

# Micron® Accelerated All-Flash VMware® vSAN™ 6.7 U1 Solution



## Make vSAN Easy to Build, Easy to Grow with All-Flash vSAN Reference Design

VMware® vSAN™ provides flexibility to respond to changing business demands. However, a vSAN platform with the most expensive hardware might result in overspending, and selecting the cheapest hardware may not meet your performance requirements. Successful configuration planning is crucial.

Micron's newest vSAN 6.7 U1 reference architecture targets a configuration based on [VMware's AF-8 specification](#). It optimizes key software and hardware elements to make a vSAN platform easy to build and easy to grow, while keeping costs under control.

Reference architectures using technologies like the workload-specific Micron® 5200 series SATA SSDs and Micron's advanced DRAM — in conjunction with standard x86 two-socket rackmount servers, multicore processors, and state-of-the-art virtualization software like VMware vSAN — help you build for today while keeping your sights on tomorrow.

**Cache SSDs**  
Micron 5200 MAX  
960GB (x3)



**Capacity SSDs**  
Micron 5200 ECO  
3840GB (x9)



**Platform**  
2U x86 platform with Intel® CPUs



Figure 1: Major components of Micron's vSAN 6.7 U1 solution

## Key Benefits

### Balanced Performance

This all-flash solution with workload-specific SATA SSDs is optimized at the platform level for results and value.

- **Cache Tier:** Write-intensive SATA SSDs bring high IOPS, low latency and workload-tuned endurance to the vSAN cache tier, maximizing results and providing consistent, economical and fast cache throughput.
- **Capacity Tier:** Read-intensive SATA SSDs bring immense virtualized platforms and data closer to the most demanding applications. This all-SSD capacity tier unlocks pent-up value so your infrastructure can stay one step ahead of your application demands and data growth.

### Flexibility and Choice

Micron's solution enables you to build with confidence. Engineer-designed and lab-validated, this solution enables fast time to deployment with predictable results.

### Easier Deployment

Micron's solution helps free your deployment teams from the drudgery of experimentation, testing and reconfiguration. Instead, it enables them to focus on higher-value tasks like rapid deployment, faster time to value and building your bottom line.



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## What's New in vSAN 6.7 U1

According to VMWare's [Virtual Blocks blog \(October 16, 2018\)](#),<sup>1</sup> vSAN 6.7 U1 adds the following:

### Simplified Operations (Cluster Quickstart)

The Quickstart-guided cluster creation wizard gives administrators a streamlined mechanism for deploying vSAN (and non-vSAN) clusters. Its simple, step-by-step configuration wizard makes creating a production-ready vSAN cluster easy.

### Driver and Firmware Updates Using Update Manager

All ESXi, driver and firmware update functions previously handled by the Configuration Assist workflow have been moved to [vSphere Update Manager](#).

### Decommissioning and Maintenance Mode Safeguards

Because each vSAN host in a cluster contributes to the cluster storage capacity, entering a host into maintenance mode takes on an additional set of tasks when compared to a traditional architecture.

## Reference Architecture Configuration

Component	Details
Server platform	X86 2U, 2 sockets
Cache SSDs	Micron 5200 MAX (960GB, SATA) (x3)
Capacity SSDs	Micron 5200 ECO (3.84TB, SATA) (x9)
OS drive	Micron SSD (1.92TB, SATA)

Component	Details
CPU	Intel Xeon® Gold 6142 2.60 GHz (x2)
Memory	Micron 32GB 2666 MHz ECC DDR4 (x12)
Networking	Broadcom BCM57414 25 GbE
Storage controller (per node)	SAS/SATA HBA

## Get Started With Micron's All-Flash vSAN 6.7 Update 1 Solution

- Download our detailed [reference architecture](#) to learn about the complete bill of materials, platform and disk group configuration, software tuning, performance measurements and deployment.
- Visit Micron's [SATA SSD page](#) to learn more about our complete product line of workload-optimized SSDs.
- Visit [VMware's vSAN page](#) for more details on vSAN 6.7.

1. See <https://blogs.vmware.com/virtualblocks/2018/10/16/whats-new-in-vsan-6-7-update-1/> for additional details on vSAN 6.7 U1 features.

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