



# NexentaStor 5.0 Command Line Interface Reference Guide

The NexentaStor 5.0 Command Line Interface (CLI) is a collection of commands and subcommands that are specific to the NexentaStor 5.0 storage appliance. It also includes a set of UNIX-like utilities that process command output.

This reference guide provides a summary of the CLI commands. Use it in conjunction with its companion document: *NexentaStor 5.0 CLI Configuration QuickStart*.

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## Document History

Revision	Description
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## Help Options

<code>Ctrl+C</code>	Returns you to the command line prompt(#).
<code>help</code>	Lists available CLI commands and UNIX-like utilities.
<code>man cli</code>	Provides an overview of the CLI commands and the general options and output flags.
<code>man &lt;command&gt;</code>	Displays the man page for a specific command. Use the Spacebar or arrows to move through the man page. Press <code>q</code> to return to the prompt.
<code>&lt;command&gt;</code>	Displays available subcommands for the specified command.
<code>&lt;command&gt; &lt;subcommand&gt; --help</code>	Provides usage information for the specified subcommand

## Keyboard Shortcuts

<code>&lt;partialcommand&gt;+Tab</code>	Completes the command or lists commands starting with the letter or letters you entered. Use the Tab key or arrows to move through commands, and press Enter to select.
<code>&lt;command&gt;+Tab+Tab</code>	Displays the available subcommands and descriptions for the command. Use the Tab key or arrows to move through the subcommands, and press Enter to display the chosen subcommand.

# CLI Commands

After installing and rebooting into the NexentaStor CLI, the system will be ready for you to log in as **admin** and the password you set up during the NexentaStor installation

Table 1 below lists and describes the NexentaStor 5.0 commands and subcommands. The following options are available for all subcommands:

<code>--help</code>	Shows help for the command typed.
<code>--verbose</code>	Enables verbose output.
<code>--debug</code>	Prints debug information from the CLI to <code>stderr</code> (for developers).
<code>--raw</code>	Shows the value as-is, without any data reformatting.
<code>--json</code>	Shows output as a JavaScript Object Notation (JSON) object, not as a table.
<code>--no-header</code>	Hides the table header.

**Table 1: NexentaStor 5.0 CLI Commands**

CLI Command	Descriptions and Subcommands
<code>acl</code>	<p>Configures access control lists (ACLs). NexentaStor supports native extended ACLs that are both SMB and NFS compliant. NexentaStor ACLs are native across ZFS, CIFS, and NFSv4 so collisions are avoided. They includes commands for retrieving access control entry (ACE) information, appending an ACE to an ACL, deleting and modifying an ACE at a given position in the ACL.</p> <pre> acl get [-r] (all   &lt;properties&gt;) &lt;filesystem&gt;...         [-i &lt;index&gt;...] [-I]         [-s &lt;field&gt;]... [-S &lt;field&gt;]...         [-O &lt;flags&gt;] acl list [-r] [-o &lt;properties&gt;]          [-s &lt;field&gt;]... [-S &lt;field&gt;]...          [-O &lt;flags&gt;]          &lt;filesystem&gt;... acl set [-rnv] &lt;acl-operation&gt; &lt;filesystem&gt;... </pre>
<code>alert</code>	<p>Configures alerts that administrators about hardware and software problems or transient conditions worth investigating (for example, CPU over-utilization). Each problem is tracked as a "case" that can be referenced with a unique UUID. You can list, repair, replace, and cancel (using the <code>acquit</code> subcommand) cases. You can view telemetry reports related to the alert.</p> <pre> alert acquit [-nv] &lt;uuid&gt; alert cases [-av] [-u &lt;uuid&gt;] [-c &lt;code&gt;]             [-t &lt;time-spec&gt;]             [-s &lt;field&gt;]... [-S &lt;field&gt;]...             [-o &lt;properties&gt;] [-O &lt;flags&gt;] alert list [-u &lt;uuid&gt;] [-c &lt;code&gt;] [-T &lt;type&gt;]            [-t &lt;from&gt;]            [-s &lt;field&gt;]... [-S &lt;field&gt;]...            [-o &lt;properties&gt;] [-O &lt;flags&gt;] alert repaired [-nv] &lt;fmri&gt; alert replaced [-nv] &lt;fmri&gt; alert reports [-o &lt;properties&gt;] [-O &lt;flags&gt;] &lt;case-id&gt; </pre>

CLI Command	Descriptions and Subcommands
bundle	<p>Creates, deletes, displays, and uploads support bundles to the Nexenta FTP/ FTPS server. A support bundle is an archive containing important system information such as coredumps, system configuration files, and system logs that are used by the Nexenta support team to evaluate issues. Support bundles can be managed without the appliance up and running. Support bundles are created using a diagnostic script that defines all data to be included in bundles.</p> <pre> bundle cancel [-nv] &lt;uuid&gt; bundle create [-Fdnv] bundle delete [-Fnv] &lt;uuid&gt; all bundle get [-Fv] (all   &lt;properties&gt;)                     [-s &lt;field&gt;]... [-S &lt;field&gt;]...                     [-O &lt;flags&gt;]                     [&lt;uuid&gt;...] bundle list    [-Fv] [-s &lt;field&gt;]... [-S &lt;field&gt;]...                     [-o &lt;properties&gt;] [-O &lt;flags&gt;] bundle upload [-kFnv] &lt;uuid&gt; </pre> <p>To query and modify FTP system parameters:</p> <pre> config list support config set &lt;support.ftp.property&gt;=value </pre> <p>By default, basic bundles are auto-forwarded to the Nexenta FTP server on a periodic basis. To disable auto-forwarding:</p> <pre> config set support.periodicBundle=false </pre>
config	<p>Sets, modifies, and views appliance configuration variables. Use <code>config list</code> to query the list of variables. Use <code>config reset</code> to reset the configuration variable to the default value.</p> <pre> config edit [options] [&lt;path&gt;] config get [-S] [-O &lt;flags&gt;] [all   &lt;properties&gt;] &lt;path&gt; config list [-e] [-o &lt;properties&gt;] [-O &lt;flags&gt;]                     [-s &lt;field&gt;]... [-S &lt;field&gt;]...                     [&lt;path&gt;] config set [options] &lt;path&gt; = &lt;value&gt; [&lt;value&gt;...] config set [options] &lt;path&gt; append &lt;value&gt; [&lt;value&gt;...] config set [options] &lt;path&gt; update &lt;index&gt; &lt;value&gt; [&lt;value&gt;...] config set [options] &lt;path&gt; delete &lt;index&gt; config reset [options] &lt;path&gt; </pre> <p>The default editing mode when you run <code>config edit</code> is <code>vi</code>. To change the editing mode to <code>emacs</code>, run option <code>editing_mode=emacs</code>.</p>
disk	<p>Includes commands to list the disks and view their health status. You can filter the display of the disk list by specifying a specific disk or media type (HDD, SSD, Removable, NVME). A command to view the properties of the disk(s) is also included. To create a new partition table on a disk and to wipe out pool metadata, use the <code>disk initialize</code> command.</p> <pre> disk get          (all   &lt;properties&gt;)                     [-s &lt;field&gt;]... [-S &lt;field&gt;]...                     [-O &lt;flags&gt;]                     &lt;disk&gt;... disk indicators  [--ok2rm=(on off)]                     [--fail=(on off)]                     [--ident=(on off)] &lt;disk&gt; </pre>

CLI Command	Descriptions and Subcommands
	<pre> disk list      [-ux] [-p &lt;pool&gt;] [-o &lt;properties&gt;]                [-s &lt;field&gt;]... [-S &lt;field&gt;]...                [-O &lt;flags&gt;]                [&lt;disk&gt;]... disk set       &lt;properties&gt; &lt;disk&gt; disk initialize &lt;disk&gt; disk rescan [-C] &lt;disk&gt; (Use this command to rescan the disk hardware and update information about the installed disks) </pre>
enclosure	<p>Displays and sets chassis properties and sensors.</p> <pre> enclosure get  (all   &lt;properties&gt;)                [-s &lt;field&gt;]... [-S &lt;field&gt;]...                [-O &lt;flags&gt;]                &lt;chassisId&gt;... enclosure list [-s &lt;field&gt;]... [-S &lt;field&gt;]...                [-o &lt;properties&gt;] [-O &lt;flags&gt;] [&lt;chassisId&gt;]... enclosure sensor [-o &lt;properties&gt;]                  [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;]                  &lt;chassisId&gt; enclosure set  &lt;properties&gt; &lt;chassisId&gt; </pre>
fcinitiator	<p>Manages Fibre Channel (FC) initiator ports.</p> <pre> fcinitiator create [-n name] [-l node] &lt;physPort&gt; fcinitiator destroy &lt;initiator&gt; fcinitiator get  (all   &lt;properties&gt;)                  [-s &lt;field&gt;]... [-S &lt;field&gt;]...                  [-O &lt;flags&gt;]                  &lt;initiator&gt;... fcinitiator list [-o &lt;properties&gt;]                  [-s &lt;field&gt;]... [-S &lt;field&gt;]...                  [-O flags]                  [&lt;initiator&gt;]... </pre> <p>By default, the FC ports are in initiator mode. To change the default mode to target, use the command below:</p> <pre> # config set system.fcDefaultPortMode=target </pre>
fctarget	<p>Manages Fibre Channel (FC) target ports.</p> <pre> fctarget get  (all   &lt;properties&gt;)               [-s &lt;field&gt;]... [-S &lt;field&gt;]...               [-O &lt;flags&gt;]               &lt;target&gt;... fctarget list [-o &lt;properties&gt;]               [-s &lt;field&gt;]... [-S &lt;field&gt;]...               [-O flags]               [&lt;target&gt;]... fctarget offline &lt;target&gt; fctarget online  &lt;target&gt; fctarget scan [-O flags] &lt;target&gt; [&lt;peer&gt;]... </pre>
filesystem	<p>A filesystem is a manageable storage unit that enables you to organize and share your data over the network. After creating the storage pool, you can create up to 16 levels</p>

CLI Command	Descriptions and Subcommands
	<p>of nested filesystems. Commands to create, destroy, rename, reset, mount, and unmount filesystems are also included.</p> <pre> filesystem create  [-pnv] [-o &lt;properties&gt;] &lt;filesystem&gt; filesystem destroy [-rRfnv] &lt;filesystem&gt; filesystem get     [-r] (all   &lt;properties&gt;)                   [-s &lt;field&gt;]... [-S &lt;field&gt;]...                   [-O &lt;flags&gt;]                   [&lt;filesystem&gt;...] filesystem list   [-r] [-o &lt;properties&gt;]                   [-s &lt;field&gt;]... [-S &lt;field&gt;]...                   [-O &lt;flags&gt;]                   [&lt;filesystem&gt;]... filesystem mount  [-Onv] [-m &lt;mount-point&gt;] &lt;filesystem&gt; filesystem mount  Without any argument to the filesystem mount                   command, the mounted file systems and mount points are displayed. filesystem rename [-pnv] &lt;filesystem&gt; &lt;new-filesystem&gt; filesystem reset  [-rnv] (all   &lt;properties&gt;) &lt;filesystem&gt;... filesystem set-owner [-nv] &lt;filesystem&gt; &lt;user:group&gt; filesystem set    [-rnv] &lt;properties&gt; &lt;filesystem&gt;... filesystem unmount [-fnv] &lt;filesystem&gt; </pre> <p>Use the <code>compressionMode</code> property to set the compression value (default is lz4) for your filesystem.</p> <p>Configure the <code>wbcache</code> property to YES to enable the Write Back Cache feature to increase IOPS and lower latency on your SSD device.</p>
group	<p>Consolidates commands to list, create, and delete user groups.</p> <pre> group create [-nvh] &lt;name&gt; group delete [-nyvh] &lt;name&gt; group list [-O &lt;flags&gt;] [&lt;name&gt;]... </pre>
hacluster	<p>Includes commands for managing high-availability (HA) clustered nodes.</p> <pre> hacluster add-disk-heartbeat [-nyv] &lt;first-node&gt; &lt;second-node&gt;                              &lt;service&gt; &lt;disk&gt; hacluster add-net-heartbeat [-nyv] &lt;first-node&gt; &lt;first-ip&gt;                              &lt;second-node&gt; &lt;second-ip&gt;                              &lt;vip&gt; hacluster check-vip         &lt;vip&gt; hacluster create            [-fnv] [-d &lt;description&gt;]                              [-H &lt;heartbeats&gt;] &lt;nodes&gt; &lt;cluster&gt; hacluster delete-heartbeat [-nyv] &lt;id&gt; hacluster destroy          [-nyv] &lt;cluster&gt; hacluster find-nodes hacluster find-pools hacluster reinitialize [-nyv] hacluster reset            [-nyv] &lt;cluster&gt; hacluster status </pre>
haservice	<p>Includes commands for managing the HA services in a clustered setup.</p> <pre> haservice add-pool  [-nv] &lt;service&gt; &lt;pool&gt; &lt;guid&gt; haservice add-vip   [-nfv] &lt;service&gt; &lt;vip&gt; &lt;address&gt; &lt;nics&gt; haservice create    [-evnf] [-d &lt;description&gt;] </pre>

CLI Command	Descriptions and Subcommands
	<pre> [-m &lt;node&gt;] [-r &lt;timeout&gt;] [-i &lt;delay&gt;] [-g &lt;guid&gt;] [-N &lt;nodes&gt;] [-V &lt;vips&gt;] &lt;pool&gt; haservice delete-pool [-nyv] &lt;service&gt; &lt;pool&gt; haservice delete-vip [-nv] &lt;service&gt; &lt;vip&gt; haservice destroy [-nyv] &lt;service&gt; haservice failover [-ynvs] &lt;from-node&gt; &lt;to-node&gt; haservice list [&lt;service&gt;...] haservice mark [-nv] &lt;service&gt; &lt;node&gt; haservice move [-snv] &lt;service&gt; &lt;node&gt; haservice repair [-nv] &lt;service&gt; &lt;node&gt; haservice set-mode [-amnv] &lt;service&gt; &lt;node&gt; haservice start [-nv] &lt;service&gt; &lt;node&gt; haservice status [&lt;service&gt;...] haservice stop [-nv] &lt;service&gt; haservice update-vip [-nv] [-a &lt;address&gt;] [-N &lt;nics&gt;] &lt;service&gt; &lt;vip&gt;  To list, enable, or disable the HA system feature: svc clear &lt;service&gt; svc disable &lt;service&gt; svc enable &lt;service&gt; svc get all &lt;service&gt; svc list &lt;service&gt; svc refresh &lt;service&gt; svc restart &lt;service&gt; svc set &lt;service&gt;  To query ALUA settings: svc get -o alua ha </pre>
hostgroup	<p>Creates, deletes and lists iSCSI initiator groups.</p> <pre> hostgroup create &lt;hostgroup&gt; [&lt;host&gt;]... hostgroup destroy &lt;hostgroup&gt; hostgroup add &lt;hostgroup&gt; &lt;host&gt; hostgroup remove &lt;hostgroup&gt; &lt;host&gt; hostgroup list [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O flags] [&lt;hostgroup&gt;]... </pre>
hpr	<p>Creates, deletes, and schedules high performance replication (HPR) services for data protection.</p> <pre> hpr activate [-nv] &lt;dataset&gt; hpr clear [-nv] &lt;name&gt; hpr create [-nrsv] [--description=&lt;desc&gt;] [--ignore-properties=&lt;names&gt;] [--replace-properties=&lt;property=value&gt;] [--max-buffer-size=&lt;value&gt;] [--throttle=&lt;value&gt;] &lt;type&gt; &lt;source&gt; &lt;destination&gt; &lt;name&gt; hpr destroy [-fnv] [--source-snapshots] [--destination-snapshots] [--destination] &lt;name&gt; hpr disable [-fnv] &lt;name&gt; hpr enable [-nv] &lt;name&gt; hpr flip [-nv] &lt;name&gt; hpr get (all   &lt;properties&gt;) [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] &lt;name&gt;... </pre>

CLI Command	Descriptions and Subcommands
	<pre> hpr list                [-s &lt;field&gt;]... [-S &lt;field&gt;]...                         [-o &lt;properties&gt;] [-O &lt;flags&gt;] hpr password-set       [-nv] [--password=&lt;str&gt;] hpr recover            [-nv] &lt;name&gt; hpr run-once           [-fnv] &lt;name&gt; hpr schedule-add       [-nv] &lt;service-name&gt; &lt;cron&gt;                         &lt;keep-source&gt; &lt;keep-destination&gt;                         [&lt;schedule-name&gt;] hpr schedule-disable  [-nv] &lt;service-name&gt; &lt;schedule-name&gt; hpr schedule-enable    [-nv] &lt;service-name&gt; &lt;schedule-name&gt;  hpr schedule-remove   [-nv] &lt;service-name&gt; &lt;schedule-name&gt; hpr schedule-rename   [-nv] &lt;service-name&gt; &lt;schedule-name&gt;                         &lt;new-name&gt; hpr schedule-set       [-nv] &lt;properties&gt; &lt;service-name&gt;                         &lt;schedule-name&gt; hpr schedules          [-s &lt;field&gt;]... [-S &lt;field&gt;]...                         [-o &lt;properties&gt;] &lt;service-name&gt;  hpr set                [-nv] &lt;properties&gt; &lt;name&gt; hpr snaplist-claim     [-nv] &lt;service-name&gt; &lt;schedule-name&gt;                         &lt;snapshotlist-id&gt; hpr snaplist-delete   [-nv] &lt;service-name&gt; &lt;snapshotlist-id&gt; hpr snaplist-find      [-s &lt;field&gt;]... [-S &lt;field&gt;]...                         [-O &lt;flags&gt;] &lt;service-name&gt; hpr snapshots          [-s &lt;field&gt;]... [-S &lt;field&gt;]...                         [-o &lt;properties&gt;] [-O &lt;flags&gt;] &lt;name&gt; hpr stop               [-nv] &lt;name&gt; </pre> <p>There are separate HPR system parameters that can be configured.  To get the list of these HPR system attributes: <code>config list hpr</code>  To modify these HPR system properties: <code>config set &lt;hpr.property&gt;=value</code></p> <p>The replication data address must be configured on both the primary and secondary appliances, whether they are single nodes or members of a cluster. To configure the data replication address, use this command:</p> <pre>config set &lt;hpr.dataAddress&gt;=&lt;IP address&gt;</pre>
idmap	<p>Configures and manages the Native Identity Mapping service. This service uses name-based identity mapping, which establishes name equivalence between Windows users and groups with their counterparts in the UNIX name service. These mappings persist across reboots.</p> <pre> idmap create           [-gudnv] &lt;name&gt; &lt;identity&gt; idmap delete           [-nyv] &lt;identity&gt; idmap list             [-O &lt;flags&gt;] [&lt;identity&gt;...] </pre> <p>To list, enable, or disable the IDMAP system service:</p> <pre> svc list idmap svc get all idmap svc enable idmap svc disable idmap </pre> <p>To enable IDMU:</p> <pre>svc set directorybasedmapping=idmu idmap</pre>



CLI Command	Descriptions and Subcommands
inventory	<p>Consolidates commands for browsing storage hardware components such as processors, host bus adapters, memory, network interface cards, IPMI sensors, and tape devices.</p> <pre> inventory cpu          [-o &lt;properties&gt;]                       [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;]                       [&lt;chipId&gt;]... inventory hba          [-o &lt;properties&gt;]                       [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;]                       [&lt;adapterId&gt;]... inventory memory      [-o &lt;properties&gt;]                       [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] inventory nic          [-o &lt;properties&gt;]                       [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;]                       [&lt;name&gt;]... inventory sensor      [-o &lt;properties&gt;]                       [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;]                       [&lt;sesNodeId&gt;]... inventory tape-device [-o &lt;properties&gt;]                       [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;]                       [&lt;name&gt;]... </pre>
ip	<p>Manages the network IP addresses.</p> <pre> ip create [-nv] static &lt;name&gt; &lt;address&gt; ip create [-nv] addrconf &lt;name&gt; ip create [-nv] dhcp &lt;name&gt; ip destroy [-nv] &lt;name&gt; ip list [-o &lt;properties&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]...         [-O &lt;flags&gt;] [&lt;name&gt;]... ip refresh [-nv] &lt;name&gt; </pre>
ipmp	<p>Manages the IP network multipathing (IPMP) groups and its members.</p> <pre> ipmp add-member &lt;name&gt; &lt;link&gt; ipmp create    &lt;name&gt; ipmp del-member &lt;name&gt; &lt;link&gt; ipmp destroy [-nv] &lt;name&gt; ipmp list [-o &lt;properties&gt;] [-s &lt;field&gt;]...           [-S &lt;field&gt;]... [-O &lt;flags&gt;] [&lt;name&gt;]... ipmp set [-nv] &lt;properties&gt; &lt;group&gt; </pre>
iscsiauth	<p>Use these subcommands to add, list, set, and delete CHAP-based authentication service to an iSCSI initiator.</p> <pre> iscsiauth add &lt;name&gt; &lt;chapuser&gt; &lt;chapsecret&gt; iscsiauth list [-f] [-o &lt;properties&gt;]                [-s &lt;field&gt;]... [-S &lt;field&gt;]...                [-O flags]                [&lt;initiator&gt;]... iscsiauth remove &lt;initiator&gt; iscsiauth set &lt;properties&gt; &lt;initiator&gt;... </pre> <p>To list, enable, or disable the iSCSI target service:</p> <pre> svc list iscsit svc get all iscsit svc enable iscsit svc disable iscsit </pre>

CLI Command	Descriptions and Subcommands
iscsitarget	<p>Use these subcommands to create and manage iSCSI targets.</p> <pre> iscsitarget create [options]&lt;portals&gt; iscsitarget destroy &lt;target&gt; iscsitarget get [-f] (all   &lt;properties&gt;) [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] &lt;target&gt;...  iscsitarget list [-f] [-o &lt;properties&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O flags] [&lt;target&gt;]...  iscsitarget set &lt;properties&gt; &lt;target&gt;...</pre>
journal	<p>Use these commands to list and view NexentaStor installation logs.</p> <pre> journal list [-e] [-o &lt;properties&gt;] [-O &lt;flags&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]... journal show [-a] &lt;name&gt; journal tail [-c NUM] [-f] &lt;name&gt;</pre>
license	<p>Activates the use of the NexentaStor 5.0.x software using an activation token from Nexenta and lists the license term details.</p> <pre> license activate [options] KEY license show [options]</pre> <p>Optional license activations available for these features: Fibre channel support, High Availability(HA), Continuous Replication, and All-Flash.</p>
link	<p>The <code>link</code> command is intended to create, delete, list, and modify system links and their properties. A link can be a physical link, an aggregation link, a VLAN link, or a VNIC link. The command <code>link set</code> enables a user to set properties for any link type. However, to create or destroy a specific link type, use the appropriate command specific to that type. For example, use <code>link assign vlan</code> to create a VLAN link.</p> <pre> link add [-nv] &lt;name&gt; &lt;link&gt; link assign vlan [-nv] &lt;name&gt; &lt;vid&gt; &lt;link&gt;... link create aggr [-nv] [-P &lt;policy&gt;] [-L &lt;mode&gt;] [-T &lt;timer&gt;] [-u &lt;mac&gt;] &lt;name&gt; &lt;link&gt;... link create vlan [-nv] &lt;name&gt; &lt;vid&gt; &lt;link&gt; link create vnic [-nv] &lt;name&gt; &lt;vid&gt; &lt;link&gt; deleted link destroy [-nv] &lt;link&gt; link get (all   &lt;properties&gt;) [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] &lt;link&gt;...  link list [aggr vlan vnic] [-o &lt;properties&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] [&lt;link&gt;]...  link remove [-nv] &lt;name&gt; &lt;link&gt; link reset &lt;properties&gt; &lt;link&gt;... [options] link set [-nvt] &lt;properties&gt; &lt;link&gt;...</pre>
logicalunit	Configures LUN(s) created over the storage volumes.

CLI Command	Descriptions and Subcommands
	<pre> logicalunit get  (all   &lt;properties&gt;)                  [-s &lt;field&gt;]... [-S &lt;field&gt;]...                  [-O &lt;flags&gt;]                  &lt;volume&gt;... logicalunit list [-o &lt;properties&gt;]                  [-s &lt;field&gt;]... [-S &lt;field&gt;]...                  [-O flags]                  [&lt;volume&gt;]... logicalunit set  &lt;properties&gt; &lt;volume&gt;... </pre>
lunmapping	<p>LUN mapping allows you to open particular LUNs to specific initiators and hide them from other initiators. You can use target and initiator groups to manage the access to specific volumes. In the simplest configuration, all initiators can see all targets.</p> <pre> lunmapping create [options] &lt;volume&gt; &lt;target-group&gt; &lt;host-group&gt; lunmapping destroy -u &lt;id&gt; lunmapping destroy [options] &lt;volume&gt; &lt;target-group&gt; &lt;host-group&gt; lunmapping get     [-g &lt;groups&gt;]                  (all   &lt;properties&gt;)                  [-s &lt;field&gt;]... [-S &lt;field&gt;]...                  [-O &lt;flags&gt;]                  &lt;volume&gt;... lunmapping list   [-g &lt;groups&gt;]                  [-o &lt;properties&gt;]                  [-s &lt;field&gt;]... [-S &lt;field&gt;]...                  [-O flags]                  [&lt;volume&gt;]... </pre>
ndmpauth	<p>Provides subcommands to manage authentication for NDMP (Network Data Management Protocol). Configuring access credentials with ndmp allows a backup server/software to talk to the NDMP server running on NexentaStor. It performs backups of data stored on NexentaStor using the NDMP protocol. Two authentication mechanisms are supported: <code>cleartext</code> and <code>cram-md5</code>. Username and password must be configured.</p> <pre> ndmpauth disable [-nv] &lt;auth-type&gt; ndmpauth enable [-nv] &lt;auth-type&gt; &lt;username&gt; [--password=pass] ndmpauth list   [-o &lt;properties&gt;]                  [-s &lt;field&gt;]... [-S &lt;field&gt;]...                  [-O &lt;flags&gt;]                  [&lt;auth-type&gt;] </pre> <p>To query and set NDMP service parameters:</p> <pre> svc get all ndmp svc set &lt;NDMP property&gt;=&lt;value&gt; ndmp </pre> <p>To list, enable, and disable NDMP service:</p> <pre> svc list/enable/disable ndmp </pre>
net	<p>Provides commands for managing network settings for hosts, DNS servers, and netmasks.</p> <pre> net create host [-nv] &lt;address&gt; &lt;hostname&gt; [&lt;alias&gt;]... net create dns [-nv] &lt;address&gt; net create netmask [-nv] &lt;network&gt; &lt;mask&gt; </pre>

CLI Command	Descriptions and Subcommands
	<pre> net destroy host [-nv] &lt;address&gt; net destroy dns [-nv] &lt;address&gt; net destroy netmask [-nv] &lt;network&gt;  net list      host [-o &lt;properties&gt;] [-s &lt;field&gt;]...               [-S &lt;field&gt;]... [-O &lt;flags&gt;] [&lt;address&gt;]... net list      dns [-o &lt;properties&gt;] [-s &lt;field&gt;]...               [-S &lt;field&gt;]... [-O &lt;flags&gt;] [&lt;nameserver&gt;]... net list      netmask [-o &lt;properties&gt;] [-s &lt;field&gt;]...               [-S &lt;field&gt;]... [-O &lt;flags&gt;] [&lt;network&gt;]... </pre>
nfs	<p>Provides subcommands that make local file systems available for mounting by remote clients. It supports the NFS protocol with Kerberos authentication via Windows Active Directory. It also configures and unshares existing shares.</p> <pre> nfs get      (all   &lt;properties&gt;)               [-s &lt;field&gt;]... [-S &lt;field&gt;]...               [-O &lt;flags&gt;]               &lt;filesystem&gt;... nfs list     [-o &lt;properties&gt;]               [-s &lt;field&gt;]... [-S &lt;field&gt;]...               [-O &lt;flags&gt;]               [&lt;filesystem&gt;]... nfs set      [-nv] &lt;properties&gt; &lt;filesystem&gt;... nfs share    [-nv] [-o &lt;properties&gt;] &lt;filesystem&gt; nfs unshare  [-nv] &lt;filesystem&gt; </pre> <p>To query and set NFS system parameters:</p> <pre> svc get all nfs svc set &lt;NFS property&gt;=&lt;value&gt; nfs </pre> <p>To list, enable, and disable the NFS service:</p> <pre> svc list/enable/disable nfs </pre>
pool	<p>Includes commands to list available (imported and active) storage pools and display pool-specific attributes, health status, space usage, virtual device topology, and device lists. You can add, destroy, offline, and online pools. There are also subcommands to start and stop the scrub (for consistency checking) and to trigger the trim kernel feature (to free up unused space).</p> <pre> pool add      [-fnv] &lt;pool&gt; &lt;vdev&gt;... pool attach   [-fnv] &lt;pool&gt; &lt;disk&gt; &lt;new-disk&gt; pool clear    [-Rnv] &lt;pool&gt; [&lt;disk&gt;]... pool create-auto [-fnvq] &lt;redundancy&gt; &lt;pool&gt; -M&lt;maxdevices&gt;               [-c &lt;vdev-size&gt;] [-t &lt;media-type&gt;]               [-s &lt;disk-size&gt;] [-r &lt;rpm&gt;]               [-N] [-e &lt;enclosures&gt;]               [-R altroot] [-o &lt;properties&gt;]               [--config-output=&lt;flags&gt;] pool create   [-fnv] [-R altroot] [-o &lt;properties&gt;]               &lt;pool&gt; &lt;vdev&gt;... pool destroy  [-fnv] &lt;pool&gt; pool detach   [-nv] &lt;pool&gt; &lt;disk&gt; pool export   [-fnv] &lt;pool&gt; pool get      (all   &lt;properties&gt;)               [-s &lt;field&gt;]... [-S &lt;field&gt;]...               [-O &lt;flags&gt;] </pre>

CLI Command	Descriptions and Subcommands
	<pre> pool import &lt;pool&gt;... [-fnvD] [-s paths] [-c &lt;cache-file&gt;] [-R altroot] [-o &lt;properties&gt;] &lt;pool&gt; [&lt;new-name&gt;] pool import [-nvD] [-s paths] [-c &lt;cache-file&gt;] pool import Without any argument, pool import provides the list of exported pools that can be imported. pool list [-o &lt;properties&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;][&lt;pool&gt;]... pool offline [-tnv] &lt;pool&gt; &lt;disk&gt; pool online [-env] &lt;pool&gt; &lt;disk&gt; pool remove [-nv] &lt;pool&gt; &lt;disk&gt; pool replace [-fnv] &lt;pool&gt; &lt;disk&gt; &lt;new-disk&gt; pool set [-nv] &lt;properties&gt; &lt;pool&gt;... pool start-scrub &lt;pool&gt; pool start-trim [-r rate]&lt;pool&gt; pool status [-xvd] [-O &lt;flags&gt;] [&lt;pool&gt;]... pool stop-scrub &lt;pool&gt; pool stop-trim &lt;pool&gt;  To create a schedule for pool scrub, use the pool set scrubSchedule="&lt;cron expression&gt;" &lt;pool name&gt;.  To create a schedule for pool trim, use the pool set trimSchedule="&lt;cron expression&gt;" &lt;pool name&gt;.  pool upgrade [-nv] &lt;pool&gt; </pre>
profile	<p>A profile is a collection of pre-set kernel settings and pool tunable values that can be applied to a NexentaStor appliance to optimize performance in several SSD configurations. The default profile value is <code>generic</code> and applies to hybrid appliances. The <code>AllFlashgeneric</code> profile is sufficient for basic all-SSD configuration and optimized for all-flash reference architectures. For profile changes to take effect, a system reboot is needed.</p> <pre> profile activate [options] &lt;name&gt; profile show [options] [&lt;name&gt;]... </pre>
publisher	<p>Manages the location of NexentaStor software components. This information is used during software updates.</p> <pre> publisher create [-nv] &lt;publisher&gt; &lt;location&gt; publisher destroy [-nv] &lt;publisher&gt; publisher list [-o &lt;properties&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] [&lt;publisher&gt;]... </pre>
route	<p>Provides commands for managing network routes.</p> <pre> route create [-nv] &lt;destination&gt; &lt;gateway&gt; route destroy [-nv] &lt;destination&gt; &lt;gateway&gt; route list [-o &lt;properties&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] [&lt;destination&gt;]... </pre>
security	<p>Includes commands to switch security mode and manage trusted credentials for inter-host connections.</p> <pre> security certificate [--generate] </pre>

CLI Command	Descriptions and Subcommands
	<pre>security connection-add [options] &lt;peer&gt; security connection-delete [options] &lt;peer&gt; security connection-list [-s &lt;field&gt;]... [-S &lt;field&gt;]...                         [-o &lt;properties&gt;]                         [-O &lt;flags&gt;]</pre>
smb	<p>Makes local file systems available for mounting by remote clients. It supports the SMB protocol with Kerberos authentication via Windows Active Directory. It also configures and unshares existing shares, and configures memberships in groups.</p> <pre>smb add-member [-nv] &lt;user&gt; &lt;group&gt; smb get (all   &lt;properties&gt;)         [-s &lt;field&gt;]... [-S &lt;field&gt;]...         [-O &lt;flags&gt;]         &lt;filesystem&gt;... smb join domain [-nv] &lt;username&gt; [--password=pass]&lt;DOMAINNAME&gt; smb join workgroup [-nv] &lt;WORKGROUPNAME&gt; smb list [-o &lt;properties&gt;]          [-s &lt;field&gt;]... [-S &lt;field&gt;]...          [-O &lt;flags&gt;]          [&lt;filesystem&gt;]... smb remove-member [-nyv] &lt;user&gt; &lt;group&gt; smb set [-nv] &lt;properties&gt; &lt;filesystem&gt;... smb share [-nv] [-o &lt;properties&gt;] &lt;filesystem&gt; smb show-group [-O &lt;flags&gt;] [&lt;group&gt;...] smb status [-O &lt;flags&gt;] smb unshare [-nv] &lt;filesystem&gt;</pre> <p>To query and set SMB system parameters:</p> <pre>svc get all smb svc set &lt;SMB property&gt;=&lt;value&gt; SMB</pre> <p>To list, enable, and disable the SMB service:</p> <pre>svc list/enable/disable smb</pre>
snapping	<p>Creates and schedules dataset snapshot jobs for specified datasets. A dataset can be a file system, volume group, or a volume. All datasets that are part of the same job must reside in the same storage pool.</p> <pre>snapping clear [-nv] &lt;name&gt; snapping create [-nr]v [--description=&lt;desc&gt;]                 [--cron=&lt;period&gt; --keep=&lt;n&gt;]                 &lt;dataset&gt; [&lt;name&gt;] snapping destroy [-nv] [--snapshots] &lt;name&gt; snapping disable [-nv] &lt;name&gt; snapping enable [-nv] &lt;name&gt; snapping get (all   &lt;properties&gt;)              [-s &lt;field&gt;]... [-S &lt;field&gt;]...              [-O &lt;flags&gt;] &lt;name&gt;... snapping list [-s &lt;field&gt;]... [-S &lt;field&gt;]...               [-o &lt;properties&gt;] [-O &lt;flags&gt;] snapping schedule-add [-nv] &lt;service-name&gt; &lt;cron&gt; &lt;keep&gt;                     [&lt;schedule-name&gt;] snapping schedule-disable [-nv] &lt;service-name&gt; &lt;schedule-name&gt; snapping schedule-enable [-nv] &lt;service-name&gt; &lt;schedule-name&gt; snapping schedule-remove [-nv] &lt;name&gt; &lt;schedule-name&gt;</pre>

CLI Command	Descriptions and Subcommands
	<pre>snapping schedule-set [-nv] &lt;properties&gt; &lt;service-name&gt;&lt;schedule-name&gt;</pre> <pre>snapping schedules [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-o &lt;properties&gt;] [-O &lt;flags&gt;] &lt;service-name&gt;</pre> <pre>snapping set [-nv] &lt;properties&gt; &lt;name&gt;</pre> <pre>snapping snaplist-claim [-nv] &lt;service-name&gt; &lt;schedule-name&gt; &lt;snapshotlist-id&gt;</pre> <pre>snapping snaplist-delete [-nv] &lt;service-name&gt; &lt;snapshotlist-id&gt;</pre> <pre>snapping snaplist-find [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] &lt;service-name&gt;</pre> <pre>snapping snapshots [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-o &lt;properties&gt;] [-O &lt;flags&gt;] &lt;dataset&gt;</pre>
snapshot	<p>Consolidates commands to manually manage snapshots of a given dataset (a file system, volume, or volume group) or the dataset's children. For scheduled snapshot jobs, see <code>snapping</code> commands. Using the commands, you can create a snapshot, clone from the snapshot, promote a cloned dataset to no longer be dependent on its original snapshot, and roll back a dataset to a particular snapshot.</p> <p>Use the <code>snapshot hold</code> and <code>snapshot holds</code> subcommands to create a hold on any dataset snapshot and list all the holds, respectively. A hold on a snapshot prevents it from being destroyed. Attempts to destroy a snapshot with a hold return an ERROR. To release the hold on the snapshot, use the <code>snapshot release</code> subcommand listed below.</p> <pre>snapshot clone [-pnv] [-o &lt;properties&gt;] &lt;snapshot&gt;&lt;clone&gt;</pre> <pre>snapshot create [-rnv] [-o &lt;properties&gt;] &lt;snapshot&gt;</pre> <pre>snapshot destroy [-rRfnv] &lt;snapshot&gt;</pre> <pre>snapshot destroy [-rdnv] &lt;snapshot&gt;</pre> <pre>snapshot get [-r] (all   &lt;properties&gt;) [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] &lt;snapshot&gt;...</pre> <pre>snapshot hold [-rnv] &lt;tag&gt; &lt;snapshot&gt;...</pre> <pre>snapshot holds [-r] [-o &lt;properties&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] &lt;snapshot&gt;...</pre> <pre>snapshot list [-r] [-o &lt;properties&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] [&lt;snapshot&gt;]...</pre> <pre>snapshot promote [-nv] &lt;dataset&gt;</pre> <pre>snapshot release [-rnv] &lt;tag&gt; &lt;snapshot&gt;...</pre> <pre>snapshot rename [-rnv] &lt;snapshot&gt; &lt;new-snapshot&gt;</pre> <pre>snapshot reset [-rnv] (all   &lt;properties&gt;) &lt;snapshot&gt;...</pre> <pre>snapshot rollback [-rdDfnv] &lt;snapshot&gt;</pre> <pre>snapshot set [-rnv] &lt;properties&gt; &lt;snapshot&gt;...</pre>
software	<p>Activates, deletes, and upgrades specific NexentaStor software versions.</p> <pre>software activate [-nv] &lt;version&gt;</pre>

CLI Command	Descriptions and Subcommands
	<pre>software checkpoint [-nv] &lt;name&gt; software destroy [-nv] &lt;version&gt; software list [-O &lt;flags&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-o &lt;properties&gt;] [&lt;name&gt;...] software upgrade [--force-be-creation] [-nv] software version [-O &lt;flags&gt;]</pre>
<b>svc</b>	<p>Provides commands for enabling, disabling, and checking the status of services. It does not configure the service properties. Available services such as <code>aha</code>, <code>idmap</code>, <code>iscsit</code>, <code>ndmp</code>, <code>nfs</code>, <code>ntp</code>, <code>smb</code>, <code>snmp</code>, <code>stmf</code>, and <code>vscan</code>.</p> <pre>svc clear &lt;service&gt; svc disable &lt;service&gt; svc enable &lt;service&gt; For example: svc enable SNMP svc get [-d] [-o &lt;properties&gt;] [-O &lt;flags&gt;] &lt;service&gt; svc list [-x] [-o &lt;properties&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O &lt;flags&gt;] [&lt;service&gt;]... svc refresh &lt;service&gt; svc restart &lt;service&gt; svc set &lt;properties&gt; &lt;service&gt;</pre> <p>To list and modify SMTP (email) system properties:</p> <pre>config list smtp config set &lt;SMTP.property&gt;=&lt;value&gt;</pre> <p>To list and modify FTP system properties:</p> <pre>config list support.ftp config set &lt;support.ftp.property&gt;=&lt;value&gt;</pre>
<b>system</b>	<p>Enables the administrator to query appliance information such as ISO version, memory utilization, swap status, total number of system alerts. It also provides a way to run an SMTP test.</p> <pre>system generate-password-key [&lt;secret&gt;] system status [options] system smtp-test [options]</pre> <p>To list and modify SMTP system properties:</p> <pre>config list smtp config set &lt;SMTP.property&gt;=&lt;value&gt;</pre>
<b>targetgroup</b>	<p>Use these subcommands to create and manage iSCSI target groups and add/ remove iSCSI targets in a target group.</p> <pre>targetgroup add &lt;targetgroup&gt; &lt;target&gt; -h   --help targetgroup create [options] &lt;name&gt; [&lt;target&gt;]... targetgroup destroy &lt;targetgroup&gt; targetgroup list [-f] [-o &lt;properties&gt;] [-s &lt;field&gt;]... [-S &lt;field&gt;]... [-O flags] [&lt;targetgroup&gt;]... targetgroup remove &lt;targetgroup&gt; &lt;target&gt; -h   --help</pre>
<b>targetsession</b>	<p>Discovers iSCSI and FC target established sessions.</p>



CLI Command	Descriptions and Subcommands
	<pre>targetsession get (all   &lt;properties&gt;)                     [-s &lt;field&gt;]... [-S &lt;field&gt;]...                     [-O &lt;flags&gt;]                     &lt;target&gt;                     &lt;initiator&gt;...  targetsession list [-o &lt;properties&gt;]                     [-s &lt;field&gt;]... [-S &lt;field&gt;]...                     [-O flags]                     &lt;target&gt;                     [&lt;initiator&gt;]...</pre>
user	<p>Consolidates commands to list, create, delete, and modify system users.</p> <pre>user create [-nvh] [-p &lt;password&gt;] [-g &lt;group&gt;] [-c &lt;comment&gt;]             &lt;login&gt; user delete [-nyvh] &lt;login&gt; user list [-h] [-O &lt;flags&gt;] [&lt;login&gt;...] user passwd [-nvh] [-p &lt;password&gt;] &lt;login&gt;</pre> <p><b>Note:</b> Passwords should be at least 9 characters long and contain at least 3 of the following classes of characters: lowercase, uppercase, numeric, and special (for example: !, @, #, \$, %, ^). Passwords should not be based on English dictionary or slang words, nor English first names or surnames.</p>
volume	<p>Configures volumes that represent block devices. A volume is basically a LUN that is remotely accessible through the iSCSI and FC protocols. They must be configured to be a member of a volume group below the pool. The subcommands allow you to list, create, destroy and rename volumes.</p> <pre>volume create [-pnv] [-o &lt;properties&gt;] [-b &lt;blocksize&gt;]               &lt;volume&gt; &lt;size&gt; volume destroy [-rRnv] &lt;volume&gt; volume get (all   &lt;properties&gt;)            [-s &lt;field&gt;]... [-S &lt;field&gt;]...            [-O &lt;flags&gt;]&lt;volume&gt;...  volume list [-o &lt;properties&gt;]             [-s &lt;field&gt;]... [-S &lt;field&gt;]...             [-O &lt;flags&gt;]             [&lt;volume&gt;]...  volume rename [-pnv] &lt;volume&gt; &lt;new-volume&gt; volume reset [-nv] (all   &lt;properties&gt;) &lt;volume&gt;... volume set [-nv] &lt;properties&gt; &lt;volume&gt;...</pre> <p>Use the <code>compressionMode</code> property to set the compression value (default is lz4) for your volume.</p>
volumegroup	<p>Configures volume groups that are used to group volumes with the same characteristics. These subcommands let you create, destroy, list, rename, and configure volume groups.</p> <pre>volumegroup create [-nv] [-o &lt;properties&gt;]                   [-b &lt;blocksize&gt;] &lt;volumegroup&gt; volumegroup destroy [-rRnv] &lt;volumegroup&gt; volumegroup get (all   &lt;properties&gt;)                 [-s &lt;field&gt;]... [-S &lt;field&gt;]...                 [-O &lt;flags&gt;]                 &lt;volumegroup&gt;...</pre>

CLI Command	Descriptions and Subcommands
	<pre> volumegroup list    [-o &lt;properties&gt;]                    [-s &lt;field&gt;]... [-S &lt;field&gt;]...                    [-O &lt;flags&gt;]                    [&lt;volumegroup&gt;]... volumegroup rename [-nv] &lt;volumegroup&gt; &lt;new-volumegroup&gt; volumegroup reset  [-nv] (all   &lt;properties&gt;)                    &lt;volumegroup&gt;... volumegroup set    [-nv] &lt;properties&gt; &lt;volumegroup&gt;... </pre> <p>Use the <code>compressionMode</code> property to set the compression value (default is lz4) for your volume group.</p>
vscan	<p>Consolidates subcommands for displaying, creating, modifying, or removing virus scan engines. Scan engines are third-party applications on external hosts that perform the actual virus scanning operation on files. Multiple scan engines can be configured for use by the vscan service. The default port used is 1344 and should be excluded from firewall blocks.</p> <p>Note that in order to manage properties of the vscan service, the general <code>svc</code> CLI command should be used to enable/disable the vscan service first.</p> <pre> vscan create [-nv] &lt;engine&gt; vscan destroy [-nv] &lt;engine&gt; vscan get    (all   &lt;properties&gt;)              [-s &lt;properties&gt;]... [-S &lt;properties&gt;]...              [-O &lt;flags&gt;]              [&lt;engine&gt;...] vscan list   [-o &lt;properties&gt;] [-s property]...              [-S property]... [-O flags] [&lt;engine&gt;]... vscan set    [-nv] &lt;properties&gt; &lt;engine&gt; </pre> <p>To designate the IP address of the 3<sup>rd</sup> party vscan engine:</p> <pre> vscan set host=&lt;IP address&gt; vscan status [-nv] &lt;properties&gt; &lt;engine&gt; </pre> <p>To query and set VSCAN system parameters:</p> <pre> svc get all vscan svc set &lt;VSCAN property&gt;=&lt;value&gt; vscan </pre> <p>To list, enable, and disable the VSCAN service:</p> <pre> svc list/enable/disable vscan </pre> <p>To designate the filesystem that needs to be scanned:</p> <pre> filesystem set vscan=yes &lt;file system&gt; </pre>

## UNIX-Like Utilities

Table 2: NexentaStor 5.0 Utilities

UNIX-Like Utility	Description
clear	Clears the screen. The <code>clear</code> command takes no arguments.
dlstat	The <code>dlstat</code> command reports run time statistics about data links.
dmesg	Writes kernel messages that are directed to the screen as the computer boots.
expr	Refers to mathematical and scientific uses of the term <code>expression</code> . Here, you would use <code>expr</code> , followed by the arguments it should evaluate, such as <code>expr 5 % 3</code> to calculate 5 divided by 3.
fmdump	Displays fault management status and information. Short for fault management dump.
grep	Searches a file for lines matching a regular expression.
head	Reads the first few lines of any text input and writes them to standard output. By default, the display screen is the standard output.
help	Lists the NexentaStor CLI commands and UNIX-like utilities.
host	Performs DNS lookups and is normally used to convert host names to IP addresses and vice-versa.
ifcli	Utility for managing SanDisk.
iostat	Reports terminal, disk, CPU utilization, and tape I/O activity,
json	Fast command-line tool for working with JSON content from the command line,
ldapclient	Initializes LDAP client machine or output an LDAP client profile in LDIF format.
mail	Reads or sends email to users.
man	Accesses man pages to help understand the purpose and usage of various commands.
messages	Displays system log messages.
more	Displays the contents of a text file on the terminal.
mt	Sends commands to a magnetic tape drive for backups.
mtx	Controls single or multi-drive SCSI media changers such as tape changers, autoloaders, tape libraries, or optical media jukeboxes.
nawk	Parses specific kinds of information from output, including the <code>getline</code> function.
netstat	Displays network status, including incoming and outgoing network connections, routing tables, network interface information, and protocol statistics.
nfsstat	Displays statistical information about the NFS and RPC (Remote Procedure Call), interfaces to the kernel.
option	Sets or shows CLI options.
ping	Contacts a remote host to see if it responds.
poweroff	Shuts down the computer.
reboot	Shuts down and restarts the computer.
sed	Processes files in batch mode.
sleep	Suspends program operation for a specified period of time.
smbstat	shows statistical information for the SMB server, including any or all of the following four categories: counters, throughput, utilization, requests.
snoop	capture and inspect network packets
sort	Sorts text files.
su	Allows switching of user to execute commands with the privileges of another user account.
tail	Displays the last few lines of a file.
traceroute	Identifies the route data packets takes from their origin to the destination host.
uname	Prints information about the current system on the standard output.
uptime	Displays how long a system has been up and running since its last reboot.

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UNIX-Like Utility	Description
vmstat	Reports information about processes, memory, paging, block IO, traps, and CPU activity.
wc	Displays line count, word count, byte count, and character count in a file.
xargs	Builds and executes command lines from standard output.

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## Additional Resources

For additional information, refer to the documents listed in Table 3 below and posted at <https://nexenta.com/products/documentation>.

**Table 3: NexentaStor 5.0 Reference Documents**

Documents
NexentaStor 5.0 and NexentaFusion Installation QuickStart
NexentaStor 5.0 CLI Configuration QuickStart
NexentaStor 5.0 High Availability (HA) QuickStart
NexentaStor 5.0 REST API QuickStart
NexentaStor 5.0 vCenter QuickStart
NexentaStor 5.0 VVOL Admin Guide
NexentaStor 5.0 Product Guide
NexentaStor 5.0 High Performance Replication (HPR) User Guide
NexentaStor 5.0 and NexentaFusion 1.0 Release Notes