Achieve dramatic operational cost reductions for your private cloud

HP BladeSystem Matrix with VMware vCloud Director

Solution brief

Today, a new standard is creating a challenge for CIOs: the pricing and instant availability now offered by public cloud vendors. Meeting this new benchmark is straining traditional IT models. Traditional IT is inefficient and reactive, with upwards of 70 percent of time spent on performing routine maintenance and responding to business requests and only 30 percent devoted to strategic projects. This model drives up costs and slows the delivery of IT services.

HP and VMware® help you flip this 70/30 ratio with a holistic approach that combines operational improvements in the data center and a new model for making IT resources available to business users. HP BladeSystem Matrix and VMware vCloud™ Director deliver a highly responsive and cost-effective shared-services IT environment that enables your IT group to spend more time moving your business forward and gaining competitive advantage—even as it brings your costs in line with public cloud offerings.

which lowers infrastructure procurement costs and dramatically reduces the time associated with making changes to and managing servers, storage, and networking. With this converged infrastructure in place, administrators are able to add new servers, storage, and applications to your data center in minutes rather than weeks—with only a few mouse clicks. Workloads are balanced automatically based on policies. Service levels are improved through built-in high availability and disaster recovery. It's engineered simplicity.

The operational efficiency improvements driven by the HP BladeSystem Matrix with VMware alleviate the burden on your IT staff. Automation replaces the manual labor associated with many of the data center's tactical tasks, lowering your IT operating costs and freeing your IT staff to focus on strategic projects that deliver a higher return on your IT investment. And, it delivers improved IT performance to your end users.

Improve your data center's operational efficiency

The first step in delivering a lower-cost IT model is improving the operational efficiency of the data center. BladeSystem Matrix is a shared-services, wire-once infrastructure that's easy to evolve and grow. Powered by leadership technologies—including HP BladeSystem ProLiant servers, HP Insight Management Software, HP Virtual Connect network fabric, and HP StorageWorks storage systems that provide unprecedented ease of management, scalability, and efficiency—it's a change-ready infrastructure that allows you to virtualize everything.

Working in conjunction with VMware, BladeSystem Matrix delivers a next-generation data center—one that lowers operating costs through agile pools of IT resources that are rapidly identified, allocated, and re-allocated in response to changing business needs. Compared to traditional IT infrastructure, BladeSystem Matrix enables pooling and sharing of resources to deliver high utilization rates for your IT infrastructure. Built-in automation and templates result in highly automated data center operations,

New operational model for managing resource requests and capacity

The next step in delivering a lower-cost IT model is to more efficiently manage IT resource requests and capacity. In the traditional IT model, there is a direct correlation between business requests and provisioning work. In a typical scenario, IT receives a request from a business user for an IT resource (e.g., a virtual machine), manually adds capacity to meet that request, and then notifies the business user of the availability of the resource. With this reactive approach, fulfilling business requests comes with a lead time, which may result in missing service-level agreements (SLAs). Moreover, there is a cost associated with the time the administrator spends reacting to the business request.

VMware vCloud Director removes the direct correlation between business requests and provisioning work. VMware vCloud Director puts in place a new model that allows IT to proactively manage service capacity and deliver on SLAs instead

of reacting to each business request. This benefit is achieved through new layers of abstraction which VMware calls virtual data centers (VDCs). VDCs are pools of service capability that are allocated and managed by virtualization administrators and requested and consumed by business users. Managing the VDCs simplifies capacity management and makes IT more proactive because new capacity is not required each time a user requests a resource.

In the new model, a business user requests an IT resource (e.g., a service capability) on a self-service portal and instantly receives access to the available resource in the VDC. Virtualization administrators request new capacity when consumption of service capabilities within a VDC reaches a predetermined level, anticipating the needs of the business rather than reacting to them. This approach requires no direct involvement by IT, there is no lead time, and SLAs are met.

The right combination for an operationally efficient IT model

Achieving the new operational imperative driven by public cloud offerings requires both operational excellence and new IT models. The cost of physical and virtual resources in the data center as well as the costs of making those resources available to business users must be reduced for private-cloud models to be in line with expectations.

To help customers control and manage the physical and virtual aspects of a cloud infrastructure, VMware and HP are working together to create an integrated, end-to-end cloud infrastructure solution that combines VMware vCloud Director with **HP BladeSystem Matrix** and HP Cloud Maps. Customers can use the HP Cloud Map for VMware vCloud Director to rapidly deploy a new vCloud infrastructure, which can then be imported directly into Matrix. This integration of Matrix, Cloud Maps, and vCloud Director—which is planned for availability as a technology preview in 2010—will enable customers to easily scale their vCloud resource pools, adjusting them quickly to changing business demand.

Start building your private cloud now

Together, HP and VMware have the products, solutions, and expertise to help you build your private-cloud infrastructure and proactive IT model. Forged on the strength of a successful 10-year collaboration, the HP and VMware partnership delivers proven solutions. HP can help you get started—with planning, design, and implementation of your solution all delivered under one brand, including your VMware software. The industry leader in virtualization, VMware equips you with enterprise-class core building blocks and cloud solutions that allow you to meet immediate needs and grow as your business changes. With HP and VMware, you get:

• A complete line of VMware products available via HP—and a single point of contact for purchasing hardware, consulting, and support

• HP Technology Services, providing industry-leading consultants in data center transformation services— to plan, design, architect, and implement complex cloud and Converged Infrastructure projects with VMware vSphere™, VMware vCenter™, and VMware vCloud Director

• 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, delivering comprehensive monitoring and management from the vCenter console

For more information

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

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