

Distribute the workload for greater efficiency and power

Using the HP StorageWorks EVA4400 with HP BladeSystem and VMware solution

HP StorageWorks Solution Block



When workers share the burden, they can accomplish great things.

If you had to move a large pile of heavy boxes from one location to another, chances are you would not want to complete the task on your own. When many people lend a hand, the task gets completed faster and more efficiently with less of a strain on each individual person.

Serving information over your business infrastructure is similar to moving loads of boxes from one place to another. With a rigid data center model, each server is assigned one task. If the server falters, the task goes uncompleted. If the task grows larger, the server's efficiency drops under the strain of information. Using virtualization to distribute the workload among your servers and storage delivers the same advantage as asking a large group of people to help each other move boxes; efficiency and power go up as the work is distributed dynamically among available resources.

Using powerful virtualization technology and integrated management, the HP and VMware virtualization solution dynamically distributes capacity needs across available resources and simplifies management, giving you better performance with a consolidated IT environment. When you choose a proven business solution from HP and VMware, you can accomplish more tasks, more efficiently with less strain on the system as a whole.

Versatile and cost-effective

Virtualization turns your rigid datacenter into a virtualized environment that consolidates resources, optimizes infrastructure utilization and better allocates resources to reduce costs, increase agility and improve

operational efficiency—all while simplifying your IT environment. The HP virtualization solution with VMware combines server virtualization software from VMware with the powerfully simple management and replication capabilities of HP StorageWorks 4400 Enterprise Virtual Array (EVA4400) storage. Running with HP BladeSystem, HP and VMware provide you with an end-to-end, tightly integrated virtualization solution.

HP StorageWorks EVA storage complements the modular, industry standards-based architecture of the HP BladeSystem. This enterprise-class package uses up to five times less management time than competing arrays such as EMC and NetApp.¹

The EVA4400 eliminates stranded storage and enables consolidation of resources into fewer disks—which can pay off in major savings in power, cooling and floor space costs. According to a recent study, HP StorageWorks EVA technology required only 62 percent of the raw capacity required by competing NetApp FAS-technology storage.²

Capitalizing on change

The HP StorageWorks EVA4400 with HP BladeSystem provides an ideal platform for virtualization, with hardware and software that have been certified for VMware ESX Server.

¹ The Edison TCO White Paper: EMC, NetApp, and HP Midrange Storage Arrays

² "Enterprise Storage Solutions for Database Applications: A Total Cost Comparison," Alinean, October 2007

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- HP StorageWorks 4400 Enterprise Virtual Array – enterprise class availability at an affordable price in capacities scaling from 1.1TB to 96.0TB
- HP BladeSystem – c3000 or c7000 enclosure offering 8-slots or 16-slots for choice and flexibility
- HP ProLiant BL460c Server Blade has up to 2 dual or quad core Intel® Xeon™ processors with up to 32GB RAM.
- HP StorageWorks Command View EVA software – to manage the EVA4400
- HP Storage Works Business Copy and Continuous Access EVA replication software – local and remote replication for business continuity and availability applications
- HP Data Protector software – automates high-performance backup and recovery from disk or tape

Dedicated storage

- Local storage area network (SAN) storage with HP StorageWorks EVA4400 with 56 x 146GB dual port fibre channel drives
- 2 x fibre channel blade switches

Data protection and recovery

- HP Data Protector v6.0
- VMware consolidated backup



Virtual server

- 1 x HP BladeSystem c3000 enclosure
- 4 x HP ProLiant BL460c Server Blades with 2 dual-core processors with 12GB RAM
- VMware ESX Server v3.5 Enterprise Edition
- 2 x HP Virtual Connect Modules
- Guest operating system: Microsoft® Windows® or Linux

Growth space

Benefit

Consolidated 28 physical servers into one HP BladeSystem with dedicated SAN storage

HP-approved configuration for HP StorageWorks EVA4400 with HP BladeSystem and VMware software — IT consolidation solution block

Bill of materials

- 1 x HP StorageWorks EVA4400
- 56 x 146GB dual port fibre channel drives
- 1 x HP BladeSystem c3000 enclosure
- 4 x HP ProLiant BL460c Server Blades

Taking advantage of the features of VMware ESX Server, including the ability to quickly move virtual machines to different physical servers, requires network storage. The HP StorageWorks EVA4400 is based on the EVA 4100/6100/8100 architecture, which offers 99.999 percent availability for planned uptime.¹ The EVA4400 also has the flexibility to be an ideal storage platform for VMware ESX Server. With a virtualized storage architecture and easy-to-use management, the EVA4400 compliments the modular, industry standards-based architecture of the HP BladeSystem, providing flexibility, energy savings and time efficiency. By using the EVA4400 with the HP BladeSystem and VMware, you can leverage the performance and low power consumption of server blades with the powerful simplicity of HP StorageWorks EVA4400 arrays for a single-rack solution with a smaller footprint.

The bottom line is value

The HP StorageWorks EVA4400 with HP BladeSystem and VMware ESX Server solution provides enterprise class availability at an affordable price, top performance, local and remote replication capability, flexibility and simplified configuration that is easy and inexpensive to manage. The HP and VMware virtualization solution delivers the savings, simplification and scalability you are looking for in your IT environment.

Your next step

You know that tasks get done faster and more efficiently when workers share the load, but without action on your part, one individual will continue to shoulder the entire burden. Take the next step toward greater efficiency. Call your local authorized HP and VMware reseller today. These HP and VMware experts have just what it takes to streamline your server and storage workload to lower your operating costs while simplifying the management of your total solution.

¹ HP internal monitoring of customers' downtime

For more information, visit www.hp.com/go/EVA4400 or www.hp.com/go/VMware

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