



# HP ProLiant DL160 Generation 8 Server



## High performance computing with enhanced management and networking

Today, the demands of high performance computing (HPC) environments call for a server infrastructure with larger memory and enhanced processing power without compromising on efficiency and reliability. As an organization you're tasked with lowering operational costs while simultaneously boosting performance and scalability. But as you scale out large arrays of servers there are more machines to operate, manage, and maintain while IT budgets continue to be constrained. Getting the best performance and serviceability out of every server in your data center racks has never been more important.

Now standard with iLO ME, the all-new HP ProLiant DL160 Gen8 Server is designed to address this broad range of demands. It is a dual-socket, high-performance, dense rack server with enhanced manageability and scalability suited for HPC environments, Web serving, and other hyperscale environments. With brand new Gen8 innovations like Smart Socket Guides, Active Health System, Intelligent Provisioning, and Smart Storage, Smart Memory, the HP ProLiant DL160 sets a new standard in Manageability and serviceability.

The all-new HP ProLiant DL160 Gen8 sever is purpose-built to:

- **Boost performance**—ideal for compute- and memory-intensive applications

- **Lower cost and better utilization**—high energy and space efficiency; better virtualization capabilities and design
- **Deliver peace of mind** with enhanced reliability, quick serviceability and industry-leading manageability

## What's new

Striving to help the enterprise manage costs while maintaining high performance at scale, the HP ProLiant DL160 Gen8 server offers unprecedented HPC and hyperscale capabilities in an efficient design with the following new features:

- **HP iLO Management Engine:** provides a lifecycle approach to deploying and managing the server, and automatically regulates power consumption and server performance.
- **HP Smart Socket guides** for reduction in improper processor installation failures, new Intel® Xeon® E5-2600 family processors for better performance with up to eight-cores, frequencies from 1.8 GHz to 3.0 GHz and power levels from 60 to 130 Watts.
- **24 DIMM slots** for new DDR3 HP Smart Memory qualified to run 25% faster than industry standard, maximum memory of up to 768 GB DDR3 and new capacities with speeds up to 1,600 MHz.
- **FlexibleLOM technologies:** offer you a choice in networking with 1Gb or 10Gb NICs, CNA, SFP+, FCoE, or InfiniBand.
- **New HP Smart Storage family** of controllers and allows for increased intelligent storage systems.

## Key features and benefits

### High performance capabilities for compute and memory intensive applications

- Higher performance with Intel Xeon E5-2600 series processors with up to eight cores, frequencies ranging from 1.8 GHz to 3.0 GHz, and power levels from 60 W to 130 W
- Increased memory with four channels per CPU, three DIMMs per channel, total 24 DIMM slots for HP Smart Memory qualified to run 25 percent faster than industry standard; maximum memory footprint 768 GB
- Smarter algorithms and analytics combined with 85 percent faster storage performance and 2x more cache capacity with new HP Smart Array controllers that allow ProLiant servers to deliver 6x faster solid state storage performance vs. previous generations
- Increased I/O performance with faster PCIe 3.0 expansion slots and support for NVIDIA Q4000 graphic adapter

### High energy and space efficiency for lower cost of operation

- Built-in intelligence in new HP i-Series Racks allows the correlation between temperature and workload, with the exact location of each server to deliver the right level of needed cooling every time
- ENERGY STAR®-qualified server configurations, up to 94 percent efficient power supplies, 3D Sea of Sensors to optimize fan power, and new HP Smart Memory with capability to run at lower voltage levels reduce power and cooling cost.
- High efficiency processor options reduce power consumption.
- Dense 1U rack design enables better utilization of your rack space

### Enhanced manageability and serviceability for peace of mind

- HP Active Health System provides 24x7 continuous health monitoring by logging 100 percent configuration changes, and helps quicken analysis of problems with HP Service and Support

- Agentless hardware monitoring and alerting capabilities are built into the server with HP Agentless Management (runs on iLO 4 chipset).
- Intelligent Provisioning takes strengths from products like SmartStart, Smart Update Manager, and ProLiant Support Packs, enhances them with the latest ease of use features and places them where you can use them instantly: on the system board. Fully integrated system and OS configuration tool eliminates 45% of the steps, servers deployed 3x faster.
- Insight Online aggregates all system health, asset and warranty information from the HP ProActive Insight architecture and secures it in one place, accessible anywhere, anytime and from any device thereby saving significant time in tracking status of contracts, warranties and asset configurations.
- HP Smart Socket guide enables intelligent, precise, and quick processor installation or upgrade, which lowers the risk of downtime for your business.
- New Smart Carrier with cognitive drive activity provides new, more intuitive drive activity and status indicators that enhance serviceability for easier management and reduced maintenance errors.

### Increased scalability and flexibility for virtualization

- Combined with the balanced system architecture of the latest processors, I/O technology and HP Smart Memory, HP ProLiant DL 160 Gen8 servers support 30 percent more virtual machines per server with a reduction of 40 percent in energy.
- Up to 80 PCI lanes suited for high I/O connectivity and bandwidth
- New 10Gb and 1Gb FlexibleLOM options to enhance network bandwidth; customize server networking today with the ability to meet future needs without overhauling server hardware
- Maximum memory footprint of 768 GB with 24 DIMM slots for HP Smart Memory, up to 12 TB of internal HP Smart Storage



## HP ProLiant DL160 Gen8 Server



<b>Drive description</b>	4 LFF SAS/SATA/SSD or 8 SFF SAS/SATA/SSD
<b>Supported drives</b>	Hot plug 2.5-inch SAS, hot plug 2.5-inch SATA, hot plug 3.5-inch SAS, hot plug 3.5-inch SATA, hot plug SFF SSD
<b>Processor cache</b>	10 MB L3, 15 MB L3, 20 MB L3
<b>Processor family</b>	Intel Xeon E5-2600
<b>Processor number</b>	1 or 2
<b>Processor core available</b>	2, 4, 6, or 8
<b>Processor speed</b>	3.0 GHz
<b>Memory slots</b>	24 DIMM slots maximum
<b>Memory maximum</b>	768 GB
<b>Memory type</b>	DDR3 RDIMM or UDIMM
<b>Memory protection features</b>	Advanced ECC, unbuffered ECC
<b>Network controller</b>	HP Ethernet 1Gb 2-port 361i Adapter
<b>Storage controllers</b>	Smart Array B120i controller Smart Array P420/1GB FBWC (optional)
<b>Expansion slots</b>	1 FL/FH x16 PCI-e3.0, or 1 HL/FH x16, and 1 LPx8 PCI-e3.0 1 FlexibleLOM slot
<b>Remote management software</b>	HP Integrated Lights-out Management Engine (iLO ME)
<b>Form factor chassis</b>	Rack
<b>System fans features</b>	Redundant standard
<b>Power supply type</b>	500 W Platinum-certified (92 percent) efficient power supply standard, common slot power supply (optional)
<b>Graphic card</b>	NVIDIA Quadro 4000 graphic adapter (optional)
<b>Full configuration form factor</b>	1U
<b>Warranty standard statement</b>	3/0/0
<b>Warranty (parts-labor-onsite)</b>	3/0/0 for WW and 3/1/1 for APJ

### QuickSpecs URLs:

[http://h18000.www1.hp.com/products/quickspecs/14282\\_div/14282\\_div.html](http://h18000.www1.hp.com/products/quickspecs/14282_div/14282_div.html)

[http://h18000.www1.hp.com/products/quickspecs/14282\\_div/14282\\_div.pdf](http://h18000.www1.hp.com/products/quickspecs/14282_div/14282_div.pdf)

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## Ideal environment

If your business operation centers on memory- and compute-intensive applications, if you need scalability without compromising efficiency and cost-effectiveness, then the HP ProLiant DL160 Gen8 is a good fit for your environment. Whether you're a service provider, operate a virtualization environment or any other kind of hyperscale network, the HP ProLiant DL160 Gen8 delivers unprecedented high performance capabilities with enhanced reliability and manageability.

## For more information

For more information about the HP ProLiant DL160 Gen8 Server contact your HP representative or visit [hp.com/servers/dl160-gen8](http://hp.com/servers/dl160-gen8).

## HP Services

### When technology works, business works.

When you buy HP ProLiant Options for your HP ProLiant servers, it is also good time to think about services.

### Recommended HP Care Pack Services

- Three-year HP 24x7 Four-hour Response, Hardware Support Onsite Service OR Three-year HP 24x7 Four-hour Response, HP Collaborative Support
- HP ProLiant Server Hardware Installation Service
- Three-year HP 24x7 Four-hour Response, Proactive Care or
- Three-year HP Six-hour Onsite Call-to-Repair, HP Collaborative Support
- HP Proactive Select Service

All support services come with Insight Remote Support, providing 24x7 remote monitoring, proactive notifications, and problem resolution.

Coverage: For ProLiant servers, HP Care Pack Services provide cover for HP-branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as external monitors up to 22 inches diagonal and tower UPS products; these items will be covered at the same service level and for the same coverage period as the server unless the maximum supported lifetime and/or the maximum usage limitation has been exceeded. Coverage of UPS battery is not included; standard warranty terms and conditions apply.

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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4AA4-0592ENW, Created April 2012; Updated May 2012, Rev. 1

