



hp netserver lp 1000r

technical specifications



powerful, high-density, ultra-thin server that delivers performance and value

The HP Netserver LP 1000r is an ultra-thin rack-optimized server that offers superior performance and scalability for customers who want to grow their business without growing their valuable data center space. The LP 1000r is ideal for dedicated applications as well as Web-hosting, Internet/intranet, proxy, caching, access, DNS, infrastructure, or file and print services for both fast-growing Internet service providers and corporate enterprise customers. The product's ultra-thin 1U form factor delivers rack space optimization without sacrificing performance, expandability, serviceability, or manageability.

- **high-density**—1U form factor allows you to install up to 42 servers and 84 Intel® Pentium® III CPUs in one rack
- **best value**—ideal server for infrastructure and Web-hosting applications with up to two Intel Pentium III processors, three internal hot-swappable hard drives, external SCSI port, open 64-bit I/O slot, and up to 4GB memory support
- **manageability**—end-to-end management software solution that increases your IT productivity while maximizing server uptime
- **superior rack deployment**—complete tool-less solution that enables you to seamlessly integrate and deploy the LP 1000r into a wide variety of customer environments
- **low total cost of ownership**—Web-enabling performance, easy serviceability, and space-saving form factor provide you with the best customer value

features

performance

processor	Up to two Intel Pentium III 866MHz, 933MHz, and 1GHz processors with 133MHz front side bus (FSB)
cache	256KB ECC L2 on-die cache per processor
ECC memory	<ul style="list-style-type: none">• 256MB 133MHz ECC SDRAM standard• 4GB maximum capacity (4 DIMM slots)• Supports 128MB, 256MB, 512MB, and 1GB DIMM
I/O expansion slots	One open full-length 64-bit, 33MHz PCI slot
SCSI controller	Integrated dual-channel Ultra3 SCSI controller with 160MB/sec data transfer rate
mass storage system	Five front-accessible shelves: <ul style="list-style-type: none">• Three low-profile shelves for hot-swappable drives (supporting three low-profile drives in trays common only to LP 2000r and LP 1000r)• One 3.5-inch flexible disk drive• One CD-ROM drive
maximum internal storage	109.2GB maximum (using three 36.4GB low-profile drives)
video	<ul style="list-style-type: none">• Integrated; supports 1600 x 1200, 256 to 65K colors at 85Hz video• 4MB SDRAM standard video memory
CD-ROM drive	24X max-speed IDE CD-ROM drive
flexible disk drive	3.5" 1.44MB flexible disk drive
built-in I/O ports	<ul style="list-style-type: none">• One server management port (convertible to serial port)• One 25-pin parallel port• One SCSI port for external connection• Two 10/100TX LAN ports• Two USB ports• Video port—SVGA• PS/2 keyboard and mouse ports

features *(continued)*

availability

hot-swap disk drives	<ul style="list-style-type: none">• Supports 9.1GB, 18.2GB, and 36.4GB low-profile Ultra3 SCSI disk drives (10,000rpm)• Supports 18.2GB low-profile Ultra3 SCSI disk drives (15,000rpm)
network interface	<ul style="list-style-type: none">• Dual integrated 10/100TX LAN adapters• Supports fault tolerance, load balancing, and Cisco Fast EtherChannel
clustering support	<ul style="list-style-type: none">• Microsoft® Cluster Service• Novell NetWare Cluster Services
self-restart capability	Automatic Server Restart (ASR) that reboots the server in the event of a NOS hang
self-correcting memory	Manageable error checking and correcting (ECC) system memory and ECC cache memory
testing features	Extensive built-in self-test

intelligent management

installation and configuration	<ul style="list-style-type: none">• Easy system setup and configuration with HP Netserver Navigator, which is included with every server<ul style="list-style-type: none">– Automates the HP Netserver installation and configuration process– Provides NOS tuning and system optimization tips
management software	<ul style="list-style-type: none">• HP Tootools provides proactive monitoring and alerting plus easy troubleshooting to keep Netserver up and running• Instant Tootools for quick reactive troubleshooting of HP Netserver• Industry-leading HP OpenView Managex Event Manager for NOS management• Easy integration with other leading network and system management products
remote administration	<ul style="list-style-type: none">• HP Integrated Remote Assistant provides emergency remote access over a modem with a single unified event log for faster troubleshooting and can also be accessed over the LAN using Terminal Concentrator• Optional HP Tootools Remote Control Card for even more powerful remote management, including remote LAN access, advanced security, online diagnostics, and group actions• Built-in Remote power cycling over the LAN
diagnostic software	HP Diagtools 2.35
standards supported	<ul style="list-style-type: none">• IPMI v 1.0 for system monitoring• SNMP• DMI

features *(continued)*

rack configuration

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| rack-optimized design | <ul style="list-style-type: none">• 1U form factor (1.75-inch height)• Versatile range of rackmount solutions including rails, center-mount and flush-mount Telco 2-post brackets, and optional slides and cable management arm for ease of use and service in HP or most third-party racks |
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flexibility

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| supported operating systems | <ul style="list-style-type: none">• Microsoft Windows® 2000, Server and Advanced Server• Microsoft Windows NT® Server 4.0 Terminal Server Edition, Enterprise Edition• Linux (Caldera, Red Hat, SuSE, and TurboLinux)• Citrix Metaframe for Microsoft Windows 2000• Citrix Metaframe for Microsoft Windows NT Server 4.0• Novell NetWare 5.1 |
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security and safety

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| system security | <ul style="list-style-type: none">• Startup password• Enable or disable serial port, flexible disk drives, write operations to flexible disk drives, CD-ROM, and hard disk boot |
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service and support

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| warranty | <p>3-year, next business day, onsite limited warranty from HP or authorized resellers (standard business hours) worldwide</p> <ul style="list-style-type: none">– 24-hour turnaround time on replacement units with Express Service Option at no extra charge (U.S. only) |
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| hp instant support | <p>Fast, Web-based support that automates and speeds resolution of most computing problems. Available at no charge, HP Instant Support is:</p> <ul style="list-style-type: none">• Automated—Web-based problem identification, diagnosis, and resolution• Personalized—Ability to select your preferred support experience• Relevant—Seamless transmission of hardware information and case history to HP support specialists at any time• Reliable—It's there when you need it, 24 hours a day <p>For more information, visit the HP Instant Support Web site at:
http://www.hp.com/go/instant-support</p> |
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features (continued)

service and support (continued)

hp supportpack options	Support can be delivered either by your local service-authorized reseller or by Hewlett-Packard. For more information, visit our Web site at http://www.hp.com/go/netserver	product no.
	5-Year 24x7 6-Hour Onsite Hardware Call-to-Repair	H2824E/VV
	5-Year 24x7 4-Hour Onsite Response	H2823E/VV
	5-Year 4-Hour Onsite Response (regular business hours) ¹	H2822E/VV
	5-Year Next Business Day Onsite Response	H2838E/VV
	3-Year 24x7 6-Hour Onsite Hardware Call-to-Repair	H1820A/E/VV
	3-Year 24x7 4-Hour Onsite Response	H5514A/E/VV
	3-Year 4-Hour Onsite Response (regular business hours) ¹	H5519A/E/VV
	HP Netserver Solution Installation and Configuration (L Series)	H5751A
	Racking of HP Netserver Solution	H5756A
	HP Netserver Cluster Solution Installation/Network Configuration	H5757A
	HP Personalized System Support for PC Servers:	
	Proactive Management, 1 year	H2219AA/E
	Standard Recovery, 1 year	H2217AA/E
	Standard Recovery Applications Add-on, 1 year	H2216AA/E
	Proactive Support, 1 year	H2218AA/E
	HP Critical Systems Support for Windows Servers:	
	NT Solution, 1 year	H1931E
	Reactive Bundle, 1 year (second server)	H1932E
	Priority Recovery NT, 1 year (cluster server)	H1933E
	Priority Recovery NT, 1 year	H1934E
	Priority Management NT, 1 year	H1941E
	Operations Checkup NT, 1 engagement	H1950E
	Critical Systems Support NT and SAP R/3	H3035E
	Critical Systems Support NT and Microsoft Exchange	H1931E
	Microsoft Cluster Server Migration, 1 cluster	H1945E
	Change Management Planning for NT, 1 year	H1943E
	Additional Patch Management Reviews	H1944E
	Performance Optimization for NT, 1 year	H1946E
	Expert Technical Advice for NT, 1 topic	H1947E
	Account Support Engineer Services for NT, 1 day	H1948E

¹ Provides HP's best response time service during regular business hours, Monday through Friday, except HP holidays

features (continued)

service and support (continued)

reseller support services	<p>Comprehensive reseller support framework, to ensure successful support of HP NetServers, includes:</p> <ul style="list-style-type: none">• Proactive Notification e-mail service¹• Service and support Web site¹• Server Management and Hardware Troubleshooting courses (STAR)¹• Troubleshooting Toolkit¹• 24 x 7 telephone support for authorized resellers• Business Builders Reseller Support
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¹ See <http://www.hp.com/netserver/servsup> for details

regulatory compliance

electromagnetic emissions	<ul style="list-style-type: none">• USA/Canada: FCC Title 47, Part 15, Class B (Self-Declaration)• EU Countries: EN 55022 Class B including EN 61000-3-2 (Harmonic Current Emissions) and EN 61000-3-3 (Voltage Fluctuation and Flicker)• Korea: M of C Class A• Japan: VCCI Class B• Australia/New Zealand: CISPR 22 Class B• Taiwan: BSMI CNS 13438 Class A
electromagnetic immunity	<ul style="list-style-type: none">• EU Countries: EN 55024/CISPR 24 including—<ul style="list-style-type: none">– EN 61000-4-2/IEC 61000-4-2: Electrostatic Discharge (ESD)– EN 61000-4-3/IEC 61000-4-3: Radiated Immunity– EN 61000-4-4/IEC 61000-4-4: Electrical Fast Transient (EFT)/Burst– EN 61000-4-5/IEC 61000-4-5: Surge– EN 61000-4-6/IEC 61000-4-6: Conducted Immunity– EN 61000-4-11/IEC 61000-4-11: Voltage Dips and Interruptions
safety	<ul style="list-style-type: none">• EN 60950/IEC 60950 Compliance (International)• UL Listed (USA, File E139742)• Highly Specialized Equipment (Mexico)• TÜV Certified (Germany)• CE Marking (Europe)• CUL Listed (Canada, File E139742)• Gost Mark (Russia)• B-Mark (Poland)
Japan energy saving law	<ul style="list-style-type: none">• Category: J• Energy Efficiency Ratio: 0.025• Energy Efficiency Ratio is the quotient of consumed power that is measured according to the Energy Saving Law measurement method divided by the capacity specified in the Energy Saving Law.

accessories

	product accessory	product no.
memory	• 128MB 133MHz ECC SDRAM DIMM	D8265A
	• 256MB 133MHz ECC SDRAM DIMM	D8266A
	• 512MB 133MHz ECC SDRAM DIMM	D8267A
	• 1GB 133MHz ECC SDRAM DIMM	D8268A
processor upgrades	• Pentium III 866MHz, 256KB L2 on-die cache	P2467A
	• Pentium III 933MHz, 256KB L2 on-die cache	P2468A
	• Pentium III 1GHz, 256KB L2 on-die cache	P2453A
internal storage devices	• 9.1GB, low-profile, hot-swap Ultra3 SCSI disk drive (10,000rpm)	P2472A
	• 18.2GB, low-profile, hot-swap Ultra3 SCSI disk drive (10,000rpm)	P2473A
	• 36.4GB, low-profile, hot-swap Ultra3 SCSI disk drive (10,000rpm)	P2474A
	• 18.2GB, low-profile, hot-swap Ultra3 SCSI disk drive (15,000rpm)	P2507A
disk trays	HP Netserver low-profile hot-swap disk tray	P2452A
hp netRAID controllers and SCSI cables	• HP NetRAID-2M controller (Ultra3 SCSI, 2 channels, 64MB cache)	P3401A
	• HP NetRAID-2M controller (Ultra3 SCSI, 2 channels, 64MB cache)	P3411A
	• HP NetRAID-2M controller (Ultra3 SCSI, 2 channels, 128MB cache)	P3475A
	• HP Ultra/Wide SCSI PCI Controller	D5025A
	• HP Ultra3 SCSI Adapter	P3413A
	• 2.5m SCSI cable to connect from HP NetRAID Family Controller to External Storage ¹	D6020A
remote management	• HP Integrated Remote Assistant	Included
	• HP Tootools Remote Control card with battery	P1218A
	• Optional AC adapter for HP Tootools Remote Control card	D6138A
network interface card	• HP Netserver 10/100TX PCI LAN adapter	D5013B
	• HP 10/100 IPSec 3DES Security LAN adapter	P3492A
	• HP gigabit ethernet LAN adapter	P3482A
keyboard and mouse	• Keyboard	D8597A
	• Mouse	C3751B

¹ 2.5m SCSI cable 68-pin male ultra-high-density offset connector to 68-pin male high-density connector.

accessories (continued)

	product accessory	product no.
external storage solutions	• HP Netserver Storage System/6	D3604B
	• HP Netserver Rack Storage/12 (Ultra3)	D5989C
	• HP Netserver Rack Storage/12 SCSI Card (Ultra3)	D6025C
	• HP Netserver Rack Storage/12FC	D5991A
	• HP FC Array Disk Array Controller	D5990A
	• HP Netserver Rack Storage/12FC HBA Card (cluster or standalone)	D8602B
	• HP 8-port Fibre Channel Loop Switch	P4459A
	• HP Surestore Disk System DS2100	A5676A
external backup devices ¹	• HP Surestore DAT24e 24GB	C1556D
	• HP Surestore DAT40e 40GB	C5687A
	• HP Surestore DLT 40e 40GB	C1579A
	• HP Surestore DLT 80e 70GB	C5726A
	• HP Surestore Ultrium 230 100GB	C7461A
rack-optimized backup devices ¹	• HP Surestore H/A Tape Array 5500	C1354A
	• HP Surestore Ultrium 230 Rack Mount	C7402A
	• HP Surestore DAT24k	C6525A
	• HP Surestore DAT40k	C6541A
	• HP Surestore DLT 40k	C6515A
	• HP Surestore DLT 40r hot-swap	C5697A
	• HP Surestore DLT 80k	C6529A
	• HP Surestore DLT 80r hot-swap	C5727A
automated tape backup ²	• HP Surestore DAT24x6e Ext Autoloader	C1559C
	• HP Surestore DAT40x6e Ext Autoloader	C5717A
	• HP Surestore DLT Autoloader 418 ²	C6280F
	• HP Surestore DLT Autoloader 818 ²	C6282RA/NB
	• HP Surestore Autoloader 1/9 LTO Rack ²	C7748CB/AA
	• HP Surestore Autoloader DLT 1/9 Rack ²	C7746RA/NB
	• HP Surestore Autoloader DLT1 1/9 Rack ²	C9251CB
	• HP Surestore DLT Library 2/20, Rack ²	C7202RA/NB
	• HP Surestore DLT Library 4/40, Rack ²	C7214RA/NB
	• HP Surestore DLT Library 6/60, Rack ²	C7230RA/NB
	• HP Surestore Ultrium Library 2/60, Rack ²	C9540CB/AA
	• HP Surestore Ultrium Library 4/60, Rack ²	C9544CB/AA
hp racks and rack accessories	For a complete list of racks and rack accessories, refer to http://www.hp.com/racksolutions/menu_products.html	
slide rackmount kit	Kit includes slides with cable management arm and is compatible with HP and industry-standard third party racks	J1527A
2-post slide-mount adapter	Accommodates slide rackmount kit (product number J1527A) in industry-standard 2-post racks	J1480A
rack cable management kit	Kit combines brackets for routing/channeling cables and velcro ties for securing/bundling to facilitate organized cable management in HP and industry-standard third party racks	J1481A
hp rackmount console switch	Control multiple Netserver with a single monitor, keyboard, and mouse. Choose either:	
	• 4 port console switch	J1473A
	• 8 port console switch	J1474A

¹ HP storage—<http://www.hp.com/storage>

² Autoloaders—<http://www.products.storage.hp.com/eprise/main/storage/DisplayPages/automatedbackup.htm>

accessories (continued)

	product accessory	product no.
hp rackmount flat panel monitor/keyboard	<ul style="list-style-type: none">• Space-saving form factor utilizing only 2 EIA units• 15" diagonal viewable screen• Ergonomically shaped soft comfortable cushions for support of the wrist• Cable management arm included• Power supply and all necessary cables are included	J1470A
APC uninterrupted power supply (UPS)	(APC) American Power Conversion UPS devices used to protect servers and storage against downtime and data loss due to power anomalies and are fully compatible with the HP environment. Available through Hewlett-Packard. Refer to http://www.hp.com/racksolutions/p_ups.html	

hp netserver Ip 1000r

Up to two Intel Pentium III processors with 133 MHz FSB

Air flow guide

One open slot (64-bit) for a PCI card

Up to 4 GB PC133 SDRAM

3.5" flexible disk drive

CD-ROM

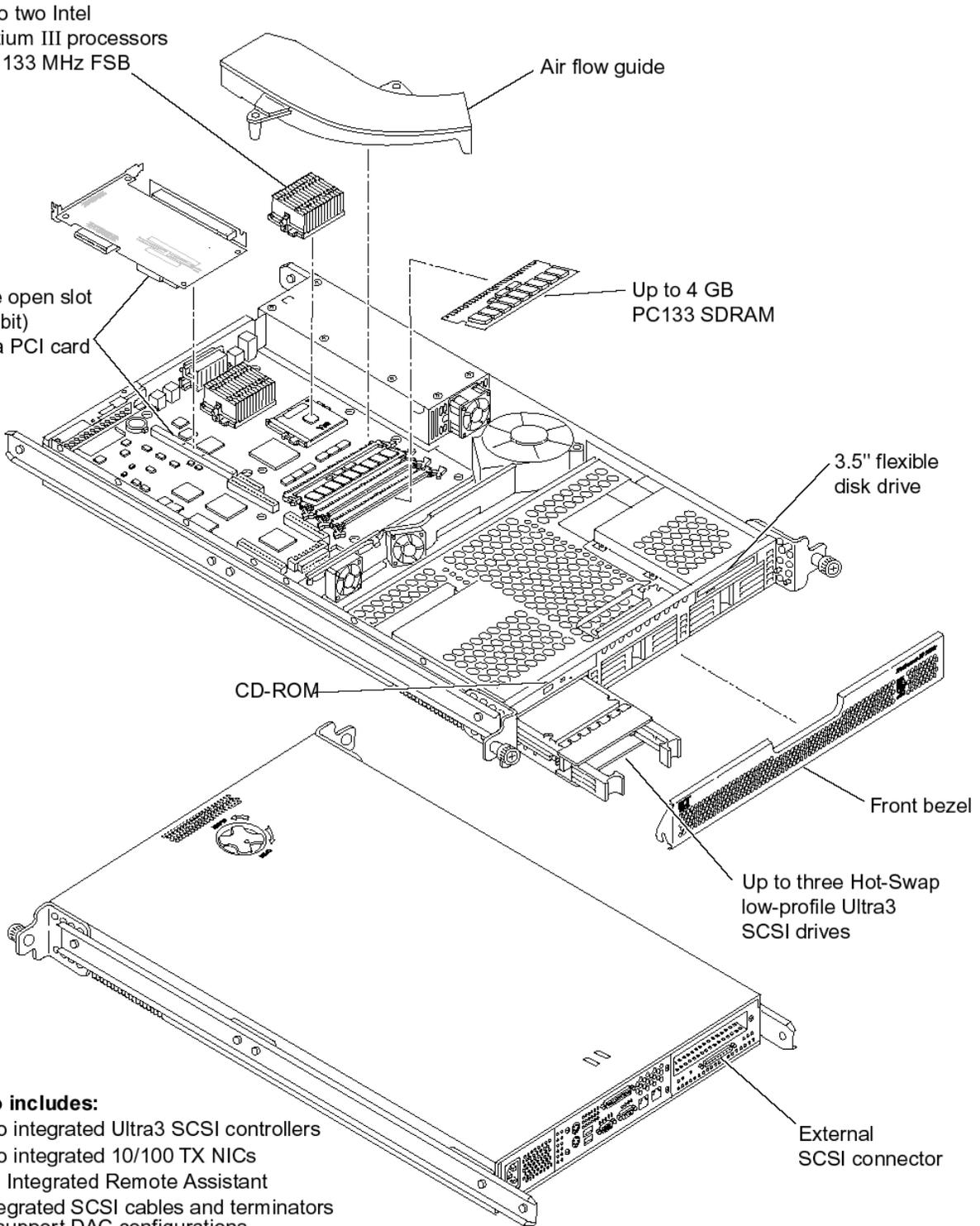
Front bezel

Up to three Hot-Swap low-profile Ultra3 SCSI drives

Also includes:

- Two integrated Ultra3 SCSI controllers
- Two integrated 10/100 TX NICs
- HP Integrated Remote Assistant
- Integrated SCSI cables and terminators to support DAC configurations

External SCSI connector



specifications

operating temperature	41 to 95 degrees F (5 to 35 degrees C) at 7000 ft. (2133m) for 866 MHz and 933 MHz clock speeds 41 to 86 degrees F (5 to 30 degrees C) at 3000 ft. (914m) for 1GHz clock speed
operating humidity	20% to 80% relative humidity, non-condensing
acoustic emissions	Sound pressure (LpA:) < 55 dB(A), bystander position
power supply	203W maximum continuous required power
power availability	203W continuous required power
power consumption	254W maximum with 110/240V supply
system dimensions	1.75inW x 16.8inD x 23inH (4.45cm W x 42.8cm D x 58.5cm H)
system weight	32lb (14.5kg) fully loaded with 2 CPUs, 3 HDDs, and DIMMs

choose your hp netserver lp 1000r

product no.	processor	sdram	all models include:
P1810A	866MHz	256MB	<ul style="list-style-type: none"> • One Intel Pentium III CPU • 256MB SDRAM (on "A" model only) • Integrated dual-channel Ultra3 SCSI controller • Dual integrated 10/100TX LAN adapters • 24X CD-ROM drive • 3.5-inch 1.44MB flexible disk drive • Rack mounting hardware <ul style="list-style-type: none"> – Rails – Brackets for mounting in Telco style (2 post rack)
P1811AV ¹	866MHz		
P1812A	933MHz	256MB	
P1813AV ¹	933MHz		
P2465A	1GHz	256MB	
P2466AV ¹	1GHz		

¹ "AV" models are part of the *HP Select Express* program and do not include memory

support

Support can be delivered by your local reseller or by the Hewlett-Packard Customer Support Organization. Web-based troubleshooting available through HP Instant Support: www.hp.com/go/instant-support

For additional information on HP products and services, visit us at www.hp.com

For the location of the nearest sales office, call:

United States: +1 800 637 7740

Canada: +1 905 206 4725

Japan: +81 3 3331 6111

Latin America: +1 305 267 4220

Australia/New Zealand: +61 3 9272 2895

Asia Pacific: +8522 599 7777

Europe/Africa/Middle East: +41 22 780 81 11

For more information, contact any of our worldwide sales offices or HP Channel Partners (in the U.S. call 1 800 637 7740).

HP's world-class services and support provide maximum uptime for HP Netervers. Standard warranty includes:

- Next-day onsite service
- Phone support
- Free exchange parts

For a complete list of enhanced Supportpacks, see:

http://netserver.hp.com/netserver/products/highlights_lp1000r.asp

HP Select Express program:

HP Netervers are also available through the *HP Select Express* program, which provides direct, coordinated delivery. This program offers custom integration of HP hardware offered at HP's lowest prices. For more information, visit our Web site at:

<http://netserver.hp.com/netserver/buy/select/sep>

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