

## Network Storage Server (NSS) Virtual Appliance for VMware Infrastructure

### Intelligent storage virtualization

*FalconStor® Network Storage Server (NSS) Virtual Appliance for VMware Infrastructure is a pre-configured, production-ready virtual machine that provides a cost-effective, feature-rich virtual SAN solution for small and medium business (SMB) and remote/branch office (ROBO) environments.*

### Highlights

- > TOTALLY Open™ architecture integrates seamlessly with VMware Infrastructure
- > Simple virtual iSCSI SAN from DAS storage
- > Enterprise-class storage features: Mirroring, snapshots, replication
- > Supports VMware ESX Server and VMware Site Recovery Manager (SRM)
- > Enables key VMware protection features, including VMware VMotion, VMware High Availability, and VMware Distributed Resource Scheduler; enhances VMware Consolidated Backup (VCB)
- > WAN-optimized replication with compression and encryption for fast, efficient remote DR and ROBO data consolidation
- > Thin Provisioning maximizes disk utilization while reducing storage costs
- > Centralized management console
- > Application-aware Snapshot Agents, including Microsoft Windows and Microsoft SQL certified agents, ensure 100% transactional integrity
- > Integrated Microsoft Exchange and Lotus Notes message recovery
- > Compliant with Microsoft VSS

Leveraging VMware for server virtualization is very attractive for SMB and ROBO environments, but it demands a highly available infrastructure. Since a single physical server hosts multiple applications, the loss of that server means that many applications will be down at the same time. VMware provides a set of advanced, enterprise-class features to address these needs, such as VMware VMotion, VMware High Availability, and VMware Distributed Resource Scheduler. However, these features require shared storage in order to function. Building a SAN, even a small one, can be costly and complex, and limits the disaster recovery (DR) options for SMBs and ROBOs.

The FalconStor NSS Virtual Appliance knocks down all these barriers to server virtualization and brings intelligent storage virtualization and virtual SAN technology within the reach of any organization.

### A cost-effective virtual iSCSI SAN solution

The FalconStor NSS Virtual Appliance creates a virtual SAN on a VMware ESX server by turning internal disk resources into a shareable pool of storage. If the FalconStor NSS Virtual Appliance is deployed on a single VMware ESX server, that server can share storage resources with other servers in the environment. This is accomplished without the need for external storage arrays, SAN switches, or costly host bus adapters (HBA). Internal data drives are detected by the software and incorporated into the management console through a simple GUI. At that point, storage can be provisioned and securely allocated via the iSCSI protocol, which operates over standard Ethernet cabling.

To enable high availability (HA), the FalconStor NSS Virtual Appliance can be deployed on two VMware ESX servers that can share storage with each other as well as additional VMware ESX servers. In this model, each NSS Virtual Appliance maintains mirrored data from the other server. If one of the servers is lost, all virtual machines that were running on the failed server can restart using the storage resources of the remaining server. Downtime is kept to a minimum as applications are quickly brought back online.

By consolidating all the elements of a shared storage environment, the FalconStor NSS Virtual Appliance provides a cost-effective solution for delivering highly available shared storage to a VMware ESX Server environment. Thin Provisioning technology and space-efficient snapshots further decrease costs by minimizing consumption of physical storage resources.

### Enterprise-class data protection

The FalconStor NSS Virtual Appliance provides enterprise-class data protection features including application-aware, space-efficient snapshot technology that can maintain up to 64 point-in-time copies of each volume.

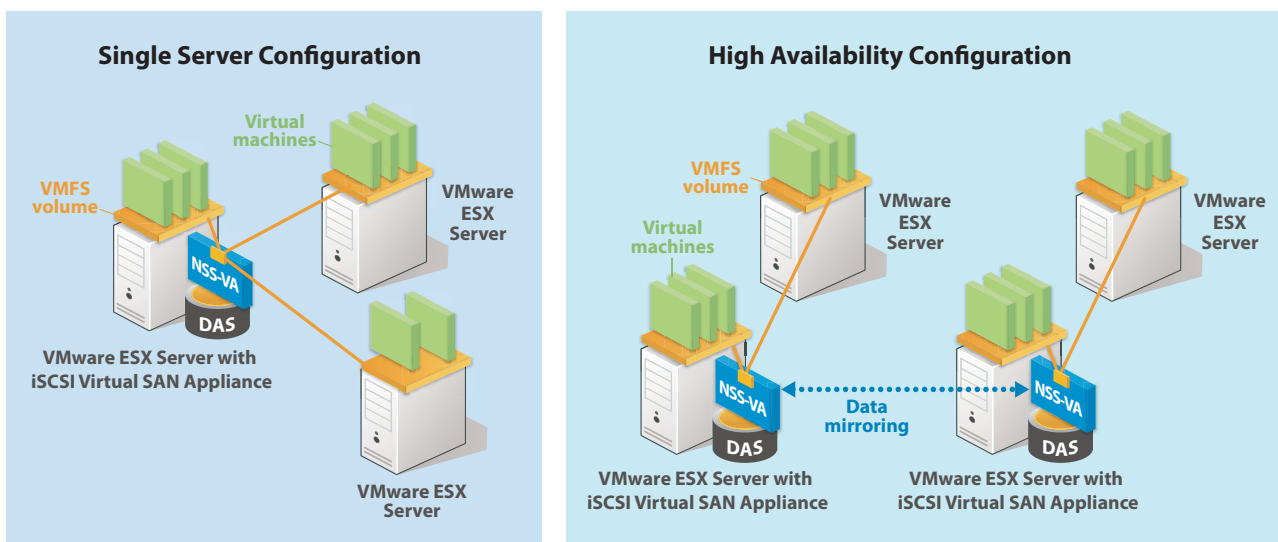
Snapshot images have many uses:

- > Quickly recover lost or corrupted data
- > Provide 100% transactionally consistent copies of application data for testing, development, auditing, reporting, etc.
- > Serve as a source for VCB with limited impact to VMware ESX production servers

WAN-optimized data replication is also included, making the FalconStor NSS Virtual Appliance an ideal ROBO solution.

A Thin Replication feature minimizes bandwidth utilization by sending only unique data blocks over the wire. Built-in compression and encryption reduce bandwidth consumption and enhance security, without requiring specialized network devices to connect remote locations with the data center or DR site. Tape backup for multiple remote offices can be consolidated to a central site, eliminating the need for distributed tape autoloaders and associated management headaches and overhead.

**FalconStor NSS Virtual Appliance can be deployed on a single server for storage pooling, or on two servers for HA.**



## Specifications

Form factor	Virtual Appliance
Host connections	iSCSI
VMware systems supported	VMware ESX Server 3.0 and 3.5, VMware ESXi Server 3.5, VMware SRM
# of virtual appliances required for HA configuration	2
Memory required (minimum)	1GB RAM
Snapshots per volume	up to 64
Total storage capacity	up to 4TB
Replication with compression and encryption	Included

For more information, visit [www.falconstor.com](http://www.falconstor.com) or contact your local FalconStor representative.

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