

Family guide

HP ProLiant rack and tower servers



Twenty-five years of HP ProLiant innovation



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Table of contents

- 2 Reimagine the server. Think compute
- 3 HP ProLiant rack and tower server portfolio
- 4 Why choose HP rack and tower servers?
- 5 Which operating systems/virtual environments are supported?
- 5 Choose your rack or tower server
- 6 New to servers
- 8 Growing IT needs
- 12 Traditional IT needs
- 14 Scale-up needs
- 15 HP Qualified Options for enhanced functionality and added benefits
- 17 HP infrastructure management software
- 18 HP storage solutions for HP ProLiant servers
- 19 Integration services
- 19 Training and certification
- 19 HP Technology Services
- 20 HP server families

Reimagine the server. Think compute

The New Style of IT is driving a tectonic shift in the industry. Industry analysts report that the server is being commoditized. They're right. The server as we know it, and the incremental, generational approach to it, will no longer suffice to address the business problems of today—and tomorrow.

A new model is needed. One that allows exponential utilization of data, and the dynamic ability to turn applications and services on and off on a per-user basis, while keeping operational costs flat, or declining. One that delivers a new innovation curve; one that provides end-to-end compute power from edge-to-core, up and down an integrated workload stack, and with an advanced set of economics and automated operational approaches.

HP and its customers are reimagining the server and thinking “compute”, an evolution from the traditional server approach to converged, software-defined, cloud-ready, and workload-optimized technology platforms. Leveraging compute—a vast pool of processing resources that can be located anywhere, scaled to any workload, and available at all times—you can accelerate IT service delivery, lower costs, and fuel business growth.

And HP ProLiant rack and tower servers represent the industry's trusted portfolio of multi-workload servers built for today and tomorrow.

HP ProLiant Gen9 rack servers, the DL family of servers, are the most flexible, reliable, and performance-optimized ProLiant rack servers...ever. As we continue to provide industry-leading compute innovations, the new HP ProLiant Gen9 rack portfolio, with flexible choices and versatile design, along with improved energy efficiencies, ultimately lowers your total cost of ownership (TCO). Integrated with a simplified, but comprehensive management suite and industry-leading support, the ProLiant Gen9 rack portfolio delivers a more reliable, fast, and secure infrastructure solution, helps increase IT staff productivity, and accelerates service delivery. In addition, the rack portfolio is performance-optimized for multi-application workloads to significantly increase the speed of IT operations and enable IT to respond to business needs of any size, faster.

The HP ProLiant Gen9 rack portfolio delivers:

- Flexible choices to redefine compute economics with 3X the compute per watt,¹ and 62 percent lower TCO²
- Reliable infrastructure with up to 66X faster service delivery³
- Optimized servers boost business performance with 4X faster workload performance⁴

HP ProLiant Gen9 tower servers, the ML family of servers, deliver simple, efficient business value. Industry-leading compute innovations in the new HP ProLiant Gen9 Tower portfolio include simple management and storage tools, along with proven configurations that provide easy remote access and improved energy efficiencies to lower your TCO. Integrated with a simplified but comprehensive management suite and industry leading support, the ProLiant Gen9 tower portfolio delivers more business value and helps increase IT staff productivity and expedite service delivery. In addition, the complete, right-sized tower portfolio includes financing options, a service, and channel network to significantly increase the speed of IT operations and enable IT to respond to business needs faster.

The HP ProLiant Gen9 tower portfolio delivers:

- Simplicity—Simple tools, processes, and support to help server admins keep hardware running and lower TCO
- Efficiency—Office managers can improve staff productivity to keep the business going
- Business value—Business owners can increase business value via improved operations

The HP ProLiant server portfolio was designed to deliver on these needs and requirements, taking a broader view of the hardware, software, and services that provide the right compute for the right work load at the right economics—every time.

¹ HP Internal analysis. Comparison between DL380 Gen9 vs. DL380p Gen8 with Sandy Bridge processors. Source for system wattage was IDC Qualified Performance Indicator located at qpicertificate.idc.com/. Performance taken from SPECint_rate_base2006 industry benchmark. Calculation: Performance per watt, August 2014.

² One hundred DL380 G6 Servers consolidated down to 16 DL380 Gen9 Servers enabling 62 percent TCO savings over three years including initial acquisition costs. There is also a potential reduction in monthly OPEX expenditure of over 80 percent.* Includes software support for vSphere and Microsoft Windows. Also includes a 25 percent discount on hardware. August 2014.

³ Sixty-six times faster to build and deploy infrastructure—Anonymous customer results. Customer was able to reduce the time to build and deploy infrastructure for 12 call centers from 66 days to 1. Total of 2,000 servers were deployed. IDC whitepaper sponsored by HP, “Achieving Organizational Transformation with HP Converged Infrastructure Solutions for SDDC,” January 2014, IDC #246385.

⁴ HP SmartCache performance done with equivalent controller in a controlled environment. HP Smart Storage engineers, Houston, TX as of 18 May 2014 posted on internal SmartCache wiki page.

Get more depth with the technical white paper:

[HP ProLiant Gen9 servers technology and product overview: Delivering the right compute solutions for the right workloads](#)

HP ProLiant rack and tower server portfolio

Continuing to deliver on our vision of industry-leading compute innovation, HP introduces the HP ProLiant Gen9 portfolio. Building on 25 years of innovation and proven features and functions, the HP ProLiant Gen9 portfolio is designed to improve economics with more compute per watt and per dollar to meet the new demands of today's marketplace.

Leveraging the advancements of the HP ProActive Insight Architecture for automation and management, ProLiant Gen9 is founded on the user-inspired innovations built into the ProLiant Gen8 portfolio,⁵ including:

- HP Smart Socket guides—Simplified access, easy processor installation
- HP SmartDrives—Simplified monitoring, reduced data loss, better serviceability
- HP SmartMemory—Improved performance, manageability, and efficiency; reduced downtime; lower energy costs
- HP Flexible Network adapters—Easy configuration, fast serviceability
- HP ProLiant 3D Sea of Sensors—Lower energy costs
- HP iLO 4 Management—Rapid deployment, streamlined management
- HP OneView—Converged management to reduce complexity with automation simplicity

HP ProLiant Gen9 delivers much more

Additional new technologies and improvements for ProLiant Gen9 include*:

⁵For a full list of supported options and details, see the server QuickSpecs at hp.com/go/quickspecs.

⁶HP Internal analysis. Comparison between DL380 Gen9 vs. DL380 G7. Source for system wattage was IDC Qualified Performance Indicator Performance taken from SPECint_rate_base2006 industry benchmark. Calculation: performance/watt, August 2014.

⁷Internal analysis. Comparison between DL380 Gen9 vs. DL380 G6. Dimensions extracted from DL380 QuickSpecs for Gen9 and G6 respectively. Performance taken from SPECint_rate_base2006 industry benchmark. Calculation: performance/(length/width)/144, August 2014.

⁸IDC white paper sponsored by HP and Intel®, "The Business Value of the HP Proactive Insight Experience," Doc# 239199, March, 2013.

⁹Internal performance lab testing using Iometer and the HP Smart Array P840 with RAID 0, 4k random reads, Microsoft Windows 2012 R2; testing is ongoing with changes in FW. Number is current as of 21 July 2014.

¹⁰HP SmartCache Performance done with equivalent controller in a controlled environment. HP Smart Storage engineers, Houston, TX as of 18 May 2014, posted on internal SmartCache wiki page.

¹¹Based on HP internal calculations. Up to 14 percent better performance is based on similar capacity DIMM running on HP server compared to a non HP server with DDR4. Calculation: Intel recommends running DDR4 server memory (two DIMMs per channel at 1,866 MHz) with Haswell processors. By combining HP ProLiant Gen9 servers with HP DDR4 SmartMemory innovations, HP realizes a 14 percent memory improvement (two DIMMS per channel), by running HP DDR4 SmartMemory (RDIMM and LRDIMM) at 2,133 MHz. $((2,133 - 1,866) / 1,866) * 100 = 14$ percent. August 2014.



More compute capacity and lower TCO across multiple workloads

- 2X more compute per watt using 12 GB/s SAS SSD and HP DDR4 SmartMemory⁶
- Tailored compute with flexible choices in:
 - Storage—HP Flexible Smart Array Controllers and Smart SAS host bus adapters (HBAs)
 - Networking—HP FlexibleLOM
 - Power—HP Flexible Slot Power Supplies
 - Modularity—HP Universal Media Bay
- Up to 3X more compute per square foot with unique HP PCIe Workload Accelerators⁷



Faster workload deployment with simple automation

- Faster setup, monitoring, and firmware maintenance with reliable, secure embedded management
- Faster provisioning with simplified software-defined management using HP OneView
- Fifty percent service call time reduction⁸ with Insight Online, automatically connecting IT support with HP and partners



Accelerated workload performance for delivering better business results

- One million IOPS supported with 12 Gb/s HP Smart Array Fast Controllers⁹—providing more throughput on mission-critical data
- Up to 4X read and write workload acceleration with HP SmartCache,¹⁰ which accelerates performance for quicker data access
- Up to 14 percent better memory performance with HP DDR4 SmartMemory and HP ProLiant rack servers for quicker processing of workloads¹¹

Introducing new Gen9 server models

We have launched nine Gen9 models in the rack and tower portfolio, with more to come:

HP ProLiant Gen9 rack (DL) servers

- HP ProLiant DL60 Gen9—Affordable compute and scalability packaged in a dense design
- HP ProLiant DL80 Gen9—Affordable storage and scalability for cost-conscious service providers and small to medium-sized businesses (SMBs)
- HP ProLiant DL120 Gen9—Enterprise-class 1S dense server for performance-driven and virtualized workloads
- HP ProLiant DL160 Gen9—Right-sized performance and storage for space- and budget-constrained environments
- HP ProLiant DL180 Gen9—The new standard for growing data center needs
- HP ProLiant DL360 Gen9—Dense performance for multi-workload compute in the data center
- HP ProLiant DL380 Gen9—The no-compromise data center standard for multi-workload compute

HP ProLiant Gen9 tower (ML) servers

- HP ProLiant ML150 Gen9—Essential mix of performance, efficiency, and expandability
- HP ProLiant ML350 Gen9—High performance with unmatched capacity and reliability

The new family offers right-sized compute to meet your workload needs. As such, we're tailoring compute to offer more flexibility and choice, such as HP FlexibleLOM, HP SmartMemory, HP SmartCache, and many more options.

In the ProLiant Gen8 family, the e (Essential) and p (Performance) designations were assigned to various server models. Our portfolio has expanded, with common Intel architecture in ProLiant Gen9 servers; our naming convention now better represents the features and positioning for ProLiant Gen9 servers. The following table shows the transition from Gen8 to Gen9 naming:

Gen8 models	Gen9 models
New, no transition	HP ProLiant DL60 Gen9
New, no transition	HP ProLiant DL80 Gen9
New, no transition	HP ProLiant DL120 Gen9
HP ProLiant DL360e Gen8	HP ProLiant DL160 Gen9
HP ProLiant DL380e Gen8	HP ProLiant DL180 Gen9
HP ProLiant DL360p Gen8	HP ProLiant DL360 Gen9
HP ProLiant DL380p Gen8	HP ProLiant DL380 Gen9
HP ProLiant ML350e Gen8	HP ProLiant ML150 Gen9
HP ProLiant ML350p Gen8	HP ProLiant ML350 Gen9

Why choose HP rack and tower servers?

To meet the growing demands of your business, HP ProLiant rack and tower servers redefine compute economics by delivering more compute and storage capacity, right-sized compute with flexible choices, and lower compute energy and floor space consumption. With HP ProLiant rack and tower servers, you can accelerate your business results with faster compute, memory, and I/O performance, coupled with increased storage and networking performance—including lower latency.

HP ProLiant is available in three families; MicroServer, tower, and rack servers. While all three families are designed to handle multiple workloads—IT infrastructure, Web, business applications, collaboration, analytics, Big Data, and more—each family is optimized for specific use cases.



HP ProLiant ML family

Expandable tower servers; ideal choice for remote and branch offices and growing businesses.



HP ProLiant DL family

Versatile, rack-optimized server with a balance of efficiency, performance, and management.

HP ProLiant MicroServer family of servers

HP ProLiant MicroServer models provide SMBs with a right-fit first server solution.

HP ProLiant tower servers (ML family)

Integrated with a simplified yet comprehensive management suite and industry-leading support, the ProLiant tower portfolio delivers more business value, helps increase IT staff productivity, and expedites service delivery. In addition, the tower ecosystem offers a complete right-sized portfolio of financing options, service offerings, and a channel network to significantly increase the speed of IT operations, as well as enable IT to respond to business needs more quickly and efficiently.

HP ProLiant rack servers (DL family)

Offering a versatile design, flexible choices, and improved energy efficiencies, ProLiant rack servers lower costs across the board. Integrated with a comprehensive management suite and industry-leading support, the ProLiant rack portfolio delivers a more reliable and secure infrastructure, helps increase IT staff productivity, and accelerates service delivery. In addition, these optimized rack servers are performance-optimized for multi-application workloads. With ProLiant Gen9 rack servers, you can significantly increase the speed of IT operations and enable IT to rapidly respond to any business need.

Which operating systems/virtual environments are supported?

HP ProLiant rack and tower servers support the following operating systems and virtual environments:

- Microsoft
- Red Hat
- SUSE
- Oracle
- Canonical

You can purchase your entire operating environment from HP; we resell and provide full service and support for Microsoft Windows operating systems; Red Hat Enterprise Linux subscriptions; SUSE Linux subscriptions; and Microsoft Hyper-V, VMware, and Red Hat Enterprise Virtualization subscriptions.

For the latest operating system support information and to learn more see: hp.com/go/ossupport.

Choose your rack or tower server

HP ProLiant rack and tower servers are available in a variety of platforms to support different compute needs and workloads. The following charts will help you compare the offerings within the HP ProLiant rack and tower families. These charts are organized according to server needs:

- New to servers—Six server platforms
- Growing IT needs—Ten server platforms
- Traditional IT needs—Seven server platforms
- Needing to scale up—Four server platforms

Learn more about investing in the right HP ProLiant server for your business:

[Business white paper](#)

HP ProLiant sizer tools:

[HP Server TCO Calculator](#)

[Server Buying Guide](#)

New to servers

Are you new to servers? Consider these HP ProLiant Essentials servers.



MicroServer

Ideal first, low-cost server for collaboration, centralization, and command of your business



MicroServer Gen8

Ideal first server for collaboration, centralization, and command of your business with remote management capabilities



ML10 Gen8

Single-socket 4U tower delivers value for SMB



DL320e Gen8 v2

Compact single application server, suitable for deployment anywhere

Number of processors	1	1	1	1
Processors supported	AMD Turion II	Intel® Xeon® E3-1200L v2 Intel® Pentium® Intel® Celeron®	Xeon E3-1220 v2 Intel Pentium G2130	Intel Xeon E3-1200 v2 Intel® Core™ i3 Intel Pentium
Cores per processor	2	2	2	2/4
Maximum processor frequency/cache	2.2 GHz/2 MB	2.5 GHz/3 MB	3.2 GHz/3 MB	3.7 GHz/8 MB
I/O expansion slots	2 PCIe 2.0	1 PCIe 3.0/2.0 (processor dependent)	Up to 4 PCIe 2.0	Up to 2 PCIe 3.0
Maximum memory/# slots	8 GB/2	16 GB/2	32 GB/4	32 GB/4
Storage controller (embedded)	AMD SATA or eSATA	B120i*	B110i*	B120i*
Maximum storage drive bays	4 LFF SATA, non-hot plug	4 LFF SATA, non-hot plug	3 LFF + 1 Optical Drive convert to LFF, non-hot plug, HDD/SSD	2 LFF or 4 SFF HDD/SSD
Maximum internal storage	8 TB	12 TB	8 TB	8 TB
Networking ports (embedded)/FlexibleLOM	1 x 1 GbE/NA	2 x 1 GbE/NA	1 x 1 GbE/NA	2 x 1 GbE/NA
VGA/serial/USB ports/SD	1/0/7/0	1/0/7/1	1/0/7/0	1/0/7/1
GPU support	None	None	None	N/A
Form factor	Ultra micro tower	Ultra micro tower	Micro ATX Tower (4U)	Rack (1U)
System ROM	Legacy BIOS	Legacy BIOS	Legacy BIOS	Legacy BIOS
Management	Optional MicroServer Remote Access Card, HP Insight Online	HP iLO 4, Intelligent Provisioning, HP Insight Online, HP SUM, HP RESTful Interface Tool Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control	HP iLO 4, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, Optional: HP iLO Essentials,, HP iLO Advanced, HP Insight Control	HP iLO 4, Intelligent Provisioning, HP SIM, HP OneView Standard, HP Insight Online, HP SUM Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control, HP OneView Advanced
Warranty—(years) (parts/labor/onsite)	1/0/0	1/0/0	1/1/1	1/1/1

* For a full list of supported options and details, see the server QuickSpecs at hp.com/go/quickspecs.



DL60 Gen9

Affordable compute and scalability packaged in a dense design



DL80 Gen9

Affordable storage and scalability for cost-conscious service providers and SMBs

Number of processors	1 or 2	1 or 2
Processors supported	Intel Xeon E5-2600 v3 Series	Intel Xeon E5-2600 v3 Series
Cores per processor	4/6/8/10/12	4/6/8/10/12
Maximum processor frequency/cache	3 GHz/30 MB	3 GHz/30 MB
I/O expansion slots	Up to 3 PCIe 3.0	Up to 6 PCIe 3.0
Maximum memory/# slots	256 GB/8	256 GB/8
Storage controller (embedded)	B140i*	B140i*
Maximum storage drive bays	4 LFF max, HDD/SSD	12 LFF max, HDD/SSD
Maximum internal storage	24 TB	72 TB
Networking ports (embedded)/FlexibleLOM	2 x 1 GbE Ethernet adapter/FlexibleLOM slot on riser (optional)	2 x 1 GbE Ethernet adapter/FlexibleLOM slot on riser (optional)
VGA/serial/USB ports/SD	1/0/4/1	1/0/4/1
GPU support	N/A	1 single-width GPU
Form factor	Rack (1U)	Rack (2U)
System ROM	UEFI Legacy BIOS	UEFI Legacy BIOS
Management	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, HP RESTful Interface Tool Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control, HP OneView Advanced	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, HP RESTful Interface Tool Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control, HP OneView Advanced
Warranty—(years) (parts/labor/onsite)	1/1/1	1/1/1

* For a full list of supported options and details, see the server QuickSpecs at hp.com/go/quickspecs.

Growing IT needs

Are your IT needs growing? Consider these HP ProLiant Essentials servers.



ML310e Gen8 v2
Full-featured 1S tower with enterprise-class manageability



ML150 Gen9
Essential performance with the lowest acquisition cost



ML350e Gen8 v2
Essential performance with room to grow

Number of processors	1	1 or 2	1 or 2
Processors supported	Intel Xeon E3-1200 v3 Intel Core i3 Intel Pentium	Intel Xeon E5-2600 v3 Series	Intel Xeon E5-2400 v2 Series
Cores per processor	2/4	6/8/12	4/6/8/10
Maximum processor frequency/cache	3.6 GHz/8 MB	2.6 MHz/15 MB	2.5 GHz/25 MB
I/O expansion slots	Up to 2 PCIe 3.0, 2 PCIe 2.0	Up to 6 PCIe 3.0	Up to 2 PCIe 2.0, 4 PCIe 3.0
Maximum memory/# slots	32 GB/4	256 GB/16	192 GB/12
Storage controller (embedded)	B120i*	B140i*	B120i*
Maximum storage drive bays	4 LFF or 8 SFF HDD/SSD	10 LFF or 16 SFF HDD/SSD	4 LFF, 8 LFF or 16 SFF HDD/SSD
Maximum internal storage	16 TB	60 TB	32 TB
Networking ports (embedded)/FlexibleLOM	2 x 1 GbE/NA	1 x 1 GbE Ethernet adapter/ FlexibleLOM slot on riser (optional)	2 x 1 GbE/NA
VGA/serial/USB ports/SD	1/1/8/1	1/0/8/1	1/1/8/1
GPU support	None	NVIDIA Quadro K2200 PCIe Graphics Adapter	NVIDIA Quadro K2000 PCIe Graphics Adapter
Form factor	Micro ATX Tower (4U) with optional rack conversion tray kit (4U)	Tower (5U)	Tower (5U) with optional rack conversion tray kit
System ROM	Legacy BIOS	UEFI Legacy BIOS	Legacy BIOS
Management	HP iLO 4, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control	HP iLO 4, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, HP RESTful Interface Tool Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control	HP iLO 4, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control
Warranty—(years) (parts/labor/onsite)	1/1/1 Worldwide 3/1/1 Brazil	3/1/1	1/1/1

* For a full list of supported options and details, see the server QuickSpecs at hp.com/go/quickspecs.



DL120 Gen9
Enterprise-class 1S dense server for performance-driven and virtualized workloads



DL320e Gen8
Ideal single application and IT infrastructure server

Number of processors	1	1
Processors supported	Intel Xeon E5-2600 v3 Series	Intel Xeon E3-1200 v2 Intel Pentium
Cores per processor	4/6/8/10/12	2/4
Maximum processor frequency/cache	3 GHz/30 MB	3.7 GHz/8 MB
I/O expansion slots	Up to 3 PCIe 3.0	Up to 1 PCIe 3.0, 1 PCIe 2.0
Maximum memory/# slots	256 GB/8	32 GB/4
Storage controller (embedded)	B140i*	B120i*
Maximum storage drive bays	4 LFF or 8 SFF HDD/SSD	4 LFF or 8 SFF HDD/SSD
Maximum internal storage	24 TB	16 TB
Networking ports (embedded)/FlexibleLOM	2 x 1 GbE Ethernet adapter/ Optional FlexibleLOM slot on riser	2 x/NA
VGA/serial/USB ports/SD	1/0/4/1	1/1/7/1
GPU support	1 single-width GPU	N/A
Form factor	Rack (1U)	Rack (1U)
System ROM	UEFI Legacy BIOS	Legacy BIOS
Management	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, HP RESTful Interface Tool Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control, HP OneView Advanced	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control, HP OneView Advanced
Warranty—(years) (parts/labor/onsite)	3/1/1	1/1/1

* For a full list of supported options and details, see the server QuickSpecs at hp.com/go/quickspecs.



DL160 Gen9
Right-sized performance and storage for space and budget-constrained environments



DL360e Gen8
Essential features in an optimized design



DL160 Gen8
High-performance computing with increased manageability in a dense 1U design

Number of processors	1 or 2	1 or 2	1 or 2
Processors supported	Intel Xeon E5-2600 v3 Series	Intel Xeon E5-2400 Series Intel Xeon E5-2400 v2 Series	Intel Xeon E5-2600 Series
Cores per processor	4/6/8/10/12	4/6/8/10	4/6/8
Maximum processor frequency/cache	3.0 GHz/30 MB	2.5 GHz/25 MB	2.9 GHz/20 MB
I/O expansion slots	Up to 3 PCIe 3.0	Up to 1 PCIe 2.0, 1 PCIe 3.0	Up to 2 PCIe 3.0
Maximum memory/# slots	512 GB/16	384 GB/12	768 GB/24
Storage controller (embedded)	B140i*	B120i*	B120i*
Maximum storage drive bays	4 LFF or 8 SFF HDD/SSD	4 LFF or 8 SFF HDD/SSD	4 LFF or 8 SFF HDD/SSD
Maximum internal storage	24 TB	16 TB	16 TB
Networking ports (embedded)/ FlexibleLOM	2 x 1 GbE/Optional FlexibleLOM slot on riser	4 x 1 GbE**/NA	2 x 1 GbE***/Optional FlexibleLOM slot
VGA/serial/USB ports/SD	1/0/4/1	2/1/7/1	2/1/7/1
GPU support	N/A	*	*
Form factor	Rack (1U)	Rack (1U)	Rack (1U)
System ROM	UEFI Legacy BIOS	Legacy BIOS	Legacy BIOS
Management	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, HP RESTful Interface Tool Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control, HP OneView Advanced	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, HP RESTful Interface Tool Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control, HP OneView Advanced	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control, HP OneView Advanced
Warranty—(years) (parts/labor/onsite)	3/1/1	3/1/1	3/0/0 Worldwide 3/1/1 APJ

* For a full list of supported options and details, see the server QuickSpecs at hp.com/go/quickspecs.

** Quad-port network interface card standard, with the option to upgrade with a variety of networking options.

*** Embedded dual-port network adapter; the server can be further upgraded with various networking products.



DL180 Gen9
The new standard for growing data center needs



DL380e Gen8
Compute and storage ideal for essential data center needs

Number of processors	1 or 2	1 or 2
Processors supported	Intel Xeon E5-2600 v3 Series	Intel Xeon E5-2400 Intel Xeon E5-2400 v2 Series
Cores per processor	4/6/8/10/12	4/6/8/10
Maximum processor frequency/cache	3.0 GHz/30 MB	2.5 GHz/25 MB
I/O expansion slots	Up to 6 PCIe 3.0	Up to 1 PCIe 2.0, 5 PCIe 3.0
Maximum memory/# slots	512 GB/16	384 GB/12
Storage controller (embedded)	B140i*	B120i*
Maximum storage drive bays	12 LFF or 16 SFF HDD/SSD	14 LFF or 27 SFF HDD/SSD
Maximum internal storage	72 TB	56 TB
Networking ports (embedded)/FlexibleLOM	2 x 1 GbE/Optional FlexibleLOM slot on riser	4 x 1 GbE/NA
VGA/serial/USB ports/SD	1/0/4/1	1/1/7/1
GPU support	N/A	N/A
Form factor	Rack (2U)	Rack (2U)
System ROM	UEFI Legacy BIOS	Legacy BIOS
Management	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, HP RESTful Interface Tool Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control, HP OneView Advanced	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Essentials, HP iLO Advanced, HP Insight Control, HP OneView Advanced
Warranty—(years) (parts/labor/onsite)	3/1/1	3/1/1

* For a full list of supported options and details, see the server QuickSpecs at hp.com/go/quickspecs.

Traditional IT needs

Are you continuing to need traditional IT? Consider these HP ProLiant Performance servers.



ML350 Gen9

High performance with unmatched capacity and reliability



ML350p Gen8

Best-in-class performance with maximum expandability



DL360 Gen9

Dense performance for multi-workload compute in the data center



DL360p Gen8

Performance-driven compute and storage density

Number of processors	1 or 2	1 or 2	1 or 2	1 or 2
Processors supported	Intel Xeon E5-2600 v3 Series	Intel Xeon E5-2600 Intel Xeon E5-2600 v2 Series	Intel Xeon E5-2600 v3 Series	Intel Xeon E5-2600 Intel Xeon E5-2600 v2 Series
Cores per processor	4/6/8/10/12/14/16/18	2/4/6/8/10/12	4/6/8/10/12/14/16/18	2/4/6/8/10/12
Maximum processor frequency/cache	3.4 GHz/45 MB	3.5 GHz/30 MB	3.5 GHz/45 MB	3.5 GHz/30 MB
I/O expansion slots	Up to 1 PCIe 2.0, 8 PCIe 3.0	Up to 1 PCIe 2.0, 8 PCIe 3.0	Up to 2 PCIe 3.0	Up to 2 PCIe 3.0
Maximum memory/# slots	1.5 TB**/24	768 GB/24	1.5 TB**/24	768 GB/24
Storage controller (embedded)	B140i*	P420i*	B140i*	P420i*
Maximum storage drive bays	24 LFF or 48 SFF HDD/SSD	18 LFF or 24 SFF HDD/SSD	4 LFF or 8+2 SFF HDD/SSD	4 LFF or 10 SFF HDD/SSD
Maximum internal storage	144 TB	72 TB	24 TB	16 TB
Networking ports (embedded)/FlexibleLOM	4 x 1 GbE/NA	4 x 1 GbE/NA	4 x 1 GbE/Optional FlexibleLOM	NA/FlexibleLOM
VGA/serial/USB ports/SD	1/1/8/1	1/1/9/1	2/1/5/1	0/1/7/1
GPU support	Single/double-wide and active/passive up to 10.5" (4)	Single/double-wide (3)	Single-wide and active to 9.5" (2)	N/A
Form factor	Tower or rack (5U)	Tower or rack (5U)	Rack (1U)	Rack (1U)
System ROM	UEFI Legacy BIOS	Legacy BIOS	UEFI Legacy BIOS	Legacy BIOS
Management	HP iLO 4, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, HP RESTful Interface Tool Optional: HP iLO Advanced, HP Insight Control	HP iLO 4, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, Optional: HP iLO Advanced, HP Insight Control	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, HP RESTful Interface Tool Optional: HP iLO Advanced, HP Insight Control, HP OneView Advanced	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Advanced, HP Insight Control, HP OneView Advanced
Warranty—(years) (parts/labor/onsite)	3/3/3	3/3/3	3/3/3	3/3/3

* For a full list of supported options and details, see the server QuickSpecs at hp.com/go/quickspecs.

** Support to be available by early 2015.



DL380 Gen9
The no-compromise data center standard for multi-workload compute



DL380p Gen8
The no-compromise data center standard



DL385p Gen8
Performance and flexibility that mean business

Number of processors	1 or 2	1 or 2	1 or 2
Processors supported	Intel Xeon E5-2600 v3 Series	Intel Xeon E5-2600 Intel Xeon E5-2600 v2 Series	AMD Opteron 6200 Series AMD Opteron 6300 Series
Cores per processor	4/6/8/10/12/14/16/18	2/4/6/8/10/12	4/8/12/16
Maximum processor frequency/cache	3.5 GHz/45 MB	3.5 GHz/30 MB	3.5 GHz/16 MB
I/O expansion slots	Up to 6 PCIe 3.0	Up to 1 PCIe 2.0, 5 PCIe 3.0	Up to 6 PCIe 2.0
Maximum memory/# slots	1.5 TB**/24	768 GB/24	768 GB/24
Storage controller (embedded)	B140i*	P420i*	P420i*
Maximum storage drive bays	12 + 3 LFF or 24 + 2 SFF HDD/SSD	12 LFF or 25 SFF HDD/SSD	12 LFF or 25 SFF HDD/SSD
Maximum internal storage	90 TB	48 TB	48 TB
Networking ports (embedded)/ FlexibleLOM	4 x 1 GbE/Optional FlexibleLOM	NA/FlexibleLOM	NA/FlexibleLOM
VGA/serial/USB ports/SD	1 + 1/1/6/1	2/1/7/1	2/1/8/1
GPU support	Single/double-wide and active/passive up to 10.5" (2)	Single/double-wide (2)	N/A
Form factor	Rack (2U)	Rack (2U)	Rack (2U)
System ROM	UEFI Legacy BIOS	Legacy BIOS	Legacy BIOS
Management	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM, HP RESTful Interface Tool Optional: HP iLO Advanced, HP Insight Control, HP OneView Advanced	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Advanced, HP Insight Control, HP OneView Advanced	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Advanced, HP Insight Control, HP OneView Advanced
Warranty—(years) (parts/labor/onsite)	3/3/3	3/3/3	3/3/3

* For a full list of supported options and details, see the server QuickSpecs at hp.com/go/quickspecs.

** Support to be available by early 2015.

Scale-up needs

Do you need to scale up? Consider these HP ProLiant Performance servers.



DL560 Gen8

Concentrated compute without compromising on performance, scalability, and efficiency



DL580 Gen8

The enterprise standard for business-critical workloads



DL585 G7

Versatile workhorse for the evolving data center



DL980 G7

For your largest and most demanding enterprise-class workloads

Number of processors	1, 2, or 4	2, 3, or 4	2 or 4	4 or 8
Processors supported	Intel Xeon E5-4600 Series Intel Xeon E5-4600 v2 Series	Intel Xeon E7-4800 v2 Series Intel Xeon E7-8800 v2 Series	AMD Opteron 6300 Series AMD Opteron 6200 Series	Intel Xeon E7-2800 Series Intel Xeon E7-4800 Series
Cores per processor	4/6/8/10/12	6/8/10/12/15	4/8/12/16	6/8/10
Maximum processor frequency/cache	3.3 GHz/30 MB	3.4 GHz/37.5 MB	3.5 GHz/16 MB	2.4 GHz
I/O expansion slots	Up to 1 PCIe 2.0, 5 PCIe 3.0	Up to 9 PCIe 3.0	Up to 11 slots*	Up to 16 I/O slots
Maximum memory/# slots	1.5 TB/48	6 TB/90	1.5 TB/16	4 TB/128
Storage controller (embedded)	P420i*	P830i*	P410i*	P410i
Maximum storage drive bays	5 SFF HDD/SSD	10 SFF HDD/SSD	8 SFF HDD/SSD	8 SFF HDD/SSD
Maximum internal storage	8 TB	16 TB	9.6 TB	7.2 TB
Networking ports (embedded)/FlexibleLOM	NA/FlexibleLOM	NA/FlexibleLOM	4 x 1 GbE, Optional 2 x 10 GbE/NA	4 x 1 GbE or 2 x 10 GbE
VGA/serial/USB ports/SD	2/1/7/1	2/1/8/1	2/1/6/1	2/1/6/1
GPU support	*	(5) Double-Wide	(4) 225 W or (3) 300 W*	(4) or (3)
Form factor	Rack (2U)	Rack (4U)	Rack (4U)	Rack (8U)
System ROM	Legacy BIOS	UEFI Legacy BIOS	Legacy BIOS	Legacy BIOS
Management	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Advanced, HP OneView Advanced	HP iLO 4, HP OneView Standard, Intelligent Provisioning, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Advanced, HP OneView Advanced	HP iLO 3, HP OneView Standard, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Advanced, HP Insight Control	HP iLO 3, HP OneView Standard, HP SIM, HP Insight Online, HP SUM Optional: HP iLO Advanced, HP Insight Control
Warranty—(years) (parts/labor/onsite)	3/3/3	3/3/3	3/3/3	3/3/3

* For a full list of supported options and details, see the server QuickSpecs at hp.com/go/quickspecs.

Resources

- [HP SmartMemory](#)
- [HP ProLiant DDR4 and DDR3 Memory Configuration Tools](#)
- [HP Power Advisor](#)
- [HP ProLiant Qualified Options Guide: Part 1](#)

QuickSpec

[HP SmartMemory](#)

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

HP Qualified Options for enhanced functionality and added benefits

HP Qualified Options are built to give you compute for the New Style of IT, where IT is tightly aligned with business requirements to streamline operations, contain costs, accelerate the delivery of new products and services, and optimize application performance. HP Qualified Options provide better performance, reliability, and compatibility with HP ProLiant, Integrity, and Storage systems. They are also integrated with many HP system management tools and can help lower your operations costs when compared to other non-HP products.

HP Qualified Options have gone through a rigorous testing process so they're easy to install, maintain, and upgrade. There's a wide range of options from hard drives, memory, and processors, to the rack and power infrastructure and beyond.

HP Smart Memory

Choosing the right memory is the key to getting the utmost reliability, performance, and faster return on your IT investment. As one of the largest DRAM buyers, HP chooses only the highest quality memory. With HP Smart Memory, you get higher performance and more power savings and efficiency because it is built to work with HP ProLiant servers. Our new generation of DDR4 memory has been designed for ProLiant Gen9 servers to increase performance and power savings.

HP Smart Array Controllers

Designed to enhance server uptime and maintain flexibility for future growth, HP Smart Array Controllers blend the reliability of SCSI with the performance advantages of serial architecture. With the redesigned HP Flexible Smart Array and HP Smart SAS HBA Controllers you have the flexibility to choose the optimal 12 Gb/s controller most suited to your environment. Providing industry-leading performance with unmatched data protection, this is the solution for companies with direct attached SAS storage.

HP Smart Host Bus Adapters

Perfect for environments that require fast access, HP Smart Host Bus Adapters provide cost-effective and reliable high-performance SAS connectivity to direct attached storage (DAS), shared storage, and tape drives for HP ProLiant servers running Hadoop, Database Availability Group, VMware vSAN, and Storage Spaces applications. Smart Host Bus Adapters are a perfect conduit for deploying software-defined storage as a means to manage the IT storage pool. For greater flexibility, HP Smart Host Bus Adapters are capable of running in either HBA or simple RAID mode.

HP SmartDrives

You need drive solutions that can handle larger amounts of data, improve performance, reduce overall initialization time, and protect against multi-day outages and data loss. HP SmartDrives hard disk drives (HDDs) and solid state drives (SSDs) bring new intelligence to your data center storage infrastructure.

HP Network Adapters

Cost-effective, dependable computer networking products keep your IT running at peak performance. HP ProLiant networking products were designed, developed, and tested to deliver state-of-the-art networking technology.

HP support for ASHRAE guidelines

Data center cooling systems represent a significant portion of your capital expenditure (CAPEX) and use a substantial amount of energy.

HP supports the adoption of less expensive and eco-friendly cooling methods encouraged by the latest American Society of Heating, Refrigeration, and Air-conditioning Engineers (ASHRAE) guidelines for temperature and humidity operating ranges of IT equipment.

Most HP Gen9 server products support the 2014 ASHRAE class A3 guidelines or higher.

For specific server details visit hp.com/servers/ASHRAE.

For additional details on supported options, refer to the server QuickSpecs at hp.com/go/quickspecs.

HP Power Supplies

HP Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot-plug, tool-less installation into HP ProLiant Gen9 Performance servers. HP Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to “right-size” a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid “trapped” power capacity in the data center. Available on HP ProLiant Gen8 servers, HP Common Slot Power Supplies provide server power efficiency with 80 PLUS Titanium certification of up to 96 percent; and infrastructure power efficiencies with 277 VAC and 380 VDC input voltages.

HP PCIe Workload Accelerators

Quick access to key information gives your organization a critical advantage. In an age where data bottlenecks are, quite simply, unacceptable, HP PCIe Workload Accelerators offer a solution that keeps pace with your HP ProLiant server system—delivering faster access to application data, increased productivity, and better business intelligence.

HP Secure Encryption

HP Secure Encryption is a Smart Array controller-based data encryption solution for protecting sensitive, mission-critical data. This is an enterprise-class encryption solution for data at rest on any bulk storage (with the exception of tape or external arrays such as P2000 and MSA 2040) attached to the supported HP Smart Array Px4x family of controllers. The solution is available for both local and remote deployments.

HP SmartCache

HP SmartCache is a Smart Array controller-based read and write caching solution for HP ProLiant servers in a DAS environment. It caches the most frequently accessed data (“hot” data) onto lower latency SSDs to dynamically accelerate application workloads. HP SmartCache operates transparently to host applications, which means you do not have to change the application, but can still realize better performance with a minimal number of SSDs in your configuration.

HP flash media devices

If you require boot-from-flash for integrated hypervisors and Tier 1 operating systems, trust HP’s high-performance enterprise flash media kits to meet those needs. With high data retention and read/write cycles, HP flash media devices are available in SD and microSD form factors.

HP optical drives

Available as both DVD-ROM and DVD-RW solutions, HP optical drives are available in half-height, slim, and super-slim models to fit any HP system in your data center. Available on select Gen9 servers, the HP Universal Media Bay provides functional flexibility to add an optical disk drive bay, USB, and/or VGA ports to the server while providing two drive bays for SFF drives.¹²

HP rack infrastructure

As the foundation for long-term IT success, these HP products help you react to changes in the industry through efficient, easy-to-use capabilities to manage, monitor, deploy, and provision IT infrastructure and more effectively manage power and cooling costs.

HP power protection and management

Choose from a variety of easy-to-use solutions for all your power needs, including power protection, extended server runtime, distribution, management, and monitoring.

HP IT infrastructure products and services

We offer a range of highly efficient and intelligent solutions for existing and new data centers. For example, HP Performance-optimized Datacenters (PODs) provide outstanding flexibility for a variety of technology deployments.

¹² The HP Universal Media Bay is currently offered on the ProLiant DL380 and DL360 Servers. Please see server QuickSpecs as configurations differ.

HP infrastructure management software

For better insight and control

Today, most IT professionals wrestle with numerous management pains, including:

- Infrastructure management complexity—There are too many infrastructure management tools to learn and operate, resulting in high IT operating expenses. This proliferation drives up software license costs, as well as increases the time and cost of maintenance—including skills maintenance.
- Scale and speed—In enterprise data centers with thousands or tens of thousands of servers, traditional infrastructure management tools cannot scale or operate at the high speeds necessary to effectively manage server sprawl.
- Siloed infrastructure and outdated IT operational models—There are often too many non-standard manual tasks, an over-reliance on subject matter experts, and an ever-expanding backlog of projects. The answer to these challenges is to follow a new IT operational model—namely the software-defined data center (SDDC).
- Planned and unplanned downtime—Depending on the line of business, the cost of downtime can be millions of dollars of lost revenue. Knowing these costs, IT pros need tools and processes designed to eliminate or dramatically reduce downtime.

To address these gaps, a new management methodology is required—one that drives better system control and greater insight into problems before they occur. And HP has it.

HP infrastructure management is delivered through a complete portfolio of HP ProLiant lifecycle management capabilities that can flexibly operate from embedded on-system utilities, on-premise for software-defined data centers, and now also from the cloud. Managing HP ProLiant servers with HP infrastructure management results in increased efficiency and precise control of resources. With a rich set of capabilities that are easy to access and simple to use, HP infrastructure management encompasses critical areas such as server deployment and configuration, health and alerting, energy, power, and remote management, and warranty and contract information access via a cloud-based portal. The core components that make up HP infrastructure management are HP OneView, HP iLO Management, and HP Insight Online. With HP infrastructure management's built-in automation, HP ProLiant servers are so intelligent they practically manage themselves.

In addition, HP Service Pack for ProLiant and HP Smart Update Manager (HP SUM) provide breakthrough system maintenance tools that systematically update HP ProLiant rack and tower servers with one-click simplicity at the scale of your data center.

For complete information on the HP Server Management portfolio, refer to the family guide at hp.com/go/servermanagement.

HP OneView

Eliminating infrastructure complexity with automation simplicity

Based on a unique modern architecture, HP OneView speeds IT service rollouts and helps actively prevent error-induced downtime through a template-based, software-defined approach to management.

And HP OneView also saves time by acting as an automation hub that performs infrastructure configuration and management tasks at the request of other applications. HP OneView is:

- Converged—Manage across compute, storage, and networking and enjoy a 50 percent reduction in tools to learn, manage, deploy, and integrate.¹³
- Software-defined—Capture best practice knowledge in templates to guarantee that infrastructure is deployed and managed the right way every time.
- Automated—Use HP OneView REST application programming interfaces (APIs) to deploy a VMware vSphere cluster in just five easy steps¹⁴ and leverage HP OneView as the infrastructure automation hub for your enterprise.

Please note that while you are transitioning to **HP OneView** you can still use **HP Insight Control** as best fit for your business needs.

HP iLO Management

Embedded management for the full server lifecycle

HP iLO Management is a complete set of embedded management features supporting the full lifecycle of the server—from initial deployment through ongoing management to service alerting and support. By delivering comprehensive embedded management, HP iLO helps you speed time-to-deployment, maximize server and application availability through proactive notification, and dramatically accelerate time-to-resolution when issues arise.

Licensing provides additional HP iLO functionality, such as graphical remote console, multi-user collaboration, and video record/playback, along with many advanced features.

HP Insight Online

Support from anywhere, at any time

HP Insight Online is a cloud-based infrastructure management and support portal available through the HP Support Center and powered by HP remote support technology. It provides a personalized dashboard for simplified tracking of IT operations and support information from anywhere, at any time.

You can use the Insight Online dashboard to track service events and support cases, view device configurations, create reports, and proactively monitor your HP contracts and warranties, as well as manage your HP Proactive Service credits.

HP storage solutions for HP ProLiant servers

You can gain the full value from your investments when you choose advanced HP storage devices, such as fabric switching, disk enclosures, and shared storage. HP also offers backup systems, tape drives, auto loaders, and libraries for backup or disaster recovery.

HP StoreFabric SAN switches

Choose from a wide range of Fibre Channel switches, multi-protocol routers, host bus adapters, converged network adapters, and cables and optics for your SAN. These offerings deliver the scalability, performance, and broad interoperability that your mission-critical data and applications demand. Combining ease-of-use, flexibility, and improved security with cost-effective pricing, these switches are key enablers of your dynamic and adaptive storage-networking environment. hp.com/go/SAN

HP disk enclosures

Is your storage growing by leaps and bounds, exceeding your current system capacity? Manage your growing storage needs by deploying low-cost, high-capacity/high-performance external storage disk enclosures—the ideal choice for small application environments in SMBs, remote offices, and departmental locations. hp.com/go/disk-enclosures

HP shared storage

When it comes to storage, HP has the broadest and most comprehensive portfolio in the industry, featuring external shared storage that scales capacity and performance as your business grows. With easy-to-use Windows-based NAS file and print solutions for SMBs, through modern scale-out Tier 1 arrays for the most demanding data centers, HP has a storage solution to fit your exact needs and budget. hp.com/storage

HP backup systems

Remove the time and frustration from backup and disaster recovery across your enterprise. HP StoreOnce Backup is the only federated deduplication solution to provide leading disk-based backup for the full spectrum of IT environments—from small remote sites to large enterprises. Seamlessly integrating with your current backup applications, HP StoreOnce Backup provides flexible integration for NAS, SAN, and virtualized environments. hp.com/go/storeonce

HP tape drives, autoloaders, and libraries

Tape plays a critical role in the storage strategy for companies of all sizes. Combined with disk storage in a multi-tier protection strategy, HP tape products offer a storage solution with low total cost of ownership. Tape is also portable, making it ideal for secure offsite and offline backup, disaster recovery, data compliance, and long-term archiving. hp.com/go/tape

¹³ Based on HP internal analysis, May 2014, comparing OneView 1.10 vs. the traditional approach to infrastructure management requiring eight tools.

¹⁴ Determined during HP internal testing in January 2014, comparing HP OneView 1.05 with the HP Insight Control for VMware vCenter Server v7.30 plug-in vs. traditional HP management tools

Integration services

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. hp.com/go/factoryexpress

Training and certification

Gain the skills you need with ExpertOne training and certification from HP. With HP ProLiant server training, you will 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 Technology Services

With technology evolving at a rapid pace, it is increasingly important for you to rely on IT support services that are constantly adapting and evolving, too. The HP Support Services portfolio for HP ProLiant servers and HP BladeSystem redefines support, factoring in the breakthrough capabilities of HP ProLiant core rack and tower servers.

HP offers a comprehensive set of services to manage and optimize every aspect of the server environment. Our HP Lifecycle Event services include working with your IT team to design your environment from scratch or to integrate new technology into your existing infrastructure. Our services are designed for virtualized, converged environments, to help you get systems up and running quickly, and to provide ongoing reactive and proactive support.

- HP Foundation Care—Cost-effective, reactive services with separate or integrated hardware and software support options; includes HP Collaborative Support with independent software vendor (ISV) software problem resolution and enhanced call management.
- HP Proactive Care—Combines reactive and proactive hardware and software support; offers a single point of contact for remote and on-site hardware support delivered by advanced HP technology experts to help you proactively address potential issues and minimize downtime.
- HP Datacenter Care—Supports your entire data center environment; developed for environments that have HP and multi-vendor equipment; customized for your needs and service-level agreements.
- HP Lifecycle Event Services—Comprehensive end-to-end services, covering strategy, planning, deployment, technical, and education services that can be used at any stage of the solution lifecycle.

Through this portfolio of services, HP can help you align support service levels to your business needs worldwide—while also saving you costs and resources. With HP, you receive the right support for the new age, benefiting from a support experience that is personalized, proactive, and simplified. hp.com/services/proliant

For customer service training visit hp.com/learn/proliant or contact your local HP sales representative or authorized HP ServiceOne Partner.

HP server families

The undisputed server market leader

With one HP ProLiant server shipping every 11.6 seconds¹⁵ and more than 34 million sold, HP ProLiant servers are the undisputed market share leader.¹⁵ The industry-leading success of HP ProLiant stems in part from our ongoing commitment to providing a complete industry-standard server infrastructure that delivers innovation, quality, and proven performance.

A server for every need

HP understands that when it comes to servers, one size does not fit all. That's why we offer you a comprehensive array of server families, purpose-built for a wide variety of business needs. Explore our other server portfolios:

- [HP BladeSystem Family](#)—Delivering a whole new experience for IT with the Power of One—one infrastructure and one management platform to speed the delivery of services.
- [HP Moonshot System Family](#)—The industry's first workload-optimized server—designed for the data center and built for the planet.
- [HP Hyperscale Solutions Family](#)—When your IT is the core of your business.
- [HP Integrity Server Family](#)—When you need continuous business, Integrity servers help you achieve mission-critical results.
- [HP NonStop Server Family](#)—For industries that never stop.
- [HP Server Management Family](#)—Improve efficiency and accelerate service delivery.

To learn more about how HP ProLiant core rack and tower servers—together with Qualified Options and HP Services—can help you confidently lay the foundation for your converged infrastructure, visit the links below.

Learn more at

hp.com/go/proliant
hp.com/servers/rack
hp.com/servers/tower
hp.com/go/microserver
hp.com/go/servermanagement

¹⁵ CQ214 IDC Server Tracker, August 2014. HP has shipped more than 34.8 million servers through CQ2, 2014.

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