

# StorMagic® SvSAN

## Frequently Asked Questions

**Q.** What is SvSAN?

**A.** SvSAN is a Storage Virtual Appliance that is installed as a virtual machine on an ESX server and provides shared storage functionality by leveraging the internal resources of the ESX server. This enables it to take control of a VMware® ESX server's Direct Attached Storage (DAS) and virtualize it as part of a virtual SAN. SvSAN allows you to:

- Share clustered datastores enabling VMotion, DRS, and VCB
- Manage your datastores, SAN & RAID from your vCenter console
- Provision datastores with a single operation
- Create a highly-available ESX environment with the optional high availability software

**Q.** What is the SvSAN High availability option?

**A.** SvSAN's high availability option provides active-active synchronous mirroring between 2 ESX servers. If one side of the mirror fails, the other remains available and the VMware cluster will automatically fail over the functioning mirror. This option is licensed per ESX server.

**Q.** How is the SvSAN Priced?

**A.** The SvSAN is available in several configurations based on the amount of capacity that is under management. The basic 2 TB capacity management configuration has a list price of \$995 (currently available at no charge with a valid Promo Key). The high availability option is \$995 per ESX server. The 4 TB, 8 TB and unlimited capacity management licenses include a high availability license for that ESX server.

**Q.** I don't have any RAID storage can I still install the SvSAN?

**A.** Yes if your ESX server does not have a supported RAID controller, then virtual disk (VMDKs) or physical disks can be assigned to the SvSAN for use as storage pools. For best performance, use physical disks assigned as raw disk mappings.

**Q.** I downloaded the free SvSAN, but then I saw something about high availability. Is high availability part of the free download?

**A.** High availability is an optional license for the SvSAN. It's \$995 per ESX server on the 2TB version of SvSAN and is included with the higher capacity versions.

**Q.** Will I get better performance if I use multiple NIC's?

**A.** In most cases yes. SvSAN will take advantage of all paths the ESX server has configured.

**Q.** What virtual resources are allocated to the SvSAN?

**A.** The SvSAN must be installed on a datastore that resides on the ESX server's internal storage. As part of the SvSAN installation process, the following virtual resources are allocated to the SvSAN:

- CPU reservation of 2 GHz.
- Memory reservation of 1 GB.
- Two virtual disks: one 256 MB; the other 20 GB.

**Tip:** ESX & SvSAN storage allocation - For the best performance, SvSAN should be installed immediately after ESX has been installed on a new server. In this way, all the available internal storage can be allocated to SvSAN.

**Q.** How do I get software updates and product support?

**A.** SupportSuite is StorMagic's comprehensive support program. Software updates and technical support are provided under an annual agreement.

**Q.** Which VMware products is SvSAN compatible with?

**A.** vCenter 2.5 & vCenter 4 (vSphere)  
ESX 3.5 & 4 (vSphere)  
ESXi  
ESX 4i

**Q.** What RAID controllers does the SvSAN support?

**A.** Manufacturer Model(s)

- LSI All MegaRAID SAS Controllers
- 3Ware
  - »» 9650SE-2LP/9650SE-4LPML/9650SE-8LPML/
  - »» 9650SE-12ML/9650SE-16ML/9650SE-24M8
  - »» 9690 Series
- Intel SRCASARB/SRCASJW/SRCSATAWB

**Q.** Is an O/S required to run SvSAN?

**A.** No, SvSAN is a complete software storage appliance which runs in virtual machine. You simply install SvSAN; there is no need to install any other O/S.

**Q.** What VMware components are required for SvSAN to run properly?

**A.** VMware ESX or ESXi, vCenter is required. With vCenter you are able to leverage the plug in for the management interface and manage the datastores, SAN and RAID controller from the console.

**Q.** Will it work with Hyper-V and Zen?

**A.** No, SvSAN is only supported in VMware ESX environments presently. Hyper-V and Zen are on our roadmap for future release.

**Q.** How many ESX servers can I have using SvSAN Shared Storage?

**A.** Unlimited, any ESX server on the network will be able to see the shared datastores of the SvSAN enabled server. Each ESX server that wants to provide shared storage will require SvSAN to be installed.

**Q.** How do I get a valid promo key?

**A.** Contact your local reseller. A list of resellers is available at <http://www.stormagic.com/resellers.php>

**Q.** Can it be installed on a dedicated appliance?

**A.** SvSAN is only available as a Storage Virtual Appliance presently. StorMagic's SM Series software is available for ESX environments that require a dedicated appliance.

**Q.** Where can I find the appliance serial number for the SvSAN?

**A.** The serial number and current host name are displayed at the start of the configuration wizard. After the setup is completed you can view the serial number from by clicking on the vSAN tab in vCenter and select iSCSI appliances or you can login into the SvSAN via web GUI and select the license tab.  
EX: <https://aaa.bbb.ccc.ddd/system/license/>

**Q.** Can I install the SvSAN software and have a iSCSI network which is on a separate VLAN and Subnet as compared to the Virtual Center server?

**A.** Yes you can access the plug in different VLANS. You will need to add two additional VNICS on the SvSAN and route it correctly.

For example, you could have a VLAN containing a VMKernel, Service Console and SvSAN interface, and another VLAN containing the vCenter and another SvSAN interface.

**Q.** How do I add additional VNICS to the SvSAN?

**A.** You can add additional VNICS by right clicking the SvSAN VM and select Edit Settings and add a network adapter

**Q.** I am installing the SVSAN on my ESX server it gets as far as Registering StorMagic SVA... and fails due to 'Can't locate VMware/VmPerl.Pm in @INC (@INC contains: etc

**A.** Requires the VMware: Vperl perl libraries to be installed.

This seems to be a problem with the installation of the VMware PERL libraries. This article in the VMware forums should fix your problem.

[http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=9947918](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=9947918)

**Q.** How many ESX hosts do I need to run HA?

**A.** 2

**Q.** I noticed the SvSAN creates a 20GB journaling drive during installation. What is a journaling drive?

**A.** A journaling drive is used so that if one side of the mirror goes out of synchronization, when it gets resynchronized it does not need to have the entire mirror resynchronized; only the changes that happened while it was offline need to be transferred.

**Q.** Can I convert a target to a Mirrored Datastore?

**A.** Yes, an existing target can be turned into a mirrored datastore. To do this, simply follow the steps described in Section 4.2.2 on page 4-6 of the SvSAN user guide.

**Q.** Is it possible to have a dedicated NIC to handle mirror traffic?

**A.** Yes, a second vNIC must be added to the SvSAN and routed accordingly.

**Q.** Is it possible to break the mirror and re-sync with upgraded storage to perform a stage storage upgrade? E.G. Changing out storage from 4x500GB SATA to 12x300GB 15k SAS, could I break one mirror, and the new storage, re-sync, then perform the same operation on the opposing side?

**A.** Yes, steps on breaking and syncing mirrors can be found in Section 4.2.2 of the SvSAN user manual.

**Q.** I cannot find the SvSAN console or GUI. Where is it?

**A.** You can view the console by selecting the SvSAN VM then selecting the Console tab in vCenter. You will be able to edit network setting via the console and then use the vClient SMplugin or browse to the SVA using a browser and the configured IP address.

**Q.** I installed the SvSAN on 2 clustered ESX hosts and I want to add a 3<sup>rd</sup>. Will the new host be able to see the shared datastore?

**A.** Yes, you can add the new ESX host IQN to the SvSAN DCL list on the target and perform an iSCSI rescan on the new host. For more information please consult the SVSAN user guide and [http://www.vmware.com/pdf/vsphere4/r40/vsp\\_40\\_iscsi\\_san\\_cfg.pdf](http://www.vmware.com/pdf/vsphere4/r40/vsp_40_iscsi_san_cfg.pdf)

**Q.** Can I use VMware Fault Tolerance with the SvSAN?

**A.** VMware Fault Tolerance is currently not supported. StorMagic plans to support this feature in a future release.

**Q.** I have received a 30 day mirroring evaluation, after I active the license mirroring is set as false.

**A.** Your evaluation is active which can be identified by the 720 hours shown on the same screen

**Q.** I am currently running ESX 3.5 and getting ready to upgrade to vSphere 4. Does the SvSAN have any required steps?

**A.** Yes, you must upgrade the SvSAN to version 4.1.919. Supportsuite customers can download the upgrade image and instructions from Supportsuite.

**Q.** How much is supportsuite?

**A.** Prices range depending on capacity but the base annual contract is \$179 per host for a 2TB license.

**Q.** If we use our central Virtual Center server to run the mirroring agent over a WAN, what would happen to the mirror in the event of an ISP network outage?

**A.** As long as 2 out of 3 in the mirroring quorum (vCenter, ESX Host 1, ESX Host 2) are contactable the mirror will stay online.

**Q.** I installed and enabled the plugin but it is not listed on the vCenter tabs.

**A.** The plugin will only appear when you have selected one of the ESX hosts. The tab will not appear when selecting the Cluster.

**Q.** Does SvSAN support vCenter running in a VM?

**A.** This is currently not a supported configuration. If you wish to do this please contact StorMagic support for further direction.

**Q.** Can I use the SvSAN HA feature across a WAN with 2 ESX Hosts?

**A.** The SvSAN HA feature uses an Active Active Mirror to achieve redundancy. This is possible but greatly depends on the speed of the WAN link and how much data is being written to the Mirror. Please consult with StorMagic before attempting this on a live production system.

**Q.** What Port Numbers does the SvSAN use?

**A.** Mirror API RPC Daemon rmistd : 5555  
SMMirror : 23569  
Web Access : 80, 443  
iSCSI : 3260  
iSNS : 3205  
Management Service : 8000  
Replicant : 9999  
Discovery : 4309  
vCenter Plugin : 9000  
Misc VMware : 16961, 16962, 16963