Virtual SAN Ready Nodes

Hypervisor-converged Storage Systems Simplify Enterprise Scale-out Deployment

Perfect Solution for Enterprise and SMB

Supermicro's Virtual SAN (VSAN) Ready Node focuses on deploying VMware® Virtual SAN™, a hypervisor-converged solution, as quickly as possible. Virtual SAN provides you with the ability to provision and manage compute, network and storage resources from a single pane of management. Working with VMware, Supermicro delivers an alternative to traditional Fiber Channel SAN based virtualization infrastructure, which is known for its complexity and interoperability challenges. Targeted at a multitude of use cases in Virtualized Desktop Infrastructure (VDI), Tier2/3 production workload and Disaster Recovery (DR) environments, Supermicro's VSAN solutions introduce a new high performance storage tier optimized for virtual environments that is simple, resilient and efficient and reduces the total cost of ownership. It is a perfect solution for Enterprises and SMB to efficiently grow and manage virtualized infrastructure for maximum ROI.

Ready to Deploy Configurations

A Virtual SAN Ready Node is a preconfigured single or multi-node server hardware configuration for use with Virtual SAN. A Ready Node configuration includes specific type and amount of CPU, Memory, Flash, HDD, and IO Controller devices within each server. Each VSAN Ready Node is classified by a Ready Node configuration profile. Defined Ready Node profiles include:

- **Large/High** – SYS-F627R3-VSN00(1/2)L and SYS-1027R-VSN001L
- **Medium** – SYS-F627R3-VSN00(1/2)M
- **Small/Low** – SYS-1027R-VSN001S
- **VDI w/ linked clones** – SYSF627R3-VDN00(1/2)L
- **VDI w/ Full clones** – SYSF627R3-VDN00(1/2)F

Each configuration profile provides a differentiated capacity/performance focus, targeting multiple use case requirements. Each profile assumes a target number of Virtual Machines per node, utilizing an average Virtual Machine profile size (as indicated alongside the configuration). Other configuration assumptions include: Virtual SAN default failures to tolerate policy = 1, approximately 30% free storage capacity for future growth, and usage of a USB/memory device as the vSphere boot device.

Virtual SAN Architecture:
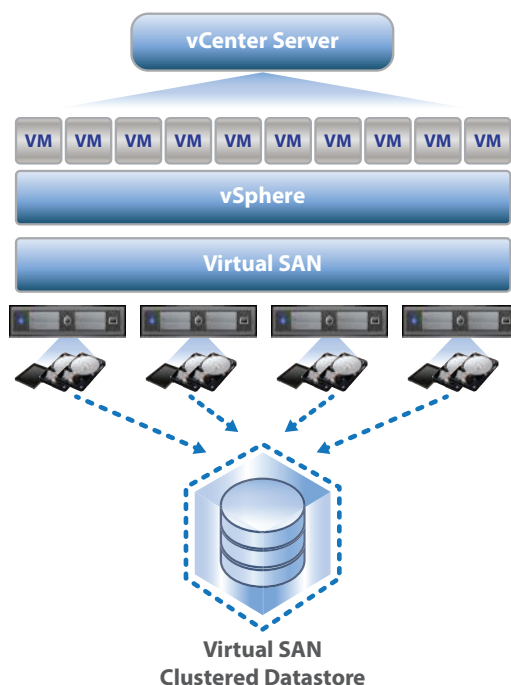
VIRTUAL SAN READY NODE BENEFIT HIGHLIGHTS

- **Single bundle to procure**

- **Radically Simple Storage** – seamless integration with vSphere platform

- **Lower TCO** - granular scale-out

- **High Performance** - integrated read/write caching

- **Fault Tolerance** – data protection with cache mirroring

- **Peace of Mind** – jointly certified
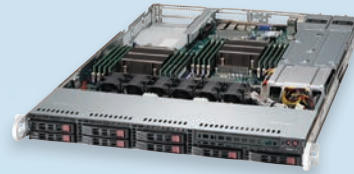
Supermicro System Specifications

System Specifications

SYS-F627R3-VSN001L
SYS-F627R3-VSN002L
SYS-F627R3-VSN001M
SYS-F627R3-VSN002M

SYS-F627R3-VDN001L
SYS-F627R3-VDN002L
SYS-F627R3-VDN001F
SYS-F627R3-VDN002F

SYS-1027R-VSN001S
SYS-1027R-VSN001L
minimum 3 servers for Virtual SAN implementation

(Rear View)

(Rear View)

CONFIGURATIONS	Large	Medium	Small	VDI w/Linked Clones	VDI w/ Full Clones
Server Model	SYS-F627R3-VSN001L SYS-F627R3-VSN002L	SYS-F627R3-VSN001M SYS-F627R3-VSN002M	SYS-1027R-VSN001S	SYS-F627R3-VDN001L SYS-F627R3-VDN002L	SYS-F627R3-VDN001F SYS-F627R3-VDN002F
Profile Specifications	Up to 250 Virtual Machines	Up to 125 Virtual Machines	Up to 15 Virtual Machines	Up to 400 Virtual Machines	Up to 400 Virtual Machines
	Virtual Machine Profile: 2 vCPU, 6GB Memory, 2x 60 GB Virtual Disk			Virtual Machine Profile: 2 vCPU, 1.5GB Memory VDI w/ Linked Clones is 20GB Virtual Disk, VDI w/ Full Clones is 40GB Virtual Disk	
Number of Nodes	4 Dual Intel® Xeon® processor	4 Dual Intel® Xeon® processor	1 Single Intel® Xeon® processor	4 Dual Intel® Xeon® processor	4 Dual Intel® Xeon® processor
Raw Capacity	33.6TB with 15000 RPM HDD's	56TB with 7200 RPM HDD's	5TB with 7200RPM HDD's	6TB with 15000 RPM HDD's.	33.6TB with 10000RPM HDD's.
Networking	VSN001L: 10GbE RJ45 VSN002L: 10GbE SFP+	VSN001M: 10GbE RJ45 VSN002M: 10GbE SFP+	VSN001S: 10GbE SFP+	VDN001L: 10GbE RJ45 VDN002L: 10GbE SFP+	VDN001F: 10GbE RJ45 VDN002F: 10GbE SFP+
Software	vSphere 5.5 Standard Virtual SAN 5.5	vSphere 5.5 Standard Virtual SAN 5.5	vSphere 5.5 Standard Virtual SAN 5.5	vSphere 5.5 Standard Virtual SAN 5.5, Horizon 6	vSphere 5.5 Standard Virtual SAN 5.5, Horizon 6
Form Factor	4U w/ Redundant Hot-swap Power Supplies	4U w/ Redundant Hot-swap Power Supplies	1U w/ Redundant Hot-swap Power Supplies	4U w/ Redundant Hot-swap Power Supplies	4U w/ Redundant Hot-swap Power Supplies

* Large Server Profile also available in a dual cpu 1U form factor: SYS-1027R-VSN001L with support up to 60 virtual machines and 8.4 TB storage.

Other Virtual SAN Components

SSE-X3348S(R)

SYS-5017C-URF

	MODEL / PART NUMBER	DESCRIPTION
Network Switch	SSE-X3348S(R) SFP+ SSE-X3348T(R) RJ45 SSE-X24SR	10GbE for inter-node switch fabric GbE for IPMI network
Management Servers	SYS-5017C-URF	vCenter Server system to manage Virtual SAN environment
Management Software	SFT-VM-VCS5STDC	VMware vCenter Server 5.5 is required to manage Virtual SAN environment
Support and Service	OS4HR1-VSN1/2/8 OS4HR1-VDN8 OS4HR3-VSN1/2/8 OS4HR3-VDN8	24x7 Hardware Maintenance VMware Support & Subscription Service is required 1 year or 3 years

Out-of-Band Server Management

Our solutions are designed for easy automation with existing management infrastructure. In data centers, Supermicro Server Management Utilities provides you all the necessary functions to manage your servers. For more information about Supermicro Out of Band Server Management

http://www.supermicro.com/products/nfo/SMS_SUM.cfm