

Virtual Volumes (VVOLs): Simplified, Dynamic, Granular VM Management



The Nimble Storage Adaptive Flash platform implementation of VMware Virtual Volumes (VVOLs) brings you the advantages of granular and dynamic per-VM control, as well as simplified management.

1. Simplify SLA Delivery with Granular Management

Achieve SLAs for applications and workloads faster and more easily by gaining control of your storage resources at the VM level, rather than the aggregate Virtual Datastore level.

2. Dynamically Respond to Changing Requirements

VVOLs eliminate the arduous, time-consuming task of moving VMs from datastore to datastore whenever a VM's storage requirements change.

VVOLs enable you to apply data services on a VM-level and dynamically initiate and control storage resources, in real-time. VMware Storage Policy-based Management (SPBM) automates this process, and working with VVOLs, dynamically sets up the necessary data services.

3. Apply Storage Policies Directly in vCenter Server

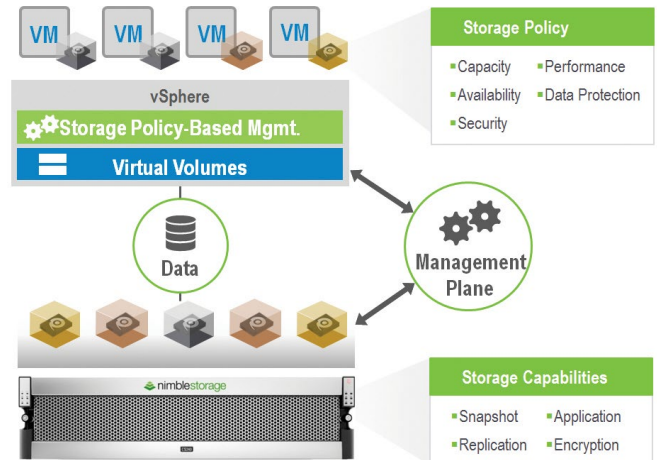
VVOLs clear away many manual tasks that VMware administrators had to perform when VMs could only be managed at the datastore level, such as set (and reset) policies to affect storage requirements.

With VVOLs, you manage the storage requirements from your VMware vSphere console. You can assign precise storage policies at the application level, applying SPBM to each VM. SPBM will automate the policy monitoring and compliance during the lifecycle of the VM.

4. Apply Storage Data Services on a Per-VM Basis

VVOLs eliminate a multitude of tasks that storage administrators had to perform to manage VMs, such as trying to align multiple VM requirements to an individual LUN, and ensuring its availability.

With VVOLs, the storage provisioning for VMs is policy driven. You can apply data services on a VM-level, and focus on delivering specific application SLAs and data protection. For example, for an application that requires frequent snapshots and encrypted replication to an offsite datacenter, you can create a policy that will apply all the relevant capabilities of the Nimble Storage array.



The VMware vSphere API for Storage Awareness (VASA) provider lives inside the Nimble array—unlike other offerings, there is no separate infrastructure to design, configure, and manage. The VMware ESX hypervisor uses VASA to manage the array.

VASA stores VVOLs natively on Nimble arrays, in logically partitioned storage containers. Input/output from the VMware hypervisor passes through the protocol endpoint (PE) access point. Data services are offloaded to the array, and managed through VMware Storage Policy-based Management (SPBM).

Learn more about Nimble Storage solutions for VMware at

<http://www.nimblestorage.com/solutions/server-virtualization/vmware-vsphere/>



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