A new compute experience for Hybrid IT agility, security, and economic control

Powered by HPE ProLiant Gen10 servers



As organizations evaluate the right-mix of on-premises and public cloud to enable <u>digital</u> <u>transformation</u> — they require an infrastructure that delivers the agility and economics of the public cloud with the security and control of an on-premises data center. HPE ProLiant Gen10 servers powered by Intel® Xeon® Scalable processors deliver on all fronts. Learn how these <u>innovative servers from HPE</u> can help you better address hybrid IT, handle your diverse workload requirements, and hand economic control back to you.

A new way forward

To be successful, speeding time to value with the new generation of applications and data, businesses require a compute and storage infrastructure that's fast, secure and scalable whether applications and data are in the corporate data center, hosted in the cloud, or a combination of both.

Read the Hybrid IT Whitepaper

For IT decision makers who must define the right mix of <u>Hybrid IT</u>, a new compute experience is required that provides the following:



Agility – A faster way to deliver business results

Learn how to increase agility, productivity, and efficiency with HPE ProLiant Gen10 Servers.

Watch video



Security – A better way to protect your business and data

Find out why HPE ProLiant Gen10 servers have been validated as the <u>world's most</u> secure industry standard servers¹.

Watch video



Economic control – A smarter way to consume and pay for IT

With <u>HPE GreenLake Flex Capacity</u>, you get the control to pay only for what is used, and scale on demand without overprovisioning or incurring exponential costs at scale.

Watch video

Reducing <u>Hybrid IT complexity</u> while maintaining agility, security, and cloud economics are important goals for the data center. The next few sections will examine these key qualities in greater detail.







A faster way to deliver improved business results

Your applications are not "one size fits all". Technologies and innovations available in HPE ProLiant Gen10 servers allow you to run diverse workloads and applications across traditional and multi-cloud environments, delivering predictable performance and intelligent automation that can only come from an on-premises infrastructure.

HPE ProLiant Gen10 server technology accelerates application performance to rapidly gain business insight and respond to customer needs while accelerating infrastructure deployment, simplifying server operations, and improving reliability and availability. Specifically, HPE OneView software-defined infrastructure management accelerates your infrastructure deployment with software-defined templates and increases IT efficiency by reducing maintenance time and support costs. Try HPE OneView for yourself with this free 60-day trial.

68%

less unplanned downtime 63%

faster server deployment 46%

faster storage deployment

Download the IDC Report



With <u>Intelligent System Tuning</u> you can dynamically configure server resources to match specific workloads for improved performance. As a result, you can accelerate infrastructure deployment, simplify server operations, and deliver optimal performance from your applications and data.

Intelligent System Tuning

Deliver up to a double-digit boost in performance² with the following set of server tuning technologies:

- **Jitter smoothing:** Mitigate processor frequency fluctuations to reduce latency and deliver deterministic and reliable performance.
- **Workload matching:** Leverage preconfigured workload profiles to tune your server's BIOS settings for superior performance and save hours of server tuning time.
- **Core boosting:** Maximize the performance of all your processor cores in select Intel Xeon Scalable processors while lowering core-based licensing costs ideal for virtualized environments, HPC, and Big Data. Save up to 200K in total cost of ownership (TCO)³ and get 10% more Virtual Machines⁴.





^{2.} Based on internal HPE testing, May 2017.

^{3.} Comparing the Intel Xeon Scalable 6143 processor to standard Intel Xeon Scalable 18 core processors. Costs include unit pricing, increased energy spend, database licenses, partitioning, and support for 3 years.

^{4.} Comparing the Intel Xeon Scalable 6143 16-core processor to the 6142 16-core processor. VMmark® is a product of VMware, Inc. VMmark results published as of 08-26-17. VMmark disclosures available at http://h20195.www2.hpe.com/V2/GetDocument.aspx?docname=a00023030enw and http://h20195.www2.hpe.com/V2/GetDocument.aspx?docname=a00023031enw.

Integrated Lights Out (iLO)

Configure, monitor and update your HPE servers seamlessly from anywhere in the world. <u>HPE iLO 5</u> provides consistent insight into the health and operation of your servers, and automatically monitors, controls, and issues health alerts from any browser, secure shell (SSH), or a mobile app for remote control and maintenance.

Watch video

Upgrade your iLO license for additional functionality, such as graphical remote console, multi-user collaboration, video record/playback, remote management, and much more.

Try iLO Advanced

Try iLO Advanced Premium Security Edition

<u>HPE SmartMemory</u> operating at 2666 mega transfers per second (MT/s) provides the performance for memory-intensive applications, while <u>Fast Fault Tolerance</u> monitors and corrects DRAM failures and allows the remaining memory to operate at full performance.



A better way to protect your business and data

You need the confidence to know you have an infrastructure that protects, detects, and recovers from security threats and disruptive acts that can otherwise impact your business or compromise sensitive data. HPE ProLiant Gen10 servers are designed with deep rooted security features from the start to protect against threats throughout the product lifecycle, and quickly detect and recover from attacks that do occur.

HPE builds security into the complete server lifecycle with innovations in firmware protection, threat detection, and recovery to deliver the world's most secure industry standard servers¹. Get the ultimate in server security with integrated Silicon Root of Trust to protect, detect and recover from firmware breaches. Server System Restore leverages iLO Amplifier Pack software to securely restore up to 10,000 servers back to an operational state with a single click⁵.

Learn about HPE Secure Compute Lifecycle

HPE has answered the need to deliver an end-to-end security solution that provides <u>protection at every stage</u> in the product's lifecycle, and we've done so according to a <u>suite of security standards</u> defined by the National Institute of Standards and Technology (NIST):



1. Silicon to supply chain

Ultimate firmware protection

- iLO 5 Silicon Root of Trust
- Secure supply chain

2. Ongoing operations

Run time attack protection

- Alerts for compromised firmware
- Secure supply chain

3. Rogue employees

Indentification of potential behavioral risks

 Machine learning applied to behavioral actions

4. Data flow

Data security within the server

Four levels of protection:

- CNSA Suite*
- FIPS 140-2**
- High security
- Production

5. Compliance planning

Accelerated regulatory compliance

- Alerts for compromised firmware
- Secure supply chain

6. End of life

Safe disposal of data and infrastructure

 Machine learning applied to behavioral actions













- Silicon Root of Trust: never boot with compromised firmware. HPE is the only vendor to provide a digital fingerprint in the silicon that prevents the system from booting with compromised code.
- 2. **Server system restore:** in the event of a breach, securely restore up to 10,000 servers back to an operational state with a single click⁵.
- User monitoring: Aruba IntroSpect creates a behavioral baseline of users, systems and devices while looking for changes in activity indicative of a gestating attack.
- 4. **Secure data flow:** protect access to and from the server, and within the server.

- 5. Security compliance: including CNSA, where HPE was the first vendor to support the strongest security codes available; full FIPS 140-2 validation on iLO 5; and NIST 800-53 controls for our solution stack of servers, networking, and storage products, for the highest level of government standards.
- Secure data disposal: HPE Pointnext security and protection services provide final disposal of equipment, ensuring the data is properly disposed of according to NIST standards.



^{*} Commercial National Security Algorithm Suite

^{**} Federal Information Processing Standards



In traditional IT infrastructure acquisition models, you buy once but you pay for the entire lifecycle. Businesses are demanding new IT consumption options with flexible payment models that align cost to business outcomes, and scale based on unpredictable customer demand. With HPE, there's a better way to plan for your capacity requirements, eliminate over-provisioning and pay only for what you use, while delivering a faster transition from your old legacy IT to new IT infrastructure.

With HPE Financial Services, you can employ investment strategies to accelerate and fund your transformation. You pay only for server resources used, scaling on demand without overprovisioning or incurring ever-growing costs. You get both the scalability and economics of the cloud and all the security and control of an on-premises deployment as a result. Explore a new approach to planning for, acquiring, and consuming IT.

Consume and pay for only what you use

Reduce operational cost by leveraging HPE GreenLake Flex Capacity, a pay-as-you-go consumption based IT model with the ability to add capacity in minutes not months. Combined with new innovative investment options, HPE helps you balance both operating and capital expenditures to advance your digital transformation projects, with the freedom to control your bottom line. Companies across all verticals—from manufacturing to retail to healthcare—leverage HPE GreenLake Flex Capacity to gain flexibility, increase control, and lower their Total Cost of Ownership (TCO).

Read the eBook

<u>Flexible payment models</u> align with your business and scale based on unpredictable spikes in usage. Pay for IT as you go and meet user demands instantly, but only when they occur. HPE leads the industry in offering IT consumption models with flexible payment options designed to adjust with your changing IT usage.

Watch video

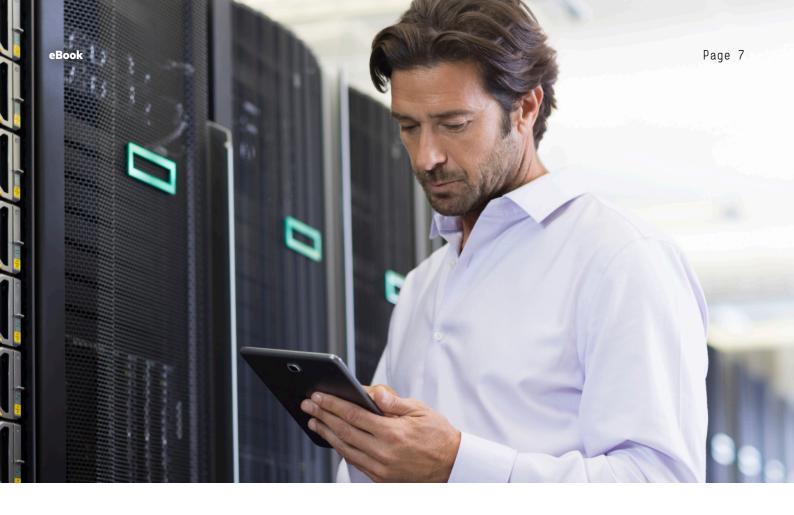
HPE Financial Services offers IT asset lifecycle management solutions to help you free capital trapped in legacy IT, capture existing value and accelerate your transition to new hybrid IT. A portfolio of investment solutions gives you added flexibility to optimize how you trial, deploy and refresh IT aligned to your financial and business objectives. Whether you need to extend and extract additional value from existing infrastructure for a time or trial new solutions, we can help you develop the right investment strategy to fit your needs.

Case study: Travelport deploys with HPE innovative financial services

To achieve their business goals, Travelport realized modernizing their infrastructure was a critical must. Implementing a flexible IT investment strategy enabled the company to meet technology and finance goals by accelerating refresh cycles, preserving cash and optimizing costs.







Call to action: experience the HPE ProLiant Gen10 advantage

Staying competitive in today's business environment produces demanding workloads, and large volumes of data. HPE ProLiant Gen10 servers provide the needed capabilities with the economics of the cloud business model and the security and control of on-premises IT infrastructure. Intel Xeon Scalable Processors combined with market leading HPE 3PAR storage, HPE Arista networking, and integrated HPE Pointnext services keep your business ahead of the curve.

Download Rack and Tower Family Guide

Accelerate your applications, business processes, and business insights with HPE ProLiant Gen10 servers to deliver improved business results. With the HPE ProLiant DL 300 series and 500 series Gen10 servers, you get the best of both worlds: the economic benefits of the cloud with the agility and security of on-premises IT infrastructure. HPE delivers unique features that achieve higher scale and performance, with superior reliability, advanced security that includes the hardware, firmware, and HPE GreenLake Flexible Capacity to only pay for what you actually use.

Sign up to learn more and get the latest HPE ProLiant Gen10 information.

Calculate the total cost of transforming your enterprise to confidently make the right investment decisions.

Try the TCO Calculator now







Speak with an HPE infrastructure expert about how you can get started with secure, agile hybrid infrastructure.

Contact us





Learn more at hpe.com



Sign up for updates

[©] Copyright 2018 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.