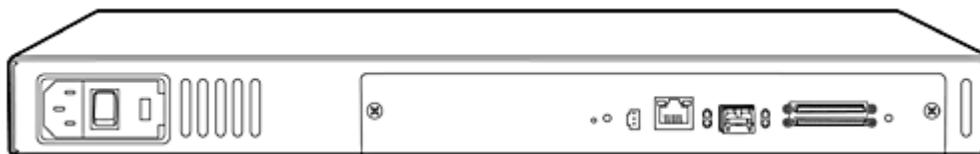


Overview

The HP StorageWorks N1200-320 4Gb Network Storage Router is a key component in a complete data protection solution. It is a 1U rack-ready router with one Fibre Channel port and two LVD-SCSI ports. The router offers support for 4Gb Fibre Channel and includes web-based remote manageability. Customers utilize the router when connecting SCSI-based tape libraries to a SAN. It is also one of the supported routers when configuring Fibre Channel with HP StorageWorks Optical Jukeboxes. The N1200-320 4Gb NSR offers enterprise class features at a price point appealing to small- and medium-business customers.

As storage capacity needs multiply every year, businesses struggle to keep up with these demands. Contributing factors to the growth in storage include applications becoming more complex, increasing files sizes, and regulations becoming more numerous regarding the storage of tax, customer and other business critical information. In addition to this, companies need to operate 24x7 in order to not be left behind. To keep up with these demands, they look to solution providers to guide them in their decision making when creating a data protection strategy. Key components of this strategy should include reliability, lower total cost of ownership, investment protection and ease of use. The N1200-320 4Gb NSR delivers all of these benefits.



HP StorageWorks N1200-320 4Gb Network Storage Router

What's New

- Includes an embedded 4Gb FC interface card which is designed to provide higher performance if used with Ultrium 960 (LTO3) tape technology
- RoHS compliant (5 of 6)

Key Features and Benefits

- **Simplicity:** provides a Fibre Channel connectivity option to move LVD SCSI-based hardware into a SAN
- **Value:** supports existing and emerging Fibre Channel infrastructures; 1Gb, 2Gb and 4Gb fibre topologies are supported via a 4Gb Fibre Channel port
- **LUN mapping & masking:** device level feature supports effective asset allocation, data security and device manageability
- **Agility:** web-based remote management to allow access to device status and statistics via HTTP, FTP, TELNET or serial port visibility
- **Increased memory bandwidth:** a Fibre Channel port running at 2.67 Gb/s delivers end-to-end throughput up to 230 MB/s which enables full usage of tape drives during the read/write process
- **Broad connectivity:** provides connect options for up to two Ultrium, SDLT, DLT or AIT tape drives per SCSI bus
- **RoHS compliant:** meets lead-free initiatives in the European region

Product Highlights

Connectivity	Up to 2 Ultrium, SDLT or DLT tape drives or multiple Optical drives per SCSI port with a single HP N1200-320 4Gb NSR. A library robotic arm counts as a SCSI device, but does not need its own SCSI Port connection because of the low bandwidth requirement of the robotic arm.
Easy Installation	The HP N1200-320 4Gb NSR is shipped as a rack-ready unit. The rack mount hardware included with the router allows installation in a variety of HP racks which include the 10000 series, 9000 series, 5000 series and System/E racks.
Manageability	<p>The HP N1200-320 4Gb NSR allows web-based remote manageability; the unit can be monitored and managed from across the room or across the globe. The graphical user interface allows end users to configure the router by "pointing and clicking" on a graphical representation of the router. The manager can be accessed from any computer with a web browser (as long as this computer has security access privileges to access the router).</p> <p>The HP N1200-320 4Gb NSR also includes Selective Storage Presentation (SSP). This manageability feature allows multiple servers to share a single data router. By providing a unique map for each host, the user can limit what each host has access to.</p> <p>The HP N1200-320 4Gb NSR includes the SCSI Controller Command (SCC) manageability feature. This feature provides a means for the host server operating system to determine the number FC LUNs supported by the NSR.</p>
Performance	The N1200-320 4Gb is designed to provide higher performance when used with Ultrium 960 tape drives. A FC port running at 2.67 GB/s delivers end-to-end throughput up to 230 MB/s which enables full usage of tape drives during the read/write process. Data is backed up and restored in significantly less time, or increasing larger data sets are backed up within the current backup window.

Compatibility

HP's extensive compatibility testing program assures that your HP StorageWorks N1200-320 4Gb Network Storage Router works with leading servers, operating systems, and backup applications - and not just those sold by HP. The N1200-320 4Gb works seamlessly in many environments, making them especially suitable if you have a mixed system environment. For the latest list of servers, workstations, operating systems, and backup software that support the N1200-320 4Gb, check the HP StorageWorks Enterprise Backup Solution compatibility matrix at <http://www.hp.com/go/ebs>.

Server Compatibility The N1200-320 4Gb is supported on a wide range of HP systems. For details of which router works with which systems, including third-party systems, reference the EBS compatibility matrix at <http://www.hp.com/go/ebs> for the latest hardware compatibility information.

OS Support Reference the EBS compatibility matrix for the most up-to-date OS compatibility information at <http://www.hp.com/go/ebs>.

Software Support Reference the EBS compatibility matrix for the most up-to-date software compatibility information at <http://www.hp.com/go/ebs>.

Tape Library Connectivity The N1200-320 4Gb supports both current and discontinued HP StorageWorks Tape Libraries such as the MSL2024, MSL4048, MSL5000, ESL9000, SSL2020 and TL891/895. Reference the EBS compatibility matrix for the most up-to-date tape library connectivity information at <http://www.hp.com/go/ebs>

Optical Jukebox Connectivity Information on which ISVs support the use of the N1200-320 4Gb when configuring HP StorageWorks Optical Jukeboxes can be found at <http://www.hp.com/go/udo>

Service and Support, HP Care Pack and Warranty Information

Warranty The warranty for this product consists of a 1-year, parts exchange, limited warranty, with next business day response, plus 9x5 phone support for the duration of the warranty.

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
- Post warranty coverage

HP Care Pack Information 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 products 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 HP Care Pack (hardware & software) information, as well as orderable part numbers, please refer to the URL <http://www.hp.com/hps/carepack/>.

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 URLs listed below: <http://www.hp.com/hps/hardware/>

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>

Service and Support, HP Care Pack and Warranty Information

Support Services

HP Services provides up to a three-year, limited warranty, fully supported by a worldwide network of resellers and service providers and 9x5 hardware technical phone support during the warranty period. In addition, available service offerings include a full range of optional packaged hardware and software services:

- Installation and start up
- Extended coverage hours and enhanced response times
- System management and performance services
- Availability and recovery services

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	Adapters
Bus Converters	Backplane RAID Controllers	Power Supplies	Cabling	Fans

Model and Kit Contents

Model Name	Model Description	Part Number
HP StorageWorks N1200-320 4Gb Network Storage Router	1x2 FC-to-SCSI router, 1U form factor, rack-ready NOTE: 1U router including one 4Gb FC port, two SCSI ports and remote management; rack-ready unit Kit Contents (for each router): <ul style="list-style-type: none">• 6' US Power Cord (120 VAC)• 10' Serial Cable• Rack mount hardware (for use with HP 10000 series, 9000 series, 5000 series or System/E racks)• Documentation kit including User Guide and Installation Guide	AG314A

Related Options

FC Cables	2m SW LC/SC FC Cable Kit	221691-B21
	5m SW LC/SC FC Cable Kit	221691-B22
	15m SW LC/SC FC Cable Kit	221691-B23
	2m SW LC/LC FC Cable Kit	221692-B21
	5m SW LC/LC FC Cable Kit	221692-B22
	15m SW LC/LC FC Cable Kit	221692-B23

Reference the Data Cable data sheets for the most up-to-date cable information at:
http://iss.tsgonline.hp.com/Document_Storage/collateral/ds_scsimultimode.pdf

Power Cords	Power Cord, US	E7743A
	NOTE: can be used to connect the rack mounted device to PDUs with NEMA 5-15R receptacles	
	PDU Power Cord	E7742A
	NOTE: can be used to connect the device to PDUs with IEC-320 receptacles	
	Power Cord, European	AD526A
	Power Cord, Australian	AD527A
	Power Cord, United Kingdom	AD528A
	Power Cord, Switzerland	AD529A
	Power Cord, Denmark	AD530A
	Power Cord, Japan	AD531A
	Power Cord, South Africa	AD532A
	Power Cord, China	AD533A
	Power Cord, Latin America (2 cords)	AD534A
Power Cord, Taiwan	AF913A	

NOTE: One power cord is required; there is one US power cord included in the box with the N1200-320 4Gb NSR. Please select the correct power cord for your geographical location.

WARNING: This product can ONLY be used with an HP approved power cord for your specific geographic region. Use of a non-HP approved power cord may result in: 1) not meeting individual country specific safety requirements; 2) insufficient conductor ampacity that could result in overheating with potential personal injury and/or property damage; and 3) an unapproved power cord could fracture resulting in the internal contacts being exposed, which potentially could subject the user to a shock hazard. HP disclaims all liability in the event a non-HP approved power cord is used.

Related Options

HP Care Pack Options

Support Services via HP authorized commercial resellers

Description	Care Pack
3 Years, 9X5, Next Business Day Exchange, Hardware Support	UE278E
3 Years, 9X5, Next Business Day, Hardware Support Onsite	UE279E
3 Years, 13X5, 4hr response, Hardware Support Onsite	UE280E
3 Years, 24X7, 4hr response, Hardware Support Onsite	UE281E
4 Years, 13X5, 4hr response, Hardware Support	UE282E
4 Years, 24x7, 4hr response, Hardware Support	UE283E
5 Years, 13X5, 4hr response, Hardware Support	UE284E
5 Years, 24X7, 4hr response, Hardware Support	UE285E
1 Year, Post Warranty, 13X5, 4hr response, Hardware Support	UA774PE
1 Year, Post Warranty, 24X7, 4hr response, Hardware Support	UA775PE

Support Services via HP Direct and HP authorized enterprise resellers

Description	Care Pack	Band
HW, 3-year, next-day, 13x5, on-site	HA101A3	80M
HW, 3-year, 4-hour, 13x5, on-site	HA103A3	80M
HW, 3-year, 4-hour, 24x7, on-site	HA104A3	80M
HW, 3-year, 6hr CTR, 24x7, on-site*	HA105A3	80M
HW Only, Support Plus, 3-year, 13x5**	HA109A3	80M
HW Only Support Plus 24, 3-year, 24x7**	HA110A3	80M
HW Only, Proactive 24, 3-year, 24x7***	HA111A3	80M
HW Only, Critical Service, 3-year, 24x7***	HA112A3	80M

* 6hr CTR 'standalone' service is not offered in Latin or North America.

** Support Plus covers 4hr Hardware response (Software support is not applicable).

*** Both Proactive 24 & Critical Service only relate to 'reactive elements', work is ongoing to offer the 'proactive elements' in the near future (Software support is not applicable).

NOTE: The HP Care Pack information quoted above relates to 3 year offerings only; 1yr, 4yr and 5yr packs are available for each offering (replace A3 with A1, A4, A5 respectively).

NOTE: 'A' signifies a physical Care Pack; 'E' signifies an electronic Care Pack.

NOTE: In order to maximize ROI and product uptime, and minimize the cost of ownership, Hewlett-Packard recommends the 3-year, 24 x 7 service options. These offerings will ensure that any product issue can be tackled when they occur (most back up issues will occur outside standard business hours) and that the service coverage regarding period, covers the minimum expected life of the host system.

Technical Specifications

Form Factor	1U
Dimensions (HxWxD)	Out-of-Box 1.70 x 17.00 x 20.50 in (4.31 x 43.18 x 51.76 cm)
	Shipping 9.0 x 25.0 x 24.50 in (22.86 x 63.50 x 62.23 cm)
Weight	Out-of-Box 15.0 lb (6.8 kg)
	Shipping 19.0 lb (8.2 kg)
Connectors (located on back of unit)	(1) 4Gb FC port
	(2) 68-pin VHDCI SCSI ports, 320 MB/sec
	(1) RJ-45 Ethernet port, 10/100 Mbps
	(1) 3-pin Serial port
LED Indicators	Reference the N1200-320 4Gb NSR Installation Guide
Topology	Switched Fabric and Direct Fibre Connect
Protocols	FCP-2, PLDA
Temperature Range (wet bulb)	Operating 50-95° F (10-35° C)
	Shipping -40-140° F (-40-60° C)
Relative Humidity (non-condensing)	Operating 20-80%
	Shipping 10-90%
Input Requirements	Voltage 90 to 264 VAC
	Line Frequency 47 to 63 Hz
	Power (Watts) 50W maximum (2 FC x 12 HVD)

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