vmware®

VMware HA
Cost effective high availability for virtual machines

What Is VMware HA?

VMware® High Availability (HA) provides easy to use, cost effective high availability for applications running in virtual machines. In the event of server failure, affected virtual machines are automatically restarted on other production servers with spare capacity. VMware HA allows IT organizations to:

• Minimize downtime and IT service disruption while eliminating the need for dedicated stand-by hardware and installation of additional software.

• Provide uniform high availability across the entire virtualized IT environment without the cost and complexity of failover solutions tied to either operating systems or specific applications.
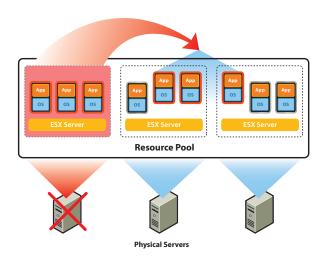
How Is VMware HA Used in the Enterprise?

VMware HA allows companies to provide high availability to any application running in a virtual machine. With VMware HA IT organizations can:

• **Protect applications with no other failover option.** Provide cost-effective high availability for any application running in a virtual machine. High availability solutions are often relatively complex and expensive, and typically reserved for mission critical applications. VMware HA provides a cost-effective high availability solution that makes high availability possible for software applications that were formerly left unprotected.

• **Establish consistent "first line of defense" for an entire IT environment.** Unlike other high availability solutions that are operating system or software application specific, VMware HA represents a consistent, easy to manage high availability solution for the entire IT environment. VMware HA provides basic failover for any application with minimum cost and management overhead.

How Does VMware HA Work?

VMware HA continuously monitors all servers in a resource pool and detects server failures. An agent placed on each server maintains a "heartbeat" with the other servers in the resource pool and a loss of "heartbeat" initiates the restart process of all affected virtual machines on other servers. VMware HA ensures that sufficient resources are available

VMware HA provides cost effective availability for all applications running in virtual machines.

in the resource pool at all times to be able to restart virtual machines on different physical servers in the event of server failure. Restart of virtual machines is made possible by the Virtual Machine File System (VMFS) clustered file system which gives multiple ESX Server instances read-write access to the same virtual machine files, concurrently. VMware HA is easily configured for a resource pool through VirtualCenter.

Key Features of VMware HA

• **Automatic detection of server failures.** Automate the monitoring of physical server availability. HA detects server failures and initiates the virtual machine restart without any human intervention.

• **Resource checks.** Ensure that capacity is always available in order to restart all virtual machines affected by server failure. HA continuously monitors capacity utilization and "reserves" spare capacity to be able to restart virtual machines.

• **Automatic restart of virtual machines.** Protect any application with automatic restart in a different physical server in the resource pool.

"The 'set it and forget it' automation aspect of VMware HA and DRS will enable us to automatically allocate resources as needed, whenever needed, all without our intervention."

Systems Engineer, Leading Insurance Company

- **Intelligent choice of servers** (when used with VMware Distributed Resource Scheduler (DRS)). Automate the optimal placement of virtual machines restarted after server failure.

How Can I Purchase VMware HA?

- VMware HA is included with VMware Infrastructure 3 Enterprise.

- VMware HA can also be purchased separately with VMware Infrastructure 3 Standard and VMware Infrastructure 3 Starter.

Product Specifications and System Requirements

VMware HA requires ESX Server and VirtualCenter Management Server.

For detailed product specifications and system requirements refer to the VMware Infrastructure Resource Management Guide located at http://www.vmware.com/support/pubs/vi_pubs.html.