VSkyStor

PROMISE TECHNOLOGY

Simplify Your Storage and Protect Your Big Data



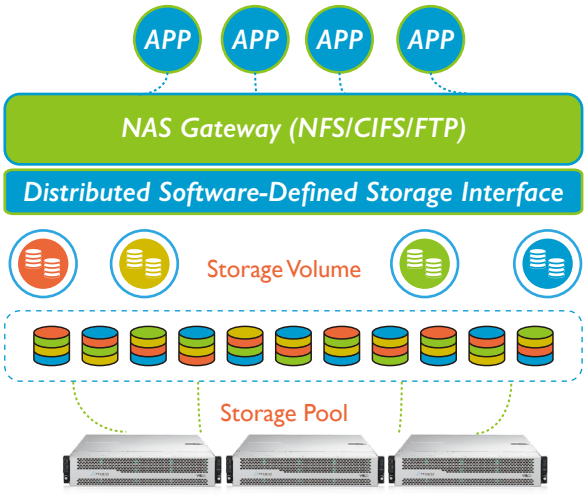
VSkyStor – A New Generation of Software-Defined Cloud Storage

VSkyStor by Promise is new generation software for NAS using VSkyCube as a storage infrastructure. Small, medium, and large businesses will find it easy and cost-effective to manage NAS through the feature-rich portal. It is a smart system for managing shared network storage and it can be easily expanded.

Built on top of VSkyCube virtualization architecture and distributed software-defined storage controller technology, VSkyStor can be deployed as a stand-alone scale-out NAS cluster to provide petabytes of storage to applications. Alternatively, VSkyStor can be deployed within a VSkyCube hyperconverged cluster and provide NAS management to applications running on a VSkyCube hyperconverged cluster.

The VSkyStor series of NAS products can easily fulfill the storage needs and fit within the budgets of any size of business. Businesses with remote or branch offices can take full advantage of this system. VSkyStor offers a 2U appliance, VSky s200, with up to 12 slots for drives, and two 4U appliances, VSky s400 series, with up to 70 slots for drives.

This product line provides different sizes of storage nodes for different needs, but the amazing benefit of this flexibility is really evident in its mix-and-match, scale-out expandability. Your storage investment is protected and any future expansion is made easy and cost-effective.



VSkyStor architecture is depicted

Features and Benefits

Access Protocols and Authentication Services
VSkyStor supports a variety of access protocols including NFS (3.x, 4.0) for Unix/Linux clients, CIFS/SMB (2.0, 2.1, 3.0) for Windows clients, and FTP for generic file access. A shared disk/data volume can be configured to allow for one or more access protocols. VSkyStor is fully compatible with existing industrial authentication services such as Active Directory or LDAP. Integration with these authentication services is relatively easy.

Application-Driven, Software-Defined Provisioning and Usage
VSkyStor is based on a true software-defined, application-driven storage model. Volumes are defined and created at the time an application is provisioned and before it is launched.

According to application requirements, VSkyStor provisions storage with customized performance levels, protection methods, and other attributes for optimized effect. Performance levels dictate how the types of available hard drives such as SSD, SAS, or SATA are utilized. Data protection methods come from using RAID, RAIN, or a combination of the two. Special attributes that specify tiering, thin-provisioning, and caching also improve storage utilization and overall performance.

Deploy with Ultimate Flexibility and Expand with Scale-Out Capability
The VSkyCube-based storage infrastructure behind VSkyStor possesses great flexibility and scalability to meet small or big deployments and future expansion. Different sized appliances can be mixed into a storage cluster. Furthermore, each node can be populated with different types of drives, including SSDs, high performance SAS HDDs, or high capacity SATA HDDs. In a mix of drives and nodes in a cluster, VSkyCube software will identify all the types of drives and put them into one or more shared storage pools—ready to be used as required.

Add nodes to the cluster for additional capacity. This is scalability that doesn't interrupt your access. Processing power and network bandwidth are also increased with additional nodes. VSkyCube supports up to 32 nodes in a cluster, which could potentially create multiple PB of storage with VSky s400 series appliances.

High Resilience and High Availability
VSkyCube-based storage infrastructure is exceedingly resilient. It constantly checks health conditions at all levels from storage blocks and individual drives to individual nodes. Recoverable errors will automatically trigger the healing process, and in most cases, system availability is not affected.

Excellent Data Protection and Optimized Storage Usage
VSkyStor makes use of some of the most advanced technology to protect data, improve performance, and conserve storage space.

- In data protection, VSkyStor has many options. It can create a data volume using legacy RAID 1 or RAID 5 to protect against a drive failure on a single node. If a cluster has at least 3 nodes, a RAIN 5 data volume can be created to ensure that data can be recovered with a single drive/node failure.
- Tiering is one way to improve performance without upgrading all the storage drives. The tiering feature automatically moves data around, keeping the most used data on the fastest drives.
- Thin-provisioning uses less space by not actually allocating storage until such time as it is needed. You end up with less blank space that doesn't get used.
- Easy and dynamic volume expansion also makes the VSkyStor storage efficient. A volume can be easily expanded any time without service interruption. Existing data is automatically redistributed.

High Resilience and High Availability	
Max. NAS Cluster	1 Cluster (can expand to multiple clusters)
Max. NAS nodes in each NAS Cluster	4 NAS Nodes (VMs)
Supported Network Protocols	NFS, SMB, FTP
Concurrent Sessions/Memory Per Node	1024 sessions per 64 MB 512,000 sessions per VSkyStor with 32 GB memory 2,048,000 sessions per cluster of 4 VSkyStor with 32 GB memory
Supported Domain	Microsoft AD, LDAP
Share Disk Supports	Permission Management, Online Expansion

VSkyStor Appliance Models

VSkyStor offers different sized storage nodes for various deployments and expansion needs.

Model Name		VSky s200	VSky s410	VSky s420
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Features		The VSky s200 is an x86 rack-mount single node storage appliance providing up to 8 hard disk drives of storage in a 2U chassis.	The VSky s410 is an x86 rack-mount single node storage appliance providing up to 75 hard disk drives of storage in a 4U chassis.	The VSky s420 is an x86 rack-mount 2-node storage appliance. A 4U chassis supports two storage nodes, and each node provides up to 32 hard disk drives of storage.
Specifications	Form Factor	2U, 1 Node	4U, 1 Node	4U, 2 Node
	Per node configuration*	• 2 x Intel Xeon® E5-2630v4 • 256 GB memory • 1 x 480 GB 2.5” SSD • 11 x 3.5" NL SAS HDD • 2 x 10G BASET or 10G SFP+	• 2 x Intel Xeon® E5-2630v4 • 256 GB memory • 2 x 480 GB 2.5” SSD • 3 x 2.5" SAS HDD 75 x 3.5" NL SAS HDD • 2 x 10G BASET or 10G SFP+	• 2 x Intel Xeon® E5-2630v4 • 256 GB memory • 2 x 480 GB 2.5” SSD • 3 x 2.5" SAS HDD 32 x 3.5" NL SAS HDD • 2 x 10G BASET or 10G SFP+

Hardware specifications may vary due to customization and other factors
* Storage capacity depends on model and hard drives selected, current options are - 2.5":1.2TB, 1.8TB, 3.5": 4TB, 6TB, 8TB, 10TB. Please consult with a sales representative for further customization options

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