Hewlett Packard Enterprise | StorMagic

Pair HPE StoreEasy NAS with StorMagic SvSAN for greater data resiliency

StorMagic SvSAN: StorMagic SvSAN, made available through HPE via the HPE Complete Program, is the virtual SAN that makes the complex world of virtualized storage simple. Perfect for edge computing environments, the technology is based on software-defined storage that eliminates the need for physical SANs. SvSAN is designed to be very simple to install and manage whether deployed as part of a hyperconverged solution or as a storage-only target for any server environment.

Windows File Server: Windows File Server is a role which enables collection and sharing of files across storage devices to multiple end users.

HPE StoreEasy: An easy-to-manage centralized space for securely storing documents, images, audio, and video files. HPE StoreEasy Storage is a leading NAS product family available at a highly competitive rate.

Pair NAS with StorMagic SvSAN to improve data resiliency and access over a WAN

StorMagic SvSAN

StorMagic SvSAN is a virtual SAN—a software-defined solution designed to run on two or more servers and deliver highly available shared storage. StorMagic SvSAN removes the need for a physical SAN in some of the world's most demanding environments by converting the disk, flash, and memory of two servers into a highly available virtual SAN.

StorMagic SvSAN can improve upon modern HPE server platforms by including data protection features like software RAID and synchronous mirroring. To protect against data center-wide disruptions like power outages, fires, and other isolated disasters, StorMagic SvSAN can be configured as a stretch metrocluster for modern high availability.

Unfortunately, planned activities like hardware and software refresh cycles can also cause outages and disruption. Using SvSAN, you can seamlessly migrate volumes to ensure workloads remain available through these risky maintenance cycles and planned upgrades.

StorMagic SvSAN provides its entire feature set with a single, centralized management interface called Edge Control while having minimal hardware requirements. The Edge Control management console and VMware vCenter® plug-in make managing multiple sites simple and intuitive. StorMagic SvSAN can be deployed in either a hyperconverged, or a software-defined SAN model as shown in the architecture diagrams below.
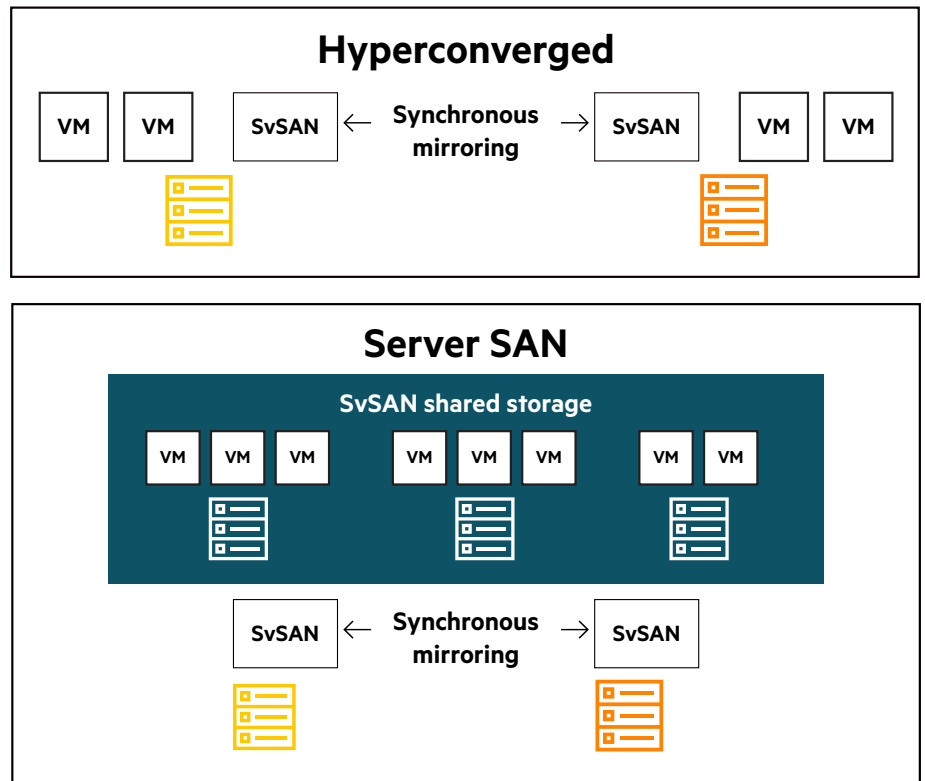

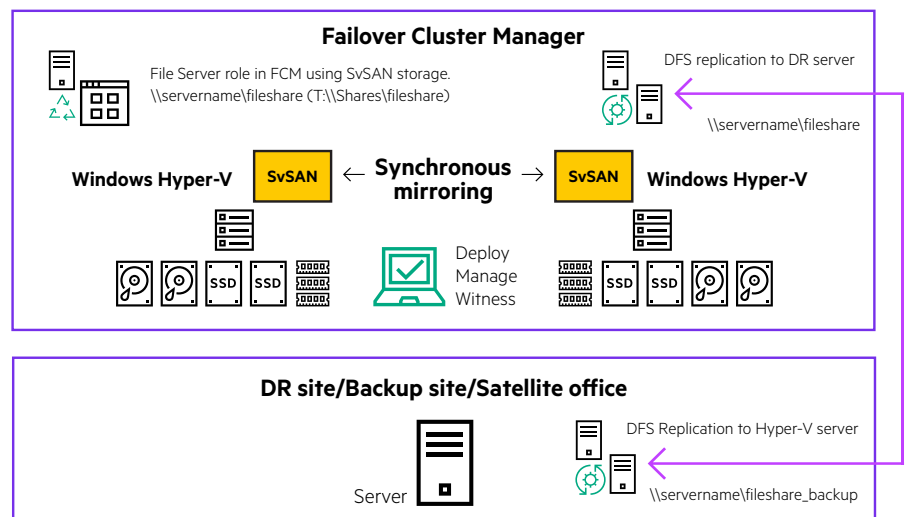**Figure 1.** StorMagic SvSAN architecture for hyperconverged and software-defined SAN deployments

Figure 2. Utilizing SvSAN with a Failover Cluster File server role and DFS replication (DFSR)

NAS: Failover Cluster and DFS replication

As shown in the architecture diagram above, SvSAN synchronously mirrors volumes between two Windows Hyper-V environments to drive high availability. When using these SvSAN iSCSI volumes as underlying storage, the Windows File Server Role can provide users with highly available file sharing capabilities. SvSAN now brings the same highly available and resilient storage to file services, which are commonly underappreciated and under-protected. SvSAN's small footprint means that file services can be backed by resilient storage without large infrastructure requirements and costs.

To drive further resiliency, one can include an additional Windows Server to the installation, to replicate a file share using Distributed File System Replication (DFSR). The file share will be replicated between the main cluster and the additional server to ensure folder synchronization is maintained. This use case is highly beneficial in cases where the user is trying to improve disaster recovery or provide access to a wider set of users over a WAN.

This additional Windows Server can run on a wide variety of devices but is well suited for a NAS due to the reduced hardware requirements and benefits gained through the DFSR service. Through this service, a unique compression algorithm called Remote Differential Compression (RDC) is utilized. This algorithm limits the total amount of bandwidth required by enabling replication only in instances where changes are identified, not at consistent intervals. In the event of a disaster, failover clustering will kick in on the NAS to provide access to the synchronized file share to any users.

The HPE StoreEasy family of products can serve as an ideal NAS platform for running the backup Windows Server. Combining HPE StoreEasy with StorMagic provides an industry leading software-defined storage solution capable of delivering high uptime at a competitive price.

Learn more at

HPE.com/us/en/storage/hpe-complete.html

HPE.com/storage/StorMagic-via-HPE-Complete

HPE.com/us/en/storage/storeeasy-file-storage.html

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