HPE PROLIANT COMPUTE

Gen12 brings next-level performance, efficiency, and security

HPE ProLiant Compute brings a new level of performance, efficiency, and security to IT operations. With the pressure to deploy AI applications and rethink virtualization strategies, IT needs advanced capabilities to maximize productivity and performance. With the addition of new Gen12 systems, Hewlett Packard Enterprise has a full, modern portfolio of hardware and software solutions that provide a secure foundation for the next generation of workloads while increasing power efficiency and streamlining operations.

Next-level security

Your challenge

Enterprises continually face the threat of data breaches, which can severely impact operations, costs, performance, and reputation.
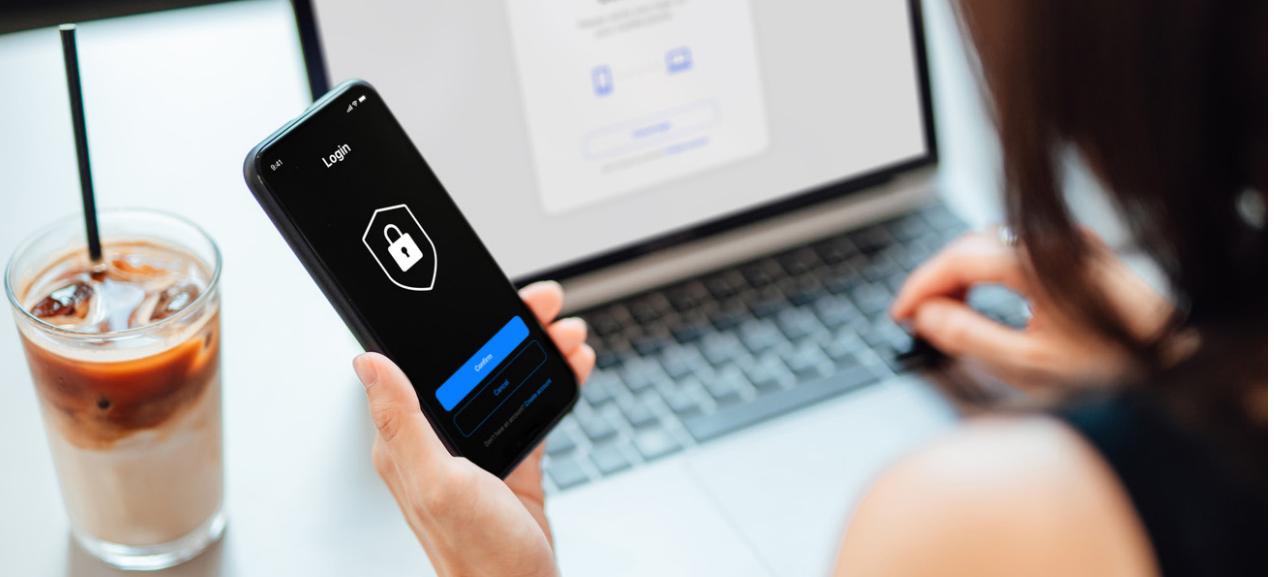
HPE solution

Protect against attack with multilayer security

HPE iLO multilayer silicon root of trust protects servers from manufacturing to end of life and provides compliance readiness for future quantum-computing attacks.

Figure 1. HPE iLO 7

New security innovations

Multilayered protection with secure enclave to prevent tampering, adding a new hardware-based vault within HPE iLO 7, for more secure storage of server encryption keys

First industry standard servers to meet the requirements for FIPS 140-3 Level 3 and will be pursuing certification, attained through the HPE iLO 7 with secure enclave capability for enhanced physical and digital intrusion resistance[1]

First server to support NIST and CNSA 2.0 quantum resistance requirement with secure firmware signing against future quantum computing attacks embedded into Silicon root of trust from HPE iLO 7[2]

Trusted supply chain available now at rack and server level—To speed deployment, reduce vulnerabilities, and offer full rack-level integrity during transit through our secure supply chain facilities

Optimized with more performance and efficiency

Your challenge

Enabling new use cases and workloads such as AI and edge while addressing inefficiencies with existing virtualization, legacy infrastructure, and rising energy bills

HPE solution

Up to 41% better performance per watt than Gen10 systems

Get the higher performance needed for new AI and edge workloads, and boost VDI efficiency—all while saving space and energy

Figure 2. HPE ProLiant DL380a Gen12 server

[1,2] As at January 27, 2025.

New performance and efficiency innovations

Consolidate and save, with up to 7:1 consolidation compared to Gen10 and up to 65% in power savings. Free up data center capacity and reduce energy consumption.[3]

AI-optimized server platforms with HPE ProLiant Compute DL380a Gen12 with NVIDIA® H200 NVL and first-to-market HPE ProLiant Compute DL384 Gen12 with NVIDIA GH200 NVL2, 144 GB.

Direct liquid cooling (DLC) will be available on all Intel®-based 1 and 2-socket Gen12 rack servers delivering superior cooling efficiency for even the highest performance workload needs.

HPE offers automated, on-demand carbon footprint reporting with HPE Power Advisor with anticipated HPE product carbon footprint before you order and ongoing sustainability insights within HPE Compute Ops Management.

The HPE ProLiant Compute portfolio is optimized for performance, efficiency, and cost with tailored solutions to power workloads from VDI to AI. With ever-increasing power demands on data centers and purpose-built compute for AI, superior cooling innovations deliver energy efficiency without compromising performance or productivity. To help organizations make informed choices from preorder to deployment, on-demand carbon footprint reporting is available only from HPE to support your sustainability initiatives.

Automated, AI-driven productivity

Your challenge

Server operations are inefficient, time-consuming, costly, and lack visibility and insights

HPE solution

Boost IT productivity with new AI-driven insights.

Enable operators to react quicker and gain greater control, from forecasting energy costs to managing a global server footprint
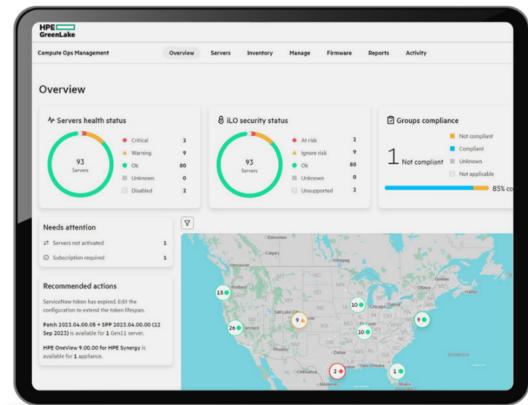

Figure 3. HPE Compute Ops Management dashboard

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[3] 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.

New automated, AI-driven productivity innovations

Predictive AI insights to forecast future energy costs and carbon emissions with confidence

Threshold-based alerting to stay informed with timely alerts when critical energy and carbon limits are reached

Improved map-based visibility simplifies server management with a unified global map view and color-coded health status levels

Multivendor management through integration with third-party toolsets, for simplified, unified operations of diverse IT environments

Faster single server management with new HPE iLO 7 with up to 30% decreased OS boot up time and 3x faster operations compared to previous HPE iLO

Help ensure smooth enterprise operations with proactive and predictive automation from data center to edge, leveraging a single management solution powered by AI-driven insights. Enable operators to react quicker and gain greater control, from forecasting energy costs to managing a global server footprint. Boost productivity of IT staff by quickly pinpointing problem areas through dashboards, intelligent alerts, and a global map view of all servers with status and activity.

HPE ProLiant Compute Gen12—Engineered for your hybrid world

The HPE ProLiant Compute Gen12 is not just a server; it's a comprehensive solution designed to propel your enterprise into the future. With unmatched security, optimized performance, and AI-driven productivity, it equips your organization to handle the challenges of today and tomorrow.

For any enterprise, investing in the HPE ProLiant Compute means safeguarding your data and optimizing performance and productivity of your operations while supporting IT sustainability. It's a strategic move that helps ensure your enterprise remains at the forefront of technological advancements while achieving measurable business results.

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