Supermicro vSAN ReadyNodes™

Hyper-converged Storage Systems Simplify Enterprise Scale-out Deployment

The Perfect Solution for Enterprises and SMBs

Supermicro's vSAN ReadyNodes™ focus on deploying VMware® vSAN™, a hyper-converged solution, as quickly as possible. vSAN 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 tier 1/2 production workloads and Virtualized Desktop Infrastructure (VDI), especially with all-flash, Supermicro's vSAN ReadyNodes™ introduce a new high performance storage tier optimized for enterprise-class virtual environments that is simple, resilient and efficient. It is a perfect solution for Enterprises ROBO and SMBs to efficiently grow and manage virtualized infrastructure for maximum ROI.

Ready to Deploy Configurations*

A vSAN ReadyNodes™ is a preconfigured single or multi-node server hardware configuration for use with vSAN. A Ready Node configuration includes specific types and amounts of CPU, Memory, Flash, HDD, and I/O Controller devices within each server. Each vSAN ReadyNodes™ is classified by a Ready Node configuration profile. A defined Ready Node profiles include:

Hybrid Ready Node Profiles

- HY-8 Series: Up to 100 VMs per node
- HY-6 Series: Up to 50 VMs per node
- HY-4 Series: Up to 30 VMs per node
- HY-2 Series: Up to 20 VMs per node

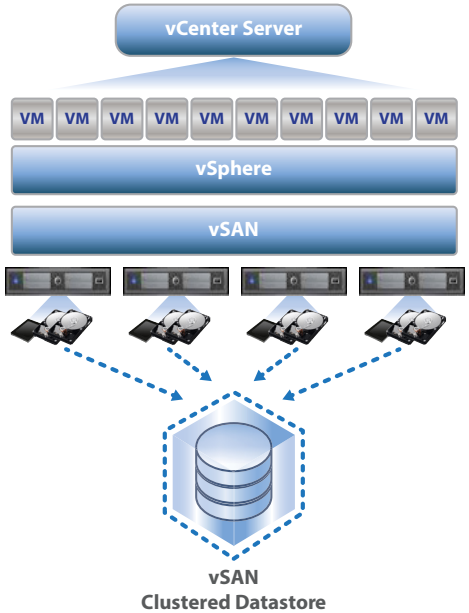
All-Flash Ready Node Profiles

- AF-8 Series: Up to 120 VMs per node
- AF-6 Series: Up to 60 VMs per node
- AF-4 Series: Up to 30 VMs per node

Each Ready Node 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 vSAN default failures to tolerate policy = 1, approximately 30% free storage capacity for future growth, and usage of a USB/HDD/SSD device as the vSphere boot device.

vSAN implementation requires a minimum of 3 nodes, or for ROBO configurations 2 nodes with an external witness appliance

vSAN Architecture:



VSAN READYNODES™ BENEFITS

- Simple to order – Single bundles to procure
- Radically Simple Storage for VMs – seamless integration with vSphere platform
- Lower TCO – granular scale-out and scale-up
- High Performance – integrated read/write caching and all flash storage
- Fault Tolerance – data protection with cache mirroring
- Peace of Mind – jointly certified by Supermicro and VMWare

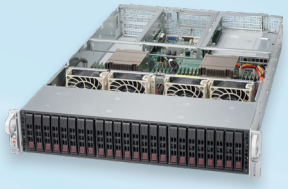
Supermicro vSAN ReadyNodes™ Specifications

Supermicro All-Flash vSAN Solutions




CONFIGURATIONS	AF-8	AF-6	AF-6	AF-6
Model	SYS-2029U-E1CRT	SYS-1029U-TRT	SYS-2029BT-HNC0R	SYS-2029BT-HNR
Number of Nodes	1 node in 2U	1 node in 1U	4 nodes in 2U	4 nodes in 2U
Raw Capacity per Node	32TB (20x 1.6TB)	9.6TB (6x 1.2TB)	8TB (5x 1.6TB)	8TB (4x 2TB)
Caching Tier per Node	1.6TB (4x 400GB SSD)	800GB (2x 400GB SSD)	480GB (1x 480GB SSD)	375GB (1x 375GB *NVMe* SSD)
CPU per Node	48 cores (2x Intel® Xeon® Scalable 8160)	36 cores (2x Intel® Xeon® Scalable 6150)	36 cores (2x Intel® Xeon® Scalable 6150)	36 cores (2x Intel® Xeon® Scalable 6150)
Memory Per Node	384GB	128GB	256GB	256GB
vSAN NIC Per Node	2x 10GbE	2x 10GbE	2x 10GbE	2x 10GbE or 25GbE

Supermicro Hybrid vSAN Solutions




CONFIGURATIONS	HY-8	HY-6	HY-4	HY-2
Model	SYS-2028U-VSN011L*	SYS-2028TP-VSN011M*	SYS-1028U-VSN011E*	SYS-1018R-VSN001S*
Number of Nodes	1 node in 2U	4 nodes in 2U	1 node in 1U	1 node in 1U
Raw Capacity per Node	14.4TB (12x 1.2TB)	6TB (5x 1.2TB)	4TB (4x 1TB)	5TB (5x 1TB)
Caching Tier per Node	1.6TB (2x 800GB SSD)	800GB (1x 800GB SSD)	200GB (1x 200GB SSD)	200GB (1x 200GB SSD)
CPU per Node	28 Cores (2x Intel® Xeon® E5-2680 v4)	24 Cores (2x Intel® Xeon® E5-2650 v4)	24 Cores (2x Intel® Xeon® E5-2650 v4)	8 Cores (1x Intel® Xeon® E5-2620 v4)
Memory Per Node	384GB	256GB	128GB	64GB
vSAN NIC	2x 10 GbE	2x 10 GbE	2x 10 GbE	4x GbE

**All SKUs include VMware vSphere 6 Standard, all-flash SKUs include vSAN Advanced, Hybrid SKUs include vSAN Standard. All SKUs include vSphere & vSAN support and subscription for 3 years. Supermicro Global Services 3 Years 4-hour on-site hardware service (OS4HR3) also included. 10 GbE vSAN NICs are 10GBase-T but options for 10G SFP+ also available.*


SSE-X3348S(R)


SYS-5018R-WR

Other vSAN Service and Components from Supermicro

	MODEL / PART NUMBER	DESCRIPTION
Network Switch	SSE-X3348S(R) SFP+ SSE-X3348T(R) RJ45 SSE-X24SR	10 GbE for inter-node switch fabric GbE for IPMI network
Management Servers	SYS-5018R-WR	Supermicro Server for all inclusive HW Management
Management Software	SFT-VM-VCS6STDC	VMware vCenter Server 6.0 is required to manage vSAN environment
	SFT-DCMS-Single	Supermicro Data Center Management Software

Supermicro 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, visit *http://www.supermicro.com/products/nfo/SMS_SUM.cfm*

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