HP ProLiant BL460c G6 Server Blade

Data sheet

The HP ProLiant BL460c G6 Server blade is designed for large enterprise data centers, mainstream/midsized data centers and departments, and small sites and branch offices. Continuing to deliver power-efficient compute power with expanded memory and I/O for maximum performance, the HP ProLiant BL460c G6 Server is well suited for general purpose computing as well as for large data centers with heterogeneous applications.

Combined with an HP BladeSystem c3000 or c7000 enclosure, the HP ProLiant BL460c G6 Server helps you standardize multiple tiers of your application environment on a common platform, enabling you to lower costs and simplify operations. The BladeSystem c7000 enclosure supports up to 16 HP ProLiant BL460c G6 Server blades and the c3000 enclosure allows you to fit in eight server blades—giving you extreme flexibility to meet your unique needs. In addition, the HP ProLiant BL460c G6 Server supports one of the broadest array of operating systems and applications, from Windows® and Linux to Citrix XenServer and VMware.
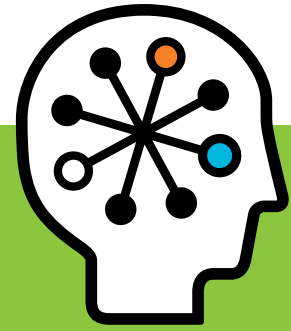
The HP ProLiant BL460c G6 Server Blade, the newest model of the BL460c, provides enterprise-class features for high performance and reliability—without compromising energy efficiency or density.

The HP ProLiant BL460c G6 Server is the most popular blade servers in the world, representing one in four of all new blades deployed.[1] Now packing two processors, two hot-plug hard drives, up to 192 GB of memory, 12 DIMM slots, and a dual-port 10 Gigabit Ethernet adapter into a half-height blade, the HP ProLiant BL460c G6 comes with improved features that give IT managers the performance and expandability required for demanding data center applications. It also provides industry-leading expansion and management solutions and the latest energy-efficient technologies for dense compute environments.

Key features and benefits

Enhanced performance

Now with the latest high-performance Intel® Xeon® 5000 sequence processors and greater memory, the HP ProLiant BL460 G6 Server delivers greater system scalability.

- Process more data and get faster responses with up to two Intel Xeon 5500 or 5600 series processors featuring QuickPath Interconnect

- Give your applications up to 192 GB of DDR3 memory, knowing you have the protection of Advanced ECC

[1] IDC Worldwide Server Tracker, Q208, by unit volume

- Prepare for the future with an integrated dual-port 10 Gb Ethernet server adapter with support for HP Virtual Connect Flex-10 technology that allows you to fine-tune networking and reduce network costs

- Choose up to two hot-plug small form factor (SFF) highly reliable serial-attached SCSI (SAS), low-cost serial-ATA (SATA), or low power solid state (SSD) drives

- Make use of the HP Smart Array P410i controller for hardware RAID 0 and 1, with optional cache modules for increased performance

Essential management

Industry-leading management and configuration tools offer superior remote administration, lifecycle management, and resource utilization to help lower total cost of ownership. Conserve valuable IT resources and time by centralizing and simplifying management functions with HP Insight Control and Integrated Lights Out 2 (iLO 2). HP Insight Control is an integrated suite of software that simplifies the provisioning and management of HP BladeSystem infrastructures

- Achieve unprecedented levels of remote management with iLO 2, which includes virtual KVM and a graphical remote console

- Enhance your server uptime and health with HP Systems Insight Manager, available at no additional cost

- Rely on iLO 2 to simplify server setup, provide health monitoring, power and thermal control, and remote administration of ProLiant servers

- Use the capabilities of HP Insight Dynamics to analyze and enhance physical and virtual resources in the same way

Note: iLO 2 functions without additional software and can be accessed locally by the server or remotely through a Web browser.

Enhanced power efficiency

Inefficient, power-hungry systems can create a rise in electricity costs and stress the power and cooling capacity of your site. However, the HP ProLiant BL460c G6 Server includes new technology to improve power efficiency, including phase shedding to tune voltage regulation to workload demands. There are also new features to give more control over power usage, such as the enhanced ability to turn off processor cores and settings to scale down memory speeds and save power.

- Conserve power without affecting performance with the built-in HP Power Regulator that provides an innovative operating system-independent power management feature for server power consumption and system performance

- Reclaim trapped power in your data center by safely limiting server power consumption with Dynamic Power Capping

Greater versatility

- Lower your power bills with low-voltage processor and low power memory options that yield higher performance per watt

- Increase your I/O bandwidth with optional Fibre Channel, iSCSI, Ethernet, InfiniBand, and SAS adapters

- Improve IT return on investment (ROI) with access to our technical experts through HP Proactive Select, a service access program based on a simple credit system to build the plan you need—no more, no less

- Expand storage beyond the integrated two hot-plug hard drive bays with HP BladeSystem storage options, including direct attach blades and shared storage blades

Reliability

- Protect your data using the 256 MB, 512 MB, and 1 GB cache modules available for the integrated storage controller, with additional battery backup options

- Improve uptime for critical servers with the Advanced Memory Protection features, including Mirrored Memory

- Upgrade or configure the ROM safely with the onboard redundant ROM

Ideal environment

Large enterprise data centers

The HP ProLiant BL460c G6 is ideal for environments where IT needs to reduce server floor space and cost while increasing flexibility and uptime.

- Dense half-height blade form factor that lets you fit up to 16 fully featured servers into 10U of rack space

- High-performance remote manageability to support lights-out data center or remote site deployment

- Flexibility to tailor its features to fit your needs, with two mezzanine slots to add additional storage and networking capability

HP ProLiant BL460c G6 Server Blade

Processor and Memory	
Processor type	Intel® Xeon® 5500 or 5600 series
Available processors	Six Core Processors Intel® Xeon® Processor X5670 (2.93 GHz, 12 MB L3 Cache, 95W) Intel® Xeon® Processor X5650 (2.66 GHz, 12 MB L3 Cache, 95W) Intel® Xeon® Processor L5640 (2.26 GHz, 12 MB L3 Cache, 60W) Quad-Core Processors Intel® Xeon® Processor X5570 (2.93 GHz, 8 MB L3 Cache, 95W) Intel® Xeon® Processor X5560 (2.80 GHz, 8 MB L3 Cache, 95W) Intel® Xeon® Processor X5550 (2.66 GHz, 8 MB L3 Cache, 95W) Intel® Xeon® Processor E5640 (2.66 GHz, 12 MB L3 Cache, 80W) Intel® Xeon® Processor E5540 (2.53 GHz, 8 MB L3 Cache, 80W) Intel® Xeon® Processor E5530 (2.40 GHz, 8 MB L3 Cache, 80W) Intel® Xeon® Processor E5520 (2.26 GHz, 8 MB L3 Cache, 80W) Intel® Xeon® Processor E5506 (2.13 GHz, 4 MB L3 Cache, 80W) Intel® Xeon® Processor E5504 (2.00 GHz, 4 MB L3 Cache, 80W) Intel® Xeon® Processor L5520 (2.26 GHz, 8 MB L3 Cache, 60W) Intel® Xeon® Processor L5506 (2.13 GHz, 4 MB L3 Cache, 60W) Dual-Core Processors Intel® Xeon® Processor E5502 (1.86 GHz, 4 MB L3 Cache, 80W)
Low wattage processor offerings	Yes
Processor core	Dual, Quad, and Six
Processor cache	4 MB, 8 MB, or 12 MB shared L3 cache
Max processor speed	2.93 GHz (Up to 3.3 GHz with Intel Turbo Boost technology)
Multi-processor	2
Processors per 42U rack	128
Memory type	DDR3 Registered and Unbuffered DIMMs
Standard memory	6 GB (3 x 2 GB) PC3-10600 (DDR3-1333) Registered DIMMs
Max memory	Up to 192 GB memory with Registered DIMMs, or up to 48 GB memory with Unbuffered DIMMs
Memory slots	12
Advanced memory protection	Advanced ECC Support for Mirrored Memory and Memory Lock-Step Mode
Storage type	Hot plug SFF SAS Hot plug SFF SATA Hot plug SFF SSD
Max number of hard drives	Up to two Serial Attached Small Form Factor Hot plug SAS or SATA Drives
Expansion slot	Two I/O expansion mezzanine slots (x8 PCI Express)
Storage controller	HP Smart Array P410i Controller (RAID 0/1)

Deployment	
Form factor	Blade
Networking	Embedded NC532i Dual Port Flex-10 10GbE Multifunction Server Adapter
Infrastructure management	HP Insight Control
Redundant power supply	Enclosure-based power
Warranty	3-year parts/3-year labor/3-year onsite

Data centers that need high-performance servers based on industry standards

- Better performance with up to two Intel Xeon 5500 or 5600 series processors featuring Turbo Boost Technology

- Industry-standard PC3-10600 (DDR3-1333) memory, including scalable registered DIMMs, low-cost Unbuffered DIMMs, and low power DIMM options

- Support for a broad portfolio of industry-standard operating systems and hypervisors, including varieties of Windows, Linux, VMware, Citrix, NetWare, and more

- Proven performance with enterprise applications such as SAP, PeopleSoft, Siebel, Oracle, and JDE

Sophisticated SMB and remote office locations

- Time- and cost-saving management tools, including HP Systems Insight Manager provided at no additional cost

- Supported in the HP BladeSystem c3000 enclosure, an all-in-one infrastructure built from the ground up to simplify small sites with demanding compute and storage needs

- Virtual KVM graphical remote console via iLO 2

HP 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 on these services, contact your local HP representative, or visit: **www.hp.com/go/hpfinancialservices**

For more information

For more information about the HP ProLiant BL460c G6 Server, contact your local HP representative, or visit: **www.hp.com/servers/bl460c-g6**

HP Services

When technology works, business works.

The challenge of virtually every IT organization is similar: to develop and maintain an agile, efficient server infrastructure that delivers the service levels your business needs.

HP Technology Services offer a comprehensive portfolio of HP Care Pack Services to help design, deploy, manage, and support your Blades environment, with easy-to-buy, easy-to-use support packages.

Minimum recommended HP Care Pack offerings:

- Three-year, four-hour response onsite 24x7 hardware support

- Blades Infrastructure plus Enhanced Network Installation and Startup services

Enhanced service level Care Pack offerings:

- **Three-year Support Plus 24:** Integrated 24x7 hardware and software support

- **Proactive Select:** Access to HP best-in-class technical consultants. Purchase service credits and obtain expertise when needed

Benefit from HP Care Pack Services helping you:

- Reduce deployment time and manage blade server solutions smoothly and efficiently

- Increase uptime and performance of servers availability to your business

- Detect, diagnose, and repair problems quickly to save time, money, and resources

For more information, visit **www.hp.com/services/bladesystem** or

www.hp.com/go/proliant/carepack

Get connected
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Current HP drivers, support & security alerts delivered directly to your desktop

Technology for better business outcomes

To learn more, visit www.hp.com/servers/bl460c-g6

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