HiCommand® Storage Services Manager CLI Guide

Version 5.1
MK-93AI003-07

First Edition

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PREFACE

About This Guide

This preface describes the following:

Intended Audience

This document assumes you have a basic understanding of the following:

- Networking
- Storage Area Networks (SANs)
- CIM
- WBEM

To learn out more about:

- **CIM** - See www.snia.org and www.dmtf.org.

Where to Find Additional Information

The software also ships with the following documentation:

Table 1-1: Additional Documentation

Document	Description
Release Notes	Provides late-breaking issues that might impact the usage of the product.
Installation Guide	Provides information on how to configure the management server and install the CIM Extensions
User Guide	Describes how to use the management server.
Online help	An online help system containing information from the PDFs in HTML format.
File Servers Guide	Describes how to use the file server storage resource management (SRM) functionality in the product.
Guide for monitoring applications	Describes how to use the management server to monitor applications.

The documentation listed above, except for the help system, can be found in two locations:

- On the CD-ROM used to install the AppIQ CIM Extensions.
- From the online help system accessible by clicking the Help menu in the management server.

CHAPTER 1 *Overview of the CLI*

Important: Depending on your license, the Command Line Interface (CLI) may not be available. See the "List of Features" to determine if you have access to the CLI. The "List of Features" is accessible from the Documentation Center (**Help** > **Documentation Center**).

The CLI provides an alternate way for you to manage elements the management server monitors. You can use the CLI commands in scripts to manage your storage. For example, you can use the `appiqlist -event -all` command in a script to obtain a listing of the events.

Important: Before you can use the CLI, you must install it. You can install it on the same server running the management server or a remote server. Refer to the release notes for the version requirements for more information on how to install the CLI. See Chapter 2, “Installing the CLI” on page 7.

Keep in mind the following:

- Before you can use the CLI interface, you must make a connection to the management server. See the topic, “Before Using the CLI” on page 3 for more information.

- When you enter a CLI command on Solaris or AIX, enter it in lowercase letters.
- If the UNIX shell environment variable $PATH is not set with the current directory, prefix the command with ./ when running it on UNIX.
- If $PATH is set to include `/opt/APPQcli/bin`, you can run the CLI commands from any directory.
- You can run the CLI commands anywhere as long as you provide the path to the bin directory:
  - **Microsoft Windows** - `C:\hds\CLI\bin`
  - **UNIX** - `/opt/APPQcli/bin`

CLI commands can do the following. This is a partial listing.

- Identify the following:
  - Interconnects between the various components in the domain
  - Detailed configuration of each component
  - Capacity, performance, status and event information from each device and its components
  - Information about zone, zone aliases and zone sets.
  - Volume information
- Manage the following:
  - Get Details
  - Events
  - LUNs
  - Pools
  - Volumes
  - Zone Aliases
  - Zone Sets
  - Zones

To exit the CLI, type **exit** or **quit**.

Before Using the CLI

Before you can use the CLI, you must configure the CLI environment. To connect to the management server, enter the following command on the computer from which you will run the CLI commands. This computer must already have the CLI installed:

- **Microsoft Windows**:

```
appiqconfig -username <name> -password <passwd> -server <ip/name> -
transport <transport> -erroroutput <erroroutput> -port <port>
```

- **UNIX**:

```
./appiqconfig -username <name> -password <passwd> -server <ip/name> -
transport <transport> -erroroutput <erroroutput> -port <port>
```

where

- `<name>` is the user name you use to log onto the management server.
- `<passwd>` is the password you use to log onto the management server.
- `<ip/name>` is the IP address or server name of the server running the management server.
- `<transport>` - (Optional) is the transport that will be used for the CLI commands. The management server supports the following transport types:
  - **https** - Default setting if the transport type is not specified.
  - **http**
  - **RMI**
- `<erroroutput>` - (Optional) Determines how much information is provided in error messages. The following are the options:
  - **minimal (min)** - Displays numeric return code, no exception messaging or stack trace produced. You can also use min for minimal.
  - **standard (std)** - This option is the default setting. It displays numeric error return code as well as a brief textual message (if available) describing the error. You can also use std for standard.
  - **maximum (max)** - This option is the “debug” level setting, aside from the numeric error code it dumps a stack trace for any thrown exception. You can also use max for maximum.
- `<port>` - (Optional) Sets the port for the CLI. Use this feature when you want to use a nonstandard port for the CLI. If you do not set this option, the management server uses the following standard communication ports:
  - HTTP - 80
  - HTTPS - 443

- RMI - 1099

Accessing the CLI Help from the CLI

Online help for the command line interface (CLI) is not only accessible by clicking the **Help** button on the management server, but also from the CLI window. Help can be accessed from the CLI window by appending `-help` or `-h` to the command. For example, assume you want to list all the statistics for a host, but you don't know the full command. You could type a portion of the command and append it with `-help`, as shown in the following example:

- **Microsoft Windows**:
  `appiqstats -help`
- **UNIX**:
  `./appiqstats -help`

The software would provide information about the `appiqstats` command.

If you want to view the overall help for the CLI, enter the following at the command prompt:
`cli -help`

Before you can use the CLI, you must make a connection to the management server. See the topic, “Before Using the CLI” on page 3 for more information.

CLI Commands

It is recommended you use the CLI prompt to enter your commands instead of typing the “appiq” prefix in the CLI commands. You can avoid typing the “appiq” prefix in the CLI commands by entering **cli** at the command prompt.

Each time you use the “appiq” prefix in a command at the command prompt, the CLI client must re-establish a connection with the management server. In comparison, when you use the CLI command prompt, a connection with the management server is established only once, not each time you enter a command. Because the CLI command prompt only establishes a connection once, it uses less resources and runs faster than entering commands at the command prompt.

To access the CLI prompt and enter a command:

1. Enter the following:
   ```
   cli
   ```
2. Enter the following:
   ```
   cli> list -event -all
   ```

Notice the “appiq” prefix has been removed.

See “Before Using the CLI” on page 3 for information about how to access the CLI for the first time. Information about the CLI commands for the following can be found in Chapter 3, “CLI Commands” on page 13:

About Error Codes

The management server provides error codes to help you in determining what went wrong. Each error code corresponds to a description, as described in the following table.

Table 1-1: Error Code Descriptions

Error Code	Description
0	No Error
1	Unknown Operation
2	Unsupported Operation
3	Bad Parameter List
4	Bad ID Parameter
5	Bad Parameter Value
6	Bad Command
7	API Error
8	CLI Configuration Error
9	Help Error
10	General Error

Accessing Error Codes

To access error codes, enter one of the following at the command prompt after you have entered a CLI command:

- **Microsoft Windows** -
  `echo %errorlevel%`
- **UNIX (C shell)** -
  `echo $status`
- **UNIX (Bourne shell, Bourne Again shell, and Korn shell)**
  `echo $?`

The error code is returned, for example 0, which means there is no error.

CHAPTER 2

Installing the CLI

This chapter describes the following:

Keep in mind:

- Install the CLI on a remote server that can access the management server.
- If you have a previous version of the CLI, you must upgrade it to match the current version of the management server. See “Upgrading the CLI” on page 11 for more information.

Installing the CLI on Microsoft Windows

To install the CLI on Microsoft Windows:

1. Go to the `Windows` directory on the CIM Extension CD-ROM.

2. Double-click **InstallCLI.exe**.
   When you see the introduction screen, click **Next**.
3. When you are asked for an installation directory, you can select the default or choose your own. To choose your own directory, click the **Choose** button. You can always display the default directory by clicking the **Restore Default Folder** button.
   When you are done, click **Next**.
4. Read the notes, such quitting all programs before running the installation. Click **Next**.
5. Check the pre-installation summary. You are shown the following:
   - Product Name
   - Installation Folder
   - Disk Space Required
   - Disk Space Available
6. Do one of the following:
   - Click **Install** if you agree with the pre-installation summary.
   - Click **Previous** if you want to modify your selections.

   The CLI is installed.
7. When you have been told the installation has been successful, click **Done** to quit the installation.
8. Go to the following directory:
   `C:\companyname\CLI\bin`
9. Configure the CLI workstation to point to the management server. See “Before Using the CLI” on page 3.

Removing the CLI from Microsoft Windows

To remove the CLI from Microsoft Windows:

1. Go to Add/Remove Programs.
2. Select the CLI program from the list.
3. Click the **Change/Remove** button.
4. When you told the product is about to be uninstalled, click **Uninstall**.
5. When the program is done with removing the product, click **Done**.
   The CLI is removed from Microsoft Windows.

Installing the CLI on Sun Solaris

Important: You must have root privileges to install this software.

You are provided several installation options. One is an interactive option, which lets you select the installation directory. Another is a silent installation, which installs with no user input. The silent installation assumes the default installation directory. Both options install on computers with or without X Windows.

To install the CLI on Sun Solaris:

1. Go to the `/Solaris` directory on the CIM Extensions CD-ROM by entering the following at the command prompt:
   ```
   # cd /cdrom/Solaris
   ```
   where `/cdrom` is the directory where you mounted the CD-ROM.
2. To install the software, do one of the following:

   Important: If you receive a message saying there is not enough room in the temp directory to perform the installation, set the IATEMPDIR variable to another directory. The installation uses this directory to extract the installation files. Refer to the documentation for your operating system for information on how to set this variable.

   - **Interactive Installation (Without X Windows or telnet terminal session)** - You must type -i console; otherwise, you are shown a trace back error. Enter the following at the command prompt:
     ```
     # ./InstallCLI.bin –i console
     ```
   - **Interactive Installation (With X Windows)** - Enter the following at the command prompt:
     ```
     # ./InstallCLI.bin
     ```
   - **Silent Installation (X Windows not required)** - Enter the following at the command prompt. Then, go to Step 6. You cannot change the installation directory.
     ```
     # ./InstallCLI.bin –i silent
     ```
     The CLI is automatically installed in the `/opt/APPQcli` directory.

3. During the installation you are asked for the installation directory. Select the default installation directory for best results.
4. Go to a directory other than one on the CD-ROM.
5. Unmount the CD-ROM by entering the following at the command prompt:
   `# umount /cdrom`
   where `/cdrom` is the name of the directory where you mounted the CD-ROM
6. Go to the `[CLI_installation_directory]/bin` directory, where `[CLI_installation_directory]` is the directory containing the CLI program.
7. Configure the CLI workstation to point to the management server. See “Before Using the CLI” on page 3.

Installing the CLI on IBM AIX

You are provided several installation options. One is an interactive option, which lets you select the installation directory. Another is a silent installation, which installs with no user input. The silent installation assumes the default installation directory. Both options install on computers with or without X Windows.

To install the CLI on IBM AIX:

1. Insert the CIM Extensions CD-ROM into the CD-ROM drive.
2. Mount the CD-ROM drive by entering the following at the command prompt:
   `# mount -rv cdrfs /dev/cd0 /cdrom`
   where `/dev/cd0` is the name of the CD-ROM drive.

   If necessary, create a `/cdrom` directory first.
3. Go to the `/aix` directory on the CD-ROM by entering the following at the command prompt:
   `# cd /cdrom/aix`
   where `/cdrom` is the directory where you mounted the CD-ROM.
4. To install the software, do one of the following:

Important: If you receive a message saying there is not enough room in the temp directory to perform the installation, set the IATEMPDIR variable to another directory. The installation uses this directory to extract the installation files. Refer to the documentation for your operating system for information on how to set this variable.

- **Interactive Installation (Without X Windows or telnet terminal session)** - You must type -i console; otherwise, you are shown a trace back error. Enter the following at the command prompt:
  `# ./InstallCLI.bin –i console`
- **Interactive Installation (With X Windows)** - Enter the following at the command prompt:
  `# ./InstallCLI.bin`
- **Silent Installation (X Windows not required)** - Enter the following at the command prompt. Then, go to Step 6. You cannot change the installation directory.
  `# ./InstallCLI.bin –i silent`
  The CLI is automatically installed in the `/opt/APPQcli` directory.

5. During the installation you are asked for the installation directory. Select the default installation directory for best results.
6. Go to a directory other than one on the CD-ROM.
7. Unmount the CD-ROM by entering the following at the command prompt:
   `# umount /cdrom`
   where `/cdrom` is the name of the directory where you mounted the CD-ROM
8. Go to the `[CLI_installation_directory]/bin` directory, where `[CLI_installation_directory]` is the directory containing the CLI program.
9. Configure the CLI workstation to point to the management server. See “Before Using the CLI” on page 3.

Upgrading the CLI

You can upgrade the CLI by running the installation as described in the previous sections. The installation detects an existing version, and it upgrades the CLI to the same location.

Removing the CLI from UNIX

To remove the CLI from UNIX:

1. Go to the following directory by entering the following at the command prompt:
   `# cd [InstallationDirectory]/Uninstall_[company_name]_CLI`
   where `InstallationDirectory` is the directory containing the CLI

   where `company_name` is the name of the company, for example, HDS.
2. Remove the CLI by entering the following at the command prompt:
   `# ./Uninstall_[company_name]_CLI`
   where `company_name` is the name of the company, for example, HDS.

CHAPTER 3 *CLI Commands*

Important: Before you can use the CLI, you must make a connection to the management server. See the topic, “Before Using the CLI” on page 3 for more information.

It is recommended you use the CLI prompt to enter your commands instead of typing the “appiq” prefix in the CLI commands. You can avoid typing the “appiq” prefix in the CLI commands by entering **cli** at the command prompt.

Each time you use the “appiq” prefix in a command at the command prompt, the CLI client must re-establish a connection with the management server. In comparison, when you use the CLI command prompt, a connection with the management server is established only once, not each time you enter a command. Because the CLI command prompt only establishes a connection once, it uses less resources and runs faster than entering commands at the command prompt. Using the CLI command prompt to enter commands is sometimes referred to as interactive mode.

To access the CLI prompt and enter a command:

1. Enter the following:
   ```
   cli
   ```
2. Enter the following:
   ```
   cli> list -event -all
   ```
   Notice the “appiq” prefix has been removed.

This chapter provides information about CLI Commands for the following:

CLI Version

You can find the version of the CLI by entering the following:

- **Microsoft Windows:**
  `cli -version`
- **UNIX:**
  `./cli -version`

At the CLI prompt you can enter, `-version` or `version`, as shown in the following example:

```
CLI> -version (or) version
```

Applications

Use the following CLI commands for applications:

appiqlist -application -all

Description: Lists short description for all the applications

appiqlist -application <id>

Description: Lists short description about the specified application identifier, where `<id>` is the identifier for the application. The identifier for the application can be obtain from several methods, such as from the `appiqlist -application -all` command.

appiqlist -application -database -all

Description: Lists all the database applications.

appiqlist -application -exchange -all

Description: Lists all the exchange applications.

appiqlist -application -virtual -all

Description: Lists all the virtual applications.

appiqshow -application <id>

Description: Display detailed information about the specified application, where `<id>` is the identifier for the application. The identifier for the application can be obtain from several methods, such as from the `appiqlist -application -all` command.

appiqshow -application -all

Description: Display detailed information about all the applications.

appiqshow -application -database -all

Description: Display detailed information about all the database applications.

appiqshow -application -exchange -all

Description: Display detailed information about all the exchange applications.

appiqshow -application -virtual -all

Description: Display detailed information about all the virtual applications.

appiqstats -application -all

Description: Shows the statistical information of all the applications.

appiqstats -application <id>

Description: Shows the statistical information of the specified applications, where `<id>` is the identifier for the application. The identifier for the application can be obtain from several methods, such as from the `appiqlist -application -all` command.

Discovery

Use the following CLI commands to perform discovery, obtain the topology and Get Details from elements:

appiqdiscover -domaindiscovery -topology [-sync]

Description: This command obtains the topology. It assumes you have already performed a discovery. The `[-sync]` flag is optional. If you specify the `-sync` flag, the command will be in synchronous mode, meaning the management server will not accept new commands until it is done with obtaining the topology.

appiqdiscover -domaindiscovery -details -stop

Description: This command stops the collection of infrastructure data during Get Details.

appiqdiscover -domaindiscovery -refresh -host <host id>

Description: This command collects infrastructure data during Get Details for a specified host, but it does not delete components that no longer exist. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

appiqdiscover -domaindiscovery -refresh -switch <switch id>

Description: This command collects infrastructure data during Get Details for a specified switch, but it does not delete components that no longer exist. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

appiqdiscover -domaindiscovery -refresh -storagesystem <storage system id>

Description: This command collects infrastructure data during Get Details for a specified storage system, but it does not delete components that no longer exist. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Domains

Use the following CLI commands to manage domains:

- appiqlist -domain -path on page 19
- appiqshow -domain -path on page 19

appiqlist -domain -path

Description: Lists the domains detected by the management server and its paths.

appiqshow -domain -path

Description: Provides a detailed description of the domains detected by management server and their paths.

Events

Use the CLI commands in this section to manage and obtain information about events:

appiqlist -event -all

Description: Provides a short description of the events.

appiqlist -event <event id>

Description: Lists events specified by `<event id>` along with a short description for that event. You can obtain `<event id>` from the `appiqlist -event -all` command.

appiqlist -event -all -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Lists the events from the elements monitored by the management server and fall within the time specified.

where

- `<yyyy-mm-dd|today>` - is the date or `today` can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or `now` can be entered, for example 10:45.

appiqlist -event -all -severity <severity>

where `<severity>` is the severity of the event. All severities are included if you do not include the severity flag.

Description: Lists the events from the elements monitored by the management server and fall within the severity specified.

Enter one of the following for the severity. All severities are included if you do not include the severity flag. The definition for each severity level varies according to the type of element.

Table 3-1: Severity Definitions

Severity	Definition
1	**unknown severity, minimum severity**
2	**information notices**
4	**warning** - For example, for a Brocade switch one or more new physical fabric objects (device port, switch, or fabric) have appeared.
8	**minor severity** - For example, for a Brocade switch a physical fabric object (switch port or fabric) has changed state.
16	**major severity** - For example, for a Brocade switch one or more physical fabric objects (device port, switch, or fabric) have disappeared.

Table 3-1: Severity Definitions (Continued)

Severity	Definition
32	**critical severity** - For example, for a Brocade switch a device connected to the switch has gone off line.
64	**clear**

appiqlist -event -all -severity <severity> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Lists the events from the elements monitored by the management server and fall within the time and severity specified.

where

- `<yyyy-mm-dd|today>` - is the date or `today` can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or `now` can be entered, for example 10:45.
- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqlist -event -all -type <eventType> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Lists the events from the elements monitored by the management server and fall within the time and event type specified.

where

- `<yyyy-mm-dd|today>` - is the date or `today` can be entered, for example 2005-05-23.

- <hh:mm|now> - is the time (24-hour clock) or now can be entered, for example 10:45.
- <eventType> - is the event type. Events of all types are shown if you do not specify the event type. See Table 3-2, “Event Types,” on page 22 for more information about event types.

appiqlist -event -all -severity <severity> -type <eventType> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd | today> -endtime <hh:mm|now>

Description: Lists the events from the elements monitored by the management server and fall within the severity, event type, and time specified.

where

- <yyyy-mm-dd|today> - is the date or today can be entered, for example 2005-05-23.
- <hh:mm|now> - is the time (24-hour clock) or now can be entered, for example 10:45.
- <eventType> - is the event type. See Table 3-2, “Event Types,” on page 22 for a listing of available event types.
- <severity> - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

Event Type Definition: Enter one of the following for the event type.

Table 3-2: Event Types

S.No	Event Type	An Event Regarding...
1	unknown	An unknown event
2	cimevent	CIMOM
3	cimalert	CIMOM alert
4	cimprocess	A process with the CIMOM
5	appiqalert	An alert from the management server
6	appiqevent	An event from the management server
7	policy	policies

Table 3-2: Event Types (Continued)

S.No	Event Type	An Event Regarding...
8	provisioning	provisioning
9	discovery	discovery
10	synchronizer	Get Details
11	monitoring	Performance Explorer
12	reporting	Reporter
13	asset	Chargeback
14	policymanager	Policy Manager
15	appiqagent	CIM Extensions
16	api	The management server API
17	enterprisereporting	Global Reporter
18	buimagecollection	Business Tools
19	reportviewrefresh	An event regarding a refresh with the report views
20	dbalertlogscan	An alert regarding a database log scan

appiqlist -event -all -elementtype <element type>

where `<element type>` is the identifier for an element type. See Table 3-3, “Element Types,” on page 23 for information about the various element types. Events from all element types are displayed if you do not specify the `-elementtype` tag.

Description: Lists the events for the specified event type.

Table 3-3: Element Types

Element Type	Lists Only Events From...
application	Applications
host	Hosts
switch	Switches
storagesystem	Storage Systems
fabric	Fabrics
other	Elements that do not fit the previous categories

Table 3-3: Element Types (Continued)

Element Type	Lists Only Events From...
management server	The management server
All	All elements

appiqlist -event -all -elementtype <element type> -severity <severity>

Description: Lists the events for the specified event type and severity.

- `<element type>` is the identifier for an element type. See Table 3-3, “Element Types,” on page 23 for information about the various element types. Events from all element types are displayed if you do not specify the `-elementtype` tag.
- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqlist -event -all -elementtype <element type> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

where

- `<yyyy-mm-dd|today>` - is the date or `today` can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or `now` can be entered, for example 10:45.
- `<element type>` is the identifier for an element type. See Table 3-3, “Element Types,” on page 23 for information about the various element types. Events from all element types are displayed if you do not specify the `-elementtype` tag.

Description: Lists the events from the element type specified within the specified time.

appiqlist -event -elementid <element id>

where `<element id>` is the identifier for the element. The element identifier can be obtained from several methods. For example, the element identifier for a storage system can be obtained from the `appiqlist -device -storagesystem -all` command.

Description: Lists the events from the element specified.

appiqlist -event -elementid <element id> -severity <severity>

Description: Lists the events from a specified element and with a specified severity value.

where

- `<element id>` is the identifier for the element. The element identifier can be obtained from several methods. For example, the element identifier for a storage system can be obtained from the `appiqlist -device -storagesystem -all` command.
- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqlist -event -elementid <element id> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Lists the events from the elements monitored by the management server and fall within the time specified.

where

- `<element id>` is the identifier for the element. The element identifier can be obtained from several methods. For example, the element identifier for a storage system can be obtained from the `appiqlist -device -storagesystem -all` command.

- <yyyy-mm-dd|today> - is the date or today can be entered, for example 2005-05-23.
- <hh:mm|now> - is the time (24-hour clock) or now can be entered, for example 10:45.
- <severity> - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqlist -event -elementid <element id> -severity <severity> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now

Description: Lists the events for the specified element, severity and between the given time intervals.

- <element id> is the identifier for the element. The element identifier can be obtained from several methods. For example, the element identifier for a storage system can be obtained from the appiqlist -device -storagesystem -all command.
- <severity> - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.
- <yyyy-mm-dd|today> - is the date or today can be entered, for example 2005-05-23.
- <hh:mm|now> - is the time (24-hour clock) or now can be entered, for example 10:45.

appiqlist -event -elementid <element id> -type <eventtype> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

where

- <yyyy-mm-dd|today> - is the date or today can be entered, for example 2005-05-23.
- <hh:mm|now> - is the time (24-hour clock) or now can be entered, for example 10:45.

- <eventtype> - is the event type. See Table 3-2, “Event Types,” on page 22. Events of all types are shown if you do not specify the event type.

Description: Lists the events from the element specified with the specified event type and within the specified interval.

appiqlist -event -elementid <element id> -severity <severity> -type <eventtype> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Lists the events from the element specified with the specified event type and within the specified interval.

where

- <yyyy-mm-dd|today> - is the date or today can be entered, for example 2005-05-23.
- <hh:mm|now> - is the time (24-hour clock) or now can be entered, for example 10:45.
- <eventtype> - is the event type. See Table 3-2, “Event Types,” on page 22. Events of all types are shown if you do not specify the event type.
- <severity> - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqshow -event <event id>

Description: Provides a detailed description of the event specified by <event id>. You can obtain <event id> from the appiqlist -event -all command.

appiqshow -event -all -elementtype <element type>

Description: Provides detailed information of all the events for a specified `<element type>`, where `<element type>` is the identifier for an element type. See Table 3-3, “Element Types,” on page 23 for information about the various element types. Events from all element types are displayed if you do not specify the `-elementtype` tag.

appiqshow -event -all -severity <severity>

where `<severity>` is the severity of the event. All severities are included if you do not include the severity flag.

Description: Provides a description of the events from the elements monitored by the management server and fall within the severity specified. All severities are included if you do not include the severity flag. The definition for each severity level varies according to the type of element. See Table 3-1, “Severity Definitions,” on page 20 for more information.

appiqshow -event -all -elementtype <element type> -severity <severity>

Description: Provides detailed information of all the events for a specified <element type> that are of the specified severity.

where

- `<element type>` is the identifier for an element type. See Table 3-3, “Element Types,” on page 23 for information about the various element types. Events from all element types are displayed if you do not specify the `-elementtype` tag.
- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqshow -event -all -elementtype <element type> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Provides detailed information of all the events for a specified <element type> and between given time intervals.

where

- `<element type>` is the identifier for an element type. See Table 3-3, “Element Types,” on page 23 for information about the various element types. Events from all element types are displayed if you do not specify the `-elementtype` tag.
- `<yyyy-mm-dd|today>` - is the date or today can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or now can be entered, for example 10:45.
- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqshow -event -all -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Provides detailed information of all the events between the specified time intervals.

where

- `<yyyy-mm-dd|today>` - is the date or `today` can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or `now` can be entered, for example 10:45.
- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqshow -event -all -severity <severity> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Provides detailed information of all the events with the given severity and between the specified time intervals.

where

- `<yyyy-mm-dd|today>` - is the date or `today` can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or `now` can be entered, for example 10:45.
- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqshow -event -all -type <eventtype> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Provides detailed information of all the events with the given event type and between the specified time intervals.

where

- `<yyyy-mm-dd|today>` - is the date or today can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or now can be entered, for example 10:45.
- `<eventtype>` - is the event type. See Table 3-2, “Event Types,” on page 22. Events of all types are shown if you do not specify the event type.

appiqshow -event -all -severity <severity> -type <eventtype> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Provides detailed information of all the events with the given severity, event type and between the specified time intervals.

where

- `<yyyy-mm-dd|today>` - is the date or today can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or now can be entered, for example 10:45.
- `<severity>` - is the severity of the event. All severities are included if you do not include the severity flag.

appiqshow -event -elementid <element id>

Description: Provides detailed information of all the events for a specified element.

appiqshow -event -elementid <element id> -severity <severity>

Description: Provides a detailed description of events from the specified element and with specified severity value.

where

- `<element id>` is the identifier for the element. The element identifier can be obtained from several methods. For example, the element identifier for a storage system can be obtained from the `appiqlist -device -storagesystem -all` command.
- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqshow -event -elementid <element id> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Provides detailed information of all the events for a specified element and between the specified time intervals.

where

- `<element id>` - is the identifier for an element.
- `<yyyy-mm-dd|today>` - is the date or today can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or now can be entered, for example 10:45.

appiqshow -event -elementid <element id> -severity <severity> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Provides detailed information of all the events for a specified element, severity and between the specified time intervals.

where

- `<element id>` - is the identifier for an element.
- `<yyyy-mm-dd|today>` - is the date or today can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or now can be entered, for example 10:45.
- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqshow -event -elementid <element id> -type <eventtype> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Provides detailed information of all the events for a specified element, event type and between the specified time intervals.

where

- `<element id>` - is the identifier for an element.
- `<yyyy-mm-dd|today>` - is the date or today can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or now can be entered, for example 10:45.
- `<eventtype>` - is the event type. See Table 3-2, “Event Types,” on page 22. Events of all types are shown if you do not specify the event type.

appiqshow -event -elementid <element id> -severity <severity> -type <eventtype> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Provides detailed information of all the events for a specified element, severity, event type and between the specified time intervals.

where

- `<element id>` - is the identifier for an element.
- `<yyyy-mm-dd|today>` - is the date or today can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or now can be entered, for example 10:45.
- `<eventtype>` - is the event type. See Table 3-2, “Event Types,” on page 22. Events of all types are shown if you do not specify the event type.

- <severity> - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqclear -event <event id>

Description: Clears the event specified by event id.

where <event id> is the identifier for the event.

appiqclear -event -all

Description: Clears all events.

appiqclear -event -all -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Clears all the events generated between the given time intervals.

where

- <yyyy-mm-dd|today> - is the date or today can be entered, for example 2005-05-23.
- <hh:mm|now> - is the time (24-hour clock) or now can be entered, for example 10:45.

appiqclear -event -all -severity <severity>

Description: Clears all the events with the specified severity.

where <severity> is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqclear -event -all -severity <severity> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Clears events with the specified severity and between the given time intervals.

where

- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.
- `<yyyy-mm-dd|today>` - is the date or today can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or now can be entered, for example 10:45.

appiqdelete -event <event id>

Description: Deletes the event specified by event id. This command can only delete events that are associated with an element.

appiqdelete -event -all

Description: Deletes all the events. This command can only delete events that are associated with an element.

appiqdelete -event -all -severity <severity>

Description: Deletes all event with the specified severity value, where `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. This command can only delete events that are associated with an element.

appiqdelete -event -all -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Deletes all the events that are associated with an element between given time intervals. This command can only delete events that are associated with an element.

where

- `<yyyy-mm-dd|today>` - is the date or today can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or now can be entered, for example 10:45.

appiqdelete -event -all -severity <severity> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Deletes all the events that are associated with an element with the specified severity and between the given time intervals. This command can only delete events that are associated with an element.

where

- `<yyyy-mm-dd|today>` - is the date or today can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or now can be entered, for example 10:45.
- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqdelete -event -elementid <element id>

Description: Deletes all the events that are from the element specified by `<element id>`.

appiqdelete -event -elementid <element id> -severity <severity>

Description: Delete all the events that are from the element specified by <element id> and with specified severity value.

where `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

appiqdelete -event -elementid <element id> -severity <severity> -startdate <yyyy-mm-dd|today> -starttime <hh:mm|now> -enddate <yyyy-mm-dd|today> -endtime <hh:mm|now>

Description: Delete all the events for a specified element, severity and between the specified time intervals.

where

- `<element id>` - is the identifier for an element.
- `<yyyy-mm-dd|today>` - is the date or today can be entered, for example 2005-05-23.
- `<hh:mm|now>` - is the time (24-hour clock) or now can be entered, for example 10:45.
- `<severity>` - is the severity of the event. See Table 3-1, “Severity Definitions,” on page 20 for more information. All severities are included if you do not include the severity flag.

Export to Visio

Use the following commands to export the topology to an XML file that can be viewed in Microsoft Visio:

appiqexport –topologylayout –path <c:/xmls> –system

Description: Exports the SAN topology as an XML file.

appiqexport –topologylayout –path <c:/xmls> –backup

Description: Exports the backup topology as an XML file.

Fabrics

Use the following types of CLI commands to obtain information about fabrics:

- **appiqlist** - Lists fabrics or elements, such as applications, hosts, switches, storage systems, zone sets, zones, paths, within the fabrics or a specified fabric.
- **appiqshow** - Provides detailed information about fabrics or elements within a fabric.

To obtain information about the command, type `-help` at the end of the command, as shown in the following example:

```
appiqlist -fabric -all - help
```

appiqlist -fabric -all

Description: Lists fabrics.

appiqlist -fabric -all -device

Description: Lists the devices in all discovered fabrics, such as hosts, switches and storage systems.

appiqlist -fabric -all -application

Description: Lists the applications in fabrics.

Example:

```
C:\cli>appiqlist -fabric -all -application

Fabric:1080:100008008840242B

Fabric:1089:1000080088A0D07E

Fabric:1096:1000006069500b84

Application:1064:straker1

Application:1125:Archer1

Fabric:1166:10000060695011e9

Application:1064:straker1

Application:1125:Archer1

Fabric:1179:1000080088A06414

Fabric:1215:100000606930260d
```

The number after the first colon is the identifier for the element. The item after the second colon is the World Wide Name (WWN) of the fabric or the name of the element in the fabric.

appiqlist -fabric -all -host

Description: Lists the hosts in fabrics.

Example:

```
C:\cli>appiqlist -fabric -all -host
```

```
Fabric:1080:100008008840242B

Fabric:1089:1000080088A0D07E

Fabric:1096:1000006069500b84

Host:1004:ufo

Host:1003:challenger

Fabric:1166:10000060695011e9

Host:1004:ufo

Host:1003:challenger

Fabric:1179:1000080088A06414

Fabric:1215:100000606930260d
```

The number after the first colon is the identifier for the element. The item after the second colon is the World Wide Name (WWN) of the fabric or the name of the element in the fabric.

appiqlist -fabric -all -port

Description: Lists the fibre channel ports in the fabrics.

appiqlist -fabric -all -switch

Description: Lists the switches in fabrics.

Example:

```
C:\cli>appiqlist -fabric -all -switch

Fabric:1080:100008008840242B
```

```
Switch:1012:AppIQ_ED-1032

Fabric:1089:1000080088A0D07E

Switch:1010:AppIQ_ES-3016

Fabric:1096:1000006069500b84

Switch:1013:QBrocade3

Switch:1014:QBrocade4

Fabric:1166:10000060695011e9

Switch:1007:QBrocade2

Switch:1008:QBrocade5

Fabric:1179:1000080088A06414

Switch:1011:AppIQ_ED-6064

Fabric:1215:100000606930260d

Switch:1005:QBrocade1
```

The number after the first colon is the identifier for the element. The item after the second colon is the World Wide Name (WWN) of the fabric or the name of the element in the fabric.

appiqlist -fabric -all -storagesystem

Description: Lists the storage systems in fabrics.

Example:

```
C:\cli>appiqlist -fabric -all -storagesystem

Fabric:1080:100008008840242B
```

```
Fabric:1089:1000080088A0D07E

Fabric:1096:1000006069500b84

StorageSystem:1006:LSI2400

StorageSystem:1000:HDS9910@192.168.1.236

StorageSystem:1001:000183500570 (Symm48:3830)

Fabric:1166:10000060695011e9

StorageSystem:1009:LSI4600

StorageSystem:1000:HDS9910@192.168.1.236

StorageSystem:1001:000183500570 (Symm48:3830)

Fabric:1179:1000080088A06414

StorageSystem:1000:HDS9910@192.168.1.236

Fabric:1215:100000606930260d

StorageSystem:1001:000183500570 (Symm48:3830)
```

The number after the first colon is the identifier for the element. The item after the second colon is the World Wide Name (WWN) of the fabric or the name of the element in the fabric.

appiqlist -fabric -all -tapelibrary

Description: Lists the tape libraries in fabrics.

appiqlist -fabric -all -zoneset

Description: Lists the zone sets in fabrics.

appiqlist -fabric -all -zone

Description: Lists the zones in fabrics.

appiqlist -fabric -all -zonealias

Description: Lists the zone aliases in fabrics.

appiqlist -fabric <fabric id>

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Displays the world wide name of the specified fabric and its fabric identifier.

appiqlist -fabric <fabric id> -device

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Lists the hosts, switches, storage systems, and/or applications in the fabric specified by `<fabric id>`.

Example:

```
C:\cli>appiqlist -fabric 1096 -device

Host:1004:ufo

Host:1003:challenger

Switch:1013:QBrocade3

Switch:1014:QBrocade4
```

```
StorageSystem:1006:LSI2400

StorageSystem:1000:HDS9910@192.168.1.236

StorageSystem:1001:000183500570 (Symm48:3830)

Application:1064:straker1

Application:1125:Archer1
```

The number after the first colon is the identifier for the element. The item after the second colon is the World Wide Name (WWN) of the fabric or the name of the element in the fabric.

appiqlist -fabric <fabric id> -application

Description: Lists the applications in the fabric specified by `<fabric id>`.where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Example:

```
C:\cli>appiqlist -fabric 1096 -application

Application:1064:straker1

Application:1125:Archer1
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the element in the fabric.

appiqlist -fabric <fabric id> -host

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a list of the hosts in the fabric specified by `<fabric id>`.

Example:

```
C:\cli>appiqlist -fabric 1096 -host

Host:1004:ufo

Host:1003:challenger
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the element in the fabric.

appiqlist -fabric <fabric id> -port

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a list of the fibre channel ports in the specified fabric.

appiqlist -fabric <fabric id> -switch

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Lists the switches in the fabric specified by `<fabric id>`.

Example:

```
C:\cli>appiqlist -fabric 1096 -switch

Switch:1013:QBrocade3

Switch:1014:QBrocade4
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the element in the fabric.

appiqlist -fabric <fabric id> -storagesystem

where <fabric id> is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the appiqlist -fabric -all command.

Description: Lists the storage systems in the fabric specified by <fabric id>.

Example:

```
C:\cli>appiqlist -fabric 1096 -storagesystem

StorageSystem:1006:LSI2400

StorageSystem:1000:HDS9910@192.168.1.236

StorageSystem:1001:000183500570 (Symm48:3830)
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the element in the fabric.

appiqlist -fabric <fabric id> -tapelibrary

where <fabric id> is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the appiqlist -fabric -all command.

Description: Lists the tape library in the fabric specified by <fabric id>.

appiqlist -fabric <fabric id> -zoneset

where <fabric id> is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the appiqlist -fabric -all command.

Description: Lists the zone sets in the fabric specified by <fabric id>.

appiqlist -fabric <fabric id> -zone

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Lists the zones in the fabric specified by `<fabric id>`.

appiqlist -fabric <fabric id> -zonealias

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Lists the zone aliases in the fabric specified by `<fabric id>`.

appiqshow -fabric -all

Description: Provides a detailed description of the fabrics managed by the management server.

appiqshow -fabric -all -device

Description: Provides a detailed description of the elements, such as hosts, switches, and storage in the fabrics managed by the management server.

appiqshow -fabric -all -application

Description: Provides a detailed description of the applications in the fabrics managed by the management server.

appiqshow -fabric -all -host

Description: Provides a detailed description of the hosts in the fabrics managed by the management server.

appiqshow -fabric -all -port

Description: Provides a detailed description of the fibre channel ports in the fabrics managed by the management server.

appiqshow -fabric -all -switch

Description: Provides a detailed description of the switches in the fabrics managed by the management server.

appiqshow -fabric -all -storagesystem

Description: Provides a detailed description of the storage systems in the fabrics managed by the management server.

appiqshow -fabric -all -tapelibrary

Description: Provides a detailed description of the tape libraries in the fabrics managed by the management server.

appiqshow -fabric -all -zoneset

Description: Provides a detailed description of the zone sets in the fabrics managed by the management server.

appiqshow -fabric -all -zone

Description: Provides a detailed description of the zones in the fabrics managed by the management server.

appiqshow -fabric -all -zonealias

Description: Provides a detailed description of the zone aliases in the fabrics managed by the management server.

appiqshow -fabric <fabric id>

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a detailed description of the fabric specified by `<fabric id>`.

appiqshow -fabric <fabric id> -device

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a detailed description of the applications, hosts, switches, storage systems, zone sets, zones, paths, in the fabric specified by `<fabric id>`.

appiqshow -fabric <fabric id> -application

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a detailed description of the applications in the fabric specified by `<fabric id>`.

appiqshow -fabric <fabric id> -host

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a detailed description of the hosts in the fabric specified by `<fabric id>`.

appiqshow -fabric <fabric id> -port

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a detailed description of the fibre channel ports in the fabric specified by `<fabric id>`.

appiqshow -fabric <fabric id> -switch

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a detailed description of the switches in the fabric specified by `<fabric id>`.

appiqshow -fabric <fabric id> -storagesystem

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a detailed description of the storage systems in the fabric specified by `<fabric id>`.

appiqshow -fabric <fabric id> -tapelibrary

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a detailed description of the tape libraries in the fabric specified by `<fabric id>`.

appiqshow -fabric <fabric id> -zoneset

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a detailed description of the zone sets in the fabric specified by `<fabric id>`.

appiqshow -fabric <fabric id> -zone

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a detailed description of the zones in the fabric specified by `<fabric id>`.

appiqshow -fabric <fabric id> -zonealias

where `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.

Description: Provides a detailed description of the zone aliases in the fabric specified by `<fabric id>`.

Hosts

Use the following types of CLI commands to obtain information about hosts:

- **appiqlist** - Lists hosts or components belonging to the hosts or a specified host, such as ports and disk drives.
- **appiqshow** - Provides detailed information about the components belonging to the hosts or a specified hosts.
- **appiqstats** - Provides statistics about a host or its components, such as a logical drive.

appiqlist -device -host -all

Description: Lists the hosts detected by the management server.

Example:

```
C:\cli>AppiqList -device -host -all

Host:1002:viking

Host:1003:challenger

Host:1004:ufo

Host:1058:YAMATO

Host:1069:QASERVER02

Host:1083:GROMMIT
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the host.

appiqlist -device -host <id>

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides the DNS name of the host specified.

Example:

```
C:\cli>appiqlist -device -host 1004

Host:1004:comet
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the host.

appiqlist -device -host <id> -all

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Lists the components of host specified.

Example:

```
C:\cli>appiqlist -device -host 1004 -all

Port:1044:Adapter 0 Port 0

Port:1060:Adapter 1 Port 0
```

The number after the first colon is the identifier for the element.

appiqlist -device -host <id> -port

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Lists the specified host's fibre channel ports.

Example:

```
C:\cli>appiqlist -device -host 1004 -port

Port:1044:Adapter 0 Port 0

Port:1060:Adapter 1 Port 0
```

The numbers 1044 and 1060 are the identifiers for the ports.

appiqlist -device -host <id> -application

where <id> is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Lists the applications on the host specified, as shown in the following example:

```
C:\cli>appiqlist -device -host 1004 -applications

Application:1064:straker1
```

The number 1064 is the identifier for the application and straker1 is the name of the instance for the application. In this instance, straker1 is an Oracle instance.

appiqlist -device -host <id> -hba

where <id> is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Lists the host bust adapters connected to the host specified.

Example:

```
C:\cli>appiqlist -device -host 1004 -hba

HBACard:1025:Adapter 0

HBACard:1027:Adapter 1
```

The numbers 1025 and 1027 are the identifiers for the HBA cards.

appiqlist -device -host <id> -targetmapping

where <id> is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Lists the target mappings of the host specified.

appiqlist -device -host <id> -diskdrive

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Lists the disk drives connected to the host specified.

appiqlist -device -host <id> -logicaldisk

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Lists the logical drives of the host specified.

appiqlist -device -host <id> -volume

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Lists volume manager volumes of the host specified.

appiqlist -device -host <id> -partition

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Lists the partitions of the host specified.

appiqlist -device -host <id> -multipathdevice

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Lists the multi-path devices connected to the host specified.

appiqlist -device -host <id> -processor

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Lists the processors connected to the host specified.

appiqshow -device -host -all

Description: Provides a detailed description of the components on the hosts detected by management server.

appiqshow -device -host <id>

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the host specified.

appiqshow -device -host <id> -all

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the specified host's components.

appiqshow -device -host <id> -port

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the fibre channel ports connected to the host specified.

appiqshow -device -host <id> -application

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the applications on the host specified.

appiqshow -device -host <id> -hba

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the host bus adapters connected to the host specified.

appiqshow -device -host <id> -targetmapping

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the target mappings of the host specified.

appiqshow -device -host <id> -diskdrive

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the disk drives connected to the host specified.

appiqshow -device -host <id> -logicaldisk

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the specified host's logical disks.

appiqshow -device -host <id> -volume

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the volume manage volumes on the host specified.

appiqshow -device -host <id> -partition

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the partitions on the host specified.

appiqshow -device -host <id> -multipathdevice

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the multi-path devices on the host specified.

appiqshow -device -host <id> -processor

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides a detailed description of the processors on the host specified.

appiqstats -device -host -all

Description: Provides statistics about the hosts the management server discovers.

appiqstats -device -host <id>

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides statistics about the host specified.

appiqstats -device -host <id> -logicaldisk

where `<id>` is the host identifier. The host identifier can be obtained from several methods, such as from the `appiqlist -device -host -all` command.

Description: Provides statistics about the logical disks on the specified host.

Host Security Groups

Use the following CLI commands to manage host security groups:

appiqlist -hostsecuritygroup <hostsecuritygroup id>

Description: Provides the name of the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqlist -hostsecuritygroup <hostsecuritygroup id> -all

Description: Provide list of all the sub components belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqlist -hostsecuritygroup <hostsecuritygroup id> -port

Description: Provides list of all the ports belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqlist -hostsecuritygroup <hostsecuritygroup id> -volume

Description: Provides list of volumes in the host security group specified. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqlist -hostsecuritygroup <hostsecuritygroup id> -initiator

Description: Provides list of initiator ports associated with the host security group specified. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqlist -hostsecuritygroup <hostsecuritygroup id> -lun

Description: Provides list of all the luns belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqlist -hostsecuritygroup <hostsecuritygroup id> -hid

Description: Provides list of all the hardware IDs belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqlist -hostsecuritygroup <hostsecuritygroup id> -subordinate

Description: Provides list of all the subordinate host security group belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqlist -hostsecuritygroup <hostsecuritygroup id> -maskingcapabilities

Description: Provides list of all the masking capabilities belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqshow -hostsecuritygroup <hostsecuritygroup id>

Description: Provide detailed description of the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqshow -hostsecuritygroup <hostsecuritygroup id> -all

Description: Provide detailed information of all the sub components belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqshow -hostsecuritygroup <hostsecuritygroup id> -port

Description: Provides detailed information of all the ports belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqshow -hostsecuritygroup <hostsecuritygroup id> -volume

Description: Provides detailed information of all volumes in the host security group specified. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqshow -hostsecuritygroup <hostsecuritygroup id> -initiator

Description: Provides list of initiator in the host security group specified. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqshow -hostsecuritygroup <hostsecuritygroup id> -lun

Description: Provides detailed information of all the luns belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqshow -hostsecuritygroup <hostsecuritygroup id> -hid

Description: Provides detailed information of all the hardware IDs belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqshow -hostsecuritygroup <hostsecuritygroup id> -subordinate

Description: Provides detailed information of all the subordinate host security group belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqshow -hostsecuritygroup <hostsecuritygroup id> -maskingcapabilities

Description: Provides detailed information of all the masking capabilities belonging to the specified host security group. The identifier for the host security group can be obtained from several methods, such as the
`appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqset -hostsecuritygroup <hostsecuritygroup id> -name <hostsecuritygroup name>

Description: Sets or changes the name of the host security group. The identifier for the host security group can be obtained from several methods, such as the
`appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqset -hostsecuritygroup <hostsecuritygroup id> -hostmode <StorageClientSetting id>

Description: Sets the host mode data.

where

- `<hostsecuritygroup id>` - is the identifier for the host security group.
- `<StorageClientSetting id>` - is the identifier for the storage client setting.

The identifiers for the host security group and storage client setting can be obtained from several methods, such as from the
`appiqlist -device -storagesystem <ssid> -hostsecuritygroup` and
`appiqlist -device -storagesystem <ssid> -storageclientsettings` commands.

appiqset -hostsecuritygroup <hostsecuritygroup id> -hostmode2 <String representing HostMode2 value>

Description: Sets data for the second host mode.

where

- `<hostsecuritygroup id>` - is the identifier for the host security group.
- `<String representing HostMode2 value>` - is the string for the second host mode.

appiqdelete -hostsecuritygroup <hostsecuritygroup id>

Description: Deletes the host security group specified, where the `<hostsecuritygroup id>` is the identifier for the host security group. The identifier for the host security group can be obtained from several methods, such as from the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

appiqadd -hostsecuritygroup <hostsecuritygroup id> -volume <list of volume ids> -deviceaccess <list of device access ids>

Description: Adds specified volumes to the host security group specified. The identifier for the host security group can be obtained from several methods, such as from the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.

where `<List of access types>` is list of volume access rights for each volume specified by `<list of volume ids>` is a list of volume access rights for each volume specified by `<list of volume ids>`. You must provide one of the following access types (numbers) for each volume specified:

- 0: Unknown Access
- 2: Read Write
- 3: Read-Only
- 4: No Access

appiqadd -hostsecuritygroup <host security group id> - initiator <list of hba port ids>

Description: Adds specified initiator WWNs to the host security group specified.

where:

- `<host security group id>` is the identifier for the host security group. The identifier for the host security group can be obtained from several methods, such as from the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.
- `<list of host port ids>` - it is the HBA port ID or initiator for the host. The HBA port ID can be obtain from several methods, such as from the `appiqlist -device -host <host id> -port` command.

appiqremove -hostsecuritygroup <host security group id> -volume <list of volume ids>

Description: Removes specified volumes from the protocol controller specified.

where:

- `<host security group id>` is the identifier for the host security group. The identifier for the host security group can be obtained from several methods, such as from the `appiqlist -device -storagesystem <ssid> -hostsecuritygroup` command.
- `<list of volume ids>` - is a list of storage system volume IDs. The list of volume IDs can be obtained from several methods, such as from the `appiqshow -hostsecuritygroup <hostsecuritygroup id> -volume` command.

appiqremove -hostsecuritygroup <host security group id> - initiator <list of hba port ids>

Description: Removes specified initiator WWNs from the protocol controller specified.

where:

- <host security group id> is the identifier for the host security group. The identifier for the host security group can be obtained from several methods, such as from the appiqlist -device -storagesystem <ssid> -hostsecuritygroup command.
- <list of host port ids> - it is the HBA port ID or initiator for the host. The HBA port ID can be obtain from several methods, such as from the appiqlist -device -host <host id> -port command.

appiqcreate -hostsecuritygroup <storage system id> -initiator <list of host port wwns | list of host port Ids> [-name <name>]

Description: Creates a host security group with the specified list of initiators (host ports) and with the given name.

where:

- <storage system id> - The storage system identifier can be obtained from several methods, such as from the appiqlist -device -storagesystem -all command.
- <list of host port wwns | list of host port Ids> - is a list of host ports (initiators). You can give either the port ID or its 16 digit world wide name (WWN). You can obtain the host port ID or its WWN from several methods, such as from the following command: appiqlist -device -host <host id> -port
- <Name> (optional) is the name you specify for the host security group

appiqcreate -hostsecuritygroup <storage system id> -port <list of storage system port ids> -initiator <list of host port wwns | list of host port Ids> [-name <name>]

Description: Creates a host security group with the given name that is associated to the specified list of initiators (host ports) and specified list of storage system ports.

where:

- <storage system id> - The storage system identifier can be obtained from several methods, such as from the appiqlist -device -storagesystem -all command.
- <list of host port wwns | list of host port Ids> - is a list of host ports (initiators). You can give either the port ID or its 16 digit world wide name (WWN). You can obtain the host port ID or its WWN from several methods, such as from the following command: appiqlist -device -host <host id> -port
- <List of storagesystem ports IDs> - is a list of storage system port IDs.
- <list of volume ids> - is a list of storage system volume IDs.
- <Name> (optional) is the name you specify for the host security group

appiqcreate -hostsecuritygroup <storage system id> -port <list of storage system ports> -initiator <list of host port wwns | list of host port Ids> -volume <list of volume ids> -deviceaccess <list of deviceaccess values> [-name <name>]

Description: Creates a host security group with a given name that is associated to the specified list of initiators (host ports), specified list of storage system ports, specified list of volumes. Device access specifies access level to each of the specified storage volume.

where:

- <storage system id> - The storage system identifier can be obtained from several methods, such as from the appiqlist -device -storagesystem -all command.
- <list of host port wwns | list of host port Ids> - is a list of host ports (initiators). You can give either the port ID or its 16 digit world wide name (WWN). You can obtain the host port ID or its WWN from several methods, such as from the following command: appiqlist -device -host <host id> -port
- <List of storagesystem ports IDs> - is a list of storage system port IDs.
- <list of volume ids> - is a list of storage system volume IDs.
- <list of deviceaccess values> - is list of volume access rights for each volume specified by <list of volume ids> is a list of volume access rights for each volume specified by <list of volume ids>. You must provide one of the following access types (numbers) for each volume specified:

- 0: Unknown Access
- 2: Read Write
- 3: Read-Only
- 4: No Access

- `<Name>` (optional) is the name you specify for the host security group

Adding a list of initiator, volumes or storagesystem ports to a host security group (HSG) is specific to the storage system. Some storage system may not support adding more than one volume or initiator to the same HSG. Some storage systems may not support adding same volume to more than one HSG. You can obtain information about HSGs from the following command:

```
Appiqshow -device -storagesystem <storagesystem id> -maskingcapabilities
```

NetApp NAS Devices

Use the following CLI commands to show details for NetApp NAS devices:

appiqlist -device -nashost -all

Description: Provides a list of all NAS hosts.

appiqlist -device -nashost <id>

Description: Provides a list of all NAS hosts matching with id.

appiqlist -device -nashost <id> -all

Description: Provides a list of a NAS host elements.

appiqlist -device -nashost <id> -volume

Description: Provides a list of all the volumes of a NAS host.

appiqlist -device -nashost <id> -volume <id> -quota

Description: Provides a list of the entire quotas for a volume of a NAS host.

appiqlist -device -nashost <id> -volume <id> -snapshot

Description: Provides a list of all snapshots for a volume of a NAS host.

appiqlist -device -nashost <id> -volume <id> -share

Description: Provides a list of all shares for a volume of a NAS host.

appiqlist -device -nashost <id> -volume <id> -qtree

Description: Provides a list of all qtrees for a volume of a NAS host.

appiqlist -device -nashost <id> -diskdrive

Description: Provides a list of all disk drives of a NAS host.

appiqlist -device -nashost <id> -aggregate

Description: Provides a list of all aggregates of a NAS host.

appiqlist -device -nashost <id> -plex

Description: Provides a list of all plexes of a NAS host.

appiqlist -device -nashost <id> -raid

Description: Provides a list of all raid groups of a NAS host.

appiqlist -fabric <id> -nashost

Description: Provides a list of all NAS hosts of a fabric.

appiqlist -fabric -all -nashost

Description: Provides a list of all NAS hosts of all fabrics.

appiqshow -device -nashost -all

Description: Provides a detailed description of all NAS hosts.

appiqshow -device -nashost <id> -all

Description: Provides a detailed description of NAS host elements.

appiqshow -device -nashost <id>

Description: Provides a detailed description of a NAS host with a specific id.

appiqshow -device -nashost <id> -volume

Description: Provides a detailed description of all the volumes of a NAS host.

appiqshow -device -nashost <id> -volume <id> -quota

Description: Provides a detailed description of all the quotas for a volume of a NAS host.

appiqshow -device -nashost <id> -volume <id> -snapshot

Description: Provides a detailed description of all the snapshots for a volume of a NAS host.

appiqshow -device -nashost <id> -volume <id> -share

Description: Provides a detailed description of all the shares for a volume of a NAS host.

appiqshow -device -nashost <id> -volume <id> -qtree

Description: Provides detailed description of all the Qtrees for a volume of a NAS host.

appiqshow -device -nashost <id> -diskdrive

Description: Provides a detailed description of all the disk drives of a NAS host.

appiqshow -device -nashost <id> -aggregate

Description: Provides a detailed description of all the aggregates of a NAS host.

appiqshow -device -nashost <id> -plex

Description: Provides a detailed description of all the plexes of a NAS host.

appiqshow -device -nashost <id> -raid

Description: Provides a detailed description of all the raid groups of a NAS host.

appiqshow -fabric <id> -nashost

Description: Provides a detailed description of all the NAS hosts of a fabric.

appiqshow -fabric -all -nashost

Description: Provides detailed description of all NAS hosts of all fabrics.

Remote CIM Extensions Management

Use the following CLI commands to install, upgrade, and manage CIM Extensions.

Note: You must copy the CIM Extensions to the management server before you can remotely manage CIM Extensions. Refer to the “Deploying and Managing CIM Extensions” chapter of the *Installation Guide* for more details.

Note: Each host being managed must be running a supported SSH daemon. The SSH daemon must support SFTP file transfers and the EXEC channel method of executing remote commands. The root or Administrator user must be allowed to log in for most operations.

appiqinstall -agent -username <username of host> -password <password of host> -hostname <IP address or DNS name of host>

Description: Performs an initial installation of the CIM Extension configuration for the indicated remote host.

appiqinstall -ssh -username <username of host> -password <password of host> -hostname <IP address or DNS name of host>

Description: Installs OpenSSH on the specified remote Windows host. This command only works from a Windows management server, and can only deploy OpenSSH to a Windows server.

appiqstart -agent -username <username of host> -password <password of host> -hostname <IP address or DNS name of host>

Description: Tries to start the CIM Extension on the indicated remote host.

appiqstop -agent -username <username of host> -password <password of host> -hostname <IP address or DNS name of host>

Description: Tries to stop the CIM Extension on the indicated remote host.

appiqstatus -agent -username <username of host> -password <password of host> -hostname <IP address or DNS name of host>

Description: Attempts to contact the CIM Extension on the indicated remote host. If successful, the version number of the agent is returned.

appiqfetch -logs -username <username of host> -password <password of host> -hostname <IP address or DNS name of host>

Description: Retrieves the CIM Extension log files from the indicated host. The files are zipped and the resulting zip file stored in the indicated directory on the management server.

appiqupdate -agent -username <username of host> -password <password of host> -hostname <IP address or DNS name of host>

Description: Updates the CIM Extension on the indicated host.

appiqfetch -config -username <username of host> -password <password of host> -hostname <IP address or DNS name of host>

Description: Retrieves the CIM Extension configuration files from the indicated remote host. If successful, the configuration files are copied to the indicated directory on the management server.

appiqupdate -config -username <username of host> -password <password of host> -hostname <IP address or DNS name of host>

Description: Updates the CIM Extension configuration files for the indicated remote host.

For the appiqupdate -config command, the following arguments are all optional. If they are not specified, they will be left out of the configuration.

-port: The port to start the agent on.

-ip: The IP address to start the agent on (useful for multihomed systems).

-autoip: Specifies that the same IP address used to communicate with the machine via SSH is used to start the agent.

-agentUsername: The username the agent will respond to.

-agentPassword: The password the agent will respond to.

appiquninstall -agent -username <username of host> -password <password of host> -hostname <IP address or DNS name of host>

Description: Uninstalls the CIM Extension from the indicated host.

Security

Use the following CLI commands to view information about users, groups and roles.

appiqlist -user -all

Description: Lists users authorized to access to the management server.

appiqlist -user <user id>

Description: Provides the information about the specified user. You can obtain the identifier for the user from the `appiqlist -user -all` command.

appiqlist -user <user id> -role

Description: Provides the information about the specified user's role. You can obtain the identifier for the user from the `appiqlist -user -all` command.

appiqlist -user <user id> -organization

Description: Provides the information about the specified user's organizations.You can obtain the identifier for the user from the `appiqlist -user -all` command.

appiqlist -role -all

Description: Lists all the available roles in the server.

appiqlist -role <role id>

Description: Provides the information about the role specified. You can obtain the identifier for the role from the `appiqlist -role -all` command.

appiqlist -organization -all

Description: Lists the organizations available in the management server.

appiqlist -organization <org id>

Description: Provides the information about the organization specified. You can obtain the identifier for the organization from the `appiqlist -organization -all` command.

appiqlist -organization <org id> -element

Description: Lists elements available in the organization specified. You can obtain the identifier for the organization from the `appiqlist -organization -all` command.

appiqlist -organization <org id> -user

Description: Lists users in the organization specified. You can obtain the identifier for the organization from the `appiqlist -organization -all` command.

appiqlist -organization <org id> -childorganization

Description: Lists child organizations in the organization specified. You can obtain the identifier for the organization from the `appiqlist -organization -all` command.

appiqshow -user -all

Description: Provides detailed description about the users authorized to access the management server.

appiqshow -user <user id>

Description: Provides detailed description of the specified user. You can obtain the identifier for the user from the `appiqlist -user -all` command.

appiqshow -user <user id> -role

Description: Provides detailed description of the specified user's role. You can obtain the identifier for the user from the `appiqlist -user -all` command.

appiqshow -user <user id> -organization

Description: Provides detailed description of the specified user's organizations. You can obtain the identifier for the user from the `appiqlist -user -all` command.

appiqshow -role -all

Description: Provides detailed description of the available roles on the server.

appiqshow -role <role id>

Description: Provides detailed description of the role specified. You can obtain the identifier for the role from the `appiqlist -role -all` command.

appiqshow -organization - all

Description: Provides detailed description of the organizations available in the management server.

appiqshow -organization <org id>

Description: Provides detailed description of the organization specified. You can obtain the identifier for the organization from the `appiqlist -organization -all` command.

appiqshow -organization <org id> -element

Description: Provides detailed description of all the elements available in the organization specified. You can obtain the identifier for the organization from the `appiqlist -organization -all` command.

appiqshow -organization <org id> -user

Description: Provides detailed description of all the users in the organization specified. You can obtain the identifier for the organization from the `appiqlist -organization -all` command.

appiqshow -organization <org id> -childorganization

Description: Provides detailed description of all the child organizations in the organization specified. You can obtain the identifier for the organization from the `appiqlist -organization -all` command.

Storage Pools

Use the CLI commands in this section to manage storage pools.

appiqlist -pool <pool id>

Description: Provides the name of a specific storage pool. The pool ID can be obtained from several methods, such as from the `appiqlist -device -storagesystem <storage system id> -pool` command.

appiqlist -pool <pool id> -volume

Description: Provides list of volumes on storage pool specified. The pool ID can be obtained from several methods, such as from the `appiqlist -device -storagesystem <storage system id> -pool` command.

appiqlist -pool <pool id> -storageextent

Description: Provides list of storage extents on storage pool specified. The pool ID can be obtained from several methods, such as from the `appiqlist -device -storagesystem <storage system id> -pool` command.

appiqlist -pool <pool id> -storagesetting

Description: Provides a list of storage settings for the pool specified:

Keep in mind the following:

- For a parent pool (unconfigured pool), the storage settings provided from this command are used in the creation of a pool.
- For a non-parent pool, the storage settings provided from this command are used in volume creation.

The pool ID can be obtained from several methods, such as from the `appiqlist -device -storagesystem <storage system id> -pool` command.

appiqshow -pool <pool id>

Description: Provides a detailed description of pool. The pool ID can be obtained from several methods, such as from the `appiqlist -device -storagesystem <storage system id> -pool` command.

appiqshow -pool <pool id> -storagesetting

Description: Provides a detailed list of storage settings for this pool.

Keep in mind the following:

- For a parent pool (unconfigured pool), these settings are used in the creation of a pool.
- For a non-parent pool, these settings are used in volume creation.

The pool ID can be obtained from several methods, such as from the `appiqlist -device -storagesystem <storage system id> -pool` command.

appiqshow -pool <pool id> - storageextent

Description: Provides a detailed description of storage extents on the pool specified. The pool ID can be obtained from several methods, such as from the `appiqlist -device -storagesystem <storage system id> -pool` command.

The pool ID can be obtained from several methods, such as from the `appiqlist -device -storagesystem <storage system id> -pool` command.

appiqshow -pool <pool id> -volume

Description: Provides a detailed description of volumes on the pool specified.

The pool ID can be obtained from several methods, such as from the `appiqlist -device -storagesystem <storage system id> -pool` command.

appiqcreate -pool <pool id 1>…<pool id n> -storagesetting <storage settings id> -size <size in MB>

Description: Creates a storage pool with the specified unconfigured pools, storage setting and size. Not all storage systems support assigning name at creation time.

Where:

- `<pool id>` - is an unconfigured pool ID The pool ID can be obtained from several methods, such as from the `appiqlist -device -storagesystem <storage system id> -pool` command.
- `<storage setting id> -` is the storage setting ID for the new pool. You can obtain the storage setting ID from one of the following commands:
  - `appiqshow -device -storage system <storagesystem id> -pool`
  - `appiqlist -pool <id> -storagesetting`
  - `appiqshow -pool <id> -storagesetting` - This command also shows supported sizes for each of the storagesetting.
- `<size in MB>` - is the size of the pool in megabytes.

appiqcreate -pool <pool id 1>…<pool id n> -extents <extent id 1>…<extend id n> -storagesetting <storage settings id> -size <size in MB>

Description: Creates a storage pool with the specified unconfigured pools, storage setting, size and storage pool name.

where:

- `<pool id>` - is an unconfigured pool ID The pool ID can be obtained from several methods, such as from the `appiqlist -device -storagesystem <storage system id> -pool` command.

- <extent id 1> is the extent identifier. This command currently supports only one extent identifier.
- <storage setting id> - is the storage setting ID for the new pool. You can obtain the storage setting ID from one of the following commands:
  - appiqshow -device -storage system <storagesystem id> -pool
  - appiqlist -pool <id> -storagesetting
  - appiqshow -pool <id> -storagesetting - This command also shows supported sizes for each of the storagesetting.
- <size in MB> - is the size of the pool in megabytes.

appiqdelete -pool <pool id>

Description: Deletes a storage pool, where <pool id> is the identifier for the storage system pool. The identifier for the storage system pool can be obtained from several methods, such as from the appiqlist -device -storagesystem <storage system id> -pool command.

Sorting the Information Displayed

This software provides several commands that let you sort the information displayed. Before you can use the commands for sorting information on Windows, you must install Cygwin, which is accessible from http://www.cygwin.com/. Cygwin is a program that simulates a Linux environment. Cygwin is required because the following commands include the grep command, which is not recognized by Windows but it is recognized by Linux. If you have the CLI installed on Windows, the commands mentioned in this section must be typed in the Cygwin interface. Refer to the Cygwin Web site for technical questions and issues.

If you have not already done so, connect to the management server. See the topic, “Before Using the CLI” on page 3 or type "AppiqConfig -help" in the CLI.

Sorting Hosts by Number of HBAs

To sort hosts by number of host bus adapters, enter the following at the command prompt:

```
# appiqlist -fabric -all -host | grep "^Host:" | sort | uniq -c | sort
-rn
```

The software displays the following:

```
2 Host:3563:Host_3563
2 Host:1622:ufo
2 Host:1620:challenger
2 Host:1608:YAMATO
2 Host:1607:TIRPITZ
1 Host:3597:Host_3597
1 Host:3594:Host_3594
1 Host:3591:Host_3591
1 Host:3588:Host_3588
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the host.

Sort Storage Systems by Number of Fabrics Connected

To sort the storage systems by the number of fabrics connected, enter the following at the command prompt:

```
# appiqlist -fabric -all -storagesystem | grep "^StorageSystem:" | sort
| uniq -c | sort -rn
```

The software displays the following:

```
6 StorageSystem:1616:000183500570 (Symm48:3830)
4 StorageSystem:3536:HITACHI DISK-SUBSYSTEM 0118
2 StorageSystem:3527:DGC LUNZ 0099
2 StorageSystem:1618:LSI2400
2 StorageSystem:1019:LSI4600
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the storage system.

Search Fabrics for Zone Sets with the Same Name

To obtain a list of fabrics with zone sets with the same name, enter the following at the command prompt:

```
# appiqlist -fabric -all -zoneset | grep "^ZoneSet:" | cut -d':' -f3 |
sort | uniq -c | sort -rn
```

The software displays the following:

```
3 QAConfig01
3 DevConfig01
2 QAConfig03
2 QAConfig02
2 DevConfig03
1 test98798798
1 test650
1 test
```

The first item is the number of zone sets with the same name. The second item is the name of the zone set.

Sort All Zones in All Fabrics by Zone Name

To sort all zones in all fabrics by zone name, enter the following at the command prompt:

```
# appiqlist -fabric -all -zone | grep "^Zone:" | cut -d':' -f3 | sort
```

The software displays the following:

```
BobsLP8000_FA13B
BobsLP8000_FA13B
Challenger_FA13A
Challenger_FA16A
```

The names of the zones are displayed.

Display Model Numbers of All Switches

To display the model numbers of all switches, enter the following at the command prompt:

```
# appiqshow -fabric -all  -switch | grep "^Model:" | cut -d':' -f2 |
sort | uniq -c | sort -rn
```

The software displays the following:

```
5 SilkWorm 2800
2 SilkWorm 3800
2 SilkWorm 2400
1 5000.001
```

The first item is the number of switches of that type. The second item is the model name.

Storage Systems

Use the following types of CLI commands to obtain information about storage systems:

- **appiqlist** - Lists information about the components of the storage system.
- **appiqshow** - Provides a detailed description of the components in the storage system.
- **appiqstats** - Provides statistics about a storage system or its components, such as a storage pool.

appiqlist -device -storagesystem -all

Description: Provides a list of the storage systems the management server detects.

Example:

```
C:\cli>appiqlist -device -storagesystem -all
```

```
StorageSystem:1000:HDS9910@192.168.1.236

StorageSystem:1001:000183500570 (Symm48:3830)

StorageSystem:1006:LSI2400

StorageSystem:1009:LSI4600
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the element.

appiqlist -device -storagesystem <storage system id>

where `<storage system id>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides the name of the specified storage system.

Example:

```
C:\cli>appiqlist -device -storagesystem 1006

StorageSystem:1006:LSI2400
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the element.

appiqlist -device -storagesystem <storage system id> -all

where `<storage system id>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a list of the subcomponents of the specified storage system.

appiqlist -device -storagesystem <ssid> -port

where <ssid> is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a list of the ports for the storage system specified.

appiqlist -device -storagesystem <ssid> -lun

where <ssid> is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a list of the LUNs for the storage system specified.

appiqlist -device -storagesystem <ssid> -pool

where <ssid> is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Lists the storage pools for the storage system specified.

appiqlist -device -storagesystem <ssid> -volume

where <ssid> is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command. To view volume information for HiCommand storage systems, use the `AppIQList -device -storagesystem <ssid> -unmappedvolume` and `AppIQList -device -storagesystem <ssid> -mappedvolume` commands. See the topic, “Volumes” on page 104 for more information.

Description: Lists the volumes for the storage system specified.

appiqlist -device -storagesystem <ssid> -storagecapability

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Lists the storage capabilities for the storage system specified.

appiqlist -device -storagesystem <ssid> -drive

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Lists the drives for the storage system specified.

appiqlist -device -storagesystem <ssid> -extent

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Lists the extents for the storage system specified.

appiqlist -device -storagesystem <ssid> -hostsecuritygroup

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Lists the host security group for the storage system specified.

appiqlist -device -storagesystem <ssid> -maskingcapabilities

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Lists of the masking capabilities for the storage system specified.

appiqlist -device -storagesystem <ssid> -unmappedvolume

where `<ssid>` is the identifier for a storage system. The storage system identifier can be found through several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Lists the unmapped volumes for the storage system specified.

appiqlist -device -storagesystem <ssid> -mappedvolume

where `<ssid>` is the identifier for a storage system. The storage system identifier can be found through several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Lists the mapped volumes for the storage system specified.

appiqlist -device -storagesystem <ssid> -storageclientsettings

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Lists of the storage client settings for the storage system specified.

appiqshow -device -storagesystem -all

Description: Provides a detailed description of the storage systems detected by the management server.

appiqshow -device -storagesystem <ssid>

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command. To view volume information for HiCommand storage systems, use the `AppIQShow -device -storagesystem <ssid> -unmappedvolume` and `AppIQShow -device -storagesystem <ssid> -mappedvolume` commands. See the topic, “Volumes” on page 104 for more information.

Description: Provides a detailed description of the specified storage system, such as, the controller port identifiers for the storage system specified, not the actual ports.

appiqshow -device -storagesystem <ssid> -all

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the components of the storage system specified.

appiqshow -device -storagesystem <ssid> -port

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the ports for the storage system specified.

appiqshow -device -storagesystem <ssid> -lun

where <ssid> is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the LUNs for the storage system specified.

appiqshow -device -storagesystem <ssid> -pool

where <ssid> is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the storage pools for the storage system specified.

appiqshow -device -storagesystem <ssid> -volume

where <ssid> is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command. To view volume information for HiCommand storage systems, use the `AppIQShow -device -storagesystem <ssid> -unmappedvolume` and `AppIQShow -device -storagesystem <ssid> -mappedvolume` commands. See the topic, “Volumes” on page 104 for more information.

Description: Provides a detailed description of the volumes for the storage system specified.

appiqshow -device -storagesystem <ssid> -unmappedvolume

where <ssid> is the identifier for a storage system. The storage system identifier can be found through several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the unmapped volumes for the storage system specified.

appiqshow -device -storagesystem <ssid> -mappedvolume

where `<ssid>` is the identifier for a storage system. The storage system identifier can be found through several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the mapped volumes for the storage system specified.

appiqshow -device -storagesystem <ssid> -storagecapability

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the storage pool capability for the storage system specified.

appiqshow -device -storagesystem <ssid> -drive

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the drives for the storage system specified.

appiqshow -device -storagesystem <ssid> -extent

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the extents for the storage system specified.

appiqshow -device -storagesystem <ssid> -hostsecuritygroup

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the host security group for the storage system specified.

appiqshow -device -storagesystem <ssid> -maskingcapabilities

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the masking capabilities for the storage system specified.

appiqshow -device -storagesystem <ssid> -storageclientsettings

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides a detailed description of the storage client settings for the storage system specified.

appiqstats -device -storagesystem -all

Description: Provides statistics about the storage systems the management server discovers.

appiqstats -device -storagesystem <ssid>

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides statistics about the storage system specified.

appiqstats -device -storagesystem <ssid> -pool

where `<ssid>` is the storage system identifier. The storage system identifier can be obtained from several methods, such as from the `appiqlist -device -storagesystem -all` command.

Description: Provides statistics about the storage pools on the specified storage systems.

Switches

Use the following types of CLI commands to obtain information about switches:

- **appiqlist** - Lists information about the components of the switch
- **appiqshow** - Provides a detailed description of the components in the switch

appiqlist -device -switch -all

Description: Lists the switches the management server detects.

Example:

```
C:\cli>appiqlist -device -switch -all

Switch:1005:QBrocade2

Switch:1007:QBrocade5
```

```
Switch:1008:AppIQ_ED-6064

Switch:1011:AppIQ_ES-3016

Switch:1012:QBrocade3

Switch:1013:QBrocade4

Switch:1014:QBrocade1
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the element.

appiqlist -device -switch <switch id>

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Provides the name of the switch specified by the switch identifier.

Example:

```
C:\cli>appiqlist -device -switch 1007

Switch:1007:QBrocade5
```

The number after the first colon is the identifier for the element. The item after the second colon is the name of the element.

appiqlist -device -switch <switch id> -all

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Lists the elements associated with the specified switch, such as ports, zones, zone aliases and zone sets.

appiqlist -device -switch <switch id> -port

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Provides information about the ports on the specified switch.

appiqlist -device -switch <switch id> -zonealias

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Provides information about zone aliases on the specified switch.

appiqlist -device -switch <switch id> -zone

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Provides information about zones on the specified switch.

appiqlist -device -switch <switch id> -zoneset

where <switch id> is the switch identifier. The switch identifier can be obtained from several methods, such as from the appiqlist -device -switch -all command.

Description: Provides information about zone sets on the specified switch.

appiqshow -device -switch -all

Description: Provides detailed information about the switches detected by the management server.

appiqshow -device -switch <switch id>

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Provides detailed information about the specified switch.

appiqshow -device -switch <switch id> -all

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Provides detailed information about the specified switch and the sub elements of the switch, such as ports, zones, zone aliases and zone sets.

appiqshow -device -switch <switch id> -port

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Provides detailed information about the ports on the specified switch.

appiqshow -device -switch <switch id> -zone

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Provides detailed information of zones in the switch fabric.

appiqshow -device -switch <switch id> -zoneset

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Provides detailed information of zone sets in the switch fabric.

appiqshow -device -switch <switch id> -zonealias

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Provides detailed information of zone aliases in the switch fabric.

appiqstats -device -switch -all

Description: Provides statistical information about all switches

appiqstats -device -switch <switch id>

where `<switch id>` is the switch identifier. The switch identifier can be obtained from several methods, such as from the `appiqlist -device -switch -all` command.

Description: Provides statical information about a specified switch.

Tape Libraries

Use the following types of CLI commands to obtain information about tape libraries:

- **appiqlist** - Lists information about the components of the tape libraries
- **appiqshow** - Provides a detailed description of the components in the tape libraries

appiqlist -device -tapelibrary -all

Description: Provide a list of all the tape libraries that the management server detects.

appiqlist -device -tapelibrary <library ID>

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provides the name of the specified tape library.

appiqlist -device -tapelibrary <library ID> -all

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provide a list of all the subcomponents (port, media access device, controller cards and changer devices) that belong to the specified tape library.

appiqlist -device -tapelibrary <library ID> -port

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provides a list of all fibre channel ports that belongs to the specified tape library.

appiqlist -device -tapelibrary <library ID> -mediaaccessdevice

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provides a list of all media access devices that belongs to the specified tape library.

appiqlist -device -tapelibrary <library ID> -controller

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provides a list of all front-end controller cards that belongs to the specified tape library.

appiqlist -device -tapelibrary <library ID> -changerdevice

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provides a list of all changer devices that belongs to the specified tape library.

appiqshow -device -tapelibrary -all

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provide a detailed description of all the tape libraries that the management server detects.

appiqshow -device -tapelibrary <library ID>

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provides a detailed description for a specified tape library.

appiqshow -device -tapelibrary <library ID> -all

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provides a detailed description of all subcomponents, for example, port, media access device, controller and changerdevice) that belongs to the specified tape library.

appiqshow -device -tapelibrary <library ID> -port

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provides a detailed description of all fibre channel ports that belongs to the specified tape library.

appiqshow -device -tapelibrary <library ID> -mediaaccessdevice

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provides a detailed description of all media access devices that belongs to the specified tape library

appiqshow -device -tapelibrary <library ID> -controller

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provides a detailed description all of front-end controller cards that belongs to the specified tape library.

appiqshow -device -tapelibrary <library ID> -changerdevice

where `<library id>` is the identifier for the tape library. The identifier for the tape library can be obtained from several methods, such as from the `appiqlist -device -tapelibrary -all` command.

Description: Provides a detailed description of all changer devices that belongs to the specified tape library.

Volumes

Use the following types of CLI commands to create and delete volumes:

- **appiqcreate** - Creates a volume.
- **appiqdelete** - Deletes a volume.

appiqdelete -volume <list of volume id>

Description: Deletes the volume specified, where `<volume id>` is the identifier of a volume. The `<volume id>` can be obtained through several methods, such as from the `appiqlist -device -host <id> -volume` command

appiqcreate -volume <stor sys pool id> -storagesetting <storage setting id | [-default]> -size <size in MB>

Description: Creates a storage volume with the specified storage pool and the storage settings ID. To create a storage volume on an Engenio (LSI) storage system, use “appiqcreate -volume <storagesystem pool id> -lsi -storagesetting <storage setting id | [-default]> -size<size in MB> -cacheahead <ca> -segmentsize <ssize> -name <name>” on page 106.

where:

- `<stor sys pool id>` - is the identifier for a storage system pool. The storage system pool identifier can be found through several methods, such as from the `appiqlist -device -storagesystem <ssid> -pool` command.
- `<storage setting id | -default>` - is the identifier for the storage setting. The storage setting identifier can be found through several methods, such as from the `appiqshow -device -storagesystem <id> -pool` command.
- `<size in MB>` - is the size of the volume in megabytes.

appiqcreate -volume <stor sys pool id> -storagesetting <storage setting id | [-default]> -size <size in MB> -name <name>

Description: Creates a storage volume on the specified storage pool with the storage settings ID and name. To create a storage volume on an Engenio (LSI) storage system, use appiqcreate -volume <storagesystem pool id> -lsi -storagesetting <storage setting id | [-default]> -size<size in MB> -cacheahead <ca> -segmentsize <ssize> -name <name> on page 106.

where:

- `<stor sys pool id>` - is the identifier for a storage system pool. The storage system pool identifier can be found through several methods, such as from the `appiqlist -device -storagesystem <ssid> -pool` command.
- `<storage setting id | -default>` - is the identifier for the storage setting. The storage setting identifier can be found through several methods, such as from the `appiqshow -device -storagesystem <id> -pool` command.

- <size in MB> - is the size of the volume in megabytes.
- <name> - is the name of the storage volume you want to create.

Note: Not all storage systems support assigning name at creation time.

appiqcreate -volume <storagesystem pool id> -lsi -storagesetting <storage setting id | [-default]> -size<size in MB> -cacheahead <ca> -segmentsize <ssize> -name <name>

Description: Creates a storage volume on an Engenio (LSI) storage system.

where:

- <stor sys pool id> - is the identifier for a storage system pool. The storage system pool identifier can be found through several methods, such as from the appiqlist -device -storagesystem <ssid> -pool command.
- <storage setting id | -default> - is the identifier for the storage setting. The storage setting identifier can be found through several methods, such as from the appiqshow -device -storagesystem <id> -pool command.
- <size in MB> - is the size of the volume in megabytes.
- <ca> - the cache reach ahead multiplier (0 to 65535 bytes). A cache read ahead multiplier copies additional data blocks into the cache while it is reading and copying host-requested data blocks from disk to cache. Select the multiplier that maximizes performance for the way the volume will be utilized.
- <ss> - is the segment size of the volume.
- <name> - is the name of the storage volume you want to create.

To create a storage volume on a storage system other than Engenio (LSI), use one of the following commands:

- appiqcreate -volume <stor sys pool id> -storagesetting <storage setting id | [-default]> -size <size in MB> on page 105
- appiqcreate -volume <stor sys pool id> -storagesetting <storage setting id | [-default]> -size <size in MB> -name <name> on page 105

Zones

Use the following types of CLI commands to manage and obtain information about zones:

- **appiqlist** - Lists the ports and/or zone aliases in a specified zone.
- **appiqshow** - Provides detailed information about ports and/or zone aliases within a specified zone.
- **appiqcreate** - Creates a zone.
- **appiqdelete** - Deletes a zone.
- **appiqadd** - Lets you add a specified zone to a zone set. You can also use this command to add zone aliases or ports to a zone.
- **appiqremove** - Removes a specified zone from a zone set.

appiqlist -zone <zone id> -all

where `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zone` command.

Description: Provides a list of the ports, zone aliases, hosts and storage systems contained in the zone specified.

appiqlist -zone <zone id> -host

where `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> --zone` command.

Description: Provides a list of the hosts in the zone specified.

appiqlist -zone <zone id> -storagesystem

where `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> --zone` command.

Description: Provides a list of the storage systems in the zone specified.

appiqlist -zone <zone id> -port

where `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zone` command.

Description: Provides a list of the ports in the zone specified.

appiqlist -zone <zone id> -zonealias

where `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zone` command.

Description: Provides a list of the zone aliases in the zone specified.

appiqshow -zone <zone id>

where `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zone` command.

Description: Provides a detailed description of the specified zone.

appiqshow -zone <zone id> -all

where `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zone` command.

Description: Provides detailed description of the ports and zone aliases contained in the zone specified.

appiqshow -zone <zone id> -host

where `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zone` command.

Description: Provides detailed description of the hosts contained in the zone specified.

appiqshow -zone <zone id> -storagesystem

where <zone id> is the zone identifier. The zone identifier can be obtained from several methods, such as from the appiqlist -fabric <fabric id> -zone command.

Description: Provides detailed description of the storage systems contained in the zone specified.

appiqshow -zone <zone id> -port

where <zone id> is the zone identifier. The zone identifier can be obtained from several methods, such as from the appiqlist -fabric <fabric id> -zone command.

Description: Provides a detailed description of the ports in the zone specified.

appiqshow -zone <zone id> -zonealias

where <zone id> is the zone identifier. The zone identifier can be obtained from several methods, such as from the appiqlist -fabric <fabric id> -zone command.

Description: Provides a detailed description of the zone aliases in the zone specified.

appiqcreate -zone <VSAN1>:<switch1>:<zone> -fabric <fabric id> -port <port id>

where

- <VSAN1> is the name of the virtual SAN in which you want to create the zone alias.
- <switch1> is the name of the switch on which you want to create the zone alias.
- <zone> is the name of the zone you want to create.
- <fabric id> is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the appiqlist -fabric -all command.

- <port id> is the port identifier for a host, switch or storage system. The port identifier for a host can be obtained from the appiqlist -device -host <id> -port command and the port identifier for a storage system can be obtained from the appiqlist -device -storagesystem <storage system id> -port command. The port identifier for a switch can be obtained from the appiqlist -device -switch <switch id> -all command.

Description: Creates a zone alias in the virtual storage area network (VSAN) you specify. This command is only for switches that use VSANs. Use the appiqcreate -zone <zone name> -fabric <fabric id> -port <port id> command for switches that do not use VSANs.

appiqcreate -zone <zone name> -fabric <fabric id> -port <port id>

where

- <zone name> is the name of the zone. Make sure you do not have a zone with the same name by entering the appiqlist -fabric <fabric id> -zone command.
- <fabric id> is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the appiqlist -fabric -all command.
- <port id> is the port identifier for a host or storage system. The port identifier for a host can be obtained from the appiqlist -device -host <id> -port command and the port identifier for a storage system can be obtained from the appiqlist -device -storagesystem <storage system id> -port command.

Description: Creates a zone within the specified fabric. If you used the port identifier of a host when you created the zone, use the appiqadd -zone <zone id> -port <port id> command to add the port identifier for the storage system. Likewise, if you used the port identifier of a storage system when you created the zone, use the appiqadd -zone <zone id> -port <port id> command to add the port identifier for the host. This command is for switches that do not use virtuals storage area networks (VSANs). Use the appiqcreate -zone <VSAN1>:<switch1>:<zone> -fabric <fabric id> -port <port id> command for switches that do use virtual storage area networks.

Naming Conventions for Brocade Switches:

- The name must contain 1 to 64 characters.
- The name must begin with a letter. Any character other than the first character can be a letter, a number (0 to 9), or an underscore (_).

- The name is case sensitive. For example, "Zone1" and "zone1" are different zones.
- You cannot create a zone with the same name as an existing zone, zone alias or zone set. For example, if you create a zone named “new”, you cannot give a zone, zone alias, or zone set the same name.
- The following characters are invalid for Brocade switches: caret (^), dash (-), and dollar sign ($).

Naming Conventions for McDATA and Connectrix Switches:

- The name can have a maximum of 64 characters.
- The first character of a zone name must be a letter (A-Z, AZ).
- A zone name cannot contain spaces.
- Valid characters are a-a, AA, 0-9, caret (^), dash (-), underscore (_), and dollar sign ($).
- All names must be unique and may not differ by case. For example, myzone and MyZone are considered to be the same zone.

appiqcreate –zone <zonename> -fabric <fabric id> -zonealias <zonealias id>

where

- `<zone name>` is the name of the zone. Make sure you do not have a zone with the same name by entering the `appiqlist -fabric <fabric id> -zone` command.
- `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.
- `<zonealias id>` is the zone alias identifier. The zone alias identifier can be obtained from several methods, such as from the `appiqlist -zone <zone id> -zonealias` command.

Description: Creates a zone within the specified fabric and containing the specified zone alias. Use the `appiqadd -zone <zone id> -port <port id>` command to add the port identifier for a storage system or host. Spaces and dashes are not supported within the zone name for McDATA and Brocade switches. This command is for switches that do not use virtuals storage area networks (VSANs). Use the `appiqcreate -zone <VSAN1>:<switch1>:<zone> -fabric <fabric id> -port <port id>` command for switches that do use virtual storage area networks.

Naming Conventions for Brocade Switches:

- The name must contain 1 to 64 characters.

- The name must begin with a letter. Any character other than the first character can be a letter, a number (0 to 9), or an underscore (_).
- The name is case sensitive. For example, "Zone1" and "zone1" are different zones.
- You cannot create a zone with the same name as an existing zone, zone alias or zone set. For example, if you create a zone named “new”, you cannot give a zone, zone alias, or zone set the same name.
- The following characters are invalid for Brocade switches: caret (^), dash (-), and dollar sign ($).

Naming Conventions for McDATA and Connectrix Switches:

- The name can have a maximum of 64 characters.
- The first character of a zone name must be a letter (A-Z, AZ).
- A zone name cannot contain spaces.
- Valid characters are a-a, AA, 0-9, caret (^), dash (-), underscore (_), and dollar sign ($).
- All names must be unique and may not differ by case. For example, myzone and MyZone are considered to be the same zone.

appiqcreate –zone <zonename> -fabric <fabric id> -zonealias <zonealias id> -port <port id>

where

- `<zone name>` is the name of the zone. Make sure you do not have a zone with the same name by entering the `appiqlist -fabric <fabric id> -zone` command.
- `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.
- `<zonealias id>` is the zone alias identifier. The zone alias identifier can be obtained from several methods, such as from the `appiqlist -zone <zone id> -zonealias` command.
- `<port id>` is the port identifier for a host or a storage system. The port identifier for a host can be obtained from the `appiqlist -device -host <id> -port` command and the port identifier for a storage system can be obtained from the `appiqlist -device -storagesystem <storage system id> -port` command.

Description: Creates a zone within the specified fabric and containing the specified zone alias. If you used the port identifier of a host when you created the zone, use the `appiqadd -zone <zone id> -port <port id>` command to add the port identifier for the storage system. Likewise, if

you used the port identifier of a storage system when you created the zone, use the `appiqadd -zone <zone id> -port <port id>` command to add the port identifier for the host. This command is for switches that do not use virtuals storage area networks (VSANs). Use the `appiqcreate -zone <VSAN1>:<switch1>:<zone> -fabric <fabric id> -port <port id>` command for switches that do use virtual storage area networks.

Naming Conventions for Brocade Switches:

- The name must contain 1 to 64 characters.
- The name must begin with a letter. Any character other than the first character can be a letter, a number (0 to 9), or an underscore (_).
- The name is case sensitive. For example, "Zone1" and "zone1" are different zones.
- You cannot create a zone with the same name as an existing zone, zone alias or zone set. For example, if you create a zone named “new”, you cannot give a zone, zone alias, or zone set the same name.
- The following characters are invalid for Brocade switches: caret (^), dash (-), and dollar sign ($).

Naming Conventions for McDATA and Connectrix Switches:

- The name can have a maximum of 64 characters.
- The first character of a zone name must be a letter (A-Z, AZ).
- A zone name cannot contain spaces.
- Valid characters are a-a, AA, 0-9, caret (^), dash (-), underscore (_), and dollar sign ($).
- All names must be unique and may not differ by case. For example, myzone and MyZone are considered to be the same zone.

appiqdelete -zone <zone id>

where `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zone` command.

Description: Deletes the specified zone.

appiqadd -zone <zone id> -port <port id>

where

- <zone id> is the zone identifier. The zone identifier can be obtained from several methods, such as from the appiqlist -fabric <fabric id> -zone command.
- <port id> is the port identifier for a host or a storage system. The port identifier for a host can be obtained from the appiqlist -device -host <id> -port command and the port identifier for a storage system can be obtained from the appiqlist -device -storagesystem <storage system id> -port command.

Description: Adds a specified port to a zone.

appiqadd -zone <zone id> -zonealias <zonealias id>

where

- <zone id> is the zone identifier. The zone identifier can be obtained from several methods, such as from the appiqlist -fabric <fabric id> -zone command.
- <zonealias id> is the zone alias identifier. The zone alias identifier can be obtained from several methods, such as from the appiqlist -zone <zone id> -zonealias command.

Description: Adds a zone alias to a zone.

appiqremove -zone <zone id> -port <port id>

where

- <zone id> is the zone identifier. The zone identifier can be obtained from several methods, such as from the appiqlist -fabric <fabric id> -zone command.
- <port id> is the port identifier. The port identifier can be obtained from the appiqlist -zone <zoneid> -port command.

Description: Removes a port from a zone.

appiqremove -zone <zone id> -zonealias <zonealias id>

where

- `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zone` command.
- `<zonealias id>` is the zone alias identifier. The zone alias identifier can be obtained from several methods, such as from the `appiqlist -zone <zone id> -zonealias` command.

Description: Removes a zone alias from a zone.

Zone Aliases

Use the following types of CLI commands to manage and obtain information zone aliases:

- **appiqshow** - Obtains a detailed description about the zone alias.
- **appiqcreate** - Creates a zone alias.
- **appiqdelete** - Deletes a zone alias.
- **appiqadd** - Adds a zone alias.
- **appiqremove** - Removes a zone alias.

appiqshow -zonealias <zonealias id>

where `<zonealias id>` is the zone alias identifier. The zone alias identifier can be obtained from several methods, such as from the `appiqshow -fabric -all -zonealias` command.

Description: Provides a detailed description of the zone alias specified.

appiqcreate -zonealias <VSAN1>:<switch1>:<zonealias> -fabric <fabric id> -port <port id>

where

- `<VSAN1>` is the name of the virtual SAN in which you want to create the zone alias.
- `<switch1>` is the name of the switch on which you want to create the zone alias.
- `<zonealias>` is the name of the zone alias you want to create.
- `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.
- `<port id>` is the port identifier for a host, switch or storage system. The port identifier for a host can be obtained from the `appiqlist -device -host <id> -port` command and the port identifier for a storage system can be obtained from the `appiqlist -device -storagesystem <storage system id> -port` command. The port identifier for a switch can be obtained from the `appiqlist -device -switch <switch id> -all` command.

Description: Creates a zone alias in the virtual storage area network (VSAN) you specify. This command is only for switches that use VSANs. Use the `appiqcreate -zonealias <zone alias name> -fabric <fabric id> -port <port id>` command for switches that do not use VSANs.

appiqcreate -zonealias <zone alias name> -fabric <fabric id> -port <port id>

where

- `<zone alias name>` is the name for the zone alias that will be created.
- `<fabric id>` is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the `appiqlist -fabric -all` command.
- `<port id>` is the port identifier for a host, switch or storage system. The port identifier for a host can be obtained from the `appiqlist -device -host <id> -port` command and the port identifier for a storage system can be obtained from the `appiqlist -device -storagesystem <storage system id> -port` command. The port identifier for a switch can be obtained from the `appiqlist -device -switch <switch id> -all` command.

Description: Creates a zone alias assigned to a port in a specified fabric. This command is for switches that do not use virtual storage area networks (VSANs). Use the `appiqcreate -zonealias <VSAN1>:<switch1>:<zonealias> -fabric <fabric id> -port <port id>` for switches that use VSANs.

Naming Conventions for Brocade Switches:

- The name must contain 1 to 64 characters.
- The name must begin with a letter. Any character other than the first character can be a letter, a number (0 to 9), or an underscore (_).
- The name is case sensitive. For example, "ZoneAlias1" and "zonealias1" are different zone aliases.
- You cannot create a zone alias with the same name as an existing zone, zone alias or zone set. For example, if you create a zone alias named “new”, you cannot give a zone, zone alias, or zone set the same name.
- The following characters are invalid for Brocade switches: caret (^), dash (-), and dollar sign ($).

Naming Conventions for McDATA and Connectrix Switches:

- The name can have a maximum of 64 characters.
- The first character of a zone alias name must be a letter (A-Z, AZ).
- A zone alias name cannot contain spaces.
- Valid characters are a-a, AA, 0-9, caret (^), dash (-), underscore (_), and dollar sign ($).
- All names must be unique and may not differ by case. For example, myzonealias and MyZoneAlias are considered to be the same zone alias.

appiqdelete -zonealias <zonealias id>

where `<zonealias id>` is the zone alias identifier. The zone alias identifier can be obtained from several methods, such as from the `appiqshow -fabric -all -zonealias` command.

Description: Deletes a zone alias.

appiqadd -zonealias <zonealias id> -port <port id>

where

- `<zonealias id>` is the zone alias identifier. The zone alias identifier can be obtained from several methods, such as from the `appiqshow -fabric -all -zonealias` command.
- `<port id>` is the port identifier for a host, switch or storage system. The port identifier for a host can be obtained from the `appiqlist -device -host <id> -port` command and the port identifier for a storage system can be obtained from the `appiqlist -device -storagesystem <storage system id> -port` command. The port identifier for a switch can be obtained from the `appiqlist -device -switch <switch id> -all` command.

Description: Adds a port to a zone alias.

appiqremove -zonealias <zonealias id> -port <port id>

where

- `<zonealias id>` is the zone alias identifier. The zone alias identifier can be obtained from several methods, such as from the `appiqshow -fabric -all -zonealias` command.
- `<port id>` is the port identifier. The port identifier can be obtained from the `appiqshow -zonealias <zonealias id> -port` command.

Description: Removes the association with a zone alias and a specified port.

Zone Sets

Use the following types of CLI commands to manage and obtain information about zone sets:

- **appiqlist** - Lists information about the members of the zone set specified.
- **appiqshow** - Obtains a detailed description about the members of the zone set specified.
- **appiqcreate** - Creates a zone set.
- **appiqactivate** - Activates a zone set.
- **appiqdelete** - Deletes a zone set.

- **appiqadd** - Adds a specified zone to a zone set.
- **appiqremove** - Removes a zone set

appiqlist -zoneset <zoneset id>

where `<zoneset id>` is the zone set identifier. The zone set identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zoneset` command.

Description: Lists the elements that are contained within the zone set specified.

appiqlist -zoneset <zoneset id> -zone

where `<zoneset id>` is the zone set identifier. The zone set identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zoneset` command.

Description: Lists the zones that are contained within the zone set specified.

appiqshow -zoneset <zoneset id>

where `<zoneset id>` is the zone set identifier. The zone set identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zoneset` command.

Description: Provides a detailed description of the specified zone set

appiqshow -zoneset <zoneset id> -zone

where `<zoneset id>` is the zone set identifier. The zone set identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zoneset` command.

Description: Provides a detailed description of the zones that are contained within the zone set specified.

appiqcreate -zoneset <VSAN1>:<switch1>:<zoneset> -fabric <fabric id> -zone <zone id>

where

- <VSAN1> is the name of the virtual SAN in which you want to create the zone set.
- <switch1> is the name of the switch on which you want to create the zone set.
- <zoneset> is the name of the zone set you want to create.
- <fabric id> is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the appiqlist -fabric -all command.
- <zone id> is the zone in which you want to create the zone set.

Description: Creates a zone set in the virtual storage area network (VSAN) you specify. This command is only for switches that use VSANs. Use the appiqcreate -zoneset <zoneset name> -fabric <fabric id> -zone <zone id> command for switches that do not use VSANs.

appiqcreate -zoneset <zoneset name> -fabric <fabric id> -zone <zone id>

where

- <zoneset name> is the name of the zone set. To verify you have a unique name for the zone set in the fabric, enter the appiqlist -fabric <fabric id> -zoneset command.
- <fabric id> is the fabric identifier. The fabric identifier can be obtained from several methods, such as from the appiqlist -fabric -all command.
- <zone id> is the zone identifier. The zone identifier can be obtained from several methods, such as from the appiqlist -fabric <fabric id> -zone command.

Description: Creates a zone set with the name specified by <zoneset name> in the fabric specified by <fabric id>. The zone set contains the zone identified by <zone id>. This command is for switches that do not use virtual storage area networks (VSANs). Use the appiqcreate -zoneset <VSAN1>:<switch1>:<zoneset> -fabric <fabric id> -zone <zone id> command for switches that use VSANs.

Naming Conventions for Brocade Switches:

- The name must contain 1 to 64 characters.
- The name must begin with a letter. Any character other than the first character can be a letter, a number (0 to 9), or an underscore (_).
- The name is case sensitive. For example, "ZoneSet1" and "zoneset1" are different zone sets.
- You cannot create a zone set with the same name as an existing zone, zone alias or zone set. For example, if you create a zone set named “new”, you cannot give a zone, zone alias, or zone set the same name.
- The following characters are invalid for Brocade switches: caret (^), dash (-), and dollar sign ($).

Naming Conventions for McDATA and Connectrix Switches:

- The name can have a maximum of 64 characters.
- The first character of a zone set name must be a letter (A-Z, AZ).
- A zone set name cannot contain spaces.
- Valid characters are a-a, AA, 0-9, caret (^), dash (-), underscore (_), and dollar sign ($).
- All names must be unique and may not differ by case. For example, myzoneset and MyZoneSet are both valid individually, but the are not considered to be unique.

appiqdelete -zoneset <zoneset id>

where `<zoneset id>` is the zone set identifier. The zone set identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zoneset` command.

Description: Deletes the zone set specified by `<zoneset id>`.

appiqactivate -zoneset <zoneset id>

where `<zoneset id>` is the zone set identifier. The zone set identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zoneset` command.

Description: Activates the zone set specified by `<zoneset id>`. The zone set that was previously active is automatically deactivated.

appiqadd -zoneset <zoneset id> -zone <zone id>

where

- `<zoneset id>` is the zone set identifier. The zone set identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zoneset` command.
- `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zone` command.

Description: Adds the zone to the zone set specified by `<zoneset id>`.

appiqremove -zoneset <zoneset id> -zone <zone id>

where

- `<zoneset id>` is the zone set identifier. The zone set identifier can be obtained from several methods, such as from the `appiqlist -fabric <fabric id> -zoneset` command.
- `<zone id>` is the zone identifier. The zone identifier can be obtained from several methods, such as from the `appiqlist -zoneset <zoneset id> -zone` command.

Description: Removes the zone from the specified zone set.

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