

With Quad-core and Dual-core Intel Xeon processors, concentrated 1U compute power, Integrated Lights-Out management and improved fault tolerance, the HP ProLiant DL360 G5 Server is ideal for space-constrained installations.

You expect high performance from your business servers but you also want them to be flexible, ultra-reliable, and easy to deploy and manage. And often, they need to do all this while packed together in tight, constrained spaces.

Combining concentrated 1U compute power, robust remote management and essential fault tolerance, the ProLiant DL360 is enhanced for such installations. Quad-core and Dual-core Intel® Xeon® processors, DDR2 fully buffered DIMMs, 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, it steps up fault tolerance in an ultra-dense platform with redundant power, redundant fans, mirrored memory or online spare memory, embedded RAID capability, and full-featured remote Lights-Out management.

The powerful HP ProLiant DL360 G5 introduces an unprecedented number of technology enhancements. Now available with Intel Xeon processor 5300/5100/5000 series and large memory capacity, it combines powerful processing power with advanced management capability for a complete ultra-dense server platform.

# Key features and benefits

The ProLiant DL360 Server delivers a balanced system architecture that takes full advantage of quad-core and dual-core Intel Xeon processors and provides the power necessary for your compute infrastructure, critical applications, and virtual server environments. In addition, it lowers the datacenter power and cooling requirement with power-efficient processors, disk drives, and HP Power Regulator technology. This well-balanced architecture brings more performance per U and increased performance per watt for diverse computing environments.

- Up to two Intel Xeon processor 5300/5100 series with Intel VT technology to improve performance in a virtual environment.
- Up to 32 GB of 667 MHz DDR2 Fully-buffered DIMMs; with 4:1 interleaving, mirrored memory and online spare capability
- Two PCI Express x8 expansion slots standard, optional PCI-X
- HP Smart Array P400i controller with 256 MB read cache; or Smart Array E200i controller with 64 MB read cache. Both controllers are upgradeable to write cache capabilities and larger cache sizes.

Companies around the world build their server infrastructures on HP ProLiant servers and management software—for total control, increased flexibility and tangible savings.

#### Improved fault tolerance

Engineering excellence provides unsurpassed reliability in a 1U form factor. The ProLiant DL360 offers redundant fans and optional redundant power supplies to meet demanding availability requirements of corporate datacenters. Memory protection, optional transportable battery-backed write cache, advanced RAID levels and ProLiant reliability facilitate more effective server uptime.

- Fan redundancy standard—Allows for continued operation until maintenance can be scheduled to replace a failed fan assembly.
- Hot plug power supply with optional redundancy— Hot plug redundancy means no downtime to repair failure; each power supply has its own power cord so redundant power to the rack can be supported.
- Smart Array RAID controller—Transportable batterybacked write cache improves disk performance and can be moved to another server to recover data stored in the cache in the event of a system failure. Optional RAID 6 offers protection from multiple disk failures.
- Advanced ECC memory—Four-bit memory errors that occur within a single DRAM chip on the DIMM are corrected.
- Mirrored and online spare memory—Mirrored memory is protection against uncorrectable memory errors without degrading performance of the memory system. Online spare offers a failover bank which is brought online when single bit errors reach a critical threshold.

### Deployment versatility in a 1U form factor

Loads of embedded functionality and expansion for a 1U server make this the most flexible ultra-dense server available. The embedded Lights-Out technology provides dependable remote console and control plus an optional graphical remote console and virtual media functionality. High performance Smart Array and NIC improve I/O performance. Two PCI Express slots and six SAS drive bays provide expanded configuration and deployment options.

- Two expansion slots—Two PCI Express slots allow for configuration options, such as redundant HBAs or NICs for additional levels of uptime.
- Choice of Smart Array RAID controllers—Choose either the Smart Array P400i controller for performance and six disk drive support or the Smart Array E200i controller for value. Each controller uses a dedicated slot to keep the PCI Express slots open for other uses.
- Six serial SCSI drive bays—Enterprise-ready small form factor serial SCSI drives offer improved drive reliability, increased performance and lower power.
- Integrated Lights-Out management—High-speed remote graphical management reduces the need to be physically present to address unexpected server issues.
- Embedded multifunction gigabit network adapters with TCP/IP offload engine—Embedded NICs support TCP/IP, iSCSI, Wake On LAN (WOL) and PXE for additional management functionality.
- **System insight display**—A rugged slide-out system diagnostics display saves administrators time with easy-to-find troubleshooting information at the front of the server.
- Lower power processors, disk drives and HP power regulator technology—Get more performance per U and greater performance per watt.

#### Delivering trusted server infrastructure

Companies around the world build their server infrastructures on HP ProLiant servers and management software. We deliver trusted server management through Systems Insight Manager and SmartStart, which ship with every ProLiant server and ProLiant Essentials software. Advanced tools to further enhance IT staff efficiency and server availability are also available. 

5110: 1.60 GHz, 1066 FSB     NOTE: Intel Xeon Processor 5100 series is 64-bit, Dual-Core, 4 MB L2 cache, and supports Intel VT technology.     Processor cores   Quad and dual     Number of processors   1-2     Cache   8 MB L2 (2 x 4 MB) (5300 series) or 4 MB L2 (1 x 4 MB) (5100 series)     Memory type   PC2-5300 fully buffered DIMMs (DDR2-667)     Standard/maximum memory   1 GB/32 GB     Advanced memory protection   Advanced ECC mirrored memory online spare     Number of disk drives   Up to 6     Maximum internal storage   6 hot plug SFF SAS 876 GB (6 x 146 GB); or 6 hot plug SFF SATA 720 GB (6 x 120 GB)     Removable media bays   1 (DVD/CD-RW, DVD, CD and floppy drives supported)     Storage controller   Smart Array P400i controller* with 256 MB cache (RAID 0, 1, 5); optional battery upgrade enables write cache and RAID 6. Smart Array P400i optional upgrade to 122 MB cache (RAID 0, 1); optional upgrade to 128 MB cache (RAID 5) includes battery enabling write cache. Smart Array E200i Controller * with 64 MB cache (RAID 0, 1); optional upgrade to 128 MB cache (RAID 5) includes battery enabling write cache.     Form factor   1U rack     Networking   Embedded Dual NC373i Multifunction Gigabit Network Adapters with TCP/IP offload engine     Redundant power supply   Optional	Processors supported	Quad-Core Intel Xeon processors: X5355: 2.66 GHz, 1333 MHz Front Side Bus (FSB) E5345: 2.33 GHz, 1333 MHz FSB E5335: 2.0 GHz, 1333 MHz FSB E5320: 1.86 GHz, 1066 MHz FSB L5320: 1.86 GHz, 1066 MHz FSB low voltage 5310: 1.60 GHz, 1066 MHz FSB Dual-Core Intel Xeon processors: 5160: 3.00 GHz, 1333 FSB 5150: 2.66 GHz, 1333 FSB 5150: 2.66 GHz, 1333 FSB 5148: 2.66 GHz, 1333 FSB 5148: 2.66 GHz, 1333 FSB 5140: 2.33 GHz, 1333 FSB 5130: 2.00 GHz, 1333 FSB 5130: 2.00 GHz, 1333 FSB 5130: 2.00 GHz, 1333 FSB
Processor cores   Quad and dual     Number of processors   1-2     Cache   8 MB L2 (2 x 4 MB) (5300 series) or 4 MB L2 (1 x 4 MB) (5100 series)     Memory type   PC2-5300 fully buffered DIMMs (DDR2-667)     Standard/maximum memory   1 GB/32 GB     Advanced memory protection   Advanced ECC mirrored memory online spare     Number of disk drives   Up to 6     Maximum internal storage   6 hot plug SFF SAS 876 GB (6 x 146 GB); or 6 hot plug SFF SATA 720 GB (6 x 120 GB)     Removable media bays   1 (DVD/CD-RW, DVD, CD and floppy drives supported)     Storage controller   Smart Array P400i controller* with 256 MB cache (RAID 0, 1, 5); optional battery upgrade enables write cache and RAID 6. Smart Array P400i optional upgrade to 512 MB cache (RAID 0, 1, 5, 6) includes battery enabling write cache. Smart Array E200i Controller with 64 MB cache (RAID 0, 1); optional upgrade to 128 MB cache (RAID 5) includes battery enabling write cache.     Form factor   1U rack     Networking   Embedded Dual NC373i Multifunction Gigabit Network Adapters with TCP/IP offload engine     Remote management   Integrated Lights-Out 2     Redundant power supply   Optional		
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Maximum internal storage   6 hot plug SFF SAS 876 GB (6 x 146 GB); or 6 hot plug SFF SATA 720 GB (6 x 120 GB)     Removable media bays   1 (DVD/CD-RW, DVD, CD and floppy drives supported)     Storage controller   Smart Array P400i Controller* with 256 MB cache (RAID 0, 1, 5); optional battery upgrade enables write cache and RAID 6. Smart Array P400i optional upgrade to 512 MB cache (RAID 0, 1, 5, 6) includes battery enabling write cache. Smart Array E200i Controller with 64 MB cache (RAID 0, 1); optional upgrade to 128 MB cache (RAID 5) includes battery enabling write cache.     Form factor   1U rack     Networking   Embedded Dual NC373i Multifunction Gigabit Network Adapters with TCP/IP offload engine     Remote management   Integrated Lights-Out 2     Redundant power supply   Optional	Advanced memory protection	Advanced ECC mirrored memory online spare
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Redundant power supply Optional	Networking	Embedded Dual NC373i Multifunction Gigabit Network Adapters with TCP/IP offload engine
	Remote management	Integrated Lights-Out 2
Podundant fanc Standard	Redundant power supply	Optional
	Redundant fans	Standard
Warranty 3-years parts, 3-years labor, 3-years onsite	Warranty	3-years parts, 3-years labor, 3-years onsite

\* The P400i requires an optional 13-in mini-SAS cable to support six hard drives (high performance models ship with this cable).

**Total control**—Take complete control of your server infrastructure from away from your desk.

- Monitor the health of your entire ProLiant server infrastructure, including SAN-attached storage, through one simple management interface.
- Remotely operate ProLiant servers independent of OS state with dependable, built-in Lights-Out management.
- Enhance server availability and performance levels to exacting requirements through pre-failure alerting and hardware performance bottleneck analysis.
- Detect server security vulnerabilities and update software in concert, all from a centralized location.

**Improved flexibility**—Be responsive to the needs of your organization, efficiently and precisely.

- Transparently manage physical and virtual resources across their entire lifecycle, with your choice of virtual machine technology.
- Fine-tune resource allocation by quickly migrating workloads across physical and virtual infrastructure.
- Easily integrate ProLiant infrastructure management into existing management solutions and manage non-HP devices through broadly adopted industry standards.

**Tangible savings**—Make the most of every dollar you invest in server assets, IT staff and facilities.

- Rapidly deploy and inventory new IT assets with less effort, dramatically reducing server build times and decreasing the need for costly manual asset tracking.
- Efficiently manage the growing thermal and energy impact of server infrastructure with power regulator technology built into your ProLiant server.
- Raise the scalability of scarce IT talent with tools that improve efficiency, cut down on human error, and anticipate and prevent unplanned downtime.

## **Financial Services**

HP Financial Services provides innovative financing and financial asset management programs to help you cost-effectively acquire, manage and ultimately retire your HP solutions. For more information, contact your local HP representative, or visit:

www.hp.com/go/hpfinancialservices.

### For more information

To find out more about the HP ProLiant DL360 G5 Server contact your local HP representative, or visit: <u>www.hp.com/servers/proliantdl360</u>.

# **HP** Services

HP Services offers comprehensive services to help design, deploy, manage and support your IT environment and business processes. Our 69,000 skilled professionals and network of partners deliver global capabilities across the IT lifecycle, including consulting, integration, outsourcing and support.

#### HP Care Pack Services deliver continuous care

Cost-effectively upgrade or extend your standard warranty with easyto-buy, easy-to-use support packages. With support levels that range from basic to mission-critical, HP Care Pack Services are available for purchase with your ProLiant DL360 server.

#### Recommended service offerings:

**Enhanced Care** options provide a baseline service level to achieve optimum server availability. *ProLiant DL360 Server*—*3-year, 13x5, 4-hour response same-businessday hardware support.* 

**Continuous Care** options deliver a recommended support level with committed same day response or fix times. *ProLiant DL360 Server—3-year, 24x7, 4-hour call-to-repair hardware support* 

**Total Care** service options are designed to provide round-the-clock response and complex problem resolution through integrated hardware and software support. *ProLiant DL360 Server*—*3-year, 24x7, Support Plus support.* 

**Deployment Services** include HP Installation and Startup services designed to take the time, risk and worry out of the deployment of ProLiant servers.

HP ProLiant DL360 Server—Installation and startup of a ProLiant DL360 server and Microsoft<sup>®</sup> or Linux operating system

For a complete list of services, visit: www.hp.com/services/proliantservices www.hp.com/go/proliant/carepack

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To learn more, visit www.hp.com/servers/proliantdl360



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