



# HPE ProLiant—30 years of server innovation and leadership

**HPE**   
**GreenLake**

## Delivering the broadest range of compute—Meeting the needs of the smallest companies to the largest enterprises

Since its debut in 1993, HPE ProLiant servers have provided customers with the high-performance and highly reliable compute power they need to tackle new business challenges and drive innovation. Initially available as tower-based servers, HPE ProLiant now offers a wide range of form factors—including rack-mount servers, server blades, scale-out systems, high-performance computing, microservers, and, most recently, the all-new HPE ProLiant Gen11 servers.

### Continuing journey of HPE ProLiant innovation

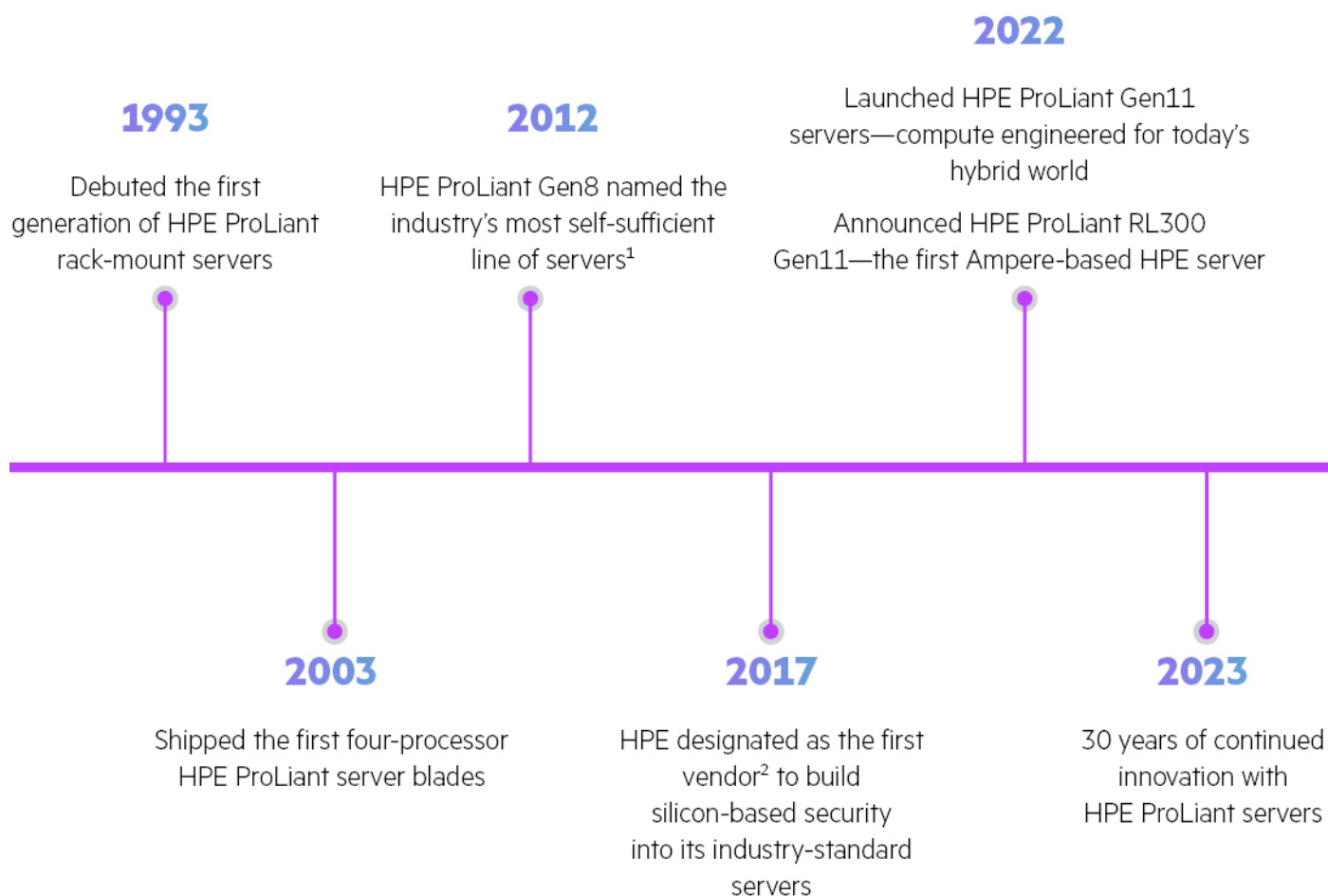


Figure 1. HPE ProLiant—30 years of server innovation

<sup>1</sup> [arstechnica.com/information-technology/2012/02/hp-launches-new-generation-of-self-sufficient-servers/](https://arstechnica.com/information-technology/2012/02/hp-launches-new-generation-of-self-sufficient-servers/)

<sup>2</sup> [hpe.com/us/en/newsroom/press-release/2017/06/hpe-unveils-the-worlds-most-secure-industry-standard-servers.html](https://hpe.com/us/en/newsroom/press-release/2017/06/hpe-unveils-the-worlds-most-secure-industry-standard-servers.html)



## Expanding the HPE ProLiant history of innovation

The first generations of HPE ProLiant were primarily designed for use by enterprises. With each new generation, however, support for additional industry segments has been included—with HPE ProLiant server models now optimized to handle the needs of service providers, small businesses, mid-size organizations, and the largest enterprises.

As HPE ProLiant evolved to support more industry segments, the server family also expanded its ability to handle more demanding workloads, including artificial intelligence / machine learning (AI/ML), data analytics, cloud-native applications, graphic-intensive applications, VDI, and virtualization. Once limited to data scientists and high-performance computing, these workloads are rapidly becoming ubiquitous across organizations of all sizes and all market segments.

Building on the industry-leading capabilities of the HPE ProLiant Gen8, HPE ProLiant Gen10, and HPE ProLiant Gen10 Plus platforms, HPE ProLiant Gen11 servers feature **an intuitive cloud operating experience, trusted security by design, and optimized performance** for workloads to support today's toughest business challenges—namely IT modernization, hybrid compute environments, and moving to “digital first.” The next-generation HPE ProLiant Gen11 portfolio of servers delivers the compute requirements needed to thrive in today's hybrid world:



**Figure 2.** HPE ProLiant DL380 Gen11

- Running compute closer to where data is created and resides
- Delivering infrastructure that is simple to manage and operate
- Providing built-in security from the silicon to the edge
  - HPE zero trust architecture integrates platform certificates, IDevID, and TPM into each server.
  - HPE GreenLake for Compute Ops Management includes policy-driven firmware updates, security patches, and AES-256 encryption for all your data in the platform.
- Scaling workloads quickly, efficiently, and with optimal performance
- Offering cost-effective options to meet evolving business objectives
- Leveraging HPE GreenLake
  - HPE ProLiant-based compute infrastructure can be consumed on a pay-per-use\* basis through HPE GreenLake cloud compute services
  - HPE GreenLake for Compute Ops Management allows for the management of compute regardless of where it happens—at the edge, in colocations, or in data centers

\* May be subject to minimums or reserve capacity may apply

# Optimized for today's demanding workloads—and tomorrow's

You need highly efficient systems optimized to handle today's data- and graphics-intensive workloads—such as CAD applications and 3D graphics models—all with trusted security and automation by design. Servers with location-agnostic, cloud-based compute management will ensure visibility and consistency despite increasingly diverse compute locations and workloads to unify operations across the lifecycle and throughout the environment.

## Virtualization

World record for **2P** 2-node virtualized data center performance<sup>3</sup>

World record for **256** total cores on VMware® VMmark<sup>4</sup>

World record for **448** total cores on VMware VMmark<sup>5</sup>

## Data management

World record 2P Windows performance for Enterprise Resource Planning (ERP) OLTP<sup>6</sup>

World record for Decision Support System (DSS) running Microsoft SQL Server 2022 Enterprise Edition<sup>7</sup>

World's best DSS performance and price/performance; running Microsoft SQL Server 2022 Enterprise Edition<sup>8</sup>

## Energy efficiency

Six tower server energy efficiency world records for Windows, Linux®, 1P, and 2P<sup>9</sup>

World record 1P energy efficiency<sup>10</sup>

<sup>3</sup> The competitive benchmark claim is based on having the best 2P 2-node result on the VMware VMmark 3.1.1 benchmark, with a score of [40.19 @ 44 tiles](#). Results as of November 10, 2022. VMmark disclosures are available at [vmware.com/products/vmmark/results3x.html](#).

<sup>4</sup> The competitive benchmark claim is based on having the best 2P 2-node result on the VMware VMmark 3.1.1 benchmark, with a score of [34.22 @ 36 tiles](#). Results as of November 10, 2022. VMmark disclosures are available at [vmware.com/products/vmmark/results3x.html](#).

<sup>5</sup> The competitive benchmark claim is based on having the best 2P 2-node result on the VMware VMmark 3.1.1 benchmark, with a score of [40.83 @ 42 tiles](#). Results as of January 10, 2023. VMmark disclosures are available at [vmware.com/products/vmmark/results3x.html](#).

<sup>6</sup> Two-tier SAP® Sales and Distribution (SD) Standard Application Benchmark: HPE ProLiant DL385 Gen11 server—2 processors / 192 cores / 384 threads; AMD EPYC 9654 @ 2.4 GHz processors; 1.5 TB memory; Microsoft Windows Server 2022; Microsoft SQL Server 2019; SAP enhancement package 5 for SAP ERP 6.0. Results: 104,000 SAP SD users, 574,000 SAPS. All results valid as of November 10, 2022. Certification #2022027.

<sup>7</sup> TPC Benchmark H (TPC-H) performance as of November 10, 2022. See [tpc.org](#) for details. Claim based on having the #1 performance for a nonclustered system on the TPC-H @ 3000 GB scale factor. Configuration: 1 HPE ProLiant DL385 Gen11 server used 2 AMD EPYC 9554 3.1 GHz processors; 2 socket / 128 cores / 256 threads; Microsoft Windows Server 2022 Datacenter Edition; Microsoft SQL Server 2022 Enterprise Edition. TPC-H results show the HPE ProLiant DL385 Gen11 with a result of 2,405,162.5 QphH @ 3000 GB and \$490.02 USD/kQphH @ 3000 GB; system availability April 3, 2023; see [tpc.org/3385](#) for details.

<sup>8</sup> TPC-H performance as of November 10, 2022. See [tpc.org](#) for details. Claim based on having the #1 performance and price/performance for a nonclustered system on the TPC-H @ 1000 GB scale factor. Configuration: 1 HPE ProLiant DL385 Gen11 server used 2 AMD EPYC 9174F 4.1 GHz processors; 2 socket / 32 cores / 64 threads; Microsoft Windows Server 2022 Datacenter Edition; Microsoft SQL Server 2022 Enterprise Edition. TPC-H results show the HPE ProLiant DL385 Gen11 with a result of 1,156,627.9 QphH @ 1000 GB and \$265.09 USD/kQphH @ 1000 GB; system availability December 5, 2022; see [tpc.org/3386](#) for details.

<sup>9</sup> SPECpower\_ssj 2008 results. SPEC and the name SPECpower\_ssj are registered trademarks of the Standard Performance Evaluation Corporation (SPEC). The stated results are published as of January 10, 2023; see [spec.org](#). All rights reserved.

<sup>10</sup> SPEC and the name SPECpower\_ssj are registered trademarks of the Standard Performance (SPEC). The stated results are published as of November 10, 2022; see [spec.org](#). All rights reserved. Based on HPE ProLiant DL345 Gen11 server.



## All new—Cloud-native compute solutions

**Available now!** Agile and extensible, HPE ProLiant servers are ideally suited for organizations that offer digital services, media streaming, social platforms, e-commerce, financial, or online services, as well as cloud-based services such as infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS).

## Transforming with HPE GreenLake edge-to-cloud platform

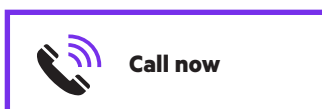
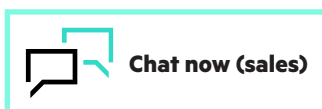
As you look for new ways to increase speed and agility in today's digital-first world, HPE GreenLake can help by bringing the cloud to you, your apps, and your data wherever they reside. With HPE GreenLake platform, you can:

- Accelerate time to value
- Boost operational excellence
- Free up capital
- Prepare your talent for what's next

You can receive your fast, flexible HPE ProLiant-based compute infrastructure on a consumption pay-per-use\* basis. Depending on your needs, you can choose from a range of workload- and cost-optimized configurations installed on your premises. Using [HPE GreenLake for Compute Ops Management](#), you can manage your compute no matter where it is located—at the edge, in colocations, or in data centers all from a single screen.

\* May be subject to minimums or reserve capacity may apply

Make the right purchase decision.  
Contact our presales specialists.



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[HPE.com/info/ProLiant](https://HPE.com/info/ProLiant)

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