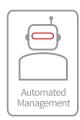A SolidFire Solution Brief

Complete Integration for Optimized Storage Virtualization

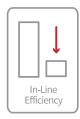## SolidFire Benefits

Scale-Out

IOPS
Guaranteed Performance

Automated Management

High Availability

In-Line Efficiency

Similar to how VMware virtualizes compute resources, SolidFire virtualizes storage, decoupling performance from capacity, giving IT managers unprecedented storage control.

With SolidFire storage and VMware, end-to-end virtualized resources make it possible to consolidate, automate and scale your enterprise IT infrastructure, allowing for standardization at scale and providing a significantly higher ROI. The ability to create infrastructure resource pools turns IT into a profit center, not a cost center, and one that enables you to provision, change and guarantee storage performance on demand without interruption or downtime.

With SolidFire's all-flash storage array, every virtual machine (VM) datastore is simply better. VMs are faster, and they're fully automated and instantly adjustable without any data migration or reconfiguration — thanks in part to SolidFire's Quality of Service (QoS), guaranteeing end-to-end performance to multiple applications in parallel. And SolidFire systems leverage a scale-out storage architecture that enables customers to achieve linear scale of both capacity and performance without downtime or performance impact.

SolidFire's ability to manage and provision storage policies within the virtual infrastructure, enforced down to each virtual disk in the storage system, provides a far more holistic approach than afforded by legacy and controller-centric storage systems.

VMware's vision to drive increased VM-awareness and management granularity at the storage system layer pairs extremely well with SolidFire's QoS architecture. Only SolidFire with VMware enables IT management to set and enforce fine-grain QoS policies to each virtual disk in the SolidFire storage system. Only SolidFire integrates with VMware's Storage I/O Control (SIOC) ensuring system-wide, end-to-end, guaranteed performance.

SolidFire is able to provide management granularity and control at the storage system layer through tight VMware integrations and the ability to decouple storage capacity from performance. Specifically,

- SolidFire's end-to-end QoS and automated management are key to driving increased VM awareness and data protection.
- SolidFire scalability delivers on VMware's flexible VDI implementations.
- Tight integration with VMware Site Recovery Manager (SRM) ensures data protection, giving administrators a flexible way to maintain availability and control of virtualized storage resources — even in a failover scenario.
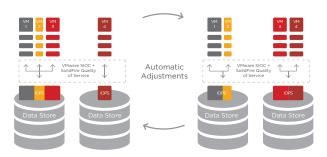
vmware® READY

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~SolidFire

NetApp®

The SolidFire Advantage
End-to-End QoS

Only SolidFire integrates QoS control with VMware's SIOC to provide tunable and predictable performance for every VM. Utilizing the SolidFire vCenter plug-in, SolidFire dynamically manages minimum, maximum and burst performance levels based on virtual machine vSphere performance settings. With automated orchestration, each VM's SIOC settings can be adjusted on the fly, and SolidFire's QoS control automatically adjusts storage performance settings to match, eliminating storage administrator intervention and reducing overall operating costs.

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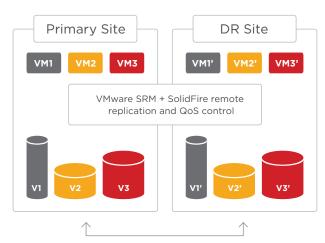
VDI

SolidFire provides granular QoS controls for its scale-out block storage system that are uniquely suited to harness the mixed and unpredictable workload profiles that exist in a VDI environment. SolidFire's ability to guarantee storage performance, dynamically adjust storage resources on the fly without hardware reconfiguration, and linear and non-disruptive scale translate into improved user experience and infrastructure cost benefits throughout the lifecycle of a VDI deployment.

SolidFire is the only storage system that cost effectively delivers the flexibility and adaptability required to drive an evolving large-scale VDI environment alongside other applications on the same system. Not only does this reduce complexity and storage silos, but it helps change the expectations of storage in large-scale VDI deployments.

VMware Site Recovery Manager

With SolidFire's Storage Replication Adapter (SRA) plug-in, you get full SRM functionality integrated with your SolidFire storage cluster, giving you the ability to plan a recovery sequence and test it on a regular basis. You can also perform site-to-site failover, failback, migration and testing. This means when disaster strikes, you maintain control over production operations. With SolidFire SRA, you are also able to migrate data temporarily to an offsite cluster in order to perform site maintenance, giving you continuous availability with no downtime.

Performance profiles maintained

Benefits of Running VMware on SolidFire

Integrated VMware Feature	Benefit
VAAI	Ability to offload common offload common storage tasks from host and improve storage efficiency
SIOC	Predictable performance (with VMware SIOC + SolidFire QoS)
VASA	Loosely coupled data plane to support a software defined data center
VVOLS	VMs fully backed with volumes that have guaranteed performance (upon release of VVOLs)
SRM	Integrated disaster recovery with performance control