

Hewlett Packard
Enterprise

HPE StoreVirtual OS CLI Reference Guide

Part Number: 865545-002a
Published: March 2017
Edition: 2

© 2016, 2017 Hewlett Packard Enterprise Development LP

Notices

The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Confidential computer software. Valid license from Hewlett Packard Enterprise required for possession, use, or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Links to third-party websites take you outside the Hewlett Packard Enterprise website. Hewlett Packard Enterprise has no control over and is not responsible for information outside the Hewlett Packard Enterprise website.

Acknowledgments

Microsoft® and Windows® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Contents

Overview..... 6

Accessing the CLI..... 6
Concurrent CLI commands..... 6
Unlisted or support-only commands..... 6
Global parameters..... 6
Syntax..... 7
Disallowed characters in credentials..... 8
Command line conventions..... 9
Integrated command shell..... 9
Return codes..... 10

Commands..... 18

assignVolumeChap..... 18
assignVolumeToServer..... 18
cancelRemoteSnapshot..... 19
clearAlertsPolicy..... 20
clearDnsInfo..... 20
clearEmailServerInfo..... 20
clearSnmpNotifyPolicy..... 21
clearSnmpServiceInfo..... 21
cloneSnapshot..... 21
convertSnapshotTempSpace..... 22
createAdminGroup..... 22
createAdminUser..... 23
createCluster..... 24
createEmailNotifyPolicy..... 25
createGroup..... 26
createRemoteAssociation..... 27
createRemoteSnapshot..... 27
createServer..... 29
createSnapshot..... 31
createSnapshotSchedule..... 31
createSnmpCommunityString..... 33
createSnmpTrapTarget..... 34
createSyslogNotifyPolicy..... 35
createVolume..... 35
deleteAdminGroup..... 37
deleteAdminUser..... 37
deleteCluster..... 37
deleteEmailNotifyPolicy..... 38
deleteGroup..... 38
deleteRemoteAssociation..... 39
deleteServer..... 39
deleteSnapshot..... 40
deleteSnapshotSchedule..... 41
deleteSnapshotTempSpace..... 41
deleteSnmpCommunityString..... 42
deleteSnmpTrapTarget..... 42
deleteSyslogNotifyPolicy..... 43

deleteVolume 43
discoverTcp 44
discoverUdp 44
getClusterInfo 45
getDnsInfo 46
getEventLog 46
getGroupInfo 47
getNotificationPolicy 49
getNsmInfo 50
getPerformanceStats 50
getRemoteSnapshotInfo 51
getServerCapabilities 52
getServerInfo 52
getServerJobInfo 53
getServerVolumeInfo 55
getSnapshotInfo 55
getSnapshotScheduleInfo 56
getSnmpInfo 57
getVolumeInfo 58
getVolumeControllingServer 59
help 59
makePrimary 60
makeRemote 60
modifyAdminGroup 61
modifyAdminUser 62
modifyCluster 62
modifyEmailNotifyPolicy 64
modifyGroup 65
modifyRemoteAssociation 66
modifyRemoteSnapshotSchedule 67
modifyServer 67
modifySnapshot 69
modifySnapshotSchedule 70
modifySnmpCommunityString 71
modifySnmpTrapTarget 71
modifySyslogNotifyPolicy 72
modifyVolume 73
recoverQuorum 74
rollbackSnapshot 75
setAlertsPolicy 75
setDnsInfo 76
setEmailServerInfo 76
setSnmpNotifyPolicy 77
setSnmpServiceInfo 78
setSupportLogin 78
setTraceOff 79
setTraceOn 79
shutdownNsm 79
startManager 80
startSnmpService 80
stopManager 80
stopSnmpService 81
testCredentials 81
unassignVolumeToServer 81
utility 82
waitForEvent 83
waitForUpdate 83

Troubleshooting 85
Creating and exporting volumes using the CLI is slow 85
The `createCluster` command fails with a time-out message 85
Server commands may not store name and target secret 85
The CLI command `createGroup` sometimes stalls 86
The CLI command `assignVolumeChap` fails with an error message 87
Using the CLI to create a remote snapshot fails 87
No logs returned when system= parameter is used with `geteventlog` command 88
The `getnsminfo` CLI command displays incorrect speed 88

Websites 89

Support and other resources 90
Accessing Hewlett Packard Enterprise Support 90
Accessing updates 90
Customer self repair 90
Remote support 91
Warranty information 91
Regulatory information 91
Documentation feedback 92

Warranty and regulatory information 93
Warranty information 93
Regulatory information 93
Belarus Kazakhstan Russia marking 93
Turkey RoHS material content declaration 94
Ukraine RoHS material content declaration 94

Overview

The StoreVirtual OS command-line interface (CLI) is built upon the API released with StoreVirtual OS version 13.5. You can develop your own automation, scripting and management using the CLI.

For instructions about using the CLI, see **Syntax** on page 7.

The **Global parameters** on page 6 section describes functionality that applies to the entire CLI and includes commands to customize global operations.

NOTE:

The StoreVirtual 3200 CLI (version 13.5) is not compatible with older versions of the StoreVirtual 4000 CLI (version 12.x or earlier).

Accessing the CLI

To access the CLI, connect directly to the StoreVirtual storage system through SSH. To log in, enter the storage system IP address and the designated port of 16022, as shown in the following example:

```
ssh –p 16022 -l <user> <storage system IP>
```

Concurrent CLI commands

No more than five concurrent commands from distinct users should be sent to a single storage system. Users can experience timeouts and performance declines with the sixth concurrent command. For example, CLI commands from users Sue, Bob, Jim, Alan, and Les can be received and serviced by a single storage system simultaneously. However, adding a sixth simultaneous command from Steve could result in a timeout or performance decline for any of the users.

More than five simultaneous commands can be achieved by distributing CLI sessions across each storage system in a management group. For example, in a three-node management group, six unique users can simultaneously send commands by distributing them as follows:

- Sue and Bob send commands to StorageSystem–1
- Jim and Alan send commands to StorageSystem–2
- Les and Steve send commands to StorageSystem–3

Unlisted or support-only commands

This guide only includes commands for supported features and that are available for customer use. However, if you use the help command to list all commands, you will see commands in the CLI help that are not listed in this document. These commands are intended for support personnel only or are for features that are not yet supported. If you attempt to use any of these commands, you may see an error message or the command may appear to execute successfully but nothing happens. Hewlett Packard Enterprise strongly recommends that you only use the commands listed in this guide.

Global parameters

prompt=<true | false>

Some commands prompt before proceeding. This default behavior can be turned off by specifying `prompt=false`.

output=<XML | Normal>

In the default case, the CLI returns information to standard output, formatted in a way that is easy to read rather than easy to parse. The XML setting returns all output information as an XML document, allowing easier parsing of the result. There is no guarantee that newer versions of the API will preserve the same formatting in the default case. It is strongly discouraged to use this form of the CLI programmatically. Use the XML output type if the output must be parsed.

separator=<c>

Some CLI parameters comprise parameters for multiple operations. For example, when using the `snapshotVolumes` command, the user can specify simultaneous snapshots of multiple volumes. In this scenario, some parameters specify an ordered list that apply to each snapshot in succession:

```
description="This applies to snapshot1;This applies to snapshot2"
```

The default separator character is a semicolon (;). If a semicolon is used in the body of a parameter, you can use a different character as the separator (such as a comma).

Syntax

The CLI specifies parameters in the form of parameter=<parameter> (specification), rather than dictating a particular order (positional) notation.

Parameter ordering

The order of parameters is not specified. For example, the following are equivalent commands that perform the same task:

```
cliq deleteVolume volumeName=theVolume userName=user passWord=secret
login=10.1.2.3
```

```
cliq deleteVolume login=10.1.2.3 passWord=secret userName=user
```

The method parameter may be optionally specified as "method=<command>":

```
cliq userName=user passWord=secret login=10.1.2.3 volumeName=theVolume
method=deleteVolume
```

Case sensitivity

All commands and parameter names are case-insensitive. For example, `createVolume`, `CreateVolume`, and `CREATEVOLUME` are all the same command. In some cases, parameter values, while not sensitive, are case significant as the system will preserve the case specified. For example, the description parameter value in the `createVolume` command preserves the case specified by the caller, and imposes this on the newly created volume.

True/False

Any parameter that indicates true/false, may be specified as "1|0" or "true|false".

Command abbreviation

There is no command or parameter abbreviation in the CLI when scripted. All commands and parameter names must be fully specified. This is to prevent ambiguity in legacy scripts if new commands or parameters are added.

Composite commands

Some commands take multiple elements for the parameter value. In this case, the parameter is interpreted as an delimiter-separated ordered list. For example:

```
volumeName=volume1;volume2
```

```
login=10.0.1.2;10.1.2.3;10.2.3.4
```

If a parameter contains fewer elements in the list than needed for the composite command, the last one in the list will be repeated. There must be at least one element in the list, if it's required.

Size specification

When volume sizes or thresholds are specified, the format is <size><units>, where units are:

- KB—kibibytes (2^10)
- MB—mebibytes (2^20)
- GB—gibibytes (2^30)
- TB—tebibytes (2^40)
- PB—pebibytes (2^50)

There is no default for size units; the units must be specified. These are defined as International System of Units (SI) for file storage (popular use).

For example, size:

- 1 MB—1,048,576 bytes
- 10 GB—10,737,418,240 bytes

DNS names

You can specify a manager using a host name, provided it can be resolved by DNS:

```
cliq getGroupInfo login=Exchange-1 username=admin password=secret
```

Disallowed characters in credentials

If an administrative user name or password uses characters in the StoreVirtual Management Console (SVMC) that are not allowed in the CLI, CLI commands that use those credentials will not succeed. To resolve this issue, do one of the following:

- Change the existing credentials in the SVMC to use characters allowed in both the SVMC and CLI.
- Create a new administrative user/group that only uses characters permitted by the SVMC and CLI and use that user/group for the CLI commands.

Disallowed characters in the SVMC credentials
Dot (‘.’)
Colon (‘:’)
Forward slash (‘/’)
Comma (' , ')
Backward slash ('\')
Semi-colon (';')
Single-quote (' ' ')
Additional characters disallowed in the CLI
Equal sign (‘=’)
Double quotes (‘ " ‘)

Command line conventions

Symbol	Description
|	Used to separate input options. For example, `{userName= passWord= | groupName=}` means that you enter `userName` with the `passWord` or the `groupName` parameter.
{ }	Denotes a required parameter. For example, `{login}` must be specified.
[ ]	Denotes an optional parameter. For example, `[namePrefix]` is an optional input.
italic	Denotes a replaceable parameter. For example, parameter *`volumeName`* is the name of the volume.

Integrated command shell

The CLI has an integrated shell that is executed by default when connecting directly to a storage system without any parameters:

```
HPE StoreVirtual LeftHand OS Command Line Interface, vxx.x.xx.xxxx
(C) Copyright 20xx-20xx Hewlett Packard Enterprise Development LP
(type exit to quit)

CLIQ>
```

The integrated shell supports rich command line editing features specific to the StoreVirtual API. The following editing keys are supported:

Key	Meaning
LEFT	Moves the cursor one space to the left.
RIGHT	Moves the cursor one space to the right.
BACKSPACE	Deletes the character under the cursor and moves the cursor to the left.
DELETE	Deletes the character under the cursor.
UP	Recalls the previous command entered.
DOWN	Recalls the first command entered.

Table Continued

Key	Meaning
HOME	Moves the cursor to the beginning of the line.
END	Moves the cursor to the end of the line.
ESCAPE	Clears the current command line.
INSERT	Toggles between insert mode (the default) and overwrite mode.
TAB	Completes the command. If the command method is not yet fully resolved, repeated TAB keys will cycle through the possible command methods (SHIFT+TAB will cycle in reverse). If the method is fully resolved, then parameters associated with that command will be proposed. The parameters suggested start with those required for the command, followed by optional parameters. No mutually exclusive parameters will be suggested.
!#	Recalls the command from the previous command list by number (for example, !3 will recall the third command from the command list).

Return codes

All commands return an XML response containing a 32-bit result code, and a description of the result. Example:

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<gauche version="1.0">
<response description="Succeeded" result="0"/>
</gauche>
```

Success results are non-negative values, while negative values indicate an error. Many errors returned by StoreVirtual OS do not return ordinal values that can be conveniently mapped into an API and CLI return code. In all cases, the error description string is returned, but it is not feasible to return a sensible ordinate value (other than GaucheGeneralError) without parsing the description string.

Result	Value	OS Status	Description
CliqSuccess	0	0	Everything succeeded normally
CliqNothingDone	1	1	Operation has succeeded, but nothing was done (the system was already in the requested state).
CliqOperationPending	2	2	Operation has not failed, but is not yet complete. The "handle" parameter contains a value that can be used to query and cancel the operation.
CliqOperationAbandoned	3	3	Operation was cancelled or abandoned.
CliqNothingFound	4	4	Operation found no objects.

Table Continued

Result	Value	OS Status	Description
CliqSnapshotSet	5	5	This snapshot was a part of the snapshot set.
CliqVssSnapshotWarning	6	6	Warning: The writer operation failed.
CliqPITSnapshotWarning	7	7	Warning: Point in time snapshot is created.
CliqParameterIgnored	8	8	The operation succeeded but a parameter was ignored as it is not applicable.
CliqUnexpected	0x80001001	128	An unexpected error has occurred.
CliqXmlError	0x80001002	129	The XML given is not well-formed.
CliqParameterFormat	0x80001003	130	The parameter is not specified correctly.
CliqParameterRepeat	0x80001004	131	A parameter is repeated.
CliqMissingMethod	0x80001005	132	The command method is missing.
CliqMissingParameter	0x80001006	133	One or more expected parameters are missing.
CliqUnrecognizedCommand	0x80001007	134	This command is unrecognized.
CliqUnrecognizedParameter	0x80001008	135	This parameter is unrecognized.
CliqIncompatibleParameters	0x80001009	136	Two or more parameters supplied are incompatible with each other.
CliqNotYetImplemented	0x8000100A	137	This is a legal command, but it has not been implemented yet.
CliqNoMemory	0x8000100B	138	Out of memory.
CliqVolumeNotFound	0x8000100C	139	Could not find the requested volume.
CliqVolumeInUse	0x8000100D	140	The requested volume is in use.
CliqVolumeInitFailure	0x8000100E	141	Volume initialization failed.
CliqUnrecognizedVolume	0x8000100F	142	The volume is an unrecognized type.
CliqOperationFailed	0x80001010	143	General StoreVirtual OS error - the operation failed.
CliqCredentialsFailed	0x80001011	144	The supplied credentials are incorrect.
CliqInvalidParameter	0x80001012	145	Invalid parameter.
CliqObjectNotFound	0x80001013	146	Object not found.
CliqConnectionFailure	0x80001014	147	Failed to connect to the API server.

Table Continued

Result	Value	OS Status	Description
CliqNotEnoughSpace	0x80001015	148	Not enough space to complete the command.
CliqNoManager	0x80001016	149	Could not find a manager.
CliqSocketError	0x80001017	150	Network socket error.
CliqOperationTimedOut	0x80001018	151	Operation exceeded the specified timeout.
CliqNoPlatformSupport	0x80001019	152	This operating system type does not support the operation.
CliqNoPlatformSupport	0x8000101A	153	This operating system version does not support the operation.
CliqUtilityNotFound	0x8000101B	154	The utility command requested was not found.
CliqUtilityNotAllowed	0x8000101C	155	The utility command requested is not in the allowed list.
CliqUtilityIllegalParameter	0x8000101D	156	The utility command contains unsupported parameters or redirection.
CliqUtilityFailed	0x8000101E	157	The utility command executed, but returned a non-zero status code.
CliqNodeNotFound	0x8000101F	158	The specified storage system cannot be found.
CliqIllegalUsername	0x80001020	159	The username must be 3–40 characters, starting with a letter.
CliqIllegalPassword	0x80001021	160	The password must be 5–40 characters, not / or : .
CliqFileError	0x80001022	161	General file error.
CliqMissingInitiator	0x80001023	162	No iSCSI initiator found.
CliqInitiatorStopped	0x80001024	163	The iSCSI initiator is not running.
CliqSanIqTooOld	0x80001025	164	The version of StoreVirtual OS software must be upgraded.
CliqDefaultAdmin	0x80001026	165	You cannot delete, modify permissions, or remove the last user from the default administration group.
CliqVssProviderNotInstalled	0x80001027	166	The StoreVirtual VSS Provider is not installed.

Table Continued

Result	Value	OS Status	Description
CliqVssProviderNotRunning	0x80001028	167	The StoreVirtual VSS Provider is not running.
CliqVolumeNoSessions	0x80001029	168	Cannot create an application-managed snapshot because there are no iSCSI connections associated with this volume. To create application-managed snapshots, there must be at least one application server associated with the volume via an iSCSI connection. The volume must be connected to a VSS-enabled server.
CliqVolumeMultipleSessions	0x8000102A	169	Cannot create an application-managed snapshot because there is more than one IQN (iSCSI Qualified Name) associated with this volume. To create application-managed snapshots, there must be only one application server associated with the volume.
CliqNoVssCapabilities	0x8000102B	170	Cannot create an application-managed snapshot because the server does not support this capability.
CliqServerUnresponsive	0x8000102C	171	Cannot create an application-managed snapshot because the system could not communicate to the necessary software component on the application server.
CliqVssSnapshotFailed	0x8000102D	172	Cannot create an application-managed snapshot because the system could not quiesce the application associated with this volume.
CliqVssLunInfoFailed	0x8000102E	173	Cannot create an application-managed snapshot because the system failed to get LUN data.
CliqVssWriterUnavailable	0x8000102F	174	The VSS writer operation failed.
CliqSnapshotInProgress	0x80001030	175	Another app-managed snapshot is in progress.
CliqUpdateVssProvider	0x80001032	177	This version of VSS provider must be upgraded.
CliqVssOperationTimedOut	0x80001033	178	VSS operation timed out.
CliqVolumeConnectionFailure	0x80001034	179	Volume connection failure.
CliqServerInCluster	0x80001035	180	Server is in Cluster and cannot be changed via CliQ.
CliqVolumeError	0x80001036	181	Volume error.
CliqVolumeNoServer	0x80001037	182	Failed to contact Application Aware Snapshot Manager.

Table Continued

Result	Value	OS Status	Description
CliqUnsupportedApplication	0x80001038	183	This application is not supported.
CliqServerVersionMismatch	0x80001039	184	Server version is not compatible.
CliqSnapshotNameExists	0x8000103A	185	The snapshot with this name already exists.
CliqVolumeInvalidSet	0x8000103B	186	Invalid volume set.
CliqNoVirtualManager	0x8000103C	187	A Virtual Manager was not found.
CliqIllegalUserGroupName	0x8000103D	188	User group name must be 3–40 characters a–z, 0–9, – or . ; the first character must be a lowercase letter (a-z).
CliqIllegalUserDescription	0x8000103E	189	Username must be 3–40 characters A–., a–z, 0–9, – or . ; the first character must be a letter (A–. or a-z).
CliqIllegalIQN	0x8000103F	190	IQN must be letters or numbers or the . or : characters.
CliqIllegalWWN	0x80001040	191	WWN must be 16 Hex letters or numbers (A-F, 0-9) or the : character.
CliqHbaError	0x80001041	192	HBA status error.
CliqHbaNotSupported	0x80001042	193	HBA function not supported.
CliqHbaInvalidHandle	0x80001043	194	HBA function, invalid handle.
CliqHbaInvalidArgument	0x80001044	195	HBA function, bad argument.
CliqHbaIllegalWWN	0x80001045	196	WWN not recognized.

Table Continued

Result	Value	OS Status	Description
CliqHbaIllegalIndex	0x80001046	197	HBA function, Index not recognized.
CliqHbaMoreData	0x80001047	198	HBA function, larger buffer required.
CliqHbaStaleData	0x80001048	199	Information has changed since the last call to HBA.RefreshInformation.
CliqHbaScsiCheckCondition	0x80001049	200	SCSI Check Condition reported.
CliqHbaBusy	0x8000104A	201	Adapter busy or reserved, retry may be effective.
CliqHbaTryAgain	0x8000104B	202	Request timed out, retry may be effective.
CliqHbaUnavailable	0x8000104C	203	Referenced HBA has been removed or deactivated.
CliqHbaElsReject	0x8000104D	204	The requested ELS was rejected by the local adapter.
CliqHbaInvalidLun	0x8000104E	205	The specified LUN is not provided by the specified adapter.
CliqHbaIncompatible	0x8000104F	206	An incompatibility has been detected among the library and driver modules invoked which will cause one or more functions in the highest version that all support to operate incorrectly.
CliqHbaAmbitiousWWN	0x80001050	207	Multiple adapters have a matching WWN. This could occur if the NodeWWN of multiple adapters is identical.
CliqHbaLocalBus	0x80001051	208	A persistent binding request included a bad local SCSI bus number.
CliqHbaLocalTarget	0x80001052	209	A persistent binding request included a bad local SCSI target number.
CliqHbaLocalLun	0x80001053	210	A persistent binding request included a bad local SCSI logical unit number.
CliqHbaLocalScsiIdBound	0x80001054	211	A persistent binding set request included a local SCSI ID that was already bound.
CliqHbaTargetFcId	0x80001055	212	A persistent binding request included a bad or unlocatable FCP Target FCID.
CliqHbaTargetNodeWWN	0x80001056	213	A persistent binding request included a bad FCP Target Node WWN.
CliqHbaTargetPortWWN	0x80001057	214	A persistent binding request included a bad FCP Target Port WWN.

Table Continued

Result	Value	OS Status	Description
CliqHbaTargetLun	0x80001058	215	A persistent binding request included an FCP Logical Unit Number not defined by the identified Target.
CliqHbaTargetLuid	0x80001059	216	A persistent binding request included an undefined or otherwise inaccessible Logical Unit Unique Identifier.
CliqHbaNoSuchBinding	0x8000105A	217	A persistent binding remove request included a binding which did not match a binding established by the specified port.
CliqHbaNotTarget	0x8000105B	218	A SCSI command was requested to an Nx.Port that was not a SCSI Target Port.
CliqHbaUnsupportedFc4	0x8000105C	219	A request was made concerning an unsupported FC-4 protocol.
CliqHbaIncapable	0x8000105D	220	A request was made to enable unimplemented capabilities for a port.
CliqHbaTargetBusy	0x8000105E	221	A SCSI function was requested at a time when issuing the requested command would cause a SCSI overlapped command condition (see SAM-3).
CliqHbaNotLoaded	0x8000105F	222	A call was made to HBA.FreeLibrary when no library was loaded.
CliqHbaAlreadyLoaded	0x80001060	223	A call was made to HBA.LoadLibrary when a library was already loaded.
CliqHbaIllegalFcid	0x80001061	224	The Address Identifier specified in a call to HBA.SendRNIDV2 violates access control rules for that call.
CliqHbaAscsiDevice	0x80001062	225	SCSI device.
CliqHbaInvalidProtocolTyp e	0x80001063	226	Invalid protocol.
CliqHbaBadEventType	0x80001064	227	Bad event type.
CliqMissingCIMProperty	0x80001065	228	An expected CIM property value was not found.
CliqSANiQFeatureNotSup ported	0x80001066	229	The requested feature or operation is not supported.
CliqParameterDeprecated	0x80001067	230	The '%s' parameter has been deprecated.
CliqNodeNotInGroup	0x80001068	231	Node must be in a management group.

Table Continued

Result	Value	OS Status	Description
CliqRemoteSnapshotNotFound	0x80001069	232	The snapshot was not found.
CliqMultipleIPAddresses	0x8000106A	233	Multiple IP addresses were encountered.
CliqUnsupportedFC	0x8000106B	234	This command is not supported for Fibre Channel.
CliqVolumeNotMounted	0x8000106C	235	The volume is not mounted on a server.
CliqLastAdminUser	0x8000106F	238	You cannot delete the last user who is in a fully-permissioned group.
CliqOperationNotPermitted	0x80001070	239	The attempted operation is not permitted.
CliqUnsupportedParameter	0x80001071	240	A supplied parameter is unsupported on this management group.
CliqVSSInvalidBackupDoc	0x80001072	241	The backup document file path is invalid.
CliqCredentialsMissing	0x80001073	242	Management group login credentials are not in the credential cache on the controlling server.
CliqSizeTooLarge	0x80001074	243	The requested size is too large.

Commands

assignVolumeChap

Description

Assign a volume to a server. This assignment sets the access to a volume, using CHAP authentication.

Syntax

```
assignVolumeChap volumeName= targetSecret= [namePrefix=] [accessRights=]
[chapName=] [initiatorSecret=] [vipLoadBalance=] [exclusiveAccess=]
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.
targetSecret	The CHAP target secret for the volume.
namePrefix	A prefix string for newly created objects. A unique number value will be concatenated to this prefix to guarantee name uniqueness.
accessRights	The access rights to the volume. Value are r—Read-only, x—No access, and rw—Read-write (default).
chapName	The CHAP name for the volume. If this is not specified, the IQN of the local server is used (this parameter is required if run on a storage system).
initiatorSecret	The CHAP initiator secret for the volume.
vipLoadBalance	Use VIP load balancing for this host. Values are 0—Disabled and 1—Enabled. The default value is 1.
exclusiveAccess	Remove any previous server access rights to this volume. Values are 0—Disabled and 1—Enabled. The default value is 1.

Example

```
assignVolumeChap volumeName=TheVolume targetSecret=ItsASecret
```

assignVolumeToServer

Description

Assign a volume to a server (use for either iSCSI or Fibre Channel).

Syntax

```
assignVolumeToServer volumeName= serverName= [accessRights=] [transport=]
[lun=]
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.
serverName	The name of the server.
accessRights	The access rights to the volume. Values are r—Read-only, x—No access, and rw—Read-write (default).
transport	Set the communication path to iSCSI or Fibre Channel. Values are iSCSI and FC. Lowercase is accepted.
lun	Set the LUN for the Fibre Channel or MultiLUN attached volume. The value can be 1-255. **NOTE:** LUN 255 is not supported by Microsoft Windows.

Example

```
assignVolumeToServer volumeName=TheVolume serverName=TheServer
```

cancelRemoteSnapshot

Description

Cancel a remote snapshot.

Syntax

```
cancelRemoteSnapshot  snapshotName=
```

Parameters

Name	Description
snapshotName	The name of the remote snapshot.

Example

```
cancelRemoteSnapshot snapshotName=TheSnapshot
```

clearAlertsPolicy

Description

Clear the Alerts and Events Policy information.

Syntax

```
clearAlertsPolicy
```

Parameters

None

Example

```
clearAlertsPolicy
```

clearDnsInfo

Description

Clear the DNS settings.

Syntax

```
clearDnsInfo
```

Parameters

None

Example

```
clearDnsInfo
```

clearEmailServerInfo

Description

Clear the e-mail server settings.

Syntax

```
clearEmailServerInfo
```

Parameters

None

Example

```
clearEmailServerInfo
```

clearSnmpNotifyPolicy

Description

Clear the SNMP Notification Policy settings.

Syntax

```
clearSnmpNotifyPolicy
```

Parameters

None

Example

```
clearSnmpNotifyPolicy
```

clearSnmpServiceInfo

Description

Clear the SNMP Server information.

Syntax

```
clearSnmpServiceInfo
```

Parameters

None

Example

```
clearSnmpServiceInfo
```

cloneSnapshot

Description

Create one or more SmartClone volumes from a StoreVirtual snapshot. These SmartClone volumes have all the functionality of normal volumes.

Syntax

```
cloneSnapshot  snapshotName= volumeName= [description=]
```

Parameters

Name	Description
snapshotName	The name of the remote snapshot.
volumeName	The name of the volume in the management group.
description	Optional description

Example

```
cloneSnapshot snapshotName=Snapshot1 volumeName=MyClone1;MyClone2
```

convertSnapshotTempSpace

Description

Convert snapshot temporary space to a volume.

Syntax

```
convertSnapshotTempSpace  volumeName= snapshotName=
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.
snapshotName	The name of the remote snapshot.

Example

```
convertSnapshotTempSpace snapshotName=MySnapshot volumeName=NewVolume
```

createAdminGroup

Description

Create an administrative group.

Syntax

Parameters

Name	Description
`adminGroupName`	The administrative group name.
`description`	Optional description
`adminUserName`	Specifies the users that this group comprises.
`permissions`	Permissions for the group. This is a character sequence specifying the allowable permissions in the following order: Group, Network, Storage System, Report. The Password permissions are subsumed by the Group permissions. For each group, the allowable permissions are: r—Read-only and f—Full-access (Report does not support this). The allowable values are `rrrr` and `fffr`. **NOTE:** If not specified, the permissions are set to `rrrr`.

Example

```
createAdminGroup description="My shiny new group" adminGroupName=powerusers
adminUserName=user1;user2 permissions=ffffr
```

createAdminUser

Description

Create an administrative user.

Syntax

```
createAdminUser  adminUserName= adminPassWord= [description=] adminGroupName=
```

Parameters

Name	Description
`adminUserName`	Specifies the users that this group comprises.
`adminPassWord`	The password for the administrative user.

Table Continued

Name	Description
description	Optional description
adminGroupName	The administrative group name.

Example

```
createAdminUser description="My shiny new user" adminUserName=user
adminPassWord=secret adminGroupName="Full Administrator"
```

createCluster

Description

Create a cluster in a management group.

Syntax

```
createCluster  clusterName= node= [description=] [useVip=] [vip=]
[SpaceReclaimWarn=] [SpaceReclaimCrit=]
```

Parameters

Name	Description
clusterName	The name of the cluster.
node	The node name or IP address, or DNS-resolvable node name , of the storage system.
description	Optional description
useVip	Use virtual IP (VIP) addressing. Values are 0 or 1 (default).
vip	A delimited list of virtual IP address or DNS-resolvable name and subnet mask. **NOTE:** Since each VIP contains two parameters, IP address and subnet mask, both must be specified in order, even if empty. If multiple VIPs are entered, they must be on different subnets.

Table Continued

Name	Description
SpaceReclaimWarn	Sets the percentage of allocated pages that will trigger a warning to the host that storage system space is almost full. The default is 90.
SpaceReclaimCrit	Sets the percentage of allocated pages that will trigger an alarm to the host that storage system space is critical. The default is 95. Once the alarm threshold is reached, no writes can be performed.

Example

```
createCluster clusterName=TheCluster description="My shiny new cluster"
useVip=1 node=10.1.2.4
vip=10.1.2.99;255.255.0.0;150.215.017.009;255.255.240.0
```

createEmailNotifyPolicy

Description

Configure which level of events from the management group are sent via email to the designated recipients.

Syntax

```
createEmailNotifyPolicy  email= [verbosity=] {alertOnInfo= | alertOnWarning=
| alertOnCritical=} [emailLocale=]
```

Parameters

Name	Description
email	The email address of the recipient.
verbosity	The level of returned information via email notification. Values are 1—Brief, 2—Standard, and 3—Verbose.
alertOnInfo	Values are 0—Email will not be sent on informational events, warning events, and critical events and 1—Email will be sent for informational events, warning events, and critical events. The default is 0 for `createEmailNotifyPolicy`. Either `alertOnInfo`, `alertOnWarning`, or
alertOnWarning	

Table Continued

Name	Description
alertOnCritical	alertOnCritical must be specified or the command will be rejected.
emailLocale	English (default), Chinese, Japanese, Korean, Spanish

Example

```
createEmailNotifyPolicy email=myemail@myhost.com alertOnWarning=1
```

createGroup

Description

Create a new management group. This command may take several minutes to complete.

Syntax

```
createGroup groupName= node= groupName= userName= passWord= [multilun=]
```

Parameters

Name	Description
node	The node name or IP address, or DNS resolvable node name, of the storage system. **NOTE:** StoreVirtual 3200 systems cannot be in the same group as StoreVirtual 4000 systems.
groupName	The name of the management group.
userName	The authentication user name for the storage system. This is the initial full administrator user on the StoreVirtual 3200 Storage system.
passWord	The password for the storage system.
multilun	Enable multiple LUNs per target mode. Values are 0 or 1 (default).

Example

```
createGroup groupName="MG2" node=10.1.2.3 userName=admin passWord=secret
```

createRemoteAssociation

Description

Create a remote group-to-primary group association. This association is done automatically when a remote snapshot is created, so this command is not usually needed.

Syntax

```
createRemoteAssociation  remote= [remoteUserName=] [remotePassWord=]
[primaryBandwidth=] [remoteBandwidth=] [remotegroupname=]
```

Parameters

Name	Description
remote	The IP address or DNS-resolvable names of one or more remote storage system.
remoteUserName	The authentication user name for the remote group.
remotePassWord	The password for the remote group.
primaryBandwidth	The bandwidth used in a copy from the primary group to the remote group. Values are: • Kb—Kilobits/sec (1000 Bits/second) • Mb—Megabits/sec (1000 Kilobits/second) • Gb—Gigabits/sec (1000 Megabits/second)
remoteBandwidth	The bandwidth used in a copy from the remote group to the primary group. Values are: • Kb—Kilobits/sec (1000 Bits/second) • Mb—Megabits/sec (1000 Kilobits/second • Gb—Gigabits/sec (1000 Megabits/second)

Example

```
createRemoteAssociation remote=10.0.1.3 remoteUserName=admin
remotePassWord=secret primaryBandwidth=10Mb remoteBandwidth=10Mb
```

createRemoteSnapshot

Description

Create a remote snapshot of a StoreVirtual volume.

Syntax

```
createRemoteSnapshot  remote= [remoteUserName=] [remotePassWord=]
primarySnapshot= remoteCluster= remoteVolume= remoteSnapshot= [description=]
[primaryBandwidth=] [remoteBandwidth=]
```

Parameters

Name	Description
remote	The IP address or DNS-resolvable names of one or more remote storage system
remoteUserName	The authentication user name for the remote group.
remotePassWord	The password for the remote group.
primarySnapshot	The name of the local snapshot to remote copy.
remoteCluster	The name of the remote cluster to host the remote volume.
remoteVolume	The name of the remote volume to host the snapshot.
remoteSnapshot	The name of the remote snapshot to create.
description	Optional description.
primaryBandwidth	The bandwidth used in a copy from the primary group to the remote group. Values are: • Kb—Kilobits/sec (1000 Bits/second) • Mb—Megabits/sec (1000 Kilobits/second) • Gb—Gigabits/sec (1000 Megabits/second)
remoteBandwidth	The bandwidth used in a copy from the remote group to the primary group. Values are: • Kb—Kilobits/sec (1000 Bits/second) • Mb—Megabits/sec (1000 Kilobits/second) • Gb—Gigabits/sec (1000 Megabits/second)

Example

```
createRemoteSnapshot primarySnapshot=Snapshot0 remoteSnapshot=Snapshot0
```

```
remoteVolume=Volume0 description="Exchange DB-1" remote=10.1.2.4
remoteUserName=admin remotePassWord=secret remoteCluster="10.0.1.21"
```

createServer

Description

Create a representation of a client server in a management group. This “server” can be associated with iSCSI or Fibre Channel initiators and be granted access to volumes.

Syntax

```
createServer  serverName= [description=] [allowiSCSIAccess=]
[vipLoadBalance=] [useCHAP=] [initiator=] [targetSecret=] [chapName=]
[initiatorSecret=] [controllingserver=] [allowfcaccess=] [wwpn=]
[bootvolumelun=] [bootvolumename=]
```

Parameters

Name	Description
serverName	The name of the server.
description	Optional description
allowiSCSIAccess	Allow iSCSI access for this host. Values are 0—Disable and 1—Enable. If volumes are attached to a client server via iSCSI and a value of 0 is entered, the client server will lose its ability to communicate with the attached volumes. If an IQN is entered and Fibre Channel is NOT configured, the default will be 1, otherwise no default will be selected.
vipLoadBalance	Use VIP load balancing for this host. Values are 0—Disabled and 1—Enabled. The default value is 1.
useCHAP	Use CHAP Authentication for this host. Values are 0—Disabled and 1—Enabled.
initiator	A semicolon delimited string of host IQNs. Valid characters are any letter, number, international character or the - , . , and : characters.
targetSecret	The CHAP target secret for the volume.

Table Continued

Name	Description
chapName	The CHAP name for the volume. If this is not specified, the IQN of the local server is used (this parameter is required if run on a storage system).
initiatorSecret	The CHAP initiator secret for the volume.
controllingserver	Enter the IP address of the client server that has Application Aware Snapshot Manager (AASM) installed on it. It will coordinate the snapshot with the applications using SAN volumes. This is required for managed snapshots of Fibre Channel connected volumes. This is also required for VMware managed snapshots, enter the Virtual Center Server IP address.
allowfcaccess	Allow Fibre Channel ports to be assigned to the client. Values are 0—Disable and 1—Enable. If volumes are attached to a client server via Fibre Channel and a value of 0 is entered, the client will lose its ability to communicate with the attached volumes.
wwpn	A semicolon delimited list of the unique World Wide Port Name for one or more Fibre Channel ports. Expected WWPN formatting is 16 Hex characters with or without the : character as a delimiter (for example, 20:21:00:0E:B3:01:AB:C6 or 2021000EB301ABC6). Lower case hex characters a–f are also accepted.
bootvolumelun	The LUN (1–255) of the boot volume. Valid only for a Fibre Channel attached volume. If present, then bootvolumename must also be specified. **NOTE:** LUN 255 is not supported by Microsoft Windows.
bootvolumename	The volume name of the boot volume. Valid only for a Fibre Channel attached volume. If present, then bootvolumelun must also be specified.

Example

```
createServer serverName=TheServer useCHAP=0 initiator=iqn.
1991-05.com.microsoft:w-gregorio.corp.myworks.com
```

createSnapshot

Description

Create a snapshot of one or more StoreVirtual volumes.

Syntax

```
createSnapshot  volumeName= snapshotName= [description=] [inheritAccess=]
[managed=] [wait=]
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.
snapshotName	The name of the remote snapshot.
description	Optional description
inheritAccess	Values are 0—The snapshot will not inherit the volume list, authentication group, ACL relationships of the original volume (default) and 1—The snapshot will inherit the volume list, authentication group, ACL relationships of the original volume.
managed	Values are 0—The snapshot(s) will not attempt to use VSS on the host connected to the volume (default) and 1—The snapshot(s) will attempt to use VSS on the host connected to the volume.
wait	Determines whether to wait for the application managed snapshot process to complete or not. Values are 0—Do not wait and 1—Wait for it to complete (default).

Example

```
createSnapshot volumeName=volume0;volume1 snapshotName=snapshot0;snapshot1
```

createSnapshotSchedule

Description

Create a local or remote snapshot schedule.

Syntax

```
createSnapshotSchedule  volumeName= scheduleName= recurperiod= starttime=
[description=] [retentioncount=] [retentionseconds=] [remoteip=]
[remoteUserName=] [remotePassWord=] [remoteCluster=] [remoteVolume=]
[remoteretentioncount=] [remoteretentionseconds=] [managed=]
```

Parameters

Name	Description
`volumeName`	The name of the volume in the management group.
`scheduleName`	The name of the schedule
`recurperiod`	The recurrence frequency of the snapshots, specified in seconds. Period may be 0 to indicate the schedule never occurs, otherwise Period must be at least 1800 seconds (30 minutes).
`starttime`	The start time of the schedule. Specified as ISO 8601. Format is `YYYY-MM-DDTHH:MM:SSZ` . YYYY represents the year, MM is the month, DD is the day of the month, HH is the hour in 24 hour format, MM is the minutes, SS is the seconds. The time must always be expressed in UTC time.
`description`	Optional description
`retentioncount`	The number of snapshots to maintain. Must be between 1 and 50. Either `retentioncount` or `retentionseconds` must be specified.
`retentionseconds`	How long snapshots should be retained. Either `retentioncount` or `retentionseconds` must be specified.
`remoteip`	The IP address of the remote group.
`remoteUserName`	The authentication user name for the remote group.
`remotePassWord`	The password for the remote group.
`remoteCluster`	The name of the remote cluster to host the remote volume.
`remoteVolume`	The name of the remote volume to host the snapshot.

Table Continued

Name	Description

`remoteretentioncount`	The number of remote snapshots to maintain. Must be between 1 and 50. Either
	`remoteretentioncount`
	or
	`remoteretentionseconds`
	must be specified.

`remoteretentionseconds`	How long remote snapshots should be retained. Either
	`remoteretentioncount`
	or
	`remoteretentionseconds`
	must be specified.

`managed`	Values are 0—The snapshot(s) will not attempt to use VSS on the host connected to the volume (default) and 1—The snapshot(s) will attempt to use VSS on the host connected to the volume.

Example 1 (local snapshot schedule)

```
createSnapshotSchedule scheduleName="schedule0" description="First snapshot
schedule" starttime="2007-06-15T01:01:00Z" recurperiod="3600"
volumeName="volume0" remoteVolume="volume0" retentioncount=5"
```

Example 2 (remote snapshot schedule)

```
createSnapshotSchedule scheduleName="schedule0"
starttime="2014-12-09T15:03:00Z" recurperiod="1800" volumeName="volume0"
remoteVolume="volume0" retentioncount=5 remoteip="10.254.114.160"
remoteUserName="admin" remotePassWord="secret"


remoteCluster="Cluster_Name" remoteretentioncount=3
```

createSnmpCommunityString

Description

Create an SNMP community string. The community string must be the same for all. If no item exists, the community string is used, otherwise it is ignored and the community string of existing items is used. Either specify the IP address (IP address or host name) or an IP mask and IP subnet.

Syntax

```
createSnmpCommunityString  [communityString=] [ipAddress=] [ipMask=]
[ipSubnet=]
```

Parameters

Name	Description
communityString	The SNMP community string.
ipAddress	The IP address or host name of the SNMP server.
ipMask	An IP address mask for SNMP notification.
ipSubnet	An IP address subnet for SNMP notification.

Example

```
createSnmpCommunityString ipAddress=10.0.10.25 communityString=NewString
```

createSnmpTrapTarget

Description

Create an SNMP trap target. The community string must be the same for all trap targets. If no trap targets exist, the community string is used, otherwise it is ignored and the community string of existing trap targets is used.

Syntax

```
createSnmpTrapTarget ipAddress= version= communityString=
```

Parameters

Name	Description
ipAddress	The IP address or host name of the SNMP server.
version	The SNMP version. Values are 1—Version 1 and 2—Version 2.
communityString	The SNMP community string.

Example

```
createSnmpTrapTarget ipAddress=10.0.10.25 version=1
communityString=TrapString
```

createSyslogNotifyPolicy

Description

Create a Syslog Notification Policy.

Syntax

```
createSyslogNotifyPolicy ipAddress= {alertOnInfo= | alertOnWarning= |
alertOnCritical=}
```

Parameters

Name	Description
`ipAddress`	The IP address or host name of the Syslog server.
`alertOnInfo`	Values are 0—The log does not include informational events, warning events, and critical events and 1—The log includes informational events, warning events, and critical events. The default is 0 for `createSyslogNotifyPolicy`. Either `alertOnInfo`, `alertOnWarning`, or `alertOnCritical` must be specified or the command will be rejected.
`alertOnWarning`	
`alertOnCritical`	

Example

```
createSyslogNotifyPolicy ipAddress="10.0.10.25" alertOnCritical="1"
alertOnWarning=1
```

createVolume

Description

Create a SAN volume without connecting to a host.

CAUTION:

Enabling checksums may impact volume I/O performance.

Syntax

```
createVolume  volumeName= clusterName= size= [description=] [replication=]
[parity=] [checkSum=] [thinProvision=] [adaptiveOptimization=]
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.
clusterName	The name of the cluster.
size	The size of the volume, with units specified: • <n> KB – n Kibibytes (1024 bytes) • <n> MB – n Mebibytes (1024 Kilobytes) • <n> GB – n Gibibytes (1024 Megabytes) • <n> TB – n Tebibytes (1024 Gigabytes) • <n> PB – n Pebibytes (1024 Terabytes)
description	Optional description
replication	The replication level for the volume. Values are 1 and 2.
parity	The number of parity storage systems for the data on this volume. This enables parity network RAID on the volume. Replication and parity are supported in the following combinations: • replication:1, parity:0 Network RAID-0 (None) • replication:2, parity:0 Network RAID-10 (2-way Mirror)
checkSum	Values are 0—The volume does not use checksums and 1—The volume uses checksums.
thinProvision	Enable or disable thin provisioning. Values are 0—The volume does not use thin provisioning and 1—The volume is thin-provisioned (in a thinly provisioned volume, reserve may be < length).
adaptiveOptimization	Enable or disable adaptive optimization. Values are 0—Disable and 1—Enable. 1 is the default.

Example

```
createVolume volumeName=MyVolume clusterName=TheCluster size=100GB
description="Exchange DB-1"
```

deleteAdminGroup

Description

Delete an administrative group.

Syntax

```
deleteAdminGroup  adminGroupName=
```

Parameters

Name	Description
adminGroupName	The administrative group name.

Example

```
deleteAdminGroup adminGroupName=powerusers
```

deleteAdminUser

Description

Delete an administrative user. The last administrator user ID of the default administrative group cannot be removed.

Syntax

```
deleteAdminUser adminUserName=
```

Parameters

Name	Description
adminUserName	Specifies the users that this group comprises.

Example

```
deleteAdminUser adminUserName=user
```

deleteCluster

Description

Delete a cluster. All storage systems are removed.

Syntax

```
deleteCluster clusterName=
```

Parameters

Name	Description
clusterName	The name of the cluster.

Example

```
deleteCluster clusterName=TheCluster
```

deleteEmailNotifyPolicy

Description

Delete an Email Notification Policy. The designated recipient will no longer receive emails from management group alerts.

Syntax

```
deleteEmailNotifyPolicy email=
```

Parameters

Name	Description
email	The email address of the recipient.

Example

```
deleteEmailNotifyPolicy email=myemail@myhost.com
```

deleteGroup

Description

Delete a management group. All storage systems are removed.

CAUTION:

- This operation is irreversible.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
deleteGroup groupName=
```

Parameters

Name	Description
groupName	The name of the management group.

Example

```
deleteGroup groupName="MG2"
```

deleteRemoteAssociation

Description

Delete a remote group to primary group association.

Syntax

```
deleteRemoteAssociation remote= [remoteUserName=] [remotePassWord=]
```

Parameters

Name	Description
remote	The IP address or DNS-resolvable names of one or more remote storage system.
remoteUserName	The authentication user name for the remote group.
remotePassWord	The password for the remote group.

Example

```
deleteRemoteAssociation remote=10.0.1.3 remoteUserName=admin
remotePassWord=secret
```

deleteServer

Description

Delete a server.

CAUTION:

- This operation is irreversible.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
deleteServer serverName=
```

Parameters

Name	Description
serverName	The name of the server.

Example

```
deleteServer serverName=MyServer
```

deleteSnapshot

Description

Delete a snapshot.

CAUTION:

- This operation is irreversible.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
deleteSnapshot snapshotName=
```

Parameters

Name	Description
snapshotName	The name of the remote snapshot.

Example

```
deleteSnapshot snapshotName=Snapshot0
```

deleteSnapshotSchedule

Description

Delete a previously created snapshot schedule.

Syntax

```
deleteSnapshotSchedule scheduleName=
```

Parameters

Name	Description
scheduleName	The name of the schedule.

Example

```
deleteSnapshotSchedule scheduleName="Exchange Backup"
```

deleteSnapshotTempSpace

Description

Delete the snapshot temporary space.

CAUTION:

- This operation is irreversible.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
deleteSnapshotTempSpace snapshotName=
```

Parameters

Name	Description
snapshotName	The name of the remote snapshot.

Example

```
deleteSnapshotTempSpace snapshotName=TheSnapshot
```

deleteSnmpCommunityString

Description

Delete an SNMP community string. Either specify an IP address (as IP address or host name) or IP mask and IP subnet.

Syntax

```
deleteSnmpCommunityString [ipAddress=] [ipMask=] [ipSubnet=]
```

Parameters

Name	Description
ipAddress	This is the IP address or host name of the SNMP server.
ipMask	An IP address mask for SNMP notification.
ipSubnet	An IP address subnet for SNMP notification.

Example

```
deleteSnmpCommunityString ipAddress=10.0.10.25
```

deleteSnmpTrapTarget

Description

Delete an SNMP trap target.

Syntax

```
deleteSnmpTrapTarget ipAddress= version=
```

Parameters

Name	Description
ipAddress	This is the IP address or host name of the SNMP server.
version	The SNMP version. Values are 1—Version 1 and 2—Version 2.

Example

```
deleteSnmpTrapTarget ipAddress=10.10.10.25 version=2
```

deleteSyslogNotifyPolicy

Description

Delete a Syslog Notification Policy.

Syntax

```
deleteSyslogNotifyPolicy ipAddress=
```

Parameters

Name	Description
ipAddress	This is the IP address or host name of the Syslog server.

Example

```
deleteSyslogNotifyPolicy ipAddress=10.10.10.25
```

deleteVolume

Description

This command forcibly deletes a StoreVirtual volume without disconnecting from the host.

CAUTION:

- This operation is irreversible.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
deleteVolume volumeName=
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.

Example

```
deleteVolume volumeName=MyVolume
```

discoverTcp

Description

Discover storage systems and management groups on the network, using TCP.

Syntax

```
discoverTCP node= [groupOrder=] [receivePort=] [waitForData=]
```

Parameters

Name	Description
node	The node name or IP address, or DNS resolvable node name, of the storage system.
groupOrder	Return storage systems ordered by group membership. Values are 0—Default or 1.
receivePort	The TCP port to receive the discovery packets (defaults to an unused port if unspecified).
waitForData	The number of milliseconds to wait for the discovery packets (the default is 5000ms if unspecified).

Example

```
discoverTCP groupOrder=1 node=10.1.2.3;10.1.2.4
```

discoverUdp

Description

Discover storage systems and management groups on the network, using UDP.

Syntax

```
discoverUdp ipMask= ipSubnet= [groupOrder=] [receivePort=] [waitForData=]
```

Parameters

Name	Description
ipMask	An IP address mask for SNMP notification.
ipSubnet	An IP address subnet for SNMP notification.

Table Continued

Name	Description
groupOrder	Return storage systems ordered by group membership. Values are 0—Default or 1.
receivePort	The TCP port to receive the discovery packets (defaults to an unused port if unspecified).
waitForData	The number of milliseconds to wait for the discovery packets (the default is 5000ms if unspecified).

Example

```
discoverUdp ipMask=255.255.240.0 ipSubnet=10.0.0.0
```

getClusterInfo

Description

Display information about a cluster.

Syntax

```
getClusterInfo [clusterName=] [searchDepth=] [verbose=]
```

Parameters

Name	Description
clusterName	The name of the cluster.
searchDepth	Defines the types of objects to inspect. Values are 1—Clusters only, 2—Clusters and volumes, 3—Clusters, volumes and snapshots, and 4—Clusters, volumes, snapshots and remote snapshots (default). The greater the search depth number, the longer the call can take.
verbose	Determines how much information to return. Values are 0—Get summary information only (better performance) and 1—Get all information (better information; default). The greater the verbose number, the longer the call can take.

Response Syntax

```
CLUSTER ...
NSM ...
VIP ...
VOLUME ...
```

Name	Description
CLUSTER	This section cluster contains information.
NSM	This section contains storage system information.
VIP	This section contains VIP information.
VOLUME	This section contains volume information.

Example

```
getClusterInfo clusterName=Cluster0
```

getDnsInfo

Description

Get the DNS settings.

Syntax

```
getDnsInfo
```

Parameters

None

Response Syntax

```
DNSINFO ...
```

Name	Description
DNSINFO	This section contains DNS information.

Example

```
getDnsInfo
```

getEventLog

Description

Get event information.

The output of `getEventLog` will display duplicate events for disk monitoring events. This is working as designed due to two monitoring functions being called (`monitorDiskStatus` and `monitorDiskHealth`). All affected disk events have `EID_DISK` in the event name.

Syntax

```
getEventLog [type=] [format=] [report=] [time=] [component=] [severity=]
[object=] [system=] [source=] [user=]
```

Parameters

Name	Description
type	Event type. Values are AllAlerts, AllEvents, GlobalAlerts, GlobalEvents, LocalAlerts, and LocalEvents.
format	Output format. Values are Remote, Client, and Xml.
report	Output verbosity. Values are Brief, Standard, and Verbose.
time	Time filter. The format is YYYYMMDDhhmmss:YYYYMMDDhhmmss .
component	Component filter. Values are Saniq, Hal, and Sys.
severity	Severity filter. Values are Info, Warning, and Critical.
object	Object filter. Values are MgmtGroup, RemoteMgmtGroup, Cluster, Manager, VirtualManager, Store, SnapshotSchedule, Volume, and Snapshot.
system	System filter. Values are System, Controller, Cache, Disk, Boot, Backplane, Fan, Temperature, Voltage, PowerSupply, and RAID.
source	Source filter, source name
user	The name of the administrative user.

Example

```
getEventLog type=AllEvents format=XML component=Saniq
severity=warning;Critical object=Cluster system=System;Disk
```

getGroupInfo

Description

Get information about a management group.

NOTE:

When issuing the `getgroupinfo` command for a management group, you may see the following status information at the end of the output:

```
STATUS
value 32774
description Unlicensed
```

This message indicates that the license key for a feature you are using in your SAN has not been licensed yet. Once you apply the license key, this status message will no longer display.

Syntax

```
getGroupInfo [searchDepth=] [verbose=]
```

Parameters

Name	Description
`searchDepth`	Defines which objects to inspect. Values are 1—Groups only, 2—Groups and clusters, 3—Groups, clusters and volumes, 4—Groups, clusters, volumes and snapshots, and 5—Groups, clusters, volumes, snapshots and remote snapshots (default). The greater the search depth number, the longer the call can take.
`verbose`	Determines how much information to return. Values are 0—Get summary information only (better performance), and 1—Get all information (better information; default). The greater the verbose number, the longer the call can take.

Response Syntax

```
GROUP ...
ALERTANDEVENTPOLICY ...
EMAILNOTIFYPOLICY ...
EMAILSERVERINFO ...
SNMPSERVICEPOLICY ...
SNMPNOTIFICATIONPOLICY ...
SNMPCOMMUNITYSTRING ...
SNMPTRAPTARGET ...
FIBRECHANNEL ...
DNSINFO ...
NSM ...
CUSTOMERINFO ...
SERVERAPPLICATION ...
CLIENTAPPLICATION ...
REMOTEASSOCIATION ...
ADMINGROUP ...
CLUSTER ...
```

Name	Description
GROUP	This section contains group information.
ALERTANDEVENTPOLICY	This section contains alert and event policy information.
EMAILNOTIFYPOLICY	This section contains email notification policy information.
EMAILSERVERINFO	This section contains email server information.
SNMPSERVICEPOLICY	This section contains SNMP service policy information.
SNMPNOTIFICATIONPOLICY	This section contains SNMP notification policy information.
SNMPCOMMUNITYSTRING	This section contains SNMP community string information.
SNMPTRAPTARGET	This section contains SNMP trap target information.
FIBRECHANNEL	This section contains Fibre Channel information.
DNSINFO	This section contains DNS information.
NSM	This section contains storage system information.
CUSTOMERINFO	This section contains customer information.
SERVERAPPLICATION	This section contains server application information.
CLIENTAPPLICATION	This section contains client application information.
REMOTEASSOCIATION	This section contains remote association information.
ADMINGROUP	This section contains admin group information.
CLUSTER	This section cluster contains information.

Example

```
getGroupInfo
```

getNotificationPolicy

Description

Get information about the Alerts and Events Policy, Email Notification Policy, Syslog Notification Policy, and Email Server Setting.

Syntax

```
getNotificationPolicy
```

Parameters

None

Example

```
getNotificationPolicy
```

getNsmInfo

Description

Get information about a storage system.

Syntax

```
getNsmInfo
```

Parameters

None

Response Syntax

```
NSM ...
FIBRECHANNEL ...
NIC ...
BONDTYPE ...
GOSSIPADDRESS ...
RAIDSETTING ...
```

Name	Description
NSM	This section contains storage system information.
FIBRECHANNEL	This section contains Fibre Channel information.
NIC	This section contains NIC information.
BONDTYPE	This section contains supported bond type information.
GOSSIPADDRESS	This section contains gossip address information.
RAIDSETTING	This section contains supported RAID type information.

Example

```
getNsmInfo
```

getPerformanceStats

Description

Get performance monitoring statistics.

Syntax

```
getPerformanceStats [interval=]
```

Parameters

Name	Description
interval	The interval in between counter sampling in milliseconds. Defaults to 6000. **NOTE:** Because the internal sampling frequency is 6 seconds, it is not recommended to set this value to less than 6000.

Example

```
getPerformanceStats
```

getRemoteSnapshotInfo

Description

Get information about remote snapshots.

Syntax

```
getRemoteSnapshotInfo [snapshotName=] [verbose=]
```

Parameters

Name	Description
snapshotName	The name of the remote snapshot.
verbose	Determines how much information to return. Values are 0—Get summary information only (better performance), and 1—Get all information (better information; default). The greater the verbose number, the longer the call can take.

Response Syntax

```
REMOTESNAPSHOT...
```

Name	Description
REMOTESNAPSHOT	This section contains remote snapshot information.

Example

```
getRemoteSnapshotInfo snapshotName=TheSnapshot
```

getServerCapabilities

Description

Query a Windows server for its StoreVirtual integration capabilities. If this call succeeds, the actual capabilities will be returned. For anticipated future releases, this may also include information about virtual machine hosting (VMware, Citrix, Hyper-V), and Server information.

NOTE:

HPE StoreVirtual Application Aware Snapshot Manager must be installed on the target Windows server for this call to succeed.

Syntax

```
getServerCapabilities serverIp=
```

Parameters

Name	Description
serverIp	The Windows server IP address.

Example

```
getServerCapabilities serverIp=10.0.1.2
```

getServerInfo

Description

Display information about server configurations in the management group, which contain permission settings for application servers to connect to StoreVirtual volumes.

Syntax

```
getServerInfo [serverName=] [serverclustername=]
```

Parameters

Name	Description
serverName	The name of the server.
serverclustername	The name of the server cluster.

Response Syntax

```
SERVER ...
VOLUME ...
```

Name	Description
SERVER	This section contains server information.
VOLUME	This section contains volume information.

Example

```
getServerInfo
```

getServerJobInfo

Description

Display information about completed and running StoreVirtual application-managed snapshot jobs on a Windows application server.

> **NOTE:**
>
> StoreVirtual Application Aware Snapshot Manager must be installed on the target Windows server for this call to succeed.

Syntax

```
getServerJobInfo serverIp= [jobId=] [volumeName=]
```

Parameters

Name	Description
serverIp	The Windows server IP address.
jobId	Job ID
volumeName	The name of the volume in the management group.

Response Syntax

```
response
description=""
name=""
processingTime=""
result=""
job
  applicationIntegration=""
     description=""
     endTime=""
```

```
    instanceID=""
    percentComplete=""
    result=""
    startTime=""
    status=""
    volumeName=""
```

```
response
 description    Operation succeeded.
 name           GaucheSuccess
 processingTime 1443
 result         0
 job
  applicationIntegration 1
  description            Operation succeeded.
  endTime                10:00:00
  instanceID             1234
  percentComplete        100
  result                 0
  startTime              10:10:00
  status                 Completed
  volumeName             volume
```

Name	Description
description	Command result description
name	Name of the CLIQ error
processingTime	Processing time
result	Result code for the CLI command
job	The job data
applicationIntegration	Managed application type. Values are 0—VSS and 1—VMware.
description	Job description
endTime	Time when the job is completed
instanceID	Instance ID
percentComplete	Percent complete
result	The result of the job
startTime	The time the job was started
status	The status of the job
volumeName	The name of the volume in the management group

Example

```
getServerJobInfo serverIp=1.2.3.4 jobId=1123
```

getServerVolumeInfo

Description

Display information about StoreVirtual volumes attached to the target Windows application server.

> **NOTE:**
>
> StoreVirtual Application Aware Snapshot Manager must be installed on the target Windows server for this call to succeed.

Syntax

```
getServerVolumeInfo serverIp= [searchDepth=]
```

Parameters

Name	Description
serverIp	The Windows server IP address.
searchDepth	Defines which objects to inspect. Values are 1—Volumes only, 2—Volumes and snapshots, and 3—Volumes, snapshots and remote snapshots (default). The greater the search depth number, the longer the call can take.

Response Syntax

```
VOLUME ...
```

Name	Description
VOLUME	This section contains volume information.

Example

```
getServerVolumeInfo serverIp="10.0.1.45"
```

getSnapshotInfo

Description

Get information about a snapshot.

Syntax

```
getSnapshotInfo [snapshotName=] [searchDepth=] [verbose=]
```

Parameters

Name	Description
snapshotName	The name of the remote snapshot.
searchDepth	Defines which objects to inspect. Values are 1—Snapshots only and 2—Snapshots and remote snapshots (default). The greater the search depth number, the longer the call can take.
verbose	Determines how much information to return. Values are 0—Get summary information only (better performance) and 1—Get all information (better information; default). The greater the verbose number, the longer the call can take.

Response Syntax

```
SNAPSHOT ...
STATUS ...
SESSION ...
PERMISSION ...
REMOTESNAPSHOT ...
```

Name	Description
SNAPSHOT	This section contains snapshot information.
STATUS	This section contains status information.
SESSION	This section contains session information.
PERMISSION	This section contains permission information.
REMOTESNAPSHOT	This section contains remote snapshot information.

Example

```
getSnapshotInfo snapshotName=TheSnapshot
```

getSnapshotScheduleInfo

Description

Get information about snapshot schedules.

Syntax

```
getSnapshotScheduleInfo [scheduleName=]
```

Parameters

Name	Description
scheduleName	The name of the schedule.

Response Syntax

```
SCHEDULE ...
```

Name	Description
SCHEDULE	This section contains schedule information.

Example

```
getSnapshotScheduleInfo
```

getSnmpInfo

Description

Get information about the SNMP service and targets.

Syntax

```
getSnmpInfo
```

Parameters

None

Response Syntax

```
SNMPSERVICEPOLICY ...
SNMPNOTIFICATIONPOLICY ...
SNMPCOMMUNITYSTRING ...
SNMPTRAPTARGET ...
```

Name	Description
SNMPSERVICEPOLICY	This section contains SNMP service policy information.
SNMPNOTIFICATIONPOLICY	This section contains SNMP notification policy information.
SNMPCOMMUNITYSTRING	This section contains SNMP community string information.
SNMPTRAPTARGET	This section contains SNMP trap target information.

Example

```
getSnmpInfo
```

getVolumeInfo

Description

Get information about a volume.

Syntax

```
getVolumeInfo [volumeName=] [searchDepth=] [verbose=]
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.
searchDepth	Defines which objects to inspect. Values are 1—Volumes only, 2—Volumes and snapshots, and 3—Volumes, snapshots and remote snapshots (default). The greater the search depth number, the longer the call can take.
verbose	Determines how much information to return. Values are 0—Get summary information only (better performance) and 1—Get all information (better information; default). The greater the verbose number, the longer the call can take.

Response Syntax

```
VOLUME ...
STATUS ...
REMOTESNAPSHOT ...
SNAPSHOT ...
SCHEDULE ...
PERMISSION ...
```

Name	Description
VOLUME	This section contains volume information.
STATUS	This section contains status information.
REMOTESNAPSHOT	This section contains remote snapshot information.
SNAPSHOT	This section contains snapshot information.
SCHEDULE	This section contains schedule information.
PERMISSION	This section contains permission information.

Example

```
getVolumeInfo volumeName=volume0
```

getVolumeControllingServer

Description

Get the IP address of the controlling server defined for a volume in the management group.

Syntax

```
getVolumeControllingServer volumeName=
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.

Example

```
getVolumeControllingServer volumeName="The Volume"
```

help

Description

Get information about the currently supported API command set.

Syntax

```
help [command=]
```

Parameters

Name	Description
command	A specific command for more detailed help information. **NOTE:** If help is specified with no parameters, a list of possible return codes is returned.

Example

```
help command=getSystemInfo
```

makePrimary

Description

Promote a remote volume to a primary production volume.

Syntax

```
makePrimary volumeName= [size=] [thinProvision=] [adaptiveOptimization=]
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.
size	The size of the volume, with units specified as: • <n> MB – n Megabytes (1024 Kilobytes) • <n> GB – n Gigabytes (1024 Megabytes) • <n> TB – n Terabytes (1024 Gigabytes)
thinProvision	Enable or disable thin provisioning. Values are 0—The volume does not use thin provisioning, 1—The volume is thin-provisioned (in a thinly provisioned volume, reserve may be < length).
adaptiveOptimization	Enable or disable adaptive optimization. Values are 0—Disable and 1—Enable. 1 is the default.

Example

```
makePrimary volumeName="TheVolume" size=1GB
```

makeRemote

Description

Demote a primary volume to a remote snapshot target.

Syntax

```
makeRemote volumeName= snapshotName= [adaptiveOptimization=]
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.
snapshotName	The name of the remote snapshot.
adaptiveOptimization	Enable or disable adaptive optimization. Values are 0—Disable and 1—Enable. 0 is the default.

Example

```
makeRemote volumeName="TheVolume" snapshotName="TheSnapshot"
```

modifyAdminGroup

Description

Modify one or more properties of the SAN administrative group.

CAUTION:

If the `adminUserName` parameter is used, all user IDs that are currently in the group that are not included with this parameter will be removed.

Syntax

```
modifyAdminGroup adminGroupName= [adminUserName=] [description=]
[permissions=]
```

Parameters

Name	Description
adminGroupName	The administrative group name.
adminUserName	Specifies the users that this group comprises.

Table Continued

Name	Description
`description`	Optional description
`permissions`	Permissions for the group. This is a character sequence specifying the allowable permissions in the following order: Group, Network, Storage System, Report. The Password permissions are subsumed by the Group permissions. For each group, the allowable permissions are: r—Read- only and f—Full-access (Report does not support this). The allowable values are `rrrr` and `fffr`. **NOTE:** If this is not specified, the permissions are set to `rrrr`.

Example

```
modifyAdminGroup description="My shiny new group" adminGroupName=powerusers
adminUserName=user1;user2 permissions=fffr
```

modifyAdminUser

Description

Modify an administrative user.

Syntax

```
modifyAdminUser adminUserName= [description=] [adminPassWord=]
```

Parameters

Name	Description
`adminUserName`	Specifies the users that this group comprises.
`description`	Optional description
`adminPassWord`	The password for the administrative user.

Example

```
modifyAdminUser description="My shiny new user" adminUserName=user
adminPassWord=secret
```

modifyCluster

Description

Modify settings on a cluster.

CAUTION:

- Modifying the cluster (by adding or removing nodes) will cause a restripe of every volume in the cluster.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
cliq modifyCluster clusterName= [newName] [description=] [useVip=] [node=]
[vip=] [SpaceReclaimWarn=] [SpaceReclaimCrit=]
```

Parameters

Name	Description
clusterName	The name of the cluster.
newName	The new name for the cluster.
description	Optional description
useVip	Determines whether virtual IP (VIP) addressing is used. Values are 0 and 1 (default).
node	The delimited list of node names or IP addresses, or DNS-resolvable node names of the storage systems the cluster comprises.
vip	A delimited list of virtual IP address or DNS-resolvable name and subnet mask. **NOTE:** Since each VIP contains two parameters, IP address and subnet mask, both must be specified in order, even if empty. If multiple VIPs are entered, they must be on different subnets.
SpaceReclaimWarn	Sets the percentage of allocated pages that will trigger a warning to the host that storage system space is almost full. The default is 90.
SpaceReclaimCrit	Sets the percentage of allocated pages that will trigger an alarm to the host that storage system space is critical. The default is 95. Once the alarm threshold is reached, no writes can be performed.

Example

```
modifyCluster clusterName=TheCluster description="My shiny new cluster"
useVip=1 node=10.1.2.4
vip=10.1.2.99;255.255.0.0;150.215.017.009;255.255.240.0
```

modifyEmailNotifyPolicy

Description

Modify an Email Notification Policy.

Syntax

```
modifyEmailNotifyPolicy email= [verbosity=] {alertOnInfo= | alertOnWarning=
| alertOnCritical=} [emailLocale=]
```

Parameters

Name	Description
email	The email address of the recipient.
verbosity	The level of returned information via email notification. Values are 1—Brief, 2—Standard, and 3—Verbose.
alertOnInfo	Values are 0—Email will not be sent on informational events, warning events, and critical events and 1—Email will be sent for informational events, warning events, and critical events. The default is 0 for `modifyEmailNotifyPolicy`. Either `alertOnInfo`, `alertOnWarning`, or `alertOnCritical` must be specified or the command will be rejected.
alertOnWarning	
alertOnCritical	
emailLocale	English (default), Chinese, Japanese, Korean

Example

```
modifyEmailNotifyPolicy email="myemail@myhost.com" alertOnCritical=1
```

modifyGroup

Description

Modify settings on a management group.

CAUTION:

- This operation is irreversible.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.
- Once the `SpaceReclaim` parameter is enabled, it cannot be disabled. The only way to disable the `SpaceReclaim` parameter is to delete the management group. You can then create a new management group (with the same name as the deleted management group) that has `SpaceReclaim` disabled.

Syntax

```
modifyGroup [bandwidthPriority=] [customerName=] [supportId=] [contactName=]
[postalAddress=] [postalAddress2=] [cityName=] [stateName=] [countryName=]
[postalCode=] [telephoneNumber=] [emailaddress=] [SpaceReclaim=]
```

Parameters

Name	Description
`bandwidthPriority`	The manager bandwidth. Values are: • Kb—Kilobits/sec (1000 Bits/second) • Mb—Megabits/sec (1000 Kilobits/second) • Gb—Gigabits/sec (1000 Megabits/second)
`customerName`	Customer name
`supportId`	Support ID provided by StoreVirtual support.
`contactName`	Contact name
`postalAddress`	Postal address line 1
`postalAddress2`	Postal address line 2
`cityName`	Postal city
`stateName`	Postal state
`countryName`	Postal country
`postalCode`	Postal code
`telephoneNumber`	Contact telephone number

Table Continued

Name	Description
emailaddress	The notification email.
SpaceReclaim	Set to 1 to enable Space Reclamation; the default is 0.

Example

```
modifyGroup customerName=”ABC Corp” contactName=”John Smith”
```

modifyRemoteAssociation

Description

Modify a previously created remote volume association.

CAUTION:

- This operation is irreversible.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
modifyRemoteAssociation remote= [remoteUserName=] [remotePassWord=]
[primaryBandwidth=] [remoteBandwidth=]
```

Parameters

Name	Description
remote	The IP address or DNS-resolvable names of one or more remote storage system.
remoteUserName	The authentication user name for the remote group.
remotePassWord	The password for the remote group.
primaryBandwidth	The bandwidth used in a copy from the primary group to the remote group. Values are: • Kb—Kilobits/sec (1000 Bits/second) • Mb—Megabits/sec (1000 Kilobits/second) • Gb—Gigabits/sec (1000 Megabits/second)
remoteBandwidth	The bandwidth used in a copy from the remote group to the primary group. Values are: • Kb—Kilobits/sec (1000 Bits/second) • Mb—Megabits/sec (1000 Kilobits/second) • Gb—Gigabits/sec (1000 Megabits/second)

Example

```
modifyRemoteAssociation remote=10.0.1.3 remoteUserName=admin
remotePassWord=secret remoteBandwidth=10Mb
```

modifyRemoteSnapshotSchedule

Description

Modify a previously created remote snapshot schedule.

Syntax

```
modifyRemoteSnapshotSchedule scheduleName= [remoteretentioncount=]
[remoteretentionseconds=]
```

Parameters

Name	Description
`scheduleName`	The name of the schedule.
`remoteretentioncount`	The number of remote snapshots to maintain. Must be between 1 and 50. Either `remoteretentioncount` or `remoteretentionseconds` must be specified.
`remoteretentionseconds`	How long remote snapshots should be retained. Either `remoteretentioncount` or `remoteretentionseconds` must be specified.

Example

```
modifyRemoteSnapshotSchedule scheduleName="TheSchedule"
remoteretentioncount="10"
```

modifyServer

Description

Modify a server.

Syntax

```
modifyServer serverName= [description=] [allowiSCSIAccess=]
[vipLoadBalance=] [useCHAP=] [initiator=] [targetSecret=] [chapName=]
[initiatorSecret=] [controllingserver=] [allowfcaccess=] [wwpn=]
[bootvolumelun=] [bootvolumename=]
```

Parameters

Name	Description
serverName	The name of the server.
description	Optional description
allowiSCSIAccess	Allow iSCSI access for this host. Values are 0—Disable and 1—Enable. If volumes are attached to a client server via iSCSI and a value of 0 is entered, the client server will lose its ability to communicate with the attached volumes. If an IQN is entered and Fibre Channel is NOT configured, the default will be 1, otherwise no default will be selected.
vipLoadBalance	Use VIP load balancing for this host. Values are 0—Disabled and 1—Enabled. The default value is 1.
useCHAP	Use CHAP Authentication for this host. Values are 0—Disabled and 1—Enabled.
initiator	A semicolon delimited string of host IQNs. If this is not specified, the IQN of the local server is used (this parameter is required if run on a storage system). Valid characters are any letter, number, international character or – , . , and : characters.
targetSecret	The CHAP target secret for the volume.
chapName	The CHAP name for the volume. If this is not specified, the IQN of the local server is used (this parameter is required if run on a storage system).
initiatorSecret	The CHAP initiator secret for the volume.

Table Continued

Name	Description
`controllingserver`	The IP address of the client server that has Application Aware Snapshot Manager (AASM) installed on it. It will coordinate the snapshot with the applications using SAN volumes. This is required for managed snapshots of Fibre Channel connected volumes. This is also required for VMware managed snapshots; if applicable, enter the Virtual Center Server IP address.
`allowfcaccess`	Allow Fibre Channel ports to be assigned to the client. Values are 0—Disable and 1—Enable. If volumes are attached to a client server via Fibre Channel and a value of 0 is entered, the client will lose its ability to communicate with the attached volumes.

`wwpn`	A semicolon delimited list of the unique World Wide Port Names for one or more Fibre Channel ports. Expected WWPN formatting is 16 Hex characters with or without the
	`:`
	character as a delimiter. For example:
	`20:21:00:0E:B3:01:AB:C6`
	or
	`2021000EB301ABC6`
	. Lower case hex characters a-f are also accepted.

`bootvolumelun`	The LUN (1–255) of the boot volume. Valid only for a Fibre Channel attached volume. If present, then `bootvolumename` must also be specified. **NOTE:** LUN 255 is not supported by Microsoft Windows.
`bootvolumename`	The volume name of the boot volume. Valid only for a Fibre Channel attached volume. If present, then `bootvolumelun` must also be specified.

Example

```
modifyServer serverName=TheServer useCHAP=0 initiator=iqn.
1991-05.com.microsoft:w-gregorio.corp.mynetworks.com
```

modifySnapshot

Description

Modify snapshot settings.

Syntax

```
modifySnapshot snapshotName= [description=] [autogrowpages=]
```

Parameters

Name	Description
snapshotName	The name of the remote snapshot.
description	Optional description
autogrowpages	Automatically grow the pages.

Example

```
modifySnapshot description="New Description" snapshotName=TheSnapshot
```

modifySnapshotSchedule

Description

Modify a previously created snapshot schedule.

Syntax

```
modifySnapshotSchedule scheduleName= [description=] [recurperiod=]
[starttime=] [retentioncount=] [retentionseconds=] [paused=]
```

Parameters

Name	Description
scheduleName	The name of the schedule.
description	Optional description
recurperiod	The recurrence frequency of the snapshots, specified in seconds. Period may be 0 to indicate the schedule never occurs, otherwise Period must be at least 1800 seconds (30 minutes).
starttime	The start time of the schedule. Specified as ISO 8601. Format is `YYYY-MM-DDTHH:MM:SSZ` . YYYY represents the year, MM is the month, DD is the day of the month, HH is the hour in 24 hour format, MM is the minutes, and SS is the seconds. The time must always be expressed in GMT time.

Table Continued

Name	Description

`retentioncount`	Defines the number of snapshots to maintain. Must be between 1 and 50. Either
	`retentioncount`
	or
	`retentionseconds`
	must be specified.

`retentionseconds`	Defines how long snapshots should be retained. Either
	`retentioncount`
	or
	`retentionseconds`
	must be specified.

`paused`	The state of the snapshot schedule. Values are 0—Schedule is not paused and 1—Schedule is paused.

Example

```
modifySnapshotSchedule scheduleName="TheSchedule" description="First
snapshot schedule"
```

modifySnmpCommunityString

Description

Modify the community string for all SNMP.

Syntax

```
modifySnmpCommunityString communityString=
```

Parameters

Name	Description
`communityString`	The SNMP community string.

Example

```
modifySnmpCommunityString communityString="NewString"
```

modifySnmpTrapTarget

Description

Modify an SNMP trap target.

Syntax

```
modifySnmpTrapTarget communityString=
```

Parameters

Name	Description
`communityString`	The SNMP community string.

Example

```
modifySnmpTrapTarget communityString="TheString"
```

modifySyslogNotifyPolicy

Description

Modify a Syslog Notification Policy.

Syntax

```
modifySyslogNotifyPolicy ipAddress= {alertOnInfo= | alertOnWarning= |
alertOnCritical=}
```

Parameters

Name	Description
`ipAddress`	This is the IP address or Host Name of the Syslog server.
`alertOnInfo`	Values are 0—The log does not include informational events, warning events, and critical events and 1—The log includes informational events, warning events, and critical events. The default is 0 for `modifySyslogNotifyPolicy`. Either `alertOnInfo`, `alertOnWarning`, or `alertOnCritical` must be specified or the command will be rejected.
`alertOnWarning`	
`alertOnCritical`	

Example

```
modifySyslogNotifyPolicy ="10.0.10.25" alertOnInfo="1"
```

modifyVolume

Description

Modify volume settings.

CAUTION:

- Enabling checksums may impact volume I/O performance.
- Changing the replication level of this volume will cause it to restripe, and may impact I/O performance. This will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
modifyVolume volumeName= [description=] [replication=] [parity=] [checkSum=]
[thinProvision=] [autogrowSeconds=] [clusterName=] [size=] [autogrowpages=]
[adaptiveOptimization=]
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.
description	Optional description
replication	The replication level for the volume. Values are 1 and 2 .
parity	The number of parity storage systems for the data on this volume. This enables parity network RAID on the volume. Replication and parity are supported in the following combinations: • replication:1, parity:0 Network RAID-0 (None) • replication:2, parity:0 Network RAID-10 (2-way Mirror)
checkSum	Values are 0—The volume does not use checksums and 1—The volume uses checksums.
thinProvision	Enable or disable thin provisioning. Values are 0—The volume does not use thin provisioning and 1—The volume is thin-provisioned (in a thinly provisioned volume, reserve may be < length).

Table Continued

Name	Description
`autogrowSeconds`	The amount to grow the volume when it is thin-provisioned and new pages must be added, based on the current growth rate. A value of 0 means no autogrow.
`clusterName`	The name of the cluster.
`size`	The size of the volume, with units specified as: • <n> KB—n Kibibytes (1024 bytes) • <n> MB—n Mebibytes (1024 Kilobytes) • <n> GB—n Gibibytes (1024 Megabytes) • <n> TB—n Tebibytes (1024 Gigabytes) • <n> PB—n Pebibytes (1024 Terabytes)
`autogrowpages`	Automatically grow the pages.
`adaptiveOptimization`	Enable or disable adaptive optimization. Values are 0—Disable and 1—Enable. The default is that the volume retains the current setting (what was set when either the volume was created or last modified).

Example

```
modifyVolume description="New Description" volumeName=TheVolume
```

recoverQuorum

Description

Rescue a management group after quorum has been irretrievably lost. This command needs to be run on a storage system with a working manager so it can retrieve the management group database from that manager to restore the management group.

CAUTION:

- Once you have chosen to proceed with the recover quorum operation, there is no way to undo the effects. If possible, it is highly recommended that you attempt to recover quorum instead by bringing up any offline managers that might still be accessible. As part of the recover quorum operation, all configured managers that are offline will be deleted from the management group and all storage servers that are offline will be ejected from the management group and cluster(s).
- Contact support before proceeding. Only use the

  `recoverQuorum`

  command when actively working with support personnel and they direct you to invoke the command.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
recoverQuorum
```

Parameters

None

Example

```
recoverQuorum
```

rollbackSnapshot

Description

Roll back a snapshot.

CAUTION:

- The

  `rollbackSnapshot`

  command will replace the original volume with a new one based on the contents of the snapshot and delete any snapshots created after the snapshot which is being rolled back.
- If the original volume is specified, this will replace it with a new volume based on the contents of the snapshot and delete any snapshots created after the snapshot being rolled back.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
rollbackSnapshot snapshotName= [description =]
```

Parameters

Name	Description
`snapshotName`	The name of the remote snapshot.
`description`	Optional description

Example

```
rollbackSnapshot snapshotName=TheSnapshot
```

setAlertsPolicy

Description

Set information for the Alerts and Events Policy.

Syntax

```
setAlertsPolicy aging=
```

Parameters

Name	Description
aging	The aging in months.

Example

```
setAlertsPolicy aging="2"
```

setDnsInfo

Description

Set information for DNS.

> **CAUTION:**
> This command overwrites all current values for each parameter.

Syntax

```
setDnsInfo [domainname=] [suffix=] server=
```

Parameters

Name	Description
domainname	The domain name.
suffix	DNS suffixes.
server	List of DNS servers, IP addresses.

Example

```
setDnsInfo server=10.23.0.101 suffix=suffix1;suffix2 domainname=domainname
```

setEmailServerInfo

Description

Set the configuration information for the email server used to email alerts to configured recipients.

Syntax

```
setEmailServerInfo [ipAddress=] [email=] [portNumber=]
```

Parameters

Name	Description
ipAddress	The IP address or host name of the email server.
email	The email address of the sender.
portNumber	The port number to send email on. If omitted, the current port number will be retained (defaulted to port 25).

Example

```
setEmailServerInfo ipAddress=10.23.0.101 portNumber=2309
email=anyemail@myhost.com
```

setSnmpNotifyPolicy

Description

Set SNMP Notification Policy settings.

Syntax

```
setSnmpNotifyPolicy [verbosity=] {alertOnInfo= | alertOnWarning= |
alertOnCritical=}
```

Parameters

Name	Description
verbosity	The level of returned information via email notification. Values are 1—Brief, 2—Standard, and 3—Verbose.
alertOnInfo	Values are 0—Do not transmit informational events, warning events, and critical events and 1—Transmit informational events, warning events, and critical events. Either `alertOnInfo`, `alertOnWarning`, or `alertOnCritical` must be specified or the command will be rejected.
alertOnWarning	
alertOnCritical	

Example

```
setSnmpNotifyPolicy alertOnWarning=1
```

setSnmpServiceInfo

Description

Set information about the SNMP Service.

Syntax

```
setSnmpServiceInfo [contactinfo=] [location=]
```

Parameters

Name	Description
`contactinfo`	Contact information.
`location`	Location information.

Example

```
setSnmpServiceInfo contactinfo="Mr Douglas" location="main office"
```

setSupportLogin

Description

Enable/disable support logins.

CAUTION:

- This command will modify the state of support logins.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
setSupportLogin enabled=
```

Parameters

Name	Description
enabled=	Enable or disable the feature. Values are 0—Disable and 1—Enable.

Example

```
setSupportLogin enabled=1
```

setTraceOff

Description

Stop the support logging for the current CLIQ process instance. This change is not shared or persistent between CLIQ instances.

Syntax

```
setTraceOff
```

Parameters

None

setTraceOn

Description

Start the support logging for the current CLIQ process instance. This change is not shared or persistent between CLIQ instances.

Syntax

```
setTraceOn
```

Parameters

None

shutdownNsm

Description

Shut down a storage system.

CAUTION:

- Shutting down a storage node may cause loss of access to volumes or degrade performance.
- This command will display a prompt, requiring confirmation before proceeding. This prompt may be overridden with an optional prompt=0 parameter on the command line; in this case, the command will always execute without pausing for confirmation.

Syntax

```
shutdownNsm action= [delay=]
```

Parameters

Name	Description
`action`	The operation to perform. Valid value is Restart—Reboots the storage system.
`delay`	The number of minutes to delay prior to shutdown or restart (defaults to 0).

Example

```
shutdownNsm action=Restart delay=10
```

startManager

Description

Start the manager on a storage system.

Syntax

```
startManager
```

Parameters

None

Example

```
startManager
```

startSnmpService

Description

Start the SNMP Service.

Syntax

```
startSnmpService
```

Parameters

None

Example

```
startSnmpService
```

stopManager

Description

Stop the manager on a storage system.

Syntax

```
stopManager
```

Parameters

None

Example

```
stopManager
```

stopSnmpService

Description

Stop the SNMP Service.

Syntax

```
stopSnmpService
```

Parameters

None

Example

```
stopSnmpService
```

testCredentials

Description

Test the login credentials for a management group.

Syntax

```
testCredentials
```

Parameters

None

Example

```
testCredentials
```

unassignVolumeToServer

Description

Disassociate a volume with a server.

Syntax

```
unassignVolumeToServer volumeName= serverName=
```

Parameters

Name	Description
volumeName	The name of the volume in the management group.
serverName	The name of the server.

Example

```
unassignVolumeToServer volumeName=TheVolume serverName=TheServer
```

utility

Description

Execute a utility program on a storage system.

CAUTION:

This command is recommended for Hewlett Packard Enterprise Support only.

Syntax

```
utility [run=] [logFile=] [useZip=]
```

Parameters

Name	Description
run	The utility and parameters to execute on the storage system. If this parameter is not specified, a list of possible commands is returned.
logFile	The name of the local file used to store the returned information.
useZip	When used, the resulting log file will be zipped.

Example 1

```
utility run="ping -c 10 10.3.2.1"
```

Example 2

```
utility run=groupsupportinfo
```

Example 3

```
utility run=hardwarereport
```

waitForEvent

Description

Wait for an alert or event message.

Syntax

```
waitForEvent [receivePort=] [timetowait=]
```

Parameters

Name	Description
receivePort	The TCP port to receive the discovery packets (defaults to an unused port if unspecified).
timetowait	The maximum amount of time to wait before timing out.

Example

```
waitForEvent
```

waitForUpdate

Description

Block on a change to the state in the management group.

Syntax

```
waitForUpdate [receivePort=] [timetowait=]
```

Parameters

Name	Description
receivePort	The TCP port to receive the discovery packets (defaults to an unused port if unspecified).
timetowait	The maximum amount of time to wait before timing out.

Example

```
waitForUpdate
```

Troubleshooting

Creating and exporting volumes using the CLI is slow

Symptom

Creating and exporting volumes using the CLI is very slow when attempted immediately after configuring a StoreVirtual 3200 Storage system.

Cause

CLI performance is degraded during the initialization phase of configuring RAID on the storage system. This phase occurs immediately after a StoreVirtual 3200 Storage system is initially configured.

Action

Procedure

- Wait to begin creating and exporting volumes until RAID configuration has finished. If you started creating and exporting a volume, and it is taking longer than expected, wait and eventually the process will finish.

The `createCluster` command fails with a time-out message

Symptom

The `createCluster` command fails with the message `Timed out waiting for storage ready`.

Cause

If you run the `createCluster` command and specify the IP addresses of both controllers, the command fails.

Action

Procedure

- Specify only the IP address of controller A when running the `createCluster` command. If that fails, try running the command with the IP address of controller B.

Server commands may not store name and target secret

Symptom

When you try to assign a server the `chapName` and `targetSecret` using the `createServer` or `modifyServer` command, those values are not stored.

Cause

Using the commands `createServer` or `modifyServer` without specifying the value `useCHAP=1` causes the related CHAP parameters not to be saved.

Action

Procedure

1. Specify all the listed CHAP parameters when using the commands `createServer` or `modifyServer`:
   a. `useCHAP`=1
   b. `chapName`=**xxxx**
   c. `targetSecret`=**xxxx**

The CLI command `createGroup` sometimes stalls

Symptom

In rare cases, running the `createGroup` command from the CLI does not appear to finish, and it does not display an error.

Solution 1

Action

Procedure

- To avoid this issue, do one of the following:

1. Use the Configuration Setup wizard in the SVMC.
2. Run the `createGroup` command from the REST API.

Solution 2

Action

Procedure

- To resolve this issue, you must reimage the storage system.

The CLI command `assignVolumeChap` fails with an error message

Symptom

Configuring CHAP authentication for iSCSI connections using the `assignVolumeChap` CLI command fails with the following error message:

```
CreateVolumeAccess Operation Failed: Multiple LUNs Per Target iSCSI
volumes' LUN must be non-zero. Ensure the LUN is set to a non-zero value
and try again.
```

Solution 1

Action

Procedure

- To assign a volume to a server without using CHAP authentication, use the CLI command `AssignVolumeToServer`.

Solution 2

Action

Procedure

- To script server configurations with CHAP authentication, use the REST API.

Using the CLI to create a remote snapshot fails

Symptom

After using the CLI to create a remote snapshot, the remote group association in the SVMC shows an error status and the outbound bandwidth is not set.

Action

Procedure

1. Do not use the CLI to create remote snapshots. To recover, perform the following steps in the SVMC:
   a. From the StoreVirtual menu, select **Settings**.
   b. Select the **Remote Associations** tile, and then click the edit icon (⚙).

c. Recreate the association by entering the information in the **Edit Remote Association** dialog.
d. Click **OK** to finish.

No logs returned when system= parameter is used with `geteventlog` command

Symptom

The system does not return any logs when the `system=`*`system name`* parameter is used with the `geteventlog` CLI command.

This is an example that includes the `system=`*`system name`* parameter:

```
CLIQ>geteventlog type=AllEvents format=Xml component=Sys;Hal;Saniq
severity=Info;Warning;
Critical object=Cluster
system=System;Controller;Cache;Disk;Boot;Backplane;Fan;Temperature;Voltage;Po
werSupply;Raid
```

If the previous example command was entered, the system would return the following:

```
RESPONSE
   result           4
   processingTime   270
   name             CliqNothingFound
   description      Nothing was found.
```

Action

Procedure

1. To have the system successfully return the event logs, exclude the `system=`*`system name`* parameter when using the `geteventlog` CLI command.

The `getnsminfo` CLI command displays incorrect speed

Symptom

The `getnsminfo` command displays 100 as the speed for a 10Gb interface, instead of 10000.

Action

Procedure

1. To determine the speed, use the UI or the REST scripting interface instead.

Websites

General websites

Hewlett Packard Enterprise Information Library	**www.hpe.com/info/EIL**
Single Point of Connectivity Knowledge (SPOCK) Storage compatibility matrix	**www.hpe.com/storage/spock**
Storage white papers and analyst reports	**www.hpe.com/storage/whitepapers**

For additional websites, see **Support and other resources**.

StoreVirtual 3200 websites

StoreVirtual 3200 documentation (Storage Information Library)	**http://www.hpe.com/info/sv3200-docs**
StoreVirtual 3200 documentation (HPESC)	**http://www.hpe.com/info/StoreVirtual3200Manuals**

Support and other resources

Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website:

  http://www.hpe.com/assistance
- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:

  http://www.hpe.com/support/hpesc

Information to collect

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.
- To download product updates:

Hewlett Packard Enterprise Support Center	**www.hpe.com/support/hpesc**
Hewlett Packard Enterprise Support Center: Software downloads	**www.hpe.com/support/downloads**
Software Depot	**www.hpe.com/support/softwaredepot**

- To subscribe to eNewsletters and alerts:

  www.hpe.com/support/e-updates
- To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page:

  www.hpe.com/support/AccessToSupportMaterials

IMPORTANT:

Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HPE Passport set up with relevant entitlements.

Customer self repair

Hewlett Packard Enterprise customer self repair (CSR) programs allow you to repair your product. If a CSR part needs to be replaced, it will be shipped directly to you so that you can install it at your

convenience. Some parts do not qualify for CSR. Your Hewlett Packard Enterprise authorized service provider will determine whether a repair can be accomplished by CSR.

For more information about CSR, contact your local service provider or go to the CSR website:

http://www.hpe.com/support/selfrepair

Remote support

Remote support is available with supported devices as part of your warranty or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which will initiate a fast and accurate resolution based on your product's service level. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

If your product includes additional remote support details, use search to locate that information.

Remote support and Proactive Care information

HPE Get Connected	**www.hpe.com/services/getconnected**
HPE Proactive Care services	**www.hpe.com/services/proactivecare**
HPE Proactive Care service: Supported products list	**www.hpe.com/services/proactivecaresupportedproducts**
HPE Proactive Care advanced service: Supported products list	**www.hpe.com/services/proactivecareadvancedsupportedproducts**

Proactive Care customer information

Proactive Care central	**www.hpe.com/services/proactivecarecentral**
Proactive Care service activation	**www.hpe.com/services/proactivecarecentralgetstarted**

Warranty information

To view the warranty for your product, see the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products* document, available at the Hewlett Packard Enterprise Support Center:

www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Additional warranty information

HPE ProLiant and x86 Servers and Options	**www.hpe.com/support/ProLiantServers-Warranties**
HPE Enterprise Servers	**www.hpe.com/support/EnterpriseServers-Warranties**
HPE Storage Products	**www.hpe.com/support/Storage-Warranties**
HPE Networking Products	**www.hpe.com/support/Networking-Warranties**

Regulatory information

To view the regulatory information for your product, view the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at the Hewlett Packard Enterprise Support Center:

www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Additional regulatory information

Hewlett Packard Enterprise is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at:

www.hpe.com/info/reach

For Hewlett Packard Enterprise product environmental and safety information and compliance data, including RoHS and REACH, see:

www.hpe.com/info/ecodata

For Hewlett Packard Enterprise environmental information, including company programs, product recycling, and energy efficiency, see:

www.hpe.com/info/environment

Documentation feedback

Hewlett Packard Enterprise is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback (**docsfeedback@hpe.com**). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.

Warranty and regulatory information

For important safety, environmental, and regulatory information, see *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at **www.hpe.com/support/Safety-Compliance-EnterpriseProducts**.

Warranty information

HPE ProLiant and x86 Servers and Options

www.hpe.com/support/ProLiantServers-Warranties

HPE Enterprise Servers

www.hpe.com/support/EnterpriseServers-Warranties

HPE Storage Products

www.hpe.com/support/Storage-Warranties

HPE Networking Products

www.hpe.com/support/Networking-Warranties

Regulatory information

Belarus Kazakhstan Russia marking

EAC

Manufacturer and Local Representative Information

Manufacturer information:

- Hewlett Packard Enterprise Company, 3000 Hanover Street, Palo Alto, CA 94304 U.S.

Local representative information Russian:

- **Russia**

  :

  ООО «Хьюлетт Паккард Энтерпрайз», Российская Федерация, 125171, г. Москва, Ленинградское шоссе, 16А, стр.3, Телефон/факс: +7 495 797 35 00

- **Belarus**

  :

  ИООО «Хьюлетт-Паккард Бел», Республика Беларусь, 220030, г. Минск, ул. Интернациональная, 36-1, Телефон/факс: +375 17 392 28 18

- **Kazakhstan**

  :

ТОО «Хьюлетт-Паккард (К)», Республика Казахстан, 050040,
г. Алматы, Бостандыкский район, проспект Аль-Фараби, 77/7,
Телефон/факс: + 7 727 355 35 50

Local representative information Kazakh:

- **Russia**

  :

  ЖШС "Хьюлетт Паккард Энтерпрайз" Ресей Федерациясы, 125171,
  Мәскеу, Ленинград тас жолы, 16А блок 3, Телефон/факс: +7 495 797 35 00

- **Belarus**

  :

  «HEWLETT-PACKARD Bel» ЖШС, Беларусь Республикасы, 220030, Минск қ.,
  Интернациональная көшесі, 36/1, Телефон/факс: +375 17 392 28 18

- **Kazakhstan**

  :

  ЖШС «Хьюлетт-Паккард (К)», Қазақстан Республикасы, 050040, Алматы к.,
  Бостандык ауданы, Әл-Фараби даңғ ылы, 77/7, Телефон/факс: +7 727 355 35 50

Manufacturing date:

The manufacturing date is defined by the serial number.

CCSYWWZZZZ (serial number format for this product)

Valid date formats include:

- YWW, where Y indicates the year counting from within each new decade, with 2000 as the starting point; for example, 238: 2 for 2002 and 38 for the week of September 9. In addition, 2010 is indicated by 0, 2011 by 1, 2012 by 2, 2013 by 3, and so forth.
- YYWW, where YY indicates the year, using a base year of 2000; for example, 0238: 02 for 2002 and 38 for the week of September 9.

Turkey RoHS material content declaration

Türkiye Cumhuriyeti: EEE Yönetmeliğine Uygundur

Ukraine RoHS material content declaration

Обладнання відповідає вимогам Технічного регламенту щодо
обмеження використання деяких небезпечних речовин в
електричному та електронному обладнанні, затвердженого
постановою Кабінету Міністрів України від 3 грудня 2008 № 1057