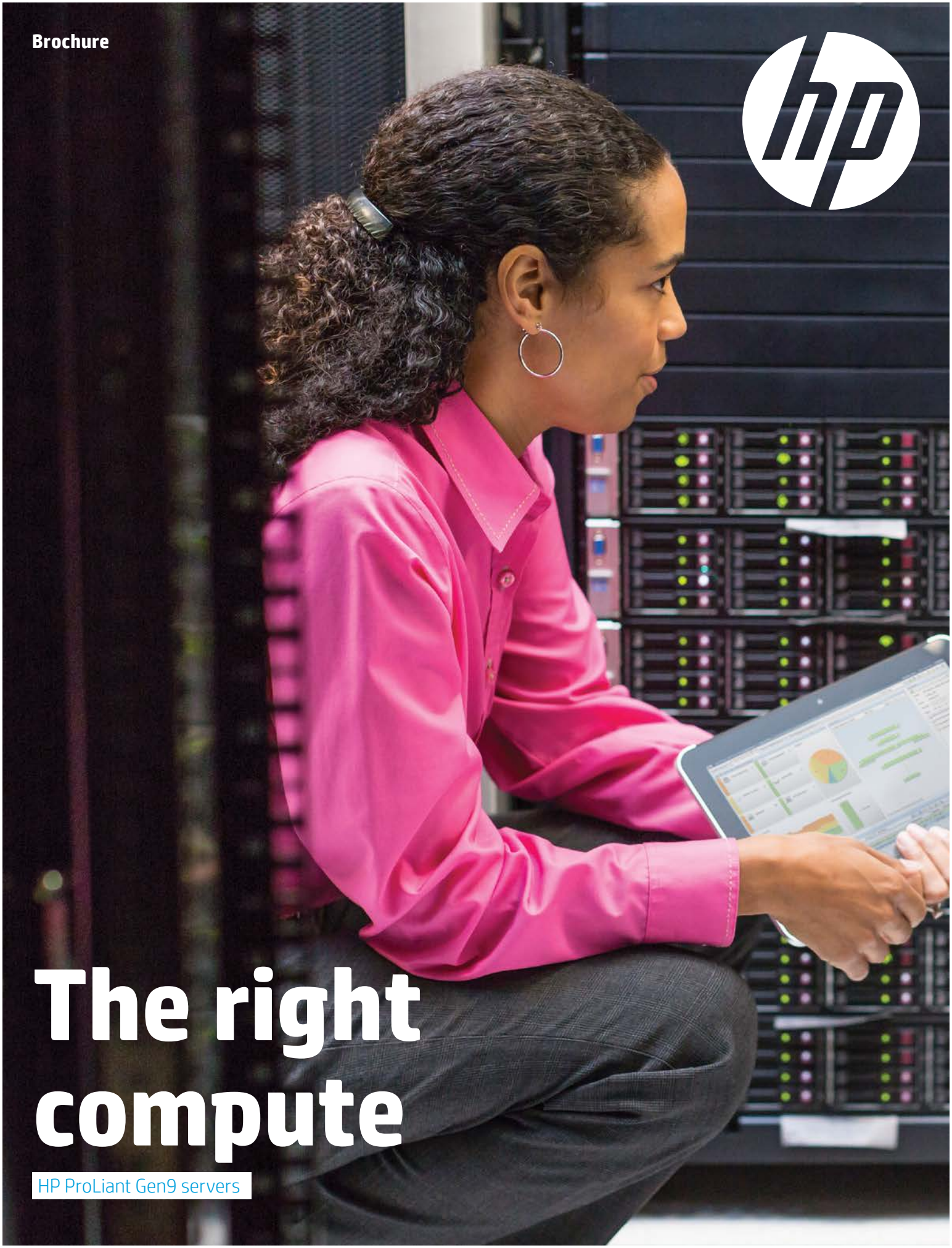
Brochure



The right compute

HP ProLiant Gen9 servers

New expectations and opportunities are here

The mega trends of cloud, mobility, Big Data, and security are generating new business opportunities—and new business challenges. Today, you need to deliver new services faster, increase operational efficiencies, and grow revenue, margin, and market share.

IT needs to lead business change, capitalizing on bold new technologies that will enable business growth. Unfortunately, today's IT infrastructure is often inefficient, sub-optimal, siloed, and slow—struggling just to meet basic business requirements, much less the need for transformation.

Intelligent HP ProLiant Gen9 servers:

- Redefine compute economics
- Accelerate service delivery
- Boost business performance

Bridging the gap between increasing business demands and IT supply will help you deliver compelling business outcomes with faster, value-added services at greater efficiency for your business. It's time to bridge the gap, by thinking about IT in an entirely new way.

A new approach is needed, starting with the heart of your infrastructure—compute—the vast pool of processing resources that can be located anywhere, scaled to any workload, and available at all times to fuel business growth. Business transformation begins with compute transformation because compute runs the applications that run your business.

The right compute for the right workload at the right economics—every time

Instead of focusing on optimizing individual systems and servers, today's new style of IT demands that you think about managing compute, storage, and networking as programmable elements that can be optimized to meet changing business needs.

HP ProLiant servers are designed with this goal in mind, delivering more compute and storage capacity, right-sized compute with flexible choices, and providing lower compute energy and floor space consumption to lower your costs of IT service.

Additionally, HP ProLiant servers help you speed your IT service delivery with faster compute, memory, and I/O performance and increased storage and networking performance, including lower latency.

They are built to excel for any size business, for any size workload, in any environment with:

- 4X compute capacity with lower total cost of ownership (TCO), maximizing data center capabilities at the lowest cost of service[1]
- 66X faster service delivery with simple automation, saving admin time and reducing errors from manual steps[2]
- 4X faster workload performance to transform the business, growing revenue, margin, and share[3]

HP ProLiant Gen9: a new approach to compute

In the compute era, processing is not defined in terms of discrete systems and silos. To move your IT infrastructure in lock-step with your business, the focus is on relentlessly driving the lowest cost, fastest time, and highest value of service delivery, period. HP ProLiant Gen9 servers are designed for this new era. Let's take a closer look at how HP gives you the simplicity and freedom to build IT that's truly the best fit for your business.

[1] Based on HP internal calculations. The HP ProLiant XL220a Server is 4X better in performance per dollar/per watt when compared to a competing Dell Blade M620 for a single threaded application per server.

[2] Anonymous customer results. The time to build and deploy infrastructure for 12 call centers was reduced from 66 days to one. Source: IDC white paper sponsored by HP, "Achieving Organizational Transformation with HP Converged Infrastructure Solutions for SDDC," January 2014, IDC #246385.

[3] HP SmartCache Performance done with equivalent controller in a controlled environment. HP Smart Storage engineers, Houston, Texas, as of 18 May 2014 posted on internal SmartCache wiki page.

Leverage HP ProLiant solutions for:

- File and print
- Infrastructure apps
- Virtualization (from low to dense)
- Mission-critical applications
- Large databases
- Monolithic applications

Compute that turns red to black

Redefining compute economics

As data centers grow, power and cooling costs take an ever larger bite out of the IT budget. Automated energy optimization features of HP ProLiant servers help you lower your use of space, power, and cooling. For example, you can:

- Get 2X more compute per watt per dollar using proven and reliable HP SmartMemory and 12 GB SAS solid-state drives (SSDs), which go through a rigorous qualification process of up to 2.4 million test hours[4]
- Use 50 percent less space and gain back 60 percent savings in energy costs with HP StoreVirtual VSA, plus co-locate apps and storage on servers to lower capital expenditures (CAPEX) by 80 percent[5]

These industry-leading innovations free up time and save money, both of which can be reallocated to other projects to drive both innovation and more efficient operations.

Compute that delivers on-site IT at cloud speed

Accelerate service delivery

Speeding up service delivery will help you keep pace with workload demands while lowering costs. Combined with the introduction of HP ProLiant Gen9 is HP Server Management, an industry-leading infrastructure management innovation. HP Server Management applies a software-defined approach to converged management, and is best suited for managing HP BladeSystem and HP ProLiant rack and tower servers. HP Server Management offers out-of-the-box integration with HP, VMware®, Microsoft®, and Red Hat® enterprise management solutions, as well as easy integration with many other management products. Architected to include open, industry-standard RESTful application programming interfaces (APIs) that enable IT staff to quickly and securely customize provisioning of the Gen9 portfolio, HP Server Management also provides a common language and interface for integrating into cloud-based environments like OpenStack. HP Server Management is designed to be:

- **Simple**—One platform for converged management leads to a 50 percent reduction in management tools to license, learn, operate, and maintain.[6] And it is simple enough to interoperate with your on-site IT management standards.
- **Automated**—Ushering in a software-defined approach to infrastructure management leads to a 66 percent increase in IT service delivery speed, enabling real competitive advantage and improved service-level agreement (SLA) performance.[7]
- **Agile**—It now takes just minutes (vs. hours) to update firmware across hundreds of servers, allowing for enterprise data center management at scale and speed.[8] And it is agile enough to scale down to meet the needs and budget of small- to medium-sized business (SMB) IT operations.

Compute that fast-forwards your success

Boost business performance

Only HP helps you deliver services at the speed your organization demands with data center infrastructure technologies that boost workload performance, thus enabling your data center for the needs of today and tomorrow.

- Faster memory performance with HP DDR4 SmartMemory up to 2,133 MHz with 14 percent better memory performance for HP ProLiant Rack and Tower servers and 33 percent better memory performance for HP ProLiant Blade servers.[9]
- One million IOPS supported with 12 GB controllers[10]

Whether you're addressing technical computing challenges, enabling cloud deployments, delivering intelligent storage, or powering design automation and data analytics, HP ProLiant servers allow you to enjoy better-than-ever performance.

[4] HP internal lab testing. 2.4 million hour test quant is derived from a combination of drive qualification test plans, specifically HDDQ spec-supplier responsibility to perform, HDDQ spec-HP responsibility to perform, RDT-Reliability Demonstration test spec, CSI integration test spec, and Pilot test requirements. Test conducted July 2014.

[5] Based on HP internal comparative analysis of publicly available data from major competitors, June 2013.

[6] Comparing HP OneView 1.10 vs. the traditional approach to server and storage management requiring eight tools. HP OneView replaces Intelligent Provisioning, Array Configuration Utility, iLO 4, Virtual Connect Manager/VCEM, HP Systems Insight Manager, HP Smart Update Manager, HP Onboard Administrator, and HP 3PAR array management. HP internal, Houston, Texas, May 2014.

[7] 66 percent faster problem resolution time for HP Insight Remote Support—initiated cases for hardware vs. traditional phone support based on HP internal call center data, Q4 2011.

[8] Performing iLO firmware updates of 200 systems in 380 seconds. Comparing it against our previous generations and competitors. Based on HP Internal estimates, Houston, Texas, U.S.A., July 2014.

[9] Up to 14 percent better performance is based on similar capacity DIMM running on HP server compared to a non-HP server with DDR4. Up to 33 percent better performance is based on similar capacity DIMM running on HP server compared to a non-HP server with DDR4.

[10] Internal performance lab testing using Iometer and the HP Smart Array P840 with RAID 0, 4k random reads, Microsoft Windows® 2012 R2; testing is ongoing with changes in firmware. Number is current as of 21 July 2014.

Maintain infrastructure health and uptime

You can't redefine compute economics, accelerate service delivery, and boost business performance if you're plagued with equipment problems. HP ProLiant servers feature multiple design innovations and tools that help you maintain server health and uptime.

Customize your IT lifecycle management, from acquisition of new IT, management of existing assets, and removal of unneeded equipment.
hp.com/go/hpfinancialservices

For example, the HP ProLiant family makes servicing easier with innovations designed to increase your productivity and confidence during setup, upgrade, and repair. Product design features allow you to confidently add or upgrade processors without the fear of bending pins, which can lead to motherboard failure and replacement. Tool-less access everywhere reduces the time to install or remove components. And the server will proactively warn you not to remove a drive if the action will cause data loss.

Developing solutions for major social and environmental challenges
hp.com/hpinfo/globalcitizenship

Issues are prevented from becoming problems through HP ProLiant software-defined lifecycle management—a converged management platform to provision, deploy, automate, monitor, and troubleshoot all your IT infrastructure resources.

HP Services

To further improve infrastructure uptime, look to HP Proactive Care Support Services—including a "direct-to-expert" support process that delivers instant access to HP server experts for faster problem resolution. You can also count on more than 2,000 HP ServiceOne partners to provide the highest levels of local expertise backed by our global resources.

Close the gap between expectation and reality

In today's data centers, small advances in technology won't solve big problems. To respond effectively to exploding demand for applications, data, and digital content, you need intelligent technology that aligns with your business demands. That's the promise of the HP ProLiant family.

Only HP has the portfolio, system management, and partner ecosystem to deliver the compute you need today and tomorrow. HP ProLiant is the one platform that you can rely on to reduce time to deliver new products and services, accelerate IT service delivery, and defer capital expenses while increasing operational efficiency to run smarter IT operations. Only HP gives you the simplicity and freedom to build IT that's the right fit for your business.

View our full portfolio of server families:

HP ProLiant Core family guide

HP BladeSystem family guide

HP Hyperscale solutions family guide

HP Moonshot System family guide

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