



# HP ProLiant BL460c Gen8 Server Blade

Improve data center performance and scalability



The HP ProLiant BL460c Gen8 Server Blade is the latest addition to the world's leading family of server blades. With an ideal balance of performance, scalability, and expandability, this new server blade offers a simpler way to manage a data center. It is engineered with enhanced memory and storage capacities, the 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 HP ProLiant BL460c Gen8 Server Blade is an ideal choice for data center computing.

This dual-socket server blade comes with new and enhanced features, such as:

- Next-generation 2-socket Intel® Xeon® E5-2600 v2 processor family, providing up to 12 core solutions, with support for up to 130 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 1600 MHz and 256 GB at 1866 MHz, with the ability to operate registered DIMMs (RDIMMs) at a low power (1.35 V) without performance reductions
- Dual-port flexible LAN on motherboard (FlexibleLOM), which lets you choose the technology, speed, and OEM vendor of your networking ports
- HP iLO Management Engine, with 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 was 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, which support the highest bandwidth mezzanine option cards at present, with room for future growth

<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.



## 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-identifying location and inventory capabilities using HP Insight Control, which also helps optimize workloads across the entire data center

### Reduced 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, offering 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 up to 1866 MHz on the BL460c Gen8 Server Blade
- PCIe 3.0 technology 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 lets you 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 for ease of use
- The BL460c Gen8 now offers support for 16 Gb Fibre Channel HBA

### 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 v2 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 v2 processor family has up to 12 cores and 24 threads, which help deliver up to 24 percent higher performance<sup>4</sup>

<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 E52600 processor family.

## HP ProLiant BL460c Gen8 Server Blade

<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>• 30 MB L3</li> <li>• 25 MB L3</li> <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 v2 processor family and Intel Xeon E5-2600 processor family
<b>Processor number</b>	1 or 2
<b>Processor cores available</b>	2-, 4-, 6-, 8-, 10-, or 12-core processors
<b>Processor speed</b>	Up to 3.5 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 controller</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">h18001.www1.hp.com/products/quickspecs/14208_div/14208_div.pdf</a>

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## HP Factory Express

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## Customer technical training

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## HP Services

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

**Foundation Care 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.

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, as well as 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 will contact the third-party vendor and create a problem incident on your behalf.

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

All service options include **HP Insight Remote Support** for secure remote monitoring, diagnosis, and problem-resolution. Also included is the **HP Support Center**, which provides access to the information, tools, and experts that support HP business products.

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

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