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Product Datasheet

HP StorageWorks NAS 1000

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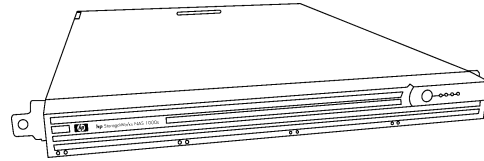
Overview

The HP StorageWorks NAS 1000s is an entry-level NAS solution that delivers quick and simple just in time NAS storage with multi-protocol file support and storage management for workgroups, small businesses, and remote locations. An affordable alternative to tape backup, the NAS 1000s offers TCO-reducing ease of installation and management, and it can be managed remotely. Plus, it comes with HP Global Services, providing cost-effective support to ensure continuous availability.

The HP StorageWorks NAS 1000s is the first low-end NAS device to offer quick restore functionality via CD and a dual OS partition to customers. Quick restore functionality allows customers to be back up and running with a factory default image in minutes not hours.

Key Features

- **Cost-Effective:** low acquisition cost that provides investment protection
- **Scalable:** provides a range of capacity points to allowing customers to choose their capacity point not have it dictated to them
- **High Performance:** utilizes the latest Intel P4 processors and the fastest ATA hard disk drives for optimal performance
- **Reliable:** utilizes hot swap ATA hard drives, data protection like software RAID and support for multiple backup and anti-virus packages
- **Manageable:** Multiple management methods including Insight Manager, HP OpenView, web GUI and command console allow flexibility for management.
- **Open:** supports the major file serving protocols. CIFS, NFS, NCP, AFP, HTTP and FTP
- **Compact:** 1U form-factor provides a great storage solution that minimizes space requirements. Rackmount or desktop.
- **Standard:** Microsoft Windows powered operating system allows customers to use off the shelf backup and anti-virus packages.
- **Serviceable:** hot swap drives allow for quick repair, customer replaceable components allow customers to self maintain their storage.



Standard Features

Models- HP StorageWorks NAS 1000s	StorageWorks NAS 1000s model 320 GB	305016-B21
	StorageWorks NAS 1000s model 640 GB	305017-B21
	StorageWorks NAS 1000s model 1TB	334196-B21
Product Family Models	Model 320 - 320 GB raw storage, 2.4 GHz Intel P4 processor, 512 MB RAM, dual Gigabit NIC, SCSI card	
	Model 640 - 640 GB raw storage, 2.8 GHz Intel P4 processor, 512 MB RAM, dual Gigabit NIC, SCSI card	
	Model 1 TB - 1 TB raw storage, 2.8 GHz Intel P4 processor, 512 MB RAM, dual Gigabit NIC, SCSI card	
Feature List	<ul style="list-style-type: none"> • 7200 rpm ATA hard drives • Hot Swappable hard drives • 1U form factor • Dual auto sensing Gigabit NICs • Quick Restore functionality <ul style="list-style-type: none"> - Allows customers to quick restore their NAS 1000s units back to factory defaults by using an externally connected USB DVD-ROM drive. • Dual OS partition for data protection <ul style="list-style-type: none"> - Automatic failover to secondary partition in the event of a failure on the primary partition - Provides an system recovery option without loss of data 	

PRODUCT HIGHLIGHTS

Capacity	Product ships with three different capacity points, 320 GB, 640 GB and 1 TB (raw capacity)	
Easy Installation	Configuration via the web allows customers to have the NAS 1000s up and running on their network in minutes. All setup and configuration can be done over the LAN or directly connected to the system.	
Fault Tolerance	The NAS 1000s ships with a redundant OS partition for OS recovery and system protection.	
Fault Recovery	The NAS 1000s ships with a quick restore CD for disaster recovery to reset the machine back to factory defaults. (data destructive)	
Hot Swappable Support	ATA hot swappable drives allows customers to quickly change out a drive in the event of a failure without disabling access to clients or powering off the system.	
Integration	The NAS 1000s fits seamlessly into the customers existing network environment, no additional hardware is needed to configure the machine to serve in heterogeneous environments.	
Manageability	The NAS 1000s is manageable by (GUI) or command console. CIM and Open view management are available via SNMP	
Options Supported	The NAS 1000s supports a variety of external USB DVD-ROM drives for Quick Restore functionality and upgrade support.	
Scalability	The NAS 1000s is a fixed capacity box that is not upgradeable, three capacity points are available 320 GB, 640 GB and 1 TB.	
Serviceability	<p>The NAS 1000s ships with hot swappable ATA hard drives to eliminate down time in the event of a single hard drive failure. In addition the 1000s has customer replaceable components including, hard drives, memory, fans, processors and power supply.</p> <ul style="list-style-type: none"> • NAS 1000s 320 GB /2.4 GB MPU/512 MB DDR/ with drives removed (post test) • NAS 1000s 640 GB and 1 TB model /2.8 GB MPU/512 MB DDR/ with drives removed (post test) • 80 GB HDD assembled to hot plug carrier (pretested) • 160 GB HDD assembled to hot plug carrier (pretested) • 250 GB HDD assembled to hot plug carrier (pretested) • Bezel assembly 	

Standard Features

CONFIGURATION INFORMATION

Model Number	Model Description	Part Number
M320GB	320 GB raw storage capacity, 7200rpm hard drives, Pentium 4 2.4 GHz processor, 512 MB RAM, dual gigabit NIC (embedded), SCSI card (embedded)	305016-B21
M640GB	640 GB raw storage capacity, 7200rpm hard drives, Pentium 4 2.8 GHz processor, 512 MB RAM, dual gigabit NIC (embedded), SCSI card (embedded)	305017-B21
M1TB	1 TB raw storage capacity, 7200rpm hard drives, Pentium 4 2.8 GHz processor, 512 MB RAM, dual gigabit NIC (embedded), SCSI card (embedded)	334196-B21

SOFTWARE COMPONENTS

Insight Manager	The NAS 1000s support Insight Manager through SNMP
Open View	The NAS 1000s supports Open View through SNMP
Persistent Storage Manager	Provides online snapshot functionality
Warranty	The NAS 1000s has a standard 3-1-1 warranty , three years parts, one year onsite and one year carry-in

Options

	Description with Parts Shipped	Quantity	Part number
Host Based Data Replication	NAS data copy S license kit – host based replication software.	1 per NAS 1000s device	294979-B21
USB DVD-ROMs	DVD/CD-RW 8x8x24x-Com ALL	1 per NAS 1000s device	260472-B25
	DVD 8x Upg-Arm Shared ALL	1 per NAS 1000s device	138230-B25
	HP DVD writer dvd300e - 8x DVD-ROM; 40x CD-ROM	1 per NAS 1000s device	Q2109A#ABA
Power Cords	Central Europe – CORD, PWR,AC LINE,EUR,12'	1 per NAS 1000s device	157215-021
	UK, Hong Kong- CORD, PWR,AC,UK/SINGAPORE, 12'	1 per NAS 1000s device	157216-031
	Italy - CORD, PWR,AC LINE,ITL, 12'	1 per NAS 1000s device	157217-061
	Denmark - CORD, PWR,AC LINE,DAN, 12'	1 per NAS 1000s device	157218-081
	Switzerland - CORD, PWR,AC LINE,SWI, 12'	1 per NAS 1000s device	157219-111
	SE Asia, India - CORD, PWR,AC IND/SOUAF, 12'	1 per NAS 1000s device	157220-AR1
	Australia, China, New Zealand - CORD, PWR,AC LINE,AUS/N.ZEAL, 12'	1 per NAS 1000s device	227098-011
	NOTE: The StorageWorks NAS 1000s is designated as a rackmount solution and ships standard with rackmount PDU power cables, if a customer desires to not rack the 1000s the appropriate power cord option kit must be ordered.		
Tape Drives	HP StorageWorks 20/40-GB DAT DDS-4 Tape Drive, External (Carbon) (NA)		157770-002
	HP StorageWorks 20/40-GB DAT DDS-4 Tape Drive, External (Int'l) (Carbon)		157770-B32
	HP StorageWorks 20/40-GB DAT DDS-4 Tape Drive, External (Japan) (Carbon)		157770-292
	NOTE: Please see the 20/40-GB DAT Tape Drive QuickSpecs for additional options such as host bus adapters, controllers, cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following: http://www5.compaq.com/products/quickspecs/10426_div/10426_div.HTML (Division/World Wide) http://www5.compaq.com/products/quickspecs/10426_na/10426_na.HTML (North America)		
	Internal and External DAT 72 Tape Backup Drive		
	HP StorageWorks DAT 72 Tape Drive, External (Carbon) (NA)		Q1527A
	HP StorageWorks DAT 72 Tape Drive Tape Drive, External (Carbon) (Int'l)		Q1528A
	NOTE: Please see the DAT 72 Tape Drive QuickSpecs for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following: http://www5.compaq.com/products/quickspecs/11597_div/11597_div.HTML (Division/World Wide) http://www5.compaq.com/products/quickspecs/11597_na/11597_na.HTML (North America)		
	External LTO Ultrium Tape Drives		
	HP StorageWorks Ultrium 230 Tape Drive, external (Carbon) NA		Q1516A
	HP StorageWorks Ultrium 230 Tape Drive, external (Carbon) Int'l		Q1517A
	NOTE: Please see HP StorageWorks Ultrium 230 QuickSpecs for additional options such as host bus adapters, controllers, and data cartridges, and for an up-to-date listing of the latest O/S Support details, please see the following: http://h18006.www1.hp.com/products/quickspecs/11415_div/11415_div.html (Division/World Wide) http://h18006.www1.hp.com/products/quickspecs/11415_na/11415_na.html (North America)		
	HP StorageWorks Ultrium 460 Tape Drive, external (Carbon) NA		Q1519A
	HP StorageWorks Ultrium 460 Tape Drive, external (Carbon) Int'l		Q1520A
	NOTE: Please see the HP StorageWorks Ultrium 460 QuickSpecs for additional options such as host bus adapters, controllers, and data cartridges, and for an up-to-date listing of the latest O/S Support details, please see the following: http://h18006.www1.hp.com/products/quickspecs/11530_div/11530_div.html (Division/World Wide) http://h18006.www1.hp.com/products/quickspecs/11530_na/11530_na.html (North America)		

Options

Tape Drives (continued)

External AIT Tape Drives

HP StorageWorks External AIT 35-GB, LVD Tape Drive (Carbon)	216885-001
HP StorageWorks External AIT 35-GB, LVD Tape Drive (Carbon) (Int'l)	216885-B31
HP StorageWorks External AIT 35-GB, LVD Tape Drive (Carbon) (Japan)	216885-291

NOTE: Please see the AIT 35 GB, LVD Tape Drive QuickSpecs for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://www5.compaq.com/products/quickspecs/10712_div/10712_div.HTML (Division/World Wide)

http://www5.compaq.com/products/quickspecs/10712_na/10712_na.HTML (North America)

HP StorageWorks AIT 50-GB Tape Drive, External (Carbon) (NA)	157767-002
HP StorageWorks AIT 50-GB Tape Drive, External (Int'l) (Carbon)	157767-B32
HP StorageWorks AIT 50-GB Tape Drive, External (Japan) (Carbon)	157767-292
HP StorageWorks Rackmount AIT 50-GB, 3U (Single Drive)	274333-B21

NOTE: Please see the AIT 50-GB Tape Drive QuickSpecs for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://www5.compaq.com/products/quickspecs/10425_div/10425_div.HTML (Division/World Wide)

http://www5.compaq.com/products/quickspecs/10425_na/10425_na.HTML (North America)

HP StorageWorks External AIT 100-GB Tape Drive (carbon)	249160-001
HP StorageWorks External AIT 100-GB Tape Drive (carbon) (Int'l)	249160-B31

NOTE: Please see the AIT 100-GB Tape Drive QuickSpecs for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://www5.compaq.com/products/quickspecs/11062_div/11062_div.HTML (Division/World Wide)

http://www5.compaq.com/products/quickspecs/11062_na/11062_na.HTML (North America)

External DLT Tape Drives

HP StorageWorks 40/80-GB DLT Tape Drive, External (Carbon) INTL	146197-B23
HP StorageWorks 40/80-GB DLT Tape Drive, External (Carbon) (Japan)	146197-293
HP StorageWorks Rackmount DLT 40/80, 3U (Single Drive)	274332-B21
HP StorageWorks Rackmount DLT 40/80, Dual-Drive, 3U (Two Drives)	274335-B21
HP StorageWorks Rackmount DLT 40/80, Tape Array III, 5U (Four Drives)	274337-B21

NOTE: Please see the 40/80-GB DLT Drive QuickSpecs for additional options such as host bus adapters, controllers, cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://www5.compaq.com/products/quickspecs/10658_div/10658_div.HTML (Division/World Wide)

http://www5.compaq.com/products/quickspecs/10658_na/10658_na.HTML (North America)

External DLT VS Tape Drives

HP StorageWorks DLT VS 40/80 Tape Drive, External (Carbon) NA	280129-B22
HP StorageWorks DLT VS 40/80 Tape Drive, External (Carbon) INTL	280129-B31
HP StorageWorks DLT VS 40/80 Tape Drive, External (Carbon) Japan	280129-291

NOTE: Please see the DLT VS 40/80 Tape Drive QuickSpecs for additional options such as host bus adapters, controllers, cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://www5.compaq.com/products/quickspecs/11403_div/11403_div.HTML (Division/World Wide)

http://www5.compaq.com/products/quickspecs/11403_na/11403_na.HTML (North America)

Options

Tape Drives (continued)	
External SDLT Tape Drives	
HP StorageWorks SDLT 160/320, External NA (carbon)	257319-001
HP StorageWorks SDLT 160/320, External INTL (carbon)	257319-B31
HP StorageWorks SDLT 160/320, External Japan (carbon)	257319-291
NOTE: Please see the SDLT 160/320-GB Tape Drive QuickSpecs for additional options such as adapters, controllers, and media, and for an up-to-date listing of the latest O/S Support details, please see the following: http://www5.compaq.com/products/quickspecs/11406_div/11406_div.HTML (Division/World Wide) http://www5.compaq.com/products/quickspecs/11406_na/11406_na.HTML (North America)	
HP StorageWorks SDLT 110/220, External NA (carbon)	192103-002
HP StorageWorks SDLT 110/220, External INTL (carbon)	192103-B32
HP StorageWorks SDLT 110/220, External Japan (carbon)	192103-292
HP StorageWorks Rackmount SDLT 110/220, 3U (Single Drive)	274331-B21
HP StorageWorks Rackmount SDLT 110/220, Dual-Drive, 3U (Two Drives)	274334-B21
HP StorageWorks Rackmount SDLT 110/220, Tape Array III, 5U (Four Drives)	274336-B21
NOTE: Please see the SDLT 110/220-GB Tape Drive QuickSpecs for additional options such as adapters, controllers, and media, and for an up-to-date listing of the latest O/S Support details, please see the following: http://www5.compaq.com/products/quickspecs/10772_div/10772_div.HTML (Division/World Wide) http://www5.compaq.com/products/quickspecs/10772_na/10772_na.HTML (North America)	
1/8 Autoloader	
HP StorageWorks 1/8 Autoloader, Rackmount kit	C9572CB
HP StorageWorks 1/8 Autoloader Tabletop, Ultrium 230	C9264CB
HP StorageWorks 1/8 Autoloader, Tabletop, DLT vs80	C9268R
NOTE: Please see the HP StorageWorks 1/8 Autoloader QuickSpecs for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following: http://www5.compaq.com/products/quickspecs/11496_div/11496_div.HTML (Division/World Wide) http://www5.compaq.com/products/quickspecs/11496_na/11496_na.HTML (North America)	
External AIT Autoloader	
HP StorageWorks AIT 35 GB Autoloader, Rackmount (Carbon) (NA)	280349-001
HP StorageWorks AIT 35 GB Autoloader, Rackmount (Carbon) (Int'l)	280349-B31
NOTE: Please see the AIT 35-GB Autoloader QuickSpecs for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following: http://www5.compaq.com/products/quickspecs/11404_div/11404_div.HTML (Division/World Wide) http://www5.compaq.com/products/quickspecs/11404_na/11404_na.HTML (North America)	
Rackmount Tape Drive Kits	
3U Rackmount Kit	274338-B21
NOTE: The 3U Rackmount Kit (PN 274338-B21) 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 the 12/24-GB DAT, 20/40-GB DAT, 20/40-GB DAT DDS-4 8 Cassette Autoloader, AIT 35-GB LVD, AIT 50 GB, DLT VS 40/80, 40/80-GB DLT, SDLT 110/220-GB, SDLT 160/320-GB, Ultrium 230, and Ultrium 460 Tape Drives.	
5U Rackmount Kit	274339-B21
NOTE: The 5U Rackmount Kit (PN 274339-B21) can support up to (4) full-height tape drives and is compatible with all Ultrium/DLT/SDLT tape drives including the 40/80-GB DLT, SDLT 110/220-GB, SDLT 160/320-GB, Ultrium 230, and Ultrium 460 Tape Drives.	
NOTE: Please see the Rackmount Tape Drive Kits QuickSpecs for additional information regarding these kits, please see the following: http://www5.compaq.com/products/quickspecs/10854_div/10854_div.HTML (Division/World Wide) http://www5.compaq.com/products/quickspecs/10854_na/10854_na.HTML (North America)	

Options

Tape Drives <i>(continued)</i>	<i>Rackmount Tape Drive Cable Kits</i>	
	LVD Cable Kit, VHDCI/HD68 NOTE: For use with the 3U RM Storage Enclosure and DLT Tape Array III only.	168048-B21
	LVD Cable Kit, HD68/HD68 NOTE: For use with the 3U RM Storage Enclosure and DLT Tape Array III only.	242381-B21
	<i>SSL2020 – AIT50 based library with up to 2 drives and 20 slots</i>	
Tape Automation	SSL2020 AIT Mini-Library 1 drive, 20 slot Table Top	175195-B21
	SSL2020 AIT Mini-Library 2 drive, 20 slot Table Top	175195-B22
	SSL2020 AIT Mini-Library 1 drive, 20 slot Rackmount	175196-B21
	SSL2020 AIT Mini-Library 2 drive, 20 slot Rackmount	175196-B22
	SSL2020 AIT Library Pass Thru with Transport	175312-B21
	<i>Add-on drives and accessories</i>	
	SSL2020 AIT Library Pass Thru Extender	175312-B22
	AIT 50GB Drive Add-On LVD Drive for SSL2020 AIT Library	175197-B21
	19 Slot Magazine for SSL2020 AIT Library	175198-B21
	AIT 50-GB Data Cassette (5 pack)	152841-001
AIT Cleaning Cassette	402374-B21	
NOTE: Please see the SSL2020 Automated AIT Tape Library Solution QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at: http://www5.compaq.com/products/quickspecs/10580_na/10580_na.HTML (North America) http://www5.compaq.com/products/quickspecs/10580_div/10580_div.HTML (Division/World Wide)		

Technical Specifications

Protocol Support	The NAS 1000s is a multi-protocol NAS device that supports CIFS, NFS, NCP, AFP, HTTP and FTP protocols.	
O/S Support	Microsoft Windows Powered OS SAK 2.0	
Dimensions (HxWxD)	Rack	800x562x190 mm, 1.71 x 16.87 x 17.72 in (4.32 x 42.86 x 45.0 cm)
Weight	Rack	42.25lbs shipping, 27lbs out of box
UPC Code	808736938723 model 320 GB, 808736938709 model 640 GB, 808736937580 model 1TB	
LED Indicators (On Front Panel) (if applicable)	Drive, LAN and system power LED's	
Cable Type	Ethernet Connection to Network	
Cache	1 MB	
Drives Supported	7200 rpm ATA drives. All models ship with hard drives pre-installed	
Input Requirements	Nominal Line Voltage	100 to 120 VAC/200 to 240 VAC
	Range Line Voltage	90 to 132 VAC/180 to 265 VAC
	Line Frequency	50 to 60 Hz
	Typical Input Current	2.5 Amps (100 VAC) , 1.3 Amps (200 VAC)
	Rated Input Power	250 Watts Max.
Interface	Drive Interface information	
Maximum Number of Drives	4, pre-installed.	
Power	250 Watts (Power Cords supplied with the 1000s: US Power Cord – C13 to C19, IEC Jumper C13 to C14)	
Reliability Features		
Relative Humidity (non-condensing)	Operating	10 to 80% @ 82°F (28°C) (wet bulb)
	Shipping	90% @ 82°F (28°C) (wet bulb)
Temperature Range	Operating	41 to 95°F (5°C to 35°C)
	Shipping	-40 to 158°F (-40°C to 70°C)
Product Service Options	Hard drives, memory, processor, fans and power supply are replaceable parts.	

Service & Support, Care Pack and Warranty Information

- Software Product Services**
- Stand-alone telephone support
 - Right to new license version
 - Media and documentation updates
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- 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

For additional hardware installation and maintenance information, please refer to the URL listed below:
http://www.hp.com/hps/carepack/services/cp_installation.html

- 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 period of 1, 3, or 5 years
- Care Pack is defined as an upgrade to the product warranty attribute, available for a specific duration and hours of coverage.
- Care Pack is not available for less than the product's warranty duration.
 - 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.
 - Care Pack services are prepaid.
 - For additional Care Pack (hardware & software) information, as well as orderable part numbers, please refer to the URL listed below:
<http://www.smb.compaq.com/dstore/optionCategories.asp?SuperCategoryId=43&SuperCatDesc=&oi=E9CE&BEID=19701&SBLID=>
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- Components**
- The following brick-level options/components do not have individual Care Packs. These items will be included in product Care Packs into which they are installed.
- | | | | |
|----------------|----------------------------|----------------|-------------------|
| Disk Drives | Tape Drives | CD/DVD ROM | SCSI Hubs in SBBs |
| Bus Converters | Backplane RAID Controllers | Power Supplies | Cabling |
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