



# Improve performance and scalability of data centers

## HP ProLiant BL460c Gen8 Server Blade



The HP ProLiant BL460c Gen8 Server Blade is the latest addition to the world's leading families of server blades. With an ideal balance of performance, scalability, and expandability, the new ProLiant BL460c Gen8 Server Blade offers a simpler way to manage a data center. This dual-socket server blade is engineered with enhanced memory and storage capacities, next-generation HP Integrated Lights-Out (iLO) Management Engine, and cloud-enabled insight management. With new features that give it improved flexibility and simplified management, the ProLiant BL460c Gen8 Server Blade is an ideal choice for data center computing.

The ProLiant BL460c Server Blade is a dual-socket server blade that comes with new and enhanced features such as:

- Next-generation 2-socket Intel® Xeon® E5-2600 processor family providing 2-, 4-, 6-, and 8-core solutions, with support for up to 135 W
- Enhanced memory capacity and performance, along with the benefit of reduced power—16 Dual Inline Memory Module (DIMM) slots, supporting up to 512 GB at 1333 MHz and 256 GB at 1600 MHz, with the ability to operate registered DIMMs (RDIMMs) at a low power (1.35 V) without performance reductions
- Dual-port Flexible LAN-On-Motherboards (FlexibleLOMs), that let you choose the technology, speed, and OEM vendor of your networking ports
- HP iLO Management Engine, which contains a host of embedded features that support the entire server lifecycle ranging from deployment, to continued management, service alerts, and remote support
- The HP P220i Smart Array controller offers three times the performance<sup>1</sup> compared to the HP P410i controller that is offered with the BL460c G7 Server Blade. The BL460c Gen8 Server Blade offers a choice of two 2.5-inch small form factor (SFF) serial-attached SCSI (SAS), Serial ATA (SATA) drives, and solid-state drives (SSDs). The P220i Smart Array controller comes standard with 512 MB flash-backed write cache (FBWC), and supports mixing of SAS/SATA/SSD hot-plug drives<sup>2</sup>
- Two x16 PCI Express (PCIe) 3.0 I/O expansion slots, that support the highest bandwidth mezzanine option cards at present, with room for future growth

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<sup>1</sup> Based on HP internal testing of I/O transactions per second. Actual results will depend on application, system configuration, tuning, and so on.

<sup>2</sup> When mixing different drive technology, RAID technology is limited to two independent RAID 0 volumes.

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## Key features and benefits

### Improved customer experience

- User-centric and intuitive design features that help reduce common downtime issues, with HP SmartDrive carriers and HP Smart Socket guide
- Integrated lifecycle automation—one of the first of its kind in the industry—provides seamless monitoring abilities through the HP Active Health System, embedded provisioning tools, and system maintenance capabilities that are standard across all ProLiant servers, and are built using the industry-leading HP iLO Management Engine
- Dynamic workload acceleration provides smarter data protection for ever-expanding drive capacities, and workload-aware analysis in real time to adapt and help optimize storage performance
- Automated energy optimization (AEO) enhances the server's ability to analyze and respond to data generated by HP 3D Sea of Sensors within the server; AEO comes with self-identify location and inventory capabilities using HP Insight Control, which also helps optimize workloads across the entire data center

### Lesser time-consuming tasks with an intuitive, configurable management system

- The BL460c Gen8 Server Blade comes embedded with HP Agentless Management, which runs on the HP iLO 4 chipset and helps facilitate agentless hardware monitoring and alerting capabilities; the Agentless Management feature starts functioning when an Ethernet cable and a power cord is connected to the enclosure
- Intelligent provisioning is a feature that derives its strengths from various products such as HP SmartStart, HP Service Pack for ProLiant, and HP Smart Update Manager
- Active Health System provides 24x7 health monitoring and records changes in the server hardware as well as system configuration. It diagnoses problems faster and facilitates rapid resolution with the help of unified diagnostic tools that provide safe data transfer

### Enhanced application, storage, and I/O performance

- HP SmartMemory is a new technology that is available only on ProLiant Gen8 servers. This technology offers unmatched quality, performance, and manageability, compared to industry-standard memory; it supports RDIMM, unregistered DIMM (UDIMM), and load reduced DIMM (LRDIMM) with 512 GB capacity and 256 GB capacity at 1600 MHz on the BL460c Gen8 Server Blade
- The PCIe 3.0 technology on the BL460c Gen8 Server Blade offers improved latency and up to 400 percent bandwidth per I/O expansion slot<sup>3</sup>
- Two x16 PCIe 3.0 I/O expansion slots can support the highest performing mezzanine option cards, now as well as in the future
- The FlexibleLOM allows you to update technology based on networking demands, helping you customize server networking, and scale up to future demands without the need to overhaul existing server hardware; it offers a choice of bandwidth and fabric (Ethernet, FCoE, and InfiniBand), supports wake-on-LAN (WOL) functionality, and provides a shared HP iLO port to facilitate ease of use

### Heightened performance and easier access

- Improved access to mezzanine cards facilitates quicker removal and easy access to the FlexibleLOM card. Every ProLiant BL460c Gen8 Server Blade comes with a DIMM tool to make insertion and removal of individual DIMMs much easier
- The Intel Xeon E5-2600 processor family offers more power efficiency, higher performance, and more adaptability with Intel® QuickPath Interconnect (QPI), Intel integrated memory controller, Turbo Boost Technology, and Intelligent Power Technology
- The Intel Xeon E5-2600 processor family has up to 8 cores and 16 threads, which helps deliver up to 33 percent higher performance<sup>4</sup>

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<sup>3</sup> Per HP internal testing, compared to a BL460c G7 x8 PCI Gen 2 expansion slot. Actual results will depend on application, system configuration, tuning, and so on.

<sup>4</sup> Compared to the Intel Xeon 5600 processor family

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<b>Drive description</b>	(2) SFF SAS/SATA/SSD and hot plug
<b>Supported drives</b>	<ul style="list-style-type: none"> <li>• Hot-plug SFF 2.5-inch SAS</li> <li>• Hot-plug SFF 2.5-inch SATA</li> <li>• Hot-plug SFF 2.5-inch SSD</li> </ul>
<b>Processor cache</b>	<ul style="list-style-type: none"> <li>• 20 MB L3</li> <li>• 15 MB L3</li> <li>• 10 MB L3</li> <li>• 5 MB L3</li> </ul>
<b>Processor family</b>	Intel Xeon E5-2600 processor family
<b>Processor number</b>	1 or 2
<b>Processor cores available</b>	2-, 4-, 6-, or 8-core processor
<b>Processor speed</b>	Up to 3.3 GHz
<b>Memory slots</b>	16 DIMM slots
<b>Memory max</b>	512 GB
<b>Memory type</b>	<ul style="list-style-type: none"> <li>• DDR3</li> <li>• LRDIMMs</li> <li>• RDIMMs</li> <li>• UDIMMs</li> </ul>
<b>Memory protection features</b>	<ul style="list-style-type: none"> <li>• Advanced ECC</li> <li>• Memory lock step mode</li> <li>• Online spare</li> </ul>
<b>Network controller</b>	1 HP FlexibleLOM (2) ports
<b>Storage controllers</b>	1 HP Smart Array P220i controller with 512 MB FBWC
<b>Expansion slots</b>	(2) PCIe 3.0 <ul style="list-style-type: none"> <li>• 1 x16 type A</li> <li>• 1 x16 type B maximum</li> </ul>
<b>Form factor chassis</b>	Blade
<b>Power supply type</b>	Enclosure-based power
<b>Full configuration form factor</b>	<ul style="list-style-type: none"> <li>• 8 (c3000)</li> <li>• 16 (c7000)</li> </ul>
<b>Warranty (parts-labor-onsite)</b>	3-year parts, 3-year labor, 3-year onsite
<b>QuickSpecs URL</b>	<a href="http://h18001.www1.hp.com/products/quickspecs/14208_div/14208_div.pdf">http://h18001.www1.hp.com/products/quickspecs/14208_div/14208_div.pdf</a>

## The total package—software

### HP Insight Control

HP Insight Control is an essential server management tool that unlocks the management capabilities built into your HP ProLiant servers. The capabilities enable you to manage ProLiant server health proactively—physical and virtual, deploy ProLiant servers quickly, help optimize power consumption, and control ProLiant servers from anywhere. For more information, visit: [hp.com/go/insightcontrol](http://hp.com/go/insightcontrol).

## HP Factory Express

HP Factory Express provides customization and deployment services along with your storage and server purchases. You can customize hardware to your exact specifications in the factory—helping speed deployment. For more information, visit: [hp.com/go/factoryexpress](http://hp.com/go/factoryexpress).

## Customer technical training

We offer a variety of training courses on storage software, networking, archiving, and disk storage systems. Our classes are available in many delivery modalities—from traditional instructor-led courses at one of our 80 training centers worldwide to online and onsite training. For more information, visit: [hp.com/learn/storage](http://hp.com/learn/storage).

## HP Financial Services

HP Financial Services provides innovative financing and financial asset management programs to help you acquire, manage, and ultimately retire your HP solutions. For more information on these services, visit [hp.com/go/hpfinancialservices](http://hp.com/go/hpfinancialservices).

## Learn more

Get access to improved performance and better power efficiency with one of the world's leading server blades. For more information, visit [hp.com/servers/bl460c-gen8](http://hp.com/servers/bl460c-gen8).

## HP Services

HP Technology Services offers a set of consultancy, deployment, and support solutions designed to meet the lifecycle needs of your IT environments.

**Foundation Care:** These services deliver scalable support packages for HP industry-standard servers and software. You can choose the type and level of service that is most suitable for your business needs.

**HP Collaborative Support:** New to this portfolio is HP Collaborative Support. This service offers a single point of contact for server problem diagnosis, hardware problem resolution, and basic software problem diagnosis, fault isolation, and resolution if available to HP. In case the issue is with HP or a supported third-party software product and cannot be resolved by applying known fixes, HP can contact the third-party vendor and create a problem incident on your behalf.

**Proactive Care or Critical Advantage:** If you are running business-critical environments, you can choose Proactive Care or Critical Advantage. These services help you deliver higher levels of application availability through proactive service management.

All service options include HP Insight Remote Support for safe remote monitoring, diagnosis, and problem resolution. The service options also include the HP Support Center facility to provide access to the information, tools, and experts required to support your HP business products.

For more information, visit [hp.com/services/proliant](http://hp.com/services/proliant) or [hp.com/services/bladesystem](http://hp.com/services/bladesystem).

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[hp.com/go/getconnected](http://hp.com/go/getconnected)

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