

Your guide to selling the HP BladeSystem

The most reliable way for businesses to reduce TCO while achieving simplicity in ownership

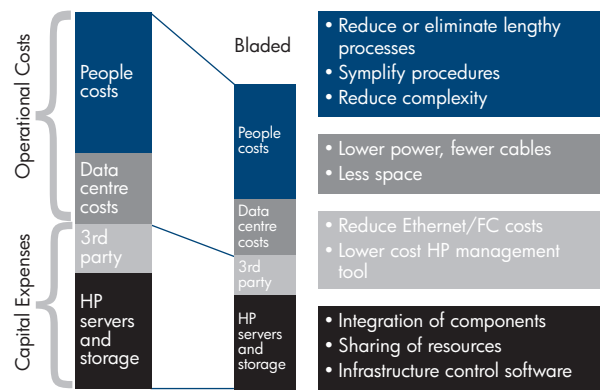


The HP BladeSystem is a simple end-to-end IT solution that integrates computing, storage, power and network resources into a modular, self-aware environment

With the introduction of the new HP BladeSystem c-Class, your customers gain an optimised, best-run IT infrastructure right-out-of-the-box that's cost-savvy, change-ready, energy-thrifty and time-smart. The HP BladeSystem c-Class addresses the data centre challenges of management, administration, power and cooling – delivering capital and operational savings to your customers, and taking the worries and complexity out of running an IT infrastructure. Now, your customers can focus on building up their business and achieving a reliable, secure and highly scalable IT infrastructure.

Conventional IT

Lower costs, higher agility



What benefits do your customers get from the HP BladeSystem?

1. Cost-savvy

- Reduce the up-front cost of purchase by taking advantage of the HP BladeSystem's pooling and sharing of connectivity, power and cooling. You can reduce electricity usage by up to 40% and achieve power, power-cable and cooling savings of up to 60%.
- Achieve Lower Total Cost of Ownership through automation of tasks, across multiple devices, with unified management from one console and common tool sets.
- You can reduce IT maintenance time by up to 90%, and the time taken to perform upgrades and patches per server from 10 minutes to 20 seconds.

2. Change-ready

- You can gain added flexibility from the built-in HP Virtual Connect architecture that comes with the HP BladeSystem. The Virtual Connect modules abstract and pool the server-edge connections so that they look like NICs and HBAs to the LAN and SAN. By stripping away the interdependence and manual co-ordination that plagues server maintenance productivity, you can deploy new servers and their LAN and SAN connections in minutes – not weeks.
- By combining HP's new Virtual Connect architecture with Insight Control management, you can easily re-configure compute resources based on application requirements without rewiring.

3. Time-smart

- Save time with simple and reliable provisioning, monitoring, change management and control of every aspect across your infrastructure. You can reduce the time needed for many common IT tasks by as much as 90%.
- With a built-in HP Onboard Administrator, which includes a simple LCD screen, rapid setup and daily maintenance is made simpler.
- With Integrated Lights-Out (iLO) remote administration, you can streamline setup, troubleshooting and maintenance across your infrastructure.
- HP Insight Control software simplifies provisioning of OS and applications. It can also automatically initiate server deployments and identify security vulnerabilities, streamlining control over your operations across virtual and physical environments.

4. Energy-thrifty

- Built-in HP Thermal Logic technology helps you manage power and cooling, keeping your data centre within your power budget. This new technology delivers more cooling airflow to where it's needed most and uses less power to do it compared to traditional rack servers.
- With HP Thermal Logic technology, 16 server blades require up to 50% less airflow and up to 70% less power for cooling than the equivalent number of rack servers while taking up less space.
- Hundreds of embedded sensors enable thermal monitoring, which tracks heat output for each enclosure in every rack letting you balance temperature thresholds manually or automatically.

Solutions on HP BladeSystem

Microsoft Exchange

- Build an optimised Exchange environment on a highly reliable foundation.
- Automate costly and complex operational tasks.

Windows Infrastructure

- Realise total control manageability from anywhere at any time.
- Simplify deployment and provisioning.

Citrix

- Benefit from service-oriented IT infrastructure that scales dynamically to support large enterprise Citrix environments.
- Utilise a highly efficient infrastructure controlled by common system management.

SAP

- Gain from the performance, capacity and flexibility required for an enterprise infrastructure.
- The SAP BI accelerator (BIA) is a breakthrough innovation for SAP NetWeaver BI installations. It enables faster query response times, providing a quick return on investment.

Server Virtualisation

- Virtualise storage, network, power and cooling to increase utilisation and reduce costs.
- Decrease hardware inventory, streamline system infrastructure and simplify IT management.

Customers can:	Why?
Deploy new servers and connections in minutes	Built-in HP Virtual Connect architecture modules separate the server/LAN/SAN domains letting you add, move or replace servers without impacting on LAN or SAN connections.
Wire their infrastructure once and change on the fly	Hot-plug modules can be installed in pairs and removed and replaced without the need to cable or re-cable network connections.
Cut system administrator time spent by over 90%	HP Insight Control management puts power, cooling, connectivity and performance information at your fingertips reducing time needed to control, monitor and manage your infrastructure.
Reduce power consumption by 30% or more	Built-in HP Thermal Logic technology monitors and balances temperature based on load. HP Dynamic Power Saver adjusts power consumption according to application load.
Reduce cooling requirements by taking advantage of density	HP Thermal Logic technology like HP Active Cool Fans enables cooling airflow to get to where it's needed most while using less power.
Achieve high availability for every application at a negligible cost	Its modular, hot-plug expandability makes adding and removing of components possible without ever having to power down. You also get help from HP Insight Control software, which optimises the provisioning, management and availability of HP BladeSystem infrastructures.
Cut cable costs for each rack by 94% or more	The built-in Virtual Connect architecture reduces the number of cables needed by 94% or more while increasing bandwidth with no single point of failure.



Things to check with your customer

Do you need High-Speed Bandwidth networking?

If this is the case, the c-Class BladeSystem can accommodate High-Speed requirements in a high-density, compute intensive infrastructure that offers 4/8 GB FC, 10 GB Ethernet and InfiniBand support. Recommend the c-Class immediately.

Do you want to migrate to the next-generation c-Class BladeSystem?

If so, recommend a smooth transition to the next generation c-Class in two phases. Continue to support the p-Class over the next 18 months while prototyping c-Class and then add production c-Class once the customer has maximised their p-Class environment.

Are you regularly buying new rack servers to service new IT projects?

If so, have you considered the extra costs involved? Each new server and its peripherals will increase the initial setup cost. With the HP BladeSystem, these components are already in place – you just buy new blade servers as required.

How easily can you deploy your new servers?

Rack servers can be time-consuming to deploy, due to their complex wiring, cooling, space and power requirements. With blades, everything is integrated – so you can deploy them quickly and easily.

Software installation is also simplified. For example, you can create scripts to automatically install Windows Server 2003 on any new server inserted into the HP BladeSystem enclosure – not possible with rack servers.

Wasting your current server resources?

The typical CPU average utilisation of a traditional rack server is about 20%. With blade servers and Virtualisation solutions you can increase this to over 30% – and easily monitor how resources are utilised via the HP ProLiant Essentials Performance Management Pack. The HP BladeSystem is the ideal platform for your SAP, SQL Server or Oracle® deployment. You get access to virtual storage and networking to increase efficiency and flexibility, plus high availability thanks to shared redundancy across all components.

Need help getting started?

The HP 1U all-in-one power enclosure provides hotplug, redundant power for a single enclosure of blades, making it ideal for small office and remote site blade deployments. It even supports mixed blade and traditional server deployments in a single rack.

Objection handling and questions answered

Does the c-Class blade infrastructure make the p-Class servers obsolete?

No. The new c-Class was built to address increasing data centre challenges, such as management, administration, power and cooling. In addition, c-Class accommodates customers evolving high-bandwidth networking requirements, such as 10G Ethernet, 4/8 GB Fibre Channel and InfiniBand.

How will HP continue to support the p-Class blade customers?

HP will continue to support your investment in p-Class servers, so we are not expecting customers to replace the p-Class environment. Both the p-Class and c-Class will co-exist for 18 months to enable your staff to continue with business as usual while preparing for the next-generation technology to meet new IT demands. The p-Class will be serviced and supported until after 2012.

We are not sure if an investment in blades will be worth stretching our IT resources.

HP BladeSystem is modular and ready now to take advantage of future technologies in computing, networking, management and storage introduced through 2012 and beyond. By transitioning your existing IT resources to a blade architecture managed by common automation tools, you can reduce effort and time for all operations now and for the future.

Table of specifications



	HP BladeSystem p-Class					HP BladeSystem c-Class		
Model	BL20p G4	BL25p	BL35p	BL45p	BL60p	BL460c	BL465c	BL480c
Processor	Up to 2 x dual core Intel® Xeon 5000 series or Intel 5100 series processors	Up to 2 x AMD Opteron™ 200 series up to 2.8 GHz single core up to 2.4 GHz dual core	Up to 2 x AMD Opteron 200 series 2.4 GHz dual core	Up to 4 x AMD Opteron 800 series up to 2.8 GHz/1 MB single core up to 2.6 GHz/1 MB dual core	Up to 2 x Intel® Itanium up to 1.6 GHz/3 MB single core	Up to 2 x Dual core Intel Xeon 5000 series or 5100 series processors	Up to 2 x AMD Opteron 2000 series processors	Up to 2 x Dual core Intel Xeon 5000 series or 5100 series processors
Max memory	Up to 32 GB	Up to 32 GB	Up to 16 GB	Up to 64 GB	Up to 8 GB	Up to 32 GB	Up to 16 GB	Up to 48 GB
Chassis	8 blades per 6U enclosure	8 blades per 6U enclosure	16 blades per 6U enclosure	4 blades per 6U enclosure	8 blades per 6U enclosure	16 blades per 10U enclosure	16 blades per 10U enclosure	8 blades per 10U enclosure
Hard disk bays	2 x hot plug SFF SAS drives per blade	2 x Ultra320 SCSI – universal hot plug	2 x non-hot plug SFF SAS or ATA drives per blade	2 x Ultra320 SCSI – universal hot plug	2 x Ultra320 SCSI – universal hot plug	2 x hot plug SFF SAS or SATA drives per blade	2 x hot plug SFF SAS or SATA drives per blade	4 x hot plug SFF SAS or SATA drives per blade

For more information, please visit: www.hp.com/go/bladesolutions

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