

DATA SHEET

Deploying StorMagic SvSAN ON LINUX KVM

STORMAGIC SvSAN

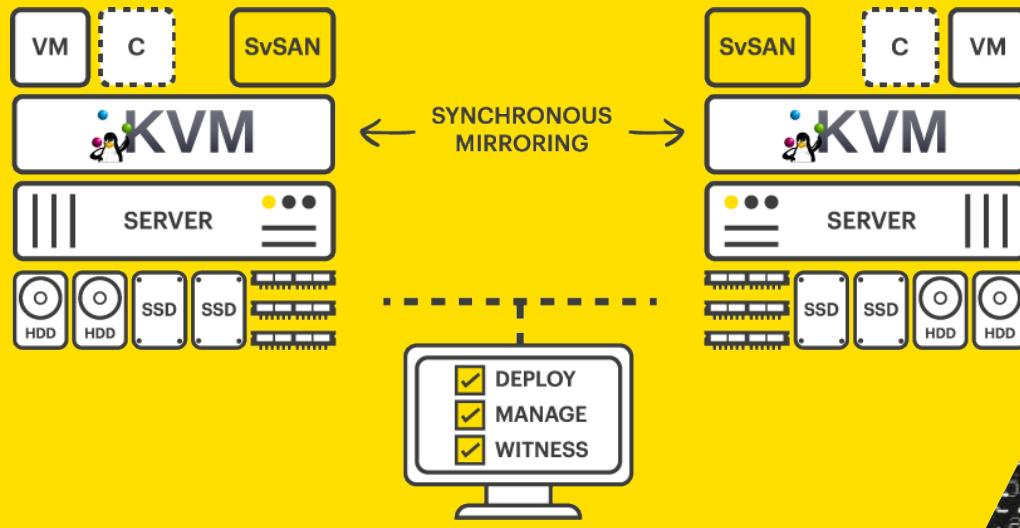
StorMagic SvSAN is simple hyperconverged storage that eliminates downtime, delivering cost-effective high availability with only two servers. SvSAN is designed to be very simple to install and manage, and the technology is based on software-defined storage that eliminates the need for physical SANs.

SvSAN is installed as a virtual storage appliance (VSA) on top of a hypervisor and creates highly available shared storage by synchronously mirroring data between two server nodes. SvSAN runs on any x86 server and can be deployed on either VMware vSphere, Microsoft Hyper-V or Linux KVM hypervisors. This document outlines the benefits and details of using StorMagic SvSAN with an open-source KVM hypervisor.

KVM HYPERVISOR

The Linux KVM (Kernel Virtual Machine) hypervisor is an increasingly popular choice for organizations looking to virtualize their IT infrastructure. As open-source software, with a highly active user and support community, the KVM hypervisor provides organizations with a free, lightweight solution that isn't tied to ongoing maintenance or upgrade costs.

Furthermore, the KVM hypervisor enables the flexibility to only deploy features that are needed in that environment. The many built-in features on paid hypervisors can add unnecessary complexity and cost. The lightweight, yet robust, cost-effective and flexible architecture



A typical 2-node SvSAN configuration

of KVM aligns with StorMagic SvSAN's design and capabilities, making the two a perfect fit for many environments.

WHY COMBINE SvSAN WITH KVM?

Deploying StorMagic SvSAN on a KVM hypervisor creates a true open-source hyperconverged infrastructure while avoiding the hypervisor tax. With fast, scripted deployment, integration guides, and monitoring, it is a simple, hassle-free installation and management process. The benefits of avoiding the hypervisor tax are amplified by SvSAN's lightweight 2-node architecture and hardware requirements. Unlike most highly available HCI solutions that require three nodes or more, SvSAN requires only two nodes to provide 100% uptime. Organizations can deploy a highly available SvSAN solution on any x86 server and any combination of storage inside. This flexibility gives IT teams more choice and more control over their infrastructure, enabling them to tailor it to precise requirements.

REQUIREMENTS

SvSAN has very low system requirements. The minimum tolerances for operating SvSAN when using a KVM hypervisor are shown in the table below. Additionally, any x86 server, any CPU and any storage type can be used when deploying SvSAN onto a KVM cluster.

CPU	1 x virtual CPU core ¹ • 2 GHz or higher reserved
Memory	1GB RAM ²
Disk	2 x virtual storage devices used by VSA • 1 x 512Mb Boot Device • 1 x 20Gb Journal Disk
Network	1 x 1Gb Ethernet • Multiple interfaces required for resiliency • 10Gb Ethernet supported • Jumbo frames supported

¹ When using SvSAN's data encryption feature to encrypt data, 2+ virtual CPUs are recommended

² Additional RAM may be required when caching is enabled

DISTRIBUTIONS

StorMagic SvSAN is certified on Ubuntu 20.04. SvSAN's compatibility with this distribution was made available from SvSAN Version 6.2 Update 5 Patch 5 and onwards.

Linux Distribution	SvSAN Version
Ubuntu	20.04

FEATURES OF A KVM HYPERVISOR

KVM is included in all Linux distributions, installing quickly from public repositories. This enables a straightforward user experience and smooth integration. But KVM brings additional benefits compared to other virtualization technologies. Those include:

- **PERFORMANCE** – One of the main drawbacks of traditional virtualization technologies is performance degradation compared to physical machines. Since KVM is the type-1 hypervisor, it outperforms all type-2 hypervisors, ensuring near-metal performance. With a KVM hypervisor, VMs boot fast and achieve desired performance results.
- **SCALABILITY** – As a Linux kernel module, the KVM hypervisor automatically scales to respond to heavy loads once the number of VMs increases.
- **SECURITY** – Since KVM is part of the Linux kernel source code, it benefits from the world's biggest open source community collaboration, rigorous development and testing process as well as continuous security patching.
- **MATURITY** – KVM was first created in 2006 and has continued to be actively developed since then. More than 1,000 developers around the world have contributed to KVM code.
- **COST-EFFICIENCY** – Last but not least, the cost is a driving factor for many organizations. Since KVM is open source and available as a Linux kernel module, it comes at zero cost out of the box.



SvSAN IS AVAILABLE ON
UBUNTU DISTRIBUTION



Should an organization require features not offered 'as standard', there are third party plugins to provide additional functionality. Because of its open-source architecture, the StorMagic SvSAN KVM solution stack can be supplemented with additional tools to create customizable solutions that deliver exactly what an organization requires. Therefore, an organization can build an open-source hypervisor solution using KVM that is a like-for-like match for a paid-for alternative.

FURTHER READING

SvSAN's features, capabilities and architecture, right down to the code, are the same regardless of what hypervisor it is installed upon.

Using the KVM hypervisor with SvSAN creates the only highly available 2-node KVM hyperconverged solution and enables organizations to avoid the hypervisor tax.

Read more about SvSAN and its features and requirements in the [product data sheet](#). You can take a detailed look at how SvSAN is deployed and managed through the comprehensive [deployment guide and manual](#).

Explore some of the many features of SvSAN such as [Predictive Storage Caching](#), [encryption](#), or the [witness service](#) in more depth with our [extensive library of white papers](#).

If your organization is ready to test SvSAN, you can do so free of charge, with no obligations. Simply download our [fully-functioning free trial of SvSAN](#) from the website.

If you still have questions, or you'd like a demo of SvSAN you can contact the StorMagic team directly by sending an email to sales@stormagic.com

StorMagic
The Quadrant
2430/2440
Aztec West
Almondsbury
Bristol
BS32 4AQ
United Kingdom

+44 (0) 117 952 7396
sales@stormagic.com

www.stormagic.com