



Virtual SAN Command Line Commands

There are many CLI commands available to manipulate VMware Virtual SAN—both to configure it and to get status information about it. The two platforms on which these CLI commands can be used are RVC on the Vcenter server and ESXCLI on the ESXi host.

[Table A-1](#) summarizes those commands, providing info about what platform they are executed on as well as brief a brief list of what you can get from or do with them.



Note

Regarding RVC—To initiate an RVC session, you need to first SSH into the Vcenter host (assuming Linux-based) and enter the following command: `rvc root@localhost`.



Note

Regarding ESXCLI—You will first need to SSH into the ESXi host. If you are unable to connect via SSH, ensure you have enabled SSH on the ESXi host.

Table A-1 Useful Virtual SAN CLI Commands

Command	Platform	Information
<code>vsan.apply_license_to_cluster</code>	RVC	(Unknown. Suspected use is to allow user to apply a Virtual SAN license to the cluster.)
<code>vsan.check_limits</code>	RVC	Gives per-host info on how much of the stated Virtual SAN limits are being consumed, including: <ul style="list-style-type: none"> • # Assocs (20,000 per host limit) • # Sockets (10,000 per host limit) • # Components (3000 per host limit) • # Disk utilization per disk
<code>vsan.check_state</code>	RVC	Runs through three steps to verify the current health of the VMs living on the Virtual SAN datastore.
<code>vsan.cluster_change_autoclaim</code>	RVC	Toggles disk autoclaim on the specified Virtual SAN cluster.

Table A-1 Useful Virtual SAN CLI Commands (continued)

Command	Platform	Information
vsan.cluster_info	RVC	Gives info on each host in the Virtual SAN cluster, including: <ul style="list-style-type: none"> • Virtual SAN status • Node and cluster UUIDs • The host disks that are mapped as part of the cluster • The vmkernel NIC Virtual SAN networking information
vsan.cluster_set_default_policy	RVC	Allows setting the default FailuresToTolerate (FTT) policy
vsan.cmmnds_find	RVC	Gives detailed information on all the disks in the cluster. Output is tabular and includes the following info: <ul style="list-style-type: none"> • The Virtual SAN-assigned UUID of the disk • The cluster host that owns the disk • Health status • Detailed content of the disk, including capacity, IOPS info, whether an SSD, etc.
vsan.disable_vsan_on_cluster	RVC	Disables Virtual SAN completely on the cluster
vsan.disk_object_info	RVC	Uses the disk UUID from the vsan.cmmnds_find command (above) to examine the details of the VM components on a particular disk. Note that the components will only be on magnetic disks. The details given include: <ul style="list-style-type: none"> • The UUID and IP address of the host that the VM actually lives on • The "context" which is often the name of the parent VM that owns the component • The UUID of the RAID1 witness • The hosts that the RAID1 components live on and the info for the disk holding those components • State of the various elements (witness and components)

Table A-1 Useful Virtual SAN CLI Commands (continued)

Command	Platform	Information
vsan.disks_info	RVC	Gives information about the disks living on a particular Virtual SAN host, whether they belong to the Virtual SAN or not, including: <ul style="list-style-type: none"> • Disk type and ID • SSD or MD • Capacity • State ("inUse" by Virtual SAN, or other)
vsan.disks_stats	RVC	Gives detailed info on each disk in the Virtual SAN cluster. The output is formatted as a table with each disk group represented as a separate row. The info provided includes: <ul style="list-style-type: none"> • Disk ID (e.g., naa.500a0751038f25d9) • Hostname or IP of the host the disk group is on • Whether the disk is SSD or MD (magnetic disk) • The number of VM components living on the disk • Disk capacity?% of disk used and reserved • Current IO state • Current Device Latencies
vsan.enable_vsan_on_cluster	RVC	Enables Virtual SAN completely on the cluster
vsan.enter_maintenance_mode	RVC	Puts specified host into maintenance mode
vsan.fix_renamed_vms	RVC	(Unknown)
vsan.host_consume_disks	RVC	(Unknown. Suspected function is to trigger a certain host in the cluster to claim all eligible disks for use in Virtual SAN cluster.)
vsan.host_info	RVC	Gives the same information as the vsan.cluster_info command (above), but for a single Virtual SAN cluster host
vsan.host_wipe_vsan_disks	RVC	Completely wipes out the data on all disks on a single host – USE WITH CAUTION!
vsan.lldpnetmap	RVC	(unknown)
vsan.obj_status_report	RVC	Queries all VMs, objects, disks, and components in a cluster and provides data on healthy and unhealthy objects.

Table A-1 Useful Virtual SAN CLI Commands (continued)

Command	Platform	Information
vsan.object_info	RVC	For a particular object UUID, provides the Virtual SAN storage info, including: <ul style="list-style-type: none"> • The components and witnesses • The hosts they live on • The MD disk IDs they live on • The SSDs for the disk group they are on.
vsan.object_reconfigure	RVC	(Unknown)
vsan.observer	RVC	Initiates the Virtual SAN Observer process, so that real-time metrics about the Virtual SAN (IOPs, etc.) can be viewed in browser.
vsan.reapply_vsan_vmknics_config	RVC	(Unknown)
vsan.recover_spbm	RVC	(Unknown)
vsan.resync_dashboard	RVC	When sync'ing is taking place on the data store, this command can be used to monitor how much data and how many objects remain to be sync'ed.
vsan.vm_object_info	RVC	Provides the same info as the vsan.object_info command (above) except called using a VM name instead of object UUID.
vsan.vm_perf_stats	RVC	Queries twice, at a 20 second interval, and averages performance stats for IOPS, throughput, and latency for a given VM on the Virtual SAN cluster.
vsan.whatif_host_failures	RVC	Displays results of a "what if...?" scenario for a number of host failures (default 1 if FTT is at default of 1). Provides hypothetical resource availability change after failure for the following elements: <ul style="list-style-type: none"> • HDD capacity • Components • RC reservations
esxcli vsan datastore	ESXCLI	Allows user to configure a Virtual SAN datastore name.
esxcli vsan network	ESXCLI	Clear, list, remove, or restore Virtual SAN networking on the host.
esxcli vsan storage	ESXCLI	Add, list, or remove physical storage (MDs or SSDs) from the host. (Note, removing an SSD using this command will remove that SSD's disk group from the Virtual SAN cluster.)
esxcli vsan cluster	ESXCLI	Get the cluster info for the host and Virtual SAN, join the host to a cluster, leave a cluster, or restore the cluster configuration

Table A-1 *Useful Virtual SAN CLI Commands (continued)*

Command	Platform	Information
esxcli vsan maintenancemode	ESXCLI	(Unknown. Suspected use is to take the cluster host in/out of maintenance mode.)
esxcli vsan policy	ESXCLI	Manipulate the default storage policy values. (Unknown whether this applies to <i>FailuresToTolerate</i> , <i>StripeWidth</i> , or both.)
esxcli vsan trace	ESXCLI	(Unknown)

