Memory	512 MB of Memory standard, expandable to 4 GB
	Operating System	Windows Storage Server 2003 Release 2, Workgroup Edition
	Storage Controller	HW RAID Controller (Supports RAID 0,1,10,and 5)
	Internal storage	<ul style="list-style-type: none">• Front loading, hot plug, 7200 RPM SATA Hard Disk Drives<ul style="list-style-type: none">○ 4 x 160 GB (640 GB raw capacity, 430 GB user capacity - RAID 5)
	Expansion Slot	<ul style="list-style-type: none">• (2) PCI-X 64 bit 133 MHz expansion slots<ul style="list-style-type: none">○ Full height, full length slot○ Low profile, half length slot (occupied by HW RAID controller)

Specifications for HP ProLiant DL100 G2 1TB Storage Server AE437A	Processor	(1) Intel Pentium D 2.8 GHz Dual Core/800 MHz FSB - 2MB L2 Cache
	Memory	1GB (2x512MB) of Memory standard, expandable to 4 GB
	Operating System	Windows Storage Server 2003 Release 2, Workgroup Edition
	Storage Controller	HW RAID Controller (Supports RAID 0,1,10,and 5)
	Internal storage	<ul style="list-style-type: none">• Front loading, hot plug, 7200 RPM SATA Hard Disk Drives<ul style="list-style-type: none">○ 4 x 250 GB (1TB raw capacity, 681 GB user capacity - RAID 5)
	Expansion Slot	<ul style="list-style-type: none">• (2) PCI-X 64 bit 133 MHz expansion slots<ul style="list-style-type: none">○ Full height, full length slot○ Low profile, half length slot (occupied by HW RAID controller)

Product Configuration Wizard

<p>Specifications for HP ProLiant DL100 G2 2TB Storage Server AE438A</p>	<p>Processor Memory Operating System Storage Controller Internal storage Expansion Slot</p>	<p>(1) Intel Pentium D 2.8 GHz Dual Core/800 MHz FSB - 2MB L2 Cache 1 GB (2x512MB) of Memory standard, expandable to 4 GB Windows Storage Server 2003 Release 2, Workgroup Edition HW RAID Controller (Supports RAID 0,1,10,and 5)</p> <ul style="list-style-type: none"> • Front loading, hot plug, 7200 RPM SATA Hard Disk Drives <ul style="list-style-type: none"> ○ 4 x 500GB (2TB raw capacity, 1.36 TB user capacity - RAID 5) • (2) PCI-X 64 bit 133 MHz expansion slots <ul style="list-style-type: none"> ○ Full height, full length slot ○ Low profile, half length slot (occupied by HW RAID controller)
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<p>Specifications for HP ProLiant DL100 G2 320GB File Print Appliance AE440A</p>	<p>Processor Memory Operating System Storage Controller Internal storage Expansion Slot</p>	<p>(1) Intel Celeron D 2.8 GHz Single Core/533 MHz FSB - 256KB L2 Cache 512 MB of Memory standard, expandable to 4 GB Windows Storage Server 2003 Release 2, Workgroup Edition None (OS supports Software RAID 0 and 1)</p> <ul style="list-style-type: none"> • Front loading, hot plug, 7200 RPM SATA Hard Disk Drives <ul style="list-style-type: none"> ○ 2 x 160 GB (320 GB raw capacity, 123 GB user capacity - RAID1) • (2) PCI-X 64 bit 133 MHz expansion slots <ul style="list-style-type: none"> ○ Full height, full length slot ○ Low profile, half length slot
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<p>Specifications for HP ProLiant DL100 G2 640GB File Print Appliance AE441A</p>	<p>Processor Memory Operating System Storage Controller Internal storage Expansion Slot</p>	<p>(1) Intel Celeron D 2.8 GHz Single Core/533 MHz FSB - 256KB L2 Cache 512 MB of Memory standard, expandable to 4 GB Windows Storage Server 2003 Release 2, Standard Edition HW RAID Controller (Supports RAID 0,1,10,and 5)</p> <ul style="list-style-type: none"> • Front loading, hot plug, 7200 RPM SATA Hard Disk Drives <ul style="list-style-type: none"> ○ 2 x 160 GB (320 GB raw capacity, 431 GB user capacity - RAID 5) • (2) PCI-X 64 bit 133 MHz expansion slots <ul style="list-style-type: none"> ○ Full height, full length slot ○ Low profile, half length slot
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Step 2 – Order memory upgrades

<p>Memory Upgrade Option</p>	<p>512MB of Advanced ECC PC2-4200 DDR SDRAM DIMM Memory Kit (1 x 512MB) 1024MB of Advanced ECC PC2-4200 DDR SDRAM DIMM Memory Kit (1 X 1024MB)</p>	<p>390825-B21 390824-B21</p>
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NOTE: The ProLiant DL100 G2 Storage Server has 4 memory slots allowing a total of 4GB of memory maximum (4 x 1024MB)

NOTE: If a ProLiant DL100 G2 Storage Server requires field replacement, the memory option(s) should be removed and re-installed into the ProLiant DL100 G2 Storage Server replacement unit.

Product Configuration Wizard

Step 3 – Add host-based replication

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:

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- Host-based remote storage copy with TCP/IP networks
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- 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
- Asynchronous replication allows hosts to continue processing for maximum performance

HP OpenView Storage Mirroring v4.4.2 Media Kit

T2558AA

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>

Step 4 – Add unlimited print support, or Single Instance Storage or External Storage

NOTE: All DL100 G2 Storage Server models using Windows Storage Server 2003 Release 2, Workgroup Edition can support print serving for up to 5 network attached printers. This option upgrades those models to an unlimited number of network attached printers.

This License upgrade also enables the Single Instance Storage (SIS) feature within WSS2003 R2 which eliminates duplicate files when enabled. SIS is not available on the Workgroup License.

This License upgrade also allows an external storage enclosure to be attached to a DL100 G2 Storage Server. The Workgroup license only allows four drives maximum which is the maximum number of internal drives that can be installed in a DL100 G2 Storage Server. An external storage upgrade kit which includes a new Standard Edition License, Smart Array 6402 and a MSA20 with four 250GB SATA HDDs is listed below if you want to purchase a bundled external storage solution.

WSS2003 R2 Workgroup to Standard Edition Upgrade

Windows Storage Server 2003 Release 2 Workgroup to Standard Edition License Upgrade

AE479A

Product Configuration Wizard

Step 5 – Add tape backup solution

NOTE: The HP ProLiant DL100 G2 Storage Server has only one full length, full height PCI expansion slot which can either be used to add a SCSI card for tape backup or to add a Smart Array 642 controller card to support an external MSA20 storage enclosure.

Tape Backup Devices For more information on the compatible tape devices for the DL100 G2 Storage Server go to:
<http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html>

Step 6 – Add an external storage enclosure

NOTE: The HP ProLiant DL100 G2 Storage Server has only one full length, full height PCI expansion slot which can either be used to add a SCSI card for tape backup or to add a Smart Array 642 controller card to support an external MSA20 storage enclosure

External Storage Enclosure This bundle contains one Smart Array 642 controller, one MSA20, and 4 x 250 GB drives and a Windows Storage Server Workgroup to Standard License Upgrade and the necessary cables to connect the MSA 20 to the DL100 G2 Storage Server. AE439A

Step 7 – Add a power cord

NOTE: The ProLiant DL100 G2 Storage Server is designated as a rack mount solution and ships standard with rack mount PDU power cables, if a customer desires to not rack the ProLiant DL100 G2 Storage Server the appropriate power cord option kit must be ordered.

Power Cords	Central Europe – CORD, PWR,AC LINE,EUR,12'	157215-021
	UK, Hong Kong – CORD, PWR,AC,UK/SINGAPORE, 12'	157216-031
	Italy – CORD, PWR,AC LINE,ITL, 12'	157217-061
	Denmark – CORD, PWR,AC LINE,DAN, 12'	157218-081
	Switzerland – CORD, PWR,AC LINE,SWI, 12'	157219-111
	SE Asia, India – CORD, PWR,AC IND/SOUAF, 12'	157220-AR1
	Australia, China, New Zealand – CORD, PWR,AC LINE,AUS/N.ZEAL, 12'	227098-011

UPS Power Cord Reference Guide *Please see the UPS Power Cord Reference Guide for that lists cable descriptions, requirements, and specifications for UPS units.*
<ftp://ftp.compaq.com/pub/products/servers/ProLiantstorage/power-protection/powercordmatrix.pdf>.

Product Configuration Wizard

Step 8 – Add a rack

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

NOTE: -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)

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

NOTE: It is mandatory to use a shock pallet in order to ship racks with equipment installed.

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

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

NOTE: For additional information regarding Rack 10000 Cabinets, please see the following URL:

<http://h18000.www1.hp.com/products/servers/proliantstorage/racks/10000series.html>.

Step 9 – Order HPTS Service Care Packs

Service Care Packs or warranty upgrades enhance the base hardware warranty provided with the HP ProLiant Storage Server. The Care Packs provide support for product software and operating system with extended hours of coverage and reduced response time. And Care Packs allow the customer to budget fixed cost support rather than variable costs that include parts and labor.

Note that the standard HP warranty ensures software media will be free of physical defect for a period of 90 days from delivery. However the HP ProLiant DL100 G2 Storage Server products all come with a full year of 9 hours by 5 days software advisory and remedial software telephone support, new version license rights, and media and documentation distribution service. Extended hours of coverage and additional years of service are available should the customer require more support.

Technical Specifications

Dimensions (HxWxD)	Rack	1.7 x 17 x 26.5 in (4.3 x 43.2 x 67.3 cm)
Weight	Shipping	46.89 lb (21.27 kg)
	Out of box	25.64 lb (11.63 kg)
LED Indicators (On Front Panel) (if applicable)	Drive Status, Drive Fault, NIC 1 and NIC 2, UID. System power LED's	
Drives Supported	SATA drives. All models ship with hard drives pre-installed	
Input Requirements	Nominal Line Voltage	115/230 VAC
	Range Line Voltage	90/264 VAC
	Rate Input Frequency	47 to 63 Hz
	Rated Input Current	6 Amps (115 VAC) , 3 Amps (230 VAC)
Drive Interface	Serial ATA	
Power Supply Output	350 W (rated steady state power output)	
	NOTE:	
		1. +3.3V and +5V total O/P power 130W maximum
		2. +3.3V, +5V and +12V total O/P power 324W Maximum
Relative Humidity (non-condensing)	Operating	8% to 80%
	Shipping	8% to 80%
Temperature Range	Operating	10° to 40° C (50° to 104° F)
	Shipping	-40° to 60° C (-40° to 149° F)

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