



Dot Hill R/Evolution™
Storage Solutions

STORAGE



Certified Storage Solutions for
VMware® Infrastructure 3

Enable migration of Virtual Machine disks with zero downtime

The launch of VMware Infrastructure 3 release 3.5 delivered the capability to migrate virtual machine disks from one datastore to another without disruption or downtime. This functionality is enabled through Storage VMotion (SVM) and is fully supported only when both the source and target virtual machine disks reside on VMware certified Storage Area Network (SAN) datastores.

Storage VMotion with Fibre Channel SAN offers greater agility

The Dot Hill R/Evolution family offers VMware ESX 4.0 and 3.5.x certified storage solutions with a choice of host interfaces. Deploying Storage VMotion with a certified SAN solution minimizes disruption by removing the planned storage downtime previously required for rebalancing, expanding or retiring external storage arrays.



The benefits of shared SAN storage for VMware

In the most common configuration, a virtual machine uses a virtual hard disk to store its operating system, program files and other associated data. A virtual disk is a large physical file that can be copied, moved and archived as easily as any other file. Virtual disk files reside on specially formatted volumes called datastores. A datastore can be deployed on the host machine's internal direct-attached storage devices or on networked Fibre Channel or iSCSI based SANs. Provisioning datastores on internal or direct attached storage presents many restrictions to the key benefits of virtualization including loss of dynamic storage scalability, virtual machine migration, high availability failover and disaster recovery (DR) implementation. A VMware certified SAN solution provides multiple virtual machines with shared access to a pool of storage located outside of the physical host system. Storing virtual disks and other essential elements of your virtual machine on a shared SAN also offers the benefits of storage consolidation, automated backup, load balancing, and flexibility to scale storage performance and capacity to meet changing business demands.

Migrating Virtual Disk Files with SVM - Explained

VMware Storage VMotion takes the same principals of VMware VMotion which is the proven technology used to migrate virtual machines between physical servers without disruption, and applies them to the migration of virtual machine disk files from one shared storage location to another. Storage VMotion enables the migration of virtual machine disk files while the virtual machine is running, using core VMware technologies such as disk snapshots, REDO logs and parent/child disk relations. This entire process takes a similar amount of time as a cold migration and will be a function of the size of the virtual machine disk. The final switch over from the original virtual machine to the newly created instance takes place in under two seconds and is transparent to the application user.

Virtual Machines - Cost effective disaster recovery

For many small to medium enterprises the cost of replicating their business critical application servers for disaster recovery provisioning can be prohibitive. A very cost effective disaster recovery solution can be implemented using a VMware certified SAN infrastructure supporting failover between physical application servers and virtual machine instances of each business critical application. The virtual machines used for disaster recovery failover can all reside on a single or small number of disaster recovery servers running VMware. Although the virtual machine instances may not offer the bandwidth to accommodate peak workloads, the solution avoids downtime and through VMware Storage VMotion these virtual machines could be seamlessly migrated to more powerful servers as required.

The case for a certified VMware SAN solution

A VMware certified SAN solution unleashes the true potential of a virtual infrastructure to satisfy the demands of business-critical applications in an enterprise environment. Flexibility makes a SAN a feasible solution for businesses of any size delivering high value features including live system migration, consolidated backup operations, provision for disaster recovery and dynamic scalability.



Learn more about why Dot Hill is your VMware storage partner of choice



FLEXIBLE

Dot Hill offers networked disk RAID storage solutions with a choice of iSCSI, Fibre Channel or SAS host connectivity delivering flexibility and maximisation of any existing network infrastructure. Entry level solutions scale seamlessly for more performance or capacity with complete re-use of existing disk drive expansion trays for unrivalled investment protection.

Both our latest generation 2000 and 5000 series storage array's support battery-free cache backup which is part of our ongoing EcoStor Green Storage initiative. EcoStor will deliver a series of energy saving and environmentally responsible technologies such as drive spin-down and our unique Data-In-Place Migration already maximises the life-cycle of your customers investment in RAID storage technology.

GREEN STORAGE

HIGH PERFORMANCE

Dot Hill's R/Evolution Architecture supports multiple high speed host connections, such as 4Gb Fibre Channel, and a switched fabric drive side bus to assure maximum throughput. Patented SimuCache data caching provides blistering write performance in high availability RAID configurations.

Both high performance SAS and high capacity SATA drives can be freely intermixed within each storage expansion tray allowing tiered storage solutions to be optimly designed to cater for ever increasing performance and data retention mandates. Tiered storage and/or disk-to-disk backups can be accomplished without ever having to utilise precious network bandwidth.

LOWER COSTS

MISSION CRITICAL

Dot Hill's robust architectures assure "no single point of failure," and automatic failover mechanisms facilitate the highest levels of data protection, service levels and disaster recovery. Support for industry high-availability software and virtualisation middleware guarantees seamless integration with the rest of the enterprise.

Dot Hill external RAID storage arrays based on the R/Evolution architecture have been rigorously tested and certified by VMware for use with VMware ESX Server 3.5 and ESX Server 3i and offer best in class price/performance.

VMware CERTIFIED

CONSOLIDATION

100% platform independence and designed-in multi-host, SwitchlessSAN™ architectures ensure storage can be centrally located and managed – improving the efficiency of merging data from disparate information sources.

Dot Hill's R/Evolution architectures employ a compact 2U rack height chassis eliminating the constricting space requirements of tape based systems. Flexible and highly modular systems allow integrators and end-users to design highly functional storage arrays in the smallest footprint - minimising support and maintenance costs.

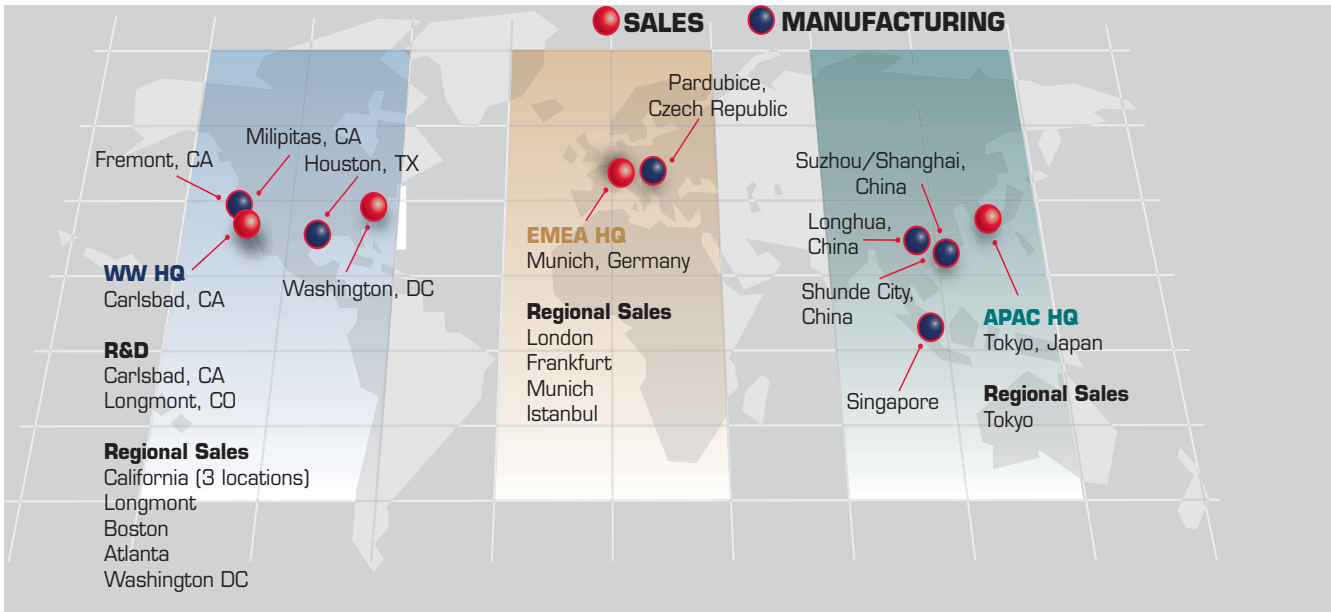
SMALL FOOTPRINT

EASE - OF - USE

Simple, yet sophisticated management & configuration tools minimise the administrative burden already placed on over-extended IT staff. Built-in DMS tools such as the snapshot capabilities from Dot Hill's AssuredSnap™ technology provide further opportunities for data integrity and easy off-line data analysis.

contact your sales representative, or visit our website at www.dothill.com.

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