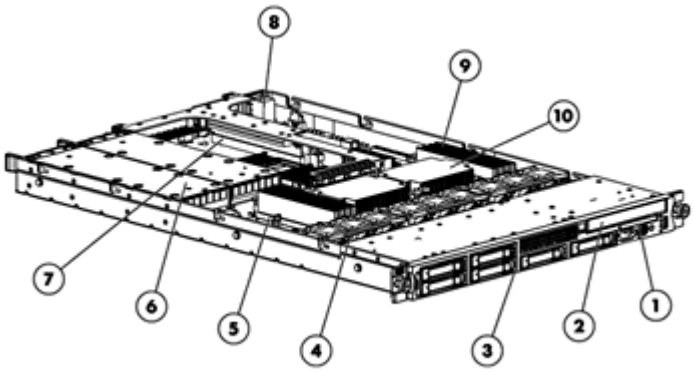
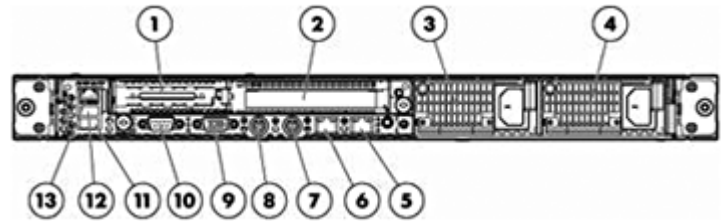
RETIRED: This document has been officially retired, and the base products listed herein are now considered obsolete and are no longer available for sale. Consequently, the information contained within may no longer be current. This document is provided exclusively for reference and informational purposes.

QuickSpecs

Overview





Front View:

1. Slide-out System Insight Display
2. Slimline removable media bay
3. Six SAS/SATA hot plug drive bays
4. Removable fans for easy serviceability
5. Choice of Smart Array P400i Controller or Smart Array E200i Controller
6. Redundant Hot Plug Power Supplies
7. Full length/height x8 PCI-Express Slot (optional PCI-X)
8. Low-profile x4 PCI-Express slot
9. Eight PC2-5300 667 MHz DDR2 DIMM slots
10. Up to two AMD Opteron™ processors

Rear View:

1. PCI Express expansion slot 1, low-profile, half-length
2. PCI Express expansion slot 2
3. Power supply bay 2
4. Power supply bay 1
5. NIC 2 connector
6. NIC 1 connector
7. Keyboard connector
8. Mouse connector
9. Video connector
10. Serial connector
11. USB connector
12. USB connector
13. iLO 2 NIC connector

What's New

- The HP ProLiant DL365 now supports the new AMD Quad-Core AMD Opteron™ 2300 Series processor models

At A Glance

Combining concentrated 1U compute power, integrated Lights-Out management, and essential fault tolerance, the HP ProLiant DL365 is optimized for space constrained installations. AMD Opteron™ Dual-Core and Quad-Core processors, DDR2 memory, Serial Attached SCSI (SAS) and PCI Express technology provide a high performance system ideal for the full range of scale out applications. What's more, the HP ProLiant DL365 provides fault tolerant in an ultra dense platform with redundant power, redundant fans, embedded RAID capability, and full-featured remote Lights-Out management.

- Processors:
  - Up to (2) AMD Opteron™ 2200 Series Dual-Core processors or up to (2) AMD Opteron™ 2300 Series Quad-Core processors, with 1 MB L2 Cache per processor
- Memory:
  - Up to 32 GB of memory, supported by (8) slots of PC2-5300 DDR2 (667 MHz)
- Storage Controller:
  - Performance Models: HP Smart Array P400i/256MB Controller (RAID 0/1/5/6)
  - Base Models: HP Smart Array P400i/256MB Controller (RAID 0/1/5)

Overview

- Entry Models: HP Smart Array E200i/64MB Controller (128MB BBWC optional)

- Internal Drive Support:
  - Up to (6) small form factor (SFF) hot-plug drive bays
  - Up to 876GB SAS with optional hard drives
  - Up to 720GB SATA with optional hard drives
  - Slimline media bay supporting DVD or CD drive
- Network Controller:
  - Two embedded NC373i Multifunction Gigabit Network Adapters with TCP/IP Offload Engine, including support for Accelerated iSCSI through an optional Licensing Kit
- Expansion Slots:
  - Two PCI-Express expansion slots: (1) full-length, full-height slot; (1) low-profile slot
- USB 2.0 Ports:
  - 4 Total: (1) front, (1) internal and (2) rear accessible ports
- Redundancy:
  - Multiple layers of fault tolerance through critical component redundancy (power supply and fan redundancy), embedded RAID capability, and full-featured remote Lights-Out management
- Management:
  - Integrated Lights-Out 2 featuring Integrated Remote Console with KVM over IP performance over shared network access
  - Convenient slide-out Systems Insight Display for quick and easy front view server diagnostics
  - ProLiant Essential Foundation Pack standard, including HP Systems Insight Manager, SmartStart, SmartStart Scripting Toolkit, Subscriber's Choice and ROM Based Setup Utility (RBSU)
  - Automatic Server Recovery (ASR), ROM Based Setup Utility (RBSU), HP System Insight Manager, Status LEDs including system health, UID, and SmartStart
- Form Factor:
  - 1U Rack form factor (1.75"), less than 28 in (70.5 cm) deep
- Deployment/Serviceability:
  - Sliding rails for in rack servicing ship standard; optional 1U Cable Management Arm
  - Customer Self Repair (CSR): HP products are designed with many CSR parts to minimize repair time and allow for greater flexibility in performing defective parts replacement
- Warranty:
  - This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HP Care Pack services or customized service agreements. SATA hard drives have a one-year warranty.
    NOTE: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have HP replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:
    http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html

Standard Features

NOTE: For a brief, printer friendly data sheet that describes this product and informs you of the essential capabilities and specifications, please visit: http://h71028.www7.hp.com/ERC/downloads/4AA0-70162ENW.pdf.
NOTE: For the Standard Features shipped in the "Factory Integrated Models", please see the "Configuration Information - Factory Integrated Models" section.

Processor One of the following depending on Model	AMD Opteron™ Processor 2356 (2.3 GHz, 75 Watts) AMD Opteron™ Processor 2354 (2.2 GHz, 75 Watts) AMD Opteron™ Processor 2352 (2.1 GHz, 75 Watts) AMD Opteron™ Processor 2346 HE (1.8 GHz, 55 Watts) AMD Opteron™ Processor 2222 (3.0 GHz, 95 Watts) AMD Opteron™ Processor 2220 (2.8 GHz, 95 Watts) AMD Opteron™ Processor 2218 (2.6 GHz, 95 Watts) AMD Opteron™ Processor 2218 HE (2.6 GHz, 68 Watts) AMD Opteron™ Processor 2216 (2.4 GHz, 95 Watts) AMD Opteron™ Processor 2216 HE (2.4 GHz, 68 Watts) AMD Opteron™ Processor 2214 HE (2.2 GHz, 68 Watts) AMD Opteron™ Processor 2210 (1.8 GHz, 95 Watts) AMD Opteron™ Processor 2210 HE (1.8 GHz, 68 Watts)

Memory One of the following depending on Model	Type	PC2-5300 DDR2 DIMMs (667 MHz)
	Standard (Entry or Base Models)	1 GB (2 x 512 MB)
	Standard (Performance Models)	2 GB (4 x 512 MB)
	Maximum	32 GB (8 x 4 GB)

NOTE: DIMMs must be installed in decreasing capacity with the largest DIMM installed in the banks furthest away from each processor.

Network Controller	Two embedded NC373i Multifunction Gigabit Network Adapters with TCP/IP Offload Engine, including support for Accelerated iSCSI through an optional Licensing Kit

Standard Features

Expansion Slots

Expansion Slots #	Technology	Bus Width**	Connector Width	Bus Number*	Form Factor	Notes
1	PCI-e	x4	x8	72	Low profile slot	
2	PCI-e	x8	x16	75	Full length, full height slot	
2	PCI-X (133 MHz, 3.3 Voltage)	64-bit	x16	2	Full length, full height slot	

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number

** Indicates the number of physical electrical lanes running to the connector.

Manageability

Integrated Lights-Out (iLO 2) Management 2 (integrated on motherboard)

Storage Controllers
One of the following depending on Model

Entry Models	HP Smart Array E200i/64MB Controller (RAID 0/1) **Available upgrade:** 128MB memory module with battery-backed write cache (BBWC) for RAID 0/1/5.
Base and Performance Models	HP Smart Array P400i/256MB Controller (RAID 0/1/5) **Available upgrades:** Battery module or 512MB battery-backed write cache (BBWC) memory module. Both enable RAID 0/1/5/6 and write cache (BBWC).

Storage

Optical Drives (Slimline Drive bay)	Optional DVD-ROM, DVD/CD-RW Combo (standard in performance models), or DVD-RW
Drive Bays	6 Small Form Factor bays total NOTE: 4 bays active in most models. Smart Array P400i controller and Mini-SAS storage cable (P/N 399546-B21) required for activation of 5th and 6th drive bays.

Maximum Internal Storage Type

Hot Plug Serial Attached SCSI (SAS)	876GB SAS	6 x 146GB SAS
Hot Plug Serial ATA (SATA)	720GB SATA	6 x 120GB SATA

Standard Features

Interfaces	Keyboard	1
	Mouse	1
	Serial	1
	Video	2 (1 front, 1 rear)
	USB 2.0 Ports	2 rear, 1 front, 1 internal NOTE: Please see the following URL for additional information regarding USB support: http://h18004.www1.hp.com/products/servers/platforms/usb-support.html.
	Network RJ-45	2
	iLO 2 remote management port	1

Graphics

Integrated ATI ES1000, 32 MB video standard

- 16 bit color: maximum resolution of 1600 x 1200
- 32 bit color: maximum resolution of 1280 x 1024

NOTE: Maximum resolution available via iLO 2 remote console is 1280 x 1024.

Form Factor

Rack (1U), (1.75 in/4.45 cm)

HP Insight Control Environment Management Suite

HP Insight Control Environment delivers foundation management, including remote monitoring, hardware resource deployment, health monitoring, software version control, performance monitoring, vulnerability scanning and patch management, and power management.
HP Insight Control Environment installs and licenses the following components by default using a wizard-based integrated installer:

- HP Systems Insight Manager
- HP iLO Advanced Pack
- HP Insight Power Manager
- HP Rapid Deployment Pack
- HP Performance Management Pack
- HP Vulnerability and Patch Management Pack
- HP Virtual Machine Management Pack

Additional ProLiant Essentials software and management tools included on the Insight Control Management kit can be installed manually

- HP Server Migration Pack - Universal Edition
  NOTE: HP Server Migration Pack - Universal Edition is licensed separately from the Insight Control Environment Suite.
- HP Open Service Event Manager
- HP Service Essentials Remote Support Pack

NOTE: Server Migration Pack - Universal Edition can be installed from the SMP Universal CD included in the Insight Control Management media kit.
NOTE: For additional product and licensing information about HP Insight Control Environment, visit: http://www.hp.com/go/ice.

HP Insight Control Environment for Linux (ICE-Linux) provides comprehensive discovery, imaging & deployment, monitoring, and management for Linux-based ProLiant server platforms. Built on the industry-leading HP Systems Insight Manager framework, this solution integrates open source technology with experience leveraged from HP's Linux products in HP ICLE and HP XC Clusters, while providing paths to the future with developing management technologies.

HP Insight Control management suites and most HP ProLiant Essentials include a one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support staff and proactive delivery of software updates. For more information about this service, please visit: http://www.hp.com/services/insight.

Server Management Stand Alone Software Product - ProLiant Essentials	HP Systems Insight Manager	HP Systems Insight Manager (HP SIM) provides a unified, secure and extensible standards-based environment to centrally manage servers, storage and other infrastructure devices, (both HP and non-HP) across multiple operating system platforms.
	HP ProLiant Essentials Rapid Deployment Pack	Rapid Deployment Pack (RDP) extends HP Systems Insight Manager with a complete deployment solution for HP ProLiant servers. RDP provides a central location to configure server hardware, deploy Windows, Linux and VMware ESX operating environments and install HP ProLiant Support Pack drivers using images and scripted profiles. For more information, visit: http://www.hp.com/go/rdp.
	HP ProLiant Essentials Server Migration Pack - Universal Edition	Upgrading, replacing, or virtualizing your existing server? Effortlessly transition to new virtual or physical HP ProLiant servers or BladeSystem with automated, accurate and affordable migration of OS, application and data. SMP Universal automates the manual processes required for migrating servers between physical or virtual platforms, whether migrating to VMware or Microsoft virtual machines. SMP Universal allows all of the following migrations: • physical to ProLiant • physical to virtual • virtual to virtual • virtual to ProLiant NOTE: For more information, visit: http://www.hp.com/go/migrate.
	HP ProLiant Essentials Performance Management Pack	Performance Management Pack (offered exclusively through the Insight Control suites) - a performance management solution that identifies and explains hardware performance bottlenecks on ProLiant servers and attached options enabling users to better utilize their valuable resources
	HP ProLiant Essentials Integrated Lights-Out (iLO 2) Advanced Pack	Upgrades the iLO 2 processor with comprehensive remote control including Virtual KVM remote graphical console, enhanced console sharing and replay, virtual media (floppy, CD/DVD, USB key), virtual folders, and enterprise security (directory services and two-factor authentication).
	HP iLO Power Management Pack	Energy-efficient management software that delivers centralized control, reliable security, and energy savings for your BladeSystem infrastructure. iPMP combines the total control of iLO 2 Advanced in the area of remote management with the energy monitoring and control of the Insight Power Manager to deliver a robust solution capable of full remote control and power management of ProLiant servers through a unified interface within HP

		Systems Insight Manager.
	HP ProLiant Essentials Accelerated iSCSI Pack	Enables the embedded Multifunction network controller to serve as both a NIC and an iSCSI HBA providing access to SAN storage over the same connection used for networking. Processing of the protocol stack is offloaded to the NIC reducing CPU utilization and greatly improving the speed with which the requests are processed and sent to the network.
	HP Insight Power Manager (IPM)	Upgrades the single-server remote management capabilities of iLO Select/Advanced to include centralized reporting and policy-based management of power consumption and thermal output provided by the Insight Power Manager. IPM unifies all of this functionality within a single user interface - HP Systems Insight Manager.
	NOTE: Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to: http://www.hp.com/servers/proliantessentials or the various ProLiant Essentials Value Pack product QuickSpecs for more information.	
Core Infrastructure Management	SmartStart	SmartStart is a tool that simplifies server setup, providing a rapid way to deploy reliable and consistent server configurations. For more information, please visit the SmartStart Web site at: http://www.hp.com/servers/smartstart. SmartStart version supported (minimum): SmartStart 7.51.
	Insight Management Agents	The Insight Management Agents should be installed on all HP servers to present system instrumentation, health and configuration information into HP Systems Insight Manager and the HP System Management Homepage. The HP System Management Homepage aggregates systems data from Insight Management Agents and other HP management tools, providing a consolidated browser-based interface for managing individual servers. Insight Management Agents and The HP System Management Homepage are included on ProLiant Support Packs, and can also be installed using the server profiles provided with the ProLiant Essentials Rapid Deployment Pack. For additional information about the Management Agents and the HP System Management Homepage please visit the management Web site at: http://www.hp.com/servers/manage.
	Subscriber's Choice	Subscriber's Choice Driver and Support Alerts/Notifications is a web-based email subscription service that provides software and driver change notifications for ProLiant products. Sign up at: http://www.hp.com/go/subscriberschoice and customize your profile to receive various new alerts as they become available, on a weekly or monthly basis.
	ProLiant Support Packs and ROMPaq, software	The latest software, drivers, and firmware fully optimized and tested for your ProLiant server and options, available through ProLiant Support Packs the ProLiant Essentials Rapid Deployment Pack, SmartStart or downloaded from software and drivers download pages website at: http://www.hp.com/go/support.
HP Serviceguard for Linux (SGLX)	HP Serviceguard for Linux is a high availability clustering solution designed to protect applications and services from a wide variety of software and hardware failures, monitoring the health of each server (node) and quickly responding to failures such as those that affect system processes, system memory,	

LAN media and adapters, and application processes.

The following is a quick summary of HP Serviceguard for Linux features and support. For the most recent list of Linux distributions & kernels, servers and storage supported with Serviceguard for Linux, see the Serviceguard for Linux Datasheet, available at: http://www.hp.com/go/sglx/info.

- Supported Linux Distributions:
  - Red Hat EL 4
  - Red Hat EL 5
  - SUSE SLES10
- Supported Server Platforms
  - HP Integrity BladeSystem to Superdome
  - HP ProLiant BladeSystem p-Class & c-Class
  - HP ProLiant DL
  - HP ProLiant ML
  - IBM System x
  - Dell PowerEdge
  - Sun x64
  - Fujitsu Siemens PRIMERGY
- Supported Virtual Machines
  - SG/LX in HP Integrity Virtual Machines guests
  - SG/LX in VMware ESX guests
  - SG/LX in Red Hat and SUSE Xen hosts (DOM0)
- Application Integration Toolkits
  - HP Serivceguard for Linux Oracle Database Toolkit
  - HP Serviceguard Extension for SAP on Linux (SGeSAP/LX)
  - Free Application Integration Toolkits:
    - Apache
    - MySQL
    - NFS
    - PostgreSQL
    - Samba
    - Tomcat
    - Sendmail
- Disaster Tolerant Solutions
  - HP Serviceguard for Linux Extended Distance Cluster (XDC) extends cluster distances up to 100 km, utilizes software RAID mirroring for data replication and is storage array independent
  - HP StorageWorks XP/EVA Cluster Extension Software for Linux (CLX) works seamlessly with HP Serviceguard for Linux, HP StorageWorks Continuous Access, and HP Disk Arrays to automate failover and failback between sites
- Software updates are distributed by HP Services to customers with support contracts

NOTE: For additional information on HP Serviceguard for Linux, visit: http://www.hp.com/go/sglx or see the HP Serviceguard for Linux QuickSpecs.
NOTE: HP Serviceguard for Linux products for HP ProLiant and select 3rd party x86 class servers include one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support staff and proactive delivery of software updates. For more information about this service, please visit: http://www.hp.com/services/swsupport.

Standard Features

Industry Standard Compliance	ACPI 1.0b Compliant PCI 2.3 Compliant WOL Support Microsoft® Logo certifications PXE Support USB 1.1 and 2.0 supported
Remote Management	Integrated Lights Out 2 (iLO2) Standard Management: • Virtual Text Remote Console (pre-OS only) • Remote Serial Console • Virtual Power Button Control • Virtual Unit ID control • Integrated Remote Console • Dedicated & full function shared network connectivity • Embedded system health • Browser, command line and scripted access • Automatic IP Configuration via DHCP/DNS/WINS • Industry Standard 128-bit Secure Sockets Layer (SSL) and Secure Shell security (SSH) • OS independent hardware health status • IML and iLO Event Logging • Support for 12 user accounts with customizable access privilege
Intelligent Manageability	HP Systems Insight Manager SmartStart ROM-Based Setup Utility (RBSU) Remote-Flash Redundant ROM Integrated Management Log (IML) Server Health logging Automatic Server Recovery-2 (ASR-2) System Interconnect Status Indicators Dynamic sector repairing and drive parameter tracking (with Smart Array controllers) Power Down Utility Pre-Failure Warranty
Security	Power-on password Keyboard password Diskette drive control Diskette boot control QuickLock, Network Server Mode Removable CD and Diskette Drive Assembly Serial interface control Administrator's password Integrated Lights-Out has 12 customizable user accounts and SSL encryption Integrated Lights-Out can be disabled via a Global Setting iLO Advance Pack supports directory services integration and two-factor authentication

Standard Features

Server Power Cords	High line cord ships standard with all part numbers. Localized cables included with geographic specific models in other world regions. NOTE: ProLiant DL servers no longer ship standard with NEMA power cords (187335-001) that allow connection to 110V US wall outlets in a home or office. ProLiant DL servers are primarily connected to PDU's in data center racks so they now ship standard with only a PDU power cord (416151-B21). If a user wishes to power a ProLiant DL server using a 110V receptacle (NEMA-15), the NEMA power cord (187335-001) must be ordered separately.
UPS Power Cord Matrix	Please see the UPS Power Cord Matrix for cable descriptions, requirements, and specifications for UPS units: ftp://ftp.compaq.com/pub/products/servers/proliantstorage/power-protection/powercordmatrix.pdf.
Power Supply	700W, Optional (1+ 1 redundant) power supply NOTE: PN 399542-B21 contains the optional power supply and an IEC power cable only; purchase if connecting to PDU/UPS that supports IEC cables. PN 399542-291 includes IEC power cable and a Japan power cable. PN 399542-AA1 includes IEC power cable and a China power cable.
System Fans	9 fans ship standard; N+1 fan redundancy standard
Required Cabling	For required cabling information, refer to the Web site at www.hp.com/servers/dl365.
OS Support	Microsoft Windows Server 2003 R2 Microsoft Windows Small Business Server 2003 R2 Microsoft Windows Server 2008 Red Hat Enterprise Linux SUSE Linux Enterprise Server Sun Solaris for x64/x86-based Systems VMware NOTE: For more information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our Support Matrix at: http://www.hp.com/go/supportos.

Standard Features

Rack Airflow Requirements	Rack 10000 series Cabinets The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. The 10000 Series Racks provide enhanced airflow for maximum cooling, allowing these racks to be fully loaded with servers using the latest processors. CAUTION: If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment: • Front and rear doors: If your 42U server rack includes closing front and rear doors, you must allow 830 square inches (5,350 sq cm) of hole evenly distributed from top to bottom to permit adequate airflow (equivalent to the required 64 percent open area for ventilation). • Side: The clearance between the installed rack component and the side panels of the rack must be a minimum of 2.75 inches (7 cm). CAUTION: Always use blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels results in improper cooling that can lead to thermal damage. NOTE: For additional information, refer to the Setup and Installation Guide or the Documentation CD provided with the server, or to the server documentation located in the Support section at the following URL: www.hp.com/servers/dl365.
Rack Kit	The HP ProLiant DL365 has universal sliding rails which provide tool-free support for square and round holes rack (including Compaq/HP 7000, 9000, 10000 and HP/E and H9 series), with an adjustment range from 24 ¾" - 36" depth.
Telco Rack Support	Support for all 2-post Telco racks requires an additional option kit from Rack Solutions. The Rack Solutions brackets can be purchased at: http://www.racksolutions.com/hp.
Factory Express Portfolio for Servers and Storage	HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed. Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 9000 servers as well as the MSAxxxx, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches. For more information on Factory Express services for your specific server model please contact your sales representative or go to http://www.hp.com/go/factory-express.

Standard Features

HP Enterprise Configurator	The HP eConfigure-Enterprise Configurator now provides factory default racking for our HP hardware portfolio. This approach is aligned with our strategic direction to meet the needs and expectations of our valued customers. If you require "custom" rack configuration, please contact HP's Customer Business Center or an Authorized Partner for assistance. http://www.hp.com/products/configurator.
Service and Support	HP Care Pack services provide total care and support expertise with committed response designed to meet your IT and business needs. HP Care Pack services include coverage for the HP branded hardware options qualified for the server and purchased at the same time or afterward that are internal to the enclosure. This also includes the 22" and smaller external monitors and tower UPS options up to 3kVA. These items will be covered at the same service level and for the same coverage period as the server. Coverage of UPS Battery is not included, and standard warranty terms & conditions apply. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack. To fully capitalizing on your HP ProLiant servers' capabilities requires a service partner who thoroughly understands your server technology and systems environment. HP Services, an industry leader in provision of multi vender support solutions, provides a range of support services designed to meet the varying needs of your business. Whether an SMB, or large global corporation, HP has a ProLiant server support offer to help you speedily deploy and maximize system uptime. Recommended Service - simplify ProLiant solution implementation, maintenance, and management. ● Support: 3-Year 4-Hour response 24x7 Same Business Day Coverage only ● Deployment Service: Installation and Start up only Enhanced Service - optimize service level to increase IT performance and availability. ● Support: 3-Year Support Plus 24 only Refer to the information on "Installation & Start-Up" for service on ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet; to be delivered on a scheduled basis 8am-5pm, M-F, excluding HP holidays. NOTE: For a complete listing of service offerings and information visit: http://www.hp.com/services/proliantservices http://www.hp.com/go/proliant/carepack

Models

NOTE: For the Standard Features shipped in the "Factory Integrated Models", please see the "Configuration Information - Factory Integrated Models" section.

Models

HP DL365 Performance Models **DL365 2220 2GB** 439191-xx1 **DL365 2218 2GB** 411361-xx1	**Processor(s)** One of the following depending on Model	(2) AMD Opteron™ Processor 2220 (2.8 GHz, 95 Watts) (2) AMD Opteron™ Processor 2218 (2.6 GHz, 95 Watts)
	Memory	2 GB (4 x 512 MB) Standard; PC2-5300 DDR2 DIMMs (667 MHz)
	Network Controller	Two Embedded NC373i Multifunction Gigabit Server Adapters
	Storage Controller	Smart Array P400i/256MB BBWC (RAID 0/1/5/6)
	Hard Drive	No drives included; (6) drive bays active
	Internal Storage	Up to 876GB SAS; 720GB SATA
	Optical Drive	Slimline DVD/CD-RW Combo drive
	PCI-Express Slots	1 full-length x8 PCI-Express slot 1 low-profile x4 PCI-Express slot
	Power Supplies	(2) 700W power supplies, redundant
	Fans	9 total, redundancy standard
	Form Factor	Rack (1U), (1.75 in/4.45 cm)

HP DL365 Base Models **DL365 2218 1GB** 411360-xx1 **DL365 2214 1GB** 411359-xx1	**Processor(s)** One of the following depending on Model	(1) AMD Opteron™ Processor 2218 (2.6 GHz, 95 Watts) (1) AMD Opteron™ Processor 2214 HE (2.2 GHz, 68 Watts)
	Memory	1 GB (2 x 512 MB) Standard; PC2-5300 DDR2 DIMMs (667 MHz)
	Network Controller	Two Embedded NC373i Multifunction Gigabit Server Adapters
	Storage Controller	Smart Array P400i Controller with 256MB cache (RAID 0/1/5)
	Hard Drive	No drives included; (4) drive bays active. (6) bays supported with optional storage cable (PN 399546-B21)
	Internal Storage	Up to 876GB SAS; 720GB SATA
	Optical Drive	Optional DVD, or DVD/CD-RW
	PCI-Express Slots	1 full-length x8 PCI-Express slot 1 low-profile x4 PCI-Express slot
	Power Supply	(1) 700W power supply, redundant optional
	Fans	9 total, redundancy standard
	Form Factor	Rack (1U), (1.75 in/4.45 cm)

Models

HP DL365 Entry Model	Processor	(1) AMD Opteron™ Processor 2210 (1.8 GHz, 95 Watts)
DL365 2210 1GB 411358-xx1	Memory	1 GB (2 x 512 MB) Standard; PC2-5300 DDR2 DIMMs (667 MHz)
	Network Controller	Two Embedded NC373i Multifunction Gigabit Server Adapters
	Storage Controller	Smart Array E200i Controller (64MB; 128MB BBWC optional) (RAID 0/1 standard; RAID 5 with BBWC upgrade)
	Hard Drives	No drives included; (4) drive bays active
	Internal Storage	Up to 584GB SAS; 480GB SATA
	Optical Drive	Optional DVD, or DVD/CD-RW
	PCI-Express Slots	1 full-length x8 PCI-Express slot 1 low-profile x4 PCI-Express slot
	Power Supply	(1) 700W power supply, redundant optional
	Fans	9 total, N+1 redundancy standard
	Form Factor	Rack (1U), (1.75 in/4.45 cm)

Country Code Key	Rack Code Key
XX=00	US
XX=20	Brazil
XX=29	Japan
XX=37	APD
XX=42	EURO
XX=AA	PRC

NOTE: This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for information on CTO product offerings and requirements.
NOTE: HP does not allow factory integration of options into standard models listed above. Configure-to-order servers must start with a CTO Chassis.
NOTE: This product offering does not support HP Factory Express Server Configuration Level 1.
NOTE: FIO indicates that this option only available as a Factory Installable Option.

Step 1: Base Configuration (choose one of the following configurable models)

Models	HP ProLiant DL365 Rack CTO Chassis	411377-B21
	Factory Integrated Model ships with:	
	Two Embedded NC373i Multifunction Gigabit Server Adapters Integrated Lights-Out 2 (iLO 2) embedded 1 full-length and 1 low-profile x8 PCI-Express slots 9 fans; N+1 fan redundancy (1) 700W power supply, redundant optional Rack (1U), (1.75 in/4.45 cm)	

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

Processors	AMD Opteron™ Processor 2356 (2.3 GHz, 75 Watts) FIO	447600-L21
	AMD Opteron™ Processor 2354 (2.2 GHz, 75 Watts) FIO	447602-L21
	AMD Opteron™ Processor 2352 (2.1 GHz, 75 Watts) FIO	447604-L21
	AMD Opteron™ Processor 2346 HE (1.8 GHz, 55 Watts) FIO	457239-L21
	AMD Opteron™ Processor 2222 (3.0 GHz, 95 Watts), FIO	453043-L21
	AMD Opteron™ Processor 2220 (2.8 GHz, 95 Watts), FIO	439189-L21
	AMD Opteron™ Processor 2218 (2.6 GHz, 95 Watts) , FIO	411362-L21
	AMD Opteron™ Processor 2218 HE (2.6 GHz, 68 Watts) , FIO	439188-L21
	AMD Opteron™ Processor 2216 (2.4 GHz, 95 Watts) , FIO	411365-L21
	AMD Opteron™ Processor 2216 HE (2.4 GHz, 68 Watts) , FIO	419487-L21
	AMD Opteron™ Processor 2214 HE (2.2 GHz, 68W) , FIO	411368-L21
	AMD Opteron™ Processor 2210 (1.8 GHz, 95 Watts) , FIO	411374-L21
	AMD Opteron™ Processor 2210 HE (1.8 GHz, 68 Watts) , FIO	434933-L21
Base Memory	1 GB REG PC2-5300 2 x 512 MB Single Rank Kit	408850-B21
	2 GB REG PC2-5300 2 x 1 GB Single Rank Kit	408851-B21
	4 GB REG PC2-5300 2 x 2 GB Dual Rank Kit	408853-B21
	8 GB REG PC2-5300 2 x 4 GB Dual Rank Kit	408854-B21
Storage Controllers	HP E200i Controller FIO NOTE: If selected, must choose one of the cache modules below.	399548-B21
	HP Smart Array E200 64MB FIO Cache NOTE: Supports Smart Array E200 Controller only.	405102-B21
	128MB Battery Backed Write Cache Enabler Option Kit NOTE: Supports Smart Array E200i Controller.	346914-B21

Smart Array P400i Controller NOTE: If selected, must choose one of the two cache modules below.	413741-B21
HP Smart Array P400 256MB FIO Cache NOTE: Supports Smart Array P400 Controller and Smart Array P400i Controller only.	405139-B21
512MB Battery-backed cache upgrade NOTE: Supports Smart Array P400 Controller and Smart Array P400i Controller only.	405148-B21
HP Smart Array P600/256 BBWC Controller NOTE: Requires PCI-X Riser option (PN 405154-B21). NOTE: Requires HP SAS 4i to Mini SAS 4i 31 inch/.79 meter cable (PN 411100-B21).	337972-B21
HP Smart Array 6404/512 FIO CNTRLR	452240-B21

Step 3: Choose Additional Factory Integratable Options

Performance Packs

The HP ProLiant DL365 performance pack is necessary to configure a HP ProLiant DL365 Performance Model. HP ProLiant DL365 Performance model includes the latest performance technologies and enterprise class availability features pre-installed for convenience and value. The performance pack includes a 2nd processor, redundant power supplies, Smart Array P400i Controller with 256MB of BBWC, and storage cable to enable the all 6 disk drive bays.

HP DL365 X2218 HPM FIO Perf Pack	432052-B21
HP DL365 X2220 HPM FIO Perf Pack	440812-B21

Step 4: Choose Additional Options for Factory Integration

NOTE: For additional options, please refer to the "Options" section below.

NOTE: Some options may not be factory integratable. Contact your local sales representative for additional information.

HP ProLiant DL365 Unique Options	AMD Opteron™ Processor 2356 (2.3 GHz, 75 Watts) FIO	447600-B21
	AMD Opteron™ Processor 2354 (2.2 GHz, 75 Watts) FIO	447602-B21
	AMD Opteron™ Processor 2352 (2.1 GHz, 75 Watts) FIO	447604-B21
	AMD Opteron™ Processor 2346 HE (1.8 GHz, 55 Watts) FIO	457239-B21
	AMD Opteron™ Processor 2222 (3.0 GHz, 95 Watts)	453043-B21
	AMD Opteron™ Processor 2220 (2.8 GHz, 95 Watts)	439189-B21
	AMD Opteron™ Processor 2218 (2.6 GHz, 95 Watts)	411362-B21
	AMD Opteron™ Processor 2218 HE (2.6 GHz, 68 Watts)	439188-B21
	AMD Opteron™ Processor 2216 (2.4 GHz, 95 Watts,)	411365-B21
	AMD Opteron™ Processor 2216 HE (2.4 GHz, 68 Watts)	419487-B21
	AMD Opteron™ Processor 2214 HE (2.2 GHz, 68 Watts)	411368-B21
	AMD Opteron™ Processor 2210 (1.8 GHz, 95 Watts)	411374-B21
	AMD Opteron™ Processor 2210 HE (1.8 GHz, 68 Watts)	434933-B21
	PCI-X Riser option NOTE: To convert full-length PCI-Express slot to PCI-X slot.	405154-B21

HP Insight Control Environment Management Suite	NOTE: Electronic licensing options are available for Insight Control suites software products. Please see the appropriate Insight Control QuickSpecs for additional information.	
	HP Insight Control Environment	
	HP Insight Control Environment, No Media 1-Server License including 1 year of 24x7 Technical Support and Updates NOTE: This part number can be purchased as a single license or as multiple licenses with a single activation key. Customer will receive a license entitlement certificate via e-mail. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service. Only available directly from HP and select resellers in the Americas region.	452148-B22
	HP Insight Control Management Software Media Kit NOTE: Insight Control Management DVD media without licenses. Contains Insight Manager and Essentials software products and components licensed by Insight Control Management suites. Uses an integrated installer to perform quick and accurate software installation and updates. NOTE: For additional License Kits, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12631_div/12631_div.html	436222-B21
	HP Insight Control Linux Edition	
	HP Insight Control Environment for Linux v2.0, Media pack (CD) - No licenses included NOTE: This optional Media pack CD contains the ISO image for HP Insight Control Environment for Linux, HP System Insight Manager, and an integrated installer. Servers must be acquired separately. This Media pack is optional because the latest ISO image and latest updates may be downloaded at no cost from: http://www.hp.com/go/ice-linux (click on Download button).	464422-B21
	HP Insight Control Environment for Linux v2.0, No Media, 1-Server license, including	464423-B21

One year of 24x7 Technical Support and Updates
NOTE: This part number can be used to purchase one (1) license with a single activation key. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service. One certificate is shipped for each license.
NOTE: For additional License Kits, please see the QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/13019_div/13019_div.html

HP Integrated Lights-Out Power Management Pack

HP iLO Power Management Pack, No Media, 1-Server License, including 1 year of 24x7 Technical Support and Updates — 452145-B21
NOTE: This option kit includes 1 license for iLO Advanced and Insight Power Manager.
NOTE: For additional License Kits, please see the QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/12632_div/12632_div.html

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Server Management Stand Alone Software Product - ProLiant Essentials

NOTE: Electronic licensing options are available for select ProLiant Essentials software products. Please see the appropriate ProLiant Essentials QuickSpecs for additional information.

Deploy

HP ProLiant Essentials Rapid Deployment Pack

HP ProLiant Essentials Rapid Deployment Pack No Media 1-Server License including 1 year of 24x7 Technical Support and Updates — 452151-B21
NOTE: This license allows 1 server to be deployed and managed via RDP. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support Service
NOTE: For additional License Kits, please see the QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/11053_div/11053_div.html

HP Server Migration Pack - Universal Edition

HP Server Migration Pack - Universal Edition, No Media, Physical / Virtual to ProLiant Single Migration License, including 1 year of 24x7 Technical Support and Updates — 460750-B21
NOTE: This license allows 1 physical to ProLiant or virtual to ProLiant migration. Customer will receive a printed license entitlement certificate and documentation via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.

HP Server Migration Pack - Universal Edition, No Media, Physical / Virtual to Virtual Single Migration License, including 1 year of 24x7 Technical Support and Updates — 460753-B21
NOTE: This license allows 1 physical to virtual or virtual to virtual migration. Customer will receive a printed license entitlement certificate and documentation via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.

HP Server Migration Pack - Universal Edition, No Media, 1-Year Unlimited Migration License, including 1 year of 24x7 Technical Support — 460756-B21
NOTE: This license allows unlimited migrations (physical to ProLiant, physical to

virtual, virtual to virtual, and virtual to ProLiant) for one year. Customer will receive a printed license entitlement certificate and documentation via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support Service.

NOTE: For additional License Kits, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12855_div/12855_div.html

Control

HP Integrated Lights-Out Select Pack

HP ProLiant Essentials Integrated Lights-Out Select Pack, No Media, 1-Server License 452158-B21
NOTE: For additional License Kits, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12362_div/12362_div.html

HP Integrated Lights-Out Advanced Pack

HP Integrated Lights-Out Advanced Pack, No Media ,1 Server License 452141-B21
NOTE: For additional License Kits, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/10861_div/10861_div.html

Optimize

HP Accelerated iSCSI Pack

HP ProLiant Essentials Accelerated iSCSI Pack, No Media, Single License 452679-B21
NOTE: For use with a single NIC port. Contains one license with a unique license activation key and documentation.

NOTE: For additional License Kits, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12466_div/12466_div.html

HP Insight Power Manager (IPM)

HP Insight Power Manager, No Media, 1-Server License, including 1 year of 24x7 Technical Support and Updates 452677-B21
NOTE: Customers purchasing this upgrade must already have an iLO Advanced or Select license on each managed server. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.
NOTE: For additional License Kits, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12623_div/12623_div.html

HP ProLiant Essentials Virtual Machine Management Pack

HP ProLiant Essentials Virtual Machine Management Pack, No Media, 1-Server License, including 1 year of 24x7 Technical Support and Updates 452153-B21
NOTE: Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.
NOTE: For additional License Kits, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12328_div/12328_div.html

NOTE: Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to: http://www.hp.com/servers/proliantessentials or the various ProLiant Essentials QuickSpecs for more information.

Options

Processor	AMD Opteron™ Processor 2356 (2.3 GHz, 75 Watts) FIO	447600-B21
	AMD Opteron™ Processor 2354 (2.2 GHz, 75 Watts) FIO	447602-B21
	AMD Opteron™ Processor 2352 (2.1 GHz, 75 Watts) FIO	447604-B21
	AMD Opteron™ Processor 2346 HE (1.8 GHz, 55 Watts) FIO	457239-B21
	AMD Opteron™ Processor 2222 (3.0 GHz, 95 Watts)	453043-B21
	AMD Opteron™ Processor 2220 (2.8 GHz, 95 Watts)	439189-B21
	AMD Opteron™ Processor 2218 (2.6 GHz, 95 Watts)	411362-B21
	AMD Opteron™ Processor 2218 HE (2.6 GHz, 68 Watts)	439188-B21
	AMD Opteron™ Processor 2216 (2.4 GHz, 95 Watts)	411365-B21
	AMD Opteron™ Processor 2216 HE (2.4 GHz, 68 Watts)	419487-B21
	AMD Opteron™ Processor 2214 HE (2.2 GHz, 68W)	411368-B21
	AMD Opteron™ Processor 2210 (1.8 GHz, 95 Watts)	411374-B21
	AMD Opteron™ Processor 2210 HE (1.8 GHz, 68 Watts)	434933-B21
Memory (DIMMs)	1 GB REG PC2-5300 2 x 512 MB Single Rank Kit	408850-B21
	2 GB REG PC2-5300 2 x 1 GB Single Rank Kit	408851-B21
	4 GB REG PC2-5300 2 x 2 GB Dual Rank Kit	408853-B21
	8 GB REG PC2-5300 2 x 4 GB Dual Rank Kit	408854-B21
Optical Drives	Slimline CD-RW/DVD-ROM Combo Option Kit	331903-B21
	Slimline DVD-ROM Drive (8X/24X) Option Kit	264007-B21
	HP DVD±R/RW 8X Slim	383975-B21
	Slimline CD-ROM Drive 24X	356963-B21
Hard Drives	**SAS Enterprise (ENT) Drives 2.5" Drives, Hot Plug**	
	HP 146 GB 3G SAS 10K SFF DP HDD	418367-B21
	HP 146 GB 3G SAS 10K SFF SP HDD	431958-B21
	HP 72 GB 3G SAS 15K SFF DP HDD	418371-B21
	HP 72 GB 3G SAS 15K SFF SP HDD	431935-B21
	HP 72 GB 3G SAS 10K SFF DP HDD	384842-B21
	HP 72 GB 3G SAS 10K SFF SP HDD	375861-B21
	HP 36 GB 3G SAS 15K SFF DP HDD	418369-B21
	HP 36 GB 3G SAS 15K SFF SP HDD	431933-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/12244_div/12244_div.html (Worldwide)	
	SATA Hot Plug Entry (ETY) Drives	
	HP 250GB 3G SATA 5.4K SFF ETY HDD	460355-B21
	HP 120 GB 1.5 G SATA 5.4K SFF ETY HDD	458924-B21

	NOTE: SATA drives have a 1 year warranty. Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13021_div/13021_div.html (Worldwide)	
	SFF SATA Hot Plug	
	HP 120GB 1.5G SATA 5.4K SFF HDD	431786-B21
	NOTE: SATA drives have a 1 year warranty. Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/11940_div/11940_div.html (Worldwide)	
Storage Controllers	SAS Controllers	
	Smart Array E200 Controller	
	128 MB Battery-Backed Write Cache with Battery Housing NOTE: Supports Smart Array E200 Controller.	346914-B21
	Smart Array E500 Controller	
	Smart Array E500/256 MB Controller	435129-B21
	HP Smart Array P400 Controller HP Smart Array P400i Controller	
	HP Smart Array P400/256 MB Controller	405132-B21
	HP Smart Array P400i/256MB Controller	399550-B21
	Battery-backed write cache upgrade NOTE: For Smart Array P400 Controller and Smart Array P400i Controller only.	383280-B21
	512 MB Battery-backed write cache upgrade NOTE: For Smart Array P400 Controller and Smart Array P400i Controller only.	405148-B21
	Smart Array P600 Controller	
	HP Smart Array P600/256 BBWC Controller NOTE: Requires Mixed PCI-E/X riser cage.	337972-B21
	512 MB Battery-Backed Cache Upgrade NOTE: This 512-MB Battery-Backed Cache Module upgrade kit supports the Smart Array P600 Controller and the Smart Array 6400 series Controller.	372538-B21
	Smart Array P800 Controller	
	HP Smart Array P800/512 BBWC Controller	381513-B21
	NOTE: Please see the following Controller QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/12460_div/12460_div.html (Smart Array E200 Controller) http://h18000.www1.hp.com/products/quickspecs/12700_div/12700_div.html (Smart Array E500 Controller) http://h18000.www1.hp.com/products/quickspecs/12400_div/12400_div.html (Smart Array P400 Controller) http://h18000.www1.hp.com/products/quickspecs/12247_div/12247_div.html (Smart Array P600 Controller) http://h18000.www1.hp.com/products/quickspecs/12616_div/12616_div.html (Smart Array P800 Controller)	
	SAS HBA	
	HP SC44Ge Host Bus Adapter	416096-B21

Options

HP 8 Internal Port SAS HBA with RAID NOTE: Supports SAS and SATA disk drive. RAID 0,1 supported. NOTE: Please see the following QuickSpecs for additional information: http://h18004.www1.hp.com/products/quickspecs/12617_div/12617_div.html (SC44Ge HBA) http://h18004.www1.hp.com/products/quickspecs/12332_div/12332_div.html (SAS HBA)	347786-B21
SAS Cables	
HP Mini SAS 4i 13.4 inch/0.35 m cable NOTE: Used to connect Smart Array P400i to DL365 5th and 6th drive bays.	399546-B21
HP SAS 4i to Mini SAS 4i 31 inch/.79 meter cable NOTE: Used to connect SA-P600, SA-P400, SA-E200 Controllers to the HP ProLiant DL360 G5 drive backplane. This kit supports all six drive bays.	411100-B21
SCSI Controllers for External Drive/Storage Support	
Smart Array 6402/128 Controller NOTE: For support of external drives only.	273915-B21
Smart Array 6404/256 Controller NOTE: For support of external drives only.	273914-B21
512 MB Battery-Backed Cache Upgrade NOTE: This 512-MB Battery-Backed Cache Module upgrade kit supports the Smart Array P600 Controller and the Smart Array 6400 series Controller.	372538-B21
64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
SCSI HBA	
HP SC11Xe Host Bus Adapter NOTE: Please see the QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/10429_div/10429_div.html (SCSI Adapter) http://h18000.www1.hp.com/products/quickspecs/11555_div/11555_div.html (U320 Adapter) http://h18000.www.1.hp.com/products/quickspecs/11943_div/11943_div.html (U320 SCSI HBA) http://h18000.www1.hp.com/products/quickspecs/12566_div/12566_div.html (SC11Xe HBA)	412911-B21

Options

Communications	HP NC110T PCI Express Gigabit Server Adapter	434905-B21
	HP NC360T PCI Express Dual Port Gigabit Server Adapter	412648-B21
	HP NC364T PCI Express Quad Port Gigabit Server Adapter	435508-B21
	HP NC373F PCI Express Multifunction Gigabit Server Adapter	394793-B21
	HP NC373T PCI Express Multifunction Gigabit Server Adapter	394791-B21
	HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter NOTE: Supported on a full length-full height slot only.	394795-B21
	HP NC510F PCIe 10 Gigabit Server Adapter NOTE: A minimum of 1 gigabyte (1 GB) of server memory is required per each NC510F adapter.	414126-B21
	HP NC510C PCIe 10 Gigabit Server Adapter NOTE: A minimum of 1 gigabyte (1 GB) of server memory is required per each NC510C adapter.	414129-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: www.hp.com/go/ProLiantNICs	
HPC Specific Options	HP IB 4X SDR PCI-e Single Port HCA	431038-B21
	HP IB 4X DDR PCI-e Single Port HCA	431039-B21
	HP IB 4X DDR Conn-X PCI-e Dual Port HCA	448397-B21
	HP IB 4X DDR PCI-e DUAL PORT 0 mem HCA	483513-B21
Redundant Power Supply	700W HP redundant power supply with IEC cord only	399542-B21
	700W HP redundant power supply with IEC cord and Japan cord (Japan)	399542-291
Tape Drives	NOTE: For the complete listing of Tape Drive offerings, please see: http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html	
	USB Rack-Mount Tape Solutions	
	HP StorageWorks 1U USB Rack-Mount Kit with one DAT 160 USB Tape Drive NOTE: Pre-configured with one DAT 160 USB tape drive.	AG703A
	SAS Rack-Mount Tape Solutions NOTE: HP recommends purchasing the HP SC44Ge HBA (416096-B21) for a dedicated SAS HBA for tape.	
	HP StorageWorks 1U SAS Rack-Mount Kit with one LTO-4 Ultrium 1760 NOTE: Pre-configured with one LTO-4 Ultrium 1760 SAS tape drive.	EH946A
	HP StorageWorks 1U SAS Rack-Mount Kit NOTE: Supports up to (2) half-height SAS tape drives.	AE459A
	HP StorageWorks DAT 160 SAS Internal Tape Drive NOTE: Mounts inside the 1U SAS Rack-Mount Kit (AE459A)	Q1587A
	HP StorageWorks LTO-2 Ultrium 448 SAS Internal Tape Drive NOTE: Mounts inside the 1U SAS Rack-Mount Kit (AE459A)	DW085A
	HP StorageWorks LTO-3 Ultrium 920 SAS Internal Tape Drive NOTE: Mounts inside the 1U SAS Rack-Mount Kit (AE459A)	EH847A

Options

	SCSI Rack-Mount Tape Solutions	
	NOTE: SCSI Controller required. HP recommends purchasing the HP SC11Xe HBA (412911-B21) for a dedicated SCSI HBA for tape.	
	HP StorageWorks 1U SCSI Rack-mount kit with one LTO-2 Ultrium 448 SCSI Tape Drive (Carbonite)	DW028B
	NOTE: Pre-configured with one LTO-2 Ultrium 448 SCSI tape drive.	
	HP StorageWorks 1U SCSI Rack-mount kit with one LTO-3 Ultrium 920	EH903A
	NOTE: Pre-configured with one LTO-3 Ultrium 920 SCSI tape drive.	
	HP StorageWorks 3U SCSI Rack-Mount with 1 LTO-4 Ultrium 1840 Tape Drive	EH926A
	NOTE: Pre-configured with one LTO-4 Ultrium 1840 SCSI tape drive.	
	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	
Disk-Based Backup	RDX Removable Disk Backup	
	HP StorageWorks RDX160 External Removable Disk Backup System	AJ766A
	NOTE: 160GB of Disk Storage.	
	HP StorageWorks RDX320 External Removable Disk Backup System	AJ768A
	NOTE: 320GB of Disk Storage.	
	NOTE: Please see the HP RDX Removable Disk Backup System QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/13036_div/13036_div.html	
	D2D Backup	
	HP StorageWorks D2D120 Backup System with Data Protector Express Software Kit	EH924A
	NOTE: 2TB of Disk Storage.	
	HP StorageWorks D2D130 Backup System with LTO-3 Ultrium 920 SAS Tape Drive	EH952A
	NOTE: 3TB of Disk Storage.	
	HP StorageWorks D2D2503i Backup System	EH945A
	NOTE: 3TB of Disk Storage.	
	HP StorageWorks D2D4004i Backup System	EH938A
	NOTE: 4.5TB of Disk Storage.	
	NOTE: Please see the HP D2D Backup Systems QuickSpecs for additional information: http://www.hp.com/go/d2d	

Options

Tape Autoloaders	**HP StorageWorks DAT Autoloader**	
	HP StorageWorks DAT 72x10 Tape Autoloader	AE313B
	HP StorageWorks 1/8 G2 Tape Autoloader	
	HP StorageWorks 1/8 G2 LTO-4 Ultrium 1760 SAS Tape Autoloader	AK377A
	HP StorageWorks 1/8 G2 LTO-3 Ultrium 920 SAS Autoloader	AH558A
	HP StorageWorks 1/8 G2 LTO-2 Ultrium 448 Tape Autoloader	AH164A
	HP StorageWorks 1/8 G2 Tape Autoloader Rack Kit	AH166A
	NOTE: Required to install the 1/8 G2 Autoloaders in a standard 19-inch rack; includes rails and rackmount instructions.	
	NOTE: Please reference the Tape Autoloader QuickSpecs at: http://www.hp.com/go/automation for additional information needed to create a complete solution.	
Tape Libraries	**HP StorageWorks MSL2024 Tape Library**	
	HP StorageWorks MSL2024 1 LTO-4 Ultrium 1840 SCSI Drive Library	AJ033A
	HP StorageWorks MSL2024 1 LTO-4 Ultrium 1760 SAS Drive Library	AK378A
	HP StorageWorks MSL2024 1 LTO-3 Ultrium 960 SCSI Drive Library	AG115A
	HP StorageWorks MSL2024 1 LTO-3 Ultrium 920 SAS Drive Library	AH559A
	HP StorageWorks MSL2024 1 LTO-2 Ultrium 448 SCSI Drive Library	AG116A
	HP StorageWorks MSL4048 Tape Library	
	HP StorageWorks MSL4048 1 LTO-4 Ultrium 1840 SCSI Drive Library	AJ035A
	HP StorageWorks MSL4048 2 LTO-4 Ultrium 1760 SAS Drive Library	AK380A
	HP StorageWorks MSL4048 1 LTO-3 Ultrium 960 SCSI Drive Library	AG322A
	HP StorageWorks MSL4048 1 LTO-3 Ultrium 920 SAS Drive Library	AH560A
	HP StorageWorks MSL4048 1 LTO-2 Ultrium 448 SCSI Drive Library	AG320A
	NOTE: Please reference the MSL Tape Library 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.	
Power Cords	NOTE: The HP ProLiant DL365 ships with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs).	
	Nema 5-15P to IEC320-C13	AF556A

Options

StorageWorks Options	StorageWorks Fibre Channel HBA	
	NOTE: For the complete listing of Fibre Channel Host Bus Adapters for Windows 2000, Windows Server 2003 and Linux, please see: http://h18006.www1.hp.com/storage/saninfrastructure/hba.html	
	HP StorageWorks FC2142SR 4Gb PCI-e HBA	A8002A
	HP StorageWorks FC2242SR Dual Channel 4 Gb PCI-e HBA	A8003A
	HP StorageWorks FC1142SR 4Gb PCI-e HBA	AE311A
	HP StorageWorks FC1242SR Dual Channel 4 Gb PCI-e HBA	AE312A
	HP StorageWorks FC2143 4Gb PCI-X 2.0 -to-Fibre Channel HBA	AD167A
	HP StorageWorks FC2243 Dual Channel 4Gb PCI-X 2.0 HBA	AD168A
	HP StorageWorks FC1143 4Gb PCI-X 2.0 HBA	AB429A
	HP StorageWorks FC1243 Dual Channel 4Gb PCI-X 2.0 HBA	AE369A
	HP StorageWorks 81Q PCI-e FC HBA	AK344A
	HP StorageWorks 8Gb Simple SAN Connection Kit	AK241A
	StorageWorks SCSI HBA	
	HP U320e SCSI Host Bus Adapter	AH627A
	NOTE: Recommended Dual Channel Ultra320 SCSI Controller for connecting multi-drive MSL tape libraries to ProLiant servers.	
HP StorageWorks 20 Modular Smart Array	HP StorageWorks Modular Smart Array 20	335921-B21
	NOTE: Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies.	
	HP StorageWorks Modular Smart Array 20 Starter Kit	366172-B21
	NOTE: Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies. Includes Smart Array 6402/128 Controller.	
	NOTE: Please see the Modular Smart Array 20 QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at: http://h18000.www1.hp.com/products/quickspecs/11942_div/11942_div.html (Worldwide)	
HP StorageWorks 30 Modular Smart Array	HP StorageWorks Modular Smart Array 30 SB	302969-B21
	NOTE: Rack-mountable 14 drive enclosure with single bus, redundant power supplies	
	HP StorageWorks Modular Smart Array 30 DB	302970-B21
	NOTE: Rack-mountable 14 drive enclosure with dual bus, redundant power supplies	
	NOTE: Please see the Modular Smart Array 30 QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at: http://h18000.www1.hp.com/products/quickspecs/11738_div/11738_div.html (Worldwide)	

Options

HP StorageWorks 50 Modular Smart Array	HP StorageWorks 50 Modular Smart Array	364430-B21
	NOTE: Please see the Modular Smart Array 50 QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at: http://h18000.www1.hp.com/products/quickspecs/12245_div/12245_div.html (Worldwide)	
High Availability Cluster Options	HP Serviceguard for Linux	
	HP Serviceguard Linux for HP ProLiant/x86 Servers Licensed per physical server Includes media and One Year 24x7 Software Support & Updates	463831-B21
	HP Serviceguard Linux Oracle Database Toolkit for HP ProLiant/x86 Servers Licensed per cluster Includes media and One Year 24x7 Software Support & Updates	463833-B21
	HP Serviceguard Extension for SAP on Linux for HP ProLiant/x86 Servers Licensed per physical server Includes media and One Year 24x7 Software Support & Updates	463834-B21
	HP Serviceguard Linux Extended Distance Cluster (XDC) for HP ProLiant/x86 Servers Licensed per physical server Includes media and One Year 24x7 Software Support & Updates	463835-B21
	NOTE: For a detailed list of supported configuration/certification options for HP Serviceguard for Linux please refer to the HP Serviceguard for Linux Certification Matrix at: http://www.hp.com/go/sglx/info NOTE: HP Serviceguard for Linux products running on x86 platforms now include one year of 24 x 7 Software Technical Support and Updates. Please see the Support Information section of the HP Serviceguard for Linux QuickSpecs for details. NOTE: For additional information including a complete list of Product Numbers for HP Serviceguard for Linux, please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11518_div/11518_div.html (Worldwide)	
Uninterruptible Power Systems – Rack Mountable	HP R1500 G2 UPS	
	HP, R1.5kVA UPS,1U, NA	AF419A
	HP, R1.5kVA UPS,1U, INTL	AF418A
	HP, R1.5kVA UPS,1U,JPN/TW	AF421A
	NOTE: Please see UPS QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/12507_div/12507_div.html (Worldwide)	
	HP R3000 UPS	
	HP R3000 VA UPS, 2U, DTC, INTL	AF414A
	HP R3000 VA UPS, 2U, L5-30, NA	AF422A
	HP R3000 VA UPS, 2U, L6-20, NA	AF423A
	HP R3000 VA UPS, 2U, L6-20, JPN	AF424A
	HP R3000 VA UPS, 2U, L5-30, JPN	AF425A
	NOTE: Please see UPS QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/10671_div/10671_div.html (Worldwide)	

Options

	HP R3000v Uninterruptible Power System	
	HP R3000v UPS	AF444A
	NOTE: Please see UPS QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/13129_div/13129_div.html (Worldwide)	
	HP Rack-Mountable R5500 UPS	
	HP R5500 VA UPS, INTL	AF416A
	HP R5500 VA UPS, NA/JPN	AF426A
	NOTE: Please see UPS QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/11871_div/11871_div.html (Worldwide)	
HP Monitored Power Distribution Unit (PDU)	**HP Monitored Power Distribution Unit: Full Rack Version**	
	HP 17.3 kVA S2324 Monitored PDU- dual input, 3Ø24A (NA/JPN)	AF503A
	HP 8.6 kVA S1324 Monitored PDU- single input, 3Ø, 24A (NA/JPN)	AF504A
	HP 16.6 kVA S2140 Monitored PDU- dual input, 1Ø, 40A (NA/JPN)	AF505A
	HP 8.3 S1140 Monitored PDU- single input, 1Ø, 40A (NA/JPN)	AF506A
	HP 22.1 kVA S2316 Monitored PDU- dual input, 3Ø, 16A (INTL)	AF507A
	HP 11 kVA S1316 Monitored PDU- single input, 3Ø, 16A (INTL)	AF508A
	HP 14.7 kVA S2132 Monitored PDU- dual input, 1Ø, 32A (INTL)	AF509A
	HP 7.3 kVA S1132 Monitored PDU- single input, 1Ø, 32A (INTL)	AF510A
	HP 4.9 kVA S124 Monitored PDU- single input, 1Ø, 24A (NA/JPN)	AF914A
	HP 7.3 kVA S132 Monitored PDU- single input, 1Ø, 32A (INTL)	AF915A
Modular PDUs 1U/0U (Up to 32 outlets) NOTE: 1U/0U mounting brackets shipped with the unit (optimized for 10000 and 9000 series racks).	Fixed Cord Extension Bars for 1U servers (2 PDU sticks per kit)	351655-B21
	3.6kVA Model - mPDU, 16A, High (WW)	252663-B24
	2.8 kVA Model - mPDU, 24A, Low (NA/JPN)	252663-D71
	4.9kVA Model - mPDU, 24A, High (NA/JPN)	252663-D72
	7.3kVA Model - mPDU, 32A, High (INT'L)	252663-B31
	8.3kVA Model - mPDU, 40A, High (WW)	252663-B21
	8.3kVA Model - mPDU, 40A, High (power cord attached) (NA/JPN)	252663-D73
	9.2kVA Model - mPDU, 40A, High (power cord attached) (INTL)	252663-B32
	8.3kVA Model - mPDU 40A, High (core only) (NA/JPN)	252663-D75
	9.2kVA Model - mPDU 40 A, High (core only) (Int'l)	252663-B34
	8.3kVA Model - mPDU 32A, High (core only) (Int'l)	252663-B33
	4.9kVA Model - mPDU 24A, High (core only) (NA/JPN)	252663-D74
	NOTE: For additional information on HP Power Distribution Units including accessories please go to: www.hp.com/go/pdu (Worldwide)	

Options

USB Options	HP USB 2-Button Optical Scroll Mouse (Carbonite/Silver)	DC172B
	USB 1.44-MB External Diskette Drive (Carbonite)	DC141B
	HP USB 04 Standard Keyboard	DT528A#ABA
	HP 1GB USB 2.0 Floppy Drive Key	442085-B21
	HP 256MB USB 2.0 Floppy Drive Key	442084-B21
Rack Kits	1U Cable Management Arm NOTE: Package contains two cable management arms.	365403-B21
HP Rack 5000 Series (Graphite Metallic)	HP 5642 Rack Unassembled NOTE: Please see the HP Rack 5642 QuickSpecs for additional part numbers and Technical Specifications such as height, width, depth, weight, and color: http://h18000.www1.hp.com/products/quickspecs/12074_div/12074_div.html (Worldwide) NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://www.hp.com/go/rackandpower.	358254-B21
HP Rack 10000 G2 Series (Carbon/Graphite Metallic)	10642 G2 (42U) Rack Cabinet - Pallet	AF001A
	10642 G2 (42U) Rack Cabinet - Shock Pallet	AF002A
	10642 G2 (42U) Rack Cabinet - Crated	AF003A
	10642 G2 (42U) Rack Cabinet, with Extension - Shock Pallet	AF004A
	10636 G2 (36U) Rack Cabinet - Pallet	AF011A
	10636 G2 (36U) Rack Cabinet - Shock Pallet	AF012A
	10636 G2 (36U) Rack Cabinet - Crated	AF013A
	10636 G2 (36U) Rack Cabinet, with Extension - Shock Pallet	AF014A
	10622 G2 (22U) Rack Cabinet - Pallet	AF021A
	10622 G2 (22U) Rack Cabinet - Shock Pallet	AF022A
	10842 G2 (42U) 800mm Wide Rack Cabinet - Pallet	AF041A
	10842 G2 (42U) 800mm Wide Rack Cabinet - Shock Pallet	AF042A
	10647 G2 (47U) Rack Cabinet - Pallet NOTE: It is mandatory to use a shock pallet when shipping racks with equipment installed. NOTE: Please see the Rack 10000 G2 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color: http://h18000.www1.hp.com/products/quickspecs/12402_div/12402_div.html (Worldwide) NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://www.hp.com/go/rackandpower.	AF031A

Options

HP Rack 10000 Series (Graphite Metallic)	HP Rack S10614 (14U) Rack Cabinet – Shock Pallet NOTE: xxxxxx-B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels). NOTE: It is mandatory to use a shock pallet in order to ship racks with equipment installed. Not all HP equipment is qualified to be shipped in the Rack 10000 series 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 Cabinets, please see the following URL: http://www.hp.com/go/rackandpower	292302-B22

Keyboards and Monitors	TFT7600 Rackmount Keyboard Monitor US	AG052A
	TFT7600 Rackmount Keyboard Monitor UK	AG053A
	TFT7600 Rackmount Keyboard Monitor GR	AG054A
	TFT7600 Rackmount Keyboard Monitor FR	AG055A
	TFT7600 Rackmount Keyboard Monitor IT	AG056A
	TFT7600 Rackmount Keyboard Monitor SP	AG057A
	TFT7600 Rackmount Keyboard Monitor DEN	AG058A
	TFT7600 Rackmount Keyboard Monitor NOR	AG059A
	TFT7600 Rackmount Keyboard Monitor SE/FI	AG060A
	TFT7600 Rackmount Keyboard Monitor SWI	AG061A
	TFT7600 Rackmount Keyboard Monitor PORT	AG062A
	TFT7600 Rackmount Keyboard Monitor BEL	AG063A
	TFT7600 Rackmount Keyboard Monitor JPN2	AG064A
	TFT7600 Rackmount Keyboard Monitor RUS	AG065A
	TFT7600 Rackmount Keyboard Monitor INTL	AG066A
	1U Rackmount Keyboard with USB, US	AG072A
	1U Rackmount Keyboard with USB, UK	AG073A
	1U Rackmount Keyboard with USB, GR	AG074A
	1U Rackmount Keyboard with USB, FR	AG075A
	1U Rackmount Keyboard with USB, ITL	AG076A
	1U Rackmount Keyboard with USB, SP	AG077A
	1U Rackmount Keyboard with USB, DEN	AG078A
	1U Rackmount Keyboard with USB, NOR	AG079A
	1U Rackmount Keyboard with USB, SE/FI	AG080A
	1U Rackmount Keyboard with USB, SWI	AG081A
	1U Rackmount Keyboard with USB, PORT	AG082A
	1U Rackmount Keyboard with USB, BEL	AG083A
	1U Rackmount Keyboard with USB, JPN2	AG084A
	1U Rackmount Keyboard with USB, RUS	AG085A
	1U Rackmount Keyboard with USB, INTL	AG086A

Options

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

HP KVM Switch Options	2x1x16 IP Console Switch with Virtual Media	AF601A
	4x1x16 IP Console Switch with Virtual Media	AF602A
	2x16 Server Console Switch with Virtual Media	AF600A
	PS/2 Virtual Media Interface Adapter, 1 pack NOTE: Requires PS/2 and one USB port on server.	AF604A
	Server Console Switch (KVM), 0 x 1 x 8 port	336044-B21
	Server Console Switch (KVM), 0 x 2 x 16 port	336045-B21
	PS/2 Interface Adapter, 1 pack	262588-B21
	PS/2 Interface Adapter, 8 pack	262587-B21
	NOTE: Cat5e cables are required to connect Interface Adapters to Console Switches. Cat5e cables can be found at the following URL: http://www.hp.com/go/kvm.	
	HP 1x4 Console Switch (ALL)	AF611A
	PS2 Server Console Cable, 6 ft, 2 pack	AF612A
	USB Server Console Cable, 6 ft, 2 pack	AF613A
	NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/kvm.	

HP Serial Console Server Options	HP 16 Port Serial Console Server (worldwide)	AF101A
	HP 48 Port Serial Console Server (worldwide)	AF102A
	Serial Adapter, RJ45-DB9 DCE Female, 1 Pack	AF103A
	Serial Adapter, RJ45-DB9 DCE Female, 8 Pack	AF110A
	NOTE: Cat5e cables are required to connect Serial Adapters to Serial Console Servers. Additional Serial Adapters and Cat5e cables can be found at the following URL: http://www.hp.com/go/kvm.	
	NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/kvm.	

Options

Service and Support Offerings (HP Care Pack Services)	**Hardware Services 4-Hour On-site Service**	
	4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic	U4496E
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4497E
	Hardware Services 6-Hour Call to Repair On-site Service	
	6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4498E
	Hardware Services Next Business Day On-Site Service	
	Hardware Installation, Electronic	U4506E
	Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays, Electronic	U4507E
	Support Plus	
	Onsite HW support, 8am-9pm, M-F, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays, Electronic	U4508E
	Support Plus 24	
	Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U4509E
	Onsite HW support 24x7, 4hr response and SuSE Linux SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U6310E
	Onsite HW support 24x7, 4hr response and Red Hat ES Linux SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U8332E
	NOTE: For more information, customer/resellers can contact: http://www.hp.com/services/carepack.	

NOTE: Memory configurations listed do not apply to "Factory Integrated Models".

HP ProLiant DL365 Entry and Base Models

Standard Memory

1 GB PC2-5300 DDR2 DIMMs (667 MHz) installed (2 x 512 MB)

Upgrading Memory and Memory Interleaving

DIMMs must be installed in identical pairs. Bank interleaving is automatically enabled on a processor node under the following conditions:

1) Four single ranked DIMMs populated per node (4x512 MB or 4x1 GB for example) yields 2-way bank interleaving.
2) Two dual ranked DIMMs populated per node (2x2 GB or 2x4 GB for example) yields 2-way bank interleaving.
3) Four dual ranked DIMMs populated per node (4x2 GB or 4x4 GB for example) yields 4-way bank interleaving.

If single and dual ranked DIMMs are mixed on the same node, bank interleaving will not be enabled.
Node interleaving can be configured via RBSU if both processors have the same memory footprint and is independent of bank interleaving.

Standard Memory Plus Optional Memory

Up to 13 GB memory is available with the standard memory of 1 GB and the optional installation of PC2-5300 DDR2 DIMMs (667 MHz) memory kits. - 6 slots would be available, and potentially could be filled with 4 GB DIMM's - total of 25 GB is available using the standard config

Standard Memory Replaced with Optional Memory

Up to 32 GB of memory is available with the removal of the standard 512 MB of memory and the optional installation of PC2-5300 DDR2 DIMMs (667 MHz) memory kits.

NOTE: DIMM banks are active only when the corresponding processor socket is populated.
NOTE: Chart does not represent all possible configurations.

Memory		Slot							
		1	2	3	4	5	6	7	8
Standard	1 GB	512 MB	512 MB	Empty	Empty	Empty	Empty	Empty	Empty
Optional	25 GB	512 MB	512 MB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB
Maximum	32 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB

Following are memory options available from HP:

1 GB REG PC2-5300 2 x 512 MB Single Rank Kit	408850-B21
2 GB REG PC2-5300 2 x 1 GB Single Rank Kit	408851-B21
4 GB REG PC2-5300 2 x 2 GB Dual Rank Kit	408853-B21
8 GB REG PC2-5300 2 x 4 GB Dual Rank Kit	408854-B21

Memory

HP ProLiant DL365 Performance Models

Standard Memory

2 GB PC2-5300 DDR2 DIMMs (667 MHz) installed (4 x 512 MB)

Upgrading Memory and Memory Interleaving

DIMMs must be installed in identical pairs. Bank interleaving is automatically enabled on a processor node under the following conditions:

1) Four single ranked DIMMs populated per node (4x512 MB or 4x1 GB for example) yields 2-way bank interleaving.
2) Two dual ranked DIMMs populated per node (2x2 GB or 2x4 GB for example) yields 2-way bank interleaving.
3) Four dual ranked DIMMs populated per node (4x2 GB or 4x4 GB for example) yields 4-way bank interleaving.

If single and dual ranked DIMMs are mixed on the same node, bank interleaving will not be enabled.
Node interleaving can be configured via RBSU if both processors have the same memory footprint and is independent of bank interleaving.

Standard Memory Plus Optional Memory

Up to 18 GB memory is available with the standard memory of 2 GB and the optional installation PC2-5300 DDR2 DIMMs (667 MHz) memory kits. -6 slots available (4x6 = 24). Total of 26 GB of memory available

Standard Memory Replaced with Optional Memory

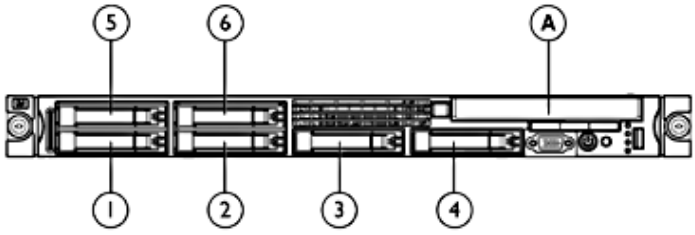
Up to 32 GB of memory is available with the removal of the standard 1 GB of memory and the optional installation of PC2-5300 DDR2 DIMMs (667 MHz) memory kits.

NOTE: Chart does not represent all possible configurations.

Memory		Slot							
		1	2	3	4	5	6	7	8
Standard	2 GB	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Optional	18 GB	512 MB	512 MB	512 MB	512 MB	4 GB	4 GB	4 GB	4 GB
Maximum	32 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB

Following are memory options available from HP:

1 GB REG PC2-5300 2 x 512 MB Single Rank Kit	408850-B21
2 GB REG PC2-5300 2 x 1 GB Single Rank Kit	408851-B21
4 GB REG PC2-5300 2 x 2 GB Dual Rank Kit	408853-B21
8 GB REG PC2-5300 2 x 4 GB Dual Rank Kit	408854-B21



1-6 6 x SFF Hot Pluggable Hard Drive Bays

A Slimline Bay: Optional optical drive

Drive Support

	Quantity Supported	Position Supported	Controller
Removable Media			
Slimline DVD-Rom Drive (8x/24x) Option Kit (Servers)	Up to 1	A	
Slimline DVD/CD-RW Combo Option Kit	Up to 1	A	Integrated IDE
Slimline DVD-RW Drive (8X) Option Kit	Up to 1	A	

Hard Drives

SAS Hard Drive

	Quantity Supported	Position Supported	Controller
146GB 3 G SAS 10K SP 146GB 3 G SAS 10K DP 72GB 3 G SAS 10K SP 72GB 3 G SAS 10K DP 72GB 3 G SAS 15K SP 72GB 3 G SAS 15K DP 36GB 3 G SAS 15K SP 36GB 3 G SAS 15K DP	6	1-6	HP Smart Array E200i/64 MB Controller HP Smart Array P400i/256 MB Controller HP Smart Array P400/512 MB BBWC Controller HP Smart Array P600/256 BBWC Controller HP Smart Array P800/512 BBWC Controller Please see NOTES below regarding hard drive quantity supported by Smart Array Controller.

SATA SFF Hot Plug Entry (ETY) Drives

	Quantity Supported	Position Supported	Controller
250GB 3G SATA 5.4K 120GB 1.5G SATA 5.4K	6	1-6	HP Smart Array E200i/64 MB Controller HP Smart Array P400i/256 MB Controller HP Smart Array P400/512 MB BBWC Controller HP Smart Array P600/256 BBWC Controller HP Smart Array P800/512 BBWC Controller Please see NOTES below regarding hard drive quantity supported by Smart Array Controller.

SFF SATA Hot Plug

	Quantity Supported	Position Supported	Controller
120GB 1.5G 5.4K	6	1-6	HP Smart Array E200i/64 MB Controller HP Smart Array P400i/256 MB Controller HP Smart Array P400/512 MB BBWC Controller HP Smart Array P600/256 BBWC Controller HP Smart Array P800/512 BBWC Controller Please see NOTES below regarding hard drive quantity supported by Smart Array Controller.

NOTE: The Smart Array E200i Controller can support a maximum of 4 hard drives.
NOTE: The Smart Array P400i Controller can support a maximum of 6 hard drives. To support drives 5 and 6, the optional HP Mini SAS 4i 13.4 inch/0.35 m cable is required (PN 399546-B21).
NOTE: The Smart Array P600 Controller requires HP SAS 4i to Mini SAS 4i 31 inch/.79 meter cable (PN 411100-B21).

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
20 Modular Smart Array	Please see the QuickSpecs to determine configuration requirements	External	Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 642 Controller
30 Modular Smart Array	Please see the QuickSpecs to determine configuration requirements.	External	Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 642 Controller
50 Modular Smart Array	2	External	HP Smart Array P600/256 BBWC Controller

Tape and Disk-Based Backup

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/division/10233.html (Worldwide)

NOTE: For an up-to-date listing of the latest O/S Support details for each of the Tape Autoloaders and Tape Libraries listed below, please see the following:
http://h18000.www1.hp.com/products/quickspecs/division/10809.html (Worldwide)

NOTE: For complete listing of tape drive offerings see:
http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html

NOTE: SAS Tape Drives: Connecting hard drive cage and SAS tape to the same SAS Controller using split cable (supplied with tape drive) deactivates 1 of the hard drive bays. Actual hard drive bay deactivated depends on where split cable plugs into SAS drive connector. Example: 3x SAS cable connector plugged into SAS drive connector (5-8) on the back of the hard drive cage would mean drive bay 8 is deactivated.

Storage

	Position Supported	Controller	Controller Part Number
HP StorageWorks SCSI Tape Drives, External LTO-1 Ultrium 232 LTO-2 Ultrium 448 LTO-2 Ultrium 460 LTO-3 Ultrium 960 LTO-3 Ultrium 920 LTO-4 Ultrium 1760 LTO-4 Ultrium 1840 DAT 40 DAT 72 DAT 160 1U Rack-Mount Kit 3U Rack-Mount Kit	External	HP SC11Xe Host Bus Adapter	412911-B21
HP StorageWorks USB Tape Drives, External DAT 40 USB DAT 72 USB DAT 160 USB 1U Rack-Mount Kit	External	USB 2.0 Port	N/A
HP StorageWorks SAS Tape Drives, External DAT 160 SAS LTO-2 Ultrium 448 SAS LTO-3 Ultrium 920 SAS LTO-4 Ultrium 1840 SAS 1U Rack-Mount Kit 3U Rack-Mount Kit	External	HP SC44Ge Host Bus Adapter	416096-B21
HP StorageWorks SCSI Tape Automation, External DAT 72x10 Autoloader 1/8 G2 Autoloader MSL2024 MSL4048 MSL8096 MSL6000	External	HP SC11Xe Host Bus Adapter HP U320e SCSI Host Bus Adapter NOTE: Recommended for MSL tape libraries.	412911-B21 AH627A
HP StorageWorks SAS Tape Automation, External 1/8 G2 Autoloader MSL2024 MSL4048	External	HP SC44Ge Host Bus Adapter NOTE: Please visit http://www.hp.com/go/connect for details about minimum SAS controller firmware version and SAS cabling requirements.	416096-B21

Storage

HP StorageWorks Fibre Tape Automation, External MSL2024 MSL4048 MSL8096 MSL6000	External	Please consult the EBS connectivity matrix at: http://www.hp.com/go/ebs for detailed connectivity information.	N/A
HP StorageWorks RDX Removable Disk Backup System, External RDX160 RDX320	External	USB 2.0 Port	N/A
HP StorageWorks D2D Backup Systems D2D120 D2D130 D2D2503i D2D4004i	External	Embedded Network Controller	N/A

Power Specifications

To review typical system power ratings use the Active Answers Power Calculator which is available via the online tool located at URL:
http://h30099.www3.hp.com/configurator/calc/Power%20Calculator%20Catalog.xls

To drill down to calculators:
- Click on: "ProLiant Servers"
- Click on the Server of interest. Example: DL365
- Click on: "Power Calculator" link. (You may need to scroll down to see it)

System Unit	**Dimensions** (H x W x D)	1.70 x 16.78 x 27.75 in (4.32 x 42.62 x 70.49 cm)	
	Weight	Maximum (six hard drives installed, two power supply, two processor)	37 lb (16.78 kg)
		No hard drives installed, one power supply, one processor	27.5 lb (12.47 kg)
	Input Requirements	Rated Input Voltage	100 to 240 VAC
		Rated Input Current	7.1 Amps (at 120VAC) to 3.5 Amps (240 at VAC)
		Rated Input Frequency	50 to 60 Hz
		Rated Input Power	852 W
	BTU Rating	2910 BTU/HR (at 120 VAC); 2870 (at 240 VAC) NOTE: The BTU rating listed is for the Rated Input Power of 585 W.	
	Power Specifications	To review typical system power ratings use the Power Calculator which is available via the online tool located at URL: http://h30099.www3.hp.com/configurator/calc/Power%20Calculator%20Catalog.xls To drill down to calculators: - Click on: "ProLiant Servers" - Click on the Server of interest. Example: DL365 - Click on: "Power Calculator" link. (You may need to scroll down to see it)	
	Power Supply Output Power (per power supply)	Rated Steady-State Power	700 W
	System Inlet Temperature	Operating	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
		Storage	-30° to 60°C - Maximum rate of change is 20°C/Hr.
	Humidity (non-condensing)	Operating	10 to 90% relative humidity (Rh), 28°C maximum wet bulb temperature
		Storage	5 to 95% relative humidity (Rh), 38.7°C maximum wet bulb temperature.
	Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).	

		Idle:	
		L_{WAd} (BELS)	6.4
		L_{pAm} (dBA)	49
		Operating:	
		L_{WAd} (BELS)	6.4 BELS
		L_{pAm} (dBA)	49 dBA
	Emissions Classification (EMC)	FCC Rating	Class A
		Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1
		NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.	

Smart Array E200i Controller	Disk Drive and Enclosure Interface	3G SAS (Serial Attached SCSI) 1.5G SATA (Serial Advanced Technology Attachment)
	SAS Connectors	2 internal (SFF8484) x4 wide port connectors
	Cache Memory Speed	DDR-1/266 MHz provides up to 4.2 GB/s maximum bandwidth.
	Server Interface	x4 2.5G PCIe provides 2GB/s maximum bandwidth.
	SAS Speed	x8 3G SAS provides 2.4GB/s maximum bandwidth.
	Cache Memory	40-bit 64MB or 128MB cache: ECC protection, battery-backed, and transportable
	Logical Volumes Supported	Up to 32 logical volumes
	Maximum Volume Capacity	3TB (6 x 500GB)
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space
	RAID Support	RAID 5 (Distributed Data Guarding) requires 128MB BBWC option RAID 1+0 (Striping & Mirroring) RAID 0 (Striping)
	Upgradeable Firmware	Upgradeable Firmware

Technical Specifications

Smart Array P400i Controller	Disk Drive and Enclosure Interface	3G SAS (Serial Attached SCSI) 1.5G SATA (Serial Advanced Technology Attachment)	
	SAS Connectors	2 internal (SFF8484) x4 wide port connectors	
	Cache Memory Speed	DDR2-533MHz with 40 or 72-bit wide bus provides up to 4.2 GB/s maximum bandwidth.	
	Server Interface	x8 2.5G PCIe provides 2GB/s maximum bandwidth.	
	SAS Speed	x8 3G SAS provides 2.4GB/s maximum bandwidth.	
	Cache Memory	40-bit 256MB cache (72-bit 512MB module upgrades available); ECC protection, battery-backed, and transportable	
	Logical Drives Supported	Up to 32 logical drives	
	Maximum Logical Drive Capacity	3 TB (6 x 500GB)	
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space	
	RAID Support	RAID 6 with ADG (Advanced Data Guarding) requires Battery Backed Write Cache Upgrade RAID 5 (Distributed Data Guarding) RAID 1+0 (Striping & Mirroring) RAID 0 (Striping)	
	Upgradeable Firmware	Upgradeable Firmware with recovery ROM feature	
Two Embedded NC373i Multifunction Gigabit Server Adapters	Network Interface	10/100/1000-T	
	Compatibility	EEE 802.3 10Base-T IEEE 802.3ab 1000Base-T IEEE 802.3u 100Base-TX	
	Data Transfer Method	PCI Express, four lanes (x4)	
	Network Transfer Rate	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
	Connector	RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP up to 328 ft (100 m)
		10/100/1000 Base-TX	Category 5 UTP up to 328 ft (100 m)

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less.