

HP

P4000 Command-Line Interface User Guide

This guide provides information for using the command-line interface provided with the P4000 software. Command syntax is included, and a link to sample scripts available from the HP website.

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Overview

The SAN/iQ command-line interface (CLI) is built upon the SAN/iQ API released with version 8.x. Develop your own automation, scripting and management using the CLI.

- For instructions about using the CLI, see the Syntax section, immediately following this introduction.
- The section on Global Parameters describes functionality that applies to the entire CLI and includes commands to customize global operations.

System Requirements

Windows Server 2003 SP1
Windows Server 2003 R2
Windows Server 2008 R2
Windows XP SP2
Windows Vista
10 MB available space

Installing the CLI

Install the CLI from the HP StorageWorks P4000 Management Software for Microsoft Windows DVD. The installation wizard automatically installs the command-line software to the following default location in Windows:

C:\Program Files\HP\P4000\HP P4000 CLI
and sets the environment variable.

Sample Scripts

You can obtain sample scripts from the HP website:
www.hp.com/go/P4000downloads.

On-System CLI

The CLI is installed on storage systems and can be accessed by SSH.

- Log in to the on-system CLI using the system IP address and the designated port 16022.
- If logging in from a command line, you must type the following command:
`ssh -p 16022 -l <user> <NSM-IP>`

Global Parameters

prompt=<true | false>

Some potentially destructive 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's 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. If the output needs to be parsed, the XML variant is preferred.

separator=<c>

Some CLI parameters comprise parameters for multiple operations. For example, the "snapshotVolumes" command allows the user to specify simultaneous snapshotting 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 the same character is used in the body of a parameter then separator can be changed to something else.

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

inputFile=<file>

This takes all command input from a file containing XML input.

Syntax

CLIQ is the command-line interface (CLI) for the HP P4000 Storage Solution. The CLI specifies parameters in the form `parameter=<parameter>` (specification), rather than dictating a particular order (positional) notation.

Parameter ordering

Ordering of parameters is not specified. Any order will do. For example:

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

is equivalent to

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

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

This section is applicable to languages that have a notion of case sensitivity. All commands and parameter names are case-insensitive. "createVolume" is the same as "CreateVolume" is the same as "CREATEVOLUME". 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 will preserve the case specified by the caller, and impose 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.

OS error code integration

The CLI will map error codes to reasonable OS status codes (status in Linux, ERRORLEVEL in DOS). Since these are limited to 0..255, some of the OS errors may have less granularity than the API error codes.

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:

- MB - megabytes (2²⁰)

- GB - gigabytes (2³⁰)
- TB - terabytes (2⁴⁰)

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).

Some values may be specified as either a size or percentage, for example, reserveQuota. The units will determine how this is interpreted. For example:

- 10MB - 1,048,576 bytes
- 10GB - 10,737,418,240 bytes
- 10% - 1/10 of the current volume size

Password prompt

When credentials are required in the CLI, you may not want to display the password by typing the "password=" parameter. If the username parameter is specified without the password parameter, you will be prompted interactively for the password. This password will not be displayed.

```
cliq getGroupInfo login=10.0.1.2 username=admin
password: *****
```

Key file

Instead of specifying username/password parameters, you may choose to specify an encrypted key file which contains the credentials. This file can be kept in a secure location, or otherwise access-controlled. To create this file, use the createKey command.

```
cliq createKey login=10.0.1.2 username=admin password=secret
keyfile=key.dat
cliq getGroupInfo login=10.0.1.2 keyfile=key.dat
```

DNS names

You can also specify managers as a host name, provided they can be resolved by DNS:

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

Storage System CLI

When commands are executed on the storage systems (via SSH), no authentication parameters are required:

```
getGroupInfo
```

Integrated command shell

The CLIQ command line has an integrated shell that's executed by default when connecting directly to a storage system, or running cliq.exe without any parameters:

```
>cliq
SAN/iQ Command Line Interface, v9.0 (type exit to quit)
(C) Copyright 2007-2009 Hewlett-Packard Development Company, L.P.
{{{
CLIQ>
```

The integrated shell supports rich command line editing features specific to the HP P4000 API. The following editing keys are supported:

Key	Meaning
LEFT	Moves the cursor one space to the left.

Key	Meaning
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.
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.

Return Codes

All GAUCHE 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 nonnegative values, while negative values indicate an error. Many errors returned by SAN/iQ and Hydra unfortunately do not return ordinal values that can be conveniently mapped into an API and CLI return code. In all cases, we can return the error description string, but it won't be 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.
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

Result	Value	OS Status	Description
			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 - we just haven't done it 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 SAN/iQ error - the operation failed.
CliqCredentialsFailed	0x80001011	144	The supplied credentials are incorrect.
CliqInvalidParameter	0x80001012	145	Invalid parameter.

Result	Value	OS Status	Description
CliqObjectNotFound	0x80001013	146	Object not found.
CliqConnectionFailure	0x80001014	147	Failed to connect to the API server.
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 can't 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 ..

Result	Value	OS Status	Description
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 SAN/iQ 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 HP P4000 VSS Provider is not installed.
CliqVssProviderNotRunning	0x80001028	167	The HP P4000 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-

Result	Value	OS Status	Description
			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.
CliqVssSnapshotInProgress	0x80001030	175	Another app-managed snapshot is in progress.
CliqWindowsServerIsBusy	0x80001031	176	The application server is busy.
CliqUpdateVssProvider	0x80001032	177	This version of VSS provider must be upgraded.
CliqVssOperationTimedOut	0x80001033	178	VSS operation timed out.
CliqVolumeConnectionFailure	0x80001034	179	Volume connection failure.

Result	Value	OS Status	Description
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.
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.

Commands

addVirtualManager

This command adds a virtual manager to a group.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq addVirtualManager login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq addVirtualManager login=10.0.1.2 userName=admin passWord=secret
cliq addVirtualManager
```

assignVolume

This command assigns a volume to a server. This assignment sets the access to a volume, based on host iqn(s).

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq assignVolume volumeName= initiator= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>namePrefix</i>	Optional	A prefix string for newly created objects. A unique number value will be concatenated to this prefix to guarantee name uniqueness.
<i>accessRights</i>	Optional	The access rights to the volume: r - read-only, x - no access, rw - read-write (default)
<i>initiator</i>	Optional	A semicolon delimited string of host IQN's. If this is not specified, the IQN of the local server is used (this parameter is required if run on a storage system).
<i>vipLoadBalance</i>	Optional	Use VIP load balancing for this host. This can be one of: 0, 1 - default
<i>exclusiveAccess</i>	Optional	Remove any previous server access rights to this volume. This can be one of: 0, 1 - default

Example

```
cliq assignVolume volumeName=TheVolume
  initiator=iqn.1991-05.com.microsoft:w-gregorio.corp.hp.com
  login=10.0.1.2 userName=admin passWord=secret

cliq assignVolume volumeName=TheVolume
  initiator=iqn.1991-05.com.microsoft:w-gregorio.corp.hp.com
```

assignVolumeChap

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

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq assignVolumeChap volumeName= targetSecret= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>targetSecret</i>	Required	The CHAP target secret for the volume.
<i>namePrefix</i>	Optional	A prefix string for newly created objects. A unique number value will be concatenated to this prefix to guarantee name uniqueness.
<i>accessRights</i>	Optional	The access rights to the volume: r - read-only, x - no access, rw - read-write (default)
<i>chapName</i>	Optional	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).
<i>initiatorSecret</i>	Optional	The CHAP initiator secret for the volume.
<i>vipLoadBalance</i>	Optional	Use VIP load balancing for this host. This can be one of: 0, 1 - default
<i>exclusiveAccess</i>	Optional	Remove any previous server access rights to this volume. This can be one of: 0, 1 - default

Example

```
cliq assignVolumeChap volumeName=TheVolume targetSecret=ItsASecret
  login=10.0.1.2 userName=admin passWord=secret

cliq assignVolumeChap volumeName=TheVolume targetSecret=ItsASecret
```

assignVolumeToServer

This command assigns a volume to a server.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq assignVolumeToServer volumeName= serverName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>serverName</i>	Required	The name of the server
<i>accessRights</i>	Optional	The access rights to the volume: r - read-only, x - no access, rw - read-write (default)

Example

```
cliq assignVolumeToServer volumeName=TheVolume serverName=TheServer
login=10.0.1.2 userName=admin passWord=secret

cliq assignVolumeToServer volumeName=TheVolume serverName=TheServer
```

cacheCredentials

This command caches the management group credentials and IP addresses in the registry.

Availability: Windows

Version: 8.0

Request Syntax

```
cliq cacheCredentials groupName= userName= passWord=
```

<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>groupName</i>	Required	The name of the group

Example

```
cliq cacheCredentials groupName=TheGroup userName=admin
passWord=secret
```

cancelRemoteSnapshot

This command cancels a remote snapshot.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq cancelRemoteSnapshot snapshotName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>snapshotName</i>	Required	The name of the remote snapshot

Example

```
cliq cancelRemoteSnapshot snapshotName=TheSnapshot login=10.0.1.2
  userName=admin passWord=secret
cliq cancelRemoteSnapshot snapshotName=TheSnapshot
```

clearAlertsPolicy

This command clears the Alerts and Events Policy information

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq clearAlertsPolicy login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq clearAlertsPolicy login=10.0.1.3 userName=admin passWord=secret
cliq clearAlertsPolicy
```

clearCredentials

This command removes the management group credentials from the cache.

Availability: Windows

Version: 8.0

Request Syntax

```
cliq clearCredentials groupName=
```

<i>groupName</i>	Required	The name of the group
------------------	----------	-----------------------

Example

```
cliq clearCredentials groupName=TheGroup
```

clearDnsInfo

This command clears the DNS settings.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq clearDnsInfo login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq clearDnsInfo login=10.0.1.3 userName=admin passWord=secret  
cliq clearDnsInfo
```

clearEmailServerInfo

This command clears the email server settings.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq clearEmailServerInfo login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq clearEmailServerInfo login=10.0.1.3 userName=admin  
passWord=secret  
cliq clearEmailServerInfo
```

clearSnmpNotifyPolicy

This command clears the SNMP Notification Policy settings.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq clearSnmpNotifyPolicy login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq clearSnmpNotifyPolicy login=10.0.1.3 userName=admin  
passWord=secret  
  
cliq clearSnmpNotifyPolicy
```

clearSnmpServiceInfo

This command clears the SNMP Server Info.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq clearSnmpServiceInfo login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq clearSnmpServiceInfo login=10.0.1.3 userName=admin  
passWord=secret  
  
cliq clearSnmpServiceInfo
```

clearVssVolumeFlags

This command resets snapshot flags in the vss volume.

Availability: Windows

Version: 8.5

Request Syntax

```
cliq clearVssVolumeFlags volumeName=
```

volumeName Required The name of the volume

Example

```
cliq clearVssVolumeFlags volumeName=x:
```

cloneSnapshot

This command creates one or more SmartClone volumes from a SAN/iQ snapshot. These SmartClone volumes have all the functionality of normal volumes.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq cloneSnapshot snapshotName= volumeName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>snapshotName</i>	Required	The name of the remote snapshot
<i>volumeName</i>	Required	The name of the volume

Example

```
cliq cloneSnapshot snapshotName=Snapshot1
volumeName=MyClone1;MyClone2 login=10.0.1.2 userName=admin
passWord=secret

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

configureRaid

This command reconfigures the RAID setting on a storage system.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq configureRaid configuration= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>configuration</i>	Required	The RAID type to set. The possible RAID levels are reported in the getNsmInfo call.

Example

```
cliq configureRaid configuration="RAID10" login=10.0.1.2
userName=admin passWord=secret

cliq configureRaid configuration="RAID10" login=10.0.1.2
userName=admin passWord=secret
```

connectVolume

This command connects an already present array volume to an application server host.

Availability: Windows

Version: 8.0

Request Syntax

```
cliq connectVolume volumeName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume

Example

```
cliq connectVolume volumeName=MyVolume login=10.1.2.3 userName=admin  
passWord=secret
```

convertSnapshotTempSpace

This command converts snapshot temporary space to a volume.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq convertSnapshotTempSpace snapshotName= volumeName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>snapshotName</i>	Required	The name of the remote snapshot

Example

```
cliq convertSnapshotTempSpace snapshotName=MySnapshot  
volumeName=NewVolume login=10.1.2.3 userName=admin passWord=secret  
  
cliq convertSnapshotTempSpace snapshotName=MySnapshot  
volumeName=NewVolume
```

createAdminGroup

This command creates an administrative group.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq  
createAdminGroup login= userName= passWord= description= adminGroupName= adminUserName= perm
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system

<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>adminGroupName</i>	Required	The administrative group name
<i>description</i>	Optional	Optional description
<i>adminUserName</i>	Optional	Specifies the users that this group comprises
<i>permissions</i>	Optional	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, w - read-write (Report does not support this), f - full-access (Report does not support this)For example:Note: if this is not specified, the permissions are set to rrrr

Example

```
cliq createAdminGroup login=10.0.1.3 userName=admin passWord=secret
description="My shiny new group" adminGroupName=PowerUsers
adminUserName=user1;user2 permissions=ffffr

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

createAdminUser

This command creates an administrative user.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq
createAdminUser login= userName= passWord= description= adminUserName= adminPassWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>adminUserName</i>	Required	Specifies the users that this group comprises
<i>adminPassWord</i>	Required	The password for the administrative user
<i>description</i>	Optional	Optional description
<i>adminGroupName</i>	Optional	The administrative group name

Example

```
cliq createAdminUser login=10.0.1.3 userName=admin passWord=secret
description="My shiny new user" adminUserName=user
adminPassWord=secret

cliq createAdminUser description="My shiny new user"
adminUserName=user adminPassWord=secret
```


createCluster

This command creates a cluster in a management group.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq
createCluster login= userName= passWord= clusterName= description= useVip= node= vip=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>clusterName</i>	Required	The name of the cluster
<i>node</i>	Required	The host names of the storage systems the cluster comprises
<i>description</i>	Optional	Optional description
<i>useVip</i>	Optional	Should virtual IP (VIP) addressing be used? This can be one of: 0, 1 - default
<i>vip</i>	Optional	A delimited list of virtual IP address and subnet maskNote: since each VIP contains two parameters, IP address and subnet mask, both must be specified in order, even if empty

Example

```
cliq createCluster login=10.0.1.3 userName=admin
passWord=secret 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;

cliq 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

This command creates an Email Notification Policy.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq createEmailNotifyPolicy login= userName= passWord= emailAddress= verbosity=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>emailAddress</i>	Required	The notification email.
<i>verbosity</i>	Required	The level of returned information via email notification. 1 - brief, 2 - standard, 3 - verbose
<i>severities</i>	Optional	

<i>alertOnInformation</i>	Optional	0 - the log does not includes informational events (default), 1 - the log includes informational events
<i>alertOnWarning</i>	Optional	0 - the log does not includes warning events (default), 1 - the log includes warning events
<i>alertOnCritical</i>	Optional	0 - the log does not includes critical events (default), 1 - the log includes critical events
<i>emailLocale</i>	Optional	English (default), Chinese, Japanese, Korean

Example

```
cliq createEmailNotifyPolicy login=10.0.1.3 userName=admin
passWord=secret emailAddress=myemail@myhost.com verbosity=1

cliq createEmailNotifyPolicy emailAddress=myemail@myhost.com
verbosity=1
```

createGroup

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

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq createGroup groupName= node= userName= passWord=
```

<i>node</i>	Required	The host names of the storage systems the cluster comprises
<i>groupName</i>	Required	The name of the group
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system

Example

```
cliq createGroup groupName=TheGroup node=10.1.2.3;10.1.2.4
userName=admin passWord=secret

cliq createGroup groupName=TheGroup node=10.1.2.3;10.1.2.4
```

createKey

This command creates an encrypted key file that can be used to specify credentials instead of username/password.

Availability: Windows

Version: 8.0

Request Syntax

```
cliq createKey login= userName= passWord= keyFile=
```

<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system

Example

```
cliq createKey login=10.0.1.2 userName=admin passWord=secret  
keyFile=c:\secret.key
```

createRemoteAssociation

This command creates 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.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq  
createRemoteAssociation login= userName= passWord= remote= remoteUserName= remotePassWord= p
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>remote</i>	Required	The IP address or DNS-resolvable names of one or more remote storage system
<i>remoteUserName</i>	Required	The authentication user name for the remote group
<i>remotePassWord</i>	Required	The password for the remote group
<i>remoteKeyFile</i>	Required	The encrypted key file for the remote group (this is specified instead of the remoteusername and remotepassword parameters)
<i>primaryBandwidth</i>	Required	The remote copy bandwidth to the primary group (this is at the group level) <n>Kb - Kilobits/sec (1000 Bits/second), <n>Mb - Megabits/sec (1000 Kilobits/second), <n>Gb - Gigabits/sec (1000 Megabits/second)
<i>remoteBandwidth</i>	Required	The remote copy bandwidth to the remote group (this is at the group level) <n>Kb - Kilobits/sec (1000 Bits/second), <n>Mb - Megabits/sec (1000 Kilobits/second), <n>Gb - Gigabits/sec (1000 Megabits/second)

Example

```
cliq createRemoteAssociation login=10.0.1.2 userName=admin  
passWord=secret remote=10.0.1.3 remoteUserName=admin  
remotePassWord=secret primaryBandwidth=10Mb remoteBandwidth=10Mb  
  
cliq createRemoteAssociation remote=10.0.1.3 remoteUserName=admin  
remotePassWord=secret primaryBandwidth=10Mb remoteBandwidth=10Mb
```

createRemoteSnapshot

This command creates a remote snapshot of one or more SAN/iQ volumes.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq  
createRemoteSnapshot login= userName= passWord= primarySnapshot= remoteSnapshot= remoteVolum
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>remote</i>	Required	The IP address or DNS-resolvable names of one or more remote storage system
<i>remoteUserName</i>	Required	The authentication user name for the remote group
<i>remotePassWord</i>	Required	The password for the remote group
<i>remoteKeyFile</i>	Required	The encrypted key file for the remote group (this is specified instead of the remoteusername and remotepassword parameters)
<i>primarySnapshot</i>	Required	The name of the local snapshot to remote copy
<i>remoteCluster</i>	Required	The name of the remote cluster to host the remote volume
<i>remoteVolume</i>	Required	The name of the remote volume to host the snapshot
<i>remoteSnapshot</i>	Required	The name of the remote snapshot to create
<i>description</i>	Optional	Optional description
<i>primaryBandwidth</i>	Optional	The remote copy bandwidth to the primary group (this is at the group level) <n>Kb - Kilobits/sec (1000 Bits/second), <n>Mb - Megabits/sec (1000 Kilobits/second), <n>Gb - Gigabits/sec (1000 Megabits/second)
<i>remoteBandwidth</i>	Optional	The remote copy bandwidth to the remote group (this is at the group level) <n>Kb - Kilobits/sec (1000 Bits/second), <n>Mb - Megabits/sec (1000 Kilobits/second), <n>Gb - Gigabits/sec (1000 Megabits/second)

Example

```
cliq createRemoteSnapshot login=10.1.2.3 userName=admin
passWord=secret primarySnapshot=Snapshot0 remoteSnapshot=Snapshot0
remoteVolume=Volume0 description="Exchange DB-1" remote=10.1.2.4
remoteUserName=admin remotePassWord=secret

cliq createRemoteSnapshot primarySnapshot=Snapshot0
remoteSnapshot=Snapshot0 remoteVolume=Volume0 description="Exchange
DB-1" remote=10.1.2.4 remoteUserName=admin remotePassWord=secret
```

createServer

This command creates a server.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq createServer serverName= useChap= initiator= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>serverName</i>	Required	The name of the server
<i>description</i>	Optional	Optional description
<i>allowiSCSIAccess</i>	Optional	Allow iSCSI access for this host. This can be one of 0, 1 - default
<i>vipLoadBalance</i>	Optional	Use VIP load balancing for this host. This can be one of: 0, 1 - default
<i>useCHAP</i>	Optional	Use CHAP Authentication this host. This can be one of: 0, 1
<i>initiator</i>	Optional	A semicolon delimited string of host IQN's. If this is not specified, the IQN of the local server is used (this parameter is required if run on a storage system).

- chapName* Optional 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).
- targetSecret* Optional The CHAP target secret for the volume.
- initiatorSecret* Optional The CHAP initiator secret for the volume.

Example

```
cliq createServer serverName=TheServer useChap=0
  initiator=iqn.1991-05.com.microsoft:w-
  gregorio.corp.lefthandnetworks.com login=10.0.1.2 userName=admin
  passWord=secret

cliq createServer serverName=TheServer useChap=0
  initiator=iqn.1991-05.com.microsoft:w-
  gregorio.corp.lefthandnetworks.com
```

createSite

This command creates a site in a multi-site SAN.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq createSite siteName= login= userName= passWord=
```

- login* Required The IP address or DNS-resolvable names of one or more storage systems
- userName* Required The authentication user name for the storage system
- passWord* Required The password for the storage system
- keyFile* Required The encrypted key file (this is specified instead of the username and password parameters)
- siteName* Required The name of the site
- description* Optional Optional description
- primary* Optional This site is the primary site. This can be one of: 0, 1 - default

Example

```
cliq createSite siteName=Headquarters login=10.0.1.2 userName=admin
  passWord=secret

cliq createSite siteName=Headquarters
```

createSnapshot

This command creates a snapshot of one or more SAN/iQ volumes.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq createSnapshot volumeName= snapshotName= login= userName= passWord=
```

- login* Required The IP address or DNS-resolvable names of one or more storage systems
- userName* Required The authentication user name for the storage system

<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>snapshotName</i>	Required	The name of the remote snapshot
<i>description</i>	Optional	Optional description
<i>inheritAccess</i>	Optional	0 - the snapshot will not inherit the volume list, authentication group, ACL relationships of the original volume (default) 1 - the snapshot will inherit the volume list, authentication group, ACL relationships of the original volume
<i>managed</i>	Optional	0 - the snapshot(s) will not attempt to use VSS on the host connected to the volume (default) 1 - the snapshot(s) will attempt to use VSS on the host connected to the volume
<i>wait</i>	Optional	Whether to wait for application managed snapshot process to complete or not . This can be one of: 0 - don't wait, 1 - wait for it to complete (default)

Example

```
cliq createSnapshot volumeName=volume0;volume1
snapshotName=snapshot0;snapshot1 login=10.0.1.2 userName=admin
passWord=secret

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

createSnapshotSchedule

This command creates a local or remote snapshot schedule.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq
createSnapshotSchedule scheduleName= description= startTime= recurperiod= volumeName= remote
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>scheduleName</i>	Required	The name of the schedule
<i>recurperiod</i>	Required	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).
<i>starttime</i>	Required	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 minute, SS is the seconds. The time must always be expressed in GMT time.
<i>description</i>	Optional	Optional description
<i>retentioncount</i>	Optional	The number of snapshots to maintain. Must be between 1 and 50. Either retentioncount or retentionseconds must be specified.
<i>retentionseconds</i>	Optional	How long snapshots should be retained. Either retentioncount or retentionseconds must be specified.
<i>remoteip</i>	Optional	The IP address of the remote group.
<i>remoteUserName</i>	Optional	The authentication user name for the remote group

<i>remotePassWord</i>	Optional	The password for the remote group
<i>remoteKeyFile</i>	Optional	The encrypted key file for the remote group (this is specified instead of the <i>remoteusername</i> and <i>remotepassword</i> parameters)
<i>remoteCluster</i>	Optional	The name of the remote cluster to host the remote volume
<i>remoteVolume</i>	Optional	The name of the remote volume to host the snapshot
<i>remoteretentioncount</i>	Optional	The number of remote snapshots to maintain. Must be between 1 and 50. Either <i>remoteretentioncount</i> or <i>remoteretentionseconds</i> must be specified.
<i>remoteretentionseconds</i>	Optional	How long remote snapshots should be retained. Either <i>remoteretentioncount</i> or <i>remoteretentionseconds</i> must be specified.
<i>managed</i>	Optional	0 - the snapshot(s) will not attempt to use VSS on the host connected to the volume (default) 1 - the snapshot(s) will attempt to use VSS on the host connected to the volume

Example

```
cliq createSnapshotSchedule scheduleName="schedule0"
description="First snapshot schedule"
startTime="2007-06-15T01:01:00Z" recurperiod="3600"
volumeName="volume0" remoteVolume="volume0" retentioncount=5
login="10.0.1.3" userName="admin" passWord="secret"

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

createSnmpCommunityString

This command creates 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 IPAddress (ip address or hostname) or an IP mask and IP Subnet.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq
createSnmpCommunityString login= userName= passWord= ipAddress= communityString=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>communityString</i>	Required	The SNMP community string.
<i>ipAddress</i>	Optional	This is the address of a storage system to be configured, returned from a call to <i>discoverOob</i>
<i>ipMask</i>	Optional	An IP address mask for SNMP notification.
<i>ipSubnet</i>	Optional	An IP Address subnet for SNMP notification.

Example

```
cliq createSnmpCommunityString login=10.0.1.3 userName=admin
passWord=secret ipAddress=10.0.10.25 communityString=NewString

cliq createSnmpCommunityString ipAddress=10.0.10.25
communityString=NewString
```

createSnmpTrapTarget

This command creates an SNMP Trap Target. The Community String must be the same for all Trap Targets. If no Trap Targets exists, the Community String is used, otherwise it is ignored and the Community String of existing Trap Targets is used.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq
createSnmpTrapTarget login= userName= passWord= ipAddress= version= communitystring=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>ipAddress</i>	Required	This is the address of a storage system to be configured, returned from a call to discoverOob
<i>version</i>	Required	The SNMP Version. 1 - Version 1, 2 - Version 2, 3 - Version 3
<i>communityString</i>	Required	The SNMP community string.

Example

```
cliq createSnmpTrapTarget login=10.0.1.3 userName=admin
passWord=secret ipAddress=10.0.10.25 version=1
communitystring=TrapString
```

```
cliq createSnmpTrapTarget ipAddress=10.0.10.25 version=1
communitystring=TrapString
```

createSyslogNotifyPolicy

This command creates a Syslog Notification Policy.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq
createSyslogNotifyPolicy login= userName= passWord= ipAddress= alertOnCritical=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>ipAddress</i>	Required	This is the address of a storage system to be configured, returned from a call to discoverOob
<i>severities</i>	Optional	
<i>alertOnInformation</i>	Optional	0 - the log does not includes informational events (default), 1 - the log includes informational events

- alertOnWarning* Optional 0 - the log does not includes warning events (default), 1 - the log includes warning events
- alertOnCritical* Optional 0 - the log does not includes critical events (default), 1 - the log includes critical events

Example

```
cliq createSyslogNotifyPolicy login=10.0.1.3 userName=admin
  passWord=secret ipAddress="10.0.10.25" alertOnCritical="1"

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

createVolume

This command creates a SAN volume without connecting to a host.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq
createVolume volumeName= clusterName= size= description= login= username= password=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>clusterName</i>	Required	The name of the cluster
<i>size</i>	Required	The size of the volume, with units specified: <n>MB - n Megabytes (1024 Kilobytes), <n>GB - n Gigabytes (1024 Megabytes), <n>TB - n Terabytes (1024 Gigabytes)
<i>description</i>	Optional	Optional description
<i>replication</i>	Optional	The replication level for the volume (1 2 3 4)
<i>minReplication</i>	Optional	The minimum replication allowed for the volume before it goes offline (1 2 3 4). Note: the minReplication value must be equal to or less than the replication value on the volume.
<i>parity</i>	Optional	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), replication:3, parity:0 Network RAID-10+1 (3-way Mirror), replication:4, parity:0 Network RAID-10+2 (4-way Mirror), replication:2, parity:1 Network RAID-5 (Single parity), replication:3, parity:2 Network RAID-6 (Dual Parity)
<i>checkSum</i>	Optional	0 - the volume does not use checksums 1 - the volume uses checksums
<i>thinProvision</i>	Optional	0 - the volume does not use thin-provisioning 1 - The volume is thin-provisioned (in a thinly provisioned volume, reserve may be < length)
<i>initialQuota</i>	Optional	The initial quota for the volume, as a percentage or size - the volume resets to this initial size when a snapshot is taken
<i>reserveQuota</i>	Optional	The reserve quota for the volume, as a percentage or size - this is the size guaranteed to be available for this volume, regardless of space allocated to other objects in the system
<i>scratchQuota</i>	Optional	The scratch quota for the volume, as a percentage or size - this is the size guaranteed to be available for snapshots of this volume, regardless of space allocated to other objects in the system
<i>stridePages</i>	Optional	This is the initial stride setting for the volume - this must be a power of 2 (1,2,4,8)

Example

```
cliq createVolume volumeName=MyVolume clusterName=TheCluster
size=100GB description="Exchange DB-1" login=10.0.1.2;10.0.1.3
username=admin password=secret

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

deleteAdminGroup

This command deletes an administrative group.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq deleteAdminGroup login= userName= passWord= adminGroupName=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>adminGroupName</i>	Required	The administrative group name

Example

```
cliq deleteAdminGroup login=10.0.1.3 userName=admin passWord=secret
adminGroupName=PowerUsers

cliq deleteAdminGroup adminGroupName=PowerUsers
```

deleteAdminUser

This command deletes an administrative user.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq deleteAdminUser login= userName= passWord= adminUserName=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>adminUserName</i>	Required	Specifies the users that this group comprises

Example

```
cliq deleteAdminUser login=10.0.1.3 userName=admin passWord=secret
adminUserName=user

cliq deleteAdminUser adminUserName=user
```

deleteCluster

This command deletes a cluster. All storage systems are removed.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq deleteCluster clusterName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>clusterName</i>	Required	The name of the cluster

Example

```
cliq deleteCluster clusterName=TheCluster login=10.1.2.3
userName=admin passWord=secret

cliq deleteCluster clusterName=TheCluster
```

deleteEmailNotifyPolicy

This command deletes an Email Notification Policy.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq deleteEmailNotifyPolicy emailAddress= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>emailAddress</i>	Required	The notification email.

Example

```
cliq deleteEmailNotifyPolicy emailAddress=myemail@myhost.com  
login=10.1.2.3 userName=admin passWord=secret  
  
cliq deleteEmailNotifyPolicy emailAddress=myemail@myhost.com
```

deleteGroup

This command deletes a management group. All storage systems are removed.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq deleteGroup groupName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>groupName</i>	Required	The name of the group

Example

```
cliq deleteGroup groupName=TheGroup login=10.1.2.3 userName=admin  
passWord=secret  
  
cliq deleteGroup groupName=TheGroup
```

deleteRemoteAssociation

This command deletes a remote group to primary group association.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq  
deleteRemoteAssociation login= userName= passWord= remote= remoteUserName= remotePassWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>remote</i>	Required	The IP address or DNS-resolvable names of one or more remote storage system
<i>remoteUserName</i>	Required	The authentication user name for the remote group
<i>remotePassWord</i>	Required	The password for the remote group
<i>remoteKeyFile</i>	Required	The encrypted key file for the remote group (this is specified instead of the remotename and remotepassword parameters)

Example

```
cliq deleteRemoteAssociation login=10.0.1.2 userName=admin
passWord=secret remote=10.0.1.3 remoteUserName=admin
remotePassWord=secret

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

deleteServer

This command deletes a Server.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq deleteServer serverName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>serverName</i>	Required	The name of the server

Example

```
cliq deleteServer serverName=MyServer login=10.1.2.3 userName=admin
passWord=secret

cliq deleteServer serverName=MyServer
```

deleteSite

This command deletes a site in a multi-site SAN.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq deleteSite siteName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>siteName</i>	Required	The name of the site

Example

```
cliq deleteSite siteName=Headquarters login=10.1.2.3 userName=admin  
passWord=secret  
  
cliq deleteSite siteName=Headquarters
```

deleteSnapshot

This command deletes a snapshot.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq deleteSnapshot snapshotName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>snapshotName</i>	Required	The name of the remote snapshot

Example

```
cliq deleteSnapshot snapshotName=Snapshot0 login=10.1.2.3  
userName=admin passWord=secret  
  
cliq deleteSnapshot snapshotName=Snapshot0
```

deleteSnapshotSchedule

This command deletes a previously created snapshot schedule.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq deleteSnapshotSchedule scheduleName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>scheduleName</i>	Required	The name of the schedule

Example

```
cliq deleteSnapshotSchedule scheduleName="Exchange Backup"
  login=10.1.2.3 userName=admin passWord=secret

cliq deleteSnapshotSchedule scheduleName="Exchange Backup"
```

deleteSnapshotTempSpace

This command deletes the snapshot temporary space.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq deleteSnapshotTempSpace snapshotName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>snapshotName</i>	Required	The name of the remote snapshot

Example

```
cliq deleteSnapshotTempSpace snapshotName=TheSnapshot login=10.1.2.3
  userName=admin passWord=secret

cliq deleteSnapshotTempSpace snapshotName=TheSnapshot
```

deleteSnmpCommunityString

This command deletes an SNMP CommunityString. Either specify an IP Address (as IP Address or Hostname) or IP Mask and IP Subnet.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq deleteSnmpCommunityString ipAddress= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>ipAddress</i>	Optional	This is the address of a storage system to be configured, returned from a call to discoverOob
<i>ipMask</i>	Optional	An IP address mask for SNMP notification.
<i>ipSubnet</i>	Optional	An IP Address subnet for SNMP notification.

Example

```
cliq deleteSnmpCommunityString ipAddress=10.0.10.25 login=10.1.2.3
  userName=admin passWord=secret

cliq deleteSnmpCommunityString ipAddress=10.0.10.25
```

deleteSnmpTrapTarget

This command deletes an SNMP Trap Target.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq deleteSnmpTrapTarget ipAddress= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>ipAddress</i>	Required	This is the address of a storage system to be configured, returned from a call to discoverOob
<i>version</i>	Required	The SNMP Version. 1 - Version 1, 2 - Version 2, 3 - Version 3

Example

```
cliq deleteSnmpTrapTarget ipAddress=10.10.10.25 login=10.1.2.3
  userName=admin passWord=secret

cliq deleteSnmpTrapTarget ipAddress=10.10.10.25
```

deleteSyslogNotifyPolicy

This command deletes a Syslog Notification Policy.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq deleteSyslogNotifyPolicy ipAddress= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>ipAddress</i>	Required	This is the address of a storage system to be configured, returned from a call to discoverOob

Example

```
cliq deleteSyslogNotifyPolicy ipAddress=10.10.10.25 login=10.1.2.3
  userName=admin passWord=secret

cliq deleteSyslogNotifyPolicy ipAddress=10.10.10.25
```

deleteVirtualManager

This command deletes a virtual manager from a group.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq deleteVirtualManager login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq deleteVirtualManager login=10.1.2.3 userName=admin
  passWord=secret

cliq deleteVirtualManager
```

deleteVolume

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

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq deleteVolume volumeName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume

Example

```
cliq deleteVolume volumeName=MyVolume login=10.1.2.3 userName=admin
  passWord=secret

cliq deleteVolume volumeName=MyVolume
```

disconnectLocalVolume

This command disconnects a SAN volume from the host.

Availability: Windows

Version: 8.0

Request Syntax

```
cliq disconnectLocalVolume volumeName=
```

volumeName Required The name of the volume

Example

```
cliq disconnectLocalVolume volumeName=z:
```

discoverTcp

This command discovers storage systems and management groups on the network, using TCP.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq discoverTCP groupOrder= node= login= userName= passWord=
```

<i>node</i>	Required	The host names of the storage systems the cluster comprises
<i>groupOrder</i>	Optional	Return storage systems ordered by group membership. This can be one of: 0 - default, 1
<i>receivePort</i>	Optional	The TCP port to receive the discovery packets (defaults to an unused port if unspecified)
<i>waitForData</i>	Optional	The number of milliseconds to wait for the discovery packets (defaults to 3000 if unspecified)

Example

```
cliq discoverTCP groupOrder=1 node=10.1.2.3;10.1.2.4 login=10.0.1.2  
  userName=admin passWord=secret  
  
cliq discoverTCP groupOrder=1 node=10.1.2.3;10.1.2.4
```

discoverUdp

This command discovers storage systems and management groups on the network, using UDP.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq discoverUdp ipMask= ipSubnet= login= userName= passWord=
```

<i>ipMask</i>	Required	An IP address mask for SNMP notification.
<i>ipSubnet</i>	Required	An IP Address subnet for SNMP notification.

<i>groupOrder</i>	Optional	Return storage systems ordered by group membership. This can be one of: 0 - default, 1
<i>receivePort</i>	Optional	The TCP port to receive the discovery packets (defaults to an unused port if unspecified)
<i>waitForData</i>	Optional	The number of milliseconds to wait for the discovery packets (defaults to 3000 if unspecified)

Example

```
cliq discoverUdp ipMask=255.255.240.0 ipSubnet=10.0.0.0
  login=10.0.1.2 userName=admin passWord=secret

cliq discoverUdp ipMask=255.255.240.0 ipSubnet=10.0.0.0
```

getAlertLog

This command returns Alerts.log information.

Availability: Windows

Version: 8.5

Request Syntax

```
cliq getAlertLog login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq getAlertLog login=10.1.2.3 userName=admin passWord=secret

cliq getAlertLog
```

getClusterInfo

This command returns information about a cluster.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq getClusterInfo clusterName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>clusterName</i>	Optional	The name of the cluster
<i>searchDepth</i>	Optional	Which objects to inspect 1 - Clusters only, 2 - Clusters and volumes, 3 - Clusters, volumes and snapshots, 4 - Clusters, volumes, snapshots and remote snapshots (default)
<i>verbose</i>	Optional	How much information to return 0 - Get summary information only (better performance), 1 - Get all information (better information - default)

Example

```
cliq getClusterInfo clusterName=Cluster0 login=10.1.2.3
  userName=admin passWord=secret

cliq getClusterInfo clusterName=Cluster0
```

getDnsInfo

This command gets the DNS settings.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq getDnsInfo login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq getDnsInfo login=10.0.1.3 userName=admin passWord=secret

cliq getDnsInfo
```

getEventLog

This command returns event information.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq getEventLog login= userName= passWord= type= format= verbosity=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>type</i>	Optional	Event type. This can be one of: AllAlerts, AllEvents, GlobalAlerts, GlobalEvents, LocalAlerts, LocalEvents
<i>format</i>	Optional	Output format. This can be one of: Remote, Client, Xml
<i>report</i>	Optional	Output verbosity. This can be one of: Brief, Standard, Verbose
<i>time</i>	Optional	Time filter, format YYYYMMDDhhmmss:YYYYMMDDhhmmss
<i>component</i>	Optional	Component filter. This can be one or more of: Saniq, Hal, Sys
<i>severity</i>	Optional	Severity filter. This can be one or more of: Info, Warning, Critical
<i>object</i>	Optional	Object filter. This can be one or more of: MgmtGroup, RemoteMgmtGroup, Cluster, Manager, VirtualManager, Store, SnapshotSchedule, Volume, Snapshot

<i>system</i>	Optional	System filter. This can be one or more of: System, Controller, Cache, Disk, Boot, Backplane, Fan, Temperature, Voltage, PowerSupply, RAID
<i>source</i>	Optional	Source filter, source name
<i>user</i>	Optional	The name of the administrative user

Example

```
cliq getEventLog login=10.1.2.3 userName=admin passWord=secret
type=AllEvents format=Xml verbosity=Standard
component=Saniq severity=warning;Critical object=Cluster
system=System;Disk
```

getGroupInfo

This command returns information about a management group.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq getGroupInfo login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>searchDepth</i>	Optional	Which objects to inspect 1 - Groups only, 2 - Groups and clusters, 3 - Groups, clusters and volumes, 4 - Groups, clusters, volumes and snapshots, 5 - Groups, clusters, volumes, snapshots and remote snapshots (default)
<i>verbose</i>	Optional	How much information to return 0 - Get summary information only (better performance), 1 - Get all information (better information - default)

Example

```
cliq getGroupInfo login=10.1.2.3 userName=admin passWord=secret
cliq getGroupInfo
```

getLocalVolumes

This command returns information about connected volumes hosted by the HP P4000 array.

Availability: Windows

Version: 8.0

Request Syntax

```
cliq getLocalVolumes
```

Example

```
cliq getLocalVolumes
```

getNotificationPolicy

This command returns information about the Alerts and Events Policy, Email Notification Policy, Syslog Notification Policy, and Email Server Setting.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq getNotificationPolicy login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq getNotificationPolicy login=10.1.2.3 userName=admin  
passWord=secret
```

```
cliq getNotificationPolicy
```

getNsmInfo

This command returns information about a storage system.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq getNsmInfo login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq getNsmInfo login=10.1.2.3 userName=admin passWord=secret
```

```
cliq getNsmInfo
```

getNsmLogs

This command gathers all log files from a storage system and stores the archive locally.

Availability: Windows

Version: 8.0

Request Syntax

```
cliq getNsmLogs login= userName= passWord= logFile=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>logFile</i>	Required	The name of the local file for the log archive

Example

```
cliq getNsmLogs login=10.1.2.3 userName=admin passWord=secret  
logFile=c:\logs.tar.gz
```

getPerformanceStats

This command returns performance monitoring statistics.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq getPerformanceStats login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>interval</i>	Optional	The interval in between counter sampling in milliseconds. Defaults to 6000. Note: Because the internal sampling frequency is 6 seconds, it's not recommended to set this value less than 6000

Example

```
cliq getPerformanceStats login=10.1.2.3 userName=admin  
passWord=secret  
  
cliq getPerformanceStats
```

getRemoteSnapshotInfo

This command returns information about remote snapshots.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq getRemoteSnapshotInfo snapshotName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>snapshotName</i>	Required	The name of the remote snapshot
<i>snapshotName</i>	Optional	The name of the remote snapshot
<i>verbose</i>	Optional	How much information to return 0 - Get summary information only (better performance), 1 - Get all information (better information - default)

Example

```
cliq getRemoteSnapshotInfo snapshotName=TheSnapshot login=10.1.2.3  
userName=admin passWord=secret
```

```
cliq getRemoteSnapshotInfo snapshotName=TheSnapshot
```

getScsiInfo

This command returns SCSI inquiry information about a locally connected volume.

Availability: Windows

Version: 8.0

Request Syntax

```
cliq getScsiInfo volumeName=
```

volumeName Required The name of the volume

Example

```
cliq getScsiInfo volumeName=z:
```

getServerCapabilities

This will interrogate a remote server for its HP P4000 integration capabilities. If this call succeeds, the actual capabilities will be returned. The only acceptable result here is VSS Snapshot Integration. For anticipated future releases, this may also include information about virtual machine hosting (Vmware, Citrix, Hyper-V), and Server information.

Availability: Windows, SAN/iQ

Version: 8.5

Request Syntax

```
cliq getServerCapabilities login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>serverIp</i>	Optional	The Windows server IP address.

Example

```
cliq getServerCapabilities login=10.0.1.2 userName=admin  
passWord=secret  
cliq getServerCapabilities
```

getServerInfo

This will return information about server objects, which contain permission settings for servers to connect to SAN/iQ volumes.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq getServerInfo login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>serverName</i>	Optional	The name of the server

Example

```
cliq getServerInfo login=10.0.1.2 userName=admin passWord=secret  
cliq getServerInfo
```

getServerJobInfo

This command will display completed and running application managed snapshot jobs on a Windows Application Server.

Availability: Windows, SAN/iQ

Version: 9.5

Request Syntax

```
cliq getServerJobInfo serverIp= jobId=
```

serverIp Required The Windows server IP address.
jobId Optional Job ID

Response Syntax

```
response
  description=""
  name=""
  processingTime=""
  result=""

  job
    applicationIntegration=""
    description=""
    endTime=""
    instanceID=""
    percentComplete=""
    result=""
    startTime=""
    status=""
    volumeName=""
```

<i>description</i>	Optional description
<i>name</i>	Name of the CLIQ error
<i>processingTime</i>	Processing time
<i>result</i>	Result code
<i>job</i>	The job data
<i>applicationIntegration</i>	Managed application type 0-VSS, 1-VMWare
<i>endTime</i>	Time when the job is completed
<i>instanceID</i>	Instance ID
<i>percentComplete</i>	Percent complete
<i>volumeName</i>	The name of the volume

Example Request

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

Example Response

```
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
```

getServerVolumeInfo

This command returns the features of a volume by interrogating a remote server. This will return VSS associated volumes.

Availability: Windows, SAN/iQ

Version: 8.5

Request Syntax

```
cliq getServerVolumeInfo login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>serverIp</i>	Optional	The Windows server IP address.

Example

```
cliq getServerVolumeInfo login=10.0.1.2 userName=admin  
passWord=secret  
cliq getServerVolumeInfo
```

getSiteInfo

This command returns site information on multi-site SANs.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq getSiteInfo siteName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>siteName</i>	Optional	The name of the site

Example

```
cliq getSiteInfo siteName=TheSite login=10.1.2.3 userName=admin  
passWord=secret  
cliq getSiteInfo siteName=TheSite
```

getSnapshotInfo

This command returns information about a snapshot.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq getSnapshotInfo snapshotName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>snapshotName</i>	Optional	The name of the remote snapshot
<i>searchDepth</i>	Optional	Which objects to inspect 1 - Snapshots only, 2 - Snapshots and remote snapshots (default)
<i>verbose</i>	Optional	How much information to return 0 - Get summary information only (better performance), 1 - Get all information (better information - default)

Example

```
cliq getSnapshotInfo snapshotName=TheSnapshot login=10.1.2.3  
userName=admin passWord=secret  
  
cliq getSnapshotInfo snapshotName=TheSnapshot
```

getSnapshotScheduleInfo

This command returns information about snapshot schedules.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq getSnapshotScheduleInfo login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>scheduleName</i>	Optional	The name of the schedule

Example

```
cliq getSnapshotScheduleInfo login=10.0.1.3 userName=admin  
passWord=secret  
  
cliq getSnapshotScheduleInfo
```

getSnmpInfo

This command returns information about the SNMP Service and Targets.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq getSnmpInfo login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq getSnmpInfo login=10.1.2.3 userName=admin passWord=secret
cliq getSnmpInfo
```

getSupportInfo

This command gathers all support log files from a management group and all its member storage systems. If the specified storage system does not belong to any management group, then only logs from the storage system will be collected. This command stores the archive locally.

Availability: Windows

Version: 8.5

Request Syntax

```
cliq getSupportInfo login= userName= passWord= filepath=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>filepath</i>	Optional	The path to hold the final archive, if not specified, the current directory will be used.

Example

```
cliq getSupportInfo login=10.1.2.3 userName=admin passWord=secret
filepath=c:\temp
```

getSystemInfo

This command returns version information about the API, and other dependent libraries.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq getSystemInfo
```

Example

```
cliq getSystemInfo  
cliq getSystemInfo
```

getVolumeInfo

This command returns information about a volume.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq getVolumeInfo volumeName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Optional	The name of the volume
<i>searchDepth</i>	Optional	Which objects to inspect 1 - Volumes only, 2 - Volumes and snapshots, 3 - Volumes, snapshots and remote snapshots (default)
<i>verbose</i>	Optional	How much information to return 0 - Get summary information only (better performance), 1 - Get all information (better information - default)

Example

```
cliq getVolumeInfo volumeName=volume0 login=10.1.2.3 userName=admin  
passWord=secret  
cliq getVolumeInfo volumeName=volume0
```

help

This command returns information about the currently supported API command set.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq help command=
```

<i>command</i>	Optional	A specific command for more detailed help informationNote: if help is specified with no parameters, a list of possible return codes is returned
----------------	----------	---

Example

```
cliq help command=getSystemInfo
cliq help command=getSystemInfo
```

makePrimary

This command promotes a remote volume to a primary production volume.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq makePrimary login= userName= passWord= volumeName= size=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>size</i>	Required	The size of the volume, with units specified: <n>MB - n Megabytes (1024 Kilobytes), <n>GB - n Gigabytes (1024 Megabytes), <n>TB - n Terabytes (1024 Gigabytes)
<i>size</i>	Optional	The size of the volume, with units specified: <n>MB - n Megabytes (1024 Kilobytes), <n>GB - n Gigabytes (1024 Megabytes), <n>TB - n Terabytes (1024 Gigabytes)

Example

```
cliq makePrimary login=10.1.2.3 userName=admin passWord=secret
volumeName="TheVolume" size=1GB
cliq makePrimary volumeName="TheVolume" size=1GB
```

makeRemote

This command demotes a primary volume to a remote snapshot target.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq makePrimary login= userName= passWord= volumeName= snapshotName=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>snapshotName</i>	Required	The name of the remote snapshot

Example

```
cliq makePrimary login=10.1.2.3 userName=admin passWord=secret
volumeName="TheVolume" snapshotName="TheSnapshot "

cliq makePrimary volumeName="TheVolume" snapshotName="TheSnapshot "
```

modifyAdminGroup

This command modifies an administrative group.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq
modifyAdminGroup login= userName= passWord= description= adminGroupName= adminUserName= perm
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>adminGroupName</i>	Required	The administrative group name
<i>adminUserName</i>	Optional	Specifies the users that this group comprises
<i>description</i>	Optional	Optional description
<i>permissions</i>	Optional	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, w - read-write (Report does not support this), f - full-access (Report does not support this)For example:Note: if this is not specified, the permissions are set to rrrr

Example

```
cliq modifyAdminGroup login=10.0.1.3 userName=admin passWord=secret
description="My shiny new group" adminGroupName=PowerUsers
adminUserName=user1;user2 permissions=fffr

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

modifyAdminUser

This command modifies an administrative user.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq
modifyAdminUser login= userName= passWord= description= adminUserName= adminPassWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
--------------	----------	---

<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>adminUserName</i>	Required	Specifies the users that this group comprises
<i>description</i>	Optional	Optional description
<i>adminPassWord</i>	Optional	The password for the administrative user

Example

```
cliq modifyAdminUser login=10.0.1.3 userName=admin passWord=secret
description="My shiny new user" adminUserName=user
adminPassWord=secret
```

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

modifyCluster

This command changes settings on a cluster.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq
modifyCluster clusterName= login= userName= passWord= description= useVip= node= vip=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>clusterName</i>	Required	The name of the cluster
<i>newName</i>	Optional	The new name for the cluster
<i>description</i>	Optional	Optional description
<i>useVip</i>	Optional	Should virtual IP (VIP) addressing be used? This can be one of: 0, 1 - default
<i>node</i>	Optional	The host names of the storage systems the cluster comprises
<i>vip</i>	Optional	A delimited list of virtual IP address and subnet maskNote: since each VIP contains two parameters, IP address and subnet mask, both must be specified in order, even if empty

Example

```
cliq modifyCluster clusterName=TheCluster login=10.0.1.3
userName=admin passWord=secret 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;
```

```
cliq 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

This command modifies an Email Notification Policy.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq modifyEmailNotifyPolicy login= userName= passWord= emailAddress= verbosity=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>emailAddress</i>	Required	The notification email.
<i>verbosity</i>	Required	The level of returned information via email notification. 1 - brief, 2 - standard, 3 - verbose
<i>severities</i>	Optional	
<i>alertOnInformation</i>	Optional	0 - the log does not includes informational events (default), 1 - the log includes informational events
<i>alertOnWarning</i>	Optional	0 - the log does not includes warning events (default), 1 - the log includes warning events
<i>alertOnCritical</i>	Optional	0 - the log does not includes critical events (default), 1 - the log includes critical events

Example

```
cliq modifyEmailNotifyPolicy login=10.0.1.3 userName=admin  
passWord=secret emailAddress="myemail@myhost.com" verbosity="2"  
  
cliq modifyEmailNotifyPolicy emailAddress="myemail@myhost.com"  
verbosity="2"
```

modifyGroup

This command changes settings on a management group.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq modifyGroup login= userName= passWord= node=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>node</i>	Optional	The host names of the storage systems the cluster comprises
<i>bandwidthPriority</i>	Optional	The manager bandwidth <n>Kb - Kilobits/sec (1000 Bits/second), <n>Mb - Megabits/sec (1000 Kilobits/second), <n>Gb - Gigabits/sec (1000 Megabits/second)
<i>customerName</i>	Optional	Customer name
<i>supportId</i>	Optional	Support ID provided by HP P4000

<i>contactName</i>	Optional	Contact name
<i>postalAddress</i>	Optional	Postal address line 1
<i>postalAddress2</i>	Optional	Postal address line 2
<i>cityName</i>	Optional	Postal city
<i>stateName</i>	Optional	Postal state
<i>countryName</i>	Optional	Postal country
<i>postalCode</i>	Optional	Postal code
<i>telephoneNumber</i>	Optional	Contact telephone number
<i>emailAddress</i>	Optional	The notification email.

Example

```
cliq modifyGroup login=10.0.1.2 userName=admin passWord=secret
node=10.0.1.2;10.0.1.3

cliq modifyGroup node=10.0.1.2;10.0.1.3
```

modifyRemoteAssociation

This command modifies a previously created remote volume association.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq
modifyRemoteAssociation login= userName= passWord= remote= remoteUserName= remotePassWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>remote</i>	Required	The IP address or DNS-resolvable names of one or more remote storage system
<i>remoteUserName</i>	Required	The authentication user name for the remote group
<i>remotePassWord</i>	Required	The password for the remote group
<i>remoteKeyFile</i>	Required	The encrypted key file for the remote group (this is specified instead of the remoteusername and remotepassword parameters)
<i>primaryBandwidth</i>	Optional	The remote copy bandwidth to the primary group (this is at the group level) <n>Kb - Kilobits/sec (1000 Bits/second), <n>Mb - Megabits/sec (1000 Kilobits/second), <n>Gb - Gigabits/sec (1000 Megabits/second)
<i>remoteBandwidth</i>	Optional	The remote copy bandwidth to the remote group (this is at the group level) <n>Kb - Kilobits/sec (1000 Bits/second), <n>Mb - Megabits/sec (1000 Kilobits/second), <n>Gb - Gigabits/sec (1000 Megabits/second)

Example

```
cliq modifyRemoteAssociation login=10.0.1.2 userName=admin
passWord=secret remote=10.0.1.3 remoteUserName=admin
remotePassWord=secret remoteBandwidth=10Mb

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

modifyRemoteSnapshotSchedule

This command modifies a previously created remote snapshot schedule.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq modifyRemoteSnapshotSchedule scheduleName= login= userName= passWord= remoteretentioncount=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>scheduleName</i>	Required	The name of the schedule
<i>remoteretentioncount</i>	Optional	The number of remote snapshots to maintain. Must be between 1 and 50. Either <i>remoteretentioncount</i> or <i>remoteretentionseconds</i> must be specified.
<i>remoteretentionseconds</i>	Optional	How long remote snapshots should be retained. Either <i>remoteretentioncount</i> or <i>remoteretentionseconds</i> must be specified.

Example

```
cliq modifyRemoteSnapshotSchedule scheduleName="TheSchedule"
login="10.0.1.2" userName="admin" passWord="secret"
remoteretentioncount="10"

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

modifyServer

This command modifies a server.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq modifyServer serverName= useChap= initiator= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>serverName</i>	Required	The name of the server
<i>description</i>	Optional	Optional description
<i>allowiSCSIAccess</i>	Optional	Allow iSCSI access for this host. This can be one of 0, 1 - default
<i>vipLoadBalance</i>	Optional	Use VIP load balancing for this host. This can be one of: 0, 1 - default
<i>useCHAP</i>	Optional	Use CHAP Authentication this host. This can be one of: 0, 1
<i>initiator</i>	Optional	A semicolon delimited string of host IQN's. If this is not specified, the IQN of the local server is used (this parameter is required if run on a storage system).

- chapName* Optional 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).
- targetSecret* Optional The CHAP target secret for the volume.
- initiatorSecret* Optional The CHAP initiator secret for the volume.

Example

```
cliq modifyServer serverName=TheServer useChap=0
  initiator=iqn.1991-05.com.microsoft:w-
  gregorio.corp.lefthandnetworks.com login=10.0.1.2 userName=admin
  passWord=secret

cliq modifyServer serverName=TheServer useChap=0
  initiator=iqn.1991-05.com.microsoft:w-
  gregorio.corp.lefthandnetworks.com
```

modifySite

This command modifies a site in a multi-site SAN.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq modifySite siteName= description= login= userName= passWord=
```

- login* Required The IP address or DNS-resolvable names of one or more storage systems
- userName* Required The authentication user name for the storage system
- passWord* Required The password for the storage system
- keyFile* Required The encrypted key file (this is specified instead of the username and password parameters)
- siteName* Required The name of the site
- node* Optional The host names of the storage systems the cluster comprises
- description* Optional Optional description
- primary* Optional This site is the primary site. This can be one of: 0, 1 - default

Example

```
cliq modifySite siteName=TheSite description="My Site" login=10.0.1.2
  userName=admin passWord=secret

cliq modifySite siteName=TheSite description="My Site"
```

modifySnapshot

This command modifies snapshot settings.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq modifySnapshot description= login= userName= passWord= snapshotName=
```

- login* Required The IP address or DNS-resolvable names of one or more storage systems

<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>snapshotName</i>	Required	The name of the remote snapshot
<i>description</i>	Optional	Optional description
<i>scratchQuota</i>	Optional	The scratch quota for the volume, as a percentage or size - this is the size guaranteed to be available for snapshots of this volume, regardless of space allocated to other objects in the system

Example

```
cliq modifySnapshot description="New Description" login=10.0.1.2
  userName=admin passWord=secret snapshotName=TheSnapshot
```

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

modifySnapshotSchedule

This command modifies a previously created snapshot schedule.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq modifySnapshotSchedule scheduleName= description= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>scheduleName</i>	Required	The name of the schedule
<i>description</i>	Optional	Optional description
<i>recurperiod</i>	Optional	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).
<i>starttime</i>	Optional	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 minute, SS is the seconds. The time must always be expressed in GMT time.
<i>retentioncount</i>	Optional	The number of snapshots to maintain. Must be between 1 and 50. Either retentioncount or retentionseconds must be specified.
<i>retentionseconds</i>	Optional	How long snapshots should be retained. Either retentioncount or retentionseconds must be specified.
<i>paused</i>	Optional	State of the snapshot schedule. This can be one of: 0 - schedule is not paused, 1 - schedule is paused

Example

```
cliq modifySnapshotSchedule scheduleName="TheSchedule"  
description="First snapshot schedule" login="10.0.1.2"  
userName="admin" passWord="secret "  
  
cliq modifySnapshotSchedule scheduleName="TheSchedule"  
description="First snapshot schedule"
```

modifySnmpCommunityString

This command modifies the Community String for all SNMP.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq modifySnmpCommunityString login= userName= passWord= communityString=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>communityString</i>	Required	The SNMP community string.

Example

```
cliq modifySnmpCommunityString login=10.0.1.3 userName=admin  
passWord=secret communityString="NewString"  
  
cliq modifySnmpCommunityString communityString="NewString"
```

modifySnmpTrapTarget

This command modifies an SNMP Trap Target.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq modifySnmpTrapTarget login= userName= passWord= ipAddress= versiony=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>ipAddress</i>	Required	This is the address of a storage system to be configured, returned from a call to discoverOob
<i>version</i>	Required	The SNMP Version. 1 - Version 1, 2 - Version 2, 3 - Version 3

Example

```
cliq modifySnmpTrapTarget login=10.0.1.3 userName=admin
passWord=secret ipAddress="10.0.10.25" versiony="2"

cliq modifySnmpTrapTarget ipAddress="10.0.10.25" versiony="2"
```

modifySyslogNotifyPolicy

This command modifies a Syslog Notification Policy.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq modifySyslogNotifyPolicy login= userName= passWord= ipAddress= alertOnInfo=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>ipAddress</i>	Required	This is the address of a storage system to be configured, returned from a call to discoverOob
<i>severities</i>	Optional	
<i>alertOnInformation</i>	Optional	0 - the log does not includes informational events (default), 1 - the log includes informational events
<i>alertOnWarning</i>	Optional	0 - the log does not includes warning events (default), 1 - the log includes warning events
<i>alertOnCritical</i>	Optional	0 - the log does not includes critical events (default), 1 - the log includes critical events

Example

```
cliq modifySyslogNotifyPolicy login=10.0.1.3 userName=admin
passWord=secret ipAddress="10.0.10.25" alertOnInfo="1"

cliq modifySyslogNotifyPolicy login=10.0.1.3 userName=admin
passWord=secret ipAddress="10.0.10.25" alertOnInfo="1"
```

modifyVolume

This command modifies volume settings.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq modifyVolume description= login= userName= passWord= volumeName=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system

<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>description</i>	Optional	Optional description
<i>replication</i>	Optional	The replication level for the volume (1 2 3 4)
<i>minReplication</i>	Optional	The minimum replication allowed for the volume before it goes offline (1 2 3 4). Note: the minReplication value must be equal to or less than the replication value on the volume.
<i>parity</i>	Optional	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), replication:3, parity:0 Network RAID-10+1 (3-way Mirror), replication:4, parity:0 Network RAID-10+2 (4-way Mirror), replication:2, parity:1 Network RAID-5 (Single parity), replication:3, parity:2 Network RAID-6 (Dual Parity)
<i>checkSum</i>	Optional	0 - the volume does not use checksums 1 - the volume uses checksums
<i>thinProvision</i>	Optional	0 - the volume does not use thin-provisioning 1 - The volume is thin-provisioned (in a thinly provisioned volume, reserve may be < length)
<i>initialQuota</i>	Optional	The initial quota for the volume, as a percentage or size - the volume resets to this initial size when a snapshot is taken
<i>reserveQuota</i>	Optional	The reserve quota for the volume, as a percentage or size - this is the size guaranteed to be available for this volume, regardless of space allocated to other objects in the system
<i>scratchQuota</i>	Optional	The scratch quota for the volume, as a percentage or size - this is the size guaranteed to be available for snapshots of this volume, regardless of space allocated to other objects in the system
<i>stridePages</i>	Optional	This is the initial stride setting for the volume - this must be a power of 2 (1,2,4,8)
<i>autogrowSeconds</i>	Optional	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
<i>clusterName</i>	Optional	The name of the cluster
<i>size</i>	Optional	The size of the volume, with units specified: <n>MB - n Megabytes (1024 Kilobytes), <n>GB - n Gigabytes (1024 Megabytes), <n>TB - n Terabytes (1024 Gigabytes)
<i>friendlyName</i>	Optional	This is an optional field used internally WARNING: Using an initialQuota, stridePages or autogrowSeconds value other than the default may impact application server performance. minReplication values of 3 and 4 are experimental and have not been fully regression tested. Use at your own risk.

Example

```
cliq modifyVolume description="New Description" login=10.0.1.2
  userName=admin passWord=secret volumeName=TheVolume

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

provisionVolume

This command creates a volume and connects it to the host.

Availability: Windows

Version: 8.0

Request Syntax

```
cliq
  provisionVolume clusterName= volumeName= description= size= mountPoint= login= userName= pas
```

login Required The IP address or DNS-resolvable names of one or more storage systems

<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>clusterName</i>	Required	The name of the cluster
<i>volumeName</i>	Required	The name of the volume
<i>size</i>	Required	The size of the volume, with units specified: <n>MB - n Megabytes (1024 Kilobytes), <n>GB - n Gigabytes (1024 Megabytes), <n>TB - n Terabytes (1024 Gigabytes)
<i>description</i>	Optional	Optional description
<i>replication</i>	Optional	The replication level for the volume (1 2 3 4)
<i>minReplication</i>	Optional	The minimum replication allowed for the volume before it goes offline (1 2 3 4). Note: the minReplication value must be equal to or less than the replication value on the volume.
<i>parity</i>	Optional	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), replication:3, parity:0 Network RAID-10+1 (3-way Mirror), replication:4, parity:0 Network RAID-10+2 (4-way Mirror), replication:2, parity:1 Network RAID-5 (Single parity), replication:3, parity:2 Network RAID-6 (Dual Parity)
<i>checkSum</i>	Optional	0 - the volume does not use checksums 1 - the volume uses checksums
<i>thinProvision</i>	Optional	0 - the volume does not use thin-provisioning 1 - The volume is thin-provisioned (in a thinly provisioned volume, reserve may be < length)
<i>initialQuota</i>	Optional	The initial quota for the volume, as a percentage or size - the volume resets to this initial size when a snapshot is taken
<i>reserveQuota</i>	Optional	The reserve quota for the volume, as a percentage or size - this is the size guaranteed to be available for this volume, regardless of space allocated to other objects in the system
<i>scratchQuota</i>	Optional	The scratch quota for the volume, as a percentage or size - this is the size guaranteed to be available for snapshots of this volume, regardless of space allocated to other objects in the system
<i>mountPoint</i>	Optional	The drive letter or mount point on the host for the volume (LUN will be uninitialized if not specified)
<i>stridePages</i>	Optional	This is the initial stride setting for the volume - this must be a power of 2 (1,2,4,8)
<i>namePrefix</i>	Optional	A prefix string for newly created objects. A unique number value will be concatenated to this prefix to guarantee name uniqueness.
<i>vipLoadBalance</i>	Optional	Use VIP load balancing for this host. This can be one of: 0, 1 - default

Example

```
cliq provisionVolume clusterName=TheCluster volumeName=TheVolume
description=NewVolume size=100GB mountPoint=z: login=10.0.1.2
userName=admin passWord=secret
```

rebalanceVip

This command rebalances the connections to a volume when using a virtual IP address.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq rebalanceVip volumeName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system

<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume

Example

```
cliq rebalanceVip volumeName=MyVolume login=10.1.2.3 userName=admin
passWord=secret
cliq rebalanceVip volumeName=MyVolume
```

recoverQuorum

This command is used to 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. **WARNING:** 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).

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq recoverQuorum login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq recoverQuorum login=10.1.2.3 userName=admin passWord=secret
cliq recoverQuorum
```

removeSnapshot

This command disconnects a SAN snapshot from the host, then deletes it. If the snapshot cannot be disconnected (because it's in use, or for any other reason), it will not be deleted.

Availability: Windows

Version: 8.5

Request Syntax

```
cliq removeSnapshot snapshotName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system

<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>snapshotName</i>	Required	The name of the remote snapshot

Example

```
cliq removeSnapshot snapshotName=z: login=10.0.1.2 userName=admin
passWord=secret
```

removeVolume

This command disconnects a SAN volume from the host, then deletes it. If the volume cannot be disconnected (because it's in use, or for any other reason), it will not be deleted.

Availability: Windows

Version: 8.0

Request Syntax

```
cliq removeVolume volumeName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume

Example

```
cliq removeVolume volumeName=z: login=10.0.1.2 userName=admin
passWord=secret
```

resetSession

This command resets the iSCSI session associated with a volume. Some initiators will attempt to reconnect after the reset.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq resetSession volumeName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>initiator</i>	Optional	A semicolon delimited string of host IQN's. If this is not specified, the IQN of the local server is used (this parameter is required if run on a storage system).

Example

```
cliq resetSession volumeName=MyVolume login=10.1.2.3 userName=admin
passWord=secret

cliq resetSession volumeName=MyVolume
```

rollbackSnapshot

This command rolls back a snapshot. **WARNING:** 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.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq rollbackSnapshot snapshotName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>snapshotName</i>	Required	The name of the remote snapshot
<i>description</i>	Optional	Optional description

Example

```
cliq rollbackSnapshot snapshotName=TheSnapshot login=10.0.1.2
userName=admin passWord=secret

cliq rollbackSnapshot snapshotName=TheSnapshot
```

runDiagnostic

This command runs one or all storage system diagnostics.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq runDiagnostic login= userName= passWord= diagnosticName=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>diagnosticName</i>	Optional	The name of the diagnostic to run (if unspecified, all diagnostics are listed; if "*" is specified, all are run)

Example

```
cliq runDiagnostic login=10.0.1.2 userName=admin passWord=secret
      diagnosticName=healthCheck

cliq runDiagnostic diagnosticName=healthCheck
```

setAlertsPolicy

This command sets information for the Alerts and Events Policy.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq setAlertsPolicy login= userName= passWord= aging=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>aging</i>	Optional	The aging in months.
<i>logSize</i>	Optional	{excerpt:hidden=true}The size of the Alerts and Events log, with units specified.
<i>maxLogSize</i>	Optional	The maximum size of the Alerts and Events log, with units specified: <n>MB, n Megabytes (1024 Kilobytes), <n>GB, n Gigabytes (1024 Megabytes), <n>TB, n Terabytes (1024 Gigabytes)
<i>severities</i>	Optional	
<i>alertOnInformation</i>	Optional	0 - the log does not includes informational events (default), 1 - the log includes informational events
<i>alertOnWarning</i>	Optional	0 - the log does not includes warning events (default), 1 - the log includes warning events
<i>alertOnCritical</i>	Optional	0 - the log does not includes critical events (default), 1 - the log includes critical events

Example

```
cliq setAlertsPolicy login=10.0.1.3 userName=admin passWord=secret
      aging="2"

cliq setAlertsPolicy aging="2"
```

setDnsInfo

This command sets information for DNS.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq setDnsInfo login= userName= passWord= server= suffix= domainname=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system

<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>ipAddress</i>	Required	This is the address of a storage system to be configured, returned from a call to <code>discoverOob</code>
<i>email</i>	Required	The email address of the sender.
<i>domainname</i>	Optional	The domain name.
<i>suffix</i>	Optional	DNS suffixes.
<i>server</i>	Optional	List of DNS servers, IP addresses.

Example

```
cliq setDnsInfo login=10.0.1.3 userName=admin passWord=secret
server=10.23.0.101 suffix=suffix1;suffix2 domainname=domainname

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

setEmailServerInfo

This command sets information for the email server.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq setEmailServerInfo login= userName= passWord= ipAddress= portNumber= email=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>ipAddress</i>	Required	This is the address of a storage system to be configured, returned from a call to <code>discoverOob</code>
<i>email</i>	Required	The email address of the sender.
<i>portNumber</i>	Optional	The Port Number to send email on.

Example

```
cliq setEmailServerInfo login=10.0.1.3 userName=admin passWord=secret
ipAddress=10.23.0.101 portNumber=2309 email=anyemail@myhost.com

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

setGossipList

This command sets the gossip list on a storage system. In the normal case, the gossip list is managed by the SAN/iQ agent. This is a backup mechanism that the API provides for imposing this if it's set incorrectly.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq setGossipList login= userName= passWord= node=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>node</i>	Required	The host names of the storage systems the cluster comprises

Example

```
cliq setGossipList login=10.0.1.2 userName=admin passWord=secret  
node=10.0.1.3;10.0.1.4  
  
cliq setGossipList node=10.0.1.3;10.0.1.4
```

setLicenseKey

This command sets the license key on a storage system.

Availability: Windows, SAN/iQ

Version: 8.5

Request Syntax

```
cliq setLicenseKey login= userName= passWord= licenseKey=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>licenseKey</i>	Required	license key obtained from HP

Example

```
cliq setLicenseKey login=10.0.1.2 userName=admin  
passWord=secret licenseKey=0447-10AB-A698-  
AB5A-318D-86B0-FAA8-454A-63B7-3B2B-00F5-11F5-62EF-9270-  
E91A-0340-09A2-ABA1-8E87-7BAF-E527-E905-0DE2-E921-34A1-  
A730-737B-718C-9063-7183-8CAF-4B3E-25  
  
cliq setLicenseKey licenseKey=0447-10AB-A698-  
AB5A-318D-86B0-FAA8-454A-63B7-3B2B-00F5-11F5-62EF-9270-  
E91A-0340-09A2-ABA1-8E87-7BAF-E527-E905-0DE2-E921-34A1-  
A730-737B-718C-9063-7183-8CAF-4B3E-25
```

setSnmpNotifyPolicy

This command sets SNMP Notification Policy settings.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq setSnmpNotifyPolicy login= userName= passWord= verbosity= alertOnCritical=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>verbosity</i>	Optional	The level of returned information via email notification. 1 - brief, 2 - standard, 3 - verbose
<i>severities</i>	Optional	
<i>alertOnInformation</i>	Optional	0 - the log does not includes informational events (default), 1 - the log includes informational events
<i>alertOnWarning</i>	Optional	0 - the log does not includes warning events (default), 1 - the log includes warning events
<i>alertOnCritical</i>	Optional	0 - the log does not includes critical events (default), 1 - the log includes critical events

Example

```
cliq setSnmpNotifyPolicy login=10.0.1.3 userName=admin  
passWord=secret verbosity=1 alertOnCritical=1  
  
cliq setSnmpNotifyPolicy verbosity=1 alertOnCritical=1
```

setSnmpServiceInfo

This command sets information about the SNMP Service.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq setSnmpServiceInfo login= userName= passWord= contact= location=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>contact</i>	Required	Contact information.
<i>location</i>	Required	Location information.

Example

```
cliq setSnmpServiceInfo login=10.0.1.3 userName=admin passWord=secret  
contact="Mr Douglas" location="main office"  
  
cliq setSnmpServiceInfo contact="Mr Douglas" location="main office"
```

shutdownGroup

This command forces a soft shutdown of a management group.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq shutdownGroup login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq shutdownGroup login=10.0.1.2 userName=admin passWord=secret  
cliq shutdownGroup
```

shutdownNsm

This command shuts down a storage system.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq shutdownNsm action= delay= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>action</i>	Required	The operation to perform. This can be one of: Shutdown - powers off the storage system, Restart - reboots the storage system, Cancel - cancels a restart or shutdown if pending
<i>delay</i>	Optional	The number of minutes to delay prior to shutdown or restart (defaults to 0)

Example

```
cliq shutdownNsm action=Restart delay=10 login=10.0.1.2  
userName=admin passWord=secret  
cliq shutdownNsm action=Restart delay=10
```

startManager

This command starts the manager on a storage system.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq startManager login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
--------------	----------	---

<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq startManager login=10.0.1.2 userName=admin passWord=secret
cliq startManager
```

startSnmpService

This command starts the SNMP Service.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq startSnmpService login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq startSnmpService login=10.0.1.2 userName=admin passWord=secret
cliq startSnmpService
```

startVirtualManager

This command starts a virtual manager on a storage system.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq startVirtualManager login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq startVirtualManager login=10.0.1.2 userName=admin  
passWord=secret  
  
cliq startVirtualManager
```

stopManager

This command stops the manager on a storage system.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq stopManager login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq stopManager login=10.0.1.2 userName=admin passWord=secret  
  
cliq stopManager
```

stopSnmpService

This command stops the SNMP Service.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq stopSnmpService login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq stopSnmpService login=10.0.1.2 userName=admin passWord=secret  
  
cliq stopSnmpService
```

stopVirtualManager

This command stops a virtual manager on a storage system.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq stopVirtualManager login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)

Example

```
cliq stopVirtualManager login=10.0.1.2 userName=admin passWord=secret
cliq stopVirtualManager
```

testCredentials

This command tests the login credentials for a management group.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq testCredentials login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>groupName</i>	Required	The name of the group

Example

```
cliq testCredentials login=10.0.1.2 userName=admin passWord=secret
cliq testCredentials
```

unassignVolume

This command disassociates a volume from all servers.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq unassignVolume volumeName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume

Example

```
cliq unassignVolume volumeName=TheVolume login=10.0.1.2  
userName=admin passWord=secret  
  
cliq unassignVolume volumeName=TheVolume
```

unassignVolumeToServer

This command disassociates a volume with a server.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq unassignVolumeToServer volumeName= serverName= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>volumeName</i>	Required	The name of the volume
<i>serverName</i>	Required	The name of the server
<i>accessRights</i>	Optional	The access rights to the volume: r - read-only, x - no access, rw - read-write (default)

Example

```
cliq unassignVolumeToServer volumeName=TheVolume serverName=TheServer  
login=10.0.1.2 userName=admin passWord=secret  
  
cliq unassignVolumeToServer volumeName=TheVolume serverName=TheServer
```

utility

This command executes a utility program on a storage system.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq utility run= login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>run</i>	Optional	The utility and parameters to execute on the storage system - if this parameter is missing, a list of possible commands is returned

Example

```
cliq utility run=ping -c 10 10.3.2.1" login=10.1.2.3 userName=admin
passWord=secret
```

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

vssSnapshot

This command snapshots volumes using the VSS requestor client (Windows only).

Availability: Windows 2003 and 2008 Only

Version: 8.0

Request Syntax

```
cliq vssSnapshot volumeName=
```

<i>volumeName</i>	Optional	The name of the volume
<i>persistent</i>	Optional	Is the snapshot persistent? This can be one of: 0, 1 - default
<i>transportable</i>	Optional	Is the snapshot transportable? This can be one of: 0 - default, 1
<i>backupDoc</i>	Optional	The name of the backup document file
<i>writerInfo</i>	Optional	Display information about VSS writers. This can be one of: status - writer status, metadataSummary - summary of the VSS writers, metadataDetail - detailed information on the VSS writers
<i>shadowInfo</i>	Optional	Display information about VSS shadow copies. This can be one of: all - show information on all shadow copies, <shadow Set GUID> - show information on shadow copies belonging to this shadow set, <shadow Copy GUID> - show information on this shadow copy
<i>deleteShadowCopies</i>	Optional	Delete VSS shadow copies. This can be one of: all - delete all shadow copies, <volume> - delete the oldest shadow copy of this volume, <shadow Set GUID> - delete all shadow copies in this shadow set, <shadow Copy GUID> - delete the shadow copy with this id
<i>excludeWriters</i>	Optional	List of writer GUIDs to exclude from the shadow copy
<i>includeWriters</i>	Optional	List of writer GUIDs to include in the shadow copy - if the writer is found to not participate in the snapshot, no snapshot will be taken
<i>runCommand</i>	Optional	Custom command executed after shadow creation, import or between break and make-it-write
<i>importShadow</i>	Optional	Transportable VSS snapshot import
<i>mountShadow</i>	Optional	Expose the shadow copy as a mount point or drive letter - the format of this is mountShadow="<GUID>;<mountOrDrive>"
<i>breakShadowCopies</i>	Optional	Break the shadow copy set
<i>maskLun</i>	Optional	Mask the shadow copy LUN from the host. It works in conjunction with breakShadowCopies and is valid only when breakShadowCopies is specified (Windows 2008 only).
<i>snapshotName</i>	Optional	The name of the remote snapshot
<i>userName</i>	Optional	The authentication user name for the storage system
<i>passWord</i>	Optional	The password for the storage system

description Optional Optional description

Example

```
cliq vssSnapshot volumeName=y;z:
```

waitForEvent

This command waits for an alert or event message.

Availability: Windows, SAN/iQ

Version: 9.0

Request Syntax

```
cliq waitForEvent login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>receivePort</i>	Optional	The TCP port to receive the discovery packets (defaults to an unused port if unspecified)

Example

```
cliq waitForEvent login=10.0.1.2 userName=admin passWord=secret
```

```
cliq waitForEvent
```

waitForUpdate

This command will block on a change to the state in the management group.

Availability: Windows, SAN/iQ

Version: 8.0

Request Syntax

```
cliq waitForUpdate login= userName= passWord=
```

<i>login</i>	Required	The IP address or DNS-resolvable names of one or more storage systems
<i>userName</i>	Required	The authentication user name for the storage system
<i>passWord</i>	Required	The password for the storage system
<i>keyFile</i>	Required	The encrypted key file (this is specified instead of the username and password parameters)
<i>receivePort</i>	Optional	The TCP port to receive the discovery packets (defaults to an unused port if unspecified)

Example

```
cliq waitForUpdate login=10.1.2.3 userName=admin passWord=secret
```

```
cliq waitForUpdate
```