



# Don't let aging servers stall enterprise innovation

The pace of technological change is accelerating. Modernize now with HPE ProLiant Compute solutions for better performance, efficiencies, and security.



While technology continues to advance at a dizzying pace, one fact remains unchanged: Organizations that innovate faster and more efficiently than their competition are the ones that will prevail. But achieving high levels of innovation sometimes requires business leaders to break with tradition and make bold choices.

At the same time, demands on IT have never been greater. Tech teams are being asked to meet ever-increasing computing needs of the Al-driven enterprise while also supporting non-AI workloads; at higher performance, accelerated pace comprises most day-to-day digital operations. And they're expected to fulfill the current or projected needs in the most cost-efficient way possible — while also meeting organizational sustainability goals.

Achieving these outcomes requires an approach that focuses on rapid infrastructure modernization. While traditional hardware refresh cycles of three to five years have served enterprises well for decades, we're now in an era in which the benefits of more frequent modernization efforts significantly outweigh the costs.

Simply put, older, multigenerational servers struggle to handle the performance demands of modern workloads. Plus, these aging systems are likely harder to manage and more costly to operate; they're also less energy efficient and lack the future-ready security features delivered by the latest HPE ProLiant Gen11 and HPE ProLiant Gen12 Compute servers.

Yes, your aging infrastructure may still be operational, but for how long and at what additional impact to your bottom line? Accelerating your refresh cycle can keep you from falling behind in areas most crucial to the success of your enterprise.

### Greater performance for demanding workloads and AI-driven use cases

While performance has always been the primary consideration for choosing servers, it takes on increased importance in an era where outstanding execution delivers faster, better results. It's estimated that by 2030, the demand for data center capacity is likely to increase by up to 27%, with AI workloads accounting for roughly a third of that total.¹ Additionally, with the continued demand for VDI and the emergence of AI workloads and the need for inference at the edge — performance speed has never been more important.

The HPE ProLiant Gen11 server achieved 60 records for performance against industry-recognized benchmarks, including three for compute-intensive workloads.<sup>2</sup> Holding multiple world records in AI inferencing benchmarks, The HPE ProLiant Compute is even more powerful, delivering lower latency communications,3 and featuring the Intel® Xeon® 6 processor with nearly 2.5 times as many cores per CPU as Gen11. The HPE ProLiant Compute Gen12 — with support for more GPUs — is truly a great choice to power a variety of AI workloads.

<sup>&</sup>lt;sup>1</sup> Al power: Expanding data center capacity to meet growing demand, McKinsey & Co., Oct. 29, 2024.

<sup>&</sup>lt;sup>2</sup> 60 world records for performance and efficiency with HPE ProLiant, HPE, 2024.

<sup>&</sup>lt;sup>3</sup> HPE ProLiant DL380 Gen11 vs. Gen12 Comparison — What's the Difference? server-parts.eu, Feb. 15, 2025.

# Simplify manageability across distributed computing environments with HPE Compute Ops Management

As technology portfolios become more complex and distributed, managing multiple assets can become an enormous challenge for IT teams. Both the HPE ProLiant Gen11 and HPE ProLiant Compute Gen12 ship with HPE Compute Ops Management, a secure, cloud-based management solution that simplifies and automates server lifecycle operations from the core to the edge.

HPE Compute Ops Management extends visibility across the entire organization, allowing tech teams to leverage Al-driven insights to proactively address problems before they result in outages or costly recovery operations. Additionally, automation capabilities can perform firmware updates up to five times faster than traditional methods.<sup>4</sup> This unified management platform can prevent up to five hours of downtime per server each year — and reduce time spent managing remote servers by up to 75%.

# Advance secure computing in an increasingly insecure world

Every year, security threats increase in number and sophistication. In the first quarter of 2025, cyberattacks surged by 47%, reaching an average of nearly 2,000 attacks, on organizations in all industries, each week.<sup>5</sup>

As adversaries adopt AI to generate new methods to compromise valuable data, and nation-state actors continue to launch attacks against digital supply chains, enterprises need to take extra measures to protect themselves — and their customers.

HPE ProLiant Compute Gen12 servers ship with HPE Integrated Lights-Out (iLO) 7. This innovative technology delivers multi-layer protection with a secure enclave for more secure storage of server encryption keys, preventing tampering from the factory floor to the racks in your data center. Additional security differentiators include meeting the requirements for FIPS 140-3 Level 3 for enhanced physical and digital intrusion resistance.6 Secure firmware signing against future quantum computing attacks with the support of NIST and CNSA 2.0 quantum resistance requirements that leverage post-quantum cryptography (PQC) algorithms, will help to ensure you are prepared for future security threats.

Our zero trust architecture extends to select network and storage controllers in the HPE partner ecosystem too, a key component of the HPE Synergy software-defined infrastructure.

# Advance sustainable IT for power-hungry workloads

The amount of data center energy needed to power All is set to increase 50% by the year 2027 and 165% by the end of the decade.<sup>7</sup> Server efficiency will be both a huge source of cost savings and an increasingly important consideration for enterprises intending to achieve their sustainability goals.



<sup>&</sup>lt;sup>4</sup> New Technology: The Projected Total Economic Impact of HPE Compute Ops Management, Forrester Research, June 2024.

<sup>5</sup> Q1 2025 Global Cyber Attack Report from Check Point Software: An Almost 50% Surge in Cyber Threats Worldwide, with a Rise of 126% in Ransomware Attacks, Check Point Research, April 16, 2025.

<sup>&</sup>lt;sup>6</sup> Currently pursuing certification for FIPS 140-3 Level 3.

<sup>&</sup>lt;sup>7</sup> AI to drive 165% increase in data center power demand by 2030, Goldman Sachs, Feb. 4, 2025.

HPE has many proven capabilities to help you advance your sustainable IT initiatives in a proactive manner. HPE Compute Ops Management enables you to view metrics for carbon footprint emissions and estimated energy consumption across the entire server environment, as well as determine costs for individual HPE ProLiant servers, via the sustainability report. With HPE Power Advisor, enterprise organizations can determine the anticipated HPE product carbon footprint before placing an order. And many of the latest HPE ProLiant Gen11 and Gen12 systems offer direct liquid cooling options, which can slash the electricity required for cooling by a factor of five. That translates into nearly \$2 million in annual savings for a 10,000-server data farm.8

Such advancements allow you to replace outdated servers with fewer, more powerful and more energy-efficient machines. For example, a single HPE ProLiant Compute Gen12 can take the place of seven Gen10 systems, offering approximately 40% better performance per watt, while reducing total power consumption by 65% per year. For older systems, the savings are even more dramatic: server footprint consolidation ratios for HPE ProLiant Gen8 and Gen9 servers are 26:1 and 14:1, respectively.

### Operating at the speed of innovation

In a period of rapid change, reducing time to market is more critical than ever.

Enterprises like yours have already invested billions of dollars in technology infrastructure improvements — because modernizing IT infrastructure is ultimately about the business's ability to do more and do it faster, more efficiently, and at lower costs. A modern technology environment, with capabilities to power the latest applications and use cases with the most efficiencies, can enable business leaders to begin implementing new strategies in days instead of weeks, months, or years.

Don't let old hardware keep your business from fully realizing potential return on that investment. Discover the performance you want and the speed and security you need with HPE ProLiant servers.

- <sup>8</sup> <u>Liquid cooling solutions for HPE ProLiant</u> Compute servers, HPE, 2025.
- <sup>9</sup> The Sustainability Impact of HPE ProLiant Compute Gen12 Servers, Enterprise Strategy Group, February 2025.
- SPEC and the names SPECrate are registered trademarks of the Standard Performance Evaluation Corporation (SPEC). The stated results [SPECrate2017\_int\_base: #36693 (1), #36691 (2), #20893 (3), #37007 (4)] are published as of 01-01-2025, see spec.org, and compared against a 48-core estimated Gen12 system. All rights reserved. Power savings based on the Thermal Design Power of the systems.

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