Command Line Reference - NetApp Ontap 8.1 Cluster Mode		
Category	**Command**	**Description**
Aggregate	aggregate add-disks -aggregate AGGRNAME -diskcount 2	Add 2 Disks to the aggregate
Aggregate	storage aggregate create -aggregate AGGRNAME -node NODENAME -raidtype raid_dp -B 64bit -diskcount 3	Create new aggregate with 3 disks
Aggregate	storage aggregate modify -maxraidsize 28 -aggregate AGGRNAME	Change raidsize for the aggregate
Aggregate	storage aggregate show -aggregate AGGRNAME	Show aggregate settings
Aggregate	storage aggregate show	Show aggregates
Autosupport	system node autosupport invoke -node NODENAME test -message TEXT	Send testmail
Autosupport	system node autosupport modify -node * -hostname-subj true	Use hostname in the subject of the email
Autosupport	system node autosupport modify -node * -mail-hosts MAILHOSTIP	Set mailhost for every node
Autosupport	system node autosupport modify -node * -noteto MAILADDRESS1, MAILADRESS2	Set mail note to addresses for every node
Autosupport	system node autosupport modify -node * -partner-address MAILADDRESS1, MAILADRESS2	Set mail partner to addresses for every node
Autosupport	system node autosupport modify -node * -perf true	Include performance statistics in autosupport
Autosupport	system node autosupport modify -node * -remove-private-data true	Remove private data from autosupport
Autosupport	system node autosupport modify -node * -support enable	Enable autosupport
Autosupport	system node autosupport modify -node * -to MAILADDRESS1, MAILADRESS2	Set mail to addresses for every node
Autosupport	system node autosupport modify -node * -transport smtp	Choose smtp as transport protocol
Autosupport	system node autosupport modify -node NODENAME -from MAILADDRESS	Set sender email adress for autosupport
Autosupport	system node autosupport show	Show actual autosupport settings
CIFS	cifs domain discovered-servers reset -vserver VSERVERNAME	Reset and discover domain controllers
CIFS	cifs domain discovered-servers show -vserver VSERVERNAME	Show discovered domain controller
CIFS	cifs domain preferred-dc create -vserver VSERVERNAME -domain DOMAINNAME -preferred-dc IP	Set preferred domain controller
CIFS	cifs domain preferred-dc show	Show preferred domain controller
CIFS	cifs share access-control modify -vserver VSERVERNAME -share SHARENAME -user-or-group Everyone Full_Control	Change share access for everyone to full control
CIFS	cifs share access-control modify -vserver VSERVERNAME -share SHARENAME -user-or-group Everyone Read	Change share access for everyone to read only
CIFS	cifs share access-control show -vserver VSERVERNAME	Show share access
CIFS	cifs share create -vserver VSERVERNAME -share-name rootdir -path /	Create a share on rootvolume with name rootdir
CIFS	cifs share create -vserver VSERVERNAME -share-name volume1$ -path /volume01	Create a hidden share on junction /volume01 with name volume01
CIFS	cifs share show -vserver VSERVERNAME	Show shares from vserver
CIFS	diag secd connections clear -node NODENAME -vserver VSERVERNAME	Clear session cache (set diag mode!)
CIFS	diag secd connections show -node NODENAME -vserver VSERVERNAME	Show session information in the cache (set diag mode!)
CIFS	vserver cifs create -vserver VSERVERNAME -cifs-server HOSTNAME -domain DOMAINNAME	Enable CIFS for a vserver (like cifs setup in 7-mode)
CIFS	vserver cifs show	Show CIFS-Server settings
Cluster	cluster create	Create a new cluster
Cluster	cluster join	Join a node to a existing cluster
Cluster	cluster peer create -peer-addrs IPSREMOTECLUSTERICLIFS -username admin	Peer two clusters via Intercluster-LIFs together
Cluster	cluster peer ping	Test connectivity between peered clusters
Cluster	cluster peer show	Show peered cluster
Cluster	cluster show	Show cluster status

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Command Line Reference - NetApp Ontap 8.1 Cluster Mode		
Category	**Command**	**Description**
Cluster	cluster statistics show	Show cluster statistics
Control	?	List of all commands
Control	Ctrl + C	Within vserver console jump back to clustershell
Control	Ctrl + D	Jump back to clustershell
Control	security login password -username USERNAME	Change password for a user
Control	security login unlock -username diag	Unlock systemshell diag user
Control	set -privilege advanced | diag | admin	Change CLI admin level
Control	set -rows 0	Unlimited scrolling
Control	system node run -node NODENAME	Jump to nodeshell
Control	system node systemshell-node NODENAME	Go to systemshell of one node (Login: diag and configured password)
Control	top	Jump to the top CLI prompt
Control	up or ..	Jump one step up in the CLI lane
Control	vserver context VSERVERNAME	Jump to vserver console
Disk	storage disk modify -disk NODENAME:DISK -owner NODENAME	Assign disk to a node
Disk	storage disk option modify -node NODENAME -autoassign off	Disable disk autoassignment
Disk	storage disk option modify -node NODENAME -autocopy off	Disable autocopy
Disk	storage disk option modify -node NODENAME -bkg-firmware-update off	Disable automatic disk firmware upgrade
Disk	storage disk show -disk NODENAME:*	Show all disks (unassigned too)
Disk	storage disk show	Show disks
DNS	dns show	Show DNS settings
DNS	vserver services dns create -vserver VSERVERNAME -domains DOMAINNAME -state enabled -name-servers IP	Activate DNS for vserver
Export-Policy	vserver export-policy create -vserver VSERVERNAME -policyname POLICYNAME	Create a new export policy
Export-Policy	vserver export-policy rule create -vserver VSERVERNAME -policyname default -clientmatch 0.0.0.0/0 -rorule any -rwrule any	Configure default export-policy for rw and ro access for everyone
Export-Policy	vserver export-policy rule create -vserver VSERVERNAME -policyname POLICYNAME -clientmatch 192.168.80.0/24 -rorule any -rwrule any	Configure export-policy for rw and ro access for network 192.168.80.0/24
Export-Policy	vserver export-policy rule show	Show export-policy rules
FlexClone	volume clone create -vserver VSERVERNAME -flexclone FCVOLNAME -parent-volume VOLNAME -junction-active true -junction-path MOUNTPATH -space-guarantee none	Create thin provisioned flexclone volume
FlexClone	volume clone show	Show flexclones
FlexClone	volume clone split start -vserver VSERVERNAME -flexclone FCVOLNAME	Split flexclone
FlexClone	volume clone split status	Status of the flexclone split procedure
ISCSI	lun igroup create -vserver VSERVERNAME -igroup IGROUPNAME -protocol iscsi -ostype windows -initiator IQNSERVER -portset PORTSETNAME	Create an igroup
ISCSI	lun portset create -vserver VSERVERNAME -portset PORTSETNAME -protocol iscsi -port-name LIFISCSI1 LIFISCSI2	Create a port set with all iscsi data lifs for the vserver
ISCSI	network interface create -vserver VSERVERNAME -lif LIFNAME -role data -data-protocol iscsi -home-node NODENAME -home-port IFGRPNAME -address IP -netmask NETMASK -status-admin up	Create a data LIF for iscsi (create LIFs on every node)
ISCSI	vserver iscsi connection show -vserver VSERVERNAME	Show active connections

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Command Line Reference - NetApp Ontap 8.1 Cluster Mode		
Category	**Command**	**Description**
ISCSI	vserver iscsi create -vserver VSERVERNAME -target-alias ALIAS -status up	Enable ISCSI for vserver
ISCSI	vserver iscsi session show -vserver VSERVERNAME	Show active sessions
ISCSI	vserver iscsi show	Show ISCSI informations
ISCSI	vserver iscsi tpgroup show -vserver VSERVERNAME	Show target portal groups
Jobs	job schedule cron create -name mydaily -minute 0 -hour 0 -dayofweek Monday-Saturday	Create job schedule "mydaily" from Monday til Saturday at 0
Jobs	job schedule cron create -name myhourly -minute 0 -hour 8-18 -dayofweek *	Creates job schedule "myhourly" from 8 to 18 every day
Jobs	job schedule cron create -name myweekly -minute 0 -hour 0 -dayofweek Sunday	Create job schedule "myweekly" Sunday at 0
Jobs	job schedule show	Show job schedules
Licenses	system license add	Add license
Licenses	system license show	Show licenses
LUN	igroup show -instance IGROUPNAME	Show igroup informations
LUN	lun create -vserver VSERVERNAME -volume VOLNAME -lun LUNNAME -size XXg -ostype windows_2008 -space-reserve enable	Create full provisioned LUN in volume
LUN	lun map -vserver VSERVERNAME -volume VOLNAME -lun LUNNAME -igroup IGROUPNAME -lun-id LUNID	Map LUN to igroup with LUN-ID
LUN	lun mapped show	Show LUN mappings
LUN	lun portset show	Show portsets
LUN	lun show -instance	Detailed information of the lun
Manual	man "command"	Show man pages
Manual	q	Exit man pages
Name mapping	cifs options modify -vserver VSERVERNAME -default-unix-user pcuser	Set pcuser as default Unix-user
Name mapping	cifs options show -vserver vs2	Show default user setting
Name mapping	diag secd name-mapping show -node NODENAME -vserver VSERVERNAME -direction win-unix -name Learning\\administrator	Check to which user Windows User Learning\administrator gets mapped (set diag!)
Name mapping	vserver name-mapping create -vserver VSERVERNAME -direction unix-win -position 1 -pattern root -replacement Learning\\administrator	Map root to Windows User Learning\administrator
Name mapping	vserver name-mapping create -vserver VSERVERNAME -direction win-unix -position 1 -pattern Learning\\administrator -replacement root	Map Windows User Learning\administrator to root
Name mapping	vserver name-mapping show	Show configured name mappings
Name mapping	vserver services unix-group create -vserver VSERVERNAME -name daemon -id 1	Create group "daemon" with gid 1 (name-mapping type file = local)
Name mapping	vserver services unix-group create -vserver VSERVERNAME -name pcuser -id 65534	Create group "pcuser" with gid 65534 (name-mapping type file = local)
Name mapping	vserver services unix-group create -vserver VSERVERNAME -name root -id 0	Create group "root" with gid 0 (name-mapping type file = local)
Name mapping	vserver services unix-group show -vserver VSERVERNAME	Show groups
Name mapping	vserver services unix-user create -vserver VSERVERNAME -user administrator -id 10 -primary-gid 0	Create administrator user (name-mapping type file = local)
Name mapping	vserver services unix-user create -vserver VSERVERNAME -user pcuser -id 65534 -primary-gid 65534	Create pcuser

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Command Line Reference - NetApp Ontap 8.1 Cluster Mode		
Category	**Command**	**Description**
Name mapping	vserver services unix-user create -vserver VSERVERNAME -user root -id 0 -primary-gid 1	Create root user (name-mapping type file = local)
Name mapping	vserver show -vserver VSERVERNAME -fields nm-switch	Show name-mapping type
Name mapping	diag secd auth login-cifs -node NODENAME -vserver VSERVERNAME -user administrator	Check if login for administrator is working (set diag mode!)
NDMP	system node hardware tape drive show	Show connected tape drives
NDMP	system node hardware tape library show	Show connected tape libraries
NDMP	system services ndmpd on -node *	Enable ndmp on every cluster node
NDMP	system services ndmpd show	Show if ndmp is enabled
Network	network interface create -vserver VSERVERNAME -lif LIFNAME -role data -home-node NODENAME -home-port IFGRPNAME/PORTNAME -address IP -netmask NETMASK	Create data-lif with ip-adress for a vserver (repeat on every node)
Network	network interface create -vserver VSERVERNAME -lif LIFNAME -role intercluster -home-node NODENAME -home-port IFGRPNAME/PORTNAME -address IP -netmask NETMASK	Create intercluster-lif with ip-adress (repeat on every node)
Network	network interface failover show	Show failoversettings
Network	network interface migrate -vserver VSERVERNAME -lif LIFNAME -dest-node NODENAME -dest-port IFGRPNAME	Migrate lif
Network	network interface modify -vserver VSERVERNAME -lif LIFNAME -home-node NODENAME -home-port IFGRPNAME	Set home-port for lif
Network	network interface revert -vserver VSERVERNAME -lif LIFNAME	Migrate lif back to configured home-port
Network	network interface show -vserver VSERVERNAME -lif LIFNAME	Show lif settings
Network	network interface show	Show interfaces for all nodes
Network	network ping -node NODENAME -destination IP	Ping IP-Adress
Network	network port ifgrp add-port -node NODENAME -ifgrp IFGRPNAME -port e0d	Add port e0d to ifgrp
Network	network port ifgrp add-port -node NODENAME -ifgrp IFGRPNAME -port e0e	Add port e0e to ifgrp
Network	network port ifgrp create -node NODENAME -ifgrp IFGRPNAME -distr-func ip -mode multimode	Create ifgrp on node
Network	network port ifgrp delete -node NODENAME -ifgrp IFGRPNAME	Delete ifgrp
Network	network port ifgrp show -instance	Show all detailed ifgrp settings
Network	network port ifgrp show -node NODENAME -ifgrp IFGRPNAME	Show ifgrp settings
Network	network port ifgrp show	Show ifgrps
Network	network port modify -node NODENAME -port IFGRPNAME -up-admin false	Set ifgrp to "down"
Network	network port modify -node NODENAME -port IFGRPNAME/PORTNAME -role intercluster	Define port or ifgrp as Intercluster port
Network	network port show	Show port settings for all nodes
NFS	vserver nfs create -vserver VSERVERNAME -access true	Enable NFS access to vserver
Qtree	volume qtree create -vserver VSERVERNAME -volume VOLNAME -qtree QTREENAME -security-style ntfs -oplock-mode enable	Create ntfs qtree in volume
Qtree	volume qtree show	Show qtrees
Quota	volume quota on -vserver VSERVERNAME -volume VOLNAME	Activate quota for that volume
Quota	volume quota policy rule create -vserver VSERVERNAME -policy-name default -volume VOLNAME -type tree -target QTREENAME -disk-limit XXg	Set qtree quota disk limit in default quota policy
Quota	volume quota policy rule modify -vserver VSERVERNAME -policy-name default -volume VOLNAME -type tree -target QTREENAME -disk-limit XXg	Change qtree quota disk limit in default quota policy
Quota	volume quota report	Show quota status
Quota	volume quota show	Show quotas

Command Line Reference - NetApp Ontap 8.1 Cluster Mode		
Category	**Command**	**Description**
Routing	network routing-groups route show	Show gateways of the routing groups
Routing	network routing-groups show	Show routing groups
SnapDrive	network interface create -vserver VSERVERNAME -lif LIFNAMEMGMT -firewall-policy mgmt -address IP -netmask NETMASK -role data -data-protocol none -home-node NODENAME -home-port IFGRPNAME	Create management data lif for snapdrive communication
SnapDrive	security login password -username vsadmin -vserver VSERVERNAME	Set logon password for vsadmin
SnapDrive	security login unlock -username vsadmin -vserver VSERVERNAME	Unlock user vsadmin
SnapMirror	snapmirror break -source-path CLUSTERNAME://VSERVERNAME/VOLNAME -destination-path CLUSTERNAME://VSERVERNAME/VOLNAME	Like "snapmirror break" in 7-Mode, sets data protection destination volume to RW
SnapMirror	snapmirror modify -destination-path CLUSTERNAME://VSERVERNAME/VOLNAME -schedule JOBNAME	Assign another job schedule to snapmirror relationship
SnapMirror	snapmirror promote -source-path CLUSTERNAME://VSERVERNAME/VOLNAME -destination-path CLUSTERNAME://VSERVERNAME/VOLNAME	Like "snapmirror break" in 7-Mode, sets load sharing destination volume to RW (and destroys original volume!)
SnapMirror	snapmirror update -source-path CLUSTERNAME://VSERVERNAME/VOLNAME -destination-path CLUSTERNAME://VSERVERNAME/VOLNAME	Update snapmirror data protection destination
SnapMirror	snapmirror update-ls-set -source-path CLUSTERNAME://VSERVERNAME/VOLNAME -destination-path CLUSTERNAME://VSERVERNAME/VOLNAME	Update snapmirror load sharing destination
SnapMirror	snapmirror create -source-cluster CLUSTERNAME -source-vserver VSERVERNAME -source-volume VOLNAME -destination-cluster CLUSTERNAME -destination-vserver VSERVERNAME -destination-volume VOLNAME -type dp -schedule JOBNAME	Create data protection snapmirror relationship
SnapMirror	snapmirror create -source-cluster CLUSTERNAME -source-vserver VSERVERNAME -source-volume VOLNAME -destination-cluster CLUSTERNAME -destination-vserver VSERVERNAME -destination-volume VOLNAME -type ls	Create a load sharing snapmirror relationship
SnapMirror	snapmirror initialize -source-path CLUSTERNAME://VSERVERNAME/VOLNAME	Initialize data protection snapmirror
SnapMirror	snapmirror initialize-ls-set -source-path CLUSTERNAME://VSERVERNAME/VOLNAME	Initialize load sharing snapmirror
SnapMirror	snapmirror show	Show snapmirror status
SnapMirror	volume create -vserver VSERVERNAME -volume VOLNAME -aggregate AGGRNAME -type dp	Create a data protection volume as destination for snapmirror
Snapshot	volume modify -vserver VSERVERNAME -volume VOLNAME -snapshot-policy POLNAME	Assign snapshot policy to volume
Snapshot	volume show -fields snapshot-policy	Show assigned snapshot policies for all volumes
Snapshot	volume snapshot delete -vserver VSERVERNAME -volume VOLNAME -snapshot *	Delete all snapshots of a volume
Snapshot	volume snapshot delete -vserver VSERVERNAME -volume VOLNAME -snapshot SNAPNAME	Deletes specific snapshot of a volume
Snapshot	volume snapshot policy create -policy POLNAME -enabled true -schedule1 hourly -count1 46 -schedule2 daily -count2 12 -schedule3 weekly -count3 4	Create new snapshot policy with 46 hourly, 12 daily and 4 weekly snapshots
Snapshot	volume snapshot policy create -policy POLNAME -enabled true -schedule1 myhourly -count1 22 -schedule2 mydaily -count2 12 -schedule3 myweekly -count3 4	Create snapshot policy with the created job schedules "myhourly", "mydaily" and "myweekly"
Snapshot	volume snapshot policy delete -policy POLNAME	Delete snapshot policy
Snapshot	volume snapshot policy show	Show snapshot policies
Snapshot	volume snapshot show -vserver VSERVERNAME -volume VOLNAME	Lists the snapshots of a volume (newest on the bottom!) incl. size of the snapshot
SNMP	system snmp community add -type ro -community-name NAME	Set snmp community

Command Line Reference - NetApp Ontap 8.1 Cluster Mode		
Category	**Command**	**Description**
SNMP	system snmp contact -contact "NAME"	Set snmp contact
SNMP	system snmp location -location "NAME"	Set snmp location
SNMP	system snmp show	Show snmp settings
SNMP	system snmp traphost add HOSTNAME	Add snmp traphost
StorageEfficiency	sis modify -vserver VSERVERNAME -volume VOLNAME -compression true -schedule sun-sat@19	Enable and schedule Compression for a volume
StorageEfficiency	sis modify -vserver VSERVERNAME -volume VOLNAME -inline-compression true -schedule sun-sat@19	Enable and schedule inline-Compression for a volume
StorageEfficiency	sis modify -vserver VSERVERNAME -volume VOLNAME -schedule sun-sat@19	Modify schedule for dedup
StorageEfficiency	sis on -vserver VSERVERNAME -volume VOLNAME	Enable Deduplication (sis = volume efficiency)
StorageEfficiency	sis show -vserver VSERVERNAME -volume VOLNAME -compression true -fields schedule	Show configured compression schedule for a volume
StorageEfficiency	sis show -vserver VSERVERNAME -volume VOLNAME -inline-compression true -fields schedule	Show configured inlne-compression schedule for a volume
StorageEfficiency	sis show -vserver VSERVERNAME -volume VOLNAME -l	Show dedup details for volume
StorageEfficiency	sis start -vserver VSERVERNAME -volume VOLNAME -scan-old-data true	Dedup already existing data
StorageFailover	storage failover modify -node NODENAME -enabled true	Enable storage failover for an ha-pair within the cluster
StorageFailover	storage failover show	Cluster state of an ha-pair within the cluster
System	system node reboot -node NODENAME	Reboot node
System	system node show -instance	Informations about all nodes
Time	system date modify -dateandtime	Set date and time
Time	system date modify -timezone Europe/Berlin	Set timezone
Time	system date show	Show system time and date
Time	system service ntp config modify -enabled true	Enable NTP
Time	system service ntp server modify -node NODENAME -server NTP-Server	Set NTP server
Troubleshoot	dashboard alarm show	Show alarms
Troubleshoot	dashboard health vserver show	Show health of vservers
Troubleshoot	dashboard performance show	Show CPU, data, network, storage traffic
Troubleshoot	dashboard storage show	Show aggregate status
Troubleshoot	debug log show	Show debug log (set diag!)
Troubleshoot	event log show	Show eventlog (newest information on top!)
Troubleshoot	statistics show -node NODENAME -object processor -instance processor1	Show detailed information of a processor of one node
Troubleshoot	statistics show -node NODENAME -object volume -counter *latency	Show latencies for volumes
Troubleshoot	statistics show -object disk -counter disk_busy -value >50	List all disks which have a larger value than 50% busy
Troubleshoot	statistics show -object volume -instance VOLNAME	Show all volume counters for a volume (like "stats show" in 7-Mode)
Troubleshoot	statistics show-periodic -node cluster:summary	Show some cluster performance statistics (CPU, Disk Utilization, IOPs..)

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Command Line Reference - NetApp Ontap 8.1 Cluster Mode		
Category	**Command**	**Description**
Troubleshoot	statistics show-periodic -node NODENAME	Show some node performance statistics (CPU, Disk Utilization, IOPs..)
Troubleshoot	statistics show-periodic -object latency -interval 1	Show latencies every second
Troubleshoot	statit -b	Start statit (set diag!, execute on nodeshell)
Troubleshoot	statit -e	Stop statit and get the summary output (set diag!, execute on nodeshell)
Volume	df -g	Show space in GB for all volumes
Volume	df -g -x true	Show space in GB for all volumes and exclude snapshot lines
Volume	df -s -g	Show space savings in GB for all volumes
Volume	df -S -g	Show space savings in GB including compression savings for all volumes
Volume	vol move start -vserver VSERVERNAME -destination-aggregate AGGRNAME -volume VOLNAME	Move volume to another aggregate
Volume	volume create -vserver VSERVERNAME -volume VOLNAME -aggregate AGGRNAME -junction-path MOUNTPATH -size XXg -space-guarantee none	Create volume and moint it into root-volume ("/volume01" - creates "folder" volume01 in rootvol)
Volume	volume create -vserver VSERVERNAME -volume VOLNAME -aggregate AGGRNAME -junction-path MOUNTPATH -size XXg -space-guarantee none	Create thin provisioned volume and mount it into another ("/volume01/volume02" - creates "folder" volume02 in volume01)
Volume	volume create -vserver VSERVERNAME -volume VOLNAME -aggregate AGGRNAME -size XXg -unix-permissions 777 -policy POLICYNAME -junction-path MOUNTPATH	Create volume and set policy and permissions
Volume	volume modify -volume VOLNAME -percent-snapshot-space XX	Set snap reserve
Volume	volume modify -volume VOLNAME -size XXg	Resize volume
Volume	volume modify -vserver VSERVERNAME -volume VOLNAME -unix-permissions 777	Change permissions on volume
Volume	volume mount -vserver VSERVERNAME -volume VOLNAME -junction-path MOUNTPATH	Mount Volume to junction-path in rootvol
Volume	volume rename -vserver VSERVERNAME -volume VOLNAME -newname NEWNAME	Rename volume
Volume	volume show -instance -volume VOLNAME	Detailed settings of a volume
Volume	volume show -volume * -fields size, total, used, available	Individual list of space for all volumes
Volume	volume show -volume VOLNAME -fields size, total, used, available	Individual list of space for one volume
Volume	volume show -vserver VSERVERNAME -fields policy, junction-path	Show all volumes of vserver just with the fields "policy" and "junction-path"
Volume	volume show	Show volumes
vserver	vserver create -vserver VSERVERNAME -rootvolume VOLNAME -aggregate AGGRNAME -ns-switch file -rootvolume-security-style unix	Create a vserver
vserver	vserver setup	Setup a vserver via wizard
vserver	vserver show -vserver VSERVERNAME	Show settings of a vserver
vserver	vserver show	Show vservers