

Which ProLiant server is right for you?

HP ProLiant ML line

Easy to deploy in even the most diverse user environments, from remote offices to data centres, these expandable servers – available in rack or tower – offer maximum internal storage and I/O flexibility.

HP ProLiant DL line

Ideal for multi-server and attached external storage deployments, these density- and cluster-optimised rack servers offer outstanding flexibility and manageability. Plus, they're easy to service, with features such as tool-free access and optimised cable management.

HP ProLiant BL line/HP BladeSystem

More than a server, a full infrastructure including servers that are designed to reduce energy consumption, improve cooling efficiencies, streamline LAN and SAN connectivity and help in expediting the provisioning process.

These scalable BladeSystem servers allow you to develop a highly available infrastructure that's easy to manage, deploy and expand. Automated provisioning and virtual management help you respond quickly to change, while exercising control over costs, power and space requirements, and system complexity.

Rethink virtualisation in business terms and gain greater value

Virtualisation is a key element of every company's IT infrastructure. Taking an IT-centric approach to virtualisation – addressing only discrete projects and business services – can limit benefits. HP helps companies take a comprehensive approach to virtualisation to deliver applications and business services more quickly, put unused data centre capacity to work on business priorities, and enhance availability, continuity and security.

Rethink infrastructure

Free the untapped potential of your data centre barriers with an infrastructure built, managed and organised to take full advantage of virtualisation.

- Put unused resources and capacity to work where needed with self-optimising infrastructure.

- Increase focus on business priorities.

- Enable faster delivery of applications and services through an adaptive infrastructure that aligns itself in real time to business goals.

Rethink applications and IT operations management

- Link business services to the physical and virtual resources delivering those services, and manage them in real time.

- Reduce maintenance costs by streamlining manual processes.

Rethink client architectures

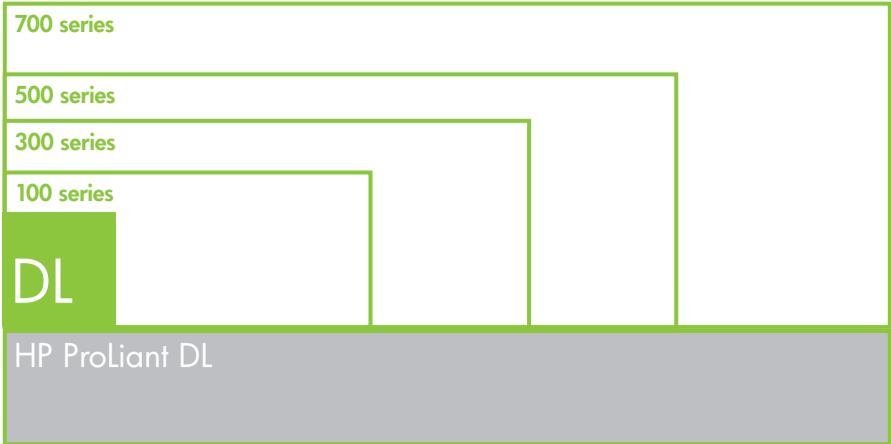
- Leverage virtualisation to achieve greater reliability and security.

- Improve the manageability, flexibility and return on investment (ROI) of end-user computing.

- Provide better protection for end-user data.

Buying a new server to replace an old one?

Buying a new HP ProLiant G6 server or moving to the HP BladeSystem? Want to migrate the operating system, applications and data from your old (ProLiant or non-ProLiant) server to your new HP ProLiant server in just a few mouse clicks? Check out our HP Server Migration Pack at: www.hp.com/go/smp



HP BladeSystem c-Class: an adaptive infrastructure, right out of the box



Overview

For 40 years, infrastructures have been built the same way. Lots of boxes, connected with lots of wires, maintained by lots of people. And whether the infrastructure is large or small, the same four problems tend to emerge:

- Cost: high cost to buy, even higher costs to run and maintain
- Time: low productivity, downtime and slow reaction to new opportunities
- Change: inflexible and hardwired, with complex processes and numerous people involved
- Practically inefficient, power-hungry systems create rising electricity costs and air-conditioning bills

HP BladeSystem addresses these challenges by consolidating everything you need in an IT infrastructure from the start, before it grows out of control. Your server needs are as unique as your company. We know there is no such thing as a one-size-fits-all solution. That's why HP gives you choices. The biggest difference between blade architectures and those based on traditional servers is the infrastructure and how it's built. Most HP BladeSystem components are nearly identical to the server, storage and network components you are most familiar with today. We don't believe you should compromise the trusted technologies you rely on today just to gain the advantages of blades. We make sure you can run the same applications and operating systems you want today and tomorrow, connect with everything in your environment now, and never sacrifice on performance, reliability or efficiency.

HP Virtual Connect Flex-10 G6 for BladeSystem c-Class

Simplify and make your data centre change-ready. The Virtual Connect Flex-10 Ethernet Module is a new class of blade interconnect that simplifies server connections by cleanly separating the server enclosure from LAN, simplifies networks by reducing cables without adding switches to manage, changes servers in just minutes, and fine-tunes network speeds based on application needs. With Virtual Connect, businesses can reduce costs and simplify connections to LANs and SANs, consolidate and precisely control their network connections and enable administrators to add, replace and recover server resources on-the-fly.

Virtual Connect Flex-10 provides network optimisation allowing administrators to fine-tune network bandwidth at the server edge by dividing each 10 Gb network connection into four independent physical FlexNIC server connections. Each FlexNIC can be configured from 100 Mb up to 10 Gb, allowing just the right amount of network bandwidth based on your application needs.

HP StorageWorks 3 Gb SAS BL Switch

Do you lack a simple external shared storage solution for your c-Class enclosures?

The HP StorageWorks 3 Gb SAS Switch for HP BladeSystem offers flexibility for shared storage: it enables servers within the c-Class BladeSystem enclosure to share external SAS storage array without needing an external SAN infrastructure. It also increases your storage utilisation and flexibility with full virtualisation without a SAN – at a new storage price/ performance ratio.

The HP StorageWorks 3 Gb SAS BL Switch for HP BladeSystem c-Class enclosures is an integral part of HP direct connect storage, by enabling a straightforward external shared SAS solution. The 3 Gb SAS Switch is a double-width interconnect module that enables each server blade with a Smart Array P700 controller and to communicate with the HP StorageWorks MSA2000s. It delivers high-performance data bandwidth up to 300 MB/s per physical link and contains full compatibility with 1.5G SATA technology. This switch supports both SAS and SATA hard drive interconnections between HP server blades and HP MSA2000s enclosures, allowing you to deploy drive technology as needed to fit your computing environment.

Next-generation HP ProLiant (G6) Run with confidence – in a challenging economy

“Even though my racks are only half filled, I’m running out of data centre capacity.”

“I’ve deployed virtualisation into production, but it’s making it harder to manage my overall server environment.”

“My IT budgets are shrinking, but my user’s content keeps growing, and I need to upgrade my application base.”



as many servers to be deployed within an existing data centre, allowing you to reclaim lost capacity due to power over-provisioning. This allows you to get the most out of your current data centre investment, so that you don't need to prematurely build out an all-new facility.

- Sea of Sensors:** a collection of 32 smart sensors reduces server power usage based on real-time adjustments to operating conditions. These sensors provide fine-grained environmental monitoring throughout the system, preventing over-cooling and adjusting fan speeds to avoid wasting power. They also realise when I/O or memory slots are not in use and will shut off power delivery accordingly. This “sea of sensors” is like having dynamic smart cooling within a server enclosure.

- Common Slot Power Supplies** help you configure the perfect power-supply fit so you can realise over 90% efficiency regardless of your workload. That's the big challenge, because in the past the power supply that came with your server was sized for the maximum server configuration. Now, in an industry first, we've designed our new servers to have a common pluggable power slot, so that you can choose from up to four different power supplies to precisely match your exact configuration. This means no wasted expenses or worries about hitting power limits. In addition, since these common slots are available in most ProLiant G6 servers, this reduces your overall spare inventory.

I'm sure your next question will be, “How will I know which power supply matches my configuration?” We can help. The new **HP Power Advisor** for ProLiant and BladeSystem determines the exact amount of power you need to deploy your solution. By removing the guesswork, we are helping you configure your systems right the first time.

This new expansion of thermal logic allows you to fit more servers within your data centre, while dramatically increasing the power efficiency of each server. Finally, our G6 servers offer more ENERGY STAR® ready platforms than any other vendor.

Squeeze every bit of productivity out of your server infrastructure

Given the tough economy, we realise you don't have all the resources you need. This new generation of servers comes with a unique set of embedded technologies and flexible tools to ensure that you maximise overall utilisation of your server infrastructure. In particular, we allow you to harness the power of virtualisation so that you gain all the advantages of a virtualised environment without the typical complexity that comes with managing both physical and virtual workloads.

- HP ProLiant Onboard Administrator** orchestrates all critical embedded management aspects of your server, including setup, health monitoring, power optimisation, thermal control, and iLO or LO100 remote management

based on your programming. ProLiant Onboard Administrator functions without additional software, and can be accessed local to the server or remotely via a web browser. It also works hand in hand with HP Insight Control, Systems Insight Manager and iLO Advanced, to help you deliver the highest possible quality of IT service to the business. With an IT Administrator “on board” each server, you save time, simply automate tasks and optimise use of your valuable resources. It's as though we have equipped each server with a programmable IT administrator inside each chassis!

- HP Insight Control (ICE)** is available for many server models, helping you reduce operational expenses by up to \$45,000 for every 100 users.* ICE allows you to unlock your infrastructure's potential by giving you total control of your server infrastructure – onsite or remotely. With a single, easy-to-use management console, you can proactively monitor server health and performance, deploy new servers quickly and manage virtual machines – meaning increased flexibility to quickly respond to your business. With proactive monitoring you can be confident everything's working right.

- HP Virtual Connect Flex-10 and HP Insight Dynamic-VSE:** The world's first technology to divide and fine-tune 10 Gb Ethernet network bandwidth at the server edge, Flex-10 is now available on all HP ProLiant G6 server blades. Cutting network connection costs by up to 75% per virtual server, it offers 4x more NIC ports per blade and precise control of your virtual server network traffic. Flex-10 lets you add instant flexibility to your network today at lower cost than most 1 Gb solutions. Increase flexibility further with Virtual Connect Enterprise Manager, which enables system administrators to add, replace and recover servers across the data centre in minutes, without impacting LAN and SAN availability. This flexible change-ready infrastructure also provides foundation capabilities for logical server management and other capabilities delivered with HP Insight Dynamics – VSE and HP Insight Orchestration Software – advanced infrastructure management that allows you to analyse and optimise your physical and virtual resources in the same way.

Make every server purchase count

In today's world, content does not have a downtime and downtime is not an option. You need to be able to handle increased demands and deliver a resilient infrastructure, all while spending less money. It's a seemingly impossible challenge that requires a new approach for success. The HP ProLiant G6 was designed for these challenges.

- Get more done with half the servers** through the enormous increase in performance and expansion:
 - HP offers the broadest line-up of Intel-based platforms which utilise the new Intel® Xeon® 5500 processor series. Intel Xeon 5500 processors are a tremendous step forward in technology, and the new ProLiant G6 servers take full advantage of these advancements, delivering twice the performance of existing quad-core servers.

- New DDR3 memory technology offers twice the bandwidth, twice the capacity and 25% less power. For example, many HP ProLiant G6 servers jump from 8 DIMMs to 18 DIMMs and now expand to 144 GB of memory. HP also has a new online Memory Configuration tool that optimises your configuration for power, performance or cost.

- ProLiant G6 servers include the new generation of HP Smart Array Modular Controllers, delivering 200% greater performance and 100% backward compatibility. The new modular design is the industry's first to scale from entry RAID solutions for small and medium businesses, to high-end RAID functionality for larger enterprises – all through the simple addition of hardware and software expansion options.

How does all this add up? The HP ProLiant G6 offers more memory, processing and I/O to give you more virtual machines (VM) per server than ever before. The result is a significantly lower cost per VM and optimum resource utilisation in your data centre.

- HP Server Migration Pack (SMP)** eases complexity by automating the migration from old servers to G6. Through a simple wizard-driven process, it accurately transfers OS, application and data without any errors, and injects correct drivers required for the new server. From the management console, simply identify the source, identify the target and hit GO.

- HP Insight Remote Support:** HP and its authorised channel partners are by your side with HP Insight Remote Support all day, every day. You can have your systems remotely monitored for hardware failure 24x7, using secure technology that's been proven at thousands of companies around the world. In many cases, you can avoid problems before they occur – reduce downtime, cut support costs and make better use of your resources. Key capabilities include:
 - Automated event reporting (to HP)
 - Customer self-repair automation
 - Mine-collected information to identify at-risk configurations
 - On-board and remote diagnostics, to identify current and potential issues for proactive remediation
 - Retrieve/download and deploy updated updates and specific fixes

HP Insight Remote Support helps you spend less time solving problems and keeps your systems running around the clock so you can keep your business running.

Best For Your Budget

The new HP ProLiant G6 servers include:

- HP ProLiant ML370 G6 server
- HP ProLiant ML350 G6 server
- HP ProLiant ML150 G6 server
- HP ProLiant DL380 G6 server
- HP ProLiant DL370 G6 server
- HP ProLiant DL360 G6 server
- HP ProLiant DL180 G6 server
- HP ProLiant DL160 G6 server
- HP ProLiant BL490c G6 server blade
- HP ProLiant BL460c G6 server blade
- HP ProLiant BL280c G6 server blade

We have packaged the industry's best ideas, innovations and components and put them through 11,000+ quality and design tests. Built on the experience of over 17 million ProLiant servers and 20 years of leadership, HP ProLiant G6 servers give you the competitive advantage you need to manage your business.

When you invest in an HP ProLiant G6, you are getting the **best return for your budget** as soon as you power up! No matter how many servers you have ... from one to thousands ... you can run your business with the utmost confidence when an HP ProLiant G6 is the core of your infrastructure.

*Source: IDC, “Gaining Business Value and ROI with HP Insight Control” white paper, February 2008

Mission-critical support HP Proactive Select Services

Planning the package that works for you

Your assigned account support manager is focused on technical and operational improvement specific to your business environment. The ASM is responsible for and assists you with the following activities:

- Service activity selection and initiation
- Proactive delivery planning
- Delivering services or engaging resources for delivery
- Delivery review

Here is a sample of the service activities that are available through HP Proactive Select:

- Blade Technology Assessment
- Blade Toolset Assessment
- Virtualisation Performance Audit
- Firmware and Patch Analysis
- SAN Supportability Assessment
- Storage and SAN Firmware and Software Analysis and Management
- Power and Cooling Assessment
- IT Service Management Quick Assessment
- System Health Check
- Security Quick Assessment
- Performance Analysis for SAP Systems
- Support Planning and Review Meetings
- Technical Training and Education Planning

The way the service is structured, you choose the number of credit packages which suits you; you can add credits later as needed. You apply the credits towards the service activities which you choose. With Proactive Select you have the flexibility to modify your choice of service activities anytime during the term of your agreement. This provides the agility for your blade environment to meet the changing needs of your business.

HP technical or educational services

HP Proactive Select Services include a selection of HP technical or education services. Your choices include technical consulting on topics such as power and cooling, virtualisation, security and ITSM best practices, and a variety of installation and startup services.

To ensure your staff understand the most efficient way of utilising your HP solution, HP Education offers a diverse range of technical courses covering blade administration, Insight Control software, VMware etc. Up to five days of technical training are included in this HP Proactive Select Service. For more details, please visit www.hp.com/learn



Microsoft operating system

Choose the simplicity and convenience of a ProLiant server that is preloaded with your choice of either Microsoft Windows Server® 2008 or Microsoft Small Business Server 2008 operating systems. HP will optimise and integrate it with all the latest ProLiant drivers, tools and utilities, so you can use it straight from the box. And you will benefit from the combination of hardware and software in one attractively priced solution. Each preloaded ProLiant server comes with five Client Access Licences (CALs) of the Microsoft operating system, with additional licenses available for purchase from HP in increments of one or five.

The Microsoft operating system is qualified and supported by almost all ProLiant servers. To see a list of the supported platforms, please visit: www.hp.com/go/assupport

Microsoft Windows Server 2008
Windows Server 2008 is Microsoft's next-generation operating system, designed to be the most flexible and robust Windows Server operating system to date. Windows Server 2008 provides powerful improvements to the base operating system over

Microsoft Windows Essential Business Server 2008 (EBS 2008)

Windows Essential Business Server 2008 is a new addition to the Windows Essential Server Solutions family. It provides the essential technology needed for a highly secure and reliable infrastructure designed for businesses with 50 to 250 employees. Powered by Windows Server 2008 technology, it combines software for management, messaging, and security features into one integrated server solution that is designed to dramatically reduce IT complexity and improve efficiency across the business, putting IT in control. Windows EBS 2008 on HP platforms is available in two editions, Standard and Premium. For more details, visit: www.hp.com/go/ebs2008

HP Top Config Server

HP Top Config is a European volume channel go-to-market programme for HP Factory Configured ProLiant servers. Partners provide a compelling online experience (through configuration, quoting and ordering) to their customers; HP builds and configures the servers to match every order, then delivers directly to the customer or reseller. All HP ProLiant servers are available as “Configure to Order” through Top Config.

HP Factory Express

Customers get more from IT investment
HP Factory Express delivers a comprehensive portfolio of configured, customised and integrated factory solutions and deployment services.

Collaborate with HP experts

Our factory is your factory and our engineers are your engineers. HP offers open access to dedicated experts and engineering resources.

- HP experts collaborate with customers directly or through channel partners to ensure that the exact configuration and specifications are met, so a seamless experience, from planning to implementation, is delivered.

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- HP also provides expert onsite deployment assistance for easy setup and installation.

Flexible and robust choices
HP offers an extensive Factory Express portfolio of more than 50 services across its desktops, notebooks, workstations, handhelds, tablet PCs, thin clients, imaging and printing devices, servers, storage, software and qualified third-party products. With HP Factory Express, you choose the solution that is right for your business. You decide how your solution is built, tested, integrated, shipped and deployed.

Accelerate your deployment

HP Factory Express drives faster time to solution, accelerated results and reduced costs. With Factory Express, your IT personnel and operations can become more efficient, giving you more time to focus on your core business.

- Receive a fully integrated and tested solution and onsite installation to accelerate your project implementation.
- Get ready-to-deploy solutions delivered directly where you need them.

For more information

To learn more about HP Factory Express, contact your HP sales representative or visit our website at:

www.hp.com/go/factory-express

Leasing and financing services

HP recognises the real-world budget challenges you face as you look towards building an adaptive infrastructure. That's why we provide world-class financial services to help you invest in the technologies you require. With a full range of IT transition, acquisition, management and disposition services, HP Financial Services can help you to effectively manage your IT infrastructure and your balance sheet at the same time. Leasing with HP Financial Services helps you capitalise on change, making it the smartest way to invest in IT. Put HP Financial Services to work for you.

Contact your local HPFS representative, or visit:

www.hp.com/go/hpfinancialservices

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