

**Concerto™ Command Line Interface
Reference
7.7.1.x**

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Violin Systems LLC
2560 N. 1st Street, Suite 300
San Jose, CA 95131
USA

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Preface

This preface outlines the organization of this book, describes document conventions, and provides information about additional resources.

- [Intended Audience](#) on page 1
- [Document Organization](#) on page 2
- [Reference Documents](#) on page 2
- [Document Conventions](#) on page 3
- [Contacting Violin Systems](#) on page 4

Intended Audience

This guide is intended for experienced systems administrators. Violin Systems assumes that you are experienced in installing and servicing high-performance storage systems.

Contact Violin Systems Customer Support for any assistance with installing and servicing this system. See [Contacting Violin Systems](#) on page 4 for contact information.

About This Guide

This guide includes the Concerto OS™ CLI commands that can be issued from the Memory Gateway CLI. See the *Aria Command Line Interface Reference* for the CLI commands used to configure, manage, and monitor the ACMs.

The Concerto version 7.7.1.x used in this document represents Concerto 7.7.1.0 and its patch releases.

What's New in This Version

Each software release includes release notes that identify new features in the software, as well known and resolved issues.

To obtain the most current version of the release notes, go to the Violin Support Center <https://www.violinsystems.com/support-services/>.

Note: Examine the release notes before you begin an installation and configuration process.

Document Organization

This guide is organized into the following sections:

- [Chapter 1, Using the Concerto Command Line Interface](#)—Introduces the Concerto CLI and lists syntax conventions and abbreviations.
- [Chapter 2, Concerto Command Directory](#)—Provides descriptions, syntax, and examples for each command in the Violin Systems CLI, organized according to functional category.

Reference Documents

In addition to this guide, the following Violin Systems documents comprise the documentation suite that will assist you with setting up, using and servicing Violin Systems products. These guides are available for download from the Violin Systems Support site at <https://www.violinsystems.com/support-services/>.

This document...	Provides this information...
Release Notes	This document describes the new features, resolved issues, known limitations and software upgrade instructions for the current release.
<i>XVS Installation Guide</i>	This guide provides instructions for installing an XVS in an equipment rack and completing the system setup and configuration.
<i>XVS User Guide</i>	This guide provides instructions for managing, monitoring, and maintaining the XVS platforms using the Violin Symphony and Command Line Interface (CLI).

Reference Documents

This document...	Provides this information...
<i>XVS Service Guide</i>	This guide describes how to replace the system components in an XVS.
<i>Aria Command Line Interface Reference</i>	This guide provides all of the command modes, lists syntax conventions, and abbreviations for the commands available in the Aria command line interface (CLI). These CLI commands are used to monitor, configure, and manage the Array Controller Modules (ACMs).

Reference Documents

Document Conventions

Safety Icons

The table below summarizes warning, caution, and note icons used in this document and includes sample text.

Safety Icons

Icon	Sample Text
WARNING!	WARNING! Only authorized, qualified, and trained personnel should attempt to work on this equipment.
Caution:	Caution: Follow the listed safety precautions when working on the Violin device.
Note:	Note: Read through this entire chapter and plan your installation according to your location before installing the equipment. The following procedures and the order in which they appear are general installation guidelines only.

Typographical Conventions

The following typographic conventions are used in this guide:

Format	Meaning
Bold	Command names.
<i>Italic</i>	Provides emphasis and identifies document titles.

Typographical Conventions

Format	Meaning
Courier	Examples and output.
Courier bold	Input you must type exactly as shown.
<Courier>	Information for which you must supply a value.
[]	Optional command parameters are enclosed within square brackets.
	Separates a set of command choices from which only one may be chosen.
{ }	Required command parameters that must be specified are enclosed within curly brackets.

Typographical Conventions (Continued)

Security

Violin Systems LLC, cannot be responsible for unauthorized use of equipment and will not make allowance or credit for unauthorized use or access.

Contacting Violin Systems

To obtain additional information or technical support for Violin Systems products, contact us at:

- Phone: 1-855-VIOLIN-5 (1-855-846-5465)
- International: +1 650-396-1500 Extension 3
- Web site: <https://www.violinsystems.com/support-services/>

When contacting Violin Systems Customer Support, please have the following information available:

- Model and serial number of the system for which you are requesting support.
- Software version.
- A brief description of the problem.

CHAPTER 1 Using the Concerto Command Line Interface

The Concerto Command Line Interface (CLI) is a simple interface that allows you to configure and display information about a Memory Gateway from a terminal window. The CLI provides an alternative to using Violin Symphony to configure and monitor Memory Gateways.

This chapter contains the following sections:

- [Using the CLI](#) on page 5
- [Command Guidelines](#) on page 6
- [Common Arguments](#) on page 6

Using the CLI

To run a Concerto CLI command, type `isscli <command> <parameters>` in the terminal window. Help for CLI commands can be obtained by typing `isscli help <command>`.

Note: You should not have a console connected to your Memory Gateway when you run CLI commands; you may see errors in the syslog if a console is connected.

Type `isscli` at a command line to list all of the Concerto CLI commands.

The `isscli` command parameters can be specified in either long form or short form. For example, long form: `--server-name <servername>`, short form: `-s <servername>`. This reference and the CLI help provide descriptions of both long form and short form syntax.

Command Guidelines

Note the following as you enter Concerto CLI commands:

- Type each command on a single line, separating arguments with a space.
- You can use either the short form or long form for command parameters (as described above).
- In syntax descriptions, variables are listed in <> after each argument.
- Arguments listed in brackets [] are optional.
- The order of the arguments is irrelevant.
- Arguments separated by | are choices. Only one can be selected.
- For a value entered as a literal, it is necessary to enclose the value in quotes (double or single) if it contains special characters such as *, <, >, ?, |, %, \$, or space. Otherwise, the system will interpret the characters with a special meaning before it is passed to the command.
- Literals cannot contain leading or trailing spaces. Leading or trailing spaces enclosed in quotes will be removed before the command is processed.
- To use the hostname of the Memory Gateway instead of its IP address, the server name must be resolvable on the client side and server side.
- Parameters can be specified in switch or long name format when both are displayed.

Common Arguments

The following arguments are used throughout the CLI. For each, a long and short variation is included. You can use either one. The short arguments are case sensitive. For arguments that are specific to each command, refer to the section for that command.

Short Argument	Long Argument	Value/Description
-s	--server-name	Memory Gateway name (hostname or IP address). To use the hostname, the server name must be resolvable on the client side and server side.
-u	--server-username	Memory Gateway username
-p	--server-password	Memory Gateway user password
-S	--target-name	Storage Target Server Name (hostname or IP address)
-U	--target-username	Storage Target Server Username (for replication commands)
-P	--target-password	Storage Target Server User Password (for replication commands)
-c	--client-name	Storage Client Name
-v	--vdevid	Storage Virtual Device ID
-v	--source-vdevid	Memory Gateway Source Virtual Device ID
-V	--target-vdevid	Target Virtual Device ID
-a	--access-mode	Client Access Mode to Virtual Device

Short Argument	Long Argument	Value/Description
-f	--force	Force the deletion of the virtual device
-n	--vdevname	Virtual device name
-X	--rpc-timeout	Specify a number between 1 and 30000 seconds for the RPC timeout. The default is 30 seconds if not specified.

Note: You only need to use the `--server-username (-u)` and `--server-password (-p)` arguments when you log into a server. You do not need them for subsequent commands on the same server during your current session.



CHAPTER 2 Concerto Command Directory

This chapter lists the commands available in the Concerto 7.7.1.x Command Line Interface (CLI), along with command syntax and parameter descriptions. Within the chapter, the commands are divided into the following categories:

- [Memory Gateway Control](#) on page 11
- [Log in/Log out of the Memory Gateway](#) on page 12
- [Client Properties](#) on page 13
- [iSCSI Targets and Initiators](#) on page 17
- [Fibre Channel](#) on page 25
- [Users and Passwords](#) on page 31
- [Server Commands for Virtual Devices and Clients](#) on page 34
- [Mirroring](#) on page 66
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- [TimeMark/TimeView](#) on page 129
- [Server Configuration](#) on page 169
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- [Configuration Repository](#) on page 247
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- [Splunk Universal Forwarder](#) on page 257

-
- [Misc.](#) on page 259

Memory Gateway Control

concerto

This command starts, stops, restarts, and displays the running status of the modules on the Memory Gateway.

Syntax

```
concerto start | stop | restart | status
```

where:

start	Start the modules on the Memory Gateway.
stop	Stop the modules on the Memory Gateway.
restart	Restart the currently running modules on the Memory Gateway.
status	Display the running status of the modules on the Memory Gateway.

rpm_upgrade

This command performs a non-disruptive upgrade of the Concerto software running on the Memory Gateways.

Syntax

```
rpm_upgrade --rpm-path=<new-rpm-path>  
             [--primary-server-username=<primary-server-username>]  
             [--primary-server-password=<primary-server-password>]  
             [--secondary-server-username=<secondary-server-username>]  
             [--secondary-server-password=<secondary-server-password>]
```

Log in/Log out of the Memory Gateway

isscli login

This command allows you to log into the specified Memory Gateway with a given username and password.

Syntax

```
isscli login [--server-name=<server-name> --server-username=<username> -  
-server-password=<password>|--environment] [--rpc-timeout=<rpc-timeout>]
```

```
isscli login [-s <server-name> -u <username> -p <password>|-e] [-X <rpc-  
timeout>]
```

where:

-X (--rpc-timeout) Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli logout

This command allows you to log out of the specified Memory Gateway. If the server was not logged in or you have already logged out from the server when this command is issued, error 0x0902000f will be returned. After logging out from the server, the -u and -p arguments will not be optional for the server commands.

Syntax

```
isscli logout --server-name=<server-name> [--rpc-timeout=<rpc-timeout>]
```

```
isscli logout -s <server-name> [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout) Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

Client Properties

isscli setclientprop

This command allows you to set client properties.

Syntax

```
isscli setclientprop --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
--client-name=<client-name>
[--ip-address=<ip-address>]
[--client-os-type=<client-os-type>]
[--persistent-reservation=<on|off>]
[--is-clustered=<on|off>]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli setclientprop -s <server-name> [-u <username> -p <password>]
    -c <client-name> [-d <ip-address>] [-o <client-os-type>]
    [-pr <on|off>] [-cl <on|off>]
    [-X <rpc-timeout>]
```

where:

<client-name> i	Is the name of the client.
<server-ip>	Is the option to specify the IP address of the client. To remove the server IP address, set the IP address to "0.0.0.0".
<client-os-type>	Is the option to set the client OS type in one of the following values: <ul style="list-style-type: none">• Windows (default)• Linux• HPUX• AIX• Solaris• VMware• Mac
-pr (--persistent-reservation)	Is an option to allow the clustered clients to take advantage of Persistent Reserve/Release to control disk access between various cluster nodes. It is not affected by a bus reset.

-cl (--is-clustered)	Is an option for clustered client.
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setfcclientprop

This command allows you to set Fibre Channel (FC) client properties.

Syntax

```
isscli setfcclientprop --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --client-name=<client-name>
    [--initiator-wwpn-list=<initiator-wwpn-list>]
    [--enable-VSA=<on|off>] [--enable-AS400=<on|off>]
    [--rpc-timeout=<rpc-timeout>]

isscli setfcclientprop -s <server-name> [-u <username> -p <password>]
    -c <client-name>
    [-I <initiator-wwpn-list>] [-a <on|off>] [-A <on|off>]
    [-X <rpc-timeout>]
```

where:

-c (--client-name)	Is required to specify the fibre channel client to set the properties.
-I (--initiator-wwpn-list)	Is a list of options to set initiator WWPNs for the client. An initiator WWPN is a 16-byte Hex value. Separate the initiator WWPNs with a comma if more than one initiator WWPN is specified. e.g. 13af35d2f4ea6fbc,13af35d2f4ea6fad To clear the initiator WWPNs from the Fibre Channel client properties, specify * as the initiator WWPN list.
-a (--enable-VSA)	Is an option for Volume Set Addressing (VSA) with one of the following values: on or off (default)
-A (--enable-AS400)	is an option to support IBM iSeries Server with one of the following values: on or off (default). This option cannot be set if the client is already assigned to virtual devices.
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getclientprop

This command allows you to obtain client properties.

Syntax

```
isscli getclientprop --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --client-name=<client-name>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getclientprop -s <server-name> [-u <username> -p <password>]
    -c <client-name>
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli setiscsiclientprop

This command allows you to set iSCSI client properties.

Syntax

```
isscli setiscsiclientprop --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --client-name=<client-name> [--mobile-client
    [--mobile-user-name=<mobile-iscsi-user-name> ]
    --mobile-user-password=<mobile-user-password> |
    [--initiator-list=<initiator-list>]
    [--user-list=<user-list>]
    [--default-user=<user> [--chap-secret=<chap-secret>]]
    [--mutual-chap-option=<on|off>]
    [--mutual-chap-user=<mutual-chap-user>]
    [--mutual-chap-secret=<mutual-chap-secret>]]]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setiscsiclientprop -s <server-name> [-u <username> -p <password>]
    -c <client-name>
    [-M [-MU <mobile-iscsi-user-name>] -P <mobile-user-password> |
    [-i <initiator-list>] [-U <user-list>]
    [-du <default-user> [-cs <chap-secret>]]
    [-mc <on|off>]
    [-mu <mutual-chap-user> [-ms <mutual-chap-secret>]]]
```

[-X <rpc-timeout>]

where:

-M (--mobile-client)	are options to set the new properties if the client is an iSCSI mobile client. If the client is not a mobile client, then set the properties for the following options.
-P (--mobile-user-password)	
-MU (--mobile-user-name)	
<user-list>	is in the following format: user1,user2,user3 Specify NONE if you want to remove all the users that were assigned to the client. e.g.-U NONE
<initiator-list>	Is in the following format: initiator1,initiator2,initiator3 Default user can be specified with <default-user> and <chap-secret> in addition to <user-list>.
<chap-secret>	Is not required when <default-user> is an existing user. Specify NONE to remove the default user, e.g. -du NONE.
<mutual-chap-option>	Can be specified with the following value: on or off (default)
<mutual-chap-user>	Is required to enable the <mutual-chap-option>.
<mutual-chap-secret>	is not required if the mutual chap user is an existing mutual chap user. At least one property should be specified for the update.
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

iSCSI Targets and Initiators

isscli enableiscsi

Use this command to enable the iSCSI option on the specified server.

Syntax

```
isscli enableiscsi --server-name=<server-name>  
                [--server-username=<username>  
                --server-password=<password>]  
                [--rpc-timeout=<rpc-timeout>]
```

```
isscli enableiscsi -s <server-name> -u <username> -p <password>  
                [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli disableiscsi

Use this command to disable the iSCSI option on the specified server.

Syntax

```
isscli disableiscsi --server-name=<server-name>  
                [--server-username=<username>  
                --server-password=<password>]  
                --rpc-timeout=<rpc-timeout>]
```

```
isscli disableiscsi -s <server-name> -u <username> -p <password>  
                [-X <rpc-timeout>]
```

Disable iSCSI option on the specified server.

where:

-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli createiscsitarget

This command creates an iSCSI target. The <client-name>, <ip-address>, and <access-mode> parameters are required. Valid characters for <iscsi-target-name> are: a to z, 0 to 9. A default iSCSI target name will be generated if <iscsi-target-name> is not specified.

Multiple IP addresses can be specified for <ip-address>, separated by commas; e.g. 10.1.1.100,10.1.1.200.

Syntax

```
isscli createiscsitarget --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>] --client-name=<client-name>
    [--iscsi-target-name=<iscsi-target-name>]
    --ip-address=<ip-address>
    --access-mode=<access-mode> [--starting-lun=<starting-lun>]
    [--infiniband] [--rpc-timeout=<rpc-timeout>]

isscli createiscsitarget -s <server-name> [-u <username> -p <password>]
    -c <client-name> [-R <iscsi-target-name>]
    -I <ip-address> -a <access-mode> [-l <starting-lun>] [-i]
    [-X <rpc-timeout>]
```

where:

<access-mode>	Is one of the values for long format: ReadOnly, ReadWrite, or ReadWriteNonExclusive and it is one of the values for short format: R / W / N.
<starting-lun>	Can also be specified in the range of 0 - 254. The default starting LUN is 0 if it is not specified.
-i (--infiniband)	Is used to create an InfiniBand iSCSI target.
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli deleteiscsitarget

This command deletes an iSCSI target. The <client-name> and <iscsi-target-name> parameters are required to delete the iSCSI target.

Syntax

```
isscli deleteiscsitarget --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --client-name=<client-name>
    --iscsi-target-name=<iscsi-target-name> [--force]
    [--rpc-timeout=<rpc-timeout>]
isscli deleteiscsitarget -s <server-name> [-u <username> -p <password>]
    -c <client-name>-R <iscsi-target-name> [-f]
    [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|---|
| -f (--force) | Is required when the virtual device is assigned to the iSCSI target and the client is connected to the virtual device through the iSCSI target. An error will be returned if the force option is not specified. |
| -X (--rpc-timeout) | Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli assigntoiscsitarget

This command assigns a virtual device or group to an iSCSI target. A virtual device or group (either ID or name) and iSCSI target are required. All virtual devices in the same group will be assigned to the specified iSCSI target if group is specified. If a virtual device ID is specified and it is in a group, an error will be returned.

LUN is optional for single virtual device if you want to set a specific LUN. The default is to set the LUN to the next available LUN. It's not a valid option if group is specified.

Syntax

```
isscli assigntoiscsitarget --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --vdev-id=<vdev-id> | --group-id=<group-id> | --group-
name=<group-name>
    --iscsi-target-id=<iscsi-target-id> |
    --iscsi-target-name=<iscsi-target-name>
    [--lun=<lun>] [--rpc-timeout=<rpc-timeout>]

isscli assigntoiscsitarget -s <server-name> [-u <username> -p <password>]
    -v <vdev-id> | -g <group-id> | -G <group-name>
```

```
-r <iscsi-target-id> | -R <iscsi-target-name>[-l <lun>] [-X  
<rpc-timeout>]
```

where:

-X (--rpc-timeout) Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli unassignfromiscsitarget

This command unassigns a virtual device or group from an iSCSI target. Virtual device and iSCSI target are required. -f (--force) option is required when the iSCSI target is assigned to the client and the client is connected or when the virtual device is in a snapshot group. An error will be returned if the client is connected and the force option is not specified.

All virtual devices in the same snapshot group as the specified virtual device will be unassigned if force option is specified. An error will be returned if force option is not specified and the virtual device is in a snapshot group.

Syntax

```
isscli unassignfromiscsitarget --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    --vdevid=<vdevid> [--iscsi-target-id=<iscsi-target-id> |  
    [--iscsi-target-name=<iscsi-target-name>] [--force]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli unassignfromiscsitarget -s <server-name>  
    [-u <username> -p <password>]  
    -v <vdevid> -r <iscsi-target-id> | -R <iscsi-target-name> [-f]  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout) Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getiscsitargetinfo

This command retrieves information for iSCSI targets. The iSCSI target ID or iSCSI target name can be specified to get the specific iSCSI target information. The default is to get the information for all iSCSI targets.

Syntax

```
isscli getiscsitargetinfo --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    [--iscsi-target-id=<iscsi-target-id> |
    --iscsi-target-name=<iscsi-target-name>]
    [--longlist [--client-list | --long-client-list]
    [--resource-list | --long-resource-list]
    [--rpc-timeout=<rpc-timeout>]

isscli getiscsitargetinfo -s <server-name> [-u <username> -p <password>]
    [-r <iscsi-target-id> | -R <iscsi-target-name>]
    [-l [-c|-C] [-e|-E]] [-X <rpc-timeout>]
```

where:

-c(--client-list)	Display the assigned client list when the -l(--longlist) option is specified.
-C(--long-client-list)	
-e(--resource-list)	Display the assigned resource list when the -l(--longlist) option is specified.
-E(--long-resource-list)	
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setiscsitargetprop

This command sets the iSCSI target properties. Refer to <<Create iSCSI target>> for details regarding options.

Syntax

```
isscli setiscsitargetprop --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --iscsi-target-id=<iscsi-target-id>
    [--iscsi-target-name=<iscsi-target-name>]
    [--ip-address=<ip-address>]
    [--access-mode=<access-mode>] [--force]]
    [--rpc-timeout=<rpc-timeout>]

isscli setiscsitargetprop -s <server-name> [-u <username> -p <password>]
    -r <iscsi-target-id> [-R <iscsi-target-name>]
    [-I <ip-address>] [-a <access-mode>] [-f]] [-X <rpc-timeout>]
```

where:

<code><iscsi-target-id></code>	Is required to specify the target to change target properties. Valid characters for <code><iscsi-target-name></code> are: a to z, 0 to 9, and Multiple IP addresses can be specified for <code><ip-address></code> separated by comma. e.g. 10.1.1.100,10.1.1.200.
<code><access-mode></code>	Is one of the values for long format: Readonly, ReadWrite, or ReadWriteNonExclusive and it is one of the values for short format: R / W / N.
<code>-f (--force)</code>	Allows you to specify non-failover virtual IP for the failover primary server.
<code>-X (--rpc-timeout)</code>	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getavailiscsitargetips

This command returns the list of IP addresses available for this iSCSI target.

Syntax

```
isscli getavailiscsitargetips --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getavailiscsitargetips -s <server-name>  
    [-u <username> -p <password>]  
    [-X <rpc-timeout>]
```

where:

<code>-X (--rpc-timeout)</code>	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
---------------------------------	--

isscli getiscsiusers

This command returns the list of available iSCSI users.

Syntax

```
isscli getiscsiusers --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getiscsiusers -s <server-name>  
    [-u <username> -p <password>]  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli getiscsiinitiators

This command returns the list of iSCSI initiators recognized by this system.

Syntax

```
isscli getiscsiinitiators --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getiscsiinitiators -s <server-name> [-u <username> -p <password>]  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli getconnectediscsiinitiators

This command returns the list of iSCSI initiators connected to each iSCSI target.

Syntax

```
isscli getconnectediscsiinitiators --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    [--iscsi-target-id=<iscsi-target-id> |
    --iscsi-target-name=<iscsi-target-name>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getconnectediscsiinitiators -s <server-name>
    [-u <username> -p <password>]
    [-r <iscsi-target-id> | -R <iscsi-target-name>]
    [-X <rpc-timeout>]
```

This command allows you to get a list of iSCSI initiators connected to each iSCSI target.

iSCSI target id or name can be specified for specific iSCSI target.

where:

-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

Fibre Channel

isscli enablefc

Use this command to enable the Fibre Channel Target Mode option on the specified server.

Syntax

```
isscli enablefc --server-name=<server-name>  
                [--server-username=<username>  
                --server-password=<password>]  
                [--rpc-timeout=<rpc-timeout>]
```

```
isscli enablefc -s <server-name> -u <username> -p <password>  
                [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli disablefc

Use this command to disable the Fibre Channel Target Mode option on the specified server.

Syntax

```
isscli disablefc --server-name=<server-name>  
                [--server-username=<username>  
                --server-password=<password>]  
                [--rpc-timeout=<rpc-timeout>]
```

```
isscli disablefc -s <server-name> -u <username> -p <password>  
                [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli verifyfcwwpns

Use this command to verify Fibre Channel WWPNS on the specified server and report possible misconfiguration between physical adapters and clients.

Syntax

```
isscli verifyfcwwpns --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli verifyfcwwpns -s <server-name> -u <username> -p <password>  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli enablefcadaptarget

Use this command to enable the Target Mode option on the specified Fibre Channel adapter.

Syntax

```
isscli enablefcadaptarget --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --adapter=<adapter>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli enablefcadaptarget -s <server-name>  
    [-u <username> -p <password>]  
    -a <adapter>  
    [-X <rpc-timeout>]
```

where:

-a (--adapter)	Specify the Fibre Channel adapter.
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli disablefcadaptarget

Use this command to disable the Target Mode option on the specified Fibre Channel adapter.

Syntax

```
isscli disablefcadaptarget --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --adapter=<adapter>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli disablefcadaptarget -s <server-name>
    [-u <username> -p <password>]
    -a <adapter>
    [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|--|
| -a (--adapter) | Specify the Fibre Channel adapter. |
| -X (--rpc-timeout) | Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli spoofcadapterwwpn

Use this command to spoof the WWPN on the specified Fibre Channel adapter. Note that the HBA and server must be restarted for the spoofed WWPN to take effect.

Syntax

```
isscli spoofcadapterwwpn --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --adapter=<adapter>
    --new-initiatorWWPN=<new-initiatorWWPN>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli spoofcadapterwwpn -s <server-name>
    [-u <username> -p <password>]
    -a <adapter> -N <new-initiatorWWPN>
    [-X <rpc-timeout>]
```

where:

-a (--adapter)	Specify the Fibre Channel adapter.
-N (--new-initiatorWWPN)	Specify the new WWPN. The WWPN is a 16-byte Hex value, e.g. 13af35d2f4ea6fbc.
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli unspoooffcadapterwwpn

Use this command to remove spoofing for the WWPN on the specified Fibre Channel adapter. Note that the HBA and server must be restarted to remove spoofing for the WWPN.

Syntax

```
isscli unspoooffcadapterwwpn --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --adapter=<adapter>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli spoooffcadapterwwpn -s <server-name>  
    [-u <username> -p <password>]  
    -a <adapter>  
    [-X <rpc-timeout>]
```

where:

-a (--adapter)	Specify the Fibre Channel adapter.
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli renamephysicaladapter

Use this command to change the name on the specified physical adapter.

Syntax

```
isscli renamephysicaladapter --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --adapter=<adapter> --name=<new-name>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli renamephysicaladapter -s <server-name>  
    [-u <username> -p <password>]  
    -a <adapter> -n <new-name>  
    [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|--|
| -a (--adapter) | Specify the Fibre Channel adapter. |
| -n (--name) | Specify the new name for the adapter. |
| -X (--rpc-timeout) | Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli fcpersistentbinding

Use this command to change target port persistent binding on the specified Fibre Channel adapter. Note that the HBA and server must be restarted for the change to take effect.

Syntax

```
isscli fcpersistentbinding --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --adapter=<adapter>
    --persistent-binding-list=<persistent-binding-list>
    --rpc-timeout=<rpc-timeout>]
```

```
isscli fcpersistentbinding -s <server-name>
    [-u <username> -p <password>]
    -a <adapter> -pb <persistent-binding-list>
    [-X <rpc-timeout>]
```

where:

-a (--adapter)	Specify the Fibre Channel adapter.
-pb (--persistent-binding-list)	Specify the target port persistent binding list. The format for the binding is " <target-WWPN>:<target-port-id>:<comments> ". Multiple bindings can be separated by ','. E.g. "200400a0b811a889:0:port 0,200500a0b811a889:1:port 1"
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

Users and Passwords

isscli adduser

This command allows you to add a Concerto user. You must log in to the server as “root” to perform this operation.

Syntax

```
isscli adduser --server-name=<server-name>
               [--server-username=<username>
                --server-password=<password>]
               --user-type=<user-type> --username=<new-username>
               --password=<new-password>
               --quota=<quota>
               [--rpc-timeout=<rpc-timeout>]

isscli adduser -s <server-name> [-u <username> -p <password>]
               -t <user-type> -N <new-username> -W <new-password> [-q <quota>]
               [-X <rpc-timeout>]
```

where:

<user-type>	Is required with one of the following values: A (for Administrator), S (for User), or I (for iSCSI User). For iSCSI users, the password length must be between 12 and 16 characters.
<quota>	Is the quota available for a new user. Specify 0 for unlimited or enter the size of the quota in MiB.
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli deleteuser

This command allows you to remove a Concerto user. You must log in to the server as “root” to perform this operation.

Syntax

```
isscli deleteuser --server-name=<server-name>  
                [--server-username=<username>  
                --server-password=<password>]  
                --username=<username-to-delete>  
                [--rpc-timeout=<rpc-timeout>]
```

```
isscli deleteuser -s <server-name> [-u <username> -p <password>]  
                -N <username-to-delete>  
                [-X <rpc-timeout>]
```

where:

<code><user-to-delete></code>	Is required to perform this operation.
<code>-X (--rpc-timeout)</code>	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setuserpassword

This command allows you to change a Concerto user's password. You must log in to the server as "root" to perform this operation if the user is not an iSCSI user. For iSCSI users, the password length must be between 12 and 16.

Syntax

```
isscli setuserpassword --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --username=<ipstor-username>
    --password=<new-password>
    --old-password=<old-password>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setuserpassword -s <server-name> [-u <username> -p <password>]
    -N <ipstor-username> -W <new-password> [-O <old-password>]
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout) Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

Server Commands for Virtual Devices and Clients

isscli addclient

This command allows you to add a client to the specified server.

Syntax

```
isscli addclient --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
--client-name=<client-name> [--client-type=<client-type>]
[--ip-address=<ip-address>]
[--client-os-type=<client-os-type>]
[--persistent-reservation=<on|off>]
[--is-clustered=<on|off>]
[--initiator-wwpn-list=<initiator-wwpn-list>]
[--enable-VSA=<on|off>] [--enable-AS400=<on|off>]
[--mobile-client
--mobile-user-name=<mobile-iscsi-user-password> ]
--mobile-user-password=<mobile-user-password> |
[--initiator-list=<initiator-list>]
[--user-list=<user-list>]
[--default-user=<user> [--chap-secret=<chap-secret>]]
[--mutual-chap-option=<on|off>]
[--mutual-chap-user=<mutual-chap-user>
--mutual-chap-secret=<mutual-chap-secret>]]] ]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli addclient -s <server-name> [-u <username> -p <password>]
-c <client-name> [-t <client-type>] [-d <ip-address>]
[-o <client-os-type>]
[-pr <on|off>] [-cl <on|off>]
[-I <initiator-wwpn-list>] [-a <on|off>] [-A <on|off>]
[-M [-MU <mobile-iscsi-user-name>] -P <mobile-user-password> |
-i <initiator-list>] [-U <user-list>]
[-du <default-user> [-cs <chap-secret>]]
[-mc <on|off>]
[-mu <mutual-chap-user> [-ms <mutual-chap-secret>]]] ]
[-X <rpc-timeout>]
```

where:

<code><client-type></code>	Is an option to specify the type of the client protocol to be supported by this client. The <code><client-type></code> is one or more of the following values: FC or ISCSI. Separate protocols by comma, if more than one protocol is specified.
<code><server-ip></code>	Is the option to specify the IP address of the client.
<code><client-os-type></code>	Is the option to set the client OS type in one of the following values: <ul style="list-style-type: none">• Windows (default)• Linux• HPUX• AIX• Solaris• VMware• Mac
<code>-pr (--persistent-reservation)</code>	Is an option to allow the clustered clients to take advantage of Persistent Reserve/Release to control disk access between various cluster nodes. It is not affected by a bus reset. The default is on if it is not set except for AIX client type.
<code>-cl (--is-clustered)</code>	Is an option for clustered client.
<code>-I (--initiator-wwpn-list)</code>	Are options for Fibre Channel protocol, which can be set when the client type is FC.
<code>-a (--enable-VSA)</code>	
<code>-A (--enable-AS400)</code>	
<code>-I (--initiator-wwpn-list)</code>	Are the options to set the initiator WWPNS. An initiator WWPNS is a 16-byte hex value. Separate the initiator WWPNS with commas if more than one initiator WWPNS is specified; e.g. 13af35d2f4ea6fbc,13af35d2f4ea6fad
<code>-a (--enable-VSA)</code>	Is an option for Volume Set Addressing in one of the following values: on or off (default).
<code>-A (--enable-AS400)</code>	Is an option to support IBM iSeries Server in one of the following values: on or off (default).
<code>-M (--mobile-client)</code>	Is an option for the ISCSI protocol. A mobile iSCSI Client can access the authorized iSCSI targets from any host as long as it has the proper authentication credentials. Mobile Clients can only use their iSCSI user names as display names.
<code>-MU (--mobile-user-name)</code>	Specifies the iSCSI user name whose default value is its client name.
<code>-P (--mobile-user-password)</code>	Is required for a mobile iSCSI client. The length of the password must be between 12 and 16 characters.

<code><user-list></code> <code><initiator-list></code>	Are options for the iSCSI protocol and cannot be used with the <code>-M</code> option. The <code><user-list></code> is in the following format: <code>user1,user2,user3</code> . <code><initiator-list></code> is in the following format: <code>initiator1,initiator2,initiator3</code> .
	Default user can be specified with <code><default-user></code> and <code><chap-secret></code> in addition to <code><user-list></code> . The <code><chap-secret></code> is not required when <code><default-user></code> is an existing user.
<code><mutual-chap-option></code>	Can be specified with the following value: on or off (default).
<code><mutual-chap-user></code>	Is required to enable the option. The <code><mutual-chap-secret></code> is not required if the mutual chap user is an existing mutual chap user. Either mobile client properties or initiator properties are required when enabling iSCSI protocol.
<code>-X (--rpc-timeout)</code>	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli deleteclient

This command allows you to delete a client from the specified server.

Syntax

```
isscli deleteclient -s <server-name>
    [-u <username> -p <password>]
    -c <client-name> [-X <rpc-timeout>]
```

```
isscli deleteclient --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --client-name=<client-name> [--rpc-timeout=<rpc-timeout>]
```

where:

<code>-c (--client-name)</code>	Is the name of the client to be deleted.
<code>-f (--force)</code>	Is an option to delete the client forcefully when any virtual device or iscsi target is assigned to the client.
<code>-X (--rpc-timeout)</code>	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setassignedvdevprop

This command allows you to set properties for assigned virtual devices. Device properties can only be changed when the client is not connected.

Syntax

```
isscli setassignedvdevprop --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid>
    --client-name=<client-name> |
    --iscsi-target-id=<iscsi-target-id> |
    --iscsi-target-name=<iscsi-target-name>
    [--adapter-no=<adapter-no>] [--scsi-id=<scsi-id>]
    [--lun=<lun>]
    [--initiatorWWPN=<initiatorWWPN|*>]
    [--targetWWPN=<targetWWPN|*>]
    [--rpc-timeout=<rpc-timeout>]
isscli setassignedvdevprop -s <server-name> [-u <username> -p <password>]
    -v <vdevid>
    -c <client-name> | -r <iscsi-target-id> | -R <iscsi-target-
name>
    [-t <adapter-no>] [-d <scsi-id>] [-l <lun>]
    [-I <initiatorWWPN|*>] [-T <targetWWPN|*>]
    [-X <rpc-timeout>]
```

where:

<code>-iscsi-target-id=<iscsi-target-id></code>	Specify the iSCSI target ID or iSCSI target Name if the virtual device is assigned to the iSCSI target.
<code>--iscsi-target-name=<iscsi-target-name></code>	Specify the client name if the virtual device is assigned a fibre channel client.
<code>--lun=<lun></code>	For device assigned to iSCSI target, LUN can be changed.
<code>--initiatorWWPN=<initiatorWWPN *></code> <code>--targetWWPN=<targetWWPN *></code>	For device assigned to Fibre Channel client, initiator WWPN, target WWPN and LUN can be changed except for a Symmetric failover setup, both initiator WWPN and target WWPN must be "*"
<code>-X (--rpc-timeout)</code>	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getvdevserial

This command retrieves the serial number of the specified virtual devices from the server.

Syntax

```
isscli getvdevserial --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    [--target-username=<target-username> --target-
password=<target-password>]
    [--vdevid=<vdevid>] [--rpc-timeout=<rpc-timeout>]
```

```
isscli getvdevserial -s <server-name> [-u <username> -p <password>]
    [-U <target-username> -P <target-password>]
    [-v <vdevid>] [-X <rpc-timeout>]
```

where:

-U <target-username>	Are used when the virtual device has a remote replica.
-P <target-password>	
-v <vdevid>	Is the device ID. By default, the command retrieves the serial number for all the devices having one.
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli replacefcclientwwpn

This command allows you to replace the Fibre Channel Client World Wide Port Name (WWPN).

Syntax

```
isscli replacefcclientwwpn --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --client-name=<client-name> --initiatorWWPN=<initiatorWWPN>
    --new-initiatorWWPN=<new-initiatorWWPN>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli replacefcclientwwpn -s <server-name> [-u <username> -p <password>]
    -c <client-name> -I <initiatorWWPN> -N <new-initiatorWWPN>
    [-X <rpc-timeout>]
```

where:

-c (--client-name)	Is required to specify the fibre channel client to replace the initiator WWPN.
-I (--initiatorWWPN)	Is the exiting initiator WWPN to be replaced.

-
- | | |
|--------------------------|--|
| -N (--new-initiatorWWPN) | Is the new initiator WWPN to replace the existing initiator WWPN. New initiator WWPN must be an initiator WWPN that is not currently assigned to the client. The WWPN is a 16-byte Hex value, e.g. 13af35d2f4ea6fbc. |
| -X (--rpc-timeout) | Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli rescanfcclient

This command allows you to notify the Fibre Channel client to rescan the devices.

Syntax

```
isscli rescanfcclient --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --client-name=<client-name>
    [--initiatorWWPN=<initiatorWWPN|*>]
    [--targetWWPN=<targetWWPN|*>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli rescanfcclient -s <server-name> [-u <username> -p <password>]
    -c <client-name>
    [-I <initiatorWWPN|*>] [-T <targetWWPN|*>]
    [-X <rpc-timeout>]
```

where:

- | | |
|----------------------|--|
| -c (--client-name) | is required to specify the fibre channel client to rescan. |
| -I <initiatorWWPN *> | Are 16-byte Hex values or "*" for all. e.g. 13af35d2f4ea6fbc. The default is "*" if it is -I or -T option is not specified. |
| -T <targetWWPN> | |
| -X (--rpc-timeout) | Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli getthindiskproperties

This command allows you to obtain thin disk properties.

Syntax

```
isscli getthindiskproperties --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdev=<vdev>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getthindiskproperties -s <server-name> [-u <username> -p
<password>]
    -v <vdev>
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli setthindiskproperties

This command allows you to set thin disk properties.

Syntax

```
isscli setthindiskproperties --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdev=<vdev>
    [--provision-watermark=<provision-watermark>]
    [--increment=<increment>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setthindiskproperties -s <server-name>
    [-u <username> -p <password>]
    -v <vdev> [-wm <provision-watermark>] [-cr <increment>]
    [-X <rpc-timeout>]
```

where:

<code><provision-watermark></code>	Is the available size left in MiB to determine if more space should be allocated. The default is 1024 MiB.
<code>-cr (--increment)</code>	Is the size to be incremented when more storage is needed. It can be either percentage or size in MiB. e.g. 10% or 100 MiB. The default is 1024 MiB if it is not specified. You can also add additional storage to the disk manually through the “addthindiskstorage” command.
<code>-X (--rpc-timeout)</code>	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli addthindiskstorage

This command allows you to add additional storage to the resource configured for thin provisioning without changing the maximum disk size seen by the client host. It can be a SAN or replica resource.

Syntax

```
isscli addthindiskstorage --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdev=<vdev>
    --additional-mb=<#(MB)>
    [--rpc-timeout=<rpc-timeout>]
isscli addthindiskstorage -s <server-name> [-u <username> -p <password>]
    -v <vdev> -m <#(MB)>
    [-X <rpc-timeout>]
```

where:

<code>-X (--rpc-timeout)</code>	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
---------------------------------	--

isscli assignvdev

This command allows you to assign a virtual device or a group on a specified server to a SAN client. If this is an iSCSI client, you can use this command to assign an iSCSI target to a client, but not a device. Use CLI `assigntoiscsitarget` to assign a device.

If the client supports more than one protocol, the protocol can be specified with `-L` (`--client-protocol`) option with one of the values: `FC` or `ISCSI`. If this option is not specified, a default protocol will be chosen from the configured client protocols in the following order: `FC`, `ISCSI`.

Virtual device and snapshot group (ID or name) can be specified to be assigned to the client for all the protocols. iSCSI target (ID or name) can be specified to be assigned to the client for iSCSI target assignment. Specify iSCSI target ID or name if iSCSI target is to be assigned to the client. Specify virtual device ID that is going to be assigned to the client if the virtual device is not in a snapshot group. Specify group ID or group name that is going to be assigned the client. All the virtual devices in the same group will be assigned to the client.

Syntax

```
isscli assignvdev --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
--vdevid=<vdevid> |
  --group-id=<group-id> | --group-name=<group-name> |
  --iscsi-target-id=<iscsi-target-id> |
  --iscsi-target-name=<iscsi-target-name>
--client-name=<client-name>
[--access-mode=<access-mode>]
[--no-group-client-assignment]
[--adapter-no=<adapter-no> --scsi-id=<scsi-id> --lun=lun]
[--initiatorWWPN=<initiatorWWPN|*>]
[--targetWWPN=<targetWWPN|*>]
[--lun=<lun>]
--client-protocol=<client-protocol>
[--rpc-timeout=<rpc-timeout>]
```

```
isscli assignvdev -s <server-name> [-u <username> -p <password>]
-v <vdevid> | -g <group-id> | -G <group-name> |
-r <iscsi-target-id> | -R <iscsi-target-name>
-c <client-name> [-a <access-mode>] [-N]
[-t <adapter-no> -d <scsi-id> -l <lun>]
[-I <initiatorWWPN|*>] [-T <targetWWPN|*>] [-l <lun>]
[-L <client-protocol>]
[-X <rpc-timeout>]
```

where:

<code><access-mode></code>	is one of the values for long format: Readonly, ReadWrite or ReadWriteNonExclusive and the <code><access-mode></code> is one of the values for short format: R / W / N <code><access-mode></code> is required except for iSCSI target assignment.
<code>-I <initiatorWWPN *></code> <code>-T <targetWWPN *></code>	Initiator WWPN and Target WWPN are options for Fibre Channel protocol. The initiator WWPN or target WWPN is a 16-byte Hex value or "*" for all. e.g. 13af35d2f4ea6fbc. The default is "*" if it is -I or -T option is not specified. Both initiator WWPN and target WWPN must be "*" in a Symmetric failover setup.
<code><lun></code>	can be specified for Fibre Channel protocol. <code><lun></code> can also be specified for iSCSI protocol if it's not for an iSCSI target assignment.
<code>-X (--rpc-timeout)</code>	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli createvdev

This command creates a virtual device.

parameters can be specified in switch or long name format:

```
isscli createvdev [--server-name=<server-name>
  --server-username=<username>
  --server-password=<password>]
  [--category=<category>]
  [--resource-type=<resource-type>]
  [--vdevname=<vdevname>]
  [[--size-mb=<#(MB)>|--sectors=<sectors>|--lun-type=<lun-type>]
  [--scsiaddress=<ACSL>
  [--storage-pool-id=<storage-pool-id>|
  --storage-pool-name=<storage-pool-name>] |
  --storage-pool-id=<storage-pool-id>
  [--distribute-segments [--max-segments=<#>]] |
  --storage-pool-name=<storage-pool-name>
  [--distribute-segments [--max-segments=<#>]]] |
  --custom-method=<custom-mode>|
  --custom-layout=<custom-layout>]
  [--force]
  [--full-disk-size-mb=<full-disk-size-mb> |
  --full-disk-size-sectors=<full-disk-size-sectors>]
  [--provision-watermark=<provision-watermark>]
  [--increment=<increment>]
  [--subtype-dedup]
  [--enable-encryption]
```

```

        [--enable -encryption]
        [--disable-mirror|--mirror-primary]]
        [--reserve-inquiry-string] [--vdev-guid]
        [--batch-mode=<vdev-count> [--vdevname-pattern=<vdevname-pattern>
[--start-index=<start-index>]]]
        [[--scsiaddr-list=<SED-device-list>] |
        [--scsiaddr-list-for-header=<virtual-device-list>]]
        [--rpc-timeout=<rpc-timeout>]

isscli createvdev [-s <server-name> -u <username> -p <password>]
        [-C <category>] [-R <resource-type>]
        [-n <vdevname>]
        [[-m <#(MB)>|-r <sectors>|-l <lun-type>]
        [-I <ACSL>[-sp <storage-pool-id>|-SP <storage-pool-name>] |
        -sp <storage-pool-id> [-ds [-ms=<#>]] |
        -SP <storage-pool-name> [-ds [-ms=<#>]]] |
        -M <custom-mode>|-L <custom-layout>]
        [-t <retention-period>] [-k <lock-policy>] [-d <on|off>]] [-f]
        [-km <full-disk-size-mb>|-kr <full-disk-size-sectors>]
        [-wm <provision-watermark>] [-cr <increment>]]
        [-dedup]
        [-crypt]
        [-crypt]
        [-dmi|-mp]
        [-q] [-vg]
        [-B <vdev-count> [-pat <vdevname-pattern> [-sid <start-index>]]]
        [[-IS <SED-device-list>] |-IH[virtual-device-list]]
        [-X <rpc-timeout>]

```

where:

<category>	Is one of the values: virtual (default) service-enabled
-crypt (--enable-encryption)	Option to encrypt vdev.
<resource-type>	Is one of the values: SAN (default)
-m (--size-mb) and -r (--sectors)	Is the size in MB or the size in sectors. If neither option is specified, an "Invalid size" error is returned. The minimum size for SAN resources is 1MB.
-ds (--distribute-segments)	An option for Virtual Device to distribute the allocated segments across the available physical devices. Storage pool is required for this option and this option cannot be specified with the custom layout or for thin provisioning.
-ms (--max-segments)	Can be specified with -ds option to set the maximum number of segments to be created between 2 and 64 (default).

<code>-n (--vdevname)</code>	The option to specify the virtual device name. The maximum length is 64. Leading and trailing spaces will be removed. Enclose the name in double quotes to ensure the proper name. The following characters are invalid for the SAN Resource name: <>"&\$/\'
<code>-dedup (--subtype-dedup)</code>	The option to create dedupe vdev.
<code>-dmi (--disable-mirror)</code>	The option to skip remote mirror creation in a stretched cluster environment.
<code>-mp (--mirror-primary)</code>	The option to mirror only the primary device. <code>disable-mirror</code> and <code>mirror-primary</code> are mutually exclusive.
<code>-I (--scsiaddress)</code>	Required for Service Enabled Devices, but it is an option for Virtual Devices to specify a specific physical device to allocate the space. You can specify up to 3 physical devices: ACSL=#:##:## (adapter:channel:id:lun)
<code>-sp (storage-pool-id)</code> <code>-SP (storage-pool-name)</code>	Can be specified to allocate the space from the physical devices in the storage pool for the virtual device when the <code>-I</code> option is not specified. Or, it can be specified for the virtual header of Service Enabled Devices.
<code><custom-mode></code> <code><custom-layout></code>	Options for specific physical segments. It can be a list or a file enclosed in <> containing physical segment in each line. The format of the physical segment for <code><custom-mode></code> is: <code>adapter:channel:scsi-id:lun:first-sector:size-in-MB</code> The format for <code><custom-layout></code> is: <code>adapter:channel:scsi-id:lun:first-sector:last-sector</code>
<code>-B (--batch-mode)</code>	An option to specify the number of resources to be created at the specified size in batch mode of virtual disk creation. This option cannot be specified with <code>-M</code> or <code>-L</code> option. For batch mode of service-enabled disk, use <code>-IS (--scsiaddress-list)</code> to enter the acsl paths and separate each of them with a comma, or a filename of a file enclosed in <> containing paths in each line. example 1: <code>-IS 0:0:1:0,0:0:2:0</code> example 2: <code>-IS "<device_file.txt>"</code> Has to be specified for batch mode resource creation.
<code>-pat (--vdevname-pattern)</code>	An option to specify the virtual device name pattern of resources to be created in batch mode. The first occurrence of the # character within the name pattern is used as a placeholder. That placeholder will be replaced with the associated index sequence.
<code>-sid (--start-index)</code>	An option to specify the starting index of the virtual device name resources to be created in batch mode. The start index is an integer greater or equal to 0. Default value is 1.

-IH	An option for SED creation to specify where the headers reside.																																																																		
-l (--lun-type)	<p>If the server supports Emulex Target Mode, this option can be specified with one of the following Types to create the virtual disk for an AS400 client.</p> <table border="0"> <thead> <tr> <th>Type</th> <th>Name</th> <th>AS400</th> <th>Disk Size</th> <th>Actual</th> <th>Disk Size</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2105 A01</td> <td>(DPY)</td> <td>8.589 GB</td> <td>9000</td> <td>MB</td> </tr> <tr> <td>2</td> <td>2105 A02</td> <td>(DPY)</td> <td>17.548 GB</td> <td>18000</td> <td>MB</td> </tr> <tr> <td>5</td> <td>2105 A05</td> <td>(DPY)</td> <td>35.165 GB</td> <td>36000</td> <td>MB</td> </tr> <tr> <td>3</td> <td>2105 A03</td> <td>(DPY)</td> <td>36.003 GB</td> <td>37000</td> <td>MB</td> </tr> <tr> <td>4</td> <td>2105 A04</td> <td>(DPY)</td> <td>70.564 GB</td> <td>71000</td> <td>MB</td> </tr> <tr> <td>81</td> <td>2105 A01</td> <td></td> <td>8.589 GB</td> <td>9000</td> <td>MB</td> </tr> <tr> <td>82</td> <td>2105 A02</td> <td></td> <td>17.548 GB</td> <td>18000</td> <td>MB</td> </tr> <tr> <td>85</td> <td>2105 A05</td> <td></td> <td>35.165 GB</td> <td>36000</td> <td>MB</td> </tr> <tr> <td>83</td> <td>2105 A03</td> <td></td> <td>36.003 GB</td> <td>37000</td> <td>MB</td> </tr> <tr> <td>84</td> <td>2105 A04</td> <td></td> <td>70.564 GB</td> <td>71000</td> <td>MB</td> </tr> </tbody> </table>	Type	Name	AS400	Disk Size	Actual	Disk Size	1	2105 A01	(DPY)	8.589 GB	9000	MB	2	2105 A02	(DPY)	17.548 GB	18000	MB	5	2105 A05	(DPY)	35.165 GB	36000	MB	3	2105 A03	(DPY)	36.003 GB	37000	MB	4	2105 A04	(DPY)	70.564 GB	71000	MB	81	2105 A01		8.589 GB	9000	MB	82	2105 A02		17.548 GB	18000	MB	85	2105 A05		35.165 GB	36000	MB	83	2105 A03		36.003 GB	37000	MB	84	2105 A04		70.564 GB	71000	MB
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<full-disk-size-mb> <full-disk-size-sectors>	<p>This option cannot be specified with -m, -I, -M options.</p> <p>Options for thin provisioning. The full disk size is the size that appears on the client side. The minimum disk size for thin provisioning is 10 GB.</p> <p>The initial allocation is determined by -m (--size-mb), -r (--sectors) or the custom layout in the range of 10% to 99% of the full disk size. The default initial allocation will be 20% of the full disk size if it is not specified.</p> <p>Additional storage will be automatically allocated as needed for the disk using thin provisioning based on the space left and the size to be incremented.</p>																																																																		
<provision-watermark>	The available size left in MB to determine if more space should be allocated. The default is 512 MB.																																																																		
-cr (--increment)	<p>The size to be incremented when more storage is needed. It can be either percentage or size in MB. e.g. 10% or 100 MB. The default is 10240 MB if it is not specified.</p> <p>You can also add additional storage to the disk manually using the "addthindiskstorage" command.</p>																																																																		
-q (--reserve-inquiry-string)	An option for service-enabled device to reserve the physical device inquiry string.																																																																		
-vg(--vdev-guid)	An option to specify virtual device guid for creation.																																																																		
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.																																																																		

isscli deletevdev

This command allows you to delete a SAN resource, or SAN TimeView Resource on the specified server. If the resource is assigned to a SAN client, the assignment(s) will be removed first. If a Snapshot Resource is created for the virtual device, it will be removed.

The resource cannot be deleted if the following conditions apply:

- There are TimeView resources associated with this resource.
- The resource is a SAN resource and there are SAN clients currently connected to the resource.
- The force option is required for the following conditions:
 - Resource is in a snapshot group.
 - Resource is configured as a replication primary disk.
 - TimeMark is enabled for the resource.
 - Backup is enabled for the resource.
 - Snapshot copy is in progress or TimeMark copy is in progress.

If the force option is specified and the resource is a replication primary disk, the replica disk will be promoted as long as the replication is not in progress. Otherwise, the replica disk will be deleted.

Syntax

```
isscli deletevdev --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --vdevid=<vdevid> [--keep-timeview-data [--keep-changes] |
    --kill-timeview-data] [--force]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli deletevdev -s <server-name> [-u <username> -p <password>]
    -v <vdevid> [-K [-C] | -k] [-f]
    [-X <rpc-timeout>]
```

where:

- | | |
|---------------------------|---|
| -K (--keep-timeview-data) | Option for TimeView resource to keep the TimeView data with the TimeMark after the deletion. When TimeView is re-created with the same TimeMark, same GUID will be used and the data will be kept. |
| -C (--keep-changes) | Option to be specified with -K (--keep-timeview-data) option if the TimeView was created with -a (--allow-discardable-changes) option. This option allows you to keep the changes made after TimeView is created. |

-k (--kill-timeview-data)	<p>Option for TimeView resource to remove the persisted data forcefully when the TimeView was created with persisted data.</p> <p>If neither option is specified, and the TimeView was created with persisted data, the default is to keep the persisted data after the deletion. Otherwise, the data will be removed.</p> <p>-K (--keep-timeview-data) and -k (--kill-timeview-data) are mutually exclusive and are only available for the server.</p> <p>-K (--keep-timeview-data) is not supported for Copy Enabled TimeView resources.</p>
-X (--rpc-timeout)	<p>Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>

isscli expandvdev

This command allows you to expand the size of a virtual device on the specified server. While SAN resources can be expanded, a replica disk by itself or a TimeView resource cannot.

Syntax

```
isscli expandvdev --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid>
    --additional-mb=<#(MB)>
    [--target-username=<target username>
    --target-password=<target password>]
    [--verbose]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli expandvdev -s <server-name> [-u <username> -p <password>]
    -v <vdevid> -m <#(MB)>
    [-U <target-username> -P <target-password>]
    [-b]
    [-X <rpc-timeout>]
```

where:

-b (--verbose)	<p>Is an option to print out the physical segment information.</p> <p>If the resource is configured for thin provisioning and you would like to add the storage to the resource instead of expanding the disk size, you can run the following command instead: <code>addthindiskstorage</code>.</p>
-X (--rpc-timeout)	<p>Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>

isscli renamevdev

This command allows you to rename a virtual device. However, only SAN resources and SAN replicas can be renamed. Specify the ID and new name of the resource to be renamed.

Syntax

```
isscli renamevdev -s <server-name> [-u <username> -p <password>]
                        -vdevid=<vdevid> --vdevname=<vdevname>
                        [--rpc-timeout=<rpc-timeout>]
```

```
isscli renamevdev -s <server-name> [-u <username> -p <password>]
                        -v <vdevid> -n <vdevname>
                        [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli unassignvdev

This command allows you to unassign a virtual device or a group on the specified server from a SAN client. If the client is an iSCSI client, iSCSI target should be specified. Otherwise, virtual device should be specified.

Specify either the virtual device or the iSCSI target to be unassigned.

To unassign the virtual device from the client supporting SAN/IP or Fibre Channel protocol, specify the virtual device ID. To unassign the iSCSI target from the client supporting iSCSI protocol, specify the iSCSI target ID or name. iSCSI target will be deleted after it is unassigned if it is no longer assigned to any client.

Syntax

```
isscli unassignvdev --server-name=<server-name>
                        [--server-username=<username>] [--server-password=<password>]
                        --vdevid=<vdevid> | --iscsi-target-id=<iscsi-target-id> |
                        --iscsi-target-name=<iscsi-target-name>
                        --client-name=<client-name> [--force]
                        [--no-group-client-assignment]
                        [--target-username=<target username>]
                        --target-password=<target password>]
                        [--rpc-timeout=<rpc-timeout>]
```

```
isscli unassignvdev -s <server-name> [-u <username> -p <password>]
                        -v <vdevid> | -r <iscsi-target-id> | -R <iscsi-target-name>
                        -c <client-name> [-U <target-username> -P <target-password>]
```

```
[-f] [-N]
[-X <rpc-timeout>]
```

where:

-f (--force)	Can be specified when the virtual device is in a snapshot group. An error will be returned when the force option is not specified to unassign a virtual device that is in a snapshot group. It is also required to unassign the virtual device when the client is connected and the virtual device is attached. Error will be returned if the force option is not specified.
-N (--no-group-client-assignment)	is an option not to unassign all the group members if the specified virtual device is in a group. The default is to unassign all the group members if the virtual device is in a group.
-U -P	Specify the user name and password to the corresponding remote server.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli enableclientprotocol

This command allows you to add a protocol to a client.

Syntax

```
isscli enableclientprotocol --server-name=<server-name>
  [--server-username=<username>
  --server-password=<password>]
  --client-name=<client-name>
  --client-type=<client-type>
  [--initiator-wwpn-list=<initiator-wwpn-list>]
  [--enable-VSA=<on|off>] [--enable-AS400=<on|off>]
  [--mobile-client
  --mobile-user-name=<mobile-iscsi-user-name>
  --mobile-user-password=<mobile-user-password> |
  --initiator-list=<initiator-list>]
  [--user-list=<user-list>]
  [--default-user=<user> [--chap-secret=<chap-secret>]]
  [--mutual-chap-option=<on|off>
  --mutual-chap-user=<mutual-chap-user>
  --mutual-chap-secret=<mutual-chap-secret>]] ]
  [--rpc-timeout=<rpc-timeout>]
```

```
isscli enableclientprotocol -s <server-name> [-u <username> -p
<password>]
```

```

-c <client-name> -t <client-type>
[-I <initiator-wwpn-list>] [-a <on|off>] [-A <on|off>]
[-M [-MU <mobile-iscsi-user-name>] -P <mobile-user-password> |
[-i <initiator-list>] [-U <user-list>]
[-du <default-user> [-cs <chap-secret>]]
[-mc <on|off>]
[-mu <mutual-chap-user> [-ms <mutual-chap-secret>]] ]
[-X <rpc-timeout>]

```

where:

<client-name>	The name of the client.
<client-type>	Required to specify the additional client protocol to be supported by this client. <client-type> is one or more of the following values: FC or ISCSI Separate the protocols with a comma if more than one protocol is specified.
-I (--initiator-wwpn-list)	Options for Fibre Channel client, which can be set when the client type is FC.
-a (--enable-VSA)	-I (--initiator-wwpn-list) is the options to set the initiator WWPNs. An initiator WWPN is a 16-byte Hex value. Separate the initiator WWPN by comma if more than one initiator WWPN is specified. e.g. 13af35d2f4ea6fbc,13af35d2f4ea6fad
-A (--enable-AS400)	Option for Volume Set Addressing in of the following values: on or off (default)
-M (--mobile-client)	Option to support IBM iSeries Server with one of the following values: on or off (default). This option cannot be set if this client is already assigned to virtual devices. Option for the iSCSI protocol. A mobile iSCSI Client can access the authorized iSCSI targets from any host as long as it has the proper authentication credentials. Mobile Clients can only use their iSCSI user names as display names. Either mobile client properties or initiator properties are required when enabling iSCSI protocol.
-MU (--mobile-user-name)	The iSCSI user name whose default value is its client name.
-P (--mobile-user-password)	Required for a mobile iSCSI client. The length of the password must be between 12 and 16 characters.
<user-list>	Options for the iSCSI protocol and cannot be used with the -M option.
<initiator-list>	<user-list> is in the following format: user1,user2,user3 <initiator-list> is in the following format: initiator1,initiator2,initiator3

<default-user> <chap-secret>	Default iSCSI user and mutual chap secret for iSCSI authentication. Default user can be specified with <default-user> and <chap-secret> in addition to <user-list>. <chap-secret> is not required when <default-user> is an existing user.
<mutual-chap-option> <mutual-chap-secret>	<mutual-chap-option> can be specified with the following value: on or off (default) <mutual-chap-user> is required to enable the option. <mutual-chap-secret> is not required if the mutual chap user is an existing mutual chap user.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli disableclientprotocol

This command removes a protocol from a client.

Syntax

```
isscli disableclientprotocol --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --client-name=<client-name>
    --client-type=<client-type>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli disableclientprotocol -s <server-name>
    [-u <username> -p <password>]
    -c <client-name> -t <client-type>
    [-f]
    [-X <rpc-timeout>]
```

where:

<client-name>	The name of the client.
<client-type>	Required to specify the client protocol(s) to be disabled from the client. <client-type> is one or more of the following values: FC or iSCSI Separate the protocols with commas if more than one protocol is specified
-f (--force)	Option to disable the client protocol forcefully when any virtual device or iSCSI target is assigned to the client.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getvdevlist

This command retrieves and displays information about all virtual devices or a specific virtual device from the specified server.

Syntax

```
isscli getvdevlist --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    [--longlist [--vdevid=<vdevid>|--vdevname=<vdevname>|--old-
timeview]
    [--client-list|--long-client-list] | [--client-list2|--long-
client-list2]
    [--physical-layout|--long-physical-layout]]
    [--virtual-header-on-physical-device-containing-data-segment]
    [--resource-list=<resource-list>]
    [--rpc-timeout=<rpc-timeout>]

isscli getvdevlist -s <server-name> [-u <username> -p <password>]
    [-l [-v <vdevid>|-n <vdevname>|-ot] [-a|-A] [-c|-C] | [-c2|-C2]]
    [-hD <HeaderOnPDevContainingDataSegment>]
    [-R <resource-types>]
    [-X <rpc-timeout>]
```

where:

-l(--longlist)	Option to display the long format.
-v(--vdevid)	Option to display only the specified virtual device information when -l(--longlist) is specified.
-n(--vdevname)	
-ot(--old-timeview)	Option to get the list of old version of TimeViews when -l option is specified.
-a(--physical-layout)	Option to display the physical layout when -l(--longlist) is specified.
-A(--long-physical-layout)	
-c(2) (--client-list(2))	Option to display the assigned client list when -l(--longlist) option is specified.
-C(2) (--long-client-list(2))	
-hD	Option to display the list of resources that the virtual header is allocated from physical device containing data segment.

<code><resource-list></code>	<p>Filter for the resources in the following values:</p> <ul style="list-style-type: none"> • Storage (default), Configuration, MetaData, or "All" to include all the types. • example1: -R "Storage" • example2: -R "Configuration" • example3: -R "MetaData" • example4: -R "Storage,Configuration,MetaData" • example5: -R "All"
<code>-X (--rpc-timeout)</code>	<p>Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>

isscli getclientvdevlist

This command retrieves and displays information about all virtual devices assigned to the client from the specified server.

Syntax

```
isscli getclientvdevlist --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --client-name=<client-name>
    [--client-type=<client-type>]
    [--longlist [--physical-layout | --long-physical-layout]]
    [--iscsi-target-list]
    [--rpc-timeout=<rpc-timeout>]

isscli getclientvdevlist -s <server-name> [-u <username> -p <password>]
    -c <client-name> [-t <client-type>] [-l [-a | -A]]
    [-T]
    [-X <rpc-timeout>]
```

where:

<code><client-name></code>	Name of the SAN client, or * for all the clients.
<code><client-type></code>	<p>Type of the client protocol to be retrieved with one of the following values:</p> <ul style="list-style-type: none"> • FC • ISCSI <p>The client name is required, but the client type is optional. If the client type is not specified, all of the supported client protocols will be included.</p> <p>Be aware that on some platforms you are required to enclose the "*" in double quotes to take it as a literal.</p>
<code>-l (--longlist)</code>	Option to display the long format.

-a(--physical-layout)	Option to display the physical layout when -l(--longlist) is specified.
-A(--long-physical-layout)	
-T (--iscsi-target-list)	Additional option for the iSCSI protocol when <client-type> is specified as iSCSI to display the assigned devices in iSCSI target and virtual devices hierarchy.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getvidbyserialno

This command allows you to obtain the corresponding virtual device ID when you enter a serial number (a 12-character long alphanumeric string).

Syntax

```
isscli getvidbyserialno --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --serial-no=<serial-number> [--rpc-timeout=<rpc-timeout>]

isscli getvidbyserialno -s <server-name> [-u <username> -p <password>]
    -n <serial-number> [-X <rpc-timeout>]
```

where:

<serial-number>	a 12-character long alphanumeric string required to get the corresponding virtual device id.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli remapresourcevirtualheader

This command allows you to remap the virtual header of the specified resource(s) to different physical device(s).

Syntax

```
isscli remapresourcevirtualheader --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --vdev-id=<vdev-id> |
    --vdev-list=<vdev-list> |
    --header-allocated-with-data
    [--category=<category>]
    [--resource-list=<resource-list>]
    [--remap-option=<remap-option>]
```

```
[--physical-devices=<physical-devices>]
[--mirror-physical-devices=<mirror-physical-devices>]
[--skip-devices-with-data]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli remapresourcevirtualheader -s <server> -u <uid> -p <pwd>]
-v <vdevId> | -J <vdev-list> |
-a [-C <category>] [-R <resource-list>]
-o <remap-option>
[-D <physical-devices>]
[-mD <mirror-physical-devices>]
[-i]
[-X <rpc-timeout>]
```

where:

-v <vdevId>	It is required to specify either <vdevId>, <resourceList> or -a (--header-allocated-with-data) option to find all the resources for which the virtual header is allocated on disks with data segments.
-J <vdev-list>	
-a (--header-allocated-with-data)	The following two options can be specified with -a (--header-allocated-with-data) option to narrow down the list of resources to be included.
-C <category>	One of the values: virtual service-enabled The default is to include both categories if not specified.
-R <resource-list>	Restrict resource type(s) of the virtual devices to be included in the combination of the following values: SAN SAN Replica Snapshot CDP/SafeCache CDR or "ALL" to include all the resource types. The default is to enable all the resource types, which means there is no restriction. The resource types can be a list separated by comma, or a file enclosed in <> containing resource type in each line. e.g. SAN Snapshot
-o <remap-option>	Remap both the primary disk and mirror disk, primary disk only, or mirror disk only in one of the following values: both primary mirror

<p>-D <physical-devices> -mD <mirror-physical-devices></p>	<p>List of physical devices for new virtual header allocation for the primary disk and mirror disk respectively. If <remap-option> is for both disks, then <physical-devices> is required, and <mirror-physical-devices> is optional. If <remap-option> is for primary disk, then <physical-devices> is required. If <remap-option> is mirror disk, then <mirror-physical-devices> is required.</p>
<p>-i (--include-devices-with-data)</p>	<p>Include physical devices allowed for data segments. This option is not available when -a (--header-allocated-with-data) is specified.</p>
<p>-X (--rpc-timeout)</p>	<p>Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>

isscli setvdevsignature

This command allows you to configure the signature for a virtual device.

Syntax

```
isscli setvdevsignature --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid>
    --new-signature | --flip-signature | --set-signature=<signature>
    | --set-gpt-guid=<gpt-guid>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setvdevsignature -s <server-name>
    [-u <username> -p <password>]
    -v <vdevid> -N|-F|-I <signature> | -i <gpt-guid>
    [-X <rpc-timeout>]
```

where:

<p>-N (--new-signature)</p>	<p>Create a new signature.</p>
<p>-F (--flip-signature)</p>	<p>Flip the existing signature.</p>
<p>-I (--set-signature)</p>	<p>Specify a signature in the format of XXXXXXXX (each X is a hex number).</p>
<p>-i (--set-gpt-guid)</p>	<p>Specify a full GPT GUID in the formation of 32 consecutive hex numbers.</p>
<p>-X (--rpc-timeout)</p>	<p>Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>

isscli getvdevsignature

This command allows you to get the signature for a virtual device.

Syntax

```
isscli getvdevsignature --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getvdevsignature -s <server-name>
    [-u <username> -p <password>]
    -v <vdevid>
    [-X <rpc-timeout>]
```

where:

-v <vdevid>	Specify the virtual device ID.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli relocatethindisk

This command allows you to configure settings for relocating thin disks.

Syntax

```
isscli relocatethindisk --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid>
    [--lo-segments=<lo-segments>]
    [--hi-segments=<hi-segments>]
    [--size-mb=<remainingSizeMB>]
    [--threshold=<avail-threshold>]
    [--max-segments=<max-segments>]
    [--use-any-storage]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli relocatethindisk -s <server-name> [-u <username> -p <password>]
    -v <vdevid> [-lo <lo-segments>] [-hi <hi-segments>]
    [-m <remainingSizeMB>] [-h <threshold>]
    [-ms <max-segments>] [-ua]
    [-X <rpc-timeout>]
```

where:

<code>-v <vdevId></code>	ID of the thin disk to be relocated to other segments when it is necessary based on the following parameters:
<code>-lo <lo-segments></code>	Lower limit of the allocated segments to trigger the relocation if the remaining size to be allocated is higher than the specified remaining size in MB or when the available space consecutive to the last segment is more than or equal to the threshold. The range is 32 to 48, the default is 48.
<code>-hi <hi-segments></code>	Upper limit of the allocated segments to trigger the relocation unconditionally. The range is 48 to 56. The default is 56.
<code>-ms <max-segments></code>	Maximum number of segments for the new allocation. The range is 1 to 24. The default is 16.
<code>-h <threshold></code>	Percentage of the available space consecutive to the last segment for the remaining size not to trigger the relocation.
<code>-m <remainingSizeMB></code>	Remaining size in MB not to trigger the relocation.
<code>--use-any-storage</code>	Allow the space to be allocated from storage pool other than the original pool where the thin disk is allocated from. The default is to use the original pool.
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli copythindisk

This command allows you to copy a thin disk. The copying can only be performed on the server that owns the resource when server is in a normal state. Clients must be unassigned from SAN resources.

Syntax

```
isscli copythindisk --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid>
    [--max-segments=<max-segments>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli copythindisk
    -s <server-name>
    [-u <username> -p <password>]
    -v <vdevid> -ms <max-segments>
    [-X <rpc-timeout>]
```

where:

-v <vdevid>	ID of the thin disk to be packed by disk copy.
-ms (--max-segments)	Maximum number of segments for the new allocation. The range is 1 to 24. The default is 16.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getthindiskcopystatus

This command displays the status of thin disks being copied.

Syntax

```
isscli getthindiskcopystatus --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getthindiskcopystatus
    -s <server-name> [-u <username> -p <password>]
    -v <vdevid>
    [-X <rpc-timeout>]
```

where:

-v <vdevid>	ID of the thin disk to check the copying status.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli removestagingresource

This command allows you to remove the staging resource created for a thin disk copy.

Syntax

```
isscli removestagingresource --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid> [--force]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli removestagingresource
    -s <server-name> [-u <username> -p <password>]
    -v <vdevid> [-f]
    [-X <rpc-timeout>]
```

where:

<code>-v <vdev></code>	ID of the thin disk to remove the staging resource created for thin disk copy.
<code>--force</code>	Terminate the pending copying process before removing the staging resource. The staging resource will not be removed if the copying process is still pending and the force option is not specified.
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getinquirypage

This command displays the inquiry page for a virtual device.

Syntax

```
isscli getinquirypage --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --guid=<guid>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getinquirypage -s <server-name> [-u <username> -p <password>]
    -i <guid>
    [-X <rpc-timeout>]
```

where:

<code>-i <guid></code>	The guid of an existing virtual device, or SED physical device or a unique guid to be used for TimeView virtual device to get the inquiry pages.
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli defragthindisk

This command allows you to defragment a thin disk. The defragmentation can only be performed on the server that owns the resource when the server is in a normal state. Clients must be unassigned from SAN resource, and Replication of a Replica resource has to be stopped and suspended for this operation.

Every time multiple consecutive segments are defragged into one segment. You may need to run it multiple times to get the best defragmentation.

Syntax

```
isscli defragthindisk --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid>
    [--query-mode]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli defragthindisk
    -s <server-name> [-u <username> -p <password>]
    -v <vdevid> [-q]
    [-X <rpc-timeout>]
```

where:

-v <vdevid>	ID of the thin disk to be defragged.
-q (--query-mode)	Preview the execution result. No real defragmentation will be executed.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getdisklabelinfo

This command displays label information for a specified virtual device.

Syntax

```
isscli getdisklabelinfo --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --vdevid=<vdevid>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getdisklabelinfo -s <server-name>  
    [-u <username> -p <password>]  
    -v <vdevid>  
    [-X <rpc-timeout>]
```

where:

-v <vdevid>	Virtual device ID to get disk label info for.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli dumpvdev

This command allows you to dump (read/write) a small amount of data from/to a virtual device.

Syntax

```
isscli dumpvdev --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid> --direction=<1|2> --file=<filename>
    --skip=<skip-blocks> --count=<block-count>
    --block-size=<block-size>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli dumpvdev -s <server-name> [-u <username> -p <password>]
    -v <vdevid> -d <1|2> -f <filename>
    -sk <skip-blocks> -c <block-count> -bs <block-size>
    [-X <rpc-timeout>]
```

where:

-v <vdevid>	ID of the virtual device to be read.
-d (--direction)	Flag for read/write direction (1: read, 2: write)
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

Mirroring

isscli createmirror

This command allows you to create a mirror for the specified virtual device. The virtual device can be a SAN, or Replica resource.

Syntax

```
isscli createmirror --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid> [--category=<category>]
[--selectioncriteria=<selection criteria>]
[--scsiaddress=<ACSL> |
    --storage-pool-id=<storage-pool-id> |
    --storage-pool-name=<storage-pool-name> |
    --custom-method=<custom-method> |
    --custom-layout=<custom-layout>]
[--monitor-option=<on|off>]
[--monitor-interval=<seconds>] [lagging-time=<milliseconds>]
[--mirror-threshold=<percentage>]
[--min-cmds-out=<min-cmds-out>]
[--sync-retry-interval=<#[H|M]>]
[--max-io-activity=<#[KB|MB]>]
[--sync-retry-count=<#>]
[--skip-initial-mirror-synchronization]
[--mirror-provision-type=<thin|thick|dedup>]
[--throughput-control-enabled=<on|off>]
[--max-sync-time=<#[H|M]>]
[--max-resync-interval=<#[H|M]>]
[--max-io-for-resync=<max-io-for-resync>
| --max-io-size-for-resync=<#[KB|MB]>]
--vdev-list=<vdev-list> [--scsiaddr-list=<physical-device-list>]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli createmirror -s <server-name> [-u <username> -p <password>]
-v <vdevid> [-C <category>]
[-t <selection-criteria>]
[-I <ACSL> | -sp <storage-pool-id> | -SP <storage-pool-name> |
-M <custom-method> | -L <custom-layout>]
[-N <on|off>] [-i <seconds>] [-l <milliseconds>]
[-h <percentage>] [-io <min-cmds-out>]
[-r <#[H|M]>] [-m <#[KB|MB]>] [-c <#>]
[-y] [-ttt <thin|thick|dedup>]
[-te <on|off>] [-st <#[H|M]>] [-ri <#[H|M]>]
[-ir <max-io-for-resync> | -irsz <#[KB|MB]>]
-J [vdev-list] [-IS <physical-device-list>]
```

`[-X <rpc-timeout>]`

where:

<code><category></code>	One of the following values: <ul style="list-style-type: none">• virtual (default)• service-enabled.
<code><selection-criteria></code>	one of the following values: <ul style="list-style-type: none">• different-adapter• different-drive• any-drive.
<code>-I (--scsiaddress)</code>	Option to specify a specific physical device to be used to create the virtual device. ACSL=#:#:# (adapter:channel:id:lun)
<code>-sp (storage-pool-id)</code> <code>-SP (storage-pool-name)</code>	Can be specified to allocate the space from the physical devices in the storage pool for the virtual device when <code>-I</code> option is not specified.
<code><custom-mode></code> <code><custom-layout></code>	Options for the specific physical segments. It can be a list or a file enclosed in <code><></code> containing physical segment in each line. The format of the physical segment for <code><custom-mode></code> is: adapter:channel:scsi-id:lun:first-sector:size-in-MB The format for <code><custom-layout></code> is: adapter:channel:scsi-id:lun:first-sector:last-sector If no options are specified, the system allocates storage for the mirror with the default criteria in the following order: <ol style="list-style-type: none">1. the storage from different adapter(s)2. the storage from different drive(s)3. the storage from any drive(s)
<code>-ttt (--mirror-provision-type)</code>	Option supported in server version 8.0 or later to allow user to mark target mirror provision type.
<code>-y (--skip-initial-mirror-synchronization)</code>	Option that allows you to mark the mirror disk in-sync, skipping the initial synchronization operation. This option can only be set for a new virtual device, that was never assigned/connected to a client.
<code>-J (--vdev-list)</code>	Option to create mirror resource in batch mode. Enter the vid of resources and separate each of them by comma. Use <code>-IS (--scsiaddress-list)</code> to enter the acsl paths and separate each of them by comma to physical devices. <code>-C <category></code> option can't be used with batch mode.
Mirror Policy is for resources enabled with mirror and is used to set the options to check the mirror health status, suspend, resume, and re-synchronize the mirror when necessary.	
<code>-N (--monitor-option)</code>	Option to turn on or off the mirror monitoring option. The rest of the options will not take effect unless the monitor-option is enabled.
<code>-i (--monitor-interval)</code>	Option to set the monitoring interval in the range of 1 - 600 seconds. It is required when monitor-option is enabled.

<code>-l (--lagging-time)</code>	Option to set the maximum acceptable lag time in the range of 0 - 1000 milliseconds.
<code>-h (--mirror-threshold)</code>	Option to set a percentage of the failure conditions between 0 and 100 to report the error and suspend the mirror.
<code>-io (--min-cmds-out)</code>	Option to set the minimum outstanding IOs to check when mirror lagging threshold is reached to determine if error should be reported and the mirror should be suspended. The range is 0 - 2048.
<code>-r (--sync-retry-interval)</code>	Option to retry mirror synchronization at the specified interval in the range of 0 - 1440M or 0H - 24H, M is the unit for Minutes, and H is the unit for Hours. 0 means no retry interval.
<code>-m (--max-io-activity)</code>	Option to set the maximum acceptable I/O activity per second in the range of 0 - 102400KB or 0 - 100MB to retry mirror synchronization. Specify -1 to disable this option.
<code>-c (--retry-count)</code>	Option to set the maximum number of attempts in the range of 0 - 60000 to synchronize the mirror.
<code>-te (--throughput-control-option)</code>	Option to enable and disable the throughput control with one of the values: <ul style="list-style-type: none"> • on • off(default)
<code>-st (--max-sync-time)</code>	Setting to specify the max.time (1-60 minutes, 1-24 hours) synchronization can proceed before checking the resource throughput. Synchronization will be paused to allow the system to check the I/O activity when it reaches the specified max time. The values are as follows: <ul style="list-style-type: none"> • M is the unit for Minutes • H is the unit for Hours. Example: 4H for 4 hours, 36M for 36 minutes.
<code>-ri (--max-resync-interval)</code>	Interval to wait before checking resource throughput after synchronization is paused in the range of 1-60 minutes or 1-6 hours. The format is the same as the <code>--max-sync-time</code> . The default is 1 minute.

There are 2 mutually exclusive options to specify the limit of the IO activity for the synchronization to be resumed. If an option is not specified, then 20 MB is used as default.

`-ir (--max-io-for-resync)` is an option to specify the max number of IOs in the range of 1-10000 to trigger resync when the number of IOs is less than or equal to the setting. Specify -1 to disable this option.

<code>-irsz (--max-io-size-for-resync)</code>	is another option to specify the max size of the IO activity in KB or MB. Specify a size in the range of 1KB-102400KB or 1MB-100MB to trigger resync when the IO size is less than or equal to the setting. Specify -1 to disable this option.
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getmirrorinfo

This command provides mirror information.

Syntax

```
isscli getmirrorinfo --server-name=<server-name>
```

Parameters can be specified in switch or long name format. The

```
isscli getmirrorinfo [--server-name=<server-name>
  --server-username=<username>
  --server-password=<password>]
  --output-file=<output-file-path>]
  [--rpc-timeout=<rpc-timeout>]
isscli getmirrorinfo [-s <server-name>
  -u <username> -p <password>]
  [-o <output-file-path>]
  [-X <rpc-timeout>]
```

`<output-file-path>` is the option to save the result to specified file.

`-X (--rpc-timeout)` is an option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified

where:

<code>-o</code>	Specify the filename and location to which to save the results of the information generated by this command.
<code>-x (--rpc-timeout)</code>	Specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it is not specified.

isscli getmirrorstatus

This command shows the mirror status of a virtual device. The resource name, ID and synchronization status will be displayed if there is a mirror disk configured for the virtual device.

Syntax

```
isscli getmirrorstatus --server-name=<server-name>  
      [--server-username=<username> --server-password=<password>]  
      --vdevid=<vdevid> [--rpc-timeout=<rpc-timeout>]
```

```
isscli getmirrorstatus -s <server-name> [-u <username> -p <password>]  
      -v <vdevid> [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli syncmirror

This command synchronizes the mirrored disks.

Syntax

```
isscli syncmirror --server-name=<server-name>  
                [--server-username=<username> --server-password=<password>]  
                --vdevid=<vdevid> [--rebuild] [--rpc-timeout=<rpc-timeout>]
```

```
isscli syncmirror -s <server-name> [-u <username> -p <password>]  
                -v <vdevid> [-r] [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|--|
| -r (--rebuild) | Option to rebuild the mirror. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli swapmirror

This command reverses the roles of the primary disk and the mirrored copy.

Syntax

```
isscli swapmirror --server-name=<server-name>  
                [--server-username=<username> --server-password=<password>]  
                --vdevid=<vdevid> [--force] [--rpc-timeout=<rpc-timeout>]
```

```
isscli swapmirror -s <server-name> [-u <username> -p <password>]  
                -v <vdevid> [-f] [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|--|
| -f (--force) | Option for cross-mirror setup to force swapping mirror when primary is invalid. (For virtual appliances only) |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli promotemirror

This command allows you to promote a mirror disk to a regular virtual device. The mirror cannot be promoted if the synchronization is in progress or when it is out-of-sync and the force option is not specified.

Syntax

```
isscli promotemirror --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid>
    [--vdevname=<vdevname>] [--force]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli promotemirror -s <server-name> [-u <username> -p <password>]
    -v <vdevid> [-n <vdevname>] [-f]
    [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|---|
| -n (--vdevname) | Option to specify the virtual device name. The maximum length of the virtual device name is 64 characters. These characters are invalid for SAN Resource name: <>"&\$/^
Note that these are special characters that most of the systems interpret to different meaning before the program receives it. Space is allowed for SAN Resource name, but leading and trailing spaces will be removed. If the SAN Resource name contains any space, it is necessary to enclose the name with double quotes. |
| -f (--force) | The mirror should be promoted when it is in sync with the primary disk. If you must promote an out-of-sync mirror disk, the -f (--force) option is required. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli removemirror

This command allows you to remove a mirror for the specified virtual device.

Syntax

```
isscli removemirror --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --vdev=<vdev>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli removemirror -s <server-name> [-u <username> -p <password>]  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli suspendmirror

This command allows you to suspend mirroring.

Syntax

```
isscli suspendmirror --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --vdev=<vdev>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli suspendmirror -s <server-name> [-u <username> -p <password>]  
    -v <vdev>  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli resumemirror

This command allows you to resume mirroring.

Syntax

```
isscli resumemirror --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --vdevid=<vdevid>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli resumemirror -s <server-name> [-u <username> -p <password>]
    -v <vdevid>
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli setmirrorpolicy

This command allows you to set the mirror policy. The mirror policy is for mirror-enabled resources to set the options to check the mirror health status, suspend, resume and re-synchronize the mirror when necessary.

Syntax

```
isscli setmirrorpolicy --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --vdevid=<vdevid> |
    [--monitor-option=<on|off>]
    [--monitor-interval=<seconds>]
    [lagging-time=<milliseconds>]
    [--mirror-threshold=<percentage>]
    [--min-cmds-out=<min-cmds-out>]
    [--sync-retry-interval=<#[H|M]>]
    [--max-io-activity=<#[KB|MB]>]
    [--sync-retry-count=<#>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setmirrorpolicy -s <server-name> [-u <username> -p <password>]
    -v <vdevid>
    [-N <on|off>] [-i <seconds>] [-l <milliseconds>]
    [-h <percentage>] [-io <min-cmds-out>]
    [-r <#[H|M]>] [-m <#[KB|MB]>] [-c <#>]
    [-X <rpc-timeout>]
```

where:

-N (--monitor-option)	Turn on or off the mirror monitoring option. The rest of the options will not take effect unless the monitor-option is enabled.
-i (--monitor-interval)	Set the monitoring interval in the range of 1 - 600 seconds. It is required when the monitor-option is enabled.
-l (--lagging-time)	Set the maximum acceptable lag time in the range of 0 - 1000 milliseconds.
-h (--mirror-threshold)	Set a percentage of the failure conditions between 0 and 100 to report the error and suspend the mirror.
-io (--min-cmds-out)	Set the minimum outstanding IOs to check when mirror lagging threshold is reached to determine if error should be reported and the mirror should be suspended. The range is 0 - 2048.
-r (--sync-retry-interval)	Retry mirror synchronization at the specified interval in the range of 0 - 1440M or 0H - 24H, M is the unit for Minutes, and H is the unit for Hours. 0 means no retry interval.
-m (--max-io-activity)	Set the maximum acceptable I/O activity per second in the range of 0 - 102400KB or 0 - 100MB to retry mirror synchronization. Specify -1 to disable this option.
-c (--retry-count)	Set the maximum number of attempts to synchronize the mirror. The range is 0 - 60000
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getmirrorpolicy

This command displays the mirror policy. The following is an example of the output of the command if Mirror Health Monitoring Option is enabled:

```
Mirror Health Monitoring Option Enabled=Yes
Monitoring Interval=1 seconds
Maximum Acceptable lag time=15 milliseconds
Threshold to Report Error=5 %
Minimum outstanding I/Os to Report Error=20
Mirror Sync Control Policy:
Sync Control Policy Enabled=Yes
Sync Control Max Sync Time=4 Minute(s)
Sync Control Max Resync Interval=1 Minute(s)
Sync Control Max I/Os for Resync=N/A
Sync Control Max I/O Size for Resync=20 MB
Sync Control Max Resync Retry=0
```

Syntax

```
isscli getmirrorpolicy --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    --vdevid=<vdevid> [--rpc-timeout=<rpc-timeout>]
```

```
isscli getmirrorpolicy -s <server-name> [-u <username> -p <password>]  
    -v <vdevid> [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli setmirrorpriority

This command sets the mirror priority for the virtual device or the supporting resource.

Syntax

```
isscli setmirrorpriority --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    --source-vdevid=<source-vdevid> [--type=<type>] |  
    --group-id=<group-id> --type=<type> |  
    --group-name=<group-name> --type=<type>  
    --priority=<priority> [--rpc-timeout=<rpc-timeout>]
```

```
isscli setmirrorpriority -s <server-name> [-u <username> -p <password>]  
    -v <source-vdevid> [-t <type>] |  
    -g <group-id> -t <type> |-G <group-name> -t <type>  
    -o <priority> [-X <rpc-timeout>]
```

where:

<code>-v <source-vdev> [-t <type>]</code>	To set mirror priority for the virtual device or the supporting resource, specify virtual device ID of the source virtual device and set the type to one of the following values: <ul style="list-style-type: none">• Storage (default)• Snapshot• Cache• Journal• CDR
<code>-G <group-name> -t <type></code>	To set the mirror priority for the group Cache, Journal or CDR, specify the group ID or group name and the type in one of the following values: <ul style="list-style-type: none">• Cache• Journal• CDR
<code>-o <priority></code>	The <priority> is in the range of 0-1000 where 1000 is the highest priority.
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setmirrorthrottle

This command allows you to set the mirror throttle for resources enabled with mirroring.

Syntax

```
isscli setmirrorthrottle --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --mirror-throttle=<mirror-throttle> [--vdevid=<vdevid>]
    --set-mirror-throttle=<on|off>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setmirrorthrottle -s <server-name> [-u <username> -p <password>]
    -mt <mirror-throttle> -smt <on|off> [-v <vdevid>]
    [-X <rpc-timeout>]
```

where:

-mt (--mirror-throttle)	Set mirror throttle in KiB/s. Current supported range is 128KiB/s - 1048576KiB/s. Specify virtual device ID to set mirror throttle for the device.
-smt (--set-mirror-throttle)	Enable/disable mirror throttle
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli enablealternativereadmirror

This command enables virtual devices to read from an alternative mirror.

Syntax

```
isscli enablealternativereadmirror --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --vdevid=<vdevid> [--rpc-timeout=<rpc-timeout>]
```

```
isscli enablealternativereadmirror -s <server-name>
    [-u <username> -p <password>]
    -v <vdevid> [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli disablealternativereadmirror

This command disables virtual devices so they no longer read from an alternative mirror.

Syntax

```
isscli disablealternativereadmirror --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    --vdevid=<vdevid> [--rpc-timeout=<rpc-timeout>]
```

```
isscli disablealternativereadmirror -s <server-name>  
    [-u <username> -p <password>]  
    -v <vdevid> [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli getalternativereadmirroroption

This command retrieves and displays information about all virtual devices with the alternative mirror option.

Syntax

```
isscli getalternativereadmirroroption --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --vdevid=<vdevid>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getalternativereadmirroroption -s <server-name>  
    [-u <username> -p <password>]  
    -v <vdevid>  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli setreadmirroroption

This command sets the read mode of a virtual device to read from alternative mirror, primary mirror or smart mirror

Syntax

```
isscli setreadmirroroption --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid> --option < alternative | smart | primary>
    [--rpc-timeout=<rpc-timeout>]

isscli setreadmirroroption -s <server-name> [-u <username> -p <password>]
    -v <vdevid> -o <alternative | smart | primary>
    [-X <rpc-timeout>]
```

where:

--option < alternative |
smart | primary>

One of the following options:

- **primary**: Exclude mirror; always read from primary.
- **alternate**: Always alternate read operations between primary and mirror.
- **smart**: Read from mirror for internal data copy services, read from primary for client operations.

-X (--rpc-timeout)

Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getreadmirroroption

This command gets the read mode of a virtual device. The read mode can be one of the following:

- Exclude Mirror: Always read from primary
- Alternate: Always alternate read operations between primary and mirror
- Smart Read: Read from mirror for internal data copy services, read from primary for client operations

Syntax

```
isscli getreadmirroroption --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --vdevid=<vdevid> [--rpc-timeout=<rpc-timeout>]
```

```
isscli getreadmirroroption -s <server-name>  
    [-u <username> -p <password>]  
    -v <vdevid> [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

luncvt.sh

This command converts a LUN to/from thin and dedupe.

Syntax

```
luncvt.sh <vdev> <thin|dedup> <storage-pool-id> -u <user> -p <password>
```

Where:

vdev	The virtual device ID of the LUN to be converted.
storage-pool-id	Can be specified to allocate the space from the physical device for the converted LUN; if a value of 0 is entered, the system picks the default storage.

Example

The following is an example of the `luncvt.sh` command.

```
[root@violin-mga ~]# luncvt.sh 44 dedup 3 -u root -p ViolinMEM1
Mirror created, sync...
0 .1 .3 .5 .7 .9 .11 .13 .15 .17 .19 .21 .23 .25 .27 .29 .30 .32 .34 .36
.38 .40 .42 .44 .46 .48 .50 .52 .54 .56 .58 .59 .61 .63 .65 .67 .69 .71
.73 .75 .77 .79 .81 .83 .85 .87 .88 .90 .92 .94 .96 .98 .
mirror swapped, check if in sync...
suspend failed but continue, and logged at /tmp/cvctlun.log
check if mirror in syspend ...
conversion completed
```

Replication

isscli enablereplication

This command allows you to enable replication.

Syntax

parameters can be specified in switch or long name format:

```
isscli enablereplication [--server-name=<server-name>
--server-username=<username> --server-password=<password>
--group-id=<group-id> | --group-name=<group-name>
[--enable-resource-option
 [--snapshot-storage-pool-id=<storage-pool-id> |
 --snapshot-storage-pool-name=<storage-pool-name>]
 [--storage-pool-id=<replica-storage-pool-id> |
 --storage-pool-name=<replica-storage-pool-name>]
 [--replica-snapshot-storage-pool-id=<storage-pool-id> |
 --replica-snapshot-storage-pool-name=<storage-pool-name>]]
--target-name=<target-name>
[--target-username=<target-username>
--target-password=<target-password>]
[--target-group-name=<target-group-name>]
[--watermark=<watermark (MB) >
 [--watermark-retry=<watermark-retry>]]
[ [--initial-time=<initial-time>] --interval=<# [H|M] >]
[--compression<on|off>]
[--encryption<on|off> [--encryption-option=<encryption-option>]]
[--microscan=<on|off>]
[--use-existing-timemark=<on|off>]
[--preserve-timemark=<on|off>]
[--continuous-replication-mode=<on|off>]
[--sync-replica-timemark=<on|off>]
[--preserve-primary-timemark=<on|off>]
[--adaptive-resource-storage-pool-id=
 <adaptive-resource-storage-pool-id> |
--adaptive-resource-storage-pool-name=
 <adaptive-resource-storage-pool-name>]
[--adaptive-resource-size-mb=
 <adaptive-resource-size-in-mb>]]
[--throttle=<#>]
[--disable-mirror]
[--replication-protocol=<replication-protocol>]
[--throughput-control-enabled=<on|off>]
[--max-sync-time=<# [H|M] >]
[--max-resync-interval=<# [H|M] >]
[--max-io-for-resync=<max-io-for-resync>
```

```

| --max-io-size-for-resync=<#[KB|MB]>]
[--rpc-timeout=<rpc-timeout>]

isscli enablereplication [-s <server-name> -u <username> -p <password>]
-g <group-id> | -G <group-name>
[-E [-ss <snapshot-storage-pool-id>|
      -SS <snapshot-storage-pool-name>]
 [-sp <replica-storage-pool-id>|
      -SP <replica-storage-pool-name>]
 [-rs <replica-snapshot-storage-pool-id>|
      -RS <replica-snapshot-storage-pool-name>]]
[-t <target-group-name>]
-S <target-name> [-U <target-username> -P <target-password>]
[-w <watermark(MB)> [-r <watermark-retry>]]
[[-I <initial-time>] -i <#[H|M]>]
[-c <on|off>] [-e <on|off> [-eo <encryption-option>]] [-m <on|off>]
[-x <on|off>] [-A <on|off> [-Ax <on|off>] [-Ak <on|off>]
 [-as <adaptive-resource-storage-pool-id>|
 -AS <adaptive-resource-storage-pool-name>]
 [-Am <size-mb-cdr>]]
[-k <on|off>] [-tt <#>]
[-dmi]
[-l <replication-protocol>]
[-te <on|off>] [-st <#[H|M]>] [-ri <#[H|M]>]
[-ir <max-io-for-resync> | -irsz <#[KB|MB]>]
[-X <rpc-timeout>]

```

where:

<group-id> or <group-name>	Can be specified for the Group that should have replication enabled. All of the resources in the group must be configured with replication in order for the group to be enabled for the replication option.
-E (--enable-resource-option)	An option to allow the system to configure the non-eligible resources with Replication first before enabling the group Replication option.

A target server must be specified. A Snapshot Group for the replica disks will be created on the target server. You can specify the <target-group-name> or use the default. The default is to use the same group name.

-ss (--snapshot-storage-pool-id) and -SS (--snapshot-storage-pool-name)	Options for snapshot resource allocation.
-sp (--storage-pool-id) and -SP (--storage-pool-name)	Options for new replica disk allocation.
-rs (--replica-snapshot-storage-pool-id) and -RS (--replica-snapshot-storage-pool-name)	Options for replica snapshot resource allocation.

The replication policy can be specified to schedule the replication based on watermark, or at a set interval starting from the specified initial date/time.

<code><initial-time></code>	An option for the interval to specify the initial date and time in the format of MM-DD-YYYY hh:mm to start the first interval. Please enclose the initial time with double quotes, e.g. "07-27-2005 12:00". The valid year is between 2000 and 2127.
<code>-T (--replication-time)</code>	Option is no longer supported. The option can be replaced with an initial date/time and a 24-hour interval.
<code>-c (--compression), -e (--encryption) and -m (--microscan)</code>	Options to enable/disable compression, encryption and microscan in one of the values: <ul style="list-style-type: none">• on• off
<code>-eo (--encryption-option)</code>	Can be one of the following values: <ul style="list-style-type: none">• RC4• AES128• AES256 The default value of encryption option is RC4.
<code>-m (--microscan)</code>	
<code>-x (--use-existing-timemark)</code>	An option to use an existing TimeMark for replication if one already exists in one of the values: <ul style="list-style-type: none">• on• off (default)
<code>-dmi (--disable-mirror)</code>	The option to skip remote mirror creation in a stretched cluster environment.
<code>-k (--preserve-timemark)</code>	An option to preserve the replication TimeMark after replication is completed if TimeMark option is enabled in one of the values: <ul style="list-style-type: none">• on• off (default)
<code>-A (--continuous-replication-mode)</code>	An option to enable / disable Continuous mode. A CDR resource has to be created for the primary disk when Continuous mode is enabled to stage data for replication. The system will switch the replication to Delta mode when problem is encountered in continuous replication. New snapshot is created on the replica disk when replication is triggered manually or by schedule.

<code>-Ax (--sync-replica-timemark)</code>	An option for continuous mode to synchronize TimeMark to replica when TimeMark is created by user or TimeMark schedule in one of the values: <ul style="list-style-type: none"> • on • off (default)
<code>-Ak (--preserve-primary-timemark)</code>	An option for continuous mode to preserve the primary TimeMark created by replication schedule when TimeMark option is enabled in one of the values: <ul style="list-style-type: none"> • on • off (default)
<code>-Ax (--sync-replica-timemark) and -Ak (--preserve-primary-timemark)</code>	
<code>-As (--adaptive-resource-storage-pool-id) and -as (--adaptive-resource-storage-pool-name)</code>	Options to specify storage pool for CDR Resource allocation.
<code>-Am (--adaptive-resource-size-mb)</code>	The option to specify the size in MB for CDR Resource. Since CDR Resource cannot be expanded, you should allocate enough space suitable for the replication setup. The default size is 256MB if it is not specified. The maximum size for CDR resource is 1TB(1048576MB).
<code>-l (--replication-protocol)</code>	An option to set the protocol with one of the following values: <ul style="list-style-type: none"> • rudp • tcp
If the version of the target server is 5.0 or later and the replication is not configured for continuous mode. Starting from 5.1. The TCP protocol is supported for continuous mode. RUDP protocol is not supported from version 6.50. The following parameters are for throughput control option and policy settings if the option is enabled.	
<code>-te (--throughput-control-option)</code>	The option to enable and disable the throughput control with one of the values: <ul style="list-style-type: none"> • on • off(default)
<code>-st (--max-sync-time)</code>	The setting to specify the max. time (1-60 minutes, 1-24 hours) synchronization can proceed before checking the resource throughput. Synchronization will be reduced to minimum to allow the system to check the I/O activity when it reaches the specified max time. M is the unit for Minutes, and H is the unit for Hours. e.g. 4H for 4 hours, 36M for 36 minutes.

<code>-ri (--max-resync-interval)</code>	The interval to wait before checking resource throughput after synchronization is reduced to minimum in the range of 1-60 minutes or 1-6 hours. The format is the same as the <code>--max-sync-time</code> . The default is 1 minute.
There are 2 mutually exclusive options to specify the limit of the IO activity for the synchronization to be resumed.	
<code>-ir (--max-io-for-resync)</code>	An option to specify the max number of IOs in the range of 0-10000.
<code>-irsz (--max-io-size-for-resync)</code>	Another option to specify the max size of the IO activity in KB or MB in the range of 1KB-102400KB or 1MB-100MB. If neither option is specified, the default is 20MB.
<code>-tt (--throttle)</code>	An option to set the lun-based throttle in KB. The range is 10-1000000 KB if it is set. Set the value to 0 for unlimited (default). If the target throttle of the target server is also enabled, the throttle for the virtual device will be the lower value of the 2 settings. For virtual device in a snapshot group, same throttle setting will be applied to all the members in the group. This option is only available in server version 7.5 or later.
<code>-X (--rpc-timeout)</code>	An option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

isscli disablereplication

This command allows you to disable replication.

Syntax

parameters can be specified in switch or long name format:

```
isscli disablereplication [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
--group-id=<group-id> | --group-name=<group-name>
[--target-username=<target-username>
--target-password=<target-password>]
--force
[--rpc-timeout=<rpc-timeout>]
```

```
isscli disablereplication [-s <server-name> -u <username> -p <password>]
-g <group-id> | -G <group-name>
[-U <target-username> -P <target-password>]
```

```
-f  
[-X <rpc-timeout>]
```

where:

<group-id> or <group-name> Can be specified for the Snapshot Group to be disabled for the replication option.

The replica disks will no longer be in a Snapshot Group. The Snapshot Group for the replica disks on the target server will be deleted. The replication configuration of all the resources in the group will remain the same, but the snapshots for the replication will not be taken for all the resources in the group at the same time anymore.

-f (--force) The option to disable group replication forcefully without removing replica group when the partner server is not up.

-X (--rpc-timeout) An option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

isscli createreplication

This command allows you to set up a replication configuration. You must select at least one replication policy. The default policy is to replicate at 12:00 every day.

Syntax

parameters can be specified in switch or long name format:

```
isscli createreplication [--server-name=<server-name>  
--server-username=<username> --server-password=<password>]  
--source-vdev-id=<source-vdev-id>  
[--size-mb=<#(MB)> | --replica-sectors=<replica-sectors>  
--provision-watermark=<provision-watermark>]  
[--increment=<increment>]]  
[--create-snapshot-resource  
--snapshot-storage-pool-id=<storage-pool-id> |  
--snapshot-storage-pool-name=<storage-pool-name>]  
[--snapshot-threshold=<threshold>]  
[--snapshot-increment=<increment>]  
[--snapshot-max-size=<max-size>] ] |  
--target-name=<target-name>  
[--target-username=<target-username>  
--target-password=<target-password>]  
[--target-vdev-id=<target-vdev-id> [--no-scan-for-existing-disk]]  
[--storage-pool-id=<replica-storage-pool-id> |  
--storage-pool-name=<replica-storage-pool-name>]  
[--replica-snapshot-storage-pool-id=<storage-pool-id> |  
--replica-snapshot-storage-pool-name=<storage-pool-name>]  
[--watermark=<watermark (MB)>  
--watermark-retry=<watermark-retry>]]
```

```

[--initial-time=<initial-time>] --interval=<#[H|M]>]
[--compression=<on|off>]
[--encryption<on|off> [--encryption-option=<encryption-option>]]
[--microscan=<on|off>]
[--no-scan-disk] [--mark-in-sync] [--start-sync]
[--use-existing-timemark=<on|off>]
[--preserve-timemark=<on|off>]
[--continuous-replication-mode=<on|off>]
[--sync-replica-timemark=<on|off>]
[--preserve-primary-timemark=<on|off>]
[--adaptive-resource-storage-pool-id=
  <adaptive-resource-storage-pool-id>|
  --adaptive-resource-storage-pool-name=
  <adaptive-resource-storage-pool-name>]
[--adaptive-resource-size-mb=
  <adaptive-resource-size-in-mb>]]
[--throttle=<#>] [--force]
[--gateway=<gateway-ip-address> --interface=<interface>]
[--disable-mirror]
[--replication-protocol=<replication-protocol>]
[--throughput-control-enabled=<on|off>]
[--max-sync-time=<#[H|M]>]
[--max-resync-interval=<#[H|M]>]
[--max-io-for-resync=<max-io-for-resync>
| --max-io-size-for-resync=<#[KB|MB]>]
--vdev-list=<vdev-list>
[--rpc-timeout=<rpc-timeout>]

```

```

isscli createreplication [-s <server-name> -u <username> -p <password>]
-v <source-vdevid>
[-mr <#(MB)>|-RR <replica-sectors>]
[-wm <provision-watermark>] [-cr <increment>]]
[-o [-ss <snapshot-storage-pool-id>|
  -SS <snapshot-storage-pool-name>]
[-sh <threshold>] [-sc <increment> ] [-sZ <max-size-mb>]] |
-S <target-name> [-U <target-username> -P <target-password>]
[-V <target-vdevid> [-O]]
[-sp <replica-storage-pool-id>|
  -SP <replica-storage-pool-name>]
[-rs <replica-snapshot-storage-pool-id>|
-RS <replica-snapshot-storage-pool-name>]
[-w <watermark(MB)> [-r <watermark-retry>]]]
[[-I <initial-time>] -i <#[H|M]>]
[-c <on|off>] [-e <on|off> [-eo <encryption-option>]] [-m <on|off>]
[-A <on|off> [-Ax <on|off>] [-Ak <on|off>]
[-as <adaptive-resource-storage-pool-id>|
  -AS <adaptive-resource-storage-pool-name>]
[-Am <size-mb-cdr>]]
[-N] [-M] [-ss] [-x <on|off>]
[-k <on|off>] [-tt <#>] [-f]
[-gw <gateway-ip-address> -if <interface-name>]

```

```

[-dmi]
[-l <replication-protocol>]
[-te <on|off>] [-st <#[H|M]>] [-ri <#[H|M]>]
[-ir <max-io-for-resync> | -irsz <#[KB|MB]>]
-J [vdev-list]
[-X <rpc-timeout>]

```

where:

-mr (--size-mb)	Options for thin provisioning in the range of 10% and 99% of the thin disk size. The minimum disk size for thin provisioning is 10 GB. The initial allocation size of the replica can be specified in MB or number of sectors when new replica disk is created, the primary disk is new and no client is connected to it.
-RR (--replica-sectors)	
<provision-watermark>	Available size left in MB to determine if more space should be allocated. The default is 1024 MB.
-cr (--increment)	Size to be incremented when more storage is needed. It can be either percentage or size in MB. e.g., 10% or 100 MB. The default is 1024 MB if it is not specified.
-o (--create-snapshot-resource)	Option to allow the system to create the snapshot resource for the primary disk when it's not created yet.
-ss (--snapshot-storage-pool-id)	Options for snapshot resource allocation.
-SS (--snapshot-storage-pool-name)	
-sh(--snapshot-threshold)	Can be specified to determine the snapshot resource policy.
-sc(--snapshot-increment)	
-sZ(--snapshot-max-size)	
Replication will kick off based on one or more of the following policies:	
watermark in MB (watermark retry in minutes, default: 30)	
replication interval in Hours(H) or Minutes(M), e.g. 2H or 120M (minimum interval is 10 minutes)	
<initial-time> is an option for the interval to specify the initial date and time in the format of MM-DD-YYYY hh:mm to start the first interval. Please enclose the initial time with double quotes, e.g. "07-27-2005 12:00". The valid year is between 2000 and 2127.	
-T (--replication time)	Option is no longer supported. The option can be replaced with an initial date/time and a 24-hour interval.
-gw (--gateway)	Add the gateway IP address.
-if (--interface)	Add the interface. You must choose at least one replication policy. The default policy is to replicate at 12:00 every day if no policy is specified.
-dmi (--disable-mirror)	The option to skip remote mirror creation in a stretched cluster environment of replica server.

<p>-c (--compression) -e (--encryption) -m (--microscan) -eo (--encryption-option)</p>	<p>Options to enable/disable compression, encryption and microscan in one of the values: on or off.</p> <p>Can be one of the following values: RC4, AES128, or AES256. The default value of encryption option is RC4.</p>
<p>-m (--microscan) <initial-time></p>	<p>Option for the interval to specify the initial date and time in the format of MM-DD-YYYY hh:mm to start the first interval. Please enclose the initial time with double quotes, e.g. "07-27-2005 12:00". The valid year is between 2000 and 2127.</p>
<p>-N(--no-scan-disk)</p>	<p>Replication will kick off based on one or more of the following policies: watermark in MB (watermark retry in minutes, default: 30) replication interval in Hours(H) or Minutes(M), e.g. 2H or 120M (minimum interval is 10 minutes)</p>
<p>-O(--no-scan-for-existing-disk)</p>	<p>Option to turn off the scan disk option if the replica disk is to be created. The default is to scan the disk after the replication setup to get the synchronization status of the primary and replica disk.</p>
<p>-M (--mark-in-sync)</p>	<p>An additional option to turn off the scanning option when an existing disk is selected as a replica disk.</p>
<p>-ss (--start-sync)</p>	<p>Option to mark the disks in-sync. This option should only be set when the disks are in-sync or when both primary disk and replica disk are brand new. When this option is specified, the scan disk option will be turned off.</p>
<p><target-vdevid></p>	<p>An option to start initial sync. This option should only be set when the disk does not belong to snapshot group.</p>
<p>-sp (--storage-pool-id) -SP (--storage-pool-name)</p>	<p>An existing virtual device on the target server to be selected as the replica disk instead of creating a new one.</p>
<p>-rs (--replica-snapshot-storage-pool-id) -RS (--replica-snapshot-storage-pool-name)</p>	<p>Options for new replica disk allocation.</p> <p>Options for replica snapshot resource allocation.</p>

-x (--use-existing-timemark)	An option to use an existing TimeMark for replication if one already exists with one of the values: on or off (default).
-k (--preserve-timemark)	An option to preserve the replication TimeMark after replication is completed if TimeMark option is enabled in one of the values: on or off (default)
-A (--continuous-replication-mode)	An option to enable/disable Continuous mode. A CDR resource has to be created for the primary disk when Continuous mode is enabled to stage data for replication. The system will switch the replication to Delta mode when problem is encountered in continuous replication. New snapshot is created on the replica disk when replication is triggered manually or by schedule.
-Ax (--sync-replica-timemark)	An option for continuous mode to synchronize TimeMark to replica when TimeMark is created by user or TimeMark schedule in one of the values: on or off (default).
-Ak (--preserve-primary-timemark)	Option for con ti no us mode to preserve the primary TimeMark created by replication schedule when TimeMark option is enabled in one of the values: on or off (default).
-As (--adaptive-resource-storage-pool-id)	Options to specify storage pool for CDR Resource allocation.
-as (--adaptive-resource-storage-pool-name)	
-Am (--adaptive-resource-size-mb)	Option to specify the size in MB for CDR Resource. Since CDR Resource cannot be expanded, you should allocate enough space suitable for the replication setup. The default size is 256MB if it is not specified. The maximum size for CDR resource is 1TB(1048576MB).
-l (--replication protocol)	An option to set the protocol (with one of the following values: rudp or tcp) if the version of the target server is 5.0 or later and the replication is not configured for continuous mode. Starting from 5.1. The TCP protocol is supported for continuous mode. RUDP protocol is not supported from version 6.50.

The following parameters are for throughput control option and policy settings if the option is enabled.

-te (--throughput-control-option)	The option to enable and disable the throughput control with one of these values: on off (default)
-----------------------------------	--

-
- `-st (--max-sync-time)` The setting to specify the max. time (1-60 minutes, 1-24 hours) synchronization can proceed before checking the resource throughput. Synchronization will be reduced to minimum to allow the system to check the I/O activity when it reaches the specified max time. M is the unit for Minutes, and H is the unit for Hours. e.g. 4H for 4 hours, 36M for 36 minutes.
- `-ri (--max-resync-interval)` The interval to wait before checking resource throughput after synchronization is reduced to minimum in the range of 1-60 minutes or 1-6 hours. The format is the same as the `--max-sync-time`. The default is 1 minute.

There are 2 mutually exclusive options to specify the limit of the IO activity for the synchronization to be resumed.

- `-ir (--max-io-for-resync)` An option to specify the max number of IOs in the range of 0-10000.
- `-irsz (--max-io-size-for-resync)` Another option to specify the max size of the IO activity in KB or MB in the range of 1 KB-102400 KB or 1 MB-100 MB.

If neither option is specified, the default is 20 MB.

- `-tt (--throttle)` An option to set the LUN-based throttle in KB. The range is 10-1000000 KB if it is set. Set the value to 0 for unlimited (default). If the target throttle of the target server is also enabled, the throttle for the virtual device will be the lower value of the 2 settings. For virtual device in a snapshot group, same throttle setting will be applied to all the members in the group. This option is only available in server version 7.5 or later.
- `-J (--vdev-list)` An option to create replica in batch mode. Enter the vid of resources and separate each of them with a comma.
- `-X (--rpc-timeout)` Option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli startreplication

This command allows you to start replication on demand for a virtual device or a group.

Syntax

```
isscli startreplication --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdev=<vdev> |
    --group-id=<group-id> | --group-name=<group-name>
    [--force]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli startreplication -s <server-name> [-u <username> -p <password>]
    -v <vdev> | -g <group-id> | -G <group-name>
    [-f]
    [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|--|
| -v <vdev> | Specify <vdev> to start the replication for the virtual device, |
| -g <group-id> | <group-id> or <group-name> to start the replication for all the |
| -G <group-name> | resources in the Snapshot Group. |
| | You can only specify one identifier, -v <vdev>, -g <group-id>, or -G |
| | <group-name>. |
| -f (--force) | Option for TimeView replication to proceed when target server |
| | connection failed or when TimeMarks of the source replica disk |
| | cannot be retrieved for validation. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC |
| | timeout. The default RPC timeout is 30 seconds if not specified. |

isscli stopreplication

This command allows you to stop the replication that is in progress for a virtual device or a group. If a group is specified, and the group is enabled with replication, the replication for all resources in the group will be stopped. If replication is not enabled for the group, but some of the resources in the group are configured for replication, replication for the resources in the group will be stopped.

Syntax

```
isscli stopreplication --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --vdev-id=<vdev-id> |
    --group-id=<group-id> | --group-name=<group-name>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli stopreplication -s <server-name> [-u <username> -p <password>]
    -v <vdev-id> | -g <group-id> | -G <group-name>
    [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|---|
| -v <vdev-id> | Specify <vdev-id> to stop the replication for the virtual device, |
| -g <group-id> | <group-id> or <group-name> to stop the replication for all the |
| -G <group-name> | resources in the Snapshot Group. |
| | If the group is not enabled with replication, but some of the |
| | resources in the group are enabled with replication, the group option |
| | allows you to stop the replication for all the group members that are |
| | enabled with replication. If continuous replication is enabled, |
| | replication will be switched to delta mode. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC |
| | timeout. The default RPC timeout is 30 seconds if not specified. |

isscli suspendreplication

This command allows you to suspend scheduled replications for a virtual device or a group that will be triggered by your replication policy. It will not stop a replication that is currently in progress.

Syntax

```
isscli suspendreplication --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    --vdev-id=<vdev-id> |  
    --group-id=<group-id> | --group-name=<group-name>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli suspendreplication -s <server-name> [-u <username> -p <password>]  
    -v <vdev-id> | -g <group-id> | -G <group-name>  
    [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|--|
| -v <vdev-id> | Suspend the replication schedule for the virtual device. |
| -g <group-id> | Suspend the replication schedule for all the resources in the |
| -G <group-name> | Snapshot Group. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli resumereplication

This command allows you to resume replication for a virtual device or a group that was suspended by the suspendreplication command. The replication will then be triggered by the replication policy once it is resumed.

Syntax

```
isscli resumereplication --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --vdev-id=<vdev-id> |  
    --group-id=<group-id> | --group-name=<group-name>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli resumereplication -s <server-name> [-u <username> -p <password>]  
    -v <vdev-id> | -g <group-id> | -G <group-name>  
    [-X <rpc-timeout>]
```

where:

- v <vdev> Resume the replication schedule for the virtual device.
- g <group-id> Resume the replication schedule for all the resources in the Snapshot Group.
- G <group-name>
- X (--rpc-timeout) Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli promotereplica

This command allows you to promote a replica to a regular virtual device if the primary disk is available and the replica disk is in a valid state.

Either primary server with primary disk or target server with replica disk can be specified to promote the replica disk.

Syntax

```
isscli promotereplica --server-name=<server-name> --vdev=<vdev> |
    --target-name=<target-name> --replicaid=<replicaid>
    [--server-username=<username>
    --server-password=<password>]
    [--target-username=<target-username>
    --target-password=<target-password>]
    [--force]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli promotereplica -s <server-name> -v <vdev> |
    -S <target-name> -v <replicaid>
    [-u <username> -p <password>]
    [-U <target-username> -P <target-password>]
    [-f]
    [-X <rpc-timeout>]
```

where:

- f (--force) If the primary disk is still valid and available, and the replica disk is in an invalid state, the replica disk can be promoted with the force option. But, it is recommended to synchronize the replica disk with the primary disk first unless the primary disk is physically defected or unavailable.
If the primary disk is no longer available, the replica disk can be promoted with the force option even when it's in an invalid state if you are sure the data on the replica disk is useful.
- X (--rpc-timeout) Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli removereplication

This command allows you to remove the replication configuration from the primary disk on the primary server and delete the replica disk on the target server. Either a primary server with a primary disk or a target server with a replica disk can be specified.

Either primary server with primary disk or target server with replica disk can be specified to remove the replication configuration.

If the target server no longer exists or cannot be connected, only the replication configuration on the primary server will be removed. If the primary server no longer exists or cannot be connected, only the replica disk will be deleted.

Syntax

```
isscli removereplication --server-name=<server-name> --vdevid=<vdevid> |  
    --target-name=<target-name> --replicaid=<replicaid>  
    [--server-username=<username> --server-password=<password>]  
    [--target-username=<target-username>  
    --target-password=<target-password>]  
    [--force]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli removereplication -s <server-name> -v <vdevid> |  
    -S <target-name> -v <replicaid>  
    [-u <username> -p <password>]  
    [-U <target-username> -P <target-password>]  
    [-f]  
    [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|--|
| -f (--force) | Must be specified when either primary server or target server no longer exists or cannot be connected. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli getreplicationstatus

This command allows you to retrieve replication status information from the replica server.

Syntax

```
isscli getreplicationstatus --target-name=<target-name>
    [--target-username=<username>
    --target-password=<password>]
    --replicaid=<replicaid>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getreplicationstatus -S <target-name>
    [-U <username> -P <password>]
    -v <replicaid>
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli getreplicationstatusinfo

This command shows the replication status. This command can be triggered from either the primary or replica server. The target server name and the replica disk ID are required to get the replication status.

Either primary server with primary disk or group, or target server with replica disk or replica group can be specified to get the replication status information.

If group ID or name is specified for a replication group, the status for all the group members will be printed.

Virtual device ID can be specified to get the status for a primary disk or replica disk regardless it is in a group or not if you only want to get the status for a specific disk.

Syntax

```
isscli getreplicationstatusinfo
    --target-name=<target-name>
    --replicaid=<replicaid> |
    --group-id=<group-id> |
    --group-name=<group-name>
    [--target-username=<username>
    --target-password=<password>]
    [--server-username=<username>
    --server-password=<password>] |
```

```
--server-name=<server-name>
--vdevid=<vdevid> |
--group-id=<group-id> |
--group-name=<group-name>
[--server-username=<username>
--server-password=<password>]
[--target-username=<username>
--target-password=<password>]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli getreplicationstatusinfo
-S <target-name>
-v <replicaid>|-g <group-id>|<-G <group-name>
[-U <username> -P <password>]
[-u <username> -p <password>] |
-s <server-name>
-v <vdevid>|-g <group-id>|-G <group-name>
[-u <username> -p <password>]
[-U <username> -P <password>]
[-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli setreplicationproperties

This command allows you to set the replication policy for a virtual device or group configured for replication.

Replication will kick off based on one or more of the following policies:

- watermark in MB (watermark retry in minutes, default: 30)
- replication interval in Hours(H) or Minutes(M), e.g. 2H or 120M (minimum interval is 10 minutes)
- <initial-time> is an option for the interval to specify the initial date and time in the format of MM-DD-YYYY hh:mm to start the first interval. Please enclose the initial time with double quotes, e.g. "07-27-2005 12:00". The valid year is between 2000 and 2127.

Syntax

parameters can be specified in switch or long name format:

```
isscli setreplicationproperties [--server-name=<server-name>
--server-username=<username> --server-password=<password>]
--source-vdevid=<source-vdevid>
--group-id=<group-id> | --group-name=<group-name>
```

```

--watermark=<watermark (MB) >
--watermark-retry=<watermark-retry>]]
[[-initial-time=<initial-time>] --interval=<#[H|M]>]
--compression<on|off>]
--encryption<on|off> [--encryption-option=<encryption-option>]]
--microscan=<on|off>]
--use-existing-timemark=<on|off>]
--preserve-timemark=<on|off>]
--continuous-replication-mode=<on|off>]
--sync-replica-timemark=<on|off>]
--preserve-primary-timemark=<on|off>]
--adaptive-resource-storage-pool-id=
  <adaptive-resource-storage-pool-id>|
--adaptive-resource-storage-pool-name=
  <adaptive-resource-storage-pool-name>]
--adaptive-resource-size-mb=
  <adaptive-resource-size-in-mb>]]]
--target-username=<target-username>
--target-password=<target-password>]
--gateway=<gateway-ip-address> --interface=<interface>]
--new-replica-ip-address=<new-replica-ip-address>}]
--delete-route]
--throttle=<#>]
--disable-mirror]
--replication-protocol=<replication-protocol>]
--throughput-control-enabled=<on|off>]
--max-sync-time=<#[H|M]>]
--max-resync-interval=<#[H|M]>]
--max-io-for-resync=<max-io-for-resync>
| --max-io-size-for-resync=<#[KB|MB]>]
--vdev-list=<vdev-list>
--rpc-timeout=<rpc-timeout>]

```

```

isscli setreplicationproperties [-s <server-name> -u <username> -p
<password>]

```

```

-v <source-vdev-id> |
-g <group-id> | -G <group-name>
[-w <watermark (MB) > [-r <watermark-retry>]]
[[-I <initial-time>] -i <#[H|M]>]
[-c <on|off>] [-e <on|off> [-eo <encryption-option>]] [-m <on|off>]
[-x <on|off>] [-k <on|off>]
[-A <on|off> [-Ax <on|off>] [-Ak <on|off>]
[-as <adaptive-resource-storage-pool-id>|
-AS <adaptive-resource-storage-pool-name>]
[-Am <size-mb-cdr>]]]
[-U <target-username> -P <target-password>]
[-gw <gateway-ip-address> -if <interface-name>]
[-nrip <new-replica-ip-address>]
[-dr]
[-tt <#>]
[-dmi]

```

```

[-l <replication-protocol>]
[-te <on|off>] [-st <#[H|M]>] [-ri <#[H|M]>]
[-ir <max-io-for-resync> | -irsz <#[KB|MB]>]
-J [vdev-list]
[-X <rpc-timeout>]

```

where:

-T (--replication-time) This option is no longer supported. The option can be replaced with an initial date/time and a 24-hour interval.

You must choose at least one replication policy.

To unset the watermark, specify 0 for the watermark.

To unset the initial time, specify NA instead of the time.

To unset the interval, specify 0 for the interval.

watermark retry value will be ignored if the watermark is not set.

<initial-time> Option for the interval to specify the initial date and time in the format of MM-DD-YYYY hh:mm to start the first interval. Enclose the initial time with double quotes, e.g. "07-27-2005 12:00". The year must be between 2000 and 2127.

--watermark=<watermark (MB) > You must choose at least one replication policy.
--watermark-retry=<watermark-retry> To unset the watermark, specify 0 for the watermark.
--initial-time=<initial-time> (Watermark retry value will be ignored if not set.)
--interval=<#[H|M]> To unset the initial time, specify NA instead of the time.
To unset the interval, specify 0 for the interval.

-c (--compression) Options to enable/disable compression, encryption and microscan in one of the values: on or off (default).
-e (--encryption)
-m (--microscan)

-eo (--encryption-option) Can be one of the following values: RC4, AES128, or AES256. The default value is RC4.

Replication properties can be updated for the resource or the snapshot group. All the resources in the Snapshot Group will also be updated with the specified properties if the Snapshot Group is specified.

-x (--use-existing-timemark) An option to use an existing TimeMark for replication if one already exists. The values are: on or off (default).

-k (--preserve-timemark) An option to preserve the replication TimeMark after replication is completed if the TimeMark option is enabled with one of the values: on or off (default)

-nrip (--new-replica-ip-address) Enter a new replica IP address.

-gw (--gateway) Add a new gateway IP address.

-if (--interface) Add new interface.

-dr (--delete-route) Delete an existing gateway/interface.

-dmi (--disable-mirror) The option to skip remote mirror creation in a stretched cluster environment.

-J (--vdev-list)	An option to set up replication properties in batch mode. Enter the vid of resources and separate each of them with a comma. This option can only work with [-w <watermark(MB)> [-r <watermark-retry>]] and [[-l <initial-time>]-i <#[H M]>] options.
-A (--continuous-replication-mode)	Enable / disable Continuous mode. A CDR resource must be created for the primary disk when Continuous mode is enabled to stage data for replication. The system will switch the replication to Delta mode when problem is encountered in continuous replication. New snapshot is created on the replica disk when replication is triggered manually or by schedule.
-Ax (--sync-replica-timemark)	Option for continuous mode to synchronize TimeMarks to the replica when the TimeMark is created by a user or TimeMark schedule. The value can be on or off (default).
-Ak (--preserve-primary-timemark)	Option for continuous mode to preserve the primary TimeMark created by the replication schedule when TimeMark option is enabled with one of the values: on or off (default)
-As (--adaptive-resource-storage-pool-id)	Options to specify storage pool for CDR Resource allocation.
-as (--adaptive-resource-storage-pool-name)	
-Am (--adaptive-resource-size-mb)	Specify the size in MB for CDR Resource. Since CDR Resource cannot be expanded, you should allocate enough space suitable for the replication setup. The default size is 256MB if it is not specified. The maximum size for CDR resource is 1TB(1048576MB).
-l (--replication-protocol)	An option to set the protocol (with one of the following values: rudp or tcp) if the version of the target server is 5.0 or later and the replication is not configured for continuous mode. Starting from 5.1. The TCP protocol is supported for continuous mode. RUDP protocol is not supported from version 6.50.
 The following parameters are for throughput control option and policy settings if the option is enabled.	
-te (--throughput-control-option)	The option to enable and disable the throughput control with one of these values: on off (default)
-st (--max-sync-time)	The setting to specify the max. time (1-60 minutes, 1-24 hours) synchronization can proceed before checking the resource throughput. Synchronization will be reduced to minimum to allow the system to check the I/O activity when it reaches the specified max time. M is the unit for Minutes, and H is the unit for Hours. e.g. 4H for 4 hours, 36M for 36 minutes.

`-ri (--max-resync-interval)` The interval to wait before checking resource throughput after synchronization is reduced to minimum in the range of 1-60 minutes or 1-6 hours. The format is the same as the `--max-sync-time`. The default is 1 minute.

There are 2 mutually exclusive options to specify the limit of the IO activity for the synchronization to be resumed.

`-ir (--max-io-for-resync)` An option to specify the max number of IOs in the range of 0-10000.

`-irsz (--max-io-size-for-resync)` Another option to specify the max size of the IO activity in KB or MB in the range of 1 KB-102400 KB or 1 MB-100 MB.

If neither option is specified, the default is 20 MB.

`-tt (--throttle)` Set the LUN-based throttle in KB. The range is 10-1000000 KB if it is set. Set the value to 0 for unlimited (default). If the target throttle of the target server is also enabled, the throttle for the virtual device will be the lower value of the 2 settings. For virtual device in a snapshot group, same throttle setting will be applied to all the members in the group.

`-dmi` Skip the remote mirror creation in a stretched cluster environment.

`-X (--rpc-timeout)` Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getreplicationproperties

This command allows you to obtain the replication properties for a virtual device or group configured for replication.

Syntax

```
isscli getreplicationproperties --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --source-vdev=<source-vdev> |
    --group-id=<group-id> | --group-name=<group-name>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getreplicationproperties -s <server-name>
    [-u <username> -p <password>]
    -v <source-vdev> | -g <group-id> | -G <group-name>
    [-X <rpc-timeout>]
```

where:

-v <vdev>	Specify <vdev> to get the Replication properties of the virtual device, <group-id> or <group-name> to get the Replication properties for the Snapshot Group.
-g <group-id>	
-G <group-name>	
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli scanreplica

This command scans a replica server.

Syntax

```
isscli scanreplica --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --source-vdev=<source-vdev>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli scanreplica -s <server-name>
    [-u <username> -p <password>]
    -v <source-vdev>
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli relocate

This command relocates a replica server after the replica disk has been physically moved to a different server.

Syntax

```
isscli relocate --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --source-vdev=<source-vdev>
    --target-name=<target-name>
    [--target-username=<target-username>
    --target-password=<target-password>]
    --target-vdev=<target-vdev>
    [--rpc-timeout=<rpc-timeout>]

isscli relocate -s <server-name>
    [-u <username> -p <password>]
    -v <source-vdev>
    -S <target-name> [-U <target-username> -P <target-password>]
    -V <target-vdev> [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli rolereversal

This command allows you to reverse the role of primary and replica disks/groups. Either primary server with primary disk/group or target server with replica disk/group can be specified to reverse the role of the primary disk and replica disk or the primary group and replica group.

Syntax

parameters can be specified in switch or long name format:

```
isscli rolereversal [--server-name=<server-name>]
    {--vdev=<vdev> |
    --group-id=<group-id> |
    --group-name=<group-name>} |
    --target-name=<target-name>
    {--replicaid=<replicaid> |
    --group-id=<group-id> |
    --group-name=<group-name>}
    [--partner-server-name=<partner-server-name>]
```

```

[--server-username=<username>
--server-password=<password>]
[--target-username=<target-username>
--target-password=<target-password>]
[--target-server-ip=<new-target-server-ip>]
[--force-reversal [--force]
[--allow-active-primary [--override] ] ]
[--rpc-timeout=<rpc-timeout>]

```

```

isscli rolereversal [-s <server-name>
                    {-v <vdevid> | -g <group-id> | -G <group-name>} |
-S <target-name>
                    {-v <replicaid> | -g <group-id> | -G <group-name>}
-u <username> -p <password>]
-U <target-username> -P <target-password>]
-ps <partner-server-name>]
-T <new-target-server-ip>]
-F [-f] [-A [-ov] ] ]
-X <rpc-timeout>]

```

where:

-T (--target-server-ip)	An option to specify the new target server IP for replication to connect to the new target server.
-T	Option will be ignored for forceful role reversal since the new target server will only be connected when repairreplica is performed.
-ps (--partner-server-name)	An option to specify the partner server name to comply with possible network security policies.
-F (--force-reversal)	An option for forceful role reversal when primary server is not available. The option should be specified with target server and replica ID or group when forceful role reversal is intended.
-f (--force)	An option for forceful role reversal to perform reversal when replica device(s) is(are) in invalid state.
-A (--allow-active-primary)	An option for forceful role reversal to perform reversal when primary server is still active.
-ov (--override)	An option for forceful role reversal without connecting to the primary server.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli repairreplica

This command allows you to repair a replica. The new primary server with new primary disk or group from forceful role reversal should be specified for the repair after the original primary server is recovered.

Syntax

parameters can be specified in switch or long name format:

```
isscli repairreplica [--server-name=<server-name>]
                    {--vdev-id=<vdev-id> |
                     --group-id=<group-id> |
                     --group-name=<group-name>} |
                    [--server-username=<username>
                     --server-password=<password>]
                    [--target-username=<target-username>
                     --target-password=<target-password>]
                    [--target-server-ip=<new-target-server-ip>]
                    [--rpc-timeout=<rpc-timeout>]
```

```
isscli repairreplica [-s <server-name>
                     {-v <vdev-id> | -g <group-id> | -G <group-name>} |
                     [-u <username> -p <password>]
                     [-U <target-username> -P <target-password>]
                     [-T <new-target-server-ip>]
                     [-X <rpc-timeout>]
```

where:

- | | |
|----------------------|--|
| -T (--new-target-ip) | An option to specify the new target IP for replication after the replication configuration is repaired. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli switchtodeltamode

This command allows you to switch the replication transfer mode from continuous mode to delta mode when the virtual device or group is enabled with continuous replication.

Specify <vdev> to switch to delta mode for the virtual device. Specify <group-id>, or <group-name> to switch to delta mode for the group.

Syntax

parameters can be specified in switch or long name format:

```
isscli switchtodeltamode [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
--vdev=<vdev> |
--group-id=<group-id> | --group-name=<group-name>
[--rpc-timeout=<rpc-timeout>]

isscli switchtodeltamode [-s <server-name> -u <username> -p <password>]
-v <vdev> | -g <group-id> | -G <group-name>
[-X <rpc-timeout>]
```

where:

<vdev>	Specify to switch to delta mode for the virtual device.
<group-id> or <group-name>	Specify to switch to delta mode for the group.
-T (--new-target-ip)	An option to specify the new target IP for replication after the replication configuration is repaired.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli starttimeviewreplication

This command allows you to replicate TimeView data associated with TimeMark to be replicated to the corresponding TimeMark on the replica disk when replication is enabled.

Syntax

parameters can be specified in switch or long name format:

```
isscli starttimeviewreplication [--server-name=<server-name>
                                --server-username=<username>
                                --server-password=<password>]
                                --vdevid=<vdevid>
                                --timemark-timestamp=<timemark-timestamp> |
                                --comment=<comment>
                                [--force-to-replicate]
                                [--replicate-guid]
                                [--retries=<retries>]
                                [--rpc-timeout=<rpc-timeout>]
```

```
isscli starttimeviewreplication [-s <server-name> -u <username> -p
<password>]
                                -v <vdevid>
                                -t <timemark-timestamp> | -c <comment>
                                [-vf] [-rg] [-rt <retries>]
                                [-X <rpc-timeout>]
```

where:

<vdevid>	Specify for the virtual device to start TimeView data replication for the selected TimeMark.
<timemark-timestamp>	The TimeMark timestamp in the following format: YYYYMMDDhhmmss
<comment>	An alternative for specifying the TimeMark timestamp. Either <timemark-timestamp> or <comment> has to be specified.
-vf (--force-to-replicate)	The option to force the TimeView data to be re-replicated when the data already exists on the replica side or when replica TimeMarks cannot be validated.
-rt (--retries)	The option to specify number of retries when TimeView replication failed on retrievable errors.
-rg (--replicate-guid)	An option to replicate the TimeView GUID from the source to the replica. If this option is not specified, new GUID will be generated for the replica TimeView data.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli stoptimeviewreplication

This command allows you to stop TimeView replication.

Syntax

parameters can be specified in switch or long name format:

```
isscli stoptimeviewreplication [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
--vdev=<vdev>
[--timemark-timestamp=<timemark-timestamp> |
--comment=<comment>]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli stoptimeviewreplication [-s <server-name> -u <username> -p
<password>]
-v <vdev>
[-t <timemark-timestamp> | -c <comment>]
[-X <rpc-timeout>]
```

where:

<vdev>	Specify to stop TimeView data replication for the selected TimeMark.
<timemark-timestamp>	The TimeMark timestamp in the following format: YYYYMMDDhhmmss
<comment>	An alternative for specifying the TimeMark timestamp. If TimeMark is not specified, all the TimeView data replication for the specified virtual device will be stopped.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setreplicationpriority

This command allows you to set replication priority.

Specify the virtual device id, group id or group name to set the replication priority for an individual virtual device or group if group replication is enabled.

Replication priority takes effect when multiple replication jobs are pending in the queue.

Syntax

parameters can be specified in switch or long name format:

```
isscli setreplicationpriority [--server-name=<server-name>
    --server-username=<username> --server-password=<password>]
    --source-vdev=<source-vdev> |
    --group-id=<group-id> | --group-name=<group-name>
    --priority=<priority> | --priority-list=<priority-list>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setreplicationpriority [-s <server-name> -u <username> -p
<password>]
    -v <source-vdev> | -g <group-id> | -G <group-name>
    -o <priority> | -O <priority-list>
    [-X <rpc-timeout>]
```

where:

<Priority>	Is in the range of 0-1000 where 1000 is the highest priority.
<Priority-list>	For batch mode can be specified as a list of vid/gid and priority pairs separated by comma, or a file enclosed in <> containing vid/gid and priority pairs in each line in the following format: <ul style="list-style-type: none">• vid1:priority1• gid1:priority2 e.g. vid80:1 vid81:2 gid15:3 example 1: -O vid80:1,vid81:2,gid15:3 example 2: -O "<priority_listfile.txt>" This command is only available in the server of version 6.1 or later.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setreplicationthrottles

This command allows you to configure the throttle level for target sites, windows, or at the device level. Can accept a file (i.e. target throttle conf file). The path of the file in the command must be the full path.

Syntax

```
isscli setreplicationthrottles --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --target-site-id=<target-site-id> |
    --target-site-name=<target-site-name> |
    --replica-server-list=<replica-server-list>
    --link-type=<link-type>
    --default-throttle=<def-throttle%>
    [--window-throttle=<window-throttle-list>]
    --target-throttle-conf-file=<target-throttle-conf-file>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setreplicationthrottles -s <server-name>
    [-u <username> -p <password>]
    -ts <target-site-id> | -Ts <target-site-name> |
    -rs <replica-server-list>
    -lt <link-type> -dt <def-throttle%>
    [-wt <window-throttle-list>]
    -tf <target-throttle-conf-file>
    [-X <rpc-timeout>]
```

where:

-ts <target-site-id>	Can be specified for replication throttle to be modified.
-Ts <target-site-name>	
-rs (--replica-server-list)	If target site is not specified, -rs(--replica-server-list) can be specified for replication throttle to be modified.
-lt <link-type>	Specify the network link type to be used.
-dt <def-throttle>	Specify the throttle percentage for the time period which is not used by active throttle windows.
-wt <window-throttle-list>	Specify a list of window throttles separated by comma, each window throttle is in following format: throttleWindowID=throttlePercentage where -1 can be used in throttlePercentage if the throttle window needs to be removed from the replication throttle. Example:1=50,2=-1,3=0
-tf <target-throttle-conf-file>	File that contains replication throttle information in each line.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getreplicationthrottles

This command allows you to view the throttle configuration information.

Syntax

```
isscli getreplicationthrottles --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    [--target-site-id=<target-site-id> |
    --target-site-name=<target-site-name> |
    --replica-server-list=<replica-server-list>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getreplicationthrottles -s <server-name>
    [-u <username> -p <password>]
    [-ts <target-site-id> | -Ts <target-site-name> |
    -rs <replica-server-list>]
    [-X <rpc-timeout>]
```

where:

-ts(--target-site-id)	Display only the specified replication throttle.
-Ts(--target-site-name)	A standalone replication server which is not explicitly in any target site may also have throttle settings. As a result, replication server names can also be used as <target-site-name> with -Ts(--target-site-name) option
-rs(--replica-server-list)	
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getthrottlewindows

This command allows you to view the information of a particular Target Site.

Syntax

```
isscli getthrottlewindows --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    [--throttle-window-id=<throttle-window-id> |
    --throttle-window-name=<throttle-window-name>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getthrottlewindows -s <server-name>
    [-u <username> -p <password>]
    [-tw <throttle-window-id> | -Tw <throttle-window-name>]
    [-X <rpc-timeout>]
```

where:

<code>-tw(--throttle-window-id)</code>	Display only the specified throttle window.
<code>-Tw(--throttle-window-name)</code>	
<code>-X(--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setthrottlewindows

This command allows you to configure throttle windows settings.

Syntax

```
isscli setthrottlewindows --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --throttle-window-id=<throttle-window-id>
    [--throttle-window-name=<throttle-window-name>|
    --start-time=<start-time> |
    --end-time=<end-time> ]|
    --throttle-windows-file=<throttle-windows-file>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setthrottlewindows -s <server-name>
    [-u <username> -p <password>]
    -tw <throttle-window-id> [ -Tw <throttle-window-name> |
    -st <start-time> | -et <end-time> ]|
    -wf <throttle-windows-file>
    [-X <rpc-timeout>]
```

where:

<code>-tw <throttle-window-id></code>	Specify the throttle window to be modified.
<code>-Tw <throttle-window-name></code>	If <code><throttle-window-id></code> is specified, the <code><throttle-windows-name></code> then can set throttle window name.
<code>-st <start-time></code>	Specify the throttle window start time and end time in the format of HH:MM, e.g. "21:00".
<code>-et <end-time></code>	
<code>-wf <throttle-windows-file></code>	File that contains throttle window information in each line.
<code>-X(--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli removethrottlewindows

This command removes a custom window. A file can be accepted as long as you specify the full path of the file in the command.

Syntax

```
isscli removethrottlewindows --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    --throttle-window-id=<throttle-window-id>|  
    --throttle-window-name=<throttle-window-name>|  
    --throttle-windows-file=<throttle-windows-file>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli removethrottlewindows -s <server-name>  
    [-u <username> -p <password>]  
    -tw <throttle-window-id> | -Tw <throttle-window-name>  
    -wf <throttle-windows-file>[-X <rpc-timeout>]
```

where:

-tw <throttle-window-id>	Specify the throttle window to be removed.
-Tw <throttle-window-name>	
-wf <throttle-windows-file>	File that contains throttle window information in each line.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli addthrottlewindows

This command creates a custom throttle window with a specific time duration. It can accept a file. The path of the file in the command must be the full path.

Syntax

```
isscli addthrottlewindows --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --throttle-window-name=<throttle-window-name>
    --start-time=<start-time>
    --end-time=<end-time> |
    --throttle-windows-file=<throttle-windows-file>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli addthrottlewindows -s <server-name>
    [-u <username> -p <password>]
    -Tw <throttle-window-name>
    -st <start-time> -et <end-time> |
    -wf <throttle-windows-file>
    [-X <rpc-timeout>]
```

where:

-Tw <throttle-window-name>	Unique throttle window name for the throttle window to be created.
-st <start-time>	Specify the throttle window start time and end time in the format of HH:MM, e.g. "21:00".
-et <end-time>	
-wf <throttle-windows-file>	File that contains throttle window information in each line.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli addlinktypes

This command allows you to create a custom Link Type adding customized link types and speed.

Syntax

```
isscli addlinktypes --server-name =<server-name>
    [--server-username=<username> --server-password=<password>]
    --linktypes-type=<type>
    --linktypes-description = <description>
    --linktypes-value =<value>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli addlinktypes -s <server-name> [-u <username> -p <password>]
    -ltt <type>
    -ltd <description>
    -ltv <value>
    [-X <rpc-timeout>]
```

where:

-ltt <type>	Link type to be added
-ltd <description>	Description of new link type to be added
-ltv <value>	Link speed (in Mbps) to be added for the new link type
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli gettargetsitesinfo

This command allows you to view the information of a particular Target Site.

Syntax

```
isscli gettargetsitesinfo --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    [--target-site-id=<target-site-id> |
    --target-site-name=<target-site-name>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli gettargetsitesinfo -s <server-name>
    [-u <username> -p <password>]
    [-ts <target-site-id> | -Ts <target-site-name>]
    [-X <rpc-timeout>]
```

where:

-ts <target-site-id>	Display only the specified target site.
-Ts <target-site-name>	
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli removereplicationjob

This command allows you to remove a pending job in the replication job queue. Specify virtual device id, group id or group name for individual virtual device or group.

Syntax

parameters can be specified in switch or long name format:

```
isscli removereplicationjob [--server-name=<server-name>
                             --server-username=<username> --server-password=<password>]
                             --source-vdevid=<source-vdevid> |
                             --group-id=<group-id> | --group-name=<group-name>
                             --timemark-timestamp=<timemark-timestamp>
                             [--force]
                             [--rpc-timeout=<rpc-timeout>]
```

```
isscli removereplicationjob [-s <server-name>
                              -u <username> -p <password>]
                              --v <source-vdevid> | -g <group-id> | -G <group-name>
                              -t <timemark-timestamp> [-f]
                              [-X <rpc-timeout>]
```

where:

<timemark-timestamp>	The TimeMark timestamp which is used for the replication in the following format: YYYYMMDDhhmmss
-f (--force)	The active replication job cannot be removed.
-X (--rpc-timeout)	This option can be specified to remove all non-active replication jobs.
	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli addtargetservertotargetsite

This command allows you to add a target server to an existing Target site. It can accept a file. The path of the file in the command must be the full path.

Syntax

```
isscli addtargetservertotargetsite --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --target-site-id=<target-site-id> |
    --target-site-name=<target-site-name>
    --replica-server-list=<replica-server-list>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli addtargetservertotargetsite -s <server-name>
    [-u <username> -p <password>]
    -ts <target-site-id> | -Ts <target-site-name>
    -rs <replica-server-list>
    [-X <rpc-timeout>]
```

where:

-ts <target-site-id>	Specify for target site to be modified.
-Ts <target-site-name>	
-rs <replica-server-list>	List of replica server names separated by comma, or a file enclosed in <> containing replica server names in each line. example 1: -rs replicaServer1,replicaServer2 example 2: -rs "<replica_server_list_file.txt>" At least one replica server is required to be assigned to the replication target site.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli deletereplicationtargetsitesite

This command deletes / removes a target site from server.

Syntax

```
isscli deletereplicationtargetsitesite --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    --target-site-id=<target-site-id> |  
    --target-site-name=<target-site-name>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli deletereplicationtargetsitesite -s <server-name>  
    [-u <username> -p <password>]  
    -ts <target-site-id> | -Ts <target-site-name>  
    [-X <rpc-timeout>]
```

where:

-ts <target-site-id>	Specify target site to be deleted.
-Ts <target-site-name>	
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli createreplicationtargetsites

This command creates a target site from server.

Syntax

```
isscli createreplicationtargetsites --server-name=<server-name>
      [--server-username=<username> --server-password=<password>]
      --target-site-name=<target-site-name>
      [--replica-server-list=<replica-server-list>]
      [--rpc-timeout=<rpc-timeout>] [--disable-mirror]
```

```
isscli createreplicationtargetsites -s <server-name>
      [-u <username> -p <password>]
      -Ts <target-site-name> [-rs <replica-server-list>]
      [-X <rpc-timeout>] [-dmi]
```

where:

- | | |
|---------------------------|--|
| -Ts <target-site-name> | Unique replication target site name. |
| -rs <replica-server-list> | List of replica server names separated by comma, or a file enclosed in <> containing replica server names in each line.
example 1: -rs replicaServer1,replicaServer2
example 2: -rs "<replica_server_list_file.txt>"
At least one replica server is required to be assigned to the replication target site. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli removetargetserverfromtargetsite

This command allows you to remove a target server from an existing Target site. It can accept a file. The path of the file in the command must be the full path.

Syntax

```
isscli removetargetserverfromtargetsite --server-name=<server-name>
      [--server-username=<username> --server-password=<password>]
      --target-site-id=<target-site-id> |
      --target-site-name=<target-site-name>
      --replica-server-list=<replica-server-list>
      [--rpc-timeout=<rpc-timeout>]
```

```
isscli removetargetserverfromtargetsite -s <server-name>
      [-u <username> -p <password>]
      -ts <target-site-id> | -Ts <target-site-name>
      -rs <replica-server-list>
      [-X <rpc-timeout>]
```

where:

-Ts <target-site-name>	Unique replication target site name.
-rs <replica-server-list>	List of replica server names separated by comma, or a file enclosed in <> containing replica server names in each line. example 1: -rs replicaServer1,replicaServer2 example 2: -rs "<replica_server_list_file.txt>" At least one replica server is required to be specified.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli removelinktypes

This command allows you to remove a custom link type and speed. Default link types cannot be removed.

Syntax

```
isscli removelinktypes --server-name =<server-name>
    [--server-username=<username> --server-password=<password>]
    --linktypes-type=<type>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli removelinktypes -s <server-name> [-u <username> -p <password>]
    -ltt <type>
    [-X <rpc-timeout>]
```

where:

-ltt <type>	Link type to be removed.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setlinktypes

This command allows you to configure an existing custom Link Type description or link speed.

Syntax

```
isscli setlinktypes --server-name =<server-name>
    [--server-username=<username> --server-password=<password>]
    --linktypes-type=<type>
    [--linktypes-description = <description>]
    --linktypes-value =<value>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setlinktypes -s <server-name> [-u <username> -p <password>]
    -ltt <type>
    [-ltd <description>]
    -ltv <value>]
    [-X <rpc-timeout>]
```

where:

-ltt <type>	Link type to set.
-ltd <description>	New description for existing link type to be added.

-ltv <value>	New link speed (in Mbps) to be added for existing link type (in Mbps).
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getlinktypes

This command allows you to obtain all available link type information on the server.

Syntax

```
isscli getlinktypes --server-name=<server-name>  
                [--server-username=<username> --server-password=<password>]  
                [--rpc-timeout=<rpc-timeout>]
```

```
isscli getlinktypes -s <server-name>  
                [-u <username> -p <password>]  
                [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli setvdevmicroscan

This command allows you to enable/disable MicroScan for a specified virtual device.

Syntax

```
isscli setvdevmicroscan --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    --vdev-id=<vdev-id>--vdev-microscan=<on|off>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setvdevmicroscan -s <server-name> [-u <username> -p <password>]  
    -v <vdev-id> -M<on|off>[-X <rpc-timeout>]
```

where:

-v (--vdev-id)	Required to specify the virtual device ID.
-M (--vdev-microscan)	Option to enable/disable virtual device microscan.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli refreshreplicaserverinfo

This command allows you to refresh the replication target server version information in the replication primary server configuration if the target server version in the primary configuration is 6.15 or earlier. The command can only be executed on the server itself with root privilege using 127.0.0.1 as the server. The server has to be version 7.0 or later.

Specific target server can be specified to refresh the information for that server only. If the target server is not specified, all the replication target server with earlier version in the primary configuration will be checked and refreshed when necessary.

Syntax

parameters can be specified in switch or long name format:

```
isscli refreshreplicaserverinfo [--server-name=<server-name>
                                [--target-name]
                                [--rpc-timeout=<rpc-timeout>]
```

```
isscli refreshreplicaserverinfo [-s <server-name>] [-S <target-name>]
[-b]
                                [-X <rpc-timeout>]
```

where:

-b (--verbose)	The option to print out detail information.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

TimeMark/TimeView

isscli enabletimemark

This command allows you to enable a TimeMark.

Syntax

```
isscli enabletimemark [--server-name=<server-name>
  --server-username=<username> --server-password=<password>]
  --source-vdev-id=<source-vdev-id>
  [--create-snapshot-resource
  [--snapshot-storage-pool-id=<storage-pool-id> |
  --snapshot-storage-pool-name=<storage-pool-name>]
  [--snapshot-threshold=<threshold>]
  [--snapshot-increment=<increment>]
  [--snapshot-max-size=<max-size>] ] |
  --group-id=<group-id> | --group-name=<group-name>
  [--enable-resource-option]
  [--max-timemark-count=<max-timemark-count>]
  [--automatic-timemark-schedule=<automatic-timemark-schedule>
  [--initial-time=<initial-time>]
  --timemark-interval=<#[H|M]>]
  [--notification-frequency=<frequency>]]
  [--retention-policy-mode=<mode>]
  [--most-recent=<most-recent> |
  --retention-all=<#[H|D]>
  --retention-hourly=<#[Days]> --hourly-minute=<hourlyMinute> |
  --retention-daily=<#[Days]> --daily-hour=<dailyHour> |
  --retention-weekly=<#[Weeks]> --weekly-dow=<weeklyDOW> |
  --retention-monthly=<#[Months]> --monthly-day=<monthlyDay>]
  [--cdp-option=<on|off>]
  [--size-mb=<#[MB]>]
  [--selectioncriteria=<device selection criteria>]
  [--scsiaddress=<ACSL>|
  --storage-pool-id=<storage-pool-id>|
  --storage-pool-name=<storage-pool-name>] |
  --custom-method=<custom-mode>|
  --custom-layout=<custom-layout>]
  [--replicate-new-tm=<on|off>]
  [--disable-mirror]
  [--threshold=<threshold>
  --increment=<increment> [--max-size=<max-size-mb>]]
  [--cdp-preferred-duration=<cdp-coverage-period>]
  [--cdp-performance-level=<performance-level>]
  --vdev-list=<vdev-list> -o [--scsiaddr-list=<physical-device-list>]
  [--rpc-timeout=<rpc-timeout>]
```

```

isscli enabletimemark [-s <server-name> -u <username> -p <password>]
                        -v <source-vdevid>
                        [-o [-ss <storage-pool-id>|-SS <storage-pool-name>]
                        [-sh <threshold>][-sc <increment> ][-sZ <max-size-mb>]] |
                        -g <group-id> | -G <group-name>
                        [-E] [-C <max-timemark-count>]
                        [-A <automatic-timemark-schedule>
                        [[-I <initial-time>] -i <#[H|M]>]
                        [-q <frequency>]]
                        [-rp <mode>]
                        [-mr <most-recent> |
                        -ra <#[H|D]>
                        -rh <#Days> -hm <hourlyMinute>
                        -rd <#Days> -dh <dailyHour>
                        -rw <#Weeks> -wd <weeklyDOW>
                        -rm <#Months> -md <monthlyDay> ]
                        [-D <on|off>
                        [[-m <sizeMB>
                        [-t <selection-criteria>]
                        [-a <ACSL>|-sp <storage-pool-id>|-SP <storage-pool-name>] |
                        -M <custom-mode>|
                        -L <custom-layout>]
                        [-RNTM <on|off> ]
                        [-dmi]
                        [-h <threshold> -c <increment> [-Z <max-size-mb>]]
                        [-R <cdp-coverage-period>]
                        [-F <performance-level> ]
                        -J [vdev-list] -o [-IS <physical-device-list>]
                        [-X <rpc-timeout>]

```

TimeMark can be enabled for an individual resource or for a Snapshot Group. TimeMark can be enabled for a resource as long as it is not yet enabled.

Where:

- o (--create-snapshot-resource) An option to allow the system to create the snapshot resource for the resource before enabling the TimeMark option for the resource when it's not created yet.
- ss (--snapshot-storage-pool-id) and -SS (--snapshot-storage-pool-name) Can be specified to determine the physical devices for snapshot resource allocation.
- sh(--snapshot-threshold) ,
-sc(--snapshot-increment) and
-sZ(--snapshot-max-size) Can be specified to determine the snapshot resource policy.

TimeMark can only be enabled for a Snapshot Group when all the resources in the group are enabled for TimeMark.

- E (--enable-resource-option) An option to allow the system to enable the non-eligible resources with the TimeMark option first before enabling the group TimeMark option.

<code><max-timemark-count></code>	The max. TimeMarks to keep before purging. The range is between 1 and 1000.
 TimeMark can be taken automatically at a specified interval starting from the default or specified initial date/time.	
<code><automatic-timemark-schedule></code>	Is one of the following values: on off
<code><automatic-timemark-schedule></code>	Set to on to schedule TimeMark creation automatically.
<code><--replicate-new-tm></code>	One of the following values: on off
Trigger replication after TimeMark is created by the scheduler or user when replication is enabled.	
<code>-dmi (--disable-mirror)</code>	The option to skip remote mirror creation in a stretched cluster environment.
<code><timemark-interval></code>	The option for a specified interval in Hours(H) or Minutes(M). e.g. 2H, 120M. The minimum interval is 10 minutes (10M).
<code><start-time></code>	No longer supported, but the system will not generate the error if the option is specified to be backward compatible.
<code><initial-time></code>	An option for the interval to specify the initial date and time in the format of MM-DD-YYYY hh:mm to start the first interval. Please enclose the initial time with double quotes, e.g. "07-27-2005 12:00". The valid year is between 2000 and 2127. If <code><initial-time></code> is not set with the interval, it will be default to midnight of today.
<code>-T (--timemark-time)</code>	This option is no longer supported. The option can be replaced with an initial date/time and a 24-hour interval.
<code><automatic-timemark-schedule></code>	Set to off if you do not want to schedule the automatic TimeMark creation. <code><initial-time></code> and <code><timemark-interval></code> will be ignored if <code><automatic-timemark-schedule></code> is set to off.
<code>-q (--notification-frequency)</code>	An option to specify how often to trigger the snapshot notification for the scheduled TimeMarks when snapshot notification is enabled in the snapshot policy.
<code>-D (--cdp-option)</code>	An option for Continuous Data Protection (CDP) with the following values: on off (default)

A CDP journal resource has to be created when CDP option is enabled. The minimum size required for CDP journal is 1GB. If the size of CDP journal Resource is not specified with `-m` (`-size-mb`) option, the default size is 1GB (1024MB).

- `-a` (`--scsiaddress`),
`-sp` (`--storage-pool-id`),
`-SP` (`storage-pool-name`) Can be specified to determine the physical devices for allocation.
- `-M` (`--custom-method`) and
`-L` (`--custom-layout`) Options for specific physical layout. Please refer to the usage of `createvdev` command for details.
- `<selection-criteria>` One of the values:
different-adapter
different-drive
any-drive
- `-dj` (`--discard-journal-changes`)
and
`-kj` (`--keep-journal-changes`) Options to explicitly discard or keep CDP journal changes when disable CDP journal. The default is to keep CDP journal changes if the option is not specified.

Minimum TimeMarks required for CDP is 4. To ensure the continuous coverage, you should maintain total number of TimeMarks to be continuous coverage period / scheduled interval plus 1.

- `-J` (`--vdev-list`) An option to enable timemark in batch mode. enter the vid of resources and separate each of them by comma. Use `-IS` (`--scsiaddress-list`) to enter the acsl paths and separate each of them by comma on physical devices with `-o` option.

CDP journal resource can be expanded automatically when the space is running low. The following properties can be specified for auto-expansion:

- `-R` (`--cdp-coverage-period`) An option to be used in conjunction with threshold to trigger auto-expansion when data kept in the journal hasn't exceeded the coverage period yet. Specify number of days between 1 and 30 days, or number of hours between 1 and 24 hours. e.g. 7D is 7 days, 5H is 5 hours. The default `cdp-coverage-period` is 1 day.

Earlier journal will be deleted if neither auto-expansion policy is specified.
- `-F` `<performance-level>` An advanced option to set the level to determine how aggressive the system is when updating the data. Aggressive update facilitates the update but involve higher overhead and might impact the system performance. It can be one of the following values:
Moderate (default)
Aggressive
- `<threshold>` A percentage of the space used to determine if more space is needed. The default is 50% if it is not specified. The threshold range is between 50% and 75%. You can specify the threshold value with or without %.

<code>-c (--increment)</code>	Can be either percentage or size in MB. e.g. 10% or 100MB. The default is 20% if it's not specified. Specify either 0MB or 0% if you do not want to set the automatic expansion.
<code><max-size-mb></code>	The option for the maximum size allowed to be allocated for the CDP journal Resource in MB. It only takes effect when auto-expansion is performed and should only be specified when the increment size is configured.
<code>-rp(--retention-policy-mode)</code>	<p>An option for Timemark Retention Policy with the following values:</p> <p>All MostRecent (Default) Rule</p> <p>This option is only available on server version 7.0 or later.</p> <ul style="list-style-type: none"> • "All" mode allows to keep as many timemarks as this system can support. • "MostRecent" mode allows to keep up to the number of most recent timemarks user specified. • "Rule" mode allows to keep timemarks base on the rules user specified.
<code>-mr(--most-recent)</code>	An option for "MostRecent" mode to specify the number of most recent timemark to be preserved.
The following options are available for "Rule" mode.	
<code>-ra(--retention-all)</code>	An option to specify the duration in the past to keep all timemarks, which can be in Hours(H), or Days(D). e.g. 2H for 2 hours, 5D for 5 days. Specify 0 to disable this option. The range is 1H-168H or 1D-365D.
<code>-rh(--retention-hourly)</code>	An option to specify days in the past to keep hourly timemarks. The range is between 0 and 365.
<code>-rd(--retention-daily)</code>	An option to specify days in the past to keep daily timemarks. The range is between 0 and 730.
<code>-rw(--retention-weekly)</code>	An option to specify weeks in the past to keep weekly timemarks. The range is between 0 and 110.
<code>-rm(--retention-monthly)</code>	An option to specify months in the past to keep monthly timemarks. The range is between 0 and 120.

-hm(--hourly-minute), -dh(--daily-hour), -wd(--weekly-dow), -md(--monthly-day)	Options to specify the closest time and/or date for each timemark to be preserved. Here are the range of the values: minute of the hour: 0-59 hour of the day: 0-23 day of the week: Mon, Tue, Wed, Thu, Fri, Sat, Sun day of the month: 1-31 e.g. -hm 55 -dh 22 -wd Mon -md 30
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli disabletimemark

This command allows you to disable a TimeMark.

Syntax

parameters can be specified in switch or long name format:

```
isscli disabletimemark [--server-name=<server-name>
    --server-username=<username> --server-password=<password>]
    --source-vdev-id=<source-vdev-id> |
    --group-id=<group-id> | --group-name=<group-name>
    --vdev-list=<vdev-list>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli disabletimemark [-s <server-name> -u <username> -p <password>]
    -v <source-vdev-id> | -g <group-id> | -G <group-name>
    -J [vdev-list]
    [-X <rpc-timeout>]
```

Where:

TimeMark option of a virtual device cannot be disabled when the virtual device is in a Snapshot Group enabled for TimeMark Option. TimeMark option of a Snapshot Group can be disabled at anytime. Individual TimeMark option of the resources in the group remains the same.

-J (--vdev-list)	An option to disable timemark in batch mode. Enter the vid of resources and separate each of them by comma.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli createtimemark

This command allows you to create a TimeMark.

Syntax

parameters can be specified in switch or long name format:

```
isscli createtimemark [--server-name=<server-name>
  --server-username=<username> --server-password=<password>]
  --source-vdevId=<source-vdevId> |
  --group-id=<group-id> | --group-name=<group-name>
  [--comment=<comment>]
  [--timemark-priority=<timemark-priority>]
  [--snapshot-notification=<snapshot-notification>]
  [--quiescent=<quiescent>]
  [--checksum=<checksum>] [--checksum-app=<checksum-app>]
  [--vss-reserved=<vss-reserved>]
  [--rpc-timeout=<rpc-timeout>]
```

```
isscli createtimemark [-s <server-name> -u <username> -p <password>]
  -v <source-vdevId> | -g <group-id> | -G <group-name>
  [-c <comment>] [-o <priority>] [-n <snapshot-notification>]
  [-q <quiescent>]
  [-m <checksum>] [-a <checksum-app>] [-r <vss-reserved>]
  [-X <rpc-timeout>]
```

Where:

<comment>

Hello is an optional description to be associated with the TimeMark. The maximum length is 32. Please enclose the comment in " when there are spaces. The following characters are invalid for timemark comment:

```
<>"&$/\ '
```

The default comments will be "User created" if <comment> is not specified.

Specify -c "_blank_" for a blank <comment>.

<timemark-priority>

of the TimeMark can be set in one of the following values:

low
medium (default)
high
critical

<source-vdevId>

Specify to create the TimeMark of the virtual device, <group-id> or <group-name> to create the TimeMark for all the resources in the Snapshot Group.

<code><snapshot-notification></code>	An option to enable / disable the snapshot notification to the client before snapshot is taken for this snapshot only regardless what the setting is in the snapshot policy. It's one of the following values: on off
<code><quiescent></code>	An option to specify whether data is in quiesced state or not: on off
<code><checksum></code> , <code><checksum-app></code> and <code><vss-reserved></code>	Options to save additional information with the specified TimeMark.
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli updatetimemarkinfo

This command allows you to update TimeMark information.

Syntax

parameters can be specified in switch or long name format:

```
isscli updatetimemarkinfo [--server-name=<server-name>
  --server-username=<username> --server-password=<password>]
  --vdevid=<source-vdevid> |
  --group-id=<group-id> | --group-name=<group-name>
  --timemark-timestamp=<timemark-timestamp>
  [--comment=<comment> | --remove-comment]
  [--timemark-priority=<timemark-priority>]
  [--checksum=<checksum>] [--checksum-app=<checksum-app>]
  [--vss-reserved=<vss-reserved>]
  [--rpc-timeout=<rpc-timeout>]
```

```
isscli updatetimemarkinfo [-s <server-name> -u <username> -p <password>]
  -v <source-vdevid> | -g <group-id> | -G <group-name>
  -t <timemark-timestamp>
  [-c <comment> | -r] [-o <priority>]
  [-m <checksum>] [-a <checksum-app>] [-r <vss-reserved>]
  [-X <rpc-timeout>]
```

Where:

TimeMark timestamp is required to update the TimeMark information. The format of the timestamp is:

YYYYMMDDhhmmss

To modify the comment, specify a new <comment> up to 32 characters or -r <--remove-comment> option to remove the comment.

The following characters are invalid for timemark comment:

<>"&\$/\'

<timemark-priority>

can be set in one of the following values:

low

medium (default)

high

critical

<source-vdevid>

Specify to update the TimeMark information for the virtual device. Both <comment> and <timemark-priority> can be updated when the virtual device is not in a TimeMark group. Only <comment> can be updated for a virtual device if it is in a TimeMark group.

<group-id>, <group-name>

Specify <group-id> or <group-name> to update the TimeMark priority for all the resources in the TimeMark Group.

<checksum>, <checksum-app> and <vss-reserved>

Either <comment>, <remove-comment> or <timemark-priority> option has to be specified for update.

-X (--rpc-timeout)

options to save additional information with the specified TimeMark.

an option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

isscli deletetimemark

This command allows you to delete a TimeMark

Syntax

parameters can be specified in switch or long name format:

```
isscli deletetimemark [--server-name=<server-name>
                      --server-username=<username> --server-password=<password>]
                      --source-vdev=<source-vdev> |
                      --group-id=<group-id> | --group-name=<group-name>
                      --timemark-timestamp=<timemark-timestamp> | --
comment=<comment>
                      [--delete-all-outdated-timemarks]
                      [--rpc-timeout=<rpc-timeout>]
```

```
isscli deletetimemark [-s <server-name> -u <username> -p <password>]
-v <source-vdev> | -g <group-id> | -G <group-name>
-t <timemark-timestamp> | -c <comment>
[-D]
[-X <rpc-timeout>]
```

Where:

<timemark-timestamp>	The TimeMark timestamp to be selected for the deletion in the following format: YYYYMMDDhhmmss
<comment>	An alternative for specifying the TimeMark timestamp. Either <timemark-timestamp> or <comment> has to be specified.
-D	An option to delete all the outdated TimeMarks up to and including the timestamp specified. If this option is not specified, only the specified TimeMark will be deleted. If there is any TimeView virtual device associated with the TimeMark to be deleted, an error will be returned.
<source-vdev>	Specify to delete the TimeMark for the virtual device, <group-id> or <group-name> to delete the TimeMark for all the resources in the Snapshot Group.
-X (--rpc-timeout)	An option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

isscli copytimemark

This command allows you to copy a TimeMark.

Syntax

parameters can be specified in switch or long name format:

```
isscli copytimemark [--server-name=<server-name>
--server-username=<username> --server-password=<password>]
--source-vdev-id=<source-vdev-id>
--timemark-timestamp=<timemark-timestamp>
  [--include-timeview-data] |
--comment=<comment> [--include-timeview-data] |
[--target-vdev-id=<target vdev-id> |
--vdev-name=<vdev-name>]
  [--scsi-address=<ACSL> |
--storage-pool-id=<storage-pool-id> |
--storage-pool-name=<storage-pool-name>] |
--custom-method=<custom-mode> |
--custom-layout=<custom-layout>]]
[--disable-mirror]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli copytimemark [-s <server-name> -u <username> -p <password>]
-v <source-vdev-id>
-t <timemark-timestamp> [-iv] |
-c <comment> [-iv]
[-V <target vdev-id> |
-n <vdev-name>]
[-I <ACSL>|-sp <storage-pool-id>|-SP <storage-pool-name>] |
-M <custom-mode>|
-L <custom-layout>]]
[-dmi]
[-X <rpc-timeout>]
```

Where:

<timemark-timestamp>	The timestamp of the TimeMark to be copied from in the following format: YYYYMMDDhhmmss
<comment>	An alternative for specifying the TimeMark timestamp. Either <timemark-timestamp> or <comment> has to be specified.
-I (--scsi-address), -sp (--storage-pool-id), -SP (storage-pool-name)	Can be specified to determine the physical devices for allocation.
-M (--custom-method) and -L (--custom-layout)	Options for specific physical layout. Please refer to the usage of createvdev command for details.

<custom-method> and <custom-layout>	Options cannot be specified when the -m or -I option is specified.
-iv (--include-timeview-data)	An option to copy the TimeView data.
-dmi (--disable-mirror)	The option to skip remote mirror creation in a stretched cluster environment.
-X (--rpc-timeout)	An option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

isscli selecttimemark

This command allows you to select a TimeMark.

Syntax

parameters can be specified in switch or long name format:

```
isscli selecttimemark [--server-name=<server-name>
  --server-username=<username> --server-password=<password>]
  --source-vdevid=<source-vdevid>
  --timemark-timestamp=<timemark-timestamp> | --
comment=<comment>
  [--include-timeview-data]
  [--rpc-timeout=<rpc-timeout>]
```

```
isscli selecttimemark [-s <server-name> -u <username> -p <password>]
  -v <source-vdevid>
  -t <timemark-timestamp> | -c <comment>
  [-iv]
  [-X <rpc-timeout>]
```

Where:

-t (--timemark-timestamp)	The timestamp to select the TimeMark in the following format: YYYYMMDDhhmmss
<comment>	An alternative for specifying the TimeMark timestamp. Either <timemark-timestamp> or <comment> has to be specified.
-iv (--include-timeview-data)	An option to include the TimeView data.
-X (--rpc-timeout)	An option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

isscli deselecttimemark

This command allows you to deselect a TimeMark.

Syntax

parameters can be specified in switch or long name format:

```
isscli deletetimemark [--server-name=<server-name>
    --server-username=<username> --server-password=<password>]
    --source-vdev=<source-vdev> |
    --group-id=<group-id> | --group-name=<group-name>
    --timemark-timestamp=<timemark-timestamp> | --
comment=<comment>
    [--delete-all-outdated-timemarks]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli deletetimemark [-s <server-name> -u <username> -p <password>]
    -v <source-vdev> | -g <group-id> | -G <group-name>
    -t <timemark-timestamp> | -c <comment>
    [-D]
    [-X <rpc-timeout>]
```

Where:

-X (--rpc-timeout)

An option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

isscli rollbacktimemark

This command allows you to roll back a TimeMark.

Syntax

parameters can be specified in switch or long name format:

```
isscli rollbacktimemark [--server-name=<server-name>
    --server-username=<username> --server-password=<password>]
    --source-vdev=<source-vdev> |
    --group-id=<group-id> | --group-name=<group-name>
    --timemark-timestamp=<timemark-timestamp>
    [--include-timeview-data] |
    --comment=<comment> [--include-timeview-data] |
    --data-timestamp-sec=<data-timestamp-sec>
    --data-timestamp-usec=<data-timestamp-usec>
    [--keep-timemarks]
    [--discard-journal-changes | --keep-journal-changes]
```

[--rpc-timeout=<rpc-timeout>]

```
isscli rollbacktimemark [-s <server-name> -u <username> -p <password>]
                        -v <source-vdev> | -g <group-id> | -G <group-name>
                        -t <timemark-timestamp> [-iv] |
                        -c <comment> [-iv] |
                        -T <data-timestamp-sec> -m <data-timestamp-usec>
                        [-kt] [-dj | -kj]
                        [-X <rpc-timeout>]
```

Where:

<timemark-timestamp>	The timestamp of the TimeMark to rollback to in the following format: YYYYMMDDhhmmss
<comment>	An alternative for specifying the TimeMark timestamp. Either <timemark-timestamp> or <comment> has to be specified. If the TimeView virtual device exists for the TimeMark that will be removed as the result of the rollback, an error will be returned.
<data-timestamp-sec> + <data-timestamp-usec>	An option to specify the timestamp up to microsecond instead of the TimeMark timestamp to rollback the data to if Continuous Data Protection (CDP) option is enabled for the virtual device or the snapshot group if the virtual device is in a TimeMark group enabled with CDP. The format for <data-timestamp-sec> is YYYYMMDDhhmmss and the value for <data-timestamp-usec> is a number between 0 and 999999. A TimeMark prior to the specified data timestamp has to be available to rollback the data to.
<source-vdev>	Specify to roll back the TimeMark of the virtual device, <group-id> or <group-name> to roll back the TimeMark for all the resources in the Snapshot Group.
-iv (--include-timeview-data)	An option to roll back to the TimeView data.
-kt (--keep-timemarks)	An option to keep the TimeMarks later than the rollback TimeMark. If SafeCache or CDP is enabled, SafeCache / CDP should be suspended and flushed for this option.

-dj (--discard-journal-changes) and -kj (--keep-journal-changes)	Options to explicitly discard or keep CDP journal changes when there are unflushed data in the CDP journal. The default is to discard CDP journal changes if the option is not specified. The option can only be specified for single device rollback and the device must have CDP enabled.
-X (--rpc-timeout)	An option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

isscli gettimemark

This command allows you to get a TimeMark.

Syntax

parameters can be specified in switch or long name format:

```
isscli gettimemark [--server-name=<server-name>
  --server-username=<username> --server-password=<password>]
  [--target-username=<target-username>
  --target-password=<target-password>]
  --source-vdevid=<source-vdevid> |
  --group-id=<group-id>
  --group-name=<group-name>
  [--longlist
  [--get-status-from-primary | --no-status-from-primary]]
  [--rpc-timeout=<rpc-timeout>]
```

```
isscli gettimemark [-s <server-name> -u <username> -p <password>]
  [-U <target-username> -P <target-password>]
  -v <source-vdevid> | -g <group-id> | -G <group-name>
  [-l [-a | -na]]
  [-X <rpc-timeout>]
```

Where:

<source-vdevid>	Specify to enumerate the TimeMark Information of the virtual device, <group-id> or <group-name> to enumerate the TimeMark information for all the resource the Snapshot Group.
-l (--longlist)	An option to display the TimeMark information in long format.
-a (--get-status-from-primary)	An option to get timemark status from primary if the timemark is a replica timemark.

-na (--no-status-from-primary)	An option not to get timemark status from primary if the timemark is a replica timemark. If neither options are specified, timemark status will be retrieved from primary for VSS timemarks.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli settimemarkproperties

This command allows you to set TimeMark properties.

Syntax

parameters can be specified in switch or long name format:

```
isscli settimemarkproperties [--server-name=<server-name>
    --server-username=<username> --server-password=<password>]
    --source-vdevid=<source-vdevid>
    --group-id=<group-id> |
    --group-name=<group-name>
    [--max-timemark-count=<max-timemark-count>]
[--automatic-timemark-schedule=<automatic-timemark-schedule>
    [--initial-time=<initial-time>]
    --timemark-interval=<#[H|M]>]]
    [--notification-frequency=<frequency>]]
    [--retention-policy-mode=<mode>]
    [--most-recent=<most-recent> |
    --retention-all=<#[H|D]>
--retention-hourly=<#(Days)> --hourly-minute=<hourlyMinute> |
    --retention-daily=<#(Days)> --daily-hour=<dailyHour> |
    --retention-weekly=<#(Weeks)> --weekly-dow=<weeklyDOW> |
--retention-monthly=<#(Months)> --monthly-day=<monthlyDay>]
    [--cdp-option=<on|off>
    [--size-mb=<#(MB)>]
    [--selectioncriteria=<device selection criteria>]
    [--scsiaddress=<ACSL>|
    --storage-pool-id=<storage-pool-id>|
    --storage-pool-name=<storage-pool-name>] |
    --custom-method=<custom-mode>|
    --custom-layout=<custom-layout>]
    [--discard-journal-changes | --keep-journal-changes]]
    [--replicate-new-tm=<on|off>]
    [--disable-mirror]
    [--threshold=<threshold>
    --increment=<increment> [--max-size=<max-size-mb>]]
    [--cdp-preferred-duration=<cdp-coverage-period>]
    [--cdp-performance-level=<performance-level>]
```

```
--vdev-list=<vdev-list>
[--rpc-timeout=<rpc-timeout>]
```

```
isscli settimemarkproperties [-s <server-name> -u <username> -p
<password>]
```

```
-v <source-vdev-id> |
  -g <group-id> | -G <group-name>
[-C <max-timemark-count>]
[-A <automatic-timemark-schedule>
  [[-I <initial-time>] -i <#[H|M]>]]
[-q <frequency>]]
[-rp <mode>]
[-mr <most-recent> |
  -ra <#[H|D]>
  -rh <#Days> -hm <hourlyMinute>
  -rd <#Days> -dh <dailyHour>
  -rw <#Weeks> -wd <weeklyDOW>
  -rm <#Months> -md <monthlyDay> ]
[-D <on|off>
  [[-m <sizeMB>
  [-t <selection-criteria>]
[-a <ACSL>|-sp <storage-pool-id>|-SP <storage-pool-name>] |
  -M <custom-mode>|
  -L <custom-layout>]
  [-dj | -kj]]
[-RNTM <on|off> ]
[-dmi]
  [-h <threshold> -c <increment> [-Z <max-size-mb>]]
[-R <cdp-coverage-period>]
[-F <performance-level>]
-J [vdev-list]
[-X <rpc-timeout>]
```

Where:

<max-timemark-count>

The max. TimeMarks to keep before purging. The range is between 1 and 1000.

TimeMarks can be taken automatically at a specified interval starting from the default or specified initial date/time.

<automatic-timemark-schedule>

One of the following values:

on

off

Set <automatic-timemark-schedule> to on to schedule TimeMark creation automatically.

<code><--replicate-new-tm></code>	<p>One of the following values:</p> <ul style="list-style-type: none"> on off <p>Trigger replication after TimeMark is created by the scheduler or user when replication is enabled. If safeCache or CDP is enabled, replication will be triggered when cache marker is flushed.</p>
<code>-dmi (--disable-mirror)</code>	<p>The option to skip remote mirror creation in a stretched cluster environment.</p>
<code><timemark-interval></code>	<p>The option for a specified interval in Hours(H) or Minutes(M). e.g. 2H, 120M. The minimum interval is 10 minutes (10M). <code><start-time></code> is no longer supported, but the system will not generate the error if the option is specified to be backward compatible.</p>
<code><initial-time></code>	<p>An option for the interval to specify the initial date and time in the format of MM-DD-YYYY hh:mm to start the first interval. Please enclose the initial time with double quotes, e.g. "07-27-2005 12:00". The valid year is between 2000 and 2127. If <code><initial-time></code> is not set with the interval, it will be default to midnight of today.</p>
<code>-T (--timemark-time)</code>	<p>No longer supported. The option can be replaced with an initial date/time and a 24-hour interval.</p>
<code><automatic-timemark-schedule></code>	<p>Set to off if you do not want to schedule the automatic TimeMark creation. <code><initial-time></code> and <code><timemark-interval></code> will be ignored if <code><automatic-timemark-schedule></code> is set to off.</p>
<code>-q (--notification-frequency)</code>	<p>An option to specify how often to trigger the snapshot notification for the scheduled TimeMarks when snapshot notification is enabled in the snapshot policy.</p>
<code>-D (--cdp-option)</code>	<p>An option for Continuous Data Protection (CDP) with the following values:</p> <ul style="list-style-type: none"> on off (default) <p>A CDP journal resource has to be created when CDP option is enabled. The minimum size required for CDP journal is 1GB.</p> <p>If the size of CDP journal Resource is not specified with <code>-m (--size-mb)</code> option, the default size is 1GB (1024MB).</p>
<code>-a (--scsiaddress), -sp (--storage-pool-id), -SP (storage-pool-name)</code>	<p>Can be specified to determine the physical devices for allocation.</p>
<code>-M (--custom-method) and -L (--custom-layout)</code>	<p>Options for specific physical layout. Please refer to the usage of <code>createvdev</code> command for details.</p>
<code><selection-criteria></code>	<p>One of the values:</p> <ul style="list-style-type: none"> different-adapter different-drive any-drive.

`-dj` (`--discard-journal-changes`) and `-kj` (`--keep-journal-changes`)

Options to explicitly discard or keep CDP journal changes when disable CDP journal. The default is to keep CDP journal changes if the option is not specified.

Minimum TimeMarks required for CDP is 4. To ensure the continuous coverage, you should maintain total number of TimeMarks to be continuous coverage period / scheduled interval plus 1.

`-J` (`--vdev-list`)

An option to set timemark properties in batch mode. enter the vid of resources and separate each of them by comma.

CDP journal resource can be expanded automatically when the space is running low. The following properties can be specified for auto-expansion:

`-R` (`--cdp-coverage-period`)

An option to be used in conjunction with threshold to trigger auto-expansion when data kept in the journal hasn't exceeded the coverage period yet. Specify number of days between 1 and 30 days, or number of hours between 1 and 24 hours. e.g. 7D is 7 days, 5H is 5 hours. The default `cdp-coverage-period` is 1 day. Earlier journal will be deleted if neither auto-expansion policy is specified.

`-F` `<performance-level>`

An advanced option to set the level to determine how aggressive the system is when updating the data. Aggressive update facilitates the update, but involve higher overhead and might impact the system performance. It can be one of the following values:
Moderate (default)
Aggressive

`<threshold>`

A percentage of the space used to determine if more space is needed. The default is 50% if it is not specified. The threshold range is between 50% and 75%. You can specify the threshold value with or without %.

`-c` (`--increment`)

Can be either percentage or size in MB. e.g. 10% or 100MB. The default is 20% if it's not specified. Specify either 0MB or 0% if you do not want to set the automatic expansion.

`<max-size-mb>`

The option for the maximum size allowed to be allocated for the CDP journal Resource in MB. It only takes effect when auto-expansion is performed and should only be specified when the increment size is configured.

<code>-rp(--retention-policy-mode)</code>	<p>An option for Timemark Retention Policy with the following values:</p> <ul style="list-style-type: none"> All MostRecent (Default) Rule <p>This option is only available on server version 7.0 or later.</p> <p>"All" mode allows to keep as many timemarks as this system can support.</p> <p>"MostRecent" mode allows to keep up to the number of most recent timemarks user specified.</p> <p>"Rule" mode allows to keep timemarks base on the rules user specified.</p>
<code>-mr(--most-recent)</code>	<p>An option for "MostRecent" mode to specify the number of most recent timemark to be preserved.</p>
<p>The following options are available for "Rule" mode:</p>	
<code>-ra(--retention-all)</code>	<p>An option to specify the duration in the past to keep all timemarks, which can be in Hours(H), or Days(D). e.g. 2H for 2 hours, 5D for 5 days.</p> <p>Specify 0 to disable this option. The range is 1H-168H or 1D-365D.</p>
<code>-rh(--retention-hourly)</code>	<p>An option to specify days in the past to keep hourly timemarks. The range is between 0 and 365.</p>
<code>-rd(--retention-daily)</code>	<p>An option to specify days in the past to keep daily timemarks. The range is between 0 and 730.</p>
<code>-rw(--retention-weekly)</code>	<p>An option to specify weeks in the past to keep weekly timemarks. The range is between 0 and 110.</p>
<code>-rm(--retention-monthly)</code>	<p>An option to specify months in the past to keep monthly timemarks. The range is between 0 and 120.</p>
<code>hm(--hourly-minute),</code> <code>-dh(--daily-hour),</code> <code>-wd(--weekly-dow)</code> <code>-md(--monthly-day)</code>	<p>Options to specify the closest time and/or date for each timemark to be preserved.</p> <p>Here are the range of the values:</p> <ul style="list-style-type: none"> • minute of the hour: 0-59 • hour of the day: 0-23 • day of the week: Mon, Tue, Wed, Thu, Fri, Sat, Sun • day of the month: 1-31 <p>e.g. <code>-hm 55 -dh 22 -wd Mon -md 30</code></p>
<code>-X (--rpc-timeout)</code>	<p>Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>

isscli gettimemarkproperties

This command allows you to get TimeMark properties.

Syntax

parameters can be specified in switch or long name format:

```
isscli gettimemarkproperties [--server-name=<server-name>
                             --server-username=<username> --server-password=<password>]
                             --source-vdevid=<source-vdevid> |
                             --group-id=<group-id>
                             --group-name=<group-name>
                             [--rpc-timeout=<rpc-timeout>]
```

```
isscli gettimemarkproperties [-s <server-name> -u <username> -p
<password>]
                             -v <source-vdevid> | -g <group-id> | -G <group-name>
                             [-X <rpc-timeout>]
```

Where:

<source-vdevid>	Specify to get the TimeMark policy of the virtual device, <group-id> or <group-name> to get the TimeMark policy for the Group.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli gettimemarkstatus

This command allows you to get the status of a TimeMark.

Syntax

parameters can be specified in switch or long name format:

```
isscli gettimemarkstatus [--server-name=<server-name>
    --server-username=<username>
    --server-password=<password>]
    --source-vdev-id=<vdev-id>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli gettimemarkstatus [-s <server-name> -u <username> -p <password>]
    -v <vdev-id>
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli createtimeview

This command allows you to create a TimeView.

Syntax

parameters can be specified in switch or long name format:

```
isscli createtimeview [--server-name=<server-name>
    --server-username=<username>
    --server-password=<password>]
    --source-vdev-id=<vdev-id>
    --timemark-timestamp=<timemark-timestamp> [--async-loading] |
    --comment=<comment> [--async-loading] |
    --data-timestamp-sec=<data-timestamp-sec>
    --data-timestamp-usec=<data-timestamp-usec> |
    --cdp-journal-tag=<cdp-journal-tag>
    [--timeview-size-mb=#(MB) > |
    --timeview-storage-pool-id=<timeview-storage-pool-id> |
    --timeview-storage-pool-name=<timeview-storage-pool-name> |
    --timeview-scsiaddress=<timeview-ACSL> |
    --custom-method=<custom-mode> |
    --custom-layout=<custom-layout>]
    [--force]
```



```

[--vdevname=<vdevname>]
[--guid=<guid>]
[--new-disk-signature]
[--allow-discardable-changes | --no-discardable-changes]
[--cache-ration=<cache-ratio> |
--size-mb=<#(MB)>]
[--scsiaddress=<ACSL> |
--storage-pool-id=<storage-pool-id> |
--storage-pool-name=<storage-pool-name>]
[--wait-seconds=<wait-seconds>
--check-interval=<interval-seconds>
[--verbose]]
[--threshold=<threshold>]
[--timeview-increment=<increment>
[--max-size=<max-size>]]
[--disable-mirror]
[--enable-instant-timeview-copy [--include-timeview-data
[--validate-timeview-usage [--usage-size-mb=<#(MB)>]]]]
[--rpc-timeout=<rpc-timeout>]

```

```

isscli createtimeview [-s <server-name> -u <username> -p <password>]
-v <source-vdevid>
-t <timemark-timestamp> [-al] |
-c <comment> [-al] |
-T <data-timestamp-sec> -m <data-timestamp-usec> |
-A <cdp-journal-tag>
[-tvm <#(MB)> | -ts <timeview-storage-pool-id> |
-TS <timeview-storage-pool-name> | | -tvI <timeview-ACSL> |
-M <custom-mode> | -L <custom-layout>] [-f]
[-n <vdevname>]
[-i <guid>] [-o <mount-option>] [-N]
[-a | -na]
[-C <cache-ratio> | -mm <sizeMB>]
[-I <ACSL> | -sp <storage-pool-id> | -SP <storage-pool-name>]
[-w <wait-seconds> -l <interval-seconds> [-b]]
[-h <threshold>]
[-tc <increment> [-Z <max-size-mb>]]
[-dmi]
[-ec [-iv [-tvu [-um <#(MB)>]]]]
[-X <rpc-timeout>]

```

Where:

<timemark-timestamp>	The timestamp of the TimeMark for creating the TimeView from in the following format: YYYYMMDDhhmmss
<comment>	An alternative for specifying the TimeMark timestamp. Either <timemark-timestamp> or <comment> has to be specified to create a TimeView without CDP option.

-al (--async-loading)	An option to load TimeView data after TimeView is configured to allow multiple concurrent TimeView creation. TimeView loading status can be checked with getvdevlist command to ensure it's ready for assignment.
<data-timestamp-sec> + <data-timestamp-usec>	An option to specify the timestamp up to microsecond instead of the TimeMark timestamp to mount the TimeView to if Continuous Data Protection (CDP) option is enabled for the virtual device or the snapshot group if the virtual device is in a TimeMark group enabled with CDP. The format for <data-timestamp-sec> is YYYYMMDDhhmmss and the value for <data-timestamp-usec> is a number between 0 and 999999.
<cdp-journal-tag>	The tag created using the createcdpjournaltag command. The timestamp associated with the tag will be used when a valid tag is specified. A TimeMark prior to the specified data timestamp has to be available to create the TimeView.
-tvm (--timeview-size-mb)	An option to specify the timeview data resource size in MB.
-tvI (--timeview-scsiaddress), -ts (--timeview-storage-pool-id), and -TS (--timeview-storage-pool-name)	Can be specified to determine the physical devices for timeview resource allocation.
-M (--custom-mode) and -L (--custom-layout)	Options for specific physical segments. It can be a list or a file enclosed in <> containing physical segment in each line.
-f (--force)	An option to create a new timeview if the existing timeview data resource is not usable.
-dmi (--disable-mirror)	The option to skip remote mirror creation in a stretched cluster environment.
-n (--vdevname)	The option to specify the TimeView device name. The maximum length of the TimeView device name is 64.
<guid>	An option to specify a unique guid to be used for the TimeView resource in the following format xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx e.g. c0a80166-0000-25ad-43f7-dfe975f563e8
-N (--new-disk-signature)	An option to change the disk signature.
-a (--allow-discardable-changes)	An option to allow the new changes to TimeView to be discarded when TimeView is removed.
The following options can be specified with -a	
(--allow-discardable-changes)	Option to create a cache resource to keep the discardable changes. Cache resource size can be specified with -mm (--size-mb) or -C (--cache-ratio) option.

<code>-mm (--size-mb)</code>	The option to specify the size in MB.
<code>-C (--cache-ratio)</code>	An option to specify the size in the percentage of the TimeView resource size. The default size is 20% if neither <code>-mm</code> option nor <code>-C</code> option is specified.
<code>-I (--scsiaddress), -sp (--storage-pool-id), and -SP (storage-pool-name)</code>	Can be specified to determine the physical devices for cache resource allocation. Cache resource will be created by default when the specified TimeMark is a VSS TimeMark with persisted TimeView data.
<code>-na (--no-discardable-changes)</code>	Can be specified not to create the default Cache resource.

The following options are for TimeView created from CDP journal only:

<code>-w</code>	An option to wait for the entire operation to be completed up to the specified time in seconds. 0 means no timeout.
<code>-l <interval-seconds></code>	An option to specify the interval to check the copying status.
<code>-b</code>	An option for verbose mode to display the waiting status. Here are the examples: 1) <code>-w 3600 -l 1 -b</code> Wait up to one hour for journal data copying after TimeView is created; check the progress every second and display the status. 2) <code>-w 0 -l 2</code> Wait until the journal data copying is completed; check the progress every 2 seconds without displaying the status.

The following parameters are options for server version 7.0 or later.

<code><threshold></code>	A percentage of the space used to trigger the automatic expansion. The default is 50% if it is not specified. The threshold range is between 1% and 99%.
<code><increment></code>	The option for automatic expansion. It can be either percentage or size in MB. e.g. 10% or 100MB.
<code><max-size-mb></code>	The option for the maximum size allowed to be allocated for the Timeview Resource in MB. It only takes effect when auto-expansion is performed and should only be specified when the increment size was configured or will be configured.

The following parameters are options for server version 7.5:

<code>-ec (--enable-instant-timeview-copy)</code>	The option that allows user to copy TimeView to a new virtual device while TimeView is assigned to client.
<code>-iv (--include-timeview-data)</code>	An option that existing TimeView data will be copied to the new TimeView. TimeView size is not allowed to change when creating TimeView from a TimeMark with existing TimeView data. The original TimeView size will be used.

-tvu (--validate-timeview-usage)	An option to validate TimeView data usage against the upper limit when copy capability is specified and TimeView data is included.
-um (--usage-size_mb)	An additional option to be specified in MB with -tvu (--validate-timeview-usage) option as upper limit for TimeView usage size instead of the default size.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli remaptimeview

This command allows you to remap a TimeView.

Syntax

parameters can be specified in switch or long name format:

```
isscli remaptimeview [--server-name=<server-name>
  --server-username=<username>
  --server-password=<password>]
--vdevid=<vdevid>
--timemark-timestamp=<timemark-timestamp> |
--comment=<comment> |
--data-timestamp-sec=<data-timestamp-sec>
  --data-timestamp-usec=<data-timestamp-usec>]
--cdp-journal-tag=<cdp-journal-tag>
[--vdevname=<vdevname>]
[--force [--storage-pool-id=<storage-pool-id>|
  --storage-pool-name=<storage-pool-name>|
  --scsiaddress=<ACSL>]]
[--rpc-timeout=<rpc-timeout>]

isscli remaptimeview [-s <server-name> -u <username> -p <password>]
-v <vdevid>
-t <timemark-timestamp> |
-c <comment> |
-T <data-timestamp-sec> -m <data-timestamp-usec>
-A <cdp-journal-tag>
[-n <vdevname>]
[-f [-sp <storage-pool-id> |-SP <storage-pool-name>|
  -I <ACSL>]]
[-X <rpc-timeout>]
```

Where:

<code><vdevid></code>	The id of the TimeView to be remapped.
<code><timemark-timestamp></code>	The new timestamp of the TimeMark to remap the TimeView to in the following format: YYYYMMDDhhmmss
<code><comment></code>	An alternative for specifying the TimeMark timestamp. Either <code><timemark-timestamp></code> or <code><comment></code> has to be specified to create a TimeView without CDP option.
<code><data-timestamp-sec> + <data-timestamp-usec></code>	An option to specify the timestamp up to microsecond instead of the TimeMark timestamp to mount the TimeView to if Continuous Data Protection (CDP) option is enabled for the virtual device or the snapshot group if the virtual device is in a TimeMark group enabled with CDP. The format for <code><data-timestamp-sec></code> is YYYYMMDDhhmmss and the value for <code><data-timestamp-usec></code> is a number between 0 and 999999.
<code><cdp-journal-tag></code>	The tag created through the <code>createcdpjournaltag</code> command. The timestamp associated with the tag will be used when a valid tag is specified. A TimeMark prior to the specified data timestamp has to be available to create the TimeView.
<code>-n (--vdevname)</code>	The option to specify the new TimeView device name. The maximum length of the TimeView device name is 64.
<code>-f (--force)</code>	An option to create a new timeview if the existing timeview resource is not usable.
<code>-I (--scsiaddress) -sp (--storage-pool-id), and -SP (--storage-pool-name)</code>	Can be specified to determine the physical devices for timeview resource allocation.
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli flushtimeviewchanges

This command allows you to flush TimeView changes to the next marker.

Syntax

parameters can be specified in switch or long name format:

```
isscli flushtimeviewchanges [--server-name=<server-name>
                             --server-username=<username>
                             --server-password=<password>]
                             --vdevid=<vdevid> [--force]
                             [--rpc-timeout=<rpc-timeout>]
```

```
isscli flushtimeviewchanges [-s <server-name> -u <username> -p
                              <password>]
                              -v <vdevid> [-f]
                              [-X <rpc-timeout>]
```

Where:

- | | |
|--------------------|--|
| -f (--force) | Allows timeview changes to be flushed without a marker when the cache is too full to create a marker. However, a new marker should be created after changes are flushed, otherwise, new changes will continue to be flushed. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli gettimeviewcachemarkers

This command allows you to get TimeView cache markers.

Syntax

parameters can be specified in switch or long name format:

```
isscli gettimeviewcachemarkers [--server-name=<server-name>
                                 --server-username=<username>
                                 --server-password=<password>]
                                 --vdevid=<vdevid>
                                 [--rpc-timeout=<rpc-timeout>]
```

```
isscli gettimeviewcachemarkers [-s <server-name> -u <username> -p
                              <password>]
                              -v <vdevid>
                              [-X <rpc-timeout>]
```

Where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli createtimeviewcachemarker

This command allows you to create a TimeView cache marker.

Syntax

parameters can be specified in switch or long name format:

```
isscli createtimeviewcachemarker [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
--vdevid=<vdevid>
[--rpc-timeout=<rpc-timeout>]
```

```
isscli createtimeviewcachemarker [-s <server-name>
-u <username> -p <password>]
-v <vdevid>
[-X <rpc-timeout>]
```

Where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli settimeviewproperties

This command allows you to set TimeView properties.

Syntax

```
isscli settimeviewproperties [--server-name=<server-name>
                             --server-username=<username> --server-password=<password>]
                             --vdev-id=<timeview-vid>
                             [--threshold=<threshold>]
                             [--increment=<increment> | --timeview-increment=<increment>]
                             [--max-size=<max-size>]
                             [--rpc-timeout=<rpc-timeout>]
```

```
isscli settimeviewproperties [-s <server-name> -u <username> -p
                              <password>]
                              -v <timeview-vid>
                              [-h <threshold>] [-c <increment> | -tc <increment>]
                              [-Z <max-size-mb>]
                              [-X <rpc-timeout>]
```

Where:

<timeview-vid>	Specify to set the Timeview Policy of the timeview device.
<threshold>	A percentage of the space used to trigger the automatic expansion. The default is 50% if it is not specified. The threshold range is between 1% and 99%.
<increment>	The option for automatic expansion. It can be either percentage or size in MB. e.g. 10% or 100MB.
<max-size-mb>	The option for the maximum size allowed to be allocated for the Timeview Resource in MB. It only takes effect when auto-expansion is performed and should only be specified when the increment size was configured or will be configured.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli gettimeviewproperties

This command allows you to get TimeView properties.

Syntax

parameters can be specified in switch or long name format:

```
isscli gettimeviewproperties [--server-name=<server-name>
                             --server-username=<username> --server-password=<password>]
                             --vdevid=<timeview-vid>
                             [--rpc-timeout=<rpc-timeout>]
```

```
isscli gettimeviewproperties [-s <server-name> -u <username> -p
                              <password>]
                              -v <timeview-vid>
                              [-X <rpc-timeout>]
```

Where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli removetimeviewdata

This command allows you to remove TimeView data resources.

Syntax

parameters can be specified in switch or long name format:

```
isscli removetimeviewdata [--server-name=<server-name>
                           --server-username=<username> --server-password=<password>]
                           --vdevid=<vdevid> | --guid=<guid>
                           [--rpc-timeout=<rpc-timeout>]
```

```
isscli removetimeviewdata [-s <server-name> -u <username> -p <password>]
                           -v <vdevid> | -i <guid>
                           [-X <rpc-timeout>]
```

Where:

Timeview data resources can be removed individually or by source virtual devices. Specify source virtual device id to remove corresponding Timeview data resources for the virtual device, or specify Timeview data resource guid to remove specific Timeview data resource.

-X (--rpc-timeout) Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli gettimeviewdata

This command allows you to get TimeView data.

Syntax

parameters can be specified in switch or long name format:

```
isscli gettimeviewdata [--server-name=<server-name>
                        --server-username=<username> --server-password=<password>]
                        [--vdevid=<vdevid>]
                        [--rpc-timeout=<rpc-timeout>]
```

```
isscli gettimeviewdata [-s <server-name> -u <username> -p <password>]
                        [-v <vdevid>]
                        [-X <rpc-timeout>]
```

Where:

<vdevid> Specify to enumerate the Timeview data resource information of the source virtual device.

-X (--rpc-timeout) Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli converttimeview

This command allows you to convert a TimeView.

Syntax

parameters can be specified in switch or long name format:

```
isscli converttimeview [--server-name=<server-name>
                        --server-username=<username>
                        --server-password=<password>]
                        --source-vdevid=<vdevid>
```

```

--timemark-timestamp=<timemark-timestamp>
--guid=<guid>
[--timeview-size-mb=<#(MB)> |
--timeview-storage-pool-id=<timeview-storage-pool-id>|
--timeview-storage-pool-name=<timeview-storage-pool-name>|
--timeview-scsiaddress=<timeview-ACSL>|
--custom-method=<custom-mode> |
--custom-layout=<custom-layout>]
[--threshold=<threshold>]
[--timeview-increment=<increment>
[--max-size=<max-size>]]
[--rpc-timeout=<rpc-timeout>]

```

```

isscli converttimeview [-s <server-name> -u <username> -p <password>]
-v <source-vdev>
-t <timemark-timestamp>
-i <guid>
[-tvm <#(MB)> | -ts <timeview-storage-pool-id> |
-TS <timeview-storage-pool-name> | | -tvI <timeview-ACSL> |
-M <custom-mode> | -L <custom-layout>]
[-h <threshold>]
[-tc <increment> [-Z <max-size-mb>]]
[-X <rpc-timeout>]

```

Where:

<vdev>	The vid or the source virtual device of the TimeView.
<timemark-timestamp>	The timestamp of the TimeMark associated with the timeview to be converted in the following format: YYYYMMDDhhmmss
<guid>	The TimeView guid required for conversion in the following format xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx e.g. c0a80166-0000-25ad-43f7-dfe975f563e8
-tvm (--timeview-size-mb)	An option to specify the timeview data resource size in MB.
-tvI (--timeview-scsiaddress), -ts (--timeview-storage-pool-id), and -TS (--timeview-storage-pool-name)	Can be specified to determine the physical devices for timeview resource allocation.
-M (--custom-mode) and -L (--custom-layout)	Options for specific physical segments. It can be a list or a file enclosed in <> containing physical segment in each line.
<threshold>	A percentage of the space used to trigger the automatic expansion. The default is 90% if it is not specified. The threshold range is between 1% and 99%.

<code><increment></code>	The option for automatic expansion. It can be either percentage or size in MB. e.g. 10% or 100MB.
<code><max-size-mb></code>	The option for the maximum size allowed to be allocated for the Timeview Resource in MB. It only takes effect when auto-expansion is performed and should only be specified when the increment size was configured or will be configured.
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli gettimeviewconversioninfo

This command allows you to get TimeView conversion info.

Syntax

```
isscli gettimeviewconversioninfo [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
[--source-vdevid=<vdevid>]
[--long-list]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli gettimeviewconversioninfo [-s <server-name> -u <username> -p
<password>]
[-v <source-vdevid>] [-l]
[-X <rpc-timeout>]
```

Where:

<code><vdevid></code>	An optional parameter to get the information for the specified source virtual device only.
<code>-l (--long-list)</code>	An option to print out the information in long format.
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli updatetimeviewconversioninfo

This command allows you to trigger TimeView conversion information update server if TimeView conversion information is available.

Syntax

parameters can be specified in switch or long name format:

```
isscli updatetimeviewconversioninfo [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli updatetimeviewconversioninfo [-s <server-name> -u <username> -p
<password>]
[-X <rpc-timeout>]
```

Where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli starttimeviewcopy

This command allows you to start a TimeView copy.

Syntax

parameters can be specified in switch or long name format:

```
isscli starttimeviewcopy [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
--source-vdevid=<vdevid>
[--size-mb=<#(MB)>|--timeview-copy-sectors=<timeview-copy-
sectors>]
[--provision-watermark=<provision-watermark>]
[--increment=<increment>]]
[--scsiaddress=<ACSL> |
--storage-pool-id=<storage-pool-id> |
--storage-pool-name=<storage-pool-name>]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli starttimeviewcopy [-s <server-name> -u <username> -p <password>]
-v <source-vdevid>
[-cr <#(MB)>|-CR <timeview-copy-sectors>]
```

```
[-wm <provision-watermark>] [-cr <increment>]]  
[-I <ACSL> | -sp <storage-pool-id> | -SP <storage-pool-name>]  
[-X <rpc-timeout>]
```

Where:

-cr (--size-mb) and -CR (--timeview-copy-sectors)	Options for thin provisioning in the range of 10% and 99% of the thin disk size. The minimum disk size for thin provisioning is 10GB. The initial allocation size of the timeview copy can be specified in MB or number of sectors.
<provision-watermark>	The available size left in MB to determine if more space should be allocated. The default is 1024MB.
-cr (--increment)	The size to be incremented when more storage is needed. It can be either percentage or size in MB. e.g. 10% or 100MB. The default is 1024MB if it is not specified.
-I (--scsiaddress)	An option to specify a specific physical device to allocate the space. ACSL=#:#:# (adapter:channel:id:lun)
-sp (storage-pool-id) or -SP (storage-pool-name)	Can be specified to allocate the space from the physical devices in the storage pool for the timeview copy when the -I option is not specified.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli stoptimeviewcopy

This command allows you to stop a TimeView copy.

Syntax

parameters can be specified in switch or long name format:

```
isscli stoptimeviewcopy [--server-name=<server-name>  
--server-username=<username>  
--server-password=<password>]  
--source-vdevid=<vdevid>  
[--rpc-timeout=<rpc-timeout>]
```

```
isscli stoptimeviewcopy [-s <server-name> -u <username> -p <password>]  
-v <source-vdevid>  
[-X <rpc-timeout>]
```

Where:

-X (--rpc-timeout) Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli repairtimeviewcopy

This command allows you to repair a TimeView copy.

Syntax

```
isscli repairtimeviewcopy [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
--source-vdevid=<vdevid>
[--size-mb=<#(MB)>|--timeview-copy-sectors=<timeview-copy-
sectors>
--provision-watermark=<provision-watermark>]
[--increment=<increment>]]
[--scsiaddress=<ACSL> |
--storage-pool-id=<storage-pool-id> |
--storage-pool-name=<storage-pool-name>]
[--rpc-timeout=<rpc-timeout>]

isscli repairtimeviewcopy [-s <server-name> -u <username> -p <password>]
-v <source-vdevid>
[-cr <#(MB)>|-CR <timeview-copy-sectors>
[-wm <provision-watermark>] [-cr <increment>]]
[-I <ACSL> | -sp <storage-pool-id> | -SP <storage-pool-name>]
[-X <rpc-timeout>]
```

Where:

-cr (--size-mb) and -CR (--timeview-copy-sectors) Options for thin provisioning in the range of 10% and 99% of the thin disk size. The minimum disk size for thin provisioning is 10GB. The initial allocation size of the timeview copy can be specified in MB or number of sectors.

<provision-watermark> The available size left in MB to determine if more space should be allocated. The default is 1024MB.

-cr (--increment) The size to be incremented when more storage is needed. It can be either percentage or size in MB. e.g. 10% or 100MB. The default is 1024MB if it is not specified.

-I (--scsiaddress) An option to specify a specific physical device to allocate the space.
ACSL=#:#:# (adapter:channel:id:lun)

-sp (storage-pool-id) or -SP (storage-pool-name)	Can be specified to allocate the space from the physical devices in the storage pool for the timeview copy when the -I option is not specified.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli retrytimeviewcopy

This command allows you to retry a TimeView copy.

Syntax

parameters can be specified in switch or long name format:

```
isscli retrytimeviewcopy [--server-name=<server-name>
                        --server-username=<username>
                        --server-password=<password>]
                        --source-vdevid=<vdevid>
                        [--rpc-timeout=<rpc-timeout>]
```

```
isscli retrytimeviewcopy [-s <server-name> -u <username> -p <password>]
                        -v <source-vdevid>
                        [-X <rpc-timeout>]
```

Where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli promotetimeviewcopy

This command allows you to promote a TimeView copy.

Syntax

parameters can be specified in switch or long name format:

```
isscli promotetimeviewcopy [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
--source-vdevid=<vdevid>
[--rpc-timeout=<rpc-timeout>]
```

```
isscli promotetimeviewcopy [-s <server-name> -u <username> -p <password>]
-v <source-vdevid>
[-X <rpc-timeout>]
```

Where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli gettimeviewcopystatus

This command allows you to get TimeView copy status.

Syntax

parameters can be specified in switch or long name format:

```
isscli gettimeviewcopystatus [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
--source-vdevid=<vdevid>
[--rpc-timeout=<rpc-timeout>]
```

```
isscli gettimeviewcopystatus [-s <server-name> -u <username> -p
<password>]
-v <source-vdevid>
[-X <rpc-timeout>]
```

Where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli setretentionschedule

This command allows you to set a retention schedule.

Syntax

parameters can be specified in switch or long name format:

```
isscli setretentionschedule [--server-name=<server-name>
                             --server-username=<username> --server-password=<password>]
                             --start-time=<start-time>
                             [--rpc-timeout=<rpc-timeout>]
```

```
isscli setretentionschedule [-s <server-name>
                             -u <username> -p <password>]
                             -st <start-time>
                             [-X <rpc-timeout>]
```

Where:

<start-time>	Required to specify the time to start TimeMark Retention every day. The format for <start-time> is HH:MM, e.g. "21:00".
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

Server Configuration

isscli getserverconfiginfo

This command allows you to get the server configuration information including Configuration Repository, Meta Data Repository and failover partner server information if the server is configured for Active-Active failover setup or as failover secondary server in Active-Passive failover setup.

Syntax

```
isscli getserverconfiginfo --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    [--physical-layout|--long-physical-layout]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getserverconfiginfo -s <server-name>
    [-u <username> -p <password>]
    [-a|-A]
    [-X <rpc-timeout>]
```

where:

-a(--physical-layout) or -A(--long-physical-layout)	Is the option to display the physical layout of the Configuration Repository and Meta Data Repository.
-X (--rpc-timeout)	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getserverversion

This command allows you to view the storage version and build number.

Syntax

```
isscli getserverversion --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getserverversion -s <server-name> [-u <username> -p <password>]
    [-X <rpc-timeout>]
```

where:

<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
---------------------------------	--

isscli getserverlocation

This command allows you to view the Memory Gateway location information.

Syntax

```
isscli getserverlocation --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getserverlocation -s <server-name> [-u <username> -p <password>]
    -im <imageFilename>
    [-X <rpc-timeout>]
```

where:

<code>-im <imageFilename></code>	JPEG file to identify the server location.
<code>-X (--rpc-timeout)</code>	Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setreplicationthrottles

This command allows you to configure the throttle level for target sites, windows, or at the device level. Can accept a file (i.e. target throttle conf file). The path of the file in the command must be the full path.

Syntax

```
isscli setreplicationthrottles --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --target-site-id=<target-site-id> |
    --target-site-name=<target-site-name> |
    --replica-server-list=<replica-server-list>
    --link-type=<link-type>
    --default-throttle=<def-throttle%>
    [--window-throttle=<window-throttle-list>]
    --target-throttle-conf-file=<target-throttle-conf-file>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setreplicationthrottles -s <server-name>
```

```

[-u <username> -p <password>]
-ts <target-site-id> | -Ts <target-site-name> |
-rs <replica-server-list>
-lt <link-type> -dt <def-throttle%>
[-wt <window-throttle-list>]
-tf <target-throttle-conf-file>
[-X <rpc-timeout>]

```

where:

-ts <target-site-id>	Can be specified for replication throttle to be modified.
-Ts <target-site-name>	
-rs (--replica-server-list)	If target site is not specified, -rs(--replica-server-list) can be specified for replication throttle to be modified.
-lt <link-type>	Specify the network link type to be used.
-dt <def-throttle>	Specify the throttle percentage for the time period which is not used by active throttle windows.
-wt <window-throttle-list>	Specify a list of window throttles separated by comma, each window throttle is in following format: throttleWindowID=throttlePercentage where -1 can be used in throttlePercentage if the throttle window needs to be removed from the replication throttle. Example: 1=50,2=-1,3=0
-tf <target-throttle-conf-file>	File that contains replication throttle information in each line.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setserverlocation

This command allows you to set the location of the server. At least one parameter should be specified for the update.

Syntax

```

isscli setserverlocation --server-name=<server-name>
  [--server-username=<username> --server-password=<password>]
  [--location=<location>]
  [--room=<room>]
  [--floor=<floor>]
  [--building=<building>]
  [--address=<address>]
  [--city=<city>]
  [--state=<state>]
  [--zipcode=<zipcode>]
  [--country=<country>]

```

```
    [--owner=<owner>]
    [--ownerphone=<ownerPhone>]
    [--owneremail=<ownerEmail>]
    [--ownerim=<ownerIM>]
    [--description=<description>]
    [--imagefile=<imageFilename>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setserverlocation -s <server-name> [-u <username> -p <password>]
    [ -lo <location>
    -ro <room>
    -fl <floor>
    -bu <building>
    -ad <address>
    -ci <city>
    -st <state>
    -zi <zipcode>
    -co <country>
    -ow <owner>
    -owp <ownerPhone>
    -owe <ownerEmail>
    -owi <ownerIM>
    -des <description>
    -im <imageFilename>]
    [-X <rpc-timeout>]
```

where:

-lo <location>	Location
-ro <room>	Room
-fl <floor>	Floor
-bu <building>	Building
-ad <address>	Address
-ci <city>	City/Town
-st <state>	State/Province
-zi <zipcode>	Zip/Postal Code
-co <country>	Country
-ow <owner>	Owner
-owp <ownerPhone>	Owner's Phone
-owe <ownerEmail>	Owner's Email

<code>-owi <ownerIM></code>	Owner's IM
<code>-des <description></code>	Description
<code>-im <imageFilename>]</code>	Specify an image file to identify the server location. The image must be smaller than 500KB image, and the file format must be JPEG.
<code>[-X <rpc-timeout>]</code>	Option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

isscli setserveripaddresses

This command allows you to set alternate server IP addresses for SAN client connections.

Syntax

```
isscli setserveripaddresses --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --ip-addresses=<ip-addresses>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setserveripaddresses -s <server-name>
    [-u <username> -p <password>]
    -ip <ip-addresses>
    [-X <rpc-timeout>]
```

where:

<code>-ip <ip-addresses></code>	Specify a list of alternate server IP addresses separated by comma with the <code>-ip</code> (<code>--ip-addresses</code>) option. For example: <code>-ip -ip 192.168.0.1, 192.168.0.2</code>
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setautosaveconfiguration

This command allows you to enter information to save your Memory Gateway system configuration for journaling purposes. This option cannot be used to restore your system configuration.

Syntax

```
isscli setautosaveconfiguration server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --enable=<on/off> [--ftp-server-name=<ftp-server-name>]
    [--ftp-port=<ftp-port>]
    [--target-directory=<target-directory>]
    [--username=<username> --password=<password>]
    [--interval=<#[D|H|M]>]
    [--number-of-copies=<#(copies)>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setautosaveconfiguration -s <server-name>
    [-u <username> -p <password>]
    -e <on/off> [-AT <ftp-server-name>] [-pt <ftp-port>]
    [-td <target-directory>]
    [-AU <username> -AP <password>]
    [-i <#[D|H|M]>] [-n <#(copies)>]
    [-X <rpc-timeout>]
```

where:

-e (--enable)	Required to specify enable or disable auto save configuration file. It can be specified with the following values: on (enable) off (disable)
-AT (--ftp-server-name)	Required to specify the target server if it is to enable auto save configuration from a disabled state. It is optional if it is for update.
-p (--ftp-port)	Option to specify the ftp port, default value is 21.
-td (--target-directory)	Option to specify the target directory.
-AU (--username)	Required to automatically save a configuration to FTP.
-AP (--password)	They are optional for update.
-i (--interval)	Option for a specified interval in Days (D), Hours (H), or Minutes (M). The valid values for Days (D) are: 1, 2, 3, 4, 5, 6, 7. The valid values for Hours (H) are: 1, 2, 3, 4, 6, 8, 12, 24. The valid values for Minutes (M) are: 5, 6, 10, 12, 15, 20, 30, 60. e.g. 1D, 3H, 10M. The default interval is 1 day.

`-n (--number-of-copies)`

Option to specify the number of copies, maximum number of copies is 100. The default is 1.

`-X (--rpc-timeout)`

Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

Network Configuration

Use the "isscli setservernetconfig" command if you need to modify network parameters. Use the "isscli getservernetconfig" command to get (show) network configuration. See [isscli setservernetconfig](#) on page 260 and [isscli getservernetconfig](#) on page 259.

If for some reason, Concerto is not up and running, use the `networkconfig.sh` commands to modify network parameters.

networkconfig.sh sethostname

Syntax

```
networkconfig.sh sethostname <old-hostname> <new-hostname>
```

networkconfig.sh gethostname

This command allows you to get the host name.

Syntax

```
networkconfig.sh gethostname
```

networkconfig.sh setdomainname

This command allows you to set the domain name.

Syntax

```
networkconfig.sh setdomainname <domain-name>
```

networkconfig.sh getdomainname

This command allows you to get the domain name.

Syntax

```
networkconfig.sh getdomainname
```

networkconfig.sh getappenddomain

This command allows you to get the append domain name.

Syntax

```
networkconfig.sh getappenddomain <domain-name>
```

networkconfig.sh setappenddomain

This command allows you to set the append domain name.

Syntax

```
networkconfig.sh setappenddomain <domain-name>
```

networkconfig.sh deletedomainname

This command allows you to delete the domain name.

Syntax

```
networkconfig.sh deletedomainname
```

networkconfig.sh getdnscount

This command allows you to get the DNS count.

Syntax

```
networkconfig.sh getdnscount
```

networkconfig.sh getdns

This command allows you to set the DNS number.

Syntax

```
networkconfig.sh getdns
```

networkconfig.sh setdns

This command allows you to set the DNS number.

Syntax

```
networkconfig.sh setdns <dns-ip-1> ...
```

networkconfig.sh deletedns

This command allows you to delete the DNS name.

Syntax

```
networkconfig.sh deletedns
```

networkconfig.sh setdefaultgateway

This command allows you to set the default gateway.

Syntax

```
networkconfig.sh setdefaultgateway <gateway-ip>
```

networkconfig.sh getdefaultgateway

This command allows you to get the default gateway.

Syntax

```
networkconfig.sh getdefaultgateway
```

networkconfig.sh rmgateway

Syntax

```
networkconfig.sh rmgateway
```

networkconfig.sh getpts

Syntax

```
networkconfig.sh getpts
```

networkconfig.sh settelnet

This command allows you to set the telnet to yes or no.

Syntax

```
networkconfig.sh settelnet <yes|no>
```

networkconfig.sh gettelnet

Syntax

```
networkconfig.sh gettelnet
```

networkconfig.sh setftp

Syntax

```
networkconfig.sh setftp <yes|no>
```

networkconfig.sh getftp

Syntax

```
networkconfig.sh getftp
```

networkconfig.sh getntpcount

This command allows you to get the NTP count.

Syntax

```
networkconfig.sh getntpcount
```

networkconfig.sh getntp

This command allows you to get the NTP values.

Syntax

```
networkconfig.sh getntp
```

networkconfig.sh setntp

This command allows you to set NTP values.

Syntax

```
networkconfig.sh setntp <ntp-1> ...
```

networkconfig.sh deletentp

This command allows you to delete the NTP value.

Syntax

```
networkconfig.sh deletentp
```

networkconfig.sh gettimezonelist

This command allows you to get the list of time zones.

Syntax

```
networkconfig.sh gettimezonelist
```

networkconfig.sh gettimezone

This command allows you to get the local time zone.

Syntax

```
networkconfig.sh gettimezone
```

networkconfig.sh settimezone

This command allows you to set the time zone value.

Syntax

```
networkconfig.sh settimezone <time-zone>
```

networkconfig.sh getniccount

This command allows you to get the NIC count.

Syntax

```
networkconfig.sh getniccount
```

networkconfig.sh getnicname

This command allows you to get the NIC name of a specific NIC number.

Syntax

```
networkconfig.sh getnicname <nic-number>
```

networkconfig.sh getnic

This command allows you to get the IP address of a specific NIC.

Syntax

```
networkconfig.sh getnic <nic-name>
```

networkconfig.sh setnic

This command allows you to set NIC values.

Syntax

```
networkconfig.sh setnic <nic-name> <yes|no for DHCP> <mtu> <interface-  
count> <1st-interface-number> <1st-interface-ip> [<1st-interface-  
netmask> <2nd-interface-number> <2nd-interface-ip> <2nd-interface-  
netmask> . . .]
```

networkconfig.sh isvalidnic

This command checks the validity of a specific NIC.

Syntax

```
networkconfig.sh isvalidnic <nic-name>
```

networkconfig.sh nic

This command creates a file (/etc/sysconfig/network-scripts/nic.info) containing the list of all interface names.

Syntax

```
networkconfig.sh nic
```

Example:

```
[root@violin-mga ~]# networkconfig.sh nic

[root@violin-mga ~]#
[root@violin-mga ~]# cat /etc/sysconfig/network-scripts/nic.info
ifcfg-eth1
ifcfg-eth2
ifcfg-eth2.10
ifcfg-eth2:0
ifcfg-rep0
ifcfg-rep0
ifcfg-sci0
[root@violin-mga ~]#
```

networkconfig.sh mtu

This command returns the Maximum Transmission Unit (the largest size packet or frame that can be sent) of the specified network interface card in bytes.

Syntax

```
networkconfig.sh mtu <nic-name>
```

Example:

```
[root@violin-mga ~]# networkconfig.sh mtu eth2
1500
[root@violin-mga ~]#
```

networkconfig.sh initialize

This command creates a temporary blank file (`/usr/local/concerto/etc/snmp/__snmpd_tmp`). The file is used for temp snmpd operations. It is removed by “`networkconfig.sh finalize`”.

Syntax

```
networkconfig.sh initialize
```

Example:

```
[root@violin ~]# ls /usr/local/concerto/etc/snmp/__snmpd_tmp
ls: cannot access /usr/local/concerto/etc/snmp/__snmpd_tmp: No such file
or directory
[root@violin ~]#
[root@violin ~]# networkconfig.sh initialize

[root@violin ~]#
[root@violin ~]# ls /usr/local/concerto/etc/snmp/__snmpd_tmp
/usr/local/concerto/etc/snmp/__snmpd_tmp
[root@violin ~]#
```

networkconfig.sh finalize

This command does the following:

- Updates the DHCP_HOSTNAME in files: `ifcfg-ethX`
- Updates `/etc/hosts`
- Updates `/etc/HOSTNAME`
- Updates `/etc/sysconfig/network`
- Updates `/usr/local/ipstor/etc/snmp/snmpd.conf`
- Removes the temp snmpd files created by the “`networkconfig.sh initialize`” command

Syntax

```
networkconfig.sh finalize
```

networkconfig.sh restart 1 1 1

This command can take up to three arguments (with values = 1). If only one argument is specified, only the network is restarted.

- Command executed internally: /etc/init.d/network restart
The second argument specifies to restart the telnet & FTP services
- Command executed internally: /etc/init.d/xinetd restart
The third argument restarts the network time server
- Command executed internally : service ntpd restart

Syntax

```
networkconfig.sh restart 1 1 1
```

networkconfig.sh getroute

This command shows the network routing table of a system.

Syntax

```
networkconfig.sh getroute <running|config> <nic-name>
```

networkconfig.sh updaterroute

This command updates the network routing table of a system.

Syntax

```
networkconfig.sh updaterroute <add|del> <nic-name>  
<ip|subnet (10.5.12.8|10.5.12.0/24)> <gw(10.5.12.1|0)>
```

Email Alerts Configuration

isscli enablecallhome

This command allows you to enable the Email Alerts option. To set up Email Alerts, you must specify the configuration of the SMTP server, as well as alert email configurations.

Syntax

```
isscli enablecallhome --server-name=<server-name>
  [--server-username=<username>
  --server-password=<password>]
  --smtp-server=<smtp-server> [--smtp-port=<smtp-port>]
  [--smtp-username=<smtp-username>] [--smtp-password=<smtp-password>]
  --email-from=<email-from>
  --email-to=<email-to> --email-subject=<email-subject>
  --alert-interval=<alert interval>
  [ --alert-level=<alert-level>]
  [--rpc-timeout=<rpc-timeout>]
```

```
isscli enablecallhome -s <server-name>
  [-u <username> -p <password>]
  -ss <smtp-server> [-spt <smtp-port>]
  [-su <smtp-username>] [-spd <smtp-password>]
  -mf <email-from> -mt <email-to> -ms <email-subject>
  -ai <alert-interval> [-al <alert-level>]
  [-X <rpc-timeout>]
```

where:

-ss (--smtp-server)	Specify the name of the SMTP server.
-spt (--smtp-port)	Option to specify SMTP port. It defaults to '25' if not specified.
-su (--smtp-username)	Options to specify an SMTP username and its password.
-spd (--smtp-password)	
-mf (--email-from)	Represent 'from', 'to' and 'subject' fields of the alert email.
-mt (--email-to)	
-ms (--email-subject)	
-ai (--alert-interval)	Required parameter that specifies the interval for alert email to be received. It has following format: DD:HH:MM, meaning the interval unit of Day:Hour:Minute.

<code>-al (--alert-level)</code>	<p>Option to filter server events. Through this option, you can select events to be received based on event severity level. The available options are:</p> <ul style="list-style-type: none"> • None: no alert email will be received; (default) • Critical: only Critical events will be received; • Error: only events with severity Error and above will be received; • Warning: only events with severity Warning and above will be received; • Information: events with level Information and above will be received.
<code>-X (--rpc-timeout)</code>	<p>Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>

isscli disablecallhome

This command allows you to disable the Email Alerts option.

Syntax

```
isscli disablecallhome --server-name=<server-name>
                        [--server-username=<username> --server-password=<password>]
                        [--rpc-timeout=<rpc-timeout>]
```

```
isscli disablecallhome -s <server-name> [-u <username> -p <password>]
                        [-X <rpc-timeout>]
```

where:

<code>-X (--rpc-timeout)</code>	<p>Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>
---------------------------------	---

isscli getcallhomeproperties

This command displays the current callhome configuration.

Syntax

```
isscli getcallhomeproperties [--server-name=<server-name>
                             --server-username=<username>
                             --server-password=<password>] [--longlist]
                             [--rpc-timeout=<rpc-timeout>]
```

```
isscli getcallhomeproperties [-s <server-name> -u <username> -p
<password>] [-l]
                             [-X <rpc-timeout>]
```

where:

-l (--longlist)	is the option to display the long format.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setcallhomeproperties

This command allows you to update the Email Alerts configuration. You can modify the configuration of the SMTP server and email alerts.

Syntax

```
isscli setcallhomeproperties [--server-name=<server-name>
                             --server-username=<username> --server-password=<password>]
                             [--smtp-server=<smtp-server>] [--smtp-port=<smtp-port>]
                             [--smtp-username=<smtp-username>]
                             [--smtp-password=<smtp-password>]
                             [--email-from=<email-from>] [--email-to=<email-to>]
                             [--email-subject=<email-subject>]
                             [--alert-interval=<alert interval>]
                             [--alert-level=<alert-level>]
                             [--rpc-timeout=<rpc-timeout>]
```

```
isscli setcallhomeproperties [-s <server-name> -u <username>
-p <password>]
[-ss <smtp-server>] [-spt <smtp-port>] [-su <smtp-username>]
[-spd <smtp-password>]
[-mf <email-from>] [-mt <email-to>] [-ms <email-subject>]
[-ai <alert-interval>] [-al <alert-level>]
```

`[-X <rpc-timeout>]`

where:

<code>-ss <smtp-server></code>	Update the name of the SMTP server.
<code>-spt <smtp-port></code>	Option to specify SMTP port. It defaults to '25' if not specified.
<code>-su <smtp-username></code> <code>-spd <smtp-password></code>	Options to specify an SMTP username and password.
<code>-mf <email-from></code> <code>-mt <email-to></code> <code>-ms <email-subject></code>	Represent 'from', 'to' and 'subject' fields of the alert email.
<code>-ai <alert-interval></code>	Required parameter that specifies the interval for alert email to be received. It has following format: DD:HH:MM, meaning the interval unit of Day:Hour:Minute.
<code>-al <alert-level></code>	Option to filter server events. Through this option, you can select events to be received based on the severity level of the event. The available options are: <ul style="list-style-type: none">• <code>None</code>: no alert email will be received; (default)• <code>Critical</code>: only Critical events will be received• <code>Error</code>: only events with severity Error and above will be received• <code>Warning</code>: only events with severity Warning and above will be received• <code>Information</code>: events with level Information and above will be received
<code>-X <rpc-timeout></code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli disabletrigger

This command disables a trigger.

Syntax

```
isscli disabletrigger --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    --command=<command>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli disabletrigger -s <server-name> [-u <username> -p <password>] -cd  
<command>  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)

Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

-cd (--command)

Specific trigger to be disabled.
Use 'isscli gettriggers' to see list of configurable triggers.

isscli enabletrigger

This command enables a specific trigger.

Syntax

```
isscli enabletrigger --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    [--command=<command>] [--argument=<arguments>] [--  
subject=<subject>]  
    [--email=<email>]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli enabletrigger -s <server-name> [-u <username> -p <password>]  
    -cd <command> [-a <argument>] [-sb <subject>] [-e <email>]  
    [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|--|
| -X (--rpc-timeout) | Is an option to specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |
| -cd (--command) | Is the specific trigger to be enabled. Use 'isscli gettriggers' to see list of configurable triggers. |
| -a (--argument) | Is the required arguments for the specific trigger. If there are multiple arguments, enclose them within double quotes. |
| -sb (--subject) | Is the subject of the e-mail alert for the trigger. |
| -e (--email) | Is the e-mail address to which you want the notification to be sent. |

isscli gettriggers

This command displays a list of all configurable triggers.

Syntax

parameters can be specified in switch or long name format:

```
isscli gettriggers [--server-name=<server-name>
                  --server-username=<username> --server-password=<password>]
[--verbose] [--longlist] [--command=<command>]
                  [--rpc-timeout=<rpc-timeout>]
```

```
isscli gettriggers [-s <server-name> -u <username> -p <password>] [-b]
[-l] [-cd <command>]
                  [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|---|
| -b (--verbose) | Use this option only if you want to see a lengthy description of all triggers. Omit it for easy readability of configurable trigger options. |
| -l (--longlist) | Is the option to display the long format. |
| -cd (--command) | Specific trigger to be displayed. |
| -X (--rpc-timeout) | Is an option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified. |

isscli setemailsignature

This command sets e-mail signatures.

Syntax

```
isscli setemailsignature --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    [--signature=<signature>]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setemailsignature -s <server-name> [-u <username> -p <password>] -  
sig <signature>  
    [-X <rpc-timeout>]
```

Set email signature.

Set the signature for every email alert received:

-sig (--signature) Multiple line signature with each line separated by the '|' character.

Enclose the signature entry option within double quotes.

For example: -sig "Admin | Company| Phone ".

Omit the -sig option if you do not want to add a signature.

configtriggers.sh enable

This command enables a specified trigger for e-mail alerts.

Syntax

```
configtriggers.sh enable <trigger-name>
```

where:

<trigger-name>

Name of the trigger you want to enable. Use the configtriggers.sh show command to display the available triggers and their current enabled/disabled status.

configtriggers.sh disable

This command disables a specified e-mail alerts trigger.

Syntax

```
configtriggers.sh disable <trigger-name>
```

where:

<trigger-name>

Name of the trigger you want to disable. Use the configtriggers.sh show command to display the available triggers and their current enabled/disabled status.

configtriggers.sh show

This command displays the available triggers and their current enabled/disabled status.

Syntax

```
configtriggers.sh show
```

Failover

isscli getfailoverstatus

This command shows you the current status of your failover configuration. It also shows all failover settings, including which IP addresses are being monitored for failover.

Syntax

```
isscli getfailoverstatus --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getfailoverstatus -s <server-name>  
    [-u <username> -p <password>]  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli resumefailover

This command allows you to resume failover.

Failover option can only be resumed from the failover secondary server. Specify the secondary server name or IP address to resume the failover option. <username> MUST be "root".

If [--update-status-only] is set, server will skip the scripts to resume fm.

Syntax

parameters can be specified in switch or long name format:

```
isscli resumefailover [--server-name=<server-name>  
    --server-username=<username>  
    --server-password=<password>]  
    [--update-status-only]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli resumefailover [-s <server-name> -u <username> -p <password>] [-O]  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli rescanfoprimaryfornearline

This command should only be executed from failover secondary server when it is in failover state and ready to fail back to the primary server, and if Near-line Mirroring is configured on the primary server for at least one resource.

The server can only be 127.0.0.1 to connect to the local server to check the failover configuration and status first. The primary server will be connected through the heartbeat IP for rescan if necessary based on the checking results.

Syntax

parameters can be specified in switch or long name format:

```
isscli rescanfoprimaryfornearline [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli rescanfoprimaryfornearline [-s <server-name>
-u <username> -p <password>]
[-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli starttakeover

This command manually initiates failover to the secondary controller.

parameters can be specified in switch or long name format:

```
isscli starttakeover [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli starttakeover [-s <server-name> -u <username> -p <password>]
[-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli stoptakeover

This command manually forces control back to the primary controller once failover has occurred.

parameters can be specified in switch or long name format:

```
isscli stoptakeover [--server-name=<server-name>
                   --server-username=<username>
                   --server-password=<password>]
                   [--rpc-timeout=<rpc-timeout>]
```

```
isscli stoptakeover [-s <server-name> -u <username> -p <password>]
                   [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli retrievescilatency

This command allows you to retrieve SCI latency from the failover server.

Syntax

parameters can be specified in switch or long name format:

```
isscli retrievescilatency [--server-name=<server-name>
                          --server-username=<username> --server-password=<password>]
                          [--rpc-timeout=<rpc-timeout>]
```

```
isscli retrievescilatency [-s <server-name> -u <username> -p <password>]
                          [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli enableha

This command allows you to enable High Availability for two Memory Gateways using a pre-configuration file.

Loopback IP address will be replaced with real IP address to set up HA.

Syntax

parameters can be specified in switch or long name format:

```
isscli enableha [--server-name=<primary server-name>
                --server-username=<primary username>
                --server-password=<primary password>
                --secondary-name=<secondary server-name>
                --secondary-username=<secondary username>
                --secondary-password=<secondary password>
                [--powercontrol-username=<powercontrol username>
                --powercontrol-password=<powercontrol password>
                --secondary-powercontrol-username=<secondary powercontrol
username>
                --secondary-powercontrol-password=<secondary powercontrol
password>
                --allow-restart]
                [--rpc-timeout=<rpc-timeout>]

isscli enableha [-s <primary server-name>
                -u <primary username> -p <primary password>
                -S <secondary server-name> -U <secondary username> -P
<secondary password>
                [-pcu <powercontrol username> -pcp <powercontrol password>
                -scu <secondary powercontrol username> -scp <secondary
powercontrol password>
                -ar]
                [-X <rpc-timeout>]
```

where:

-pcu (--powercontrol-username)	The power control user name.
-pcp (--powercontrol-password)	The power control password.
-scu (--secondary-powercontrol-username)	Enter if it is different from primary one.
-scp (--secondary-powercontrol-password)	Enter if it is different from primary one.
-ar (--allow-restart)	Allow restart of the secondary server for resolution of configuration conflict.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli disableha

This command allows you to disable High Availability.

Syntax

```
isscli disableha --server-name=<primary server-name>  
                --server-username=<primary username>  
                --server-password=<primary password>  
                --secondary-name=<secondary server-name>  
                --secondary-username=<secondary username>  
                --secondary-password=<secondary password>  
                [--rpc-timeout=<rpc-timeout>]
```

```
isscli disableha -s <primary server-name>  
                -u <primary username> -p <primary password>  
                -S <secondary server-name>  
                -U <secondary username> -P <secondary password>  
                [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

cfghaprecfg.sh

This command opens the HA Preconfiguration Editor, which is used to manually configure HA. See the *XVS Installation Guide* for instructions on editing the file.

Note: HA must be disabled before using this script.

Syntax

```
cfghaprecfg.sh
```

isscli updatepeerpowercontrol

This command updates the server with its HA peer's power access information.

Syntax

parameters can be specified in switch or long name format:

```
isscli updatepeerpowercontrol [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
--powercontrol-username=<powercontrol username>
--powercontrol-password=<powercontrol password>
[--rpc-timeout=<rpc-timeout>]
```

```
isscli updatepeerpowercontrol [-s <server-name>
-u <username> -p <password>]
-pcu <powercontrol-username>
-pcp <powercontrol-password>
[-X <rpc-timeout>]
```

where:

- pcu (--powercontrol-username) Enter peer's power control access user name.
- pcp (--powercontrol-password) Enter peer's power control access password.
- X (--rpc-timeout) Is an option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

sms

Use this command to check failover status of the array.

Syntax

```
sms
```

Reports and Logs

isscli enablelogupload

This command enables log upload services.

Syntax

Parameters can be specified in switch or long name format:

```
isscli enablelogupload --server-name=<server-name>
  [--server-username=<username> --server-password=<password>]
  [--log-protocol=<log-protocol>]
  [--log-site=<log-site>] [--log-dir=<log-dir>] [--log-url=<log-url>]
  [--log-user=<log-user>] [--log-pwd=<log-pwd>] [--log-email=<log-email>]
  [--log-email-split-size=<log-email-split-size>]
  [--rpc-timeout=<rpc-timeout>]

isscli enablelogupload -s <server-name> [-u <username> -p <password>]
  [-lp <log-protocol>] [-ls <log-site>] [-ld <log-dir>] [-url <log-url>]
  [-usr <log-user>] [-pwd <log-pwd>] [-le <log-email>] [-ess <log-email-
  split-size>]
  [-X <rpc-timeout>]
```

To set up automatic upload of log files, the following options can be configured:

where:

- | | |
|-------------------------------|---|
| -lp (--log-protocol) | Set the protocol use, which can be one of:
email: Upload the logs as email attachments.
ftp: Upload the logs using passive-mode FTP.
ftp-epsv: Upload the logs using extended-passive-mode FTP.
http: Upload the logs using HTTP.
https: Upload the logs using Secure HTTP.
scp: Upload the logs using SCP. |
| -ls (--log-site) | Specifies the remote site for uploading logs. |
| -ld (--log-dir) | Sets the remote directory for uploading logs. |
| -url (--log-url) | Specifies the remote URL for uploading logs. |
| -le (--log-email) | Is the email address for log upload to remote storage. |
| -usr (--log-user) | Specifies the username used to log in to the remote server. |
| -pwd (--log-pwd) | Specifies the password used to log in to the remote server. |
| -ess (--log-email-split-size) | Upload email split size between (0-20) MB. |
| -X (--rpc-timeout) | Is an option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified. |

isscli disablelogupload

This command disables log upload services.

Syntax

Parameters can be specified in switch or long name format:

```
isscli disablelogupload --server-name=<server-name>  
                        [--server-username=<username> --server-password=<password>]  
                        [--rpc-timeout=<rpc-timeout>]
```

```
isscli disablelogupload -s <server-name> [-u <username> -p <password>]  
                        [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout) Is an option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

isscli setactivitylogoptions

This command allows you to set log options.

Syntax

```
isscli setactivitylogoptions --server-name=<server-name>  
                             [--server-username=<username> --server-password=<password>]  
                             [--max-file-size=<#MB>] [--days-to-keep=<#(days)>]  
                             [--rpc-timeout=<rpc-timeout>]
```

```
isscli setactivitylogoptions s <server-name>  
                             [-u <username> -p <password>]  
                             [-ms <#MB>] [-d <#(days)>]  
                             [-X <rpc-timeout>]
```

where:

-ms (--max-file-size) Set the maximum activity data file size in MB.

-d (--days-to-keep) Set the number of days of activities to keep.

-X (--rpc-timeout) Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

Snapshot Copy

isscli snapcopy

This command allows you to issue a snapshot copy between two virtual devices of the same size.

Syntax

```
isscli snapcopy --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>--source-vdevid=<source vdevid>
    [--create-snapshot-resource
    [--snapshot-storage-pool-id=<snapshot-storage-pool-id>|
    --snapshot-storage-pool-name=<snapshot-storage-pool-name>]]
    [--target-vdevid=<target vdevid> |
    [--vdevname=<vdevname>]
    [--scsiaddress=<ACSL> |
    --storage-pool-id=<storage-pool-id> |
    --storage-pool-name=<storage-pool-name>] |
    --custom-method=<custom-mode>|
    --custom-layout=<custom-layout>]]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli snapcopy -s <server-name> [-u <username> -p <password>]
    -v <source vdevid>
    [-o [-ss <snapshot-storage-pool-id>|
    -SS <snapshot-storage-pool-name>]]
    [-V <target vdevid> | [-n <vdevname>]
    [-I <ACSL>|-sp <storage-pool-id>|-SP <storage-pool-name>] |
    -M <custom-mode>|
    -L <custom-layout>]]
    [-X <rpc-timeout>]
```

where:

- | | |
|------------------------------------|---|
| -o (--create-snapshot-resource) | Option to allow the system to create the snapshot resource for the source disk when it's not created yet. |
| -ss (--snapshot-storage-pool-id) | Options to specify the storage pool to allocate space for the snapshot resource. |
| -SS (--snapshot-storage-pool-name) | |

-V <target vdevid>

If the <target vdevid> is not specified, a new virtual device will be created with either the default name or the virtual device name specified with -n option.

The maximum length of the virtual device name is 64.

The following characters are invalid for the SAN Resource name: <>"&\$\'

Note that these characters are special characters that most of the systems interpret with a different meaning before the program receives it. Spaces are allowed for the SAN Resource name, but leading and trailing spaces will be removed.

If the SAN Resource name contains any spaces, it is necessary to enclose the name with double quotes.

-I (--scsiaddress)

Determine the physical devices for allocation.

-sp (--storage-pool-id)

-SP (storage-pool-name)

-M (--custom-method)

Options for specific physical layout. Refer to the usage of the createvdev command for details.

-L (--custom-layout)

The <custom-method> and <custom-layout> options cannot be specified when the -m or -l option is specified.

-X (--rpc-timeout)

Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getsnapcopystatus

This command allows you to obtain the status of a snapshot copy.

Syntax

```
isscli getsnapcopystatus --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --source-vdev=<vdev>  
    [--rpc-timeout=<rpc-timeout>] [--disable-mirror]
```

```
isscli getsnapcopystatus -s <server-name> [-u <username> -p <password>]  
    -v <vdev>  
    [-X <rpc-timeout>] [-dmi]
```

where:

- | | |
|-------------------------|--|
| -dmi (--disable-mirror) | Skip the remote mirror creation in a stretched cluster environment. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

Physical Device

isscli getpdevinfo

This command provides you with physical device information.

Syntax

```
isscli getpdevinfo --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    [--config [--include-system-info | --category=<category>]] |
    [--allocated-list
    --available-list | --device-with-no-data-segment]
    [--scsiaddress=<ACSL>] [--category=<category>]]
    [--output-format=<output-format>]
    [--list-by-storage-pool]
    [--storage-pool-id=<storage-pool-id> |
    --storage-pool-name=<storage-pool-name>]
    [--localstorage]
    [--rpc-timeout=<rpc-timeout>]

isscli getpdevinfo -s <server-name> [-u <username> -p <password>]
    [-F [-M | -C <category>]] |
    [[-a] [-A | -wA] [-I <ACSL>] [-C <category>]]
    [-o <output-format>]
    [-L <list-by-storage-pool>]
    [-sp <storage-pool-id> | -SP <storage-pool-name>]
    [-l]
    [-X <rpc-timeout>]
```

where:

-F (--config)	Option to get the physical device configuration information. The default is to exclude the system device information.
-M (--include-system-info)	Option to include the system device information.
<category>	Option to be used as a filter to get the information for the specified category in one of the values except for <ACSL> option: virtual (default) or service-enabled The -M (--include-system-info) and <category> options are mutually exclusive.
<output-format>	For the -F (--config) option is one of the following values: list detail guid scsi

-a (--allocated-list)	Get the allocated physical device information.
-A (--available-list)	Get the available physical device information.
-wA (--devices-with-no-data-segment)	Get the physical devices that do not contain any data segments.
<ACSL>	SCSI address to be specified as a device filter in the following format: <ACSL>=#:##:## (adapter:channel:id:lun)
<output-format>	For the -a (--allocated-list) and the -A (--available-list) options is one of the following values: list detail size-only -F (--config) and (-a (--allocated-list) and/or (-A (--available-list))) are mutually exclusive. You can either get the configuration information or get the allocation information. When getting the allocation information, you can specify either -a (--allocated-list), or -A (--available-list) or both. The default is to display both the device allocation and availability information if none of the options is specified. -wA (--devices-with-no-data-segment) and -A (--available-list) are mutually exclusive also.
-L (--list-by-storage-pool)	List the physical device information by storage pool. Storage pools can also be specified to get the physical device information for the storage pool. If <ACSL> is specified, the storage pool information will be ignored.
-l (--localstorage)	Get local storage physical devices. If not specified, the default is to show none local storage physical device information.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getadapterinfo

This command allows you to obtain HBA information on a selected adapter.

Syntax

parameters can be specified in switch or long name format:

```
isscli getadapterinfo [--server-name=<server-name>
  --server-username=<username>
  --server-password=<password>]
  [--adapter=<adapter>] [--sns-info] [--binding-info]
  [--output-format=<output-format>]
  [--rpc-timeout=<rpc-timeout>]
```

```
isscli getadapterinfo [-s <server-name> -u <username> -p <password>]
  [-a <adapter>] [-N] [-B]
  [-o <output-format>]
  [-X <rpc-timeout>]
```

where:

-a (--adapter)	Get specific adapter information
-N (--sns-info)	Get SNS information.
-B (--binding-info)	Get persistent binding information.
-o (--output-format)	Option for output format in one of the following values: list (default) or detail.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli createstoragepool

This command creates a storage pool.

Syntax

parameters can be specified in switch or long name format:

```
isscli createstoragepool [--server-name=<server-name>
  --server-username=<username> --server-password=<password>]
  --storage-pool-name=<storage-pool-name>
  [--physical-devices=<physical-devices>]
  [--app-tag=<app-tag>] [--resource-list=<resource-list>]
  [--alloc-block-size=<alloc-block-size>]
  --storage-attribute=<primary|remote> --remote-
pool=<remotePoolID>
```

`[--rpc-timeout=<rpc-timeout>]`

```
isscli createstoragepool [-s <server-name> -u <username> -p <password>]
                        -SP <storage-pool-name>
                        [-D <physical-devices>]
                        [-t <app-tag>] [-R <resource-list>]
                        [-as <alloc-block-size>]
                        [-sa <primary | remote>] -rp<remotePoolID>
                        [-X <rpc-timeout>]
```

where:

-SP <storage-pool-name>	Unique storage pool name.
-D <physical-devices>	Either a list of SCSI addresses separated by comma, or a file enclosed in <> containing SCSI address of the physical device in each line in the following format: adapter:channel:scsi-id:lun e.g. 99:0:1:0 99:0:1:1 example 1: -D 99:0:1:0,99:0:1:1,99:0:1:2 example 2: -D "<phydev_list_file.txt>" The device category for all the physical devices in the storage pool must be the same.

The <physical-devices> can be a list of SCSI addresses separated by a comma, or a file enclosed in <> containing SCSI address of the physical device in each line in the following format:

adapter:channel:scsi-id:lun

e.g.

99:0:1:0

99:0:1:1

example 1: -D 99:0:1:0,99:0:1:1,99:0:1:2

example 2: -D "<phydev_list_file.txt>"

The device category for all the physical devices in the storage pool must be the same.

-R <resource-list>	<p>The <resource-list> is used to restrict resource type(s) that can be created on this storage pool in the combination of the following values:</p> <ul style="list-style-type: none"> Storage Snapshot Cache Journal CDR VirtualHeader Configuration TimeView (supported for server version 7.0 or later) ThinProvisioning (supported for server version 7.0 or later) or "All" to include all the resource types. <p>The default is to enable all the resource types, which means there is no restriction.</p> <p>The resource types can be a list separated by a comma, or a file enclosed in <> containing resource type in each line.</p> <p>e.g.</p> <ul style="list-style-type: none"> Storage Snapshot <p>example 1: -R Storage,Cache,CDR example 2: -R "<res_list_file.txt>" example 3: -R All</p>
-t <app-tag>	<p>An optional advanced feature for customized allocation management from the client side. When an application requests storage with a specific tag string, only the storage pools with the same tag can be used. If no tag is specified, any pool can be used. Multiple tags should be entered with a semicolon (;) as a separator.</p>
-as <alloc-block-size>	<p>The virtual device allocation block size in GB. The valid sizes are 1, 2, 4, 8, 16, 32, 64, 128, 256 GB. The allocation block size can be specified with or without unit.</p> <p>e.g.</p> <ul style="list-style-type: none"> 16 16 GB <p>Allocation block size will be disabled if the option is not specified.</p>
-sa <Storage Attribute>	<p>Can be either Primary or Remote e.g -sa primary or -sa remote.</p>
-rp <remote-pool-ID>	<p>Remote pool ID should be the ID of a storage pool with remote storage attribute.</p>
-X (--rpc-timeout)	<p>Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>

isscli deletestoragepool

This command allows you to delete a storage pool.

Syntax

```
isscli deletestoragepool --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    --storage-pool-id=<storage-pool-id> |  
    --storage-pool-name=<storage-pool-name>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli deletestoragepool -s <server-name> [-u <username> -p <password>]  
    -sp <storage-pool-ID> | -SP <storage-pool-name>  
    [-X <rpc-timeout>]
```

where:

-sp <storage-pool-ID>	Either the storage-pool-ID or storage-pool-name can be specified to delete the storage pool.
-SP <storage-pool-name>	
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setstoragepoolproperties

This command sets properties for a storage pool.

Syntax

```
isscli setstoragepoolproperties [--server-name=<server-name>
    --server-username=<username> --server-password=<password>]
    --storage-pool-id=<storage-pool-id>
    [--storage-pool-name=<storage-pool-name>]
    [--app-tag=<app-tag>] [--resource-list=<resource-list>]
    [--alloc-block-size=<alloc-block-size>]
    --storage-attribute=<primary|remote> --remote-
pool=<remotePoolID>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setstoragepoolproperties [-s <server-name> -u <username> -p
<password>]
    -sp <storage-pool-ID>
    [-SP <storage-pool-name>]
    [-t <app-tag>] [-R <resource-list>]
    [-as <alloc-block-size>]
    [-sa <primary | remote> -rp<remotePoolID<#>]
    [-ax -axs <diskSizeMB#>]
    [-X <rpc-timeout>]
```

where:

<storage-pool-id>	Required to specify the storage pool to be updated.
-SP <storage-pool-name>	An option to specify a different but unique storage pool name to replace the existing name.

-R <resource-list>	<p>The <resource-list> is used to restrict resource type(s) that can be created on this storage pool in the combination of the following values:</p> <ul style="list-style-type: none"> Storage Snapshot Cache Journal CDR VirtualHeader Configuration TimeView (supported for server version 7.0 or later) ThinProvisioning (supported for server version 7.0 or later) or "All" to include all the resource types. <p>The resource types can be a list separated by a comma, or a file enclosed in <> containing resource type in each line.</p> <p>e.g.</p> <ul style="list-style-type: none"> Storage Snapshot <p>example 1: -R Storage,Cache,CDR example 2: -R "<res_list_file.txt>" example 3: -R All</p>
-t <app-tag>	<p>An optional advanced feature for customized allocation management from the client side. When an application requests storage with a specific tag string, only the storage pools with the same tag can be used. If no tag is specified, any pool can be used. Multiple tags should be entered with a semicolon (;) as a separator.</p> <p>Specify NONE to remove existing <app-tag>.</p> <p>e.g. -t NONE</p>
-as <alloc-block-size>	<p>The virtual device allocation block size in GB. The valid sizes are 1, 2, 4, 8, 16, 32, 64, 128, 256 GB.</p> <p>The allocation block size can be specified with or without unit.</p> <p>e.g.</p> <ul style="list-style-type: none"> 16 16GB
-sa <Storage Attribute>	<p>Can be either Primary or Remote. e.g -sa primary or -sa remote</p>
-rp <remote-pool-ID>	<p>Remote pool ID should be ID of a storage pool with storage attribute as remote.</p>
-X (--rpc-timeout)	<p>Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>

isscli getstoragepools

This command allows you to retrieve the properties of a storage pool.

Syntax

```
isscli getstoragepools --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    [--storage-pool-id=<storage-pool-id> |
    --storage-pool-name=<storage-pool-name>]
    [--output-format=<output-format>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getstoragepools -s <server-name>
    [-u <username> -p <password>]
    [-sp <storage-pool-ID> | -SP <storage-pool-name>]
    [-o <output-format>]
    [-X <rpc-timeout>]
```

where:

-sp <storage-pool-ID>	Get the properties of a specific storage pool. The default is to display the properties of all the storage pools if neither option is specified.
-SP <storage-pool-name>	
-o <output-format>	Output option in one of the following values: list (default) detail
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli addpdevstostoragepool

This command allows you to add physical devices to the storage pool.

Syntax

```
isscli addpdevstostoragepool --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --storage-pool-id=<storage-pool-id> |
    --storage-pool-name=<storage-pool-name>
    --physical-devices=<physical-devices>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli addpdevstostoragepool -s <server-name>
    [-u <username> -p <password>]
    -sp <storage-pool-ID> | -SP <storage-pool-name>
    -D <physical-devices>
    -X <rpc-timeout>]
```

where:

-sp <storage-pool-ID>	Either storage-pool ID or storage-pool-name can be specified to add additional physical devices to the storage pool.
-SP <storage-pool-name>	
-D <physical-devices>	The physical devices can be a list of SCSI addresses separated by comma, or a file enclosed in <> containing SCSI address of the physical device in each line in the following format: adapter:channel:scsi-id:lun e.g. 99:0:1:0 99:0:1:1 example 1: -D 99:0:1:0,99:0:1:1,99:0:1:2 example 2: -D "<phydev_list_file.txt>"
-X (--rpc-timeout)	At least one physical device is required to be added to the storage pool. The device category for all the physical devices in the storage pool must be the same. Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli removepdevsfromstoragepool

This command allows you to remove physical devices from the storage pool.

Syntax

```
isscli addpdevstostoragepool --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --storage-pool-id=<storage-pool-id> |
    --storage-pool-name=<storage-pool-name>
    --physical-devices=<physical-devices>
    [--force]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli addpdevstostoragepool -s <server-name>
    [-u <username> -p <password>]
    -sp <storage-pool-ID> | -SP <storage-pool-name>
    -D <physical-devices>
    [-f]
    -X <rpc-timeout>]
```

where:

-sp <storage-pool-ID>	Either storage-pool ID or storage-pool-name can be specified to remove physical devices from the storage pool.
-SP <storage-pool-name>	
-D <physical-devices>	The physical devices can be a list of SCSI addresses separated by comma, or a file enclosed in <> containing SCSI address of the physical device in each line in the following format: adapter:channel:scsi-id:lun e.g. 99:0:1:0 99:0:1:1 example 1: -D 99:0:1:0,99:0:1:1,99:0:1:2 example 2: -D "<phydev_list_file.txt>"
-X (--rpc-timeout)	At least one physical device is required to be specified for removal. Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli rescandevices

This command allows you to rescan the physical resource(s) on the specified server to get the proper physical resource configuration.

The adapter number can be specified to rescan only the devices on that adapter. If an adapter is not specified, all adapters will be rescanned. In addition to the adapter number, you can also specify the SCSI range to be rescanned. If the range is not specified, all SCSI IDs of the specified adapter(s) will be rescanned. Furthermore, the LUN range can be specified to narrow down the rescanning range. The range is specified in this format: #-#, e.g. 1-10.

If you want the system to rescan the device sequentially, you can specify the `-L` (`--sequential`) option. The default is not to rescan sequentially.

Syntax

```
isscli rescandevices --server-name=<server-name>
    [--server-username=<username>--server-password=<password>]
    [--scan-existing-devices]
    [--read-from-inactive-path]
    [--adapter=<adapter>]
    [--scsi-range=<scsi-range>]
    [--lun-range=<lun-range> | --use-report-luns]
    [--sequential]
    [--auto-detect-fc-scsi]
    [--skip-existing-devices]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli rescandevices -s <server-name> [-u <username> -p <password>]
    [-t] [-I]
    [-a <adapter>] [-i <scsi-range>]
    [-l <lun-range> | -r] [-L] [-A] [-k]
    [-X <rpc-timeout>]
```

where:

<code>-t</code> (<code>--scan-existing-devices</code>)	Scan existing devices only. The default is to discover new devices if this option is not specified.
<code>-I</code> (<code>--read-from-inactive-path</code>)	Read the partition from inactive path when all the paths are inactive.
<code>-a</code> <adapter>	Options to be specified for discovering new devices: where <adapter> is the adapter to be rescanned. The default is to rescan all the adapters if it is not specified. <scsi-range> is the starting SCSI ID and ending SCSI ID to be rescanned. The default is to rescan all the SCSI IDs if the range is not specified. <lun-range> is the starting LUN and ending LUN to be rescanned. The <scsi-range> and <lun-range> should be specified in the following format: #-#
<code>-i</code> <scsi-range>	
<code>-l</code> <lun-range>	
<code>-r</code>	

-r (--use-report-luns)	Use report LUNs instead of the LUN ranges.
-L (--sequential)	Rescan sequentially.
-A (--auto-detect-fc-scsi)	Automatically detect Fiber Channel SCSI IDs.
-k (--skip-existing-devices)	Skip scanning the existing devices when discovering new devices.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
-lr	Specify the load resource.

isscli importdisk

This command allows you to import a foreign disk to the specified server. A foreign disk is a virtualized physical device containing logical resources previously set up on a different Memory Gateway.

If the previous server is no longer available, the disk can be set up on a new Memory Gateway and the resources on the disk can be imported to the new server to make them available to clients. Either the GUID or SCSI address can be specified for the physical device to be imported. This information can be retrieved through the getpdevinfo command.

Syntax

```
isscli importdisk --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --scsiaddress=<ACSL> | --guid=<guid>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli importdisk -s <server-name> [-u <username> -p <password>]
    -i <guid> | -I <ACSL>
    [-X <rpc-timeout>]
```

where:

-i <guid>	Unique identifier of the physical device.
-I <ACSL>	SCSI address of the physical device in the following format: #:#:# (adapter:channel:scsi id:lun) Either <guid> or <ACSL> can be specified for the disk to be imported.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli erasedisk

This command allows you to erase a physical disk.

Syntax

```
isscli erasedisk --server-name=<server-name>
                [--server-username=<username>
                --server-password=<password>]
                --scsiaddress=<ACSL> | --guid=<guid>
                [--rpc-timeout=<rpc-timeout>]
```

```
isscli erasedisk -s <server-name> [-u <username> -p <password>]
                -i <guid> | -I <ACSL>
                [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|--|
| -i <guid> | Unique identifier of the physical device. |
| -I <ACSL> | SCSI address of the physical device in the following format:
#:#:# (adapter:channel:scsi id:lun)
Either <guid> or <ACSL> can be specified for the disk to be erased. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

isscli repairdisk

This command allows you to repair a physical disk.

Syntax

```
isscli repairdisk --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --scsiaddress=<ACSL> | --scsiaddress-list=<scsiaddress-list>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli repairdisk -s <server-name> [-u <username> -p <password>]
    -I <ACSL> | -IS <--scsiaddress-list>
    [-X <rpc-timeout>]
```

where:

- I <ACSL> SCSI address of the physical device in the following format:
#:#:# (adapter:channel:scsi id:lun)
- IS <--scsiaddress-list> Batch option. The list can be in the format of multiple entries separated by comma.
For example:
-IS "100:0:0:1,100:0:0:3".
- X (<--rpc-timeout>) Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli preparedisk

This command allows you to prepare a physical device to be used by a Memory Gateway or reserve a physical device for other usage. You can specify either the <guid> or <ACSL> for the disk to be prepared.

Syntax

```
isscli preparedisk --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    [--target-username=<username> --target-password=<password>]
    --scsiaddress=<ACSL> | --guid=<guid>
    --category=<category> | --localstorage
    [--fo-guid=<fo-guid> | --fo-scsiaddress=<fo-ACSL>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli preparedisk -s <server-name> [-u <username> -p <password>]
    [-U <target-username> -P <target-password>]
    -i <guid> | -I <ACSL>
    -C <category> | -l [-foi <fo-guid> | -foI <fo-ACSL>]
```

`[-X <rpc-timeout>]`

where:

<code>-i <guid></code>	Unique identifier of the physical device.
<code>-I <ACSL></code>	SCSI address of the physical device in the following format: <code>#:#:#: (adapter:channel:scsi id:lun)</code> Either <code><guid></code> or <code><ACSL></code> can be specified for the disk to be prepared.
<code>-C <category></code>	One of the following values: unassigned, virtual, or service-enabled. It is required that the new category of the disk to be prepared is specified. If the server is setup for failover, the failover partner must be rescanned after the disk preparation.
<code>-U <target-username></code> <code>-P <target-password></code>	Options to specify the user name and password for the failover partner.
<code>-l</code>	Can be specified for preparing local storage.
<code>-foi <fo-guid></code> <code>-foI <fo-ACSL></code>	
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli renamephysicaldevice

This command allows you to rename a physical device. (When a device is renamed on a server in a failover pair, the device gets renamed on the partner server also.)

Syntax

```
isscli renamephysicaldevice --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --scsiaddress=<ACSL> | --guid=<guid>  
    --name=<new-name>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli renamephysicaldevice -s <server-name> [-u <username> -p  
<password>]  
    -i <guid> | -I <ACSL>  
    -n <new-name>  
    [-X <rpc-timeout>]
```

where:

-i <guid>	Unique identifier of the physical device.
-I <ACSL>	SCSI address of the physical device in the following format: #:#:# (adapter:channel:scsi id:lun) Either <guid> or <ACSL> can be specified for the disk to be erased.
-n <new-name>	New physical device name. The maximum length for the name is 64. The following characters are invalid for the name: <>"&\$\
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli deletephysicaldevice

This command allows you to remove a physical device.

Syntax

```
isscli deletephysicaldevice --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --scsiaddress=<ACSL> | --guid=<guid>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli deletephysicaldevice -s <server-name> [-u <username> -p  
<password>]  
    -i <guid> | -I <ACSL>  
    [-X <rpc-timeout>]
```

where:

-i <guid>	Unique identifier of the physical device.
-I <ACSL>	SCSI address of the physical device in the following format: #:#:# (adapter:channel:scsi id:lun) Either <guid> or <ACSL> can be specified for the disk to be erased.
-n <new-name>	New physical device name. The maximum length for the name is 64. The following characters are invalid for the name: <>"&\$\
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli restoressystempreferredpath

This command allows you to restore to system preferred path configuration for multi-path Fibre Channel devices.

Note that this action may cause storage to trespass.

Syntax

```
isscli restoressystempreferredpath --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli restoressystempreferredpath -s <server-name>  
    [-u <username> -p <password>]  
    [-X <rpc-timeout>]
```

where:

-i <guid>	Unique identifier of the physical device.
-I <ACSL>	SCSI address of the physical device in the following format: #:#:#:# (adapter:channel:scsi id:lun) Either <guid> or <ACSL> can be specified for the disk to be erased.
-n <new-name>	New physical device name. The maximum length for the name is 64. The following characters are invalid for the name: <>"&\${\
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setpdevqueuedepth

This command allows you to set queue depth of a physical device specified with GUID.

Syntax

```
isscli setpdevqueuedepth --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --guid=<guid> --queue-depth=<queue-depth>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setpdevqueuedepth -s <server-name>  
    [-u <username> -p <password>]  
    -i <guid> -d <queue-depth>  
    [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|---|
| -i <guid> | Unique identifier of the physical device. |
| -I <ACSL> | SCSI address of the physical device in the following format:
#:#:# (adapter:channel:scsi id:lun)
Either <guid> or <ACSL> can be specified for the disk to be
erased. |
| -d <queue-depth> | Queue depth for the physical device. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the
RPC timeout. The default RPC timeout is 30 seconds if not
specified. |

isscli createblockdevice

This command allows you to emulate a SCSI physical device by a block device or partition. Currently only IDE devices are supported; for example, hda or hdb1.

Syntax

```
isscli createblockdevice --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --block-device-name=<block-device-name>  
    --scsi-id=<scsi-id> --lun=<lun>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli createblockdevice -s <server-name>  
    [-u <username> -p <password>]  
    -bd <block-device-name>  
    -d <scsi-id> -l <lun>  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

Statistics

isscli setperformanceproperties

This command allows you to set the performance options for replication and/or mirror.

parameters can be specified in switch or long name format:

```
isscli setperformanceproperties [--server-name=<server-name>
--server-username=<username> --server-password=<password>]
[.replication-microscan=<on/off>]
[--throttle=<# (KB/s) >]
[--init-sync=<on/off>] [--resync-interval=<# [M|H] >]
[--max-resync=<# (mirrors) >] [--resync-retry=<# (times) >]
[--resync-replica=<on/off>]
[--auto-swap=<on/off>]
[--interval=<# [M|H] >]
[--skip-initial-mirror-synchronization=<on/off>]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli setperformanceproperties [-s <server-name> -u <username> -p
<password>]
[-m <on/off>] [-t <# (KB/s) >]
[-is <on/off>] [-ri <# [M|H] >] [-mr <# (mirrors) >]
[-rr <# (times) >] [-sr <on/off>]
[-as <on/off>] [-i <# [M|H] >] [-mi <on|off>]
[-X <rpc-timeout>]
```

where:

-m (--microscan) The option to set the default replication microscan option with one of the following values:
on (enable)
off (disable)

The following parameters are options for mirror settings.

-t (--throttle) The option to set the maximum mirror synchronization speed in KB/s. The valid range is from 128 to 1048576 KB/s. Specify 0 to disable the throttle.

-is (--init-sync) The option to start initial synchronization when mirror is added. It can be specified with one of the following values:
on
off

-ri (--resync-interval) The option to set the interval to check and synchronize out-of-sync mirrors in Minutes (M) or Hours (H). The valid range for minutes is from 1 to 1440; the valid range for hours is from 1 to 24. For example: 10M, 2H.

-
- mr (`--max-resync`) The option to set the maximum out-of-sync mirrors to check and synchronize at each interval. The valid range is from 1 to 1000.
 - rr (`--resync-retry`) The option to set the maximum times to retry synchronization for each resource when synchronization failed. The valid range is from 1 to 60000.
 - sr (`--resync-replica`) The option to include replica mirrors in the synchronization process, it can be specified with one of the following values:
 - on
 - off

The following parameters are options for stretched cluster:

- as (`--auto-swap`) The option to automatically swap mirror to its preferred storage in the following values:
 - on
 - off
- i (`--interval`) The option to set auto-swap interval. e.g. 1H or 30M.
- mi (`--skip-initial-mirror-synchronization`) The option to skip initial synchronization when the primary disk is new and does not have clients. It can be specified with one of the following values:
 - on
 - off
- X (`--rpc-timeout`) Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

Snapshot Resource

isscli createsnapshotresource

This command allows you to create a snapshot resource for a virtual device. A snapshot resource is required for a virtual device to be enabled with the TimeMark or Backup options. It is also required for replication, snapshot copy, and for joining a group.

The size of snapshot resource specified with `-m (--size-mb)`, is a required parameter. The default size can be determined by the size of the source virtual device as follows:

- < 500MB -> 100%
- >= 500 MB and < 2GB -> 50%
- >= 2GB -> 20%

Minimum snapshot resource size is 10MB.

For a dedupe LUN, if the size of snapshot resource is not specified with `-m (--size-mb)`, then the default size reserved for snapshot resource is 1% of the dedupe allocated size. In case of batch creation of snapshot resources for a group of dedupe LUNs, the max size obtained after calculating the snapshot resource size for each LUN, is reserved for every LUN in the group.

Syntax

```
isscli createsnapshotresource [--server-name=<server-name>
--server-username=<username> --server-password=<password>]
--source-vdev-id=<source-vdev-id>
--size-mb=<#(MB)>
[ [--selection-criteria=<device selection criteria>]
[ [--scsi-address=<ACSL> |
--storage-pool-id=<storage-pool-id> |
--storage-pool-name=<storage-pool-name>] |
--custom-method=<custom-mode> |
--custom-layout=<custom-layout>]
--threshold=<threshold>]
[ --increment=<increment> [ --max-size=<max-size-mb>] ]
[ --auto-delete | --stop-write ]
[ --snapshot-microscan=<on|off> ]
[ --error-handling-policy=<error-handling-policy> ]
[ --snapshot-notification=<snapshot-notification> ]
--vdev-list=<vdev-list>
[ --scsi-address-list=<physical-device-list> ]
[ --rpc-timeout=<rpc-timeout> ]
```

```
isscli createsnapshotresource [-s <server-name>
-u <username> -p <password>]
-v <source-vdev-id>
-m <sizeMB> [ [-t <selection-criteria> ]
```

```

[-I <ACSL>|-sp <storage-pool-id>|-SP <storage-pool-name>] |
-M <custom-mode>|
-L <custom-layout>]
[-h <threshold>] [-c <increment> [-Z <max-size-mb>]]
[-A | -O] [-sm<on|off>]
[-E <error-handling-policy>]
[-n <snapshot-notification>]
-J [vdev-list] [-IS <physical-device-list>]
[-X <rpc-timeout>]

```

where:

-I (--scsiaddress)	Determine the physical devices for allocation.
-sp (--storage-pool-id)	
-SP (storage-pool-name)	
-M (--custom-method)	Options for specific physical layout. Refer to the usage of the createvdev command for details.
-L (--custom-layout)	The <custom-method> and <custom-layout> options cannot be specified when the -m or -l option is specified.
	<selection-criteria> can be one of the following values:
	different-adapter
	different-drive
	any-drive
-h <threshold>	Percentage of the space used to trigger the automatic expansion. The default is 50% if it is not specified.
	The threshold range is between 1% and 99%. You can specify the threshold value with or without %.
	If --auto-delete is specified for out-of-space handling, the earlier TimeMarks will be deleted when the threshold is reached.
-c <increment>	Option for automatic expansion. It can be either percentage or size in MB. e.g. 10% or 100MB. The default is 20% if it's not specified. Specify either 0MB or 0% if you do not want to set the automatic expansion.
-Z <max-size-mb>	Option for the maximum size allowed to be allocated for the Snapshot Resource in MB. It only takes effect when auto-expansion is performed and should only be specified when the increment size was configured.
-A (--auto-delete)	Options to take when the space of the Snapshot Resource runs out. The default policy is auto-delete if neither one is specified except for replica disk.
-O (--stop-write)	
-sm (--snapshot-microscan)	Option to enable microscan during copy-on-first-write to eliminate unnecessary writes.

-E (--error-handling-policy)	Option to specify the error handling policy for <auto-delete> in one of the following values: disable-on-error (default) fail-write “disable-on-error” option allows the write to the source resource to continue when disk error occurs. The Snapshot Resource will become inaccessible and the TimeMarks will not be preserved. “fail-write” option allows the TimeMarks to be preserved when disk error occurs. The write operation to the source resource will fail until the disk is recovered from the error. The error handling policy is always “fail-write” for <stop-write>.
-n <snapshot-notification>	Option to enable / disable snapshot notification to the client before a snapshot is taken in one of the following values: on off
-J (--vdev-list)	Option to create snapshot resource in batch mode. Enter the vid of resources and separate each of them by comma. Use -IS (--scsiaddress-list) to enter the acsl paths and separate each of them by comma.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli expandsnapshotresource

This command allows you to expand the snapshot resource on demand. The maximum size allowed that is specified in the snapshot policy only applies to the automatic expansion. The size limit does not apply when the snapshot resource is expanded on demand.

Syntax

```
isscli expandsnapshotresource --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --source-vdev=<source-vdev>
    --additional-mb=<#(MB)>
    [--rpc-timeout=<rpc-timeout>]

isscli expandsnapshotresource -s <server-name>
    [-u <username> -p <password>]
    -v <source-vdev> -m <#(MB)>
    [-X <rpc-timeout>]
```

where:

<code>-v <source-vdev></code>	Virtual device ID of the source resource of the snapshot resource you want to expand.
<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setsnapshotpolicy

This command allows you to modify the existing snapshot policy for the specified resource. The new policy will take effect with the next snapshot operation.

Syntax

```
isscli setsnapshotpolicy --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --source-vdev=<source-vdev>
    [--threshold=<threshold> | --snapshot-threshold=<threshold>]
    [--increment=<increment> | --snapshot-increment=<increment>]
    [--max-size=<max-size> | --snapshot-max-size=<max-size>]
    [--auto-delete | --stop-write]
    [--error-handling-policy=<error-handling-policy>]
    [--snapshot-notification=<snapshot-notification>]
    [--shrinkpolicy=<on|off>]
    [--min-disk-space-to-trigger=<MB|GB|TB>
    --min-snapshot-resource-size=<MB|GB|TB>]]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setsnapshotpolicy -s <server-name> [-u <username> -p <password>]
    -v <source-vdev>
    [-h <threshold> | -sh <threshold>]
    [-c <increment> | -sc <increment>]
    [-Z <max-size-mb> | -sZ <max-size-mb>]
    [-A | -O] [-sm<on|off>]
    [-E <error-handling-policy>]
    [-n <snapshot-notification>]
    [-sp<on|off> [-mds <MB|GB|TB> -mss <MB|GB|TB>]]
    [-X <rpc-timeout>]
```

where:

<code>-v <source-vdev></code>	Set the Storage Policy of the virtual device.
<code>-h <threshold></code>	Percentage of the space used to trigger the automatic expansion. The default is 50% if it is not specified. The threshold range is between 1% and 99%. Either <code>-h(--threshold)</code> or <code>-sh (--snapshot-threshold)</code> can be used.
<code>-c <increment></code>	Option for automatic expansion. It can be either percentage or size in MB. e.g. 10% or 100MB To unset the automatic expansion, specify either 0MB or 0%. Either <code>-c (--increment)</code> or <code>-sc (--snapshot-increment)</code> can be used.
<code>-Z <max-size-mb></code>	Option for the maximum size allowed to be allocated for the Snapshot Resource in MB. It only takes effect when auto-expansion is performed and should only be specified when the increment size was configured or will be configured. Either <code>-Z(--max-size)</code> or <code>-sZ (--snapshot-max-size)</code> can be used.
<code>-A (--auto-delete)</code> <code>-O (--stop-write)</code>	Options to take when the space of the Snapshot Resource runs out. The default policy is <code><auto-delete></code> if neither one is specified except for replica disk Set shrink policy with the following options if you want the system to shrink the size of the snapshot resource after a successful reclamation. This shrink policy only applies to schedule reclamation; manual reclamation will not trigger the shrink operation.
<code>-sp (--shrinkpolicy)</code>	Enable or disable shrink policy option.
<code>-mds (--min-disk-space-to-trigger)</code>	Minimum disk space to trigger shrink policy. (1MB - 63TB) Shrink the snapshot resource if the amount of space that can be gained is greater than the value specified here. Note that the snapshot resource cannot become smaller than the minimum size set here.
<code>-mss (--min-snapshot-resource-size)</code>	Keep the snapshot resource greater than or equal to this size.(1MB - 63TB)

-E (--error-handling-policy)	Specify the error handling policy for <auto-delete> in one of the following values: disable-on-error (default) fail-write “disable-on-error” option allows the write to the source resource to continue when disk error occurs. The Snapshot Resource will become inaccessible and the TimeMarks will not be preserved. “fail-write” option allows the TimeMarks to be preserved when disk error occurs. The write operation to the source resource will fail until the disk is recovered from the error. The error handling policy is always “fail-write” for <stop-write>.
-n (--snapshot-notification)	Enable / disable snapshot notification to the client before a snapshot is taken in one of the following values: on or off.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getsnapshotresourcestatus

This command allows you to view snapshot resource status information. The output will be similar to the following:

```
Virtual Device Name=ABC-00457
ID=457
Type=SAN
Snapshot Resource Size=58827 MB
Snapshot Resource Status=Accessible
Used Size=47.54 GB(82%).
```

Syntax

```
isscli getsnapshotresourcestatus --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --vdevid=<source-vdevid>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getsnapshotresourcestatus -s <server-name>
    [-u <username> -p <password>]
    -v <source-vdevid>
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli getsnapshotpolicy

This command allows you to view the snapshot policy settings for the specified resource.

Syntax

```
isscli getsnapshotpolicy --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --source-vdev=<source-vdev>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getsnapshotpolicy -s <server-name> [-u <username> -p <password>]
    -v <source-vdev>
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli enablereclamationpolicy

This command allows you to set the reclamation policy settings for the specified resource. Note that scheduled reclamation is not supported when it is run to reclaim space of deleted dedupe-aware snapshots of a dedupe LUN.

Syntax

```
isscli enablereclamationpolicy --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdev=<vdev>
    --initial-time=<initial-time>
    --interval= <# [D] >
    --interval-unit=<D>
    --size=<# [MB| %] >
    --maxprocessingtime=<#H>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli enablereclamationpolicy -s <server-name>
```

```
[-u <username> -p <password>]
-v <vdevid>
[-t <initial-time>]
[-i <#[D]>]
[-iu <D>]
[-sz <#[MB|%]>]
[-mpt <#[H]>]
[-X <rpc-timeout>]
```

where:

-t <initial-time>	Set initial time to start reclamation schedule. The format for initial time is “MM-DD-YYYY HH:MM”
-i <interval>	Repeat reclamation after specified interval. For example, “1D” if initial reclamation is today and interval is 1 day, then repeat reclamation after every 1 day.
-iu <unit>	Supported unit for interval in days <D>.
-sz <watermark-size>	Set a threshold for minimum amount of space that can be reclaimed per TimeMark. valid range for reclamation threshold is “1%-99%” or “2 MB-67108863 MB”. The unit for watermark can be either “%” or “MB”e.g. -sz 20MB or -sz 20%
-mpt <maxprocessingtime>	Maximum time for the reclamation process if you don't want reclamation to occur during business hours. Specify 0 if you do not need to set the limit. Unit for maxprocessing time is hours, e.g. -mpt 2H or --maxprocessingtime 23H.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli disablereclamationpolicy

This command allows you to disable the reclamation policy settings for the specified resource.

Syntax

```
isscli disablereclamationpolicy --server-name=<server-name>
  [--server-username=<username>
  --server-password=<password>]
  --vdevid=<vdevid>
  [--rpc-timeout=<rpc-timeout>]

isscli disablereclamationpolicy -s <server-name>
  [-u <username> -p <password>]
  -v <vdevid>
  [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli stopreclamation

This command allows you to manually stop the reclamation process for the specified resource.

Syntax

```
isscli stopreclamation --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --vdevid=<vdevid>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli stopreclamation -s <server-name>  
    [-u <username> -p <password>]  
    -v <vdevid> [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli startreclamation

This command allows you to manually start the reclamation process for the specified resource.

Syntax

```
isscli startreclamation --server-name=<server-name>  
    [--server-username=<username>  
    --server-password=<password>]  
    --vdevid=<vdevid>  
    --timemark <timemark-timestamp>  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli startreclamation -s <server-name>  
    [-u <username> -p <password>]  
    -v <vdevid>  
    -t <timemark-timestamp>  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout) Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getreclamationstatus

This command allows you to retrieve and view the reclamation status for the specified resource.

Syntax

```
isscli getreclamationstatus --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdev=<vdev>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getreclamationstatus -s <server-name>
    [-u <username> -p <password>]
    -v <vdev>
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout) Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli reinitializesnapshotresource

This command allows you to update the reclamation policy settings for the specified resource.

A Snapshot Resource cannot be deleted when the virtual device is in a Snapshot Group, or when the snapshot is online.

Syntax

```
isscli reinitializesnapshotresource --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --source-vdev=<source-vdev>
    [--force]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli reinitializesnapshotresource -s <server-name>
    [-u <username> -p <password>]
    -v <source-vdev> [-f]
```

`[-X <rpc-timeout>]`

where:

<code>-X (--rpc-timeout)</code>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
---------------------------------	--

isscli setreclamationpolicy

This command allows you to set the reclamation policy on a selected virtual device and update the reclamation policy settings for the specified resource.

Syntax

```
isscli setreclamationpolicy --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    --vdevid=<vdevid>
    --initial-time=<initial-time>--interval= <# [D] >
    --size=<# [MB| %] >--maxprocessingtime=<#H>
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli setreclamationpolicy -s <server-name>
    [-u <username> -p <password>]
    [-v <vdevid>]
    [-t <initial-time>]
    [-i <# [D] >]
    [-sz <# [MB| %] >]
    [-mpt <# [H] >]
    [-X <rpc-timeout>]
```

where:

<code>-t <initial-time></code>	Set initial time to start reclamation schedule. The format for initial time is “MM-DD-YYYY HH:MM”
<code>-i <interval></code>	Repeat reclamation after specified interval. For example, “1D” if initial reclamation is today and interval is 1 day, then repeat reclamation after every 1 day.
<code>-sz <watermark-size></code>	Set a threshold for minimum amount of space that can be reclaimed per TimeMark. valid range for reclamation threshold is “1%-99%” or “2 MB-67108863 MB”. The unit for watermark can be either “%” or “MB”e.g. -sz 20MB or -sz 20%.

-mpt <maxprocessingtime>	Maximum time for the reclamation process if you don't want reclamation to occur during business hours. Specify 0 if you do not need to set the limit. Unit for maxprocessing time is hours, e.g. -mpt 2H or --maxprocessingtime 23H.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setglobalreclamationpolicy

This command allows you to set the global reclamation policy.

Syntax

parameters can be specified in switch or long name format:

```
isscli setglobalreclamationpolicy [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
[--enable<on|off>]
[--size=<#[MB|%]>]
[--initial-time=<initial-time>]
[--interval= <#[D]>]
[--maxprocessingtime=<#H>]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli setglobalreclamationpolicy -s <server-name>
[-u <username> -p <password>]
[-e <on|off>]
[-sz <#[MB|%]>]
[-t <initial-time>]
[-i <#[D]>]
[-mpt <#[H]>]
[-X <rpc-timeout>]
```

where:

-e (--enable)	Enable/disable the global reclamation policy.
-sz (--size)	Set a threshold in MB for the minimum amount of space that can be reclaimed per TimeMark. The minimum threshold amount is 2MB. The unit of watermark can be either “%” or “MB”e.g. -sz 20MB or -sz 20%

<p>-t (--initial-time)</p> <p>-i (--interval)</p>	<p>Set the global reclamation schedule to start at a specific time and repeat at a regularly scheduled interval. The format for <initial-time> is MM-DD-YYYY hh:mm. Enclose the initial time with double quotes, e.g. "07-27-2005 12:00". The valid year is between 2000 and 2127. If <initial-time> is not set with the interval, it will be default to midnight of today.</p> <p>The interval can be specified in Hours(H); for example, -i 2H</p>
<p>-mpt (--max-processing-time)</p>	<p>Specify the maximum time for the reclamation process. Once this threshold is reached, the reclamation process will stop. Specify 0 to set an unlimited processing time. It is recommended that you schedule lengthy reclamation processing during non-peak operation periods.</p>
<p>-X (--rpc-timeout)</p>	<p>Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>

isscli getglobalreclamationpolicy

This command displays the global reclamation policy.

Syntax

parameters can be specified in switch or long name format:

```
isscli getglobalreclamationpolicy [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli getglobalreclamationpolicy [-s <server-name>
-u <username> -p <password>]
[-X <rpc-timeout>]
```

-X (--rpc-timeout) is an option to specify a number between 1 and 30000 in seconds for the RPC timeout. The default RPC timeout is 30 seconds if it's not specified.

where:

<p>-X (--rpc-timeout)</p>	<p>Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.</p>
---------------------------	---

Example

```
[root@violin-mga ~]# isscli getglobalreclamationpolicy
Global Reclaim Policy
```

```
=====
Reclaim Policy: enabled
Initial time = 2010-01-01 00:00:00
Interval = 7days
Minimum Size = 2MB
Maximum Process Time = unlimited
```

```
Command: getglobalreclamationpolicy executed successfully.
[root@violin-mga ~]# isscli
```

SNMP

isscli setsnmption

This command allows you configure the gateway to send SNMP heartbeat traps at specified intervals to a list of trap sinks.

Syntax

```
isscli setsnmption server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    --trap-level=<trap-level>
    --heartbeat-trap=<on|off>
    --heartbeat-interval=<heartbeat-interval>
    [--trap-sink-list=<trap-sink-list>]
    [--rpc-timeout=<rpc-timeout>]

isscli setsnmption -s <server-name>
    [-u <username> -p <password>]
    -tl <trap-level>
    -ht <on|off>
    -hi <heartbeatInterval>
    [-TL <trap-sink-list>]
    [-X <rpc-timeout>]
```

where:

-tl (--trap-level)	Set the trap level. This can be one of the following: <ul style="list-style-type: none">• None• Critical• Error• Warning• Informational
-ht (--heartbeat-trap)	Enables or disables heartbeat traps
-hi (--heartbeat-interval)	Sets the interval in seconds for heartbeat traps.
-TL (--trap-sink-list)	Optionally specifies the name of a file containing a list of SNMP servers and communities. The file should contain a list of server and community pairs in the format: <server IP> <community name> For example: 192.168.10.1 community1 192.168.10.2 community2
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

Deduplication (info pending)

isscli enablededuplication

This command allows you to enable deduplication.

Syntax

```
isscli enablededuplication --server-name=<primary server-name>
    --server-username=<primary username>
    --server-password=<primary password>
    [--storage-pool-id=<storage-pool-id> |
    --storage-pool-name=<storage-pool-name>]
    [--datadisk-number=<data disks #>
    --datadisk-size=<data disk sizeGB>]
    [--indexdisk-size=<index disk sizeGB>]
    [--folderdisk-size=<folder disk sizeGB>]
    [--dedupe-data-disk-type=<thin|thick>]
    [--dedupe-index-disk-type=<thin|thick>]
    [--dedupe-folder-disk-type=<thin|thick>]
    [--enable-encryption]
    [--allocation-mode=<0 - classic or 2 - flexible>]
    [--classic-rows=<# of rows> --classic-cols=<# of cols>]
    [[--size-mb=<initial allocation sizeMB>]
    [--provision-watermark=<provision-watermark>]
    [--increment=<increment in sizeMB>]]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli enablededuplication -s <primary server-name>
    -u <primary username> -p <primary password>
    [-sp <storage-pool-ID> | -SP <storage-pool-name>]
    [-ddn <data disks #> -dds <data disk sizeGB>]
    [-ids <index disk sizeGB> -fds <folder disk sizeGB>]
    [-mode <0 - classic or 2 - flexible>]
    [-rows <# of rows> -cols <# of cols>]
    [-ddt [thin|thick]]
    [-idt [thin|thick]]
    [-fdt [thin|thick]]
    [-crypt]
    [[-m <initial allocation sizeMB>]>]
    [-wm <provision-watermark>] [-cr <increment in sizeMB>]]
    [-X <rpc-timeout>]
```

where:

```
-sp (--storage-pool-id)
-SP (--storage-pool-name)
-ddn (--datadisk-number)
-dds (--datadisk-size)
-ids (--indexdisk-size)
-fds (--folderdisk-size)
-ddt (--dedupe-data-disk-type)
-idt (--dedupe-index-disk-type)
-fdt (--dedupe-folder-disk-type)
-mode (--allocation-mode)
-rows (--classic-rows)
-cols (--classic-cols)
-cr (--size-mb)
-wm (--provision-watermark)
-m (--increment)
-X (--rpc-timeout)
```

Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli disablededuplication

This command allows you to disable deduplication.

Syntax

```
isscli disablededuplication --server-name=<primary server-name>
--server-username=<primary username>
--server-password=<primary password>
[--rpc-timeout=<rpc-timeout>]
```

```
isscli disablededuplication -s <primary server-name>
-u <primary username> -p <primary password>
[-X <rpc-timeout>]
```

where:

```
-X (--rpc-timeout)
```

Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli getdedupestatsinfo

Get the deduplication statistics on the associated SIR cluster or server.

Syntax

```
isscli getdedupestatsinfo --server-name=<primary server-name>  
    --server-username=<primary username>  
    --server-password=<primary password>  
    [--longlist]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli getdedupestatsinfo -s <primary server-name>  
    -u <primary username> -p <primary password> [-l]  
    [-X <rpc-timeout>]
```

where:

-l (--longlist)	Display statistics in long format.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

gcdispatcher reclaim_now

Reclaim space from the SIR data disk, folder disk and also free up in-memory index objects.

Syntax

```
gcdispatcher reclaim_now
```

where:

-b dir	Base directory.
-d #	Turn debug level #.
-n #	Set interval.
S t	Set crawler's threshold #.
-T	Set cruncher's threshold #.
-D	Set data disk crawler's threshold #.
[-f] reclaim_now	Schedule manual reclamation. Use -f to force now.
reclaim_scheduled	Reclamation by schedule.
status	Show verbose status information.
cluster_status	Show verbose information for cluster.

Example

The following is an example of the `gcdispatcher reclaim_now` command.

```
[root@violin-mga ~]# gcdispatcher reclaim_now  
Successfully started reclamation on primary SIR server "violin-mga".
```

gcdispatcher status

This command shows the current reclamation state.

Syntax

```
gcdispatcher status
```

where:

<code>-b dir</code>	Base directory.
<code>-d #</code>	Turn debug level #.
<code>-n #</code>	Set interval.
<code>St</code>	Set crawler's threshold #.
<code>-T</code>	Set cruncher's threshold #.
<code>-D</code>	Set data disk crawler's threshold #.
<code>[-f] reclaim_now</code>	Schedule manual reclamation. Use <code>-f</code> to force now.
<code>reclaim_scheduled</code>	Reclamation by schedule.
<code>status</code>	Show verbose status information.
<code>cluster_status</code>	Show verbose information for cluster.

Example

The following is an example of the `gcdispatcher status` command.

```
[root@violin-mga ~]# gcdispatcher status  
Current reclamation state: garbage collecting.  
Type                Threshold      Currently      Remaining      Status  
Index Disk (sector): 587202560     265216         586937344     idle  
Index Memory (object): 1009683200    4229694        1005453506    hashstore scan  
Data Disk (sector):   34359739392   34408448       34325330944   idle  
Storage Pool (sector): 5729332224    2868787200     2860545024    idle  
Folder Disk (block):  6554          4              6550          scanning
```

sirconfig crunch

Runs reclamation on index disk. Also called “index pruning.” This command is CPU-intensive and does not need to be run frequently.

Syntax

```
sirconfig crunch
```

Configuration Repository

isscli enableconfigurationrepository

This command allows you to enable the configuration repository for a device.

Syntax

```
isscli enableconfigurationrepository --server-name=<server-name>
    [--server-username=<username> --server-password=<password>]
    [--scsiaddress=<ACSL> |
    --storage-pool-id=<storage-pool-id>|
    --storage-pool-name=<storage-pool-name>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli enableconfigurationrepository -s <server-name>
    [-u <username> -p <password>]
    [-I <ACSL>[-sp <storage-pool-id>|-SP <storage-pool-name>]
    [-X <rpc-timeout>]
```

where:

-I (--scsiaddress)	Specify a specific physical device to be used to create the virtual device. ACSL=#:#:# (adapter:channel:id:lun)
-sp (storage-pool-id)	Specify a storage pool to allocate the space from when the --I option is not specified.
-SP (storage-pool-name)	
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli disableconfigurationrepository

This command allows you to disable the configuration repository for a device. Note that the configuration repository is required for failover setup and can only be disabled for standalone server.

Syntax

```
isscli disableconfigurationrepository --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli disableconfigurationrepository -s <server-name>  
    [-u <username> -p <password>]  
    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli reconfigconfigurationrepository

This command allows you to reconfigure the configuration repository for a device. The configuration repository can only be reconfigured for the failover primary server.

Syntax

```
isscli reconfigconfigurationrepository --server-name=<server-name>  
    [--server-username=<username> --server-password=<password>]  
    [--scsiaddress=<ACSL> |  
    --storage-pool-id=<storage-pool-id> |  
    --storage-pool-name=<storage-pool-name>]  
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli reconfigconfigurationrepository -s <server-name>  
    [-u <username> -p <password>]  
    [-I <ACSL> [-sp <storage-pool-id> | -SP <storage-pool-name>]  
    [-X <rpc-timeout>]
```

where:

-I (--scsiaddress)	Specify a specific physical device to be used to create the virtual device. ACSL=#:#:# (adapter:channel:id:lun)
--------------------	--

-sp (storage-pool-id)	Specify a storage pool to allocate the space from when the --l option is not specified.
-SP (storage-pool-name)	
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli refreshquorum

This command allows you to refresh the quorum disk on the server.

Syntax

```
isscli refreshquorum --server-name=<server-name>  
                    [--server-username=<username> --server-password=<password>]  
                    [--rpc-timeout=<rpc-timeout>]
```

```
isscli refreshquorum -s <server-name>  
                    [-u <username> -p <password>]  
                    [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli createconfigurationrepositorymirror

This command allows you to create a mirror of the configuration repository for a device.

Syntax

```
isscli createconfigurationrepositorymirror --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    [--scsiaddress=<ACSL> |
    --storage-pool-id=<storage-pool-id> |
    --storage-pool-name=<storage-pool-name> |
    --custom-method=<custom-method> |
    --custom-layout=<custom-layout>]
    [--monitor-option=<on|off>]
    [--monitor-interval=<seconds>]
    [lagging-time=<milliseconds>]
    [--mirror-threshold=<percentage>]
    [--min-cmds-out=<min-cmds-out>]
    [--sync-retry-interval=<#[H|M]>]
    [--max-io-activity=<#[KB|MB]>]
    [--sync-retry-count=<#>]
    [--rpc-timeout=<rpc-timeout>]
```

```
isscli createconfigurationrepositorymirror -s <server-name>
    [-u <username> -p <password>]
    [-I <ACSL> | -sp <storage-pool-id> | -SP <storage-pool-name> |
    -M <custom-method> | -L <custom-layout>]
    [-N <on|off>] [-i <seconds>] [-l <milliseconds>]
    [-h <percentage>] [-io <min-cmds-out>]
    [-r <#[H|M]>] [-m <#[KB|MB]>] [-c <#>]
    [-X <rpc-timeout>]
```

where:

-I (--scsiaddress)	Specify a physical device to be used to create the virtual device. ACSL=#:#:# (adapter:channel:id:lun)
-sp (storage-pool-id)	Specify a storage pool to allocate the space from the physical devices in the storage pool for the virtual device when the --l option is not specified.
-SP (storage-pool-name)	

-M <custom-method>
-L <custom-layout>

Options for the specific physical segments. It can be a list or a file enclosed in <> containing physical segment in each line.

The format of the physical segment for <custom-mode> is:
adapter:channel:scsi-id:lun:first-sector:size-in-MB

The format for <custom-layout> is:
adapter:channel:scsi-id:lun:first-sector:last-sector

If none of the above options is specified, the system will allocate the storage for the mirror with the default criteria in the following order:

1. Storage from different adapter(s)
2. Storage from different drive(s)
3. Storage from any drive(s)

-X (--rpc-timeout)

Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

Statistics

isscli getperformanceproperties

This command allows you to get the current performance setting for replication and mirror.

Syntax

parameters can be specified in switch or long name format:

```
isscli getperformanceproperties [--server-name=<server-name>  
                                --server-username=<username> --server-password=<password>]  
                                [--rpc-timeout=<rpc-timeout>]
```

```
isscli getperformanceproperties [-s <server-name> -u <username> -p  
<password>]  
                                [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

Data Encryption

isscli enableencryption

This command enables encryption on an XVS. The passphrase is required.

Syntax

parameters can be specified in switch or long name format:

```
isscli enableencryption [--server-name=<server-name>  
                        --server-username=<username>  
                        --server-password=<password>]  
                        [--rpc-timeout=<rpc-timeout>]
```

```
isscli enableencryption [-s <server-name> -u <username> -p <password>]  
                        [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli disableencryption

This command disables encryption on an XVS. The passphrase is required.

Syntax

parameters can be specified in switch or long name format:

```
isscli disableencryption [--server-name=<server-name>  
                        --server-username=<username>  
                        --server-password=<password>]  
                        [--rpc-timeout=<rpc-timeout>]
```

```
isscli disableencryption [-s <server-name> -u <username> -p <password>]  
                        [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli importkey

This command imports the password-protected KEK PKCS12 file from a USB drive.

Syntax

parameters can be specified in switch or long name format:

```
isscli importkey [--server-name=<server-name>
                 --server-username=<username>
                 --server-password=<password>]
                 [--system-serial-no=<serial-number>]
                 [--usb-mount-point=<usb-mount-point> |
                 --mount-usb-dev [--partition-no=<partition-number>]]
                 [--rpc-timeout=<rpc-timeout>]
```

```
isscli importkey [-s <server-name> -u <username> -p <password>]
                 [-n <serial-number>]
                 [-ump <usb-mount-point> | -mud [-pn <partition-number>]]
                 [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli exportkey

This command exports the password-protected KEK PKCS12 file to a USB drive.

Syntax

parameters can be specified in switch or long name format:

```
isscli exportkey [--server-name=<server-name>
                 --server-username=<username>
                 --server-password=<password>]
                 [--usb-mount-point=<usb-mount-point> |
                 --mount-usb-dev [--partition-no=<partition-number>]]
                 [--rpc-timeout=<rpc-timeout>]
```

```
isscli exportkey [-s <server-name> -u <username> -p <password>]
                 [-ump <usb-mount-point> | -mud [-pn <partition-number>]]
                 [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli getencryptionproperties

This command displays the current encryption properties.

Syntax

parameters can be specified in switch or long name format:

```
isscli getencryptionproperties [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
[--show-key-consistency [--use-loaded-key]]
[--rpc-timeout=<rpc-timeout>]
```

```
isscli getencryptionproperties [-s <server-name> -u <username> -p
<password>] [-skey]
[-X <rpc-timeout>]
```

where:

--show-key-consistency	Shows if encryption configuration is consistent among all components.
--use-loaded-key	Use the loaded encryption key instead of reading from KEK PKCS12 file.
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

isscli setencryptionproperties

This command configures the data encryption properties.

Syntax

Parameters can be specified in switch or long name format:

```
isscli setencryptionproperties [--server-name=<server-name>
--server-username=<username>
--server-password=<password>]
[--load-encryption-key] |
```

```
    [--resolve-conflict]
    [--change-user-passphrase] [--generate-new-kek] [--mount-core]
    [--rpc-timeout=<rpc-timeout>]
    isscli setencryptionproperties [-s <server-name> -u <username> -p
<password>] [-loadkey] | [-cup] [-gnk] [-mc] | [-resolve]
    [-X <rpc-timeout>]
```

where:

--load-encryption-key	Use to load encryption key to enable encryption operations.
--change-user-passphrase	Use to change the user passphrase.
--generate-new-kek	Use to generate a new key encryption key (KEK).
--mount-core	Use to access encrypted corefile(s).
-resolve-conflict	Reconcile encryption configuration discrepancy
-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.

Splunk Universal Forwarder

isscli enablesplunkforwarder

This command enables the Splunk Universal Forwarder on the memory gateway. This command must be run individually on each memory gateway.

Syntax

```
isscli enablesplunkforwarder -s <server-name>  
[-u <username> -p <password>]  
[-index-ip <host ip>] [-index-port <splunk port>]  
[-X <rpc timeout>]
```

```
isscli enablesplunkforwarder --server-name=<server-name>  
[--server-username=<username>  
--server-password=<password>]  
[--indexer-ip=<host ip>] [--indexer-port=<splunk port>]  
[--rpc-timeout=<rpc-timeout>]
```

Where:

-index-ip <host ip>	Specify the IP address of the Splunk indexer running in the Customer Data Center.
-index-port <splunk port>	Specify the port on which the Splunk indexer listens for the logs and events from the Splunk Universal Forwarder.
-X <rpc timeout>	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds when a value is not specified.

isscli disablesplunkforwarder

This command disables the Splunk Universal Forwarder on the memory gateway. The command must be run individually on each memory gateway.

Syntax

```
isscli disablesplunkforwarder -s <server-name>  
[-u <username> -p <password>]  
[-X <rpc timeout>]
```

```
isscli disablesplunkforwarder --server-name=<server-name>  
[--server-username=<username>  
--server-password=<password>]  
[--rpc-timeout=<rpc-timeout>]
```

Where:

-X <rpc timeout>

Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds when a value is not specified.

Misc.

isscli getservernetconfig

This command displays the server network configuration.

Syntax

parameters can be specified in switch or long name format:

```
isscli getservernetconfig [--server-name=<server-name>
                          --server-username=<username>
                          --server-password=<password>]
                          [--rpc-timeout=<rpc-timeout>]
```

```
isscli getservernetconfig [-s <server-name> -u <username> -p <password>]
                          [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli getwebproxy

This command displays the webproxy configuration

Syntax

parameters can be specified in switch or long name format:

```
isscli getwebproxy [--server-name=<server-name>
                   --server-username=<username>
                   --server-password=<password>]
                   [--rpc-timeout=<rpc-timeout>]
```

```
isscli getwebproxy [-s <server-name> -u <username> -p <password>]
                   [-X <rpc-timeout>]
```

where:

-X (--rpc-timeout)	Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified.
--------------------	--

isscli setservernetconfig

This command sets the server network configuration. Use this command to update network settings such as IP address, host name, domain name, and DNS of memory gateways.

Syntax

parameters can be specified in switch or long name format:

```
isscli setservernetconfig --server-name=<server-name>
    [--server-username=<username>
    --server-password=<password>]
    [--hostname=<hostname>]
    [--domainname=<domainname>]
    [--clear-domainname]
    [--dns-list=<ip-address-list>]
    [--clear-dns-list]
    [--enable-pts=<on/off>]
    [--enable-telnet=<on/off>]
    [--enable-ftp=<on/off>]
    [--append-domain-suffix=<on/off>]
    [--gateway=<gateway-ip-address>]

    [--nic-list=<"if:{name:<name>,dhcp:<on/
off>,mtu:<mtu>,ipconf:{ip:<ip-address>,mask:<mask>},...,{ip:<ip-
address>,mask:<mask>}},... ">]
    [--ntp-list=<ip-address-list or server-name-list>]
    [--clear-ntp-list]
    [--rpc-timeout=<rpc-timeout>]

isscli setservernetconfig -s <server-name> [-u <username> -p <password>]
    [-hn <hostname>]
    [-dn <domainname>]
    [-clrdn]
    [-dns <ip-address-list>]
    [-clrdns]
    [-ep <on/off>]
    [-et <on/off>]
    [-ef <on/off>]
    [-ads <on/off>]
    [-gw <gateway-ip-address>]
    [-nic <"if:{name:<name>,dhcp:<on/
off>,mtu:<mtu>,ipconf:{ip:<ip-address>,mask:<mask>},... ,
{ip:<ip-address>,mask:<mask>}},... ">]
    [-ntp <ip-address-list or server-name-list>]
    [-clrntp]
    [-X <rpc-timeout>]
```

where:

<code>-hn (--hostname)</code>	Set up the hostname.
<code>-dn (--domainname)</code>	Set up the domain name.
<code>-clrdsn (--clear-domainname)</code>	Clear the domain name. Cannot be specified in conjunction with the <code>-dn (--domainname)</code> option.
<code>-dns (--dns-list)</code>	Set up a DNS list. The DNS list is a comma-separated IP address list.
<code>-clrdns (--clear-dns-list)</code>	Clear the DNS list. Cannot be specified in conjunction with the <code>-dns (--dns-list)</code> option.
<code>-ep (--enable-pts)</code>	Enable or disable pts. Set this value to on to enable pts; otherwise, set it to off.
<code>-et (--enable-telnet)</code>	Enable or disable telnet. Set this value to on to enable telnet; otherwise, set it to off.
<code>-ef (--enable-ftp)</code>	Enable or disable ftp. Set this value to on to enable ftp; otherwise, set it to off.
<code>-ads (--append-domain-suffix)</code>	Append a suffix to the domain name.
<code>-gw (--gateway-ip-address)</code>	Set up the gateway IP address.
<code>-nic (--nic-list)</code>	Configure a network interface.

The network interface entry has the following format:

```
if: {name:<name>, dhcp:<on/off>, mtu:<mtu>, ipconf: {ip:<ip-address>, mask:<mask>}, . . . , {ip:<ip-address>, mask:<mask>}}
```

If specifying multiple interfaces (if), please separate them by a comma.

Where:

<code>if</code>	Is the interface container.
<code>name</code>	Is the interface name.
<code>dhcp</code>	Is the flag to determine whether DHCP is enabled (on) or not (off).
<code>ifconfig</code>	Is the interface IP configuration list, which consists of: ip: Is the interface IP address. mask: Is the interface subnet mask.

Note: Each ipconf entry must be surrounded by a pair of {}. If specifying multiple entries, please separate them by a comma.

<code>-ntp (--ntp-list)</code>	Set up an NTP list. The NTP list is a comma-separated server name or IP address list.
<code>-clrntp (--clear-ntp-list)</code>	Clear the NTP list. Cannot be specified in conjunction with the <code>-ntp (--ntp-list)</code> option.

After setting up the network configuration, the server may restart the Concerto service and network. Please re-connect to this server after it has restarted.

Example: The following shows how to set up all network configuration parameters.

```
isscli setservernetconfig --hostname=lab-srvXXX --
domainname=eng.vmem.int --append-domain-suffix=on --dns-
list=10.5.0.12,10.5.0.13,10.5.240.10,10.5.240.11 --enable-pts=on --
enable-telnet=on --enable-ftp=on --gateway=10.5.0.1 --nic-
list="if:{name:eth0,dhcp:off,mtu:1500,ipconf:{ip:1.0.0.3,mask:225.225.
225.0}},if:{name:eth1,dhcp:off,mtu:1500,ipconf:{ip:1.0.0.4,mask:225.22
5.225.0}}" --ntp-list=0.pool.ntp.org,1.pool.ntp.org,2.pool.ntp.org
-X (--rpc-timeout)                Specify the number of seconds (between 1 and
                                   30000) for the RPC timeout. The default RPC
                                   timeout is 30 seconds if not specified.
```

isscli setwebproxy

This command sets the webproxy configuration parameter.

Syntax

Parameters can be specified in switch or long name format:

```
isscli setwebproxy [--server-name=<server-name>]
```

```
--server-username=<username>
--server-password=<password>
--proxy-address=<proxy-address>
--proxy-authtype=<authtype>
--proxy-password=<proxy-password>
--proxy-username=<proxy-username>
--proxy-hostname=<proxy-hostname>
--proxy-port=<proxy-port>]
```

```
[--rpc-timeout=<rpc-timeout>isscli setwebproxy [-s <server-name> -u
<username> -p <password> -addr<address> -auth<authtype> -pwd<proxy-
password> -usr<proxy-username> -host<proxy-hostname> -port<port>]
[-X <rpc-timeout>]
```

isscli loadencryptedvdevs

This command loads encrypted virtual devices. The passphrase is required.

Syntax

Parameters can be specified in switch or long name format:

```
isscli loadencryptedvdevs [--server-name=<server-name>
                          --server-username=<username>
                          --server-password=<password>] [--longlist]
                          [--rpc-timeout=<rpc-timeout>]
```

```
isscli loadencryptedvdevs [-s <server-name> -u <username> -p <password>]
[-l]
                          [-X <rpc-timeout>]
```

where:

- | | |
|--------------------|--|
| -l (--longlist) | Is the option to display the long format. |
| -X (--rpc-timeout) | Specify the number of seconds (between 1 and 30000) for the RPC timeout. The default RPC timeout is 30 seconds if not specified. |

vntb_util.sh

This tool reports the inner node communication channel.

Commands

```
root@violin-mga ~]# vntb_util.sh --help
NTB information for mg-a
vntb_util.sh <status [vntbx] | reset <vntbx>>
```

```
[root@violin-mga ~]# vntb_util.sh vntb0
NTB information for mg-a
vntb_util.sh <status [vntbx] | reset <vntbx>>
```

```
[root@violin-mga ~]# vntb_util.sh reset vntb0
NTB information for mg-a
reset assert completed with code 80.
reset deassert completed with code 80.
NTB link is down. The ntb link partner may need to be reset
```

```
[root@violin-mga ~]# vntb_util.sh status
NTB information for mg-a
ntb_link:          up
pci_link_local:    up
pci_link_peer:     up
```