StorNext

High Performance Workflow
and Intelligent Archiving

StorNext File System

Syntax conventions:
- <brackets> = replace with a variable
- [ ] = optional component

cvadmin

Command	Options	Description
cvadmin		Displays the active and standby SNFS server processes.Can be used to inspect and modify the state of active servers.
	[-H <FSMHostName>]	Connects to the StorNext FS on the specified machine (**FSMHostName**).
	[-F <FileSystemName>]	Sets the file system (**FileSystemName**) as the active file system.
	[-f <filename>]	Reads commands from the specified file.
	[-e <command>]	Runs the **cvadmin command** and exits. **Note: Commands are listed below.**
	activate [<file_system_name> | <index_number	Activates the file system (**file_system_name**).
	debug [[+ | -] <value>]	Views or sets the StorNext FS debugging flags.
	disks [refresh] fsm	Displays StorNext FS disk volumes visible to this machine. If the refresh option is used, the volumes are re-scanned.
	down <groupname>	Disables access to the stripe group (**groupname**).
	fail <file_system_name | index_number>	Fails over the file system (**file_system_name**).

Command	Options	Description
cvadmin	fsmlist [<file_system_name>] [on [<hostname> | <IP_address>]]	Displays the state of FSM processes for the specified file system, hostname, or IP address.
	filelocks [yes | no]	Shows file record lock enforcement.
	help <command>	Displays a usage summary of **command**.
	latency-test [<index_number> | all] [seconds]	Runs a network latency test between the FSM and a client or all clients.
	paths	Displays StorNext FS labeled disks visible to the local system.
	proxy [long]	Displays distributed LAN servers for the selected file system. With the long argument, the served disks are also displayed.
	proxy who <hostname>	Displays all active distributed LAN connections for the specified host.
	qos	Displays per-stripe group QOS statistics.
	repof	Creates a report showing all open files on the file system.
	quit	Disconnects cvadmin from the StorNext FS and exits.
	quotas [yes | no]	Quotas can only be enabled or disabled by modifying the **Quotas** parameter of the file system config file. The CLI cvadmin **quotas** command will still return the quota state, but it cannot change it.
	quotas get [user | group] <name>	Displays current quota parameters for the user or group (**name**).
	quotas set [user | group] <name> <hardlim> <softlim> <timelim>	Sets current quota parameters for the user or group (**name**).
	quotacheck	Recalculates the amount of space consumed by all users and groups in the file system.

Command	Options	Description
	repquota	Generates quota reports for all users and groups in the file system.
cvadmin	select <file_system_name>	Selects the file system (**file_system_name**) to view and modify.
	show [<groupname>] [long]	Displays information about stripe groups (**groupname**) associated with the file system.
	start <file_system_name> [<hostname> | <IP_address>]	Starts the StorNext FS manager for the specified file system (**file_system_name**).
	stat	Displays the general status of the file system.
	stop <file_system_name>	Stops the StorNext FS manager for the specified file system (**file_system_name**).
	up <groupname>	Enables the stripe group (**groupname**).
	who	Queries the client list for the selected file system.

cvaffinity

Command	Options	Description
cvaffinity		Establishes an affinity to a stripe group or lists the current affinity of a file.
	[-k <key>]	Indicates where the file system should place the data file. If the **key** parameter is defined, then the data file is placed on stripe groups specified to support this parameter.
	[-s <key>]	Associate affinity **key** with file or directory **filename**.
	[-l]	Lists the affinity for the specified file.
	[-d]	Deletes the affinity from the specified file or directory.
	<filename>	File or directory name.

cvcp

Command	Options	Description
cvcp		Provides a high speed, multi-threaded copy mechanism to copy directories and tar images to and from the StorNext FS.
	<source>	Source file or directory.
	<destination>	Destination file or directory.
	[-A]	Disables file pre-allocation.
	[-b <buffers>]	Sets the number of I/O buffers. Default value: Two times the number of copy threads started.
	[-d]	Copies the files and sub-directories under **Source** to **/Destination/Source**.
	[-k <buffer_size>]	Sets the I/O buffer size. Default value: 4MB
	[-l]	Copies the target of symbolic links rather than copying the link itself.
	[-n]	Prevents recursion through subdirectories.
	[-p <source_prefix>]	Only copies files that begin with the value of the **source_prefix** parameter.
	[-s]	Forces allocations to line up on the beginning block modulus of the stripe group.
	[-t <num_threads>]	Specifies the number of copy threads. Default value: 4
	[-u]	Only copies when the source file is newer than the destination file.
	[-v]	Displays verbose output about the copied files.

Command	Options	Description
cvcp	[-x]	Retains original permissions from the source file. If set by the super user, also sets sticky and setuid/gid bits.
	[-y]	If set by the super user, retains ownership and group information.
	[-z]	Retains original modification times.

cvfsck

Command	Options	Description
cvfsck		Checks and repairs a file system.
	[-a] **Note:** Use this option only with the -f option.	Prints the number of free space fragments for each stipe group, plus the grand total of free space fragments for all stripe groups.
	[-C]	Reset the inode free list.
	[-d]	Enables internal debugging.
	[-e]	Reports statistics on all file extents.
	[-f]	Reports fragmentation.
	[-g]	Prints the journal recovery log.
	[-G]	Exits immediately after **cvfsk** completes without waiting for a key press (Windows systems only).
	[-j]	Executes journal recovery and exits.
	[-J]	Dumps the raw journal to stdout and exits. For debugging use only.
	[-K]	Resets the journal and exits. **WARNING**: Resetting the journal may introduce metadata inconsistency. Exercise extreme caution when using this option.
	[-l]	Logs problems to syslog.

Command	Options	Description
cvfsck	[-L <inode_number>]	Reassigns orphaned files to the specified directory. The inode_number must be a 64-bit value.
	[-M]	Determines if a new metadata dump is needed and prints an explanation.
	[-n]	Enables a file system to be checked in a read-only mode.
	[-r]	Displays where files are placed and moves them to a different stripe group.
	[-t]	Reports on allocation covering restricted areas of a stripe group.
	[-T <directory>]	Places temporary files in the specified directory.
	[-v]	Displays verbose output.
	[-x]	Reports statistics for input to a spreadsheet.
	<FsName>	Specifies the file system to check.
	<FsPath>	Specifies an alternate file system path (other than **/usr/cvfs/data**) to locate file systems.
	[-L <inode_number>]	Reassigns orphaned files to the specified directory. The inode_number must be a 64-bit value.
	[-M]	Determines if a new metadata dump is needed and prints an explanation.
	[-n]	Enables a file system to be checked in a read-only mode.
	[-r]	Displays where files are placed and moves them to a different stripe group.
	[-t]	Reports on allocation covering restricted areas of a stripe group.

Command	Options	Description
cvfsck	[-T <directory>]	Places temporary files in the specified directory.
	[-v]	Displays verbose output.
	[-x]	Reports statistics for input to a spreadsheet.
	<FsName>	Specifies the file system to check.
	<FsPath>	Specifies an alternate file system path (other than **/usr/cvfs/data**) to locate file systems.

cvfsid

Command	Options	Description
cvfsid		Displays the StorNext FS system identifier.
	[-?] [-h]	Displays usage.
	[-l]	Lists the local host's Authorizing IDs, IP addresses, and MACs (Linux only).
	[-n]	Displays the network information in a compact, machine readable form.

cvlabel

Command	Options	Description
cvlabel		Labels StorNext FS disk devices.
	-l	Lists available disk devices on the system.
	-L	Lists available disk devices (verbose format).
	-u <VolumeName>	Unlabels the specified volume (**VolumeName**).
	-U <DeviceName>	Unlabels the raw disk device DeviceName.
	[-s]	When used with the **-l** or **-L** option, prints the disk device serial number.

Command	Options	Description
cvlabel	[-v]	Displays verbose output about labeling.
	[-a]	Prints unusable disk devices when used with the **-l** or **-L** option.
	[-g]	Prints GUID information for EFI-labeled disks when used with the **-l** or **-L** option.
	[-F <filter>]	Lists devices whose inquiry string contains filter when used with the **-c**, **-l**, or **-L** option.
	[-q tag_q_depth]	Used to set Command Tag Queue Depth (**tag_q_depth**) on IRIX. Default value: 16
	[-f]	Forces labeling.
	-c	Outputs a cvlabel format template file to stdout.
	[-T]	When used with the -c option, lists devices that can be converted to the new EFI format.
	-D <VolumeName>	Writes label information of specified volume to **stdout**.
	[-r]	Forces relabeling even if there are no changes.
	[-R]	Displays the default RAID strings inquiry table.
	[-e]	Changes the label type from VTOC to EFI.
	[-E]	Changes the default label type to EFI.
	<label_list>	File that specifies StorNext disk labels.

cvmkdir

Command	Options	Description
cvmkdir		Creates a StorNext directory and attaches the affinity parameter [**-k key**] to it.
	[-k <key>]	Indicates, to the file system, the affinity to associate with the directory. All new sub-directories and files beneath the directory inherit its affinity as they are created.
	<dirname>	Path where the directory is created.

cvmkfile

Command	Options	Description
cvmkfile		Creates a pre-allocated file on StorNext FS.
	[-k key]	Indicates where the file system should place the data file. If **key** is defined, the file is placed on stripe groups specified to support **key**.
	[-p]	Forces the allocation and subsequent expansions to fit as multiples of the **InodeExpandMin** parameter.
	[-s]	Forces the allocation to begin on a stripe-aligned block.
	[-w]	Sets the file size to the **size** parameter.
	[-z]	Causes the file to physically zero out.
	<size> [k | m | g | t]	Specifies the file size in bytes. If appended with k, m, or g, the value represents kilobytes, megabytes, or gigabytes.
	<filename>	Name of the file to create.

cvmkfs

Command	Options	Description
cvmkfs		Initializes a StorNext FS. **WARNING**: This command destroys any existing file system data for the file system (**file_system_name**). Use extreme caution when invoking cvmkfs.
	[-G]	Bypasses "Press return to continue..." type prompts.
	[-F]	Bypasses all verification prompts. **WARNING**: Use this flag with extreme caution.
	<file_system_name>	Name of the StorNext FS to initialize.

cvupdatefs

Command	Options	Description
cvupdatefs		Commits a StorNext FS configuration change.
	[-F]	Forces commit of the updated configuration. **WARNING**: This option skips the confirmation step of **cvupdatefs**. Use this option with extreme caution.
	[-G]	Pauses the program after displaying the exit status (Windows only).
	[-h]	Displays command help.
	[-l]	Logs when the update finished.
	[-n]	Sets metadata to read-only mode.
	[-v]	Turns on verbose reporting.
	[-c <pathname>]	Use the specified file as the original configuration and run **cvfsck** before applying updates from the new configuration file.
	[<FsName>]	Specifies the file system (**FsName**) to update.

Command	Options	Description
cvupdatefs	[<FsPath>]	Specifies a path (other than **/usr/cvfs/data**) to locate file systems.

cvversions

Command	Options	Description
cvversions		Displays StorNext client and server versions.

Windows Utilities

Utility	Description
StorNext File System Administrator Start > All Programs > StorNext File System > File System Administrator	Starts and stops a StorNext file system. Views and modifies a file system and stripe group attributes.
StorNext FIle System Configuration Administrator Start > All Programs > StorNext File System > Server Configuration	Creates or modifies a StorNext file system configuration by changing the selected **file_system_name.cfg** file. This utility is only available on the server where the StorNext FS software is loaded.
StorNext File System Disk Labeler Start > All Programs > StorNext File System > Disk Device Labeler	Labels disk devices for use with a StorNext file system.
StorNext File System Client Properties Start > All Programs > StorNext File System > Client Configuration	Modifies the StorNext file system client configuration files.
Start StorNext File System Services Start > All Programs > StorNext File System > Start File System Services	Starts up the background services needed by StorNext system. Starts all file systems configured for auto-start.
Stop StorNext File System Services Start > All Programs > StorNext File System > Stop File System Services	Stops all StorNext file systems and shuts down background services needed by StorNext FS.

Quantum.