

# HPE PROLIANT DL385 GEN10 PLUS SERVER

Advanced performance for virtualization and memory-intensive workloads

## Key value points

- Greater VM density and VM price-performance with up to 64 cores per processor and 32 DIMM slots
- 4 TB of memory capacity per CPU and 410 GB/s of memory bandwidth for faster in-memory performance
- Increased memory-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 61 TB of NVMe SSDs coupled with PCIe 4 with four lanes to each SSD delivering greater I/O bandwidth for fast access to large datastores

## RESOURCES

[HPE and AMD partner page](#)

[HPE ProLiant DL385 Gen10 Plus server](#)

[HPE ProLiant DL385 Gen10 Plus server digital data sheet](#)

[HPE Server Performance Benchmarks](#)

Building on HPE ProLiant as the intelligent compute foundation for hybrid cloud, HPE ProLiant DL385 Gen10 Plus server offers the 2nd Generation AMD EPYC™ 7000 Series processor delivering more than 2X the performance of the prior generation.<sup>1</sup>

With up to 128 cores (per 2-socket configuration), 32 DIMMs, and 4 TB of memory capacity per CPU, as well as support for up to 32 NVMe drives, HPE ProLiant DL385 Gen10 Plus is an ideal choice for virtualization and memory-intensive workloads.

## 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

High core count processors coupled with high speed, high capacity memory make the HPE ProLiant DL385 Gen10 Plus the perfect cornerstone to virtualized environments, maximizing VM density:



### Software-defined storage

The HPE ProLiant DL385 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

HPE ProLiant DL385 Gen10 Plus is a modular compute and storage building block delivering high-performance cores attached to massive memory footprints connected the multiple memory channels that Big Data environments crave.



### High-performance computing

High core count processors operating at high frequencies, high speed, high capacity memory, and high bandwidth/low latency access to PCIe 4 accelerators and high-speed interconnects, the HPE ProLiant DL385 Gen10 Plus server unlocks a whole new level of high-performance computing applications.



### Telecommunication

The HPE ProLiant DL385 Gen10 Plus server delivers like no other server on the market as it supports the richest memory configurations and network interface cards and accelerators connected over PCIe 4 to minimize latency.

**“With up to 4 times more cache in the AMD EPYC 7002 Series processor than the previous generation, the HPE ProLiant DL385 and HPE ProLiant DL325 should be positioned well for RDBMS platforms such as Microsoft SQL Server, Oracle, and PostgreSQL.”**

– Patrick Moorhead, Founder and Principal, Moor Insights & Strategy

<sup>1</sup> Compared to dual-socket HPE ProLiant DL385 Gen10 Plus with AMD EPYC 7601 processor in a similar configuration, and based on SPECrate 2017\_base\_int score results. See [spec.org](https://www.spec.org).

## Product brief

### Why consider HPE ProLiant DL385 Gen10 Plus?

HPE ProLiant is the intelligent compute foundation for hybrid cloud, delivering unmatched workload optimization, security, and automation, all available 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>2</sup>

### 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.

- Silicon root of trust validates the AMD Secure Processor, which in turn validates the UEFI BIOS 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.

### 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, accelerates infrastructure updates, and provides on-premises pay-per-use consumption.

- HPE Accelerated Migration allows enterprises to free capital trapped in current infrastructure to reinvest for innovation.
- HPE GreenLake provides pay-per-use IT consumption on-premises with real-time tracking and metering of resource usage, so IT capacity is always available to deploy quickly, paying for only the resources consumed.
- 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.
- 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.

## LEARN MORE AT

[hpe.com/partners/amd](https://hpe.com/partners/amd)

<sup>2</sup> "Cloud Economics—Are you Getting the Bigger Picture?," CTP Doppler Survey.

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