



Hewlett Packard
Enterprise

Business white paper

Make IT an engine of innovation

HPE ProLiant Gen9 servers help you accelerate business



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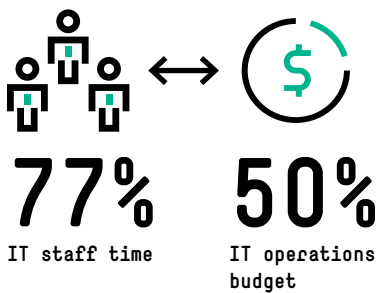


Elevating the strategic value of IT systems

Today's increasingly mobile, data-driven business environment demands a different approach to information technology (IT) systems. For businesses to truly elevate the strategic value of IT, they need to do far more than just keep individual systems running.

Staying ahead of the competition requires decision making based on more accurate information, increased business efficiency and productivity, and greater flexibility to respond to customer demands in real time. To achieve these goals, businesses must be supported by agile IT services that deliver the right compute for the right workload, starting with the servers that form the heart of IT and run the applications that deliver business performance.

IT and business in perfect sync



Spent on day-to-day management needs
vs. IT systems innovation¹

Innovative companies around the world have embraced a modernized, business-centric approach to IT, delivering orchestrated solutions that help achieve better business results. Now, more efficient and agile servers support this innovation by combining compute, storage, and networking resources to manage entire IT environments as programmable elements that are flexibly tailored to meet changing business demands. With HPE ProLiant Gen9 servers, you can redefine your IT infrastructure so that it's converged, software-defined, cloud-ready, and workload-optimized. HPE ProLiant Gen9 servers can help organizations align IT infrastructures with key business outcomes: running operations efficiently, accelerating IT service delivery, and increasing business productivity and performance.

HPE ProLiant Gen9 servers offer optimal processing power, increased storage, reduced energy consumption, innovative embedded management capabilities, and greater visibility and control across IT environments. Businesses can accelerate IT service delivery with HPE OneView, a single, software-defined management platform that automates configuration and life-cycle management of HPE ProLiant Gen9 servers and speeds virtual machine provisioning. Plus, combining HPE ProLiant Gen9 servers with HPE StoreVirtual VSA Software can dramatically reduce costs by converting under-used resources into enterprise-class shared storage.

¹ Forrester Research, "Year-End 2013 IT Budget Benchmarks," Dec. 16, 2013.

Boost efficiency at a lower cost of service

The high costs of operating and cooling inefficient servers can chip away at profitability and limit growth potential. Alternatively, you can refresh your data center infrastructure with HPE ProLiant Gen9 servers to relieve budget pressure while improving performance and providing flexible processing options that consume less energy and space.

HPE ProLiant Gen9 servers feature the latest Intel® processors, increased energy efficiency, and advanced workload-optimization technologies to help IT departments deliver greater compute capacity at a lower total cost of ownership. Many of these servers also feature HPE SmartCache, HPE PCIe Workload Accelerators, HPE Computational and Graphics Accelerators, and HPE DDR4 SmartMemory to help optimize capacity and boost application performance. With the virtualization capabilities enabled by HPE ProLiant Gen9 servers, organizations can support business-critical apps while also using the same processing power for reporting, analytics, or backups.



3X compute capacity

with reduced TCO, energy consumption, and floor space to maximize data center capabilities.²



Figure 1: HPE ProLiant Gen9 rack, tower, and blade servers provide supreme flexibility in energy- and space-saving compute options.



Real-world business outcome

Reliable and efficient servers pay off for gaming-systems company

A globally recognized provider of technology innovations for the gaming industry implemented HPE ProLiant Gen9 servers in the company's data centers and at its customer locations across 17 countries. The embedded-management tools in HPE ProLiant BL460c Gen9 and HPE ProLiant DL360 Gen9 servers allow the company to do everything from monitoring workloads to micromanaging its network connections down to individual ports.

Since switching to HPE ProLiant Gen9 servers, the company has seen a 20 percent overall increase in computational density and reduced its server footprint by up to 70 percent—resulting in lower energy costs. “With HPE ProLiant Gen9 servers, we can get more CPU density, more memory density, and better performance in a smaller space while using fewer resources to power them,” says the company's IT Lab Services manager. “We can get the same computational value now in a platform that is between 50 percent and 70 percent smaller and more efficient than anything that's ever been available.”

² HPE internal analysis. Comparison between DL380 Gen9 vs. DL380p Gen8 with Sandy Bridge processors. Source for system wattage was IDC Qualified Performance Indicator located at qpicertificate.idc.com. Performance taken from SPECint_rate_base2006 industry benchmark. Calculation: Performance/Watt, August 2014.

Up to **96%**

faster infrastructure configuration, using
HPE OneView.³

Simplify routine IT tasks for faster time to service

Complex deployment and management tasks can divert an organization's limited IT resources toward day-to-day maintenance—leaving little or no time and budget for developing more innovative and effective IT services that align with business needs. The management features of HPE ProLiant Gen9 servers help IT professionals restore their focus on innovation by automating and simplifying routine deployment, configuration, and management tasks. With the HPE OneView converged management environment, organizations get a software-defined architecture that accelerates server deployment by providing up to 96 percent faster infrastructure configuration.⁴

Automated life cycle management capabilities enable faster setup, monitoring, and firmware maintenance as well as reliable, secure, and innovative embedded management. With these improvements, IT administrators can accelerate the rollout of new capabilities and services—including private clouds—for faster time to value and greater competitive advantage.



Figure 2: The HPE ProLiant DL160 Gen9 server delivers a high degree of virtualization for any business.



[Explore more HPE server case studies.](#)



Real-world business outcome

Security company gains ideal mix of high capacity, low maintenance

A large provider of Web-based security tools and services needed servers that could balance computing power with storage capacity to support the company's distributed infrastructure. The company also wanted to keep management costs low, particularly by avoiding the need to maintain a large in-house IT staff.

HPE ProLiant DL160 Gen9 and DL380 Gen9 servers give the company significantly more capacity with a high degree of virtualization for all its fast-growing cloud storage business needs. HPE ProLiant SL4500 Gen9 servers—which are built to run in Big Data implementations and can accommodate 60 hard drives per machine—help the company achieve its goals of conserving data center space while still keeping up with customer demands.

That's not all: the automated deployment capabilities of HPE ProLiant Gen9 enable the company to manage more than 80,000 servers with only 20 full-time operations personnel. Now that's efficiency at its best.

³, ⁴ Based on HPE internal testing, August 2013: Comparing HPE OneView v1 with traditional HPE management tools, each deploying 16 servers. Test involved configuring the networks, enclosure, template, and profiles. HPE OneView took 14 minutes of administrative time.

**4X faster**

workload and processing performance to transform the business and grow revenue, margin, and market share.⁵

Improve server performance to gain higher value from IT

Organizations need uncompromised IT performance to handle the ever-changing business landscape of cloud-based service delivery, Big Data-fueled decision making, always-on mobile access, and high security.

The HPE ProLiant Gen9 portfolio, helps optimize performance across processing, storage, networking, input/output (I/O), software, and services.

The faster memory and improved scalability of HPE ProLiant Gen9 servers allow an organization to handle more transactions and analyze greater volumes of data. As a result, teams can work more productively, communicate and collaborate more easily, and make better-informed decisions. These performance gains add up to greater opportunities for the business to grow revenue, margin, and share.



Figure 3: The HPE ProLiant DL380 Gen9 server is a data center standard for businesses worldwide.



Real-world business outcome

Scalability drives results for cloud-services provider

A company that provides cloud solutions for handling Big Data applications recently chose HPE ProLiant Gen9 servers to provide the performance, scalability, and efficiency that its customers demand. HPE helped the company redefine how it provides computing power to clients—gaining increased functionality with the same scalability that had been reserved for virtualized environments.

“What we’ve achieved with HPE ProLiant Gen9 is that we can give our clients a much better value in terms of price and performance,” says the company’s product manager. “We’re seeing a 35 percent increase in net energy efficiency and also a 60 to 70 percent increase in performance.”

These gains are also helping the company respond to customer needs faster and more efficiently than ever.

⁵ HPE SmartCache performance done with equivalent controller in a controlled environment. HPE Smart Storage engineers, Houston, Texas, as of May 18, 2014.

Enhancing HPE ProLiant Gen9 with virtualized storage and networking, plus targeted services

Because each HPE ProLiant Gen9 server is designed to work seamlessly with HPE virtualized storage and networking solutions, the combined HPE portfolio provides greater leverage to maximize IT efficiency and boost performance across your infrastructure. Plus, the entire portfolio is supported by HPE expertise in enterprise services.

Boost efficiency with software-defined storage

Software-defined storage resources give organizations the freedom to consolidate applications and data services on a single platform, taking full advantage of the efficiencies that virtualization brings to the infrastructure. HPE ProLiant Gen9 servers provide a robust platform that can easily support the needs of both virtual applications and virtual storage appliances (VSAs) residing on the same server. Organizations can transition to a modern architecture through the use of software-defined technologies on advanced server platforms.

HPE StoreVirtual VSA Software and HPE servers allow you to create a robust, performance-driven solution that meets budget and business demands—now and into the future. This software helps eliminate the cost of dedicated storage hardware by tapping unused compute and storage capacity within the server, providing resilient shared storage for virtual servers running VMware® vSphere, Microsoft® Hyper-V, or Linux® KVM. Organizations can easily deploy storage resources by using the Intelligent Provisioning tool within every HPE ProLiant server to install VSA software with a single click. Plus, every HPE ProLiant server comes with a 1 TB VSA license at no extra cost.

Drive innovation and competitive advantage with HPE networking

Agile, reliable, and cost-effective networks equip a business to compete effectively in the fast-moving digital economy. HPE provides the broadest open standards-based software-defined networking portfolio of its kind. With a simplified network that understands, adapts to, and protects business applications in real time, organizations gain the flexibility to innovate—from the data center to the mobile edge.

HPE FlexNetwork architecture brings consistent and open standards-based networking to enterprise data centers, campuses, and branches. HPE networking switches offer high performance, scalability, and a wide range of features for core-to-edge connectivity that dramatically reduces network complexity and lowers total cost of ownership.

Modernize systems for long-term growth with HPE services

HPE services can help get you started on the journey to modernizing your IT infrastructure—and will be there when and where you want to grow. HPE offers a comprehensive set of services to manage and optimize every aspect of the server environment.

HPE Proactive Care Services provide advanced technical expertise combined with 24/7 monitoring, automated parts dispatching, and personalized reporting to help prevent problems before they occur and keep your team productive. Our end-to-end HPE Lifecycle Event Services include working with your IT team to design your environment from scratch or integrate new technology into your existing infrastructure.

HPE Financial Services provide customized leasing and financing options to smooth your HPE ProLiant Gen9 server purchase, keeping your IT spending in line with your overall budget.



Reimagine IT—and transform business results

HPE ProLiant Gen9 servers reflect more than 25 years of market leadership—delivering exceptional reliability, innovation, and access to local-support expertise backed by global resources. By bringing the right compute solutions at the right time and with the right economics, HPE empowers IT departments to drive business transformation.

For more information about HPE ProLiant Gen9 servers, contact your HPE representative or reseller.

Learn more at
hpe.com/info/rackandtower
hpe.com/info/blades



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