

# HPE PROLIANT DL325 GEN10 PLUS SERVER

A single socket server with 2P performance at 1P economics

## Key value points

- Greater VM density and VM price-performance with up to 64 cores and 16 DIMM slots
- 4 TB of memory capacity and 205 GB/s of memory bandwidth for fast access and processing of data in memory
- Increased data-centric application performance with HPE DDR4 SmartMemory running at memory speeds up to 3200 MT/s
- Increased security with silicon root of trust, Secure Memory Encryption, and Secure Encrypted Virtualization
- Up to 92 TB of NVMe SSDs coupled with PCIe 4 with four lanes to each SSD delivering greater I/O bandwidth for fast data access to dense compute storage

## RESOURCES

[HPE ProLiant DL325 Gen10 Plus server](#)

[HPE ProLiant DL325 Gen10 Plus server digital data sheet](#)

[HPE Server Performance Benchmarks](#)

Building on HPE ProLiant as the intelligent compute foundation for hybrid cloud, HPE ProLiant DL325 Gen10 Plus offers the 2nd Generation AMD EPYC 7000 Series processor that delivers up to 2X the performance of the prior generation.<sup>1</sup>

With up to 64 cores, 16 DIMMs, and 4 TB of memory capacity, as well as support for up to 24 NVMe drives, IT organizations can experience performance similar to the majority of 2-socket servers for virtualization and data-centric workloads without paying for unused options.

## TARGET USE CASES

### Workloads

Technology that delivers the right balance of server resources, memory, and I/O to better meet workload needs, including 64 processor cores operating at up to 3.4 GHz, 9% memory speed improvement operating at up to 3200 MT/s, PCIe 4 offering double the I/O bandwidth, and 2.4X greater storage capacity over previous generations.



### Virtualization

The HPE ProLiant DL325 Gen10 Plus server is perfect for organizations with a TCO first mindset, delivering 2P performance by cutting the “per socket” tax of virtualization software in half.

In the SPEC virt\_sc 2013 Benchmark, The HPE ProLiant DL325 Gen10 Plus scored 87% better in performance and 36% better in price performance than the previous 1P and 2P virtualization world record holders respectively.<sup>2</sup>



### Software-defined storage

The HPE ProLiant DL325 Gen10 Plus delivers maximum capacity and versatility with high frequency processors, increased memory capacity, and greater I/O bandwidth, as well as the ability to scale storage quickly and cost-effectively as data volumes expand.



### Big Data

The HPE ProLiant DL325 Gen10 Plus is the modular compute building block for Big Data environments that require high-performance cores attached to a large memory footprint to significantly accelerate processing output for a number of compute intensive workloads.

## Why consider HPE ProLiant DL325 Gen10 Plus?

HPE ProLiant is the intelligent compute foundation for hybrid cloud, delivering unmatched workload optimization, security, and automation, all delivered as-a-Service.

### Optimized for hybrid cloud

The foundational intelligence of HPE ProLiant transforms IT with insights that optimize workload performance, placement, and efficiency, delivering better outcomes faster.

A standard feature of HPE ProLiant, **workload matching** encapsulates decades of HPE performance engineering expertise into preconfigured, user-selectable profiles

that automatically optimize hundreds of BIOS setting combinations to precisely match server resources to workload requirements. Workload matching eliminates the trial-and-error—and risk—of server tuning, delivering the performance and efficiency of a server ideally suited to its workload tasks.

Built on the experience of over a thousand hybrid cloud engagements, **HPE Right Mix Advisor delivers** data-driven guidance to quickly and confidently move workloads to the right mix of hybrid cloud platforms, ensuring optimized performance to meet business-specific needs while speeding migrations from months to weeks and reducing costs as much as 40%.<sup>3</sup>

<sup>1</sup> Comparing the HPE ProLiant DL325 Gen10 Plus with AMD EPYC 7702 processor versus the AMD EPYC 7601 processor, and based on SPECrate2017\_int\_base score results. See [spec.org](#) as of August 7, 2019.

<sup>2</sup> HPE ProLiant DL325 Gen10 Plus server as compared to the Lenovo ThinkSystem SR650 with one and two Intel® Xeon® Platinum 8180 processors. November 2019. See [spec.org](#) as of November 18, 2019.

<sup>3</sup> “Cloud Economics—Are you Getting the Bigger Picture?” CTP Doppler Survey.

### Intelligent Automation

The intelligence built into HPE ProLiant simplifies and automates management tasks, establishing a solid foundation for an open, hybrid cloud platform enabled by composability.

- Embedded in HPE ProLiant, **HPE iLO 5** is the HPE-exclusive core intelligence that monitors server status, providing the means for reporting, ongoing management, service alerting and local or remote management to quickly identify and resolve issues.
- HPE iLO uses a fully Redfish-conformant **HPE iLO RESTful application programming interface (API)** to provide simple and secure management for today's cloud- and web-based infrastructures across a wide variety of operations and orchestration tools from HPE and others.
- A foundational element in the software-defined infrastructure of hybrid cloud environments, **HPE OneView** offers an automated, template-driven approach for deploying, provisioning, updating, and integrating compute, storage, and networking infrastructure.
- Building on the operational data of tens of thousands of servers, **HPE InfoSight** provides continual AI-driven insight to server operations, predicting and preventing problems before IT operations are impacted.

### 360-degree security

Already the world's most secure industry-standard server, HPE ProLiant provides an enhanced holistic, 360-degree view to security that begins in the manufacturing supply chain and

concludes with a safeguarded, end-of-life decommissioning.

- The silicon root of trust is connected to the AMD Secure Processor in the AMD EPYC SoC allowing the AMD Secure Processor to further validate the UEFI BIOS firmware before the server is allowed to boot.
- The AMD Secure Processor also manages Secure Encrypted Virtualization, which encrypts virtual machines (VMs) isolating them from one another and even the hypervisor itself, and Secure Memory Encryption, which protects against cold boot, DRAM interface snooping and similar attacks.
- Automated recovery from a security event, including restoration of validated firmware, and facilitating recovery of operating system, application, and data connections, are enabled by server system restore, providing the fastest path to bring a server back online and into normal operations.
- One Button Secure Erase offers a simple, safeguarded removal of passwords, configuration settings, and data from a server being repurposed or retired.
- HPE Asset Recovery prevents inadvertent access to previously secured information.

### Delivered as-a-Service

HPE provides customers choice in how they acquire and consume IT. Beyond traditional financing and leasing, HPE offers options that free trapped capital, accelerate infrastructure updates, and provide for on-premises pay-per-use consumption.

- HPE Right Mix Advisor provides data-driven guidance for intelligent planning, speeding migrations from months to weeks and controlling the cost of migration.
- HPE Accelerated Migration allows enterprises to free capital trapped in current infrastructure to reinvest for innovation.
- HPE GreenLake allows enterprises to move to a pay-per-use consumption model providing the agility of the public cloud with the security and control of on-premises compute.
- HPE InfoSight with AI-enabled analytics provides recommendations for problem resolution driving TCO down and preventing costly service outages.

### WHAT'S NEW?

- The 2nd Generation AMD EPYC processors offer up to 64 cores operating at 3.4 GHz.
- 7 nm at 225W process enables enterprise data centers to attain better power efficiency.
- 9% faster memory speed improvement for faster application performance with HPE DDR4 SmartMemory at speeds up to 3200 MT/s.
- 2X greater I/O bandwidth with PCIe 4 compared to PCIe 3.
- 2.4X greater storage capacity over previous generation.
- Improved NUMA optimization eliminates memory performance reductions when multiple processors simultaneously attempt to access memory.

### A COMPLETE SOLUTION FOR ENTERPRISE WORKLOADS AND VIRTUALIZATION

The HPE ProLiant DL325 Gen10 Plus with the 2nd Generation AMD EPYC single-socket architecture enables businesses to acquire enterprise-class processor, memory, and I/O performance and security without having to purchase a dual processor.

For space-constrained, virtualized environments where efficiency is important, the HPE ProLiant DL325 Gen10 Plus hyperconverged infrastructure meets the challenge in a dense 1U power-efficient, rack-based solution offering greater VM density than competitive solutions. This makes it ideal when deploying multitenant cloud-based solutions where increased memory and storage capacity with lower latency are most critical.

HPE ProLiant DL325 Gen10 Plus with up to 64 cores, 4 TB of memory, PCIe 4, and 3200 MT/s memory speed make this the right choice for small-scale virtualization.

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