

Transform the Data Center into a Simplified, Cloud Infrastructure of Shared Services

HP BladeSystem Matrix with VMware vSphere 4 virtualization platform Solution brief

Keeping up with ever-increasing, dynamic business demands puts a strain on traditional IT infrastructures. These infrastructures, often built one component at a time in response to change, are inefficient, inflexible, and characterized by complexity and underutilized resources. This ends up costing organizations time and money—two especially precious commodities in today's economy. And it affects more than just the IT department. It can also mean wasteful, repetitive, and time-consuming processes involving purchase orders, service agreements, and more throughout your organization.

HP and VMware are offering a better approach: a complete infrastructure platform that plugs into your environment, improves your productivity, and changes as your business changes—all from one purchase order. HP BladeSystem Matrix moves you beyond fragmented components to an integrated infrastructure platform that doubles administrator productivity and enables rapid return on investment (ROI)¹. And teaming HP BladeSystem Matrix with VMware® vSphere™ enables your infrastructure to allocate and re-allocate IT resources, and adjust to rapid changes in workloads, technology, business requirements, and service levels whenever necessary.

Enhance efficiencies while reducing costs

The HP BladeSystem Matrix with VMware vSphere combination is a virtualization solution that dramatically enhances the efficiency of the IT environment while significantly reducing operating costs. HP BladeSystem Matrix virtually eliminates I/O bottlenecks, allowing more virtual machines per host. The results? Greater savings in both capital and operational expenses. In addition, the HP and VMware solution provides integrated management capabilities that enable you to manage both physical and virtual resources in exactly the same way.

¹ Micros Fidelio case study; "Gaining Business Value and ROI with HP Insight Control," IDC white paper, doc #218069, May 2009.

Quickly deploy applications and control IT service delivery

Using the HP BladeSystem Matrix with VMware vSphere solution, you can quickly evolve to a shared services or private cloud platform and next-generation data center. The solution delivers a pool of agile IT resources through a simplified cloud infrastructure, helping you to:

- **Improve IT efficiency**—HP BladeSystem Matrix with VMware vSphere is a simple, hassle-free, and integrated virtualization platform that helps you enhance efficiencies.
- **Transform inflexible, costly, and complex IT infrastructures**—HP BladeSystem Matrix with VMware vSphere identifies, allocates, and re-allocates IT resources from servers to storage to network capacity. It rapidly adjusts to changes in workloads and service levels while responding to technology advancements and evolving business requirements. The result is an agile IT environment that is cost-effective, easily managed, and highly flexible.
- **Easily maintain service levels**—HP BladeSystem Matrix with VMware vSphere improves your ability to easily maintain service levels with built-in high availability and disaster recovery. You can move workloads to other servers or sites, significantly improving recovery times—all with a simple mouse click.
- **Deploy multi-tiered applications in minutes, not months**—You can cut deployment times from weeks and months to minutes. Standardized application delivery with HP BladeSystem Matrix templates defines minimum resource requirements and includes embedded workflow, automating provisioning tasks and enabling smooth collaboration among data center teams.
- **Control delivery of IT services**—VMware vSphere has built-in and automated availability, security, and scalability to increase control over the delivery of IT services.
- **Reduce I/O costs and bottlenecks**—HP BladeSystem Matrix with VMware vSphere leverages the flexibility of HP Virtual Connect Flex-10, which carves up each 10 Gb network interface card (NIC) channel into four physical NICs.



VMware vSphere 4 is a complete and robust virtualization platform. It dramatically reduces capital and operating costs, enhances IT efficiency, and gives you agility through automation—and the freedom to choose applications, OS, and hardware.

- **Lower power consumption and overall costs**—HP BladeSystem Matrix includes sophisticated power management capabilities, including dynamic power capping. These capabilities can help you triple the power capacity of your infrastructure.

Scalable, flexible architecture for shared services

HP BladeSystem Matrix runs any application workload out of the box and integrates seamlessly with leading storage and network fabrics and into most IT service management platforms. It features pools of compute, storage, virtual fabrics, and power and cooling that can be purchased and delivered as “chunks”—as large as racks—of capacity at a time.

The HP BladeSystem Matrix with VMware vSphere solution consists of the HP BladeSystem Matrix Starter Kit. This starter kit includes all software, networking, and infrastructure (an HP BladeSystem c7000 Enclosure; HP Virtual Connect Flex-10 with 8Gb Fibre Channel interconnect modules; HP Insight Dynamics; and bundled implementation and support services) for up to 16 HP ProLiant or HP Integrity server blades. The kit enables you to connect to an existing Fibre Channel storage area network (SAN) array or add an optional HP StorageWorks Fibre Channel SAN array. The starter kit is ideal for evaluation or for tackling a server consolidation project while familiarizing yourself with the HP BladeSystem Matrix environment. You can add capacity to your BladeSystem Matrix environment with the Matrix Expansion Kit, which lets you scale up to 1,500 blades or virtual servers in a single managed domain.

In addition, the solution includes:

- HP ProLiant server blades, such as the HP ProLiant BL490c G6 server blade, which is based on the Intel® Xeon® micro-architecture
- HP StorageWorks SAN storage, such as the HP StorageWorks EVA4400
- Software licenses for HP Insight Orchestration, HP Insight Recovery, and HP Virtual Connect Enterprise Manager
- Central management server (HP ProLiant BL or DL series)

- VMware vSphere 4 software from HP (the cloud OS that manages your data center’s complexity), and VMware vCenter™ Server to drive service-level management and reduce operational costs
- HP Financial Services—with flexible leasing options
- HP Consulting and Integration Services—proof of concept, planning and design, and implementation services
- HP Technology Services—education deployment and assessment services, proactive support, and license subscription services

Start right, and grow seamlessly

Together, HP and VMware have the products, solutions, and expertise to support your virtualized infrastructure. Forged on the strength of a successful eight-year collaboration, the HP and VMware partnership delivers proven virtualization solutions—from the data center, through the desktop, to the cloud. And HP can help you get started right and grow seamlessly—all under one brand, including VMware software. The industry leader in virtualization, VMware equips you with enterprise-class core building blocks that allow you to meet immediate needs and grow as your business changes. With HP and VMware, you get:

- A complete line of VMware vSphere products available via HP—and a single point of contact for purchasing hardware, consulting, and support
- Comprehensive HP Support options for hardware, VMware software, and guest and host operating systems
- More VMware certified server platforms than any other vendor
- Over 700 VMware certified professionals (VCPs) from HP—more than anyone except VMware
- Integrated management with HP Insight Control for VMware vCenter—delivers comprehensive monitoring and management from the vCenter console

For more information

To find out more about HP BladeSystem Matrix with VMware vSphere virtualization platform, we invite you to contact your HP representative or visit the HP VMware website at: www.hp.com/go/vmware

Share with colleagues



Get connected

www.hp.com/go/getconnected

Get the insider view on tech trends, alerts, and HP solutions for better business outcomes

© Copyright 2010 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP 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. HP shall not be liable for technical or editorial errors or omissions contained herein.

VMware is a registered trademark of VMware, Inc. in the United States and other countries. Intel, the Intel logo, and Xeon are trademarks of Intel Corporation in the United States and other countries.



vmware®

Business Partner

