

# HPE ProLiant DL360 Gen10 4214R 2.4GHz 12-core 1P 32GB-R MR416i-a 8SFF BC 800W PS Server (P56951-B21)



# What's new

- Support for additional second generation Intel<sup>®</sup> Xeon<sup>®</sup> Scalable processors with improved price/performance.
- Networking Choice (NC) server models provide greater flexibility in the primary networking selection.
- Enhanced iLO 5 security features such as Server Configuration Lock, iLO Security Dashboard and Workload Performance Advisor.
- HPE InfoSight provides a cloud-based analytics tool that predicts and prevents

# Overview

Does your data center need a secure, performance driven dense server that you can confidently deploy for virtualization, database, or high-performance computing?

The HPE ProLiant DL360 Gen10 server delivers security, agility and flexibility without compromise. It supports the Intel® Xeon® Scalable processor with up to a 60% performance gain [1] and 27% increase in cores [2], along with 2933 MT/s HPE DDR4 SmartMemory supporting up to 3.0 TB [2] with an increase in performance of up to 82% [3]. With the added performance that Intel® Optane<sup>™</sup> persistent memory 100 series for HPE [6], HPE NVDIMMs [7] and 10 NVMe bring, the HPE ProLiant DL360 Gen10 means business. Deploy, update, problems before your business is impacted.

- Intel<sup>®</sup> Optane<sup>™</sup> persistent memory 100 series for HPE offers the flexibility to deploy as dense memory or fast storage and enables per-socket memory capacity of up to 3.0 TB. [5]
- HPE 800 Watt Flex Slot Titanium hot-plug power supply available for EMEA

monitor and maintain with ease by automating essential server life cycle management tasks with HPE OneView and HPE Integrated Lights Out 5 (iLO 5). Deploy this 2P secure platform for diverse workloads in space constrained environments.

## Features

## Industry-leading Performance with Versatile Compute

HPE ProLiant DL360 Gen10 server supports industry-standard technology leveraging the Intel Xeon Scalable processor with up to 28 cores, 12G SAS and 3.0 TB of 2933 MT/s HPE DDR4 SmartMemory.

Supporting the second generation Intel® Xeon® Scalable processor family with up to a 11% per-core performance gain [4] over first generation and with memory speeds up to 2933 MT/s.

Intel® Optane™ persistent memory 100 series for HPE works with DRAM to provide fast, high capacity, cost effective memory and storage to transform big data workloads and analytics by enabling data to be stored, moved, and processed quickly. [6]

Achieve greater capacity with flexible drive configurations with up to 10 SFF and four LFF drives along with an option to support up to 10 NVMe PCIe SSDs delivering enhanced performance, capacity, and reliability to meet various customer segments and workload requirements at the right economics.

With support for up to 12 NVDIMMs per chassis and 2X capacity of firstgeneration HPE NVDIMMs, HPE ProLiant DL360 Gen10 server delivers up to 192 GB per system. [7]

## **Innovative Design for Flexibility and Choice**

The premium 10 SFF NVMe chassis backplane provides the ability to mix and match SAS/SATA and NVMe within the same chassis along with 8 + 2 SFF and 4 LFF chassis that supports new uFF and M.2 storage options.

Embedded 4 x 1GbE (select models) or HPE FlexibleLOM and PCIe standup 1GbE, 10GbE, 25GbE, or 100GbE adapters provides flexibility of networking bandwidth and fabric so you can adapt and grow to changing business needs.

Unmatched expandability is packed in a dense 1U rack design with up to three PCIe 3.0 slots.

## **Security Innovations**

HPE iLO 5 enables the world's most secure industry standard servers with HPE silicon root of trust technology to protect your servers from attacks, detect potential intrusions and recover your essential server firmware securely.

New features include Server Configuration Lock that ensures secure transit and locks server hardware configuration, iLO Security Dashboard helps detect and address possible security vulnerabilities and Workload Performance Advisor provides server tuning recommendations for better server performance.

With Runtime Firmware Verification the server firmware is checked every 24 hours verifying validity and credibility of essential system firmware. Secure Recovery allows server firmware to rollback to the to last known good state or factory settings after detection of compromised code.

Additional security options are available with Trusted Platform Module (TPM) to prevent unauthorized access to server and securely stores artifacts used to authenticate the server platforms while the Intrusion Detection Kit logs and alerts when the server hood is removed.

## Industry-Leading Serviceability and Deployment

HPE ProLiant DL360 Gen10 server comes with a complete set of services offered by HPE Pointnext, delivering confidence, reducing risk, and helping customers realize agility and stability.

Services from HPE Pointnext simplifies the stages of the IT journey. Advisory and Transformation Services professionals understand customer challenges and design an enhanced solution. Professional Services enable rapid deployment of solutions and Operational Services provide ongoing support.

Services provided under Operational Services include - HPE Flexible Capacity, HPE Datacenter Care, HPE Infrastructure Automation, HPE Campus Care, HPE Proactive Services and multi-vendor coverage.

HPE IT investment solutions help you transform to a digital business with IT economics that align to your business goals.

# **Technical specifications**

## HPE ProLiant DL360 Gen10 4214R 2.4GHz 12-core 1P 32GB-R MR416i-a 8SFF BC 800W PS Server

Product Number	P56951-B21
Processor name	Intel® Xeon® Scalable 4214R (12 core, 2.4 GHz, 100W)
Processor number	1 processor
Processor core available	12 core
Processor cache	16.5 MB L3
Processor speed	2.4 GHz
Power supply type	1 HPE 800W Flex Slot Platinum hot-plug power supply
Expansion slots	2 PCIe 3.0, for detailed descriptions reference the QuickSpecs
Memory, standard	32 GB (1 X 32 GB) RDIMM
Memory type	HPE DDR4 SmartMemory
Included hard drives	None ship standard, 8 SFF drives supported
Optical drive type	None included
System fan features	5 standard hot plug fans
Network controller	Embedded 4 X 1GbE Ethernet Adapter
Storage controller	Broadcom MegaRAID MR416i-a x16 Lanes 4GB Cache NVMe/SAS 12G Controller for HPE Gen10 Plus
Product dimensions	4.29 x 43.46 x 70.7 cm
Weight	13.04 kg minimum, 16.27 kg maximum
Infrastructure management	HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download) Optional- HPE iLO Advanced, and HPE OneView Advanced (require licenses)
Warranty	3/3/3 - Server Warranty includes three years of parts, three years of labor, three years of onsite support coverage. Additional information regarding worldwide limited warranty and technical support is available at: <a href="http://h20564.www2.hpe.com/hpsc/wc/public/home">http://h20564.www2.hpe.com/hpsc/wc/public/home</a> . Additional HPE support and service coverage for your product can be purchased locally. For information on availability of service upgrades and the cost for these service upgrades, refer to the HPE website at <a href="http://www.hpe.com/support">http://www.hpe.com/support</a>

[1] HPE measurements: Up to 60% performance increase of Intel Xeon Platinum vs. previous generation E5-2600 v4 average gains of STREAM, LINPACK, SPEC CPU 2006 & SPEC CPU2017 metrics on HPE servers comparing 2-socket Intel Xeon Platinum 8280 to E5-2699 v4 family processors. Any difference in system hardware or software design or configuration may affect actual performance. April 2019.

[2] Up to 27% core increase of Intel Xeon Platinum versus previous generation comparing 2-socket Intel Xeon Platinum 8280 (28 cores) to E5-2699 v4 (22 cores). Calculation 28 cores / 22 cores = 1.27 = 27%. April 2019.

[3] Percentage compare Gen10 vs Gen9: Gen10 = 12 Channels x 2933 data rate x 8 bytes = 281 GB/sec. Gen 9 = 8 channels x 2400 x 8 bytes = 154 GB/sec. 281/154 = 1.82 or Gen10 is 82% greater bandwidth. Any difference in system hardware or software design or configuration may affect actual performance. April 2019.

[4] HPE measurements: Up to 11% performance increase of Intel Xeon Platinum vs. previous generation average gains of STREAM, LINPACK, & SPEC CPU2017 metrics on HPE servers comparing 2-socket Intel Xeon Platinum 8280 to Intel Xeon Platinum 8180 family processors. Any difference in system hardware or software design or configuration may affect actual performance. April 2019.

[5] 3.0 TB per socket with HPE 512GB 2666 Persistent Memory Kit

[6] Supported by the 2nd generation Intel Xeon Scalable Processors

[7] Supported by the 1st generation Intel Xeon Scalable Processors

For additional technical information, available models and options, please reference

the QuickSpecs

# **HPE Services**

No matter where you are in your transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From strategy and planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

## **Consulting services**

Experts can help you map out your path to hybrid cloud and optimize your operations.

### **Managed services**

HPE runs your IT operations, giving you unified control, so can focus on innovation.

## **Operational services**

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources.

- HPE Complete Care Service: a modular service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals. All delivered by an assigned team of HPE experts.
- HPE Tech Care Service: the operational service experience for HPE products. The service provides access to product specific experts, an AI driven digital experience, and general technical guidance to help reduce risk and search for ways to do things better.

### **Lifecycle Services**

Address your specific IT deployment project needs with tailored project management and deployment services.

### **HPE Education Services**

Training and certification designed for IT and business professionals across all industries. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options.

<u>The Defective Media Retention</u> (DMR) service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. <u>Comprehensive Defective Material Retention</u> (CDMR) allows you to keep all data retentive components.

# **HPE GreenLake**

<u>HPE GreenLake edge-to-cloud platform</u> is HPE's market-leading as-a-Service offering that brings the cloud experience to apps and data everywhere – data centers, multi-clouds, and edges – with one unified operating model, on premises, fully managed in a pay per use model.

If you are looking for more services, like IT financing solutions, please explore them here.



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Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

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