Data sheet

HP ProLiant BL660c Gen9 Server Blade

Scale workloads and infrastructure without compromise

Power, space, and budget constraints make server density critical. HP ProLiant BL660c Gen9 Server Blades offer the right compute for the right workload at the right economics, every time.

Boost workload performance efficiently

When you need to increase performance with limited data center space and aggressive return on investment (ROI) targets, server blades offer scalable compute resources with processing power for today's demanding workloads—and power to spare for tomorrow's applications.

The HP ProLiant BL660c Gen9 Server Blade features the latest innovations to deliver the right performance, scalability, economics, and manageability—through HP OneView—for the converged data center, at the lowest cost and fastest time-to-value. That makes it an ideal match for workloads that require a fine-tuned balance between space, price, and performance—such as virtualization, databases, business processing, analytics, high-performance computing (HPC), and other data-intensive applications.

Transform your data center to respond with agility to the business challenges of today and tomorrow. HP ProLiant BL660c Gen9 Server Blades give you the power to:

- Strike your ideal balance of performance and price with new, flexible embedded storage controller options

- Enjoy up to a 40 percent performance increase with the new Intel® Xeon® E5-4600 v3 series processors[1]

- Speed the delivery of new applications and workloads up to 66X faster with HP OneView software-defined infrastructure management[2]

[1] HP Internal testing.
[2] Based on data provided by a beta customer. With HP OneView the beta customer built 12 sites in one night and a new call center deployment in one night vs. the previous way where they could build only two sites at a time and it took 11 days to deploy two sites.

Key features and benefits

Ideal form factor
Delivering powerful flexibility, the ProLiant BL660c Gen9 Server Blade features:

• 4S computing in a single-wide, full-height form factor

• Support for up to four Intel Xeon E5-4600 v3 processors with up to 18 cores

• 32 DDR4 DIMM sockets for up to 2.0 TB of HP SmartMemory and a maximum memory speed of up to 2,133 MHz

• Four internal drive bays for SAS or SATA SSDs and HDDs

• Three PCIe 3.0 x16 expansion slots supporting the highest performing mezzanine option cards, both now and in the future

• Your choice of 10 Gb or 20 Gb FlexibleLOMs

Innovative design
Keep the focus on innovation with user-inspired design features, such as:

• HP SmartDrive hot plug carrier and Smart Socket guide anticipate your needs and reduce common issues that can result in downtime

• Integrated lifecycle automation provides embedded provisioning tools, active health monitoring for speeding problem resolution, and HP Smart Update for simplifying system maintenance

• Dynamic workload acceleration delivers smarter data protection for ever-increasing hard-drive capacities

• Automated energy optimization improves the server's ability to optimize workloads

Improved memory, storage, and I/O performance
Enhance performance, quality, manageability, and efficiency by:

• Increasing memory performance, along with the benefit of reduced power—16 DIMM slots with 2,133 MHz DDR4 and eight slots per processor socket

• Offering an HP Dynamic Smart Array B140i as a standard feature—plus an optional HP Smart Array P246br/1 GB FBWC for 12 Gb SAS performance or additional features

• Reducing latency and additional bandwidth per I/O expansion slot, as compared to ProLiant Gen7 server blades with new PCIe 3.0 I/O technology and three x16 slots

• Allowing you to customize server networking and scale up to future demands without the need to overhaul existing server hardware via FlexibleLOM. Get a choice of bandwidth and fabric (Ethernet, FCoE, and InfiniBand), support for wake-on-LAN functionality, and a shared HP iLO port for ease of use

Agile infrastructure management
Accelerate IT service delivery with a comprehensive set of HP management offerings:

• **On-premise**—HP OneView, our single, software-defined management platform, accelerates IT service delivery through automated configuration and lifecycle management and faster virtual machine provisioning, and it helps accelerate the transition to Infrastructure-as-a-Service (IaaS) and hybrid cloud.

• **On-system**—On-system management tools simplify management to increase admin productivity. Tools include Unified Extensible Firmware Interface (UEFI), HP Intelligent Provisioning, HP Integrated Lights-Out (iLO), HP Smart Update Manager (HP SUM), Service Pack for ProLiant (SPP), and Scripting Tools (Scripting Toolkit for Linux® and Microsoft® Windows®, HP Scripting Tool for Windows PowerShell, and the HP RESTful Interface Tool).

• **On-cloud**—HP Insight Online is a cloud-based management and support portal that enables fast problem resolution and easy access to the information you need to support your IT environment. You can use the Insight Online dashboard to track device health, service events, and support cases, view device configurations, create custom reports, and proactively monitor HP contracts and warranties. You can also use the HP Insight Online dashboard in the HP Support Center Mobile App to stay up to date while on the go.

Technical specifications

Processors supported	Intel Xeon E5-4600 v3 Series processors
Number of processors	Two or four
Number of cores	6/10/12/14/16/18
Cache	Up to 45 MB L3
Maximum processor speed	2.9 GHz
Memory type	HP SmartMemory DDR4 Load Reduced (LRDIMM), or Registered (RDIMM), up to 2,133 MHz
Maximum memory	2.0 TB
Advanced memory protection features	• Advanced ECC/SDDC • Rank sparring (on line spare) • Memory Mirroring
Memory slots	32 DIMM slots
I/O expansion slots	Three PCIe 3.0 mezzanine slots: one x16 Type A and two x16 Type B
Memory slots	32 DIMM slots
Networking options	• **FlexFabric**—One or two dual-port FlexFabric adapters • **Mezzanine options**—Wide variety of options including Ethernet, InfiniBand, I/O accelerators, Fibre Channel, and more
Internal storage	• Four 2.5-inch hot-plug SAS/SATA/SSD bays supporting up to 8.0 TB SAS, 8.0 TB SATA, and 7.68 TB SSD of internal storage • Dual 64 GB M.2 kit, optional dual microSD kit
Storage controller	• HP Smart Array P246br Controller with 1 GB FBWC supporting RAID 0, 1, and 5 • HP Dynamic Smart Array B140i supporting RAID 0, 1, and 5
Storage options	• Hot-plug SAS/SATA/SSD drives • Dual 64 GB M.2 kit • Dual microSD kit • Fibre Channel mezzanine options • 1 GB FBWC for the Smart Array P246br Controller • HP D2220sb Storage Expansion Blade
Form factor	• Full-height, single-wide c-Class server blade • Eight blades per c7000 (10U) enclosure • Four blades per c3000 (6U) enclosure
System management	**On-system** • HP iLO • HP SUM • HP SPP • HP Intelligent Provisioning • HP Scripting Tools for Windows PowerShell • HP RESTful Interface Tool • Scripting Toolkit for Linux and Windows • UEFI **On-premise** • HP OneView **On-cloud** • HP Insight Online with enhanced mobile app
Power supply and fans	Enclosure-based power: 94 percent Platinum Plus
Warranty (parts/labor/onsite)	3/3/3

Customize your IT lifecycle management, from acquisition of new IT, management of existing assets, and removal of unneeded equipment. **hp.com/go/hpfinancialservices**

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 to speed deployment. hp.com/go/factoryexpress

Customer technical training

Gain the skills you need with ExpertOne training and certification from HP. With HP ProLiant training, you can accelerate your technology transition, improve operational performance, and get the best return on your HP investment. Our training is available when and where you need it through flexible delivery options and a global training capability. hp.com/learn/proliant

HP Services

Let HP help guide you to the New Style of IT. HP Technology Services deliver confidence, reduce risk, and help you realize agility and stability. Our **Consulting** services provide advice and guidance to safely move your workloads to newer technologies. Our implementation and installation services enable faster, reliable startup of your new HP ProLiant Gen9 servers, and our support portfolio allows you to get connected and back to business. We recommend **HP Proactive Care** for ProLiant servers to prevent issues and resolve problems faster.

HP Foundation Care provides a choice of coverage levels and response times for hardware and software support. **HP Datacenter Care** enables you to operate and evolve your IT environment with less cost and more agility. This includes our **Flexible Capacity** service to acquire IT without impacting capital budget. Our support technology lets you tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, from any location, at any time. hp.com/services/proliant

Learn more at
hp.com/servers/bl660cgen9

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