Tivoli. IBM Tivoli Storage Productivity Center for Replication for System z Version 4.2

# Command-line Interface User's Guide





Tivoli. IBM Tivoli Storage Productivity Center for Replication for System z Version 4.2

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Note

Before using this information and the product it supports, read the information in "Notices" on page 107.

#### **Edition notice**

This edition applies to version 4, release 2 of IBM Tivoli Storage Productivity Center for Replication for System z and to all subsequent releases and modifications until otherwise indicated in new editions.

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# About this guide

This section briefly describes the content and the audience of this publication and explains how the information in this publication is organized.

This guide provides definitions, syntax, and examples for these command-line interface (CLI) commands that are used for the varieties of IBM<sup>®</sup> Tivoli<sup>®</sup> Storage Productivity Center for Replication:

- IBM Tivoli Storage Productivity Center for Replication Two Site Business
   Continuity
- IBM Tivoli Storage Productivity Center for Replication Three Site Business Continuity
- ${}^{IBM}$  Tivoli Storage Productivity Center for Replication Basic Edition for System  $z^{^{\tiny (B)}}$
- IBM Tivoli Storage Productivity Center for Replication for System z

IBM Tivoli Storage Productivity Center for Replication is supported on the following platforms:

- AIX<sup>®</sup> V5.3 ML3 and AIX 6.1
- Red Hat Enterprise Linux 4 Update and Red Hat Enterprise Linux 5 AS
- Windows Datacenter Edition and Windows 2003 Enterprise Edition
- Windows Server 2008 Standard Edition and Windows Server 2008 Enterprise Edition
- z/OS<sup>®</sup> V1.9 or later

# Intended audience

This publication is intended for users of the CLI program for IBM Tivoli Storage Productivity Center for Replication.

# **Command-line interface conventions**

This topic provides information about using the CLI program for IBM Tivoli Storage Productivity Center for Replication. It includes information about command conventions and modes, command format requirements, and other usage information.

# Presentation of command information

This topic describes how information is presented in the command descriptions.

A *syntax diagram* uses symbols to represent the elements of a command and to specify the rules for using these elements. A *keyword* represents the name of a command, flag, parameter, or argument. Required key words indicate the parameters or arguments that must be specified for the command.

# Syntax diagrams conventions

To read syntax diagrams, follow the path of the line. Read the diagrams from left-to-right, top-to-bottom, following the main path line:

- Required keywords are displayed on the main path line. Mutually exclusive required keywords are stacked vertically. Optional key words indicate the parameters or arguments you can choose to specify for the command. Optional keywords appear below the main path line. Mutually exclusive optional keywords are stacked vertically.
- The main path line begins on the left with double arrowheads (>>) and ends on the right with two arrowheads facing each other (><). If a diagram is longer than one line, each line to be continued ends with a single arrowhead (>) and the next line begins with a single arrowhead. The -->< symbol indicates the end of the syntax diagram.
- A dash (-) indicates that you must supply parameters from the stdin file rather than entering parameters.
- An arrow returning to the left means you can repeat the item. A character or space within the arrow means you must separate repeated items with that character or space.
- A stack of items followed by an arrow returning to the left means that you can select more than one item or, in some cases, repeat a single item.
- When a group of parameters is lengthy or a section is used more than once in a command, it is shown as a separate fragment following the main diagram.

Syntax diagrams use position to indicate required, optional, and default values for keywords, variables, and operands:

- If an element is shown on the line, the element is required. If an element is shown below the line, the element is optional. If an element is shown above the line, the element is the default.
- If an operand has a default value, the operand is shown both above and below the main line. A value below the main line indicates that the operand must be specified. You must specify the default value or one of the other valid values that are shown. If an operand is not specified, the default value above the main line is used.
- When one or more items are shown below the main line, all of the items are optional.

# **Command emphasis**

The following typefaces are used to show command emphasis:

#### boldface

Text in **boldface** represents command names.

*italics* Text in *italics* is used for variables for which you supply actual values, such as a default directory or the name of a cluster.

#### monospace

Text in monospace identifies the data or commands that you type, samples of command output, examples of program code or messages from the system, or names of command flags, parameters, arguments, and name-value pairs.

#### **Special characters**

The following special characters are used in the command descriptions:

#### minus sign (-)

Flags are prefixed with a minus sign (-). Flags define the action of a command or modify the operation of a command. You can use multiple

flags, followed by parameters, when you issue a command. This character cannot be used as the first character of an object name.

#### vertical bar ( |)

A vertical bar signifies that you choose only one value.

For example, [a | b] indicates that you can choose a, b, or nothing. Similarly, { a | b } indicates that you must choose either a or b.

#### quotation marks (" ")

Quotation marks around a string indicate that the value can include spaces, for example, "my session name."

#### brackets ([])

Brackets indicate optional options, parameters, and arguments.

#### braces ({ })

Braces indicate a required choice between two or more options or arguments.

```
ellipsis (...)
```

Ellipses indicate repetition or multiple values or arguments.

# **Command entry**

This topic describes how to enter commands in a valid format.

# Order of parameters

Parameters can be entered in any order, with the following exceptions:

- The first argument following the command name must be the action that is to be performed.
- If you are performing an action on a specific object, the object ID or name must be the last argument in the line.

#### Multiple values

For any commands that accept multiple input values of the same type, delimit the values with a comma with no spaces in the input string (for example, -vol 3,5,8,9).

For any commands that require multiple value types in one string, delimit the value types with a period. For example, if a volume requires a device number and a volume number, you might specify -vol FCA86.3,FCA78.5,FCA96.8. When input values are of different types but specified in the same flag, use a colon. For example, to specify a minimum and maximum value in the same flag, you would type -size min:max.

#### Multiple arguments

IBM Tivoli Storage Productivity Center for Replication supports multiple arguments for the commands **chauth**, **chsess**, **lsdevice**, **lssess**, **lssessactions**, **lsvol**, and **rmsess**. If you invoke a command with multiple arguments, the command will be applied for each of the arguments. For example, you might issue the following command to remove session\_a, session\_b, and session\_c.

```
#rmsess session_a session_b session_c
```

When a command runs on more than one argument, the CLI program establishes a single security session to run the command on each of the multiple arguments.

# **Volumes and locations**

The following volume values are valid:

#### ESS devices

Valid volume values include the device type, component type, device ID, subsystem ID, logical subsystem ID, and volume ID, with each separated by a period or colon. For example:

```
ESS:2105.65312:VOL:202F (ESS:ELEMENTTYPE.DEVICEID:VOL:LSSVOLNUM)
```

# **User-defined objects**

These are the requirements for valid user-defined object names:

- User-defined object names can be 250 characters or fewer, unless otherwise noted.
- Valid characters are A-Z, a-z, 0 9, dash (-), underscore (\_), period (.), and colon (:).
- Object names must start with an alphanumeric character.
- Most object names cannot contain any blank spaces. However, you can include blanks in session names and location names.
- Do not translate user-defined objects or otherwise modify them from the user's entry (they should remain case-sensitive).

# **User-defined descriptions**

These are the requirements for valid user-defined descriptions:

- If a description contains spaces, it must be enclosed in matching double quotation marks or single quotation marks.
- If a description that is already enclosed in matching quotation marks includes an asterisk, the asterisk must be preceded by an escape character, for example, -desc "This is the \\* pool".
- If a description that is already enclosed in matching quotation marks includes quotation marks or single quotation marks within the actual text string, these characters must be escaped. For example, -desc "This is Hanna\'s description" or -desc "This is the pool I call \"Foo\".'
- User-defined descriptions can be 250 characters or fewer. They cannot contain any leading blank spaces.
- User-defined descriptions should not be translated or otherwise modified from the user's entry, (that is they should remain case-sensitive).
- The CLI is sensitive to case when interpreting user-defined object names given as input. For example, object F00 is different than object foo.

# **Command modes**

You can use the command line interface (CLI) to run a single command or a series of commands, either interactively or from a script.

#### Single-shot mode

If you want to run only a single command, specify the **csmcli** program and the command that you want to run from the shell prompt, for example:

```
shell> csmcli lslocation
Location Details
========
```

1	Boulder
3	Marana
2	Tucson
shell>	

#### Interactive mode

If you want to run several commands, start an CLI session using the **csmcli** program with no parameters or arguments, and then enter each command at the csmcli> shell prompt, for example:

```
shell> csmcli
csmcli> rmsess exmp_session
Are you sure that you want to remove session exmp_session? [y/n]:y
Session exmp_session removed
csmcli> exit
shell>
```

#### Script mode

If you want to run a set of commands that you defined in a file, use the **csmcli** program with the -script parameter, for example:

shell> tpctool -script ~/bin/containersetup
shell>

You can add comments to the script file by placing a pound sign (#) in the first column, for example:

# This script file lists the default storage pool.
lspool -l -type default

The CLI program recognizes these built-in commands in interactive mode:

#### setoutput

Specifies various command-output format options. All settings specified with **setoutput** remain in effect for the duration of the interactive command session unless reset either with a command option or with **setoutput**. With no options, **setoutput** displays the current settings in the default output format. Settings from the **setoutput** command do not apply to help pages; help pages are shown in text output only.

Syntax



#### Parameters and arguments:

#### -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

#### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify -fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

### **-p** { **on** | **off** }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

#### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.
- -r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.
- help Displays a list of commands available from the CLI session.
- exit Exits from the CLI session.
- quit Exits from the CLI session.

# User assistance for commands

You can get user assistance for the any csmcli command using the help command.

# Syntax



# **Parameters**

- -1 Displays a list of all available commands and syntax for each if no other options are specified. If a command name is also specified, this option displays syntax for that command.
- -s Displays a list of all available commands and a brief description of each if no other options are specified. If a command name is also specified, this option displays a brief description for that command.

#### command\_name

Displays detailed help for the specified command

# Description

If this command is invoked without any parameters, it displays a list of all available commands.

You can use the command-help parameters (**-help**, **-h**, or **-?**) that are supported by each command to display a detailed description of the specified command. For more information about the command-help parameters, see the description for each command.

# Accessing the IBM Tivoli Storage Productivity Center for Replication Information Center

This topic explains how to access the IBM Tivoli Storage Productivity Center for Replication Information Center.

You can access the information center in the following ways:

- On the publications CD, a readme.txt file describes how to start the information center depending on platform and mode.
- The IBM Tivoli Storage Productivity Center for Replication graphical user interface includes a link to the information center.
- Go to the Web at http://publib.boulder.ibm.com/infocenter/tivihelp/v4r1/ index.jsp:

# Publications and related information

This topic lists the publications in the IBM Tivoli Storage Productivity Center for Replication library and other related publications.

# **Information Centers**

You can browse product documentation on the Internet. From the IBM Tivoli Storage Productivity Center for Replication for System z Information Center at:

http://publib.boulder.ibm.com/infocenter/tivihelp/v4r1/index.jsp

# **Publications**

The IBM Publications Center Web Site offers customized search functions to help you find the publications that you need. Some publications are available for you to view or download free of charge. You can also order publications. The publications center displays prices in your local currency. You can access the IBM Publications Center on the web at www.ibm.com/e-business/linkweb/publications/servlet/ pbi.wss

The IBM Publications Center Web site offers you a notification system for IBM publications. Register and you can create your own profile of publications that interest you. The publications notification system sends you a daily e-mail that contains information about new or revised publications that are based on your profile. Access the publications notification system from the IBM Publications Center on the web at www.ibm.com/e-business/linkweb/publications/servlet/ pbi.wss to subscribe.

These publications that make up the IBM Tivoli Storage Productivity Center for Replication for System *z* library.

*IBM Tivoli Storage Productivity Center for Replication for System z Installation and Configuration Guide* **(SC27-2321)** 

This guide contains instructions for installing and configuring the product on z/OS.

*Program Directory for IBM Tivoli Storage Productivity Center for Replication Basic Edition for System z* (GI11-8958)

This Program Directory includes installation instructions associated with IBM Tivoli Storage Productivity Center for Replication Basic Edition for System z.

*Program Directory for IBM Tivoli Storage Productivity Center for Replication for System z* (GI11-8960)

This Program Directory presents information concerning the material and procedures associated with the installation of IBM Tivoli Storage Productivity Center for Replication for System z.

Program Directory for IBM WebSphere<sup>®</sup> Application Server OEM Edition (GI11-4326) This Program Directory presents information related to installing IBM WebSphere Application Server OEM Edition for z/OS V6.1.0.

*IBM WebSphere Application Server OEM Edition for z/OS Configuration Guide* **(GA32-0630)** 

This guide contains configuration instructions associated with IBM WebSphere Application Server OEM Edition for z/OS.

IBM Tivoli Storage Productivity Center for Replication for System z User's Guide **(SC27-2322)** 

This guide contains task-oriented instructions for using the product graphical user interface (GUI) to manage copy services.

IBM Tivoli Storage Productivity Center for Replication for System z Command-Line Interface User's Guide (SC27-2323)

This guide provides information about how to use the product's command-line interface (CLI).

*IBM Tivoli Storage Productivity Center for Replication for System z Problem Determination Guide* (GC27-2320)

This guide assists administrators or users who are troubleshooting problems with the product.

# **Redbooks and white papers**

- Performance Monitoring and Best Practices for WebSphere on z/OS (SG24-7269) This IBM Redbooks<sup>®</sup> publication provides a structure that you can use to set up an environment that is tuned to meet best performance and catch eventual performance bottlenecks.
- DB2<sup>®</sup> for z/OS and WebSphere: The Perfect Couple (SG24-6319)

This IBM Redbooks publication provides a broad understanding of the installation, configuration, and use of the IBM DB2 Universal Driver for SQLJ and JDBC in a DB2 for z/OS and OS/390<sup>®</sup> Version 7, and DB2 for z/OS Version 8 environment, with IBM WebSphere Application Server for z/OS for z/OS Version 5.02. It describes both type 2 and type 4 connectivity (including the XA transaction support) from a WebSphere Application Server on z/OS to a DB2 for z/OS and OS/390 database server.

Performance and tuning tips for WebSphere Application Server for z/OS This IBM publication contains performance and tuning tips for z/OS, tuning for storage systems that run on WebSphere Application Server including DB2, CICS<sup>®</sup> RACF<sup>®</sup>, TCP/IP and MQSeries/Java Messaging Services (JMS), as well as tuning tips for WebSphere Application Server runtime environment.

# Web resources

Listed here are the websites and information center topics that relate to IBM Tivoli Storage Productivity Center for Replication.

#### Websites

• IBM Tivoli Storage Productivity Center

www.ibm.com/systems/storage/software/center/standard/index.html

This website describes the feature, benefits, and specifications of Tivoli Storage Productivity Center. It also provides a link to product support, data sheets, resource library, and white papers.

Tivoli Storage Productivity Center for Replication

www.ibm.com/systems/storage/software/center/replication/index.html

This website describes the feature, benefits, and specifications of Tivoli Storage Productivity Center for Replication. It also provides a link to the Software Online Catalog purchase the product and licenses.

Tivoli Storage Productivity Center Technical Support

www.ibm.com/support/entry/portal/Overview/Software/Tivoli/ Tivoli\_Storage\_Productivity\_Center\_Standard\_Edition

This website provides links to downloads and documentation for all currently supported versions of Tivoli Storage Productivity Center and Tivoli Storage Productivity Center for Replication.

Supported Storage Products List

http://www-01.ibm.com/support/docview.wss?uid=swg21386446

This website provides links to the supported storage products for each version of Tivoli Storage Productivity Center for Replication.

 IBM WebSphere Application Server www.ibm.com/software/webservers/appserv/was/ This website describes the IBM WebSphere Application Server offerings and provides links for downloading a trial version, purchasing IBM WebSphere Application Server, and viewing online publication and demos.

IBM DB2 Software

www.ibm.com/software/data/db2/

This website describes the DB2 offerings and provides links for downloading a trial version, purchasing DB2, and viewing analyst reports, online publication, and demos.

• IBM System Storage<sup>®</sup> Disk Systems

www.ibm.com/servers/storage/disk/

This website provides links to learn more about the IBM System Storage disk systems products and offerings, including  $DS6000^{\mathbb{M}}$  and  $DS8000^{\mathbb{B}}$ . It also provides links for viewing support and services, software and solutions, and other resources.

• IBM System Storage SAN Volume Controller

www.ibm.com/servers/storage/software/virtualization/svc/index.html

This website describes the SAN Volume Controller offerings and provides links for purchasing SAN Volume Controller and viewing online publication, white papers, and case studies.

• System z (and z/OS)

www.ibm.com/systems/z/

This website provides links to learn more about IBM System z offerings and software. It also includes information about upcoming webcasts, blogs, and demos.

#### Forums

• Tivoli Forums

www.ibm.com/developerworks/forums/tivoli\_forums.jspa

This website provides a forum that you can use to discuss issues pertaining to Tivoli Storage Productivity Center, Tivoli Storage Productivity Center for Replication, and other Tivoli products. This website includes a link for obtaining the forum using a Rich Site Summary (RSS) feed.

Technical Exchange Webcasts

www-01.ibm.com/software/sysmgmt/products/support/supp\_tech\_exch.html

This forum to join in webcasts during technical experts share their knowledge and answer your questions. Visit this site often to see upcoming topics and presenters or to listen to previous webcasts.

# Providing feedback about publications

Your feedback is important to help IBM provide the highest quality information. You can provide comments or suggestions about the documentation from the IBM Tivoli Storage Productivity Center for Replication Information Center.

Go to the information center at http://publib.boulder.ibm.com/infocenter/ tivihelp/v4r1/index.jsp and click the **Feedback** link at the bottom of the information center Welcome page or topic pages.

# Chapter 1. Customizing the command-line interface

This information describes how to customize the command-line interface.

# Configuring the command-line interface

This information describes how to modify the properties files to configure the command-line interface.

There are three properties files that are used to configure the command-line interface:

#### repcli.properties

Contains the server and port information used to communicate with the IBM Tivoli Storage Productivity Center for Replication server and the command-line interface.

#### rmserver.properties

Contains configuration information about logging.

#### tpcrcli-auth.properties

Contains authorization information for signing on to the CLI automatically without entering your user name and password.

# Setting up automatic login to the CLI

     	You can set up the command line interface to automatically log you in without specifying your user name or password each time you issue a <b>csmcli</b> command or enter the <b>csmcli</b> shell. Use the tpcrcli-auth.properties file to create a persistent copy of the user name and encrypted password used for automatic authentication and authorization.						
I	Perform these steps to set up automatic lo	ogin authentication:					
   	1. Locate the tpcrcli-auth.properties template file in the <i>install_root</i> \CLI directory. The template is located in the following directories by default, based on the operating system running on the management server.						
	Operating system	Default directory					
I	Windows	C:\Program Files\IBM\replication\CLI					
I	AIX and Linux	/opt/IBM/replication/CLI					
	z/OS	/var/Tivoli/RM/CLI					
1	<ol> <li>Copy the template to the tpcr-cli dire example, C:\Documents and Settings\.</li> </ol>	ectory in your home directory (for joe\tpcr-cli\ on Windows.)					
I	3. Edit the file, and add your user name	and password.					
 	4. Issue a <b>csmcli</b> command or enter the <b>c</b> the tpcrcli-auth.properties file.	csmcli shell to encrypt the password in					

# Chapter 2. csmcli command descriptions

The following table provides a brief description and authorization role for each command in the command-line interface.

# Sessions and copy sets

Command	Description	Roles
"chsess" on page 16	Use the <b>chsess</b> command to change the description or options set of an existing session. To change the session type, you must delete the session and create a new one.	Administrator Operator
"cmdsess" on page 24	Use the <b>cmdsess</b> command to run a specific action against a session.	Administrator Operator
"exportcsv" on page 25	Use the <b>exportcsv</b> command to export the copy sets in a session to a comma-separated values (CSV) file or to the console. You are prompted to overwrite the CSV file if it exists.	Administrator Operator Monitor
"importcsv" on page 28	Use the <b>importcsv</b> command to parse a comma-separated values (CSV) file to create copy sets for a session.	Administrator
"lscpset" on page 33	Use the <b>lscpset</b> command to list the source (H1) volume of the copy service pairs and their status.	Administrator Operator Monitor
"lscptypes" on page 35	Use the <b>lscptypes</b> command to display all the supported session (copy) types, which you can use with the <b>mksess</b> command.	Administrator Operator Monitor
"lspair" on page 49	Use the <b>lspair</b> command to list the source and target of the copy service pairs and their status.	Administrator Operator Monitor
"lsparameter" on page 53	Use the <b>lsparameter</b> command to list Metro Mirror heartbeat setting.	Administrator Operator Monitor
"lsrolepairs" on page 57	Use the <b>lsrolepairs</b> command to display role pairs in a session.	Administrator Operator Monitor
"lsrolescpset" on page 60	Use the <b>lsrolescpset</b> command to list the volume roles in the specified session.	Administrator Operator Monitor
"lssess" on page 62	Use the <b>lssess</b> command to display sessions and their associated status.	Administrator Operator Monitor
"lssessactions" on page 64	Use the <b>lssessactions</b> command to list all the session actions (commands) that can be run for a specific session.	Administrator Operator Monitor
"lssessdetails" on page 66	Use the <b>Issessdetails</b> command to display the details of a session.	Administrator Operator Monitor
"mkcpset" on page 76	Use the <b>mkcpset</b> command to create a copy set when you want to define your own source-to-target mapping.	Administrator Operator

Command	Description	Roles
"mksess" on page 79	Use the <b>mksess</b> command to create a session.	Administrator Operator
"rmcpset" on page 84	Use the <b>rmcpset</b> command to delete an existing copy set.	Administrator Operator
"rmsess" on page 88	Use the <b>rmsess</b> command to delete an existing session.	Administrator Operator
"setparameter" on page 92	Use the <b>setparameter</b> command to set the system parameters.	Administrator
"showcpset" on page 94	Use the <b>showcpset</b> command to display properties for a copy set.	Administrator Operator Monitor
"showsess" on page 102	Use the <b>showsess</b> command to display properties for a selected session, including name, description, group managed, and copy type.	Administrator Operator Monitor

# Storage systems and connections

Command	Description	Roles
"adddevice" on page 7	Use the <b>adddevice</b> command to add a device. You are asked for the password upon completion of this command.	Administrator
"addmc" on page 9	Use the <b>addmc</b> command to add a management console connection and all the storage systems that are managed by that management console. You are asked for the password upon completion of this command.	Administrator
"addstorsys" on page 10	Use the <b>addstorsys</b> command to add a specific storage system and its volumes that are attached to the IBM Tivoli Storage Productivity Center for Replication server to the IBM Tivoli Storage Productivity Center for Replication configuration through a z/OS connection.	Administrator
"chdevice" on page 12	Use the <b>chdevice</b> command to set or change hardware credentials.	Administrator
"chlocation" on page 14	Use the <b>chlocation</b> command to change the location associated with the specified storage systems.	Administrator
"chmc" on page 15	Use the <b>chmc</b> command to set or change the hardware credentials for the hardware management console (HMC).	Administrator
"chvol" on page 23	Use the <b>chvol</b> command to change the protection setting associated with a volume.	Administrator
"lsavailports" on page 31	Use the <b>lsavailports</b> command to display the port configuration types for a specific path.	Administrator Operator Monitor
"lsdevice" on page 37	Use the <b>Isdevice</b> command to list the storage devices and properties.	Administrator Operator Monitor
"lslocation" on page 43	Use the <b>lslocation</b> command to list all defined locations.	Administrator Operator Monitor

Command	Description	Roles
"lslss" on page 45	Use the <b>lslss</b> command to list the logical subsystems (LSSes) for the specified DS or ESS storage system. You can use this output with the <b>mkpath</b> command.	Administrator Operator Monitor
"lsmc" on page 47	Use the <b>lsmc</b> command to display a summary of management consoles and settings.	Administrator Operator Monitor
"lspath" on page 55	Use the <b>lspath</b> command to display paths between ESS and DS devices. You can then use this information for a remote copy.	Administrator Operator Monitor
"lsstorcandidate" on page 69	Use the <b>lsstorcandidate</b> command to list the storage systems that can be discovered through the z/OS connection. This command does not list storage systems that are already added to the IBM Tivoli Storage Productivity Center for Replication configuration.	Administrator Operator Monitor
"lsvol" on page 71	Use the <b>lsvol</b> command to display detailed volume information. This command might be useful when choosing available volumes for copy sets or viewing properties of volumes such as volume capacity, type and whether a volume is space efficient or protected.	Administrator Operator Monitor
"mkpath" on page 78	Use the <b>mkpath</b> command to create a Fibre Channel path or paths between a source logical subsystem (LSS) and a target LSS.	Administrator Operator
"rmdevice" on page 85	Use the <b>rmdevice</b> command to remove a direct connection to a storage system.	Administrator
"rmmc" on page 86	Use the <b>rmmc</b> command to remove a management console.	Administrator
"rmpath" on page 87	Use the <b>rmpath</b> command to remove a path or paths between a source logical subsystem (LSS) and a target LSS.	Administrator Operator
"rmstorsys" on page 90	Use the <b>rmstorsys</b> command to remove a specific storage system and its volumes that are attached to the IBM Tivoli Storage Productivity Center for Replication server from the IBM Tivoli Storage Productivity Center for Replication configuration through a z/OS connection.	Administrator
"showdevice" on page 95	Use the <b>showdevice</b> command to display device properties.	Administrator
"showmc" on page 101	Use the <b>showmc</b> command to display the properties of a management console.	Administrator

# Management servers

Command	Description	Roles
"hareconnect" on page 27	Use the <b>hareconnect</b> command to reconnect the active and standby servers for high availability (HA).	Administrator
"hatakeover" on page 27	Use the <b>hatakeover</b> command to change the standby server to the active server.	Administrator

Command	Description	Roles
"lshaservers" on page 39	Use the <b>lshaservers</b> command to show the status of each active and standby management server.	Administrator Operator Monitor
"lssnmp" on page 68	Use the <b>lssnmp</b> command to list the SNMP managers to which IBM Tivoli Storage Productivity Center for Replication is configured to send SNMP alerts.	Administrator Operator Monitor
"mkbackup" on page 75	Use the <b>mkbackup</b> command to create a backup of IBM Tivoli Storage Productivity Center for Replication configuration data (including storage systems, sessions, and copy set) in the zero-administration embedded repository.	Administrator
"mklogpkg" on page 78	Use the <b>mklogpkg</b> command to create a log package. The log package is written to the file that is specified in the properties file.	Administrator
"mksnmp" on page 81	Use the <b>mksnmp</b> command to add a specified manager to the list of servers to which SNMP traps are sent. SNMP traps are not specific to any particular session. All traps for any session are sent to each server.	Administrator
"rmactive" on page 81	Use the <b>rmactive</b> command to remove an active management server.	Administrator
"rmsnmp" on page 89	You can use the <b>rmsnmp</b> command to remove the specified manager from the list of servers to which SNMP traps are sent.	Administrator
"rmstdby" on page 89	Use the <b>rmstdby</b> command to remove a standby management server.	Administrator
"setasstdby" on page 91	Use the <b>setasstdby</b> command to set a management server to be the standby management server of another active management server.	Administrator
"setstdby" on page 93	Use the <b>setstdby</b> command to set the standby management server for an active management server.	Administrator
"showha" on page 100	Use the <b>showha</b> command to display the high-availability status.	Administrator Operator Monitor
"ver" on page 104	Use the <b>ver</b> command to display the current version of IBM Tivoli Storage Productivity Center for Replication.	Administrator Operator Monitor

# Security

Command	Description	Roles
"chauth" on page 11	Use the <b>chauth</b> command to change the authorization level of a user.	Administrator
"lsauth" on page 29	Use the <b>lsauth</b> command to lists the name, authorization level, and session permission for each user or user group.	Administrator Operator Monitor
"mkauth" on page 74	Use the <b>mkauth</b> command to grant monitor, administrator, or operator authorization to a user.	Administrator

Command	Description	Roles
"rmauth" on page 83	Use the <b>rmauth</b> command to remove monitor, administrator, or operator authorization from a user or user group.	Administrator
"whoami" on page 104	Use the <b>whoami</b> command to display the name of the user that is currently logged in.	Administrator Operator Monitor

# adddevice

Use the **adddevice** command to add a device. You are asked for the password upon completion of this command.

#### Syntax



# **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-devtype { ds | ess | svc }

Specifies the type of the hardware device. Currently supported devices are ESS, DS, and SAN Volume Controller. The HMC enables IBM Tivoli Storage Productivity Center for Replication to connect to the DS8000 using an IPV6 address.

-ip ip\_address[;IP\_address]

Specifies the IP addresses or host names of the cluster. For ESS and DS storage systems, this is the IP addresses of both clusters. Both IP addresses or host names must be specified with a semicolon in between (for example, 192.0.2.0;192.0.2.1). For the SAN Volume Controller, this is the IP address of the SAN Volume Controller cluster.

**Note:** ESS and DS devices must have two IP addresses. SAN Volume Controller devices have one IP address.

#### -username user\_name

Specifies the user name for both clusters on ESS and DS storage systems and for the SAN Volume Controller cluster. If the device type is ESS or DS, you can optionally specify two user IDs, one for cluster 0 and one for cluster 1, with a semicolon in between. The semicolon is a reserved delimiter for ESS and DS devices. SAN Volume Controller user names cannot have a delimiter.

#### -port port[;port]

Specifies the port to use for accessing the cluster for ESS and DS devices and the SVC cluster for SAN Volume Controller devices. If the device type is ESS, you can optionally enter two ports with a semicolon in between the cluster 0 and cluster 1 port numbers. The semicolon cannot be used for SAN Volume Controller devices. If only one port is supplied, then the port for both clusters are set to that port. The default port number is 2433 for ESS and DS devices and 5989 for SAN Volume Controller devices.

#### Description

To add a storage system that is attached through a z/OS connection, use the **addstorsys** command.

To change the location of a storage system, use the **chlocation** command.

#### Example

#### Adding an ESS storage system

The following command adds an ESS storage system to IBM Tivoli Storage Productivity Center for Replication.

csmcli> adddevice -devtype ess -ip sts596c0;sts596c1 -username

The following output is returned:

Please enter a password for the device cluster 0 userid of admin: IWNH1612I The connection sts596c0:sts596c1 was successfully added.

# addhost

Use the **addhost** command to add host system connections to the IBM Tivoli Storage Productivity Center for Replication server.

#### Syntax



# **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-port port

This is an optional parameter that specifies the port to use to access the host system. If a port is not specified, the default port 9930 is used.

#### IP\_Address | -

Specifies the IP address or host name of the host system.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

### Example

Adding host systems

The following command shows how to add a host system with IP address 9.11.223.43. In this example, you could omit the -port parameter because port 9930 is the default.

csmcli> addhost -port 9930 9.11.223.43

# addmc

Use the **addmc** command to add a management console connection and all the storage systems that are managed by that management console. You are asked for the password upon completion of this command.

#### Syntax



# Parameters

```
-help | -h | -?
```

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -devtype { ds | ds8000 }

Specifies the type of hardware device. You can specify either ds or ds8000.

#### -ip ip\_address[;ip\_address]

Specifies the IP addresses of the management consoles to be added. For dual-management console configurations, both IP addresses must be specified with a semicolon in between (for example, 192.0.2.0;192.0.2.1).

#### -username user\_name

Specifies the user name for the management console. For dual management console configurations, the management consoles must have the same user name.

#### Example

#### Adding a management console

The following command adds a management console to IBM Tivoli Storage Productivity Center for Replication.

csmcli> addmc -devtype ds -ip 127.0.0.1 -username admin

The following output is returned:

Please enter a password for the device userid of admin: IWNH1612I The connection HMC:127.0.0.1 was successfully added.

# addstorsys

Use the **addstorsys** command to add a specific storage system and its volumes that are attached to the IBM Tivoli Storage Productivity Center for Replication server to the IBM Tivoli Storage Productivity Center for Replication configuration through a z/OS connection.

### Syntax



# Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -conntype zos

Specifies the type of connection that the storage system uses. Currently, you can specify only zos for a z/SO connection.

-dev device\_id

Specifies the ID of the DS or ESS storage system that is to be added to the IBM Tivoli Storage Productivity Center for Replication configuration.

Tip: Use the lsdevice command to display a list of valid storage system IDs.

#### Description

#### Important:

- You must have Administrator privileges to run this command.
- You can run this command only from the IBM Tivoli Storage Productivity Center for Replication server that is installed on a system running z/OS.
- You can use this command to add only DS and ESS type storage systems.

If the storage system has been previously added through another connection type, then z/OS is added to the storage system's connection types.

To add a storage system that is attached through a direct connection, use the **adddevice** command. To add a storage system that is attached through a hardware-management-console (HMC) connection, use the **addmc** command.

To change the location of the storage system, use the **chlocation** command.

#### Example

1. Adding an ESS storage system

This example illustrates how to add the storage system with ID ESS:B0X:2105.12345 to the IBM Tivoli Storage Productivity Center for Replication configuration through the z/OS connection.

csmcli> addstorsys -dev ESS:BOX:2105.12345 -conntype zos

The following output is returned:

IWNH1612I The connection ESS:BOX:2105.12345 was successfully added.

#### 2. Adding an DS8000 storage system

This example illustrates how to add the storage system with ID DS8000:B0X:2107.MV492 to the IBM Tivoli Storage Productivity Center for Replication configuration through the z/OS connection.

csmcli> addstorsys -dev DS8000:BOX:2107.MV492 -conntype zos

The following output is returned:

IWNH1619I The storage device 2107.MV492 at ZOS was successfully added.

# chauth

Use the **chauth** command to change the authorization level of a user.

#### Syntax



# Parameters

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

#### -authlevel { admin | operator | monitor }

Specifies the new authorization level. You can specify one of these authorization levels: admin, operator, or monitor.

#### -name name

Specifies a user ID or group name for which you are changing the authorization level.

#### -type group | user

Specifies whether authorization is to be changed for a user group or user.

#### session\_name... | -

Specifies one or more sessions that the user can access. Separate multiple session names using a blank space. Use this parameter when you are changing the authorization level from user to operator. This parameter does not apply to monitors or administrators.

If no session name is specified, all sessions are used by default, unless another filter is used.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

### Example

#### 1. Changing user authorization to administrator

The following command changes the authorization level for the user csmuser to operator privileges with permission to manage session session1.

csmcli> chauth -name csmuser -type user -authlevel operator session1

The following output is returned:

Are you sure you want to change access for user csmuser? [y/n]:y IWNR4016I Successfully granted the session operator role to csmuser.

 $\ensuremath{\operatorname{IWNR4026I}}$  Successfully granted permission for session session1 for user Guest.

#### 2. Changing user authorization to monitor

The following command changes the authorization level for the user Guest to monitor privileges.

csmcli> chauth -name Guest -type user -authlevel monitor

The following output is returned:

Are you sure you want to change access for user Guest? [y/n]:y IWNR4017I Successfully granted the monitor role to Guest.

# chdevice

Use the **chdevice** command to set or change hardware credentials.

#### Syntax



# Parameters

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-devtype { ds | ess | svc }

Specifies the hardware type.

-ip ip\_address

Specifies the IP addresses of the cluster for ESS. Both IP addresses must be specified with a semicolon (;) between them; for example, 9.11.222.10;9.11.222.11. For SAN Volume Controller, this value is the IP address

of the SAN Volume Controller cluster.

**Tip:** To list the IP address or cluster IP address of a storage system, use the **lsdevice** command.

#### -username user\_name

Specifies the user names of the clusters for ESS and of the SAN Volume Controller cluster. If the device type is ESS, then the user name can optionally have a semicolon between cluster0 and cluster1 user names. If only one user name is specified for ESS devices, then both clusters will have the user name set to the specified user name.

#### -password

Prompts you for a new password for the device.

id | -

Specifies the ID of the device to change.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

Tip: To list the storage system IDs, use the lsdevice command.

# Description

To change the location of the storage systems, use the chlocation command.

#### Example

#### Changing hardware credentials

The following command changes the user name and password for the ESS storage system with ID ESS:B0X:2105.99898.

csmcli> chdevice -password -devtype ESS -username admin ESS:BOX:2105.99898

The following output is returned:

password for admin: \*\*\*\*\*\* IWNH1613I The storage device at ESS:BOX:2105.99898 was successfully updated.

# chhost

Use the **chhost** command to change credentials for host systems that are connected to the IBM Tivoli Storage Productivity Center for Replication server.

#### Syntax



# **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

#### -oldport port

Specifies the old port number for the host system connection to be modified.

-newip IP\_Address

Specifies the new IP address or host name of the host system connection to be modified.

-newport port

Specifies the new port number for the host system connection to be modified.

IP\_Address | -

Specifies the IP address or host name of the host system connection to be modified.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

#### Example

#### Changing host system credentials

The following command shows how to change the IP address or host name and port number for a host system connection. csmcli> chhost -oldport 9930 -newip 9.11.224.23 -newport 9931 9.11.223.43

Csmc112 childst =014p01t 3350 =new1p 3.11.224.25 =newp01t 3351 3.11

# chlocation

Use the **chlocation** command to change the location associated with the specified storage systems.

#### Syntax



#### **Parameters**

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -location location

Specifies the location to associate with the specified storage systems. The location can be up to 32 alphanumeric characters.

#### device\_id... | -

Specifies the ID of one or more storage systems whose location is to be changed, separated by a space.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

Tip: Use the lsdevice command to list the valid storage system IDs.

#### Description

**Important:** You must have Administrator privileges to run this command.

To list the locations that have already been associated with storage systems, use the **lslocation** command.

#### Example

#### Changing the location of multiple storage systems

The following command changes the location of multiple storage systems to Tucson.

csmcli> chlocation -location Tucson ESS:BOX:2105.18596 DS8000:BOX:2107.NK791

The following output is returned:

IWNH12221 The site location for storage system ESS:BOX:2105.18596 was successfully changed to Tucson.

IWNH12221 The site location for storage system DS8000:BOX:2107.NK791 was successfully changed to Tucson.

#### chmc

Use the **chmc** command to set or change the hardware credentials for the hardware management console (HMC).

#### Syntax



# Parameters

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -devtype ds | ds8000

Specifies the hardware type.

#### -ip ip\_address[;ip\_address]

Specifies the IP addresses of the primary and secondary management consoles. For single HMC configurations only one IP address is necessary. For dual HMC configurations, two IP addresses must be specified separated with a semicolon (;).

#### -username user\_name

Specifies the user names of the management console.

#### -password

Prompts you for a new password for the device.

id | -

Specifies the ID of the management console to change.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

Tip: Use the lsmc command to list the management console IDs.

#### Description

To change the location of a storage system behind a HMC connection, use the **chlocation** command.

#### Example

#### Changing hardware credentials

The following command change the user name and password for the HMC with ID HMC:127.0.0.1 and IP address 9.11.222.33.

csmcli> chmc -devtype ds -ip 127.0.0.1 -username admin -password HMC:127.0.0.1

The following output is returned:

Please enter a password for the device userid of admin: \*\*\*\*\*\* IWNH1613I The storage device at HMC:127.0.0.1 successfully updated.

# chsess

Use the **chsess** command to change the description or options set of an existing session. To change the session type, you must delete the session and create a new one.

#### Syntax







#### **Parameters**

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

-desc description

Specifies the new description for the session. This description can have up to 250 alphanumeric character. If the description contains white space, enclose it in single quotation marks.

#### -maxdrain max\_drain\_time

Specifies the new maximum drain time for Global Mirror type sessions. This parameter is meant to be used by advanced users.

If you specify **-maxdrain 0**, the DS storage system uses its default value instead of zero. Any other positive integer in the valid range is accepted by the DS storage system. However, when a zero is sent to the DS storage system, this instructs the DS storage system to set the value back to its default value.

The **-maxdrain** parameter is related to the DS **-drain** parameter. The default value for the **-drain** parameter is 30 seconds; the maximum value for the **-maxdrain** parameter is 65 535 seconds. For more information, see the **mkgmir** command in the *IBM TotalStorage*<sup>®</sup> *DS8000 Command-Line Interface User's Guide*. The **-maxdrain\_h1j3** and **-maxdrain\_h2j3** parameters relate to a Metro Global Mirror session. The **-maxdrain\_h1j3** parameter refers to the Global Mirror

portion of a Metro Global Mirror session when the session is running from site 1 to site 3 and the **-maxdrain\_h2j3** parameter refers to the Global Mirror portion of a Metro Global Mirror session that is running between site 2 and site 3.-maxdrain\_h2j1 relate to a Global Mirror session. The **-maxdrain\_h2j1** parameter refers to the Global Mirror portion of a Metro Global Mirror session when the session is running between site 2 and site 1.

#### -coordint coordination\_interval\_time

Specifies the new coordination interval time for Global Mirror type sessions. This parameter is meant to be used by advanced users. **-coordint\_h1j3**, **-coordint\_h2j1**, and **-coordint\_h2j3** relate to the role pair.

#### **-rpo** *rpo\_value*

Specifies the new Consistency group interval time (sec) for the XX-XX role pair. The value of Data exposure or Recovery Point Objective (RPO) value for the session will trend towards this value. This parameter applies only to Global Mirror session types and copy types where RPO is mapped. A value of 0 specifies that the ESS or DS continuously attempt to form consistency groups. Parameters **-rpo\_h1j2**, **-rpo\_h2j1**, and **-rpo\_h2j3** relate to the role pair.

#### -dsinc { yes | no }

Specifies that on the next Flash or Start command for a point-in-time session, the ESS or DS FlashCopy<sup>®</sup> relationship is incremental. This option is a toggle: if it is currently not set, it is turned on; if it is currently set, it is turned off.

#### -dspers { yes | no }

Specifies that on the next Flash or Start command for a point-in-time session, the ESS or DS FC relationship is persistent. This option is a toggle: if it is currently not set, it is turned on; if it is currently set, it is turned off.

#### -dsnocpy { yes | no }

Specifies that on the next Flash or Start command for a point-in-time session, the ESS or DS FC relationship is established with background copy. This option is a toggle. If it is currently not set, it is turned on; if it is currently set, it is turned off.

#### dspmir { no | preferred | required }

Specifies which Preserve Mirror option for DS8000 storage devices. You must specify a no, preferred, or required value when using this option. If this option is not specified, no preserve mirror options is the default.

#### -dstgtpprc { true | false }

Allows the FlashCopy target volume to be a remote mirror and copy source volume if the option is set to true. This parameter must be set to true for the **dspmir** parameter to take effect. The default option for this parameter is false.

#### -svccopyrate svc\_background\_copy\_rate

Specifies the copy rate that the SAN Volume Controller uses to perform the background copy of the FlashCopy relationships. Specify a percentage between 0 and 100; the default is 50.

When you specify 0, you are specifying the equivalent of the no-copy option on a DS or ESS FlashCopy session. If the session is performing a background copy when you change the option, IBM Tivoli Storage Productivity Center for Replication immediately modifies the background copy rate of the consistency group on the SAN Volume Controller. The SAN Volume Controller consistency group should then start using this new rate to complete the background copy that it is performing.

#### -svccopyrate\_h2i2 svc\_background\_copy\_rate

Specifies the copy rate that the SAN Volume Controller uses to perform the background copy of the FlashCopy role pair. Specify a percentage between 0 and 100; the default is 50.

When you specify 0, this is the equivalent of specifying the no-copy option on a DS or ESS FlashCopy session. If the session is performing a background copy when you change the option,IBM Tivoli Storage Productivity Center for Replication immediately modifies the background copy rate of the consistency group on the SAN Volume Controller. The SAN Volume Controller consistency group should then start using this new rate to complete the background copy that it is performing.

#### -svcinc {yes | no }

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Specifies that on the next Flash or Start command for a point-in-time session, the SVC FlashCopy relationship is incremental. This option is a toggle: if it is currently not set, it is turned on; if it is currently set, it is turned off.

#### -site1loc location

Specifies a location to associate with the site 1 volume role.

-site2loc location

Specifies a location to associate with the site 2 volume role.

#### -site3loc location

Specifies a location to associate with the site 3 volume role.

#### -manageH1H2withHyperSwap { yes | no }

Enables Basic HyperSwap<sup>®</sup> support for Metro Mirror Failover/Failback and Metro Global Mirror sessions.

yes

The following HyperSwap options are supported for the Metro Mirror Failover/Failback or Metro Global Mirror session:

- -disableHS yes | no
- -onConfigErrorHS disable | partition
- -onPlannedErrorHS disable | partition
- -onUnplannedErrorHS disable | partition
- **no** HyperSwap options are not supported. All Metro Mirror Failover/Failback and Metro Global Mirror functions are still supported.

#### -disableHS { yes | no }

Disables HyperSwap in Basic HyperSwap, Metro Mirror Failover/Failback with HyperSwap, and Metro Global Mirror with HyperSwap sessions. If HyperSwap detects a triggering event while it is disabled, it does not perform a swap.

Issuing the **-disableHS no** parameter resets the disable command (**-disableHS yes**), but does not necessarily mean that HyperSwap is enabled. It might mean only that HyperSwap is no longer disabled for operator reasons. This would be the case, for example if the HyperSwap address spaces were not started, a new member was in the process of joining the sysplex, or there was a HyperSwap in progress.

To determine the reasons that HyperSwap might be disabled, see the Session Messages panel by selecting the **View Messages** from the **Actions** list on the Sessions panel.

This parameter is applicable only if the manageH1H2withHyperSwap parameter is set to yes.
## -onConfigErrorHS { disable | partition }

Specifies the policy for the action to be taken for a configuration error. Valid policies are:

## disable

HyperSwap is disabled.

#### partition

New member is not allowed to join the sysplex and is partitioned out.

All members of a z/OS sysplex must be able to access all devices in a Basic HyperSwap, Metro Mirror Failover/Failback with HyperSwap, or Metro Global Mirror with HyperSwap session. If a new member joining the sysplex cannot access all devices, it fails validation and it must be partitioned out of the sysplex, or HyperSwap must be disabled until the problem is resolved.

Similarly, all members of the sysplex must be able to perform HyperSwap commands. If the HyperSwap API address space is unavailable on one system, that system must either be partitioned out of the sysplex, or HyperSwap must be disabled until the problem is resolved.

## -onPlannedErrorHS { disable | partition }

This optional parameter specifies the policy for the action to be taken when an error occurs during a planned HyperSwap: partition or disable. Valid policies are:

#### disable

HyperSwap processing is stopped and backed up, and HyperSwap is disabled.

#### partition

Systems that cannot perform the swap are partitioned out of the sysplex, and the HyperSwap continues with the remaining members of the sysplex. This is the default value.

### -onUnplannedErrorHS { disable | partition }

Specifies the policy for the action to be taken when an error occurs during an unplanned HyperSwap. Valid policies are:

#### disable

HyperSwap processing is stopped and backed up, HyperSwap is disabled, and a permanent I/O error is returned to any users of the failing device.

### partition

Systems that cannot perform the swap are partitioned out of the sysplex, and the HyperSwap continues with the remaining members of the sysplex. This is the default value.

## -manageH1H2withOpenHyperSwap { yes | no }

Enables Open HyperSwap support for Metro Mirror Failover/Failback sessions.

#### yes

The following Open HyperSwap option is supported for the Metro Mirror Failover/Failback session:

-disableOHS{ yes | no }

## no Open HyperSwap options are not supported. All Metro Mirror Failover/Failback functions are still supported. If no is specified and the session had previously loaded a configuration on the hosts and one of the volumes is OPEN, the manageH1H2withOpenHyperSwap option remains yes.

## -disableOHS { yes | no }

Disables Open HyperSwap in Metro Mirror Failover/Failback sessions. This parameter is applicable only if the manageH1H2withOpenHyperSwap parameter is set to yes. The default option for this parameter is no.

### -rmreserves { yes | no }

Removes the persistent reserve on the target volume to allow the establishment of a Metro Mirror session. Once set on, the setting for the **-rmreserves** parameter continues to persist for a session, and the setting remains until you remove it. However, warnings are displayed to indicate that the value is set when you attempt to start the session.

### -failIfTgtOnline { yes | no }

Determines whether the **Start** command fails if the target is online. If the parameter is set to yes, the target is determined to be online to a host, and **Start** command will fail.

### Notes:

- IBM Tivoli Storage Productivity Center for Replication cannot determine with absolute certainty whether the target is online to a host.
- This parameter affects only count key data (CKD) volumes.
- Online means that path groups are present. A path group is necessary, but is not enough to indicate that the volume is online. For example, an LPAR that is not part of a sysplex can be taken down (for example, through a power-off without a shutdown) and path groups will display as present, but no LPAR will have the volume online. That is, the path groups are present, but z/OS software might think the volumes are offline.

### -aftersuspend{ hold | release }

(Metro Mirror sessions) Specifies the session operation after a suspend occurs. Valid policies are:

**hold** Does not allow any updates to the primary volume after a suspend.

### release

allow updates to the primary volume after a suspend.

### session\_name... | -

Specifies the name of the session that is to be modified.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

### Example

## 1. Changing the description of a session

The following command changes the description of the session session1 to MGM session.

csmcli> chsess -desc "MGM session" session1

The following output is returned:

Are you sure you want to change session 203? [y/n]:y

 ${\tt IWNR1124I}$  The description for session session1 was modified successfully. The new description is MGM session.

### 2. Changing the session site locations

The following command changes location of each site in Metro Global Mirror session session1.

csmcli> chsess -sitelloc Boulder -site2loc Tucson -site3loc Marana session1

The following output is returned:

IWNR1096I The locations for sessions 203 and Site 3 were set successfully.

### 3. Disabling HyperSwap

The following command disables HyperSwap for session session1. csmcli> chsess -disableHS yes session1 The following output is returned: IWNR5411E Basic HyperSwap is disabled by operator for session session1.

## chvol

Use the **chvol** command to change the protection setting associated with a volume.

## Syntax



## Parameters

### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

#### -protected

Marks the volume or volumes as protected. It specifies that the volumes cannot be used in an add copy set action.

### -unprotected

Marks the volume or volumes as unprotected. It specifies that the volumes can be used in an add copy set action.

#### volume\_id | -

Specifies a volume ID for which to can change the protection setting.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

## Example

## 1. Protecting volumes

The following command marks the volume with ID ESS:2107.fca64:V0L:1234 as protected.

csmcli> chvol -protected DS8000:2107.04131:VOL:0001

The following output is returned:

Are you sure you want to change volume DS8000:2107.04131:VOL:0001? [y/n]:y IWNE9300I The set protection command completed without any errors. There were 1 element(s) protected and 0 element(s) unprotected.

IWNE9302I The element DS8000:2107.04131:VOL:0001 has been protected.

### 2. Unprotecting volumes

The following command marks the volume with ID ESS:2107.fca64:V0L:1234 as unprotected.

csmcli> chvol -unprotected ESS:2107.fca64:VOL:1234

The following output is returned:

Are you sure you want to change volume DS8000:2107.04131:VOL:0001? [y/n]:y IWNE9300I The set protection command completed without any errors. There were 0 element(s) protected and 1 element(s) unprotected.

IWNE9303I The element DS8000:2107.04131:VOL:0001 has been unprotected.

## cmdsess

Use the **cmdsess** command to run a specific action against a session.

## Syntax

►►—cmdsess—			action	—start—	
	—-help—	└quiet┘		-startgc	
-	h	•		-startgc h1:h2	
l	?			-startgc_h2:h1	
				-start h1:h2:h3	
				-start h1:h2	
				-start h1:h3	
				-start h2:h1	
				-start_h2:h1:h3	
				-start h2:h3	
				-stop	
				-terminate	
				-flash	
				-suspend	
				-suspendh2h3	
				suspendh1h3	
				recover	
				-recoverh1	
				-recoverh2	
				-recoverh3	
				—release i/o————	
				-enable copy to site 1	
				-enable copy to site 2	
				-re-enable copy to site 1-	
				-re-enable copy to site 2-	
				-re-enable copy to site 3-	
				hyperswap	
				• • •	



## Parameters

### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

<

-action action\_type

Specifies the action type (command) depending on the state and type of session. The input for this parameter is defined by the **lssessactions** command. The possible action types (commands) are displayed in the syntax diagram, and described in the *User's Guide*.

session\_name |-

Displays the named sessions. Separate multiple session names with a comma between each name. Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). All sessions are displayed by default.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

## Example

### 1. Starting a session

The following command runs the **Start H1->H2->H3** action on session session1.

csmcli> cmdsess -action start h1:h2:h3 session1

The following output is returned:

IWNR1813W This command will initiate the copying of data from Site 1 to Site 2 and Site 3 for session session1, overwriting any data on Site 2 and Site 3 for any inactive copy sets. For ESS/DS devices, exactly one path will be established between each LSS pair without existing paths. Do you want to continue? [y/n]:y

IWNR1027I The command Start H1->H2->H3 in session session1 has completed successfully.

### 2. Reversing the direction of replication

The following command runs the **Enable Copy to Site 1** action on session session1 without prompting for confirmation.

csmcli> cmdsess -quiet -action enable copy to site 1 session1

The following output is returned:

 ${\tt IWNR1027I}$   $\,$  The command Enable Copy to Site 1 in session session1 has completed successfully.

## exportcsv

Use the **exportcsv** command to export the copy sets in a session to a comma-separated values (CSV) file or to the console. You are prompted to overwrite the CSV file if it exists.

## Syntax



## Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-file file\_name

Specifies the name and path of the CSV file. If you do not specify this parameter, the CSV output is displayed on the command-line interface.

session\_name | -

Specifies the name of the session from which you are exporting the copy sets.

### Example

### 1. Exporting copy sets to a file

The following command exports the copy sets in session session1 to the file c:\session1.csv.

csmcli> exportcsv -file c:\session1.csv session1

The following output is returned:

Exporting...

IWNC6506I The export copy set command for session session1 succeeded. The file was exported to the path: c:\session1.csv.

#### 2. Exporting copy sets to standard out

The following command exports the copy sets in session session1 to a file named exportcsvtest.csv.

csmcli> exportcsv session1

The following output is returned:

Exporting... #203 #Metro Global Mirror w/ Practice #Aug 25, 2009 1:44:16 PM

```
H1,H2,H3,I3,J3
DS8000:2107.NK791:VOL:1500,DS8000:2107.MW931:VOL:1500,
DS8000:2107.04131:VOL:1500,DS8000:2107.04131:VOL:1505,
DS8000:2107.04131:VOL:150A
DS8000:2107.NK791:VOL:1501,DS8000:2107.MW931:VOL:1501,
DS8000:2107.04131:VOL:1501,DS8000:2107.04131:VOL:1506,
DS8000:2107.04131:VOL:150B
DS8000:2107.NK791:VOL:1502,DS8000:2107.MW931:VOL:1502,
DS8000:2107.04131:VOL:1502,DS8000:2107.04131:VOL:1507,
DS8000:2107.04131:VOL:150C
DS8000:2107.NK791:VOL:1503,DS8000:2107.MW931:VOL:1503,
DS8000:2107.04131:VOL:1503,DS8000:2107.04131:VOL:1508,
DS8000:2107.04131:VOL:150D
DS8000:2107.NK791:VOL:1504,DS8000:2107.MW931:VOL:1504,
DS8000:2107.04131:VOL:1504,DS8000:2107.04131:VOL:1509,
DS8000:2107.04131:VOL:150E
ESS:2105.FCA57:VOL:1500,DS8000:2107.NF111:VOL:1505,
DS8000:2107.04131:VOL:1600,DS8000:2107.04131:VOL:1605,
DS8000:2107.04131:VOL:160A
ESS:2105.FCA57:VOL:1501,DS8000:2107.NF111:VOL:1506,
DS8000:2107.04131:VOL:1601,DS8000:2107.04131:VOL:1606,
DS8000:2107.04131:VOL:160B
ESS:2105.FCA57:VOL:1502,DS8000:2107.NF111:VOL:1507,
DS8000:2107.04131:VOL:1602,DS8000:2107.04131:VOL:1607,
DS8000:2107.04131:VOL:160C
ESS:2105.FCA57:VOL:1503,DS8000:2107.NF111:VOL:1508,
DS8000:2107.04131:VOL:1603,DS8000:2107.04131:VOL:1608,
DS8000:2107.04131:VOL:160D
ESS:2105.FCA57:VOL:1504,DS8000:2107.NF111:VOL:1509,
DS8000:2107.04131:VOL:1604,DS8000:2107.04131:VOL:1609,
DS8000:2107.04131:VOL:160E
```

IWNR13011 The export of a copy set for session session1 succeeded.

## hareconnect

Use the **hareconnect** command to reconnect the active and standby servers for high availability (HA).

## Syntax



## **Parameters**

```
-help | -h | -?
```

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

## Example

#### Reconnecting the active and standby management servers

The following command reconnect the active and standby management servers. csmcli> hareconnect

The following output is returned:

IWNR3052I Successfully reconnected with the high availability server tpc1.storage.tucson.ibm.com from the server tpc2.storage.tucson.ibm.com

# hatakeover

Use the hatakeover command to change the standby server to the active server.

## Syntax

▶ → hatakeover			H
navanovier			
	⊢-help—	└─-auiet—'	
	⊢-n—		
	2		

## Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

## Description

**Note:** For the several commands that implement high-availability with the definition of a standby server, the standby server must be at the same level of IBM Tivoli Storage Productivity Center for Replication code as the active server.

## Example

#### Changing the standby server to the active server

The following command changes the standby server to the active server. csmcli> hatakeover

The following output is returned: IWNR3063I Successfully issued the takeover to the standby server tpc2.storage.tucson.ibm.com with the active HA server tpc1.storage.tucson.ibm.com.

## importcsv

Use the **importcsv** command to parse a comma-separated values (CSV) file to create copy sets for a session.

## Syntax



## **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

-file file\_name

A required parameter that specifies the name of the CSV file.

### session\_name | -

The name of the session for which you are creating copy sets. Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin).

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

## Description

The CSV file is parsed and copy sets are created from the data in the file. The CSV file must contain data for all the necessary roles in the session for which the copy sets are being created.

The following example illustrates the content of the CSV file for a FlashCopy session. Note that the first valid row must contain the appropriate role names for the session. The order of the copy sets does not matter, and you can include extra roles. A copy set is created from each row that follows the role names. All rows must have data in each column to be a valid row. Note that the number sign (#) indicates that the comment is ignored.

#Session1, #FlashCopy, #Oct 2, 2009 10:03:18 AM

H1,T1 DS8000:2107.FRLL1:VOL:1004,DS8000:2107.FRLL1:VOL:1104 DS8000:2107.FRLL1:VOL:1011,DS8000:2107.FRLL1:VOL:1101 DS8000:2107.FRLL1:VOL:1005,DS8000:2107.FRLL1:VOL:1105

## Example

## Importing a .csv file

The following command imports the file name exportcsvtest.csv into session session1 without prompting for a confirmation.

csmcli> importcsv -quiet -file exportcsvtest.csv session1

The following output is returned:

IWNR2001I The pair was successfully created in session session1 for copy set DS8000:2107.FRLL1:VOL:1004 with source DS8000:2107.FRLL1:VOL:1004 and target DS8000:2107.FRLL1:VOL:1104.

IWNR2001I The pair was successfully created in session session1 for copy set DS8000:2107.FRLL1:VOL:1011 with source DS8000:2107.FRLL1:VOL:1011 and target DS8000:2107.FRLL1:VOL:1101.

IWNR2001I The pair was successfully created in session session1 for copy set DS8000:2107.FRLL1:VOL:1005 with source DS8000:2107.FRLL1:VOL:1005 and target DS8000:2107.FRLL1:VOL:1105.

# Isauth

Use the **lsauth** command to lists the name, authorization level, and session permission for each user or user group.

## Syntax



# Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information about each user and user group, including the name, classification, and role.
- -1 Displays detailed information for each user and user group, including:

Column label	Details
User name	The user name for each authorization and session that the user has permission to manage.
Classification	The type: user or group.
Role	The role: Administrator, Operator, or Monitor
Session	The session name if the role is Operator, or a dash (-) if the role is Administrator or Monitor.

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify **-**fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

## -p { on | off }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

## -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.

### -r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- on Enable verbose mode.
- off Disable verbose mode. This is the default value.

## Example

1. Listing all users and user groups

The following command lists all currently defined users and user groups. csmcli> lsauth

The following output is returned:

Name Classification Role csmuser User Administrator

## 2. Listing detailed authorization information

The following command lists detailed information about the user csmuser.

csmcli> lsauth -l

The following output is returned:

Name Classification Role Session csmuser User Administrator -

# **Isavailports**

Use the **lsavailports** command to display the port configuration types for a specific path.

## Syntax



## Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information, including the source and target LSS and the type of port configuration.
- -1 Displays detailed information for each port, including:

Column label	Details
Source	Origin of the path; for ESS, an LSS.
Target	Target of the path; for ESS, an LSS.

Column label	Details
Туре	The configuration of the port (such as Enterprise Systems Connection [ESCON®] or Fibre Channel).

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify **-**fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

### **-**p { **on** | **off** }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- off Hides the table header.
- -r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

### -v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

#### -src source\_lss

Specifies the source LSS (for example, ESS:2105.FCA57:LSS:21).

### -tgt target\_lss

Specifies the target LSS (for example, ESS:2105.FCA57:LSS:21).

## Example

## Listing port configuration for paths

The following command lists the port configuration used for each path with source LSS DS8000:2107.04131:LSS:15 and target LSS ESS:2105.FCA57:LSS:15.

csmcli> lsavailports -src DS8000:2107.04131:LSS:15 -tgt ESS:2105.FCA57:LSS:15

The following output is returned:

Source	Target	Туре
DS8000:2107.04131:LSS:15.0x0330	ESS:2105.FCA57:LSS:15.0x008C	Fibre Channel
DS8000:2107.04131:LSS:15.0x0110	ESS:2105.FCA57:LSS:15.0x000C	Fibre Channel
DS8000:2107.04131:LSS:15.0x0110	ESS:2105.FCA57:LSS:15.0x008C	Fibre Channel
DS8000:2107.04131:LSS:15.0x0110	ESS:2105.FCA57:LSS:15.0x0088	Fibre Channel
DS8000:2107.04131:LSS:15.0x0110	ESS:2105.FCA57:LSS:15.0x0028	Fibre Channel

# Iscpset

Use the **lscpset** command to list the source (H1) volume of the copy service pairs and their status.

## Syntax



## **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information about each copy set in the session, including the H1 volume, session and volume name.
- -1 Displays detailed information for each copy set, including:

Column Label	Details
H1 Volume	The host site 1 volume name
Session	The session name.
Volumes	The number of volumes associated with the copy set.

-fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify -fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

#### -p { on | off }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

#### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.
- -r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

on Enable verbose mode.

**off** Disable verbose mode. This is the default value.

### **-h1** source\_vol\_id

Specifies the host site 1 volumes.

session\_name | -

Specifies the session name to which the copy sets belong.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

## Description

Use the **lscpset** command to list the source and targets of the copy set pairs and their status.

Use the **showcpset** command to list the volumes in a copy set.

Use the lsvol command to display the status of volumes in a copy set.

# Example

1. Listing copy sets in a session

The following command lists all copy sets in session gm.

csmcli> lscpset session1

The following output is returned:

Volume	Session	Volumes
3000:2107.NK791:VOL:1500	session1	5
3000:2107.NK791:VOL:1501	session1	5
3000:2107.NK791:VOL:1502	session1	5
3000:2107.NK791:VOL:1503	session1	5
3000:2107.NK791:VOL:1504	session1	5
S:2105.FCA57:VOL:1500	session1	5
S:2105.FCA57:VOL:1501	session1	5
S:2105.FCA57:VOL:1502	session1	5
S:2105.FCA57:VOL:1503	session1	5
S:2105.FCA57:VOL:1504	session1	5
	Volume 3000:2107.NK791:VOL:1500 3000:2107.NK791:VOL:1501 3000:2107.NK791:VOL:1502 3000:2107.NK791:VOL:1503 3000:2107.NK791:VOL:1504 5:2105.FCA57:VOL:1500 5:2105.FCA57:VOL:1501 5:2105.FCA57:VOL:1503 5:2105.FCA57:VOL:1503 5:2105.FCA57:VOL:1504	Volume         Session           3000:2107.NK791:VOL:1500         session1           3000:2107.NK791:VOL:1501         session1           3000:2107.NK791:VOL:1502         session1           3000:2107.NK791:VOL:1503         session1           3000:2107.NK791:VOL:1504         session1           3000:2107.NK791:VOL:1504         session1           3000:2107.NK791:VOL:1504         session1           32105.FCA57:VOL:1501         session1           5:2105.FCA57:VOL:1502         session1           5:2105.FCA57:VOL:1503         session1           5:2105.FCA57:VOL:1503         session1           5:2105.FCA57:VOL:1504         session1

## 2. Listing information about a copy set

The following command lists the copy sets associated with the host site 1 volume DS8000:2107.02341:VOL:0000 in session gm.

csmcli> lscpset -h1 DS8000:2107.NK791:VOL:1500 session1

The following output is returned:

Η1	Volume	Session	Volumes
===			
DS8	000:2107.NK791:VOL:1500	session1	5

# Iscptypes

Use the **lscptypes** command to display all the supported session (copy) types, which you can use with the **mksess** command.

## Syntax



## **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Lists default information about the session types being used, including the full name and description.
- -1 Displays detailed information for each session types, including:

Column label	Details
Сору Туре	The abbreviated name of the session type that you can specify with the <b>mksess</b> command (for example, mgm).
Full Name	The full name of the session type (for example, Metro Global Mirror).
Description	This is a description of the session type.

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

## default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify **-**fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

## **-p** { **on** | **off** }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.
- -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.

## -r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

## -v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

## Example

## Listing all session types being used

The following command lists all supported session types.

csmcli> lscptypes

The following output is returned:

Copy type	Description
fc	FlashCopy
mmsd	Metro Mirror Single Direction
mmfofb	Metro Mirror Failover/Failback (ESS/DS/SVC)
pmm	Metro Mirror Failover/Failback w/ Practice (ESS/DS)
pmmsvc	Metro Mirror Failover/Failback w/ Practice (SVC)
gmsd	Global Mirror Single Direction (ESS/DS)
gmsdsvc	Global Mirror Single Direction (SVC)
gmfofb	Global Mirror Failover/Failback (ESS/DS)
gmfofbsvc	Global Mirror Failover/Failback (SVC)
pgm	Global Mirror Failover/Failback w/ Practice (ESS/DS)
pgmsvc	Global Mirror Failover/Failback w/ Practice (SVC)
pgm2s	Global Mirror Either Direction w/ Two Site Practice (ESS/DS)
mgm	Metro Global Mirror
pmgm	Metro Global Mirror w/ Practice

# Isdevice

Use the **lsdevice** command to list the storage devices and properties.

## Syntax



# **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays information for each storage system, including the device ID, connection type, device type, and local server connection status.
- -1 Displays detailed information for each storage device, including:

Column label	Details
Device ID	The name, nickname, or model-serial-manufacturer of the device.

Column label	Details
Connection Type	The connection type: Direct, HMC, or z/OS
Device Type	The device type: ESS, DS, or SAN Volume Controller.
Device IP address	The IP address of the device. For SAN Volume Controller devices, this reports the SVC cluster IP address.
Local Server Connection	The connection state of the device.
MC ID	The management console ID if the connection type is an HMC. <b>Note:</b> This applies only to DS8000 devices connected using a management console.
Location	The location of the device.

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

## default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify -fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

### **-**p { **on** | **off** }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

#### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.

## **-r** number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

### -v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

-devtype { ess | ds | svc | ds8000 | ds6000 }

Displays information for the specified storage-system type. You can specify one of these values: ess, ds, svc, ds6000, or ds8000.

-mcid mc\_id

Displays devices that are connected through the specified management console.

device\_id... | -

Displays the threshold settings for one or more storage systems specified by ID. The device ID is in the element ID format (for example,

ess:box:2105.fca57). Separate multiple storage system IDs with a space.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

## Description

To list a storage systems that can be discovered through a z/OS connection, use the lsstorcandidate command.

### Example

#### 1. Listing all DS storage systems

The following command lists information for all DS series storage systems.

csmcli> lsdevice -devtype ds

The following output is returned:

Device ID	Connection Type	Device type	Local Server Connection
DS8000:BOX:2107.04131	Direct	DS8000	Connected;Connected
DS8000:BOX:2107.MW931	Direct	DS8000	Connected;Connected
DS8000:BOX:2107.NF111	Direct	DS8000	Connected;Connected
DS8000:BOX:2107.NK791	Direct	DS8000	Connected;Connected

### 2. Listing detailed attributes for a storage system

The following command lists detailed information for the storage system DS8000:BOX:2107.04131.

csmcli> lsdevice -devtype ds -1 -fmt stanza DS8000:BOX:2107.04131

The following output is returned:

Device ID	DS8000:BOX:2107.04131
Connection Type	Direct
Device type	DS8000
Device IP address	stg8k05c0;stg8k05c1
Local Server Connection	Connected;Connected
Remote Server Connection	-
MC ID	-
Location	Boulder
Vendor	IBM

## Ishaservers

Use the **lshaservers** command to show the status of each active and standby management server.

## Syntax



# **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-l | -s

Displays detailed information for each management server, including:

Column label	Details
Server	The domain or IP address of the management server
Role	The role of management server: Active or Standby
Status	The status of the relationship
Port	The standby management server port number. This port is used for communication between the active and standby management server. This port number is initially set at installation time.
	<b>Important:</b> The standby management server port number must be the same on both management servers in a high-availability relationship. If you change the port number on one management server, you must also change it on the other.

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

## default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify -fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

**-p** { **on** | **off** }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.
- -r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

## Example

## Listing management server status

The following command lists the status of the active and standby management servers.

csmcli> lshaservers

The following output is returned:

Server	Role	Status	Port
			=====
<pre>tpc1.storage.tucson.ibm.com</pre>	ACTIVE	Synchronized	5120
<pre>tpc2.storage.tucson.ibm.com</pre>	STANDBY	Synchronized	5120

# Ishost

Use the **lshost** command to view host systems that have been added to IBM Tivoli Storage Productivity Center for Replication.

## Syntax



-IP\_Address ...-

# Parameters

## -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information for each host system.
- -1 Displays detailed information for each host system, including:

Column label	Details
Host System	The IP address or host name of the host system.
Port	The port number for the connection to the host system.
Туре	The type of host system.
Local Status	The status of the connection between the Tivoli Storage Productivity Center for Replication server and the host system.
Remote Status	In high availability environments that have an active and standby management server, the status of the connection between the remote Tivoli Storage Productivity Center for Replication server and the host system. If you are running the <b>lshost</b> command on the active server, the remote server is the standby server. If you are running the command on the standby server, the remote server is the active server.
Sessions	The sessions that are associated with the host system.

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify -fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

### **-**p { **on** | **off** }

Specifies whether to display one page of text at a time or all text at once.

**on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode

**off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

### -delim char

Specifies a delimiting character if -fmt delimit is used. If you use a shell metacharacter as the delimiting character, enclose the character in quotation marks or single quotation marks. A blank space is not a valid character.

#### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.

### **-r** number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

#### -v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

**on** Enable verbose mode.

- off Disable verbose mode. This is the default value.
- IP\_Address ... | -

If you want to view specific host systems only, specifies the IP address or host name of the host system that you want to view. You can enter multiple IP addresses or host names.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

## Example

Listing all host systems

The following command lists information about all host systems that have been added to IBM Tivoli Storage Productivity Center for Replication.

csmcli> lshost

The following output is returned:

Host System Port Type Local Status Sessions 9.11.223.43 9930 AIX Connected MyMMSession 9.11.223.85 9990 Unknown Disconnected -

#### • Listing detailed information for host systems

The following command lists detailed information about the host systems.

```
csmcli> lshost -l
```

The following output is returned:

Host System Port Type Local Status Remote Status Sessions 9.11.223.43 9930 AIX Connected Connected -9.11.223.85 9990 Unknown Disconnected Disconnected -

# Islocation

Use the **lslocation** command to list all defined locations.

## Syntax



## Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-l | -s

Displays detailed information for each location, including:

Column label	Details
Location	An integer representing the location.
Details	The alphanumeric text string that was given to the location. The string can be descriptive of the location.

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

## default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify -fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.
- **-p** { **on** | **off** }
  - Specifies whether to display one page of text at a time or all text at once.
  - **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
  - **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.
- -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

**on** Displays the table header. This is the default value.

- **off** Hides the table header.
- **-r** number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

## Example

## Listing locations

The following command lists all locations. csmcli> lslocation

The following output is returned:

Location	Details
1	Boulder
3	Marana
2	Tucson

# Islss

Use the **lslss** command to list the logical subsystems (LSSes) for the specified DS or ESS storage system. You can use this output with the **mkpath** command.

## Syntax



## **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-1 | -s

Displays detailed information for each storage system, including:

Column label	Details
Device	Storage system of the LSSs
LSS ID	LSS identifier

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

#### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify **-**fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

## -p { on | off }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- off Hides the table header.
- -r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.
- -dev device\_id

Lists information for the specified DS or ESS storage system.

## Example

### Listing LSS for a storage system

The following command lists all available LSSs associated with the storage system DS8000:BOX:2107.04131.

csmcli> lslss -dev DS8000:BOX:2107.04131

The following output is returned: Device LSS DS8000:B0X:2107.04131 DS8000:2107.04131:LSS:00

DS8000:BOX:2107.04131 DS8000:2107.04131:LSS:01

DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:02
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:03
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:04
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:05
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:06
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:07
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:08
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:09
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:0A
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:0B
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:0C
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:0D
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:0E
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:0F
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:10
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:11
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:12
DS8000:BOX:2107.04131	DS8000:2107.04131:LSS:14

# Ismc

Use the **lsmc** command to display a summary of management consoles and settings.

## **Syntax**



# **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information for each management console, including the ID and local server connection.
- -1 Displays detailed information for each management console, including:

Column label	Details
Management console ID	The ID of the management console.
Management console IP	The cluster 0 IP address or domain.

Column label	Details
Local Server Connection	The connection status of the management console to the local server.
Location	The associated location of the management console or None.

-fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

- Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.
- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify **-fmt** delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

## **-p** { **on** | **off** }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- off Hides the table header.

### -r number

Specifies the number of rows per page to display when the -p parameter is specified. You can specify a value of 1 - 100. The default value is 24.

## -v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

## -devtype ds | ds8000

Displays information for the specified device type. You can specify one of these values:

ds - any DS device

ds8000 - only DS8000 devices

id... | -

Displays only the threshold settings for one or more specified management

console IDs. The management console ID is in the element ID format (for example, HMC:9.11.222.333). Separate multiple IDs with a blank space.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

## Example

## Listing management consoles

The following command lists the management consoles and settings for all DS storage systems.

csmcli> lsmc -devtype ds -l

The following output is returned:

MC ID	HMC:2002:90B:E006:222:9:11:223:2
MC IP address	2002:90b:e006:222:9:11:223:2
Local Server Connection	Connected
Location	tucson

# Ispair

Use the **lspair** command to list the source and target of the copy service pairs and their status.

## Syntax



## Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information for each pair, including the source and target volumes and the role pair.
- -1 Displays detailed information for each pair, including:

Column Label	Details
Source volume	Volume ID of source volume.
Target volume	Volume ID of target volume.

Column Label	Details
Role Pair	The role pair this pair is associated with. See the <b>-rolepair</b> parameter for details on possible values.
State	The state of the role pair. Values include: Defined Preparing Prepared TargetAvailable Suspended SuspendedInconsistent
Recoverable	Yes or No to indicate if this pair can be considered recoverable.
Copying	Yes or No to indicate if this pair can be considered to be in the copy state.
Progress	The overall copy progress associated with the role pair.
New	Yes or No to indicate if this pair can be considered a new pair.
Copy set	Host site 1 volume ID of the copy set that the pair is associated with.
Timestamp	Date and time when the volume was suspended.
Last result	The last message issued for this pair. If message ends in $E$ or $W$ , the pair is considered an exception pair.

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify -fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

### **-**p { **on** | **off** }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

**on** Displays the table header. This is the default value.

off Hides the table header.

-r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

### -rolepair role\_pair\_name

Displays only pairs of the role pair (role name) specified. Inputs are defined by the **lsrolepairs** command.

The following list provides sample role-pair names:

- h1-h2
- h1-i2
- i2-h2
- h2-i1
- i1-j1
- i1-h1
- h2-j3
- h1-i3
- i3-j3
- h3-i3
- h2-i3
- h1-h3
- h2-j1
- h1-j2
- i2-j2

This parameter is mutually exclusive with the -cpset parameter.

### -cpset source\_vol\_id

Specifies the source volume ID of the copy set on which you want a list of pairs.

This parameter is mutually exclusive with the **-rolepairs** parameter.

## -state state

- Displays the state. You can specify one of these states:
- Defined
- Preparing
- Prepared
- TargetAvailable
- Suspended
- SuspendedInconsistent

### session\_name | -

Specifies the name of the session by which the pairs are identified.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

## Example

1. Listing all copy sets for a specific role pair

The following command lists the copy sets associated with role pair h1-h2 in session  ${\tt session1}$ 

csmcli> lspair -rolepair h1-h2 session1

The following output is returned:

Source volume	Target volume	RolePair
		======
DS8000:2107.NK791:VOL:1500	DS8000:2107.MW931:VOL:1500	H1-H2
DS8000:2107.NK791:VOL:1501	DS8000:2107.MW931:VOL:1501	H1-H2
DS8000:2107.NK791:VOL:1502	DS8000:2107.MW931:VOL:1502	H1-H2
DS8000:2107.NK791:VOL:1503	DS8000:2107.MW931:VOL:1503	H1-H2
DS8000:2107.NK791:VOL:1504	DS8000:2107.MW931:VOL:1504	H1-H2
ESS:2105.FCA57:VOL:1500	DS8000:2107.NF111:VOL:1505	H1-H2
ESS:2105.FCA57:VOL:1501	DS8000:2107.NF111:VOL:1506	H1-H2
ESS:2105.FCA57:VOL:1502	DS8000:2107.NF111:VOL:1507	H1-H2
ESS:2105.FCA57:VOL:1503	DS8000:2107.NF111:VOL:1508	H1-H2
ESS:2105.FCA57:VOL:1504	DS8000:2107.NF111:VOL:1509	H1-H2

### 2. Listing all copy sets in a specific state

The following command lists the copy sets associated with role pair h2-i3 in session session1 that are in the suspended state.

csmcli> lspair -rolepair h2-i3 -state Suspended session1

The following output is returned:

Source volume	Target volume	RolePair
DS8000:2107.MW931:VOL:1500	DS8000:2107.04131:VOL:1505	H2-I3
DS8000:2107.MW931:VOL:1501	DS8000:2107.04131:VOL:1506	H2-I3
DS8000:2107.MW931:VOL:1502	DS8000:2107.04131:VOL:1507	H2-I3
DS8000:2107.MW931:VOL:1503	DS8000:2107.04131:VOL:1508	H2-I3
DS8000:2107.MW931:VOL:1504	DS8000:2107.04131:VOL:1509	H2-I3
DS8000:2107.NF111:VOL:1505	DS8000:2107.04131:VOL:1605	H2-I3
DS8000:2107.NF111:VOL:1506	DS8000:2107.04131:VOL:1606	H2-I3
DS8000:2107.NF111:VOL:1507	DS8000:2107.04131:VOL:1607	H2-I3
DS8000:2107.NF111:VOL:1508	DS8000:2107.04131:VOL:1608	H2-I3
DS8000:2107.NF111:VOL:1509	DS8000:2107.04131:VOL:1609	H2-I3

### 3. Listing detailed information about a specific copy set

The following command lists detailed information about the copy set DS8000:2107.NK791:VOL:1500 and the session named session1

csmcli> lspair -l -cpset DS8000:2107.NK791:VOL:1500 session1

The following output is returned:

Source	volume	DS8000:2107.04131:VOL:1500
Target	volume	DS8000:2107.04131:VOL:1505
RolePai	r	H3-I3
State		Defined
Recover	ahle	No
Conving	ubic	No
Drogroc	c	NO
Progres	5	-
New		
Copy se	t	DS8000:210/.NK/91:VOL:1500
Timesta	mp	n/a
Last re	sult	IWNR2024I
Source	volume	DS8000:2107.04131:VOL:1505
Target	volume	DS8000:2107.04131:VOL:150A
RolePai	r	I3-J3
State		Defined
Recover	able	No
Convina	abre	No
Drogros	c	NO
Now	5	- Voc
New		105 DECODO 0107 NK701 VOL 1500
Copy se	t	DS8000:2107.NK/91:VOL:1500
limesta	mp	n/a
Press E	nter To	o Continue
Last re	sult	IWNR2013I

```
Source volume DS8000:2107.MW931:VOL:1500
Target volume DS8000:2107.04131:VOL:150A
RolePair
              H2-J3
State
              Defined
Recoverable
              No
Copying
              No
Progress
              Yes
New
Copy set
              DS8000:2107.NK791:VOL:1500
Timestamp
              n/a
              IWNR2024I
Last result
```

# Isparameter

Use the Isparameter command to list Metro Mirror heartbeat setting.

## **Syntax**

. . .



## **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information for each system parameter, including the parameter name and value.
- -1 Displays detailed information for each system parameter, including:

Column label	Details
Parameter Name	Value of the system parameter
Value	The value of the system parameter (for example, Yes or No).
Parm Name	Name of the system parameter

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify -fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

#### -p { on | off }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

#### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.
- -r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- on Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

#### -parmname consistencyheartbeat

Displays whether the Metro Mirror heartbeat is enabled (on) or disabled (off).

## Example

### 1. Listing all parameters

The following command lists detailed information about all parameters.

**Note:** Only the heartbeat setting is currently supported and returned by this command.

csmcli> lsparameter -l

The following output is returned:

Parameter Name Value Parm Name The heartbeat function is set on consistencyheartbeat

#### 2. Displaying the Metro Mirror heartbeat setting

The following command displays the current setting for the Metro Mirror heartbeat.

```
csmcli> lsparameter -parmname consistencyheartbeat
The following output is returned:
Parameter Name Value
The heartbeat function is set on
```

# Ispath

Use the **lspath** command to display paths between ESS and DS devices. You can then use this information for a remote copy.

## Syntax



# Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information for each path, including the source and target LSS, path type, status, and whether the path was auto-generated.
- -1 Displays detailed information for each path, including:

Column label	Details
Source	Origin of the path. For ESS, this is an LSS. See the <b>mkpath</b> command for the format of this field.
Target	Target of the path. For ESS this is an LSS. See the <b>mkpath</b> command for the format of this field.
Туре	ESCON (ESS or DS only) or Fibre Channel.
Status	Whether the path is currently established or not.
Auto-Generated	Yes, if the path was generated by the IBM Tivoli Storage Productivity Center for Replication component. No, if you specified the path.

-fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify -fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

### **-**p { **on** | **off** }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

#### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.
- -r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

on Enable verbose mode.

**off** Disable verbose mode. This is the default value.

-src source\_lss

Specifies the source LSS. This must be specified in the format *type.serial.lss(hex).port(hex)* (for example, ESS:2105.FCA18:LSS:10.00FF).

-tgt target\_lss

Specifies the target LSS. This must be specified in the format type.serial.lss(hex).port(hex) (for example, ESS:2105.FCA18:LSS:10.00FF).

## Example

## 1. Listing all paths with the same source LSS

The following command lists all paths that use source LSS DS8000:2107.04131:LSS:15.

csmcli> lspath -src DS8000:2107.04131:LSS:15

The following output is returned:

Source	Target	Туре
DS8000:2107.04131:LSS:15.0x0330	DS8000:2107.NF111:LSS:15.0x0030	Fibre Channel
DS8000:2107.04131:LSS:15.0x0110	ESS:2105.FCA57:LSS:15.0x000C	Fibre Channel
DS8000:2107.04131:LSS:15.0x0110 DS8000:2107.NK791:LSS:15.0x0032 Fibre Channel

Status Auto-Generated Established Yes Established Yes Established Yes

## 2. Listing information about a specific path

The following command lists information about the path with source LSS DS8000:2107.04131:LSS:15.

csmcli> lspath -src DS8000:2107.04131:LSS:15 -tgt ESS:2105.FCA57:LSS:15

The following output is returned:

Source Target Type DS8000:2107.04131:LSS:15.0x0110 ESS:2105.FCA57:LSS:15.0x000C Fibre Channel

Status Auto-Generated Established Yes

# Isrolepairs

Use the lsrolepairs command to display role pairs in a session.

# **Syntax**



# Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information for each role pair, including the role name, session (copy) type, and whether the role pair is recovery, has errors, and is in processes of copying data.
- -1 Displays detailed information for each role pair, including:

Column label	Details
Name	System-generated text string used to identify a role pair. The value listed here is what is to be entered on the <b>lspair</b> command.

Column label	Details
Recoverable	An indicator of whether the role pair is recoverable. Value values are Yes or No.
Error	An indicator of whether the role pair has errors. Value values are Yes or No.
Copying	An indicator of the role pair is in process of copying data. Value values are Yes or No.
Progress	The overall copy progress associated with the role pair.
Сору Туре	The current session (copy) type of the role pair.
Error Volumes	Total number of volumes in an exception state.
Recoverable pairs	Number of recoverable pairs
Copying Pairs	Number of copying pairs
Total Pairs	Total number of pairs
Recovery Time	An indicator of the time to which the session is recoverable. Includes both date and time. For point-in-time copy, this is the time that the copy was taken. For continuous synchronous remote copy, this is the time at which the <b>Freeze</b> and <b>Run</b> commands were issued. This field is blank if Recoverable is set to No.

# -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify **-**fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

### **-**p { **on** | **off** }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.

-r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

**on** Enable verbose mode.

off Disable verbose mode. This is the default value.

session\_name | -

Specifies the session name for which you display the role pairs.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

# Description

To see volumes in a copy set, use the **showcpset** command.

To see status of volumes in a copy set, use the **lsvol** command.

## Example

### 1. Listing role pairs in a session

The following command lists information about the role pairs in the session session1.

csmcli> lsrolepairs session1

The following output is returned:

Name Recoverable Error Copying Copy Type

======		======		=====
H1-H2	No	Yes	Yes	MM
H2-J3	No	No	No	GM
H1-I3	No	No	No	GC
I3-J3	No	No	No	FC
H1-J3	No	No	No	GM
H3-I3	No	No	No	FC
H2-I3	No	No	Yes	GC
H1-H3	No	No	No	GC

#### Listing detailed information for the role pairs in a session

The following command lists detailed information about the role pairs in the session session1.

csmcli> lsrolepairs -fmt stanza -l session1

The following output is returned:

Name Recoverable Error Copying Copy Type Progress Error volumes Recoverable pairs	H1-H2 No Yes Yes MM 66 5 5 5
Total pairs	10
Recovery time	n/a
Name Recoverable Error Copying	H2-J3 No No No

Сору Туре	GM
Progress	-
Error volumes	0
Recoverable pairs	0
Copying pairs	0
Total pairs	10
Recovery time	n/a
Name	H1-I3
Recoverable	No
Frror	No
Conving	No
Conv Type	GC
Progress	-
Error volumes	0
Recoverable pairs	0
Copying pairs	0
Total pairs	10
Recovery time	n/a
• • •	

# Isrolescpset

Use the lsrolescpset command to list the volume roles in the specified session.

# Syntax



# **Parameters**

### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-1 | -s

Displays detailed information for each session, including:

Column Label	Details
Name	Short name for the role.
Description	Description of the role.

# -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

#### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify -fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

#### -p { on | off }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

**on** Displays the table header. This is the default value.

**off** Hides the table header.

-r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

#### session\_name | -

Specifies the session name for which you are going to list the roles of the copy set.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

### Example

#### Listing copy set roles

The following command lists the volume roles in session session1. csmcli> lsrolescpset session1

The following output is returned: Name Description H1 Host on Site1

- H2 Host on Site2
- H3 Host on Site3
- I3 Intermediate on Site3
- J3 Journal on Site3

# lssess

Use the lssess command to display sessions and their associated status.

# Syntax



# **Parameters**

# -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information for each session, including the session name, status, state and session (copy) type.
- -1 Displays detailed information for each session, including:

Column label	Details
Name	User-defined name of the session.
Status	Status levels. The level can be one of these values: Normal, Warning, Severe, or Unknown.
State	Session state. The states can be one of these values: Defined, Preparing, Prepared, Suspended, TargetAvailable, or SuspendedInconsistent.
Copy type	Session (copy) type. See the <b>-cptype</b> parameter for a list of values.
Recoverable	Indicates if the session is recoverable. Valid values are yes or no.
Copying	Indicates whether a copying operation is taking place. Valid values are yes or no.
Copy sets	Number of copy sets in the session.

Column label	Details
Error	Indicates if the session has errors. Valid values are
	yes or no.

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

#### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify **-**fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

#### -p { on | off }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

## -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.

#### -r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

### -v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

## -cptype copy\_type

Specifies the session (copy) type. You can specify one of these types:

- **fc**: FlashCopy (ESS/DS/SAN Volume Controller)
- gmfofb: Global Mirror Failover/Failback (ESS/DS)
- gmfofbsvc: Global Mirror Failover/Failback (SAN Volume Controller)
- gmsd: Global Mirror Single Direction (ESS/DS)
- gmsdsvc: Global Mirror Single Direction (SAN Volume Controller)
- hs: Basic HyperSwap
- mgm: Metro Global Mirror (DS8000 only)
- mmfofb: Metro Mirror Failover/Failback (ESS/DS/SAN Volume Controller)
- mmsd: Metro Mirror Single Direction (ESS/DS/SAN Volume Controller)

- pgm: Global Mirror Failover/Failback with Practice (ESS/DS)
- pmm: Practice session for Metro Mirror Failover/Failback (ESS/DS)
- pmmsvc: Metro Mirror Failover/Failback with Practice (SAN Volume Controller)
- **pgmsvc**: Global Mirror Failover/Failback with Practice (SAN Volume Controller)
- pmgm: Metro Global Mirror with Practice (DS8000 only)
- pgm2: Global Mirror Either Direction with Two Site Practice (ESS/DS)

#### -status norm | warn | sev | unk

Displays only the sessions that have the status specified (normal, warning, or severe).

session\_name... | -

Displays only the sessions with the session name specified. Separate multiple session names with a space between each name. All sessions are displayed by default.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

# Example

### 1. Listing all sessions

The following command lists information about all defined sessions. csmcli> lssess

The following output is returned:

 Name
 Status
 State
 Copy type

 session1
 Normal
 Target Available
 Metro Global Mirror w/ Practice

### 2. Listing sessions with errors

The following command lists detailed information about the session named session1.

csmcli> lssess -status sev session1

The following output is returned:

Name Status State Copy type session1 Severe Preparing Metro Global Mirror w/ Practice

# **Issessactions**

Use the **lssessactions** command to list all the session actions (commands) that can be run for a specific session.

# Syntax





# Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information for each session action, including the action and description.
- -1 Displays detailed information for each session action, including:

Column label	Details
Action	Name of the session action (command) that can be run on the session. You can the action using the <b>cmdsess -action</b> command.
Description	The description of the command.

### -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify **-**fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

## -p { on | off }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- off Hides the table header.
- **-r** number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

session\_name... | -

Lists the commands that are currently available to a session. If more than one session name is supplied, then all commands valid for one or more sessions are listed.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

# Example

#### Listing available actions for a session

The following command lists all actions that can be run for the session named session1.

csmcli> lssessactions session1

The following output is returned:

Action Description start\_h1:h3 Start host1 to host3 copying suspend Suspend session start\_h1:h2:h3 Start host1 to host2 to host3 copying terminate Terminate session

# **Issessdetails**

Use the lssessdetails command to display the details of a session.

## Syntax



# **Parameters**

## -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information for each session, including option names and values.
- -1 Displays detailed information for each session, including:

Column label	Details
Option Name	Name of the option that has been set for this session.
Value	Value of the detail that has been set for this session.
Description	Description of the session option

### -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify **-**fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

### -p { on | off }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.

#### **-r** number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

**on** Enable verbose mode.

**off** Disable verbose mode. This is the default value.

session\_name | -

Lists the details that are relevant to the specified session.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

#### Example

#### Listing detailed information about a session

The following command lists detailed information about a Metro Global Mirror with Practice session named session1.

csmcli> lssessdetails -l session1

The following output is returned:

Option name	Value	Description
maxdrain h1j3 0	Maxim	um Consistency Group Drain Time for the H1-J3 role pair
coordint_h2j3 50	XDC C	pordination Interval for the H2-J3 role pair
rmreserves No	Remov	e Secondary Reserves
failIfTgtOnline No	Faill	4M/GC if the target is online (CKD only)
aftersuspend Rel	lease Polic	y for I/O after suspend
coordint_h1j3 50	XDC C	pordination Interval for the H1-J3 role pair
rpo_h2j3 0	Consi	stency group interval time (sec) for the H2-J3 role pair
rpo_h1j3 0	Consi	stency group interval time (sec) for the H1-J3 role pair
maxdrain_h2j3 0	Maxim	um Consistency Group Drain Time for the H2-J3 role pair

# Issnmp

Use the **lssnmp** command to list the SNMP managers to which IBM Tivoli Storage Productivity Center for Replication is configured to send SNMP alerts.

#### Syntax



## **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

### Description

The information displayed is either the domain name or the IP address of the server, depending on how you specified it.

SNMP traps are not specific to any particular session. All traps for any session are sent to each server.

For each SNMP manager, the following information is displayed:

Column label	Details
SNMP Manager	Domain name or IP address of the management server to which SNMP traps are sent
Port	The specific UDP port to which SNMP traps are sent

# Example

## Listing SNMP managers

The following command list the SNMP managers.

csmcli> lssnmp

The following output is returned:

 SNMP Manager Port

 9.11.10.1
 162

 127.0.0.1
 163

# Isstorcandidate

Use the **lsstorcandidate** command to list the storage systems that can be discovered through the z/OS connection. This command does not list storage systems that are already added to the IBM Tivoli Storage Productivity Center for Replication configuration.

# **Syntax**



# **Parameters**

```
-help | -h | -?
```

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

### -s | -l

Displays detailed information for each storage system, including:

Column label	Details
Device ID	The ID of the storage system.

Column label	Details
Vendor	The maker of the storage system.

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

### default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify **-fmt** delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.
- -p { on | off }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

### -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.
- -r number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

- **on** Enable verbose mode.
- **off** Disable verbose mode. This is the default value.

#### -conntype zos

Specifies the type of connection that the storage systems uses. Currently, you can specify only zos for a z/SO connection.

# Description

**Important:** You can run this command only from the IBM Tivoli Storage Productivity Center for Replication server that is installed on a system running z/OS.

To list storage systems already in the IBM Tivoli Storage Productivity Center for Replication configuration, use the **lsdevice** command.

## Example

### Listing candidate storage systems

This example illustrates how to list candidate storage systems. csmcli> lsstorcandidate -conntype zos

The following output is returned: Device ID Vendor ESS:B0X:2105.12345 IBM

# Isvol

Use the **lsvol** command to display detailed volume information. This command might be useful when choosing available volumes for copy sets or viewing properties of volumes such as volume capacity, type and whether a volume is space efficient or protected.

# Syntax



# Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

- -s Displays default information for each volume, including the name, ID, nickname or model-serial-manufacturer, volume type, and whether the volume is protected and space efficient.
- -1 Displays detailed information for each volume, including:

Column label	Details	
Name	Volume name	
ID	Volume ID	
Dev	The nickname or model-serial-manufacturer	
Vol Type	CKD or FB (always FB for SAN Volume Controller)	
Protected	Yes if the volume is protected; No if the volume is not protected.	
Space Efficient	Yes, if the volume is a space efficient volume. No, if it is not a space efficient volume.	
Vol Format	Volume format	
LSS/IO Group	For SAN Volume Controller volumes, this column displays the IO group. For ESS volumes, this column displays the LSS.	
Size	Volume size	
Size Unit	The unit of measure that the capacity is given in, either gigabytes or cylinders.	
Is Z Attached	Identifies whether the volumes are connected through a $z/OS$ connection.	

## -fmt { default | xml | delim | stanza }

Specifies the format of the output. You can specify one of these values:

## default

Specifies that output be displayed in a tabular format using spaces as the delimiter between the columns. This is the default value.

- **delim** Specifies that output be displayed in a tabular format using the character that is specified by the **-delim** parameter to separate the columns (see the description of the **-delim** *char* parameter that is described later in this parameter list). If you specify **-**fmt delim without defining a delimiting character using the **-delim** *char* parameter, a comma is used as the delimiter,
- **stanza** Specifies that the output is to be displayed as one keyword-value pair per line.
- xml Specifies that the output is to be displayed in XML format.

## **-p** { **on** | **off** }

Specifies whether to display one page of text at a time or all text at once.

- **on** Displays one page of text at time. Pressing any key displays the next page. This is the default value when the command is run in interactive mode
- **off** Displays all text at one time. This is the default value when the command is run in single-shot mode.

## -hdr { on | off }

Specifies whether to display the table header. You can specify one of these values:

- **on** Displays the table header. This is the default value.
- **off** Hides the table header.

**-r** number

Specifies the number of rows per page to display when the **-p** parameter is specified. You can specify a value of 1 - 100. The default value is 24.

-v { on | off }

Specifies whether to enable verbose mode. You can specify one of these values:

**on** Enable verbose mode.

**off** Disable verbose mode. This is the default value.

-devtype { ess | svc | ds }

Filters by device type. You can specify one of these device types:

- ess: Enterprise Storage Server<sup>®</sup>
- **svc**: SAN Volume Controller
- **ds**: DS-series storage systems

### -dev dev\_ id

Displays information about the volumes behind the specified storage system.

#### -protected

Displays only protected volumes.

## -unprotected

Displays only unprotected volumes.

volume\_id... | -

Specifies the volume ID for a volume. Volume data is listed for this volume. The same volume can reside in multiple groups but not multiple pools.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

## Description

**Important:** Issuing the **lsvol** command without any parameters lists all volumes for all storage systems. This might take many minutes or even hours, depending on the size of your environment, during which you must press Enter to continue listing output or press Ctrl+C to discontinue listing output.

## Example

1. Listing volumes for a storage system

The following command lists information about all volumes in the storage system with ID DS8000:BOX:2107.02191.

csmcli> lsvol -devtype ds -dev DS8000:BOX:2107.02191

The following output is returned:

Name	ID	Dev	Vol 1	Type Pr	rotected	Space Efficient
8K410F	DS8000:2107.02191:VOL:010F	2107-02191-IBM	CKD	No	)	No
8K410E	DS8000:2107.02191:VOL:010E	2107-02191-IBM	CKD	No	)	No
8K410D	DS8000:2107.02191:VOL:010D	2107-02191-IBM	CKD	No	)	No
8K9005	DS8000:2107.LT742:VOL:0005	2107-LT742-IBM	CKD	Ye	es	No
8K9004	DS8000:2107.LT742:VOL:0004	2107-LT742-IBM	CKD	Ye	es	No
8K9003	DS8000:2107.LT742:VOL:0003	2107-LT742-IBM	CKD	Ye	es	No

#### 2. Listing protected volumes

The following command lists information about all protected volumes.

csmcli> lsvol -protected

The following output is returned:

Name	ID	Dev	Vo1	Туре	Protected	Space Efficient
=======						
8K9005	DS8000:2107.LT742:VOL:0005	2107-LT742-IBM	CKD		Yes	No
8K9004	DS8000:2107.LT742:VOL:0004	2107-LT742-IBM	CKD		Yes	No
8K9003	DS8000:2107.LT742:VOL:0003	2107-LT742-IBM	CKD		Yes	No

# mkauth

Use the **mkauth** command to grant monitor, administrator, or operator authorization to a user.

## Syntax

▶ — mkauth —	namenametype	-group►
	–-help–	–user––
	—-h—	
	L_?	

►--authlevel—authorization\_level-

-session_name—	
----------------	--

# **Parameters**

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -name name

Specifies a user ID or group name to which you grant authorization.

### -type group | user

Specifies whether the name is of a group or user.

#### -authlevel authorization\_level

Specifies the authorization level: admin, operator, or monitor.

session\_name | -

Use this optional parameter when you are assigning operator authorization to a user and want to specify one or more sessions to which the operator has access. This parameter does not apply to monitors or administrators.

If no session name is specified, all sessions are used by default, unless another filter is used. If you specify **-authlevel operator** but do not specify a session name, the user is not granted operator status to any of the existing sessions but is granted permission to create new sessions.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). You can specify multiple session names from **stdin** when the dash (-) is specified. The dash is supported only in single-shot mode.

## Example

### 1. Adding a group with monitor privileges

The following command grants administrator authorization to the user named MDMSUID.

csmcli> mkauth -name Guests -type group -authlevel monitor

The following output is returned:

IWNR4018I Successfully granted the monitor role to Guests.

### 2. Adding a user with operator privileges

The following command grants administrator authorization to the user named MDMSUID.

csmcli> mkauth -name csmuser -type user -authlevel operator session1

The following output is returned:

IWNR4016I Successfully granted the session operator role to csmuser.

### 3. Adding the Superuser group

The following command adds the IBM Tivoli Storage Productivity Center Superuser group to the Administrator role.

csmcli> mkauth -name Superuser -type group -authlevel admin

The following output is returned:

IWNR4017I Successfully granted the administrator role to Superuser.

# mkbackup

Use the **mkbackup** command to create a backup of IBM Tivoli Storage Productivity Center for Replication configuration data (including storage systems, sessions, and copy set) in the zero-administration embedded repository.

# Syntax

....

— mkbackup —	
	⊢-help—
	h .
	2

## **Parameters**

```
-help | -h | -?
```

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

# Description

### **Prerequisites:**

- You must have Administrator privileges to run this command.
- This procedure applies to only the zero-administration embedded repository. This procedure *is not* applicable when DB2 is being used as the persistent datastore for the IBM Tivoli Storage Productivity Center for Replication database. For information about restoring your DB2 environment, refer to your DB2 documentation.
- The user ID that was used to create the backup file must exist on the management server that is being restored.

By default, the backup file is stored in the *install\_root*/AppServer/profiles/ default/database/backup directory. You can change the default location by editing the **db.backup.location** property in rmserver.properties file, which is located in the *install\_root*/AppServer/profiles/default/properties directory.

You can use the backup file to restore the zero-administration embedded repository on the same management server or on another management server running on the same operating system platform. You *cannot* use the backup file to restore the zero-administration embedded repository on a management server running a different operating system platform or a management server that uses the DB2 database.

### Example

#### Back up configuration data

This example backs up the IBM Tivoli Storage Productivity Center for Replication configuration data:

csmcli> mkbackup

The following output is returned:

IWNR1905I Backup of internal data store completed successfully. The following file was created: C:\Program Files\IBM\replication\eWAS\profiles\CSM\database\backup\ tpcrBackup\_20090825\_120138984.zip

# mkcpset

Use the **mkcpset** command to create a copy set when you want to define your own source-to-target mapping.

### Syntax



# Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

-h1 host\_site\_1\_volume\_id

Specifies the host volume of the copy set at site 1. At least one or more optional parameters are required, depending on the session type.

-h2 host_site_2_volume_id Specifies the host volume of the copy set at site 2, if required.
<b>-h3</b> <i>host_site_3_volume_id</i> Specifies the host volume of the copy set at site 3, if required.
<b>-t1</b> <i>target_site_1_volume_id</i> Specifies the target volume of the copy set at site 1, if required.
<b>-j1</b> <i>journal_site_1_volume_id</i> Specifies the journal for site 1 if required by the session type.
<b>-j2</b> <i>journal_site_2_volume_id</i> Specifies the journal for site 2 if required by the session type.
<b>-j3</b> <i>journal_site_3_volume_id</i> Specifies the journal for site 3 if required by the session type.
-i1 <i>intermediate_site1_volume_id</i> Specifies the intermediate (practice) volume of the copy set at site 1.
-i2 <i>intermediate_site2_volume_id</i> Specifies the intermediate (practice) volume of the copy set at site 2.
-i3 <i>intermediate_site3_volume_id</i> Specifies the intermediate (practice) volume of the copy set at site 3.
<i>session_name</i> I - Specifies the session name to which the copy set will belong.
Alternatively use the dech () to enseity that input for this reversets

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

# Description

**Note:** Use the **lsvol** command to get a list of volumes for the copy sets. You can add only volumes of the same device type (ESS or DS family FB or CKD, or SAN Volume Controller to SAN Volume Controller).

**Note:** When running Metro Global Mirror on the OMVS command line, the parameters for the **mkcpset** command might exceed the character limit of the OMVS prompt. If you encounter this limitation, use a script to add the copy set. For example, create a script file named mgm\_mkcpset.txt that contains the command that you want to run, such as the following command:

csmcli> mkcpset -h1 DS8000:2107.12345:VOL:0000 -h2 DS8000:2107.67890:VOL:0000 -h3 DS8000:2107.02468:VOL:0000 myMGMSess

Then run the script from the command line using the following example syntax. Ensure that you are in the IBM Tivoli Storage Productivity Center for Replication installation directory and have the appropriate paths exported.

csmcli.sh -script mgm\_mkcpset.txt

# Example

### Creating a copy set

The following command creates a copy set for session session1 using the source volume DS8000:2107.04131:VOL:0A05 and the target volume DS8000:2107.04131:VOL:0A06.

csmcli> mkcpset -h1 DS8000:2107.04131:VOL:0A05 -t1 DS8000:2107.04131:VOL:0A06 session1 The following output is returned:

IWNR1000I Copy sets were successfully created for session session1.

IWNR2001I The pair was successfully created in session session1 for copy set DS8000:2107.04131:VOL:0A05 with source DS8000:2107.04131:VOL:0A05 and target DS8000:2107.04131:VOL:0A06.

# mklogpkg

Use the **mklogpkg** command to create a log package. The log package is written to the file that is specified in the properties file.

# **Syntax**

-	_mkloanka_		
	шктодрку		
		⊢-help—	
		h	
		└?	J
			·

# **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

# Example

### Creating a log package

The following command creates a log package in the C:\Program Files\IBM\replication\eWAS\profiles\CSM\diagnostics directory. csmcli> mklogpkg

The following output is returned:

IWNR1198I Log packages were successfully created and placed at location C:\Program Files\IBM\replication\eWAS\profiles\CSM\diagnostics\ TPC\_RM-latte\_2009-8-27\_11-45-26.jar

# mkpath

Use the **mkpath** command to create a Fibre Channel path or paths between a source logical subsystem (LSS) and a target LSS.

# **Syntax**



# **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-src source

Specifies the source LSS and port (ESS and DS series storage servers). This must be specified in the format *type.serial.lss(hex).port(hex)* (for example, ESS:2105.FCA18:LSS:10.00FF).

-tgt target

Specifies the target LSS and port (ESS and DS series storage servers). This must be specified in the format *type.serial.lss(hex).port(hex)* (for example, ESS:2105.FCA18:LSS:10.00FF).

# Description

The **mkpath** command uses the information from the **lslss** command to create a path or paths between the source LSS and the target LSS. You can specify a number of paths to create between 1 and 8.

#### Notes:

- This command creates new paths in addition to paths that already exist between the two specified LSSs.
- Only Fibre Channel paths are supported for ESS and DS series storage servers.
- You must verify the ports that are to be used in the path.
- For DS series storage servers, the plant of manufacturer must be added to the beginning of the serial number, making the serial number a seven-digit number.
- If you specify a number of paths greater than the number of available paths, existing paths are overwritten.

### Example

### **Creating Fibre Channel paths**

The following command creates a Fibre Channel path between the source LSS ESS:2105.20870:12.1 and target LSS ESS:2105.20870:14.2. csmcli> mkpath -src ESS:2105.20870:12.1 -tgt ESS:2105.20870:14.2

The following output is returned: Path successfully created.

# mksess

Use the **mksess** command to create a session.

## Syntax



# **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-cptype copy\_type

Specifies the session (copy) type for the session. You can specify one of these types:

- fc: FlashCopy
- gmfofb: Global Mirror Failover/Failback (ESS/DS)
- gmsd: Global Mirror Single Direction (ESS/DS)
- gmsdsvc: Global Mirror Single Direction (SAN Volume Controller)
- gmfofbsvc: Global Mirror Failover/Failback (SAN Volume Controller)
- **hs**: Basic HyperSwap
- mgm: Metro Global Mirror
- mmfofb: Metro Mirror Failover/Failback (ESS/DS/SAN Volume Controller)
- mmsd: Metro Mirror Single Direction
- pgm: Global Mirror Failover/Failback w/ Practice (ESS/DS)
- pgm2s: Global Mirror Either Direction with 2 Site Practice (ESS/DS)
- pmgm: Metro Global Mirror with Practice
- pmm: Metro Mirror Failover/Failback with Practice (ESS/DS)
- pmmsvc: Metro Mirror Failover/Failback with Practice (SAN Volume Controller)
- **pgmsvc**: Global Mirror Failover/Failback with Practice (SAN Volume Controller)

## -desc description

Assigns the specified description to the session. The description can have up 250 alphanumeric characters.

-site1loc

Specifies a location to associate with the *site 1* volume role.

-site2loc

Specifies a location to associate with the site 2 volume role.

-site3loc

Specifies a location to associate with the site 3 volume role.

session\_name | -

Creates a session with the specified name. The session name can have up to 250 alphanumeric characters.

Note: Session names must be unique.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

# Example

## Creating a session

The following command creates a FlashCopy session named session1. The location of the site 1 volume role is Boulder.

csmcli> mksess -cptype fc -sitelloc Boulder session1

The following output is returned:

IWNR1021I Session session1 was successfully created. IWNR1096I The locations for sessions session1 and Site 1 were set successfully.

# mksnmp

Use the **mksnmp** command to add a specified manager to the list of servers to which SNMP traps are sent. SNMP traps are not specific to any particular session. All traps for any session are sent to each server.

## Syntax



# Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-server server

Specifies the IP address or domain name of the management server that is to receive SNMP traps.

-port port

Specifies a port number to use for receiving SNMP traps. If not specified, the default port is 162.

## Example

### Sending SNMP traps to a specific management server

The following command sends SNMP traps to the management server with ID 9.11.207.17 and port 2626.

csmcli> mksnmp -server 9.11.207.17 -port 2626

The following output is returned:

IWNR1701I Host 9.11.207.17:2626 was added to the SNMP listeners list.

# rmactive

Use the **rmactive** command to remove an active management server.

## Syntax



# Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

# Description

You can run the **rmactive** command only from the standby management server and only when the active and standby management servers are in a non-synchronized state (such as when they are first connecting).

When a standby and active management servers are synchronized, use the **hatakeover** command.

The **rmactive** command corresponds to the Remove Active action in the GUI. Unless the **-quiet** parameter is used, you are prompted to confirm this action.

## Example

#### Removing the active management server

The following command removes the active management server with IP address 127.0.0.1.

csmcli> rmactive -server 127.0.0.1

## rmassoc

Use the **rmassoc** command to remove a session association from the host system. This command removes a session associated with a host system but does not remove the connection to the host system.

## **Syntax**



# **Parameters**

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

#### -session\_name session\_name

Specifies the name of the session to remove from the host system.

#### -port port

Specifies the port number for the host system if the system was added with a port other than the default port 9930.

## IP\_Address | -

Specifies the IP address or host name of the host system to remove the session from.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

### Example

Removing a session from a host system

The following command shows how to remove the session MyMMsession from the host system with IP address 9.11.223.43. In this example, you could omit the -port parameter because port 9930 is the default.

csmcli> rmassoc -session\_name MyMMsession -port 9930 9.11.223.43

# rmauth

Use the **rmauth** command to remove monitor, administrator, or operator authorization from a user or user group.

# Syntax



# **Parameters**

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-name name

Specifies a user ID or group name from which you remove authorization.

-type group | user

Specifies whether the name is of a user group or user.

## Example

## 1. Removing authorization for a group

The following command remove authorization from the user named MDMSUID. csmcli> rmauth -name Guests -type group

The following output is returned:

Are you sure you want to remove access for user Guests?  $[y/n]\!:\!y$ 

IWNR4013I Successfully revoked access from Guests.

2. Removing authorization for a user

The following command remove authorization from the user named MDMSUID. csmcli> rmauth -name csmuser -type user The following output is returned: Are you sure you want to remove access for user Guest? [y/n]:y

IWNR4013I Successfully revoked access from Guest.

# rmcpset

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Use the **rmcpset** command to delete an existing copy set.

# Syntax



# **Parameters**

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

#### -soft

Keeps the base hardware relationships on the storage system.

#### -force

Forces the removal of the copy set, even when a hardware error prevents the normal removal.

#### -keeponhw

Keeps all the base relationships on the storage system even though the copy set is removed from the session. Only the base relationships (Metro Mirror, Global Copy, and FlashCopy) are left on the hardware. The relationships are removed from any consistency groups that are defined on the storage system.

-h1 source\_volume\_id

Specifies the source volume ID of the copy set to delete.

session\_name | -

Specifies the session name from which the copy set is being deleted.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

### Example

#### Deleting a copy set

The following command deletes the copy set with source volume DS8000:2107.04131:VOL:0A05 in session session1 without prompting for confirmation.

csmcli> rmcpset -quiet -h1 DS8000:2107.04131:VOL:0A05 session1

The following output is returned:

IWNR1058I The copy sets for session session1 were successfully destroyed.

IWNR2002I The pair was successfully deleted in session session1 for copy set DS8000:2107.04131:VOL:0A05 with source DS8000:2107.04131:VOL:0A05 and target DS8000:2107.04131:VOL:0A06.

IWNR1095I Copy set DS8000:2107.04131:VOL:0A05 in session session1 was successfully deleted.

# rmdevice

Use the **rmdevice** command to remove a direct connection to a storage system.

## Syntax



# **Parameters**

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

#### **-port** *port\_number*

Specifies the port number if the device was added with a non-default port.

#### -ip ip\_address

Specifies the IP address of the SAN Volume Controller device to be removed. This parameter is ignored for all other device types.

id | -

Specifies the ID of the device to be removed.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

# Description

To remove a storage system that is attached only through a Hardware Management Console (HMC) connection, use the **rmmc** command.

To remove a storage system that is attached through a z/OS connection, use the **rmstorsys** command.

### Example

1. Removing an ESS storage system

The following command removes the ESS storage system with ID ESS:B0X:2105.18596 without prompting for confirmation.

csmcli> rmdevice -quiet ESS:BOX:2105.18596

The following output is returned:

IWNH1614I The connection at sts596c0:sts596c1 was successfully removed.

2. Removing an SAN Volume Controller device

The following command removes the SAN Volume Controller device with ID SVC:CLUSTER:RMSVC02 and IP address 127.0.0.1 without prompting for confirmation.

csmcli> rmdevice -quiet -ip 127.0.0.1 SVC:CLUSTER:RMSVC02

The following output is returned:

IWNH1614I The storage device at 127.0.0.1 was successfully removed.

# rmhost

Use the **rmhost** command to remove a connection to a host system from the IBM Tivoli Storage Productivity Center for Replication server.

#### Syntax



# Parameters

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

### -port port

Specifies the port number for the host system to be removed if the system was added with a port other than the default port 9930.

#### IP\_Address | -

Specifies the IP address or host name of the host system to be removed.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

#### Example

#### Removing host systems

The following command shows how to remove a host system with IP address 9.11.223.43. In this example, you could omit the -port parameter because port 9930 is the default.

csmcli> rmhost -port 9930 9.11.223.43

## rmmc

Use the **rmmc** command to remove a management console.

## Syntax



## Parameters

## -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

## -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

id | -

Specifies the ID of the management console to be removed.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

# Example

### Removing a management console

The following command removes a Hardware Management Console with ID HMC:127.0.0.1 without prompting for confirmation. csmcli> rmmc -quiet HMC:127.0.0.1

The following output is returned: IWNH1614I The storage device at HMC:127.0.0.1 was successfully removed.

# rmpath

Use the **rmpath** command to remove a path or paths between a source logical subsystem (LSS) and a target LSS.

## Syntax



# **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

### -src source\_lss

Specifies the source LSS and port (ESS and DS series storage servers) for the path to be removed. Use the following format: DS/ESS: 2105.20870:12.1.

-tgt target\_lss

Specifies the target LSS and port (ESS and DS series storage severs) for the path to be removed. Use the following format: DS/ESS: 2105.20870:12.1.

## Description

### Notes:

- Removing a path removes only the path and ports specified and will not remove any additional paths.
- Only Fibre Channel paths are supported for ESS800, DS6000, and DS8000.

### Example

#### **Removing paths:**

The following command removes the paths between the source LSS ess:2015.23884:11.4 and a target LSS ess:2105.23005:11.3. csmcli> rmpath -src ess:2015.23884:11.4 -tgt ess:2105.23005:11.3

The following output is returned: Path successfully removed.

## rmsess

Use the **rmsess** command to delete an existing session.

## Syntax



# Parameters

# -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

#### session\_name... | -

Specifies the session name to delete. Separate multiple session names with a white space between each name.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

# Example

### Deleting a session

The following command deletes the session named session1. csmcli> rmsess -quiet session1

The following output is returned: IWNR1022I Session session1 was successfully deleted.

# rmsnmp

You can use the **rmsnmp** command to remove the specified manager from the list of servers to which SNMP traps are sent.

## Syntax



# Parameters

```
-help | -h | -?
```

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-server server

Specifies the IP address or domain name of the server that will no longer receive SNMP traps.

## Example

#### Removing a server from receiving SNMP traps

The following command removes the management server with IP address 127.0.0.1 from receiving SNMP traps. csmcli> rmsnmp -server 127.0.0.1

The following output is returned: IWNR1702I Host 127.0.0.1 was removed from the SNMP listeners list.

# rmstdby

Use the **rmstdby** command to remove a standby management server.

# Syntax



# Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

#### -server standby\_server

The IP address of the standby management server that you are removing.

## Example

#### Removing a standby management server

The following command removes the standby management server with IP address 127.0.0.1.

csmcli> rmstdby -server 127.0.0.1

# rmstorsys

Use the **rmstorsys** command to remove a specific storage system and its volumes that are attached to the IBM Tivoli Storage Productivity Center for Replication server from the IBM Tivoli Storage Productivity Center for Replication configuration through a z/OS connection.

### Syntax



## Parameters

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

#### -conntype zos

Specifies the type of connection that the storage systems uses. Currently, you can specify only zos for a z/SO connection.

### -dev device\_id

Specifies the ID of the DS or ESS storage system that is to be removed from the IBM Tivoli Storage Productivity Center for Replication configuration.

Tip: Use the lsdevice command to display a list of valid storage system IDs.

# Description

# Important:

- You must have Administrator privileges to run this command.
- You can run this command only from the IBM Tivoli Storage Productivity Center for Replication server that is installed on a system running z/OS.
- This command removes only the z/OS connection to the specified storage system. To remove other connection types to the same storage system, use the **rmdevice** or **rmmc**command.

If IBM Tivoli Storage Productivity Center for Replication has multiple connections to a specific storage system, the order in which you remove the connections produces different results:

- If you remove all direct and HMC connections first, the fixed block and non-attached ECKD<sup>™</sup> volumes are removed from the IBM Tivoli Storage Productivity Center for Replication configuration. The remaining ECKD volumes that are attached through the z/OS connection remain in the IBM Tivoli Storage Productivity Center for Replication configuration until the z/OS connection is removed. Removing the TCP/IP connection also disables the Metro Mirror heartbeat.
- If you remove the z/OS connection first and if there is an HMC or direct connection to volumes, those volumes are not removed from the IBM Tivoli Storage Productivity Center for Replication configuration.
   HyperSwap can run provided that volumes are attached and available to z/OS
  - storage, even if you are using a TCP/IP connection to storage.

To remove a storage system that is attached through a direct connection, use the **rmdevice** command. To remove a storage system that is attached through an hardware-management-console (HMC) connection, use the **rmmc** command.

# Example

## Removing the z/OS connection

This example illustrates how to remove the z/OS connection to the storage system with ID ESS:BOX:2105.12345.

csmcli> rmstorsys -dev ESS:BOX:2105.12345 -conntype zos

The following output is returned:

IWNH1614I The storage device at ESS:BOX:2105.12345 was successfully removed.

# setasstdby

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Use the **setasstdby** command to set a management server to be the standby management server of another active management server.

# **Syntax**



# **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

-server active\_server\_ip

Specifies the IP address of the active management server for which the local management server is to be the standby server.

# Example

#### Creating a standby management server

The following command sets the local server as a standby management server for the active management server with IP address 127.0.0.1.

csmcli> setasstdby -server 127.0.0.1

The following output is returned:

```
IWNR3020I Connection to the active high-availability server at
tpc1.storage.tucson.example.com making the server
tpc2.storage.tucson.example.com a standby was successful.
```

# setparameter

Use the setparameter command to set the system parameters.

## Syntax



## **Parameters**

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

```
-parm {lsheartbeat | - chheartbeat { on | off } | -}
```

Specifies one of these system parameters:

#### lsheartbeat

Displays whether the Metro Mirror heartbeat is enabled.

#### chheartbeat { on | off }

Specifies whether the Metro Mirror heartbeat is enabled (on) or not enabled (off).

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.
#### 1. Listing the Metro Mirror heartbeat status

The following command displays whether the Metro Mirror heartbeat is enabled or disabled.

csmcli> setparameter -parm lsheartbeat

The following output is returned:

The heartbeat function is set on.

IWNR1208I The heartbeat was retrieved successfully.

#### 2. Enabling the Metro Mirror heartbeat

The following command turns on the Metro Mirror heartbeat.

csmcli> setparameter -parm chheartbeat on

The following output is returned:

IWNR1204I The heartbeat has been successfully turned on with the hardware.

# setstdby

Use the **setstdby** command to set the standby management server for an active management server.

#### Syntax



### **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### -quiet

Suppresses the confirmation prompt for this command. This flag answers yes to all confirmation prompts.

#### -username user\_name

Specify the user name for the device.

#### -password password

Specifies this parameter to receive a password prompt. The password will not be visible.

-server standby\_server\_ip

Specify the IP address of the server to be the standby management server for the local management server.

### Description

Notes:

- If a standby management server is already defined for the active management server, the previously defined standby management server is replaced by the server specified by this command.
- Only the **hatakeover** command can change a backup server to the active server. High availability (HA) must be active before setting an HA role.

#### Setting the standby management server

The following command sets the server with IP address 127.0.0.1 as the standby management server for active management server on which this command run without prompting for confirmation.

csmcli> setstdby -quiet -server 127.0.0.1 -username csmuser

The following output is returned:

```
IWNR3020I Connection to the active high-availability server at tpc1.storage.tucson.example.com making the server tpc2.storage.tucson.example.com a standby was successful.
```

#### showcpset

Use the **showcpset** command to display properties for a copy set.

#### Syntax



#### Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-h1 host\_site\_1\_volume\_id

Specifies the name of the source volume ID. The properties for this volume ID are displayed.

```
session_name | -
```

Specifies the session name to which the copy set belongs.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

#### Description

For each copy set, the following information is listed:

Column label	Details
H1 Volume	Source volume name
Session	Session name

Column label	Details
Volumes	Volumes associated with the copy set. Output is formatted to show the role and the volume ID for that role in the copy set.
Last Result	Displays the last message issued.

#### Listing copy set properties

The following command lists the properties for the copy set with the source host ID DS8000:2107.NK791:VOL:1500 in the session named session1.

csmcli> showcpset -h1 DS8000:2107.NK791:VOL:1500 session1

The following output is returned:

```
H1 Volume DS8000:2107.NK791:VOL:1500
Session server1
Volumes H1-DS8000:2107.NK791:VOL:1500, H2-DS8000:2107.MW931:VOL:1500,
H3-DS8000:2107.04131:VOL:1500, I3-DS8000:2107.04131:VOL:1505,
J3-DS8000:2107.04131:VOL:150A
Last result None
IWNR1500I Session information about session 203 was successfully obtained.
```

# showdevice

Use the **showdevice** command to display device properties.

#### Syntax



### Parameters

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### device\_id | -

Displays the threshold settings for the specified device ID. The device ID is the nickname or model-serial-manufacturer, and is in the element ID format (for example, ess:box:2105.fca57).

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

#### Description

For each device, the following information is listed. The Direct Connect Info properties are listed for devices that have a direct connection. The Management Console properties are listed for devices that are connected through a management console.

#### General

Column label	Details
Device ID	The nickname or model-serial-manufacturer of the storage system.
Device Type	The type of storage system: DS8000, DS6000, ESS, or SVC
Vendor	The vendor for the storage system. Currently, only IBM storage systems are supported.
Location	User-defined location associated with the storage system, or None.

#### Direct Connect Info

Column label	Details
Device IP Address	The IP address of the storage system. For ESS devices, this is a semicolon-delimited field of <i>cluster0_IP_address;cluster1_IP_address</i> . For SAN Volume Controller storage systems, this is the IP address of the SVC cluster server controlling the SAN Volume Controller.
User name	The user name for ESS or DS clusters or the SAN Volume Controller server. For ESS or DS storage system, this is a semicolon delimited field of .cluster0_user_name;cluster1_user_name
Port	The port number for the SAN Volume Controller cluster server or the ESS and DS devices clusters. For ESS or DS devices, this is a semicolon-delimited field of cluster0 port; cluster1 port.
State	The connection state of the storage system.
Local Server Connection	The state of the direct connections to the local management server. For ESS devices, this is a semicolon-delimited field of <i>cluster0_status;cluster1_status</i> .
Remote Server Connection	The state of the direct connections to the remote management server. For ESS devices, this is a semicolon-delimited field of <i>cluster0_status;cluster1_status</i> .

# Management console

Column label	Details
Management Console Local Server Connection	The state of the Hardware Management Console (HMC) connections to the local management server.
Management Console Remote Server Connection	The state of the Hardware Management Console (HMC) connections to the remote management server.
Console ID	The ID of the management console.

### z/OS Connection Information

Column label	Details
z/OS Local Server Connection	The state of the z/OS connections to the local management server.
z/OS Remote Server Connection	The state of the z/OS connections to the remote management server.

#### Listing device properties

The following command lists the properties of the device with ID DS8000:B0X:2107.04131. This device is connected directly and through a management console.

csmcli> showdevice DS8000:BOX:2107.04131

The following output is returned:

Device ID Device type Vendor Location	DS8000:BOX:2107.04131 DS8000 IBM Boulder
Direct Connect Into Device IP address	sta8k05c0·sta8k05c1
User name	root:root
Port	2433;2433
Local Server Connection	Connected;Connected
Remote Server Connection	-
Management Console	
Management Console Local Server Connection	-
Management Console Remote Server Connection	-
Console IDs	-
z/OS Connection Information	
z/OS Local Server Connection	-
z/OS Remote Server Connection	-

IWNC4103I The showdevice command completed successfully.

# showgmdetails

Use the **showgmdetails** command to display detailed status information for a Global Mirror session. This command is supported for ESS/DS types only. IBM System Storage SAN Volume Controller support is not included in this release.

#### Syntax



#### **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

-s Displays default information for the Global Mirror session.

Column label	Details
Session ID	Global Mirror session ID
Master LSS	Shows the name of the storage system acting as the Global Mirror master. Includes storage system ID and subsystem ID.
Copy State	Options are:
	• Running
	• Paused
	• Fatal
	Pause in Progress
Fatal Reason	Fatal reason code of the Global Mirror session.
CG Time	Time of the last consistency group formation according to the Master Storage system. Format is MM/DD/YYYY HH:MM:SS in 24 hour time
Query Time	Time of the query according to the Master Storage system. Format is MM/DD/YYYY HH:MM:SS in 24 hour time
Data Exposure	Average exposure to data loss in seconds over the query interval.
Total Failed CGs	Total number of failed consistency group formation attempts since the Global Mirror session has been in Running state
Total Successful CGs	Total number of successful consistency group formations since the Global Mirror session has been in Running state
Failed CG Attempts since last success	Number of failed consistency group formation attempts since the last successful consistency group was formed.
Successful CG Percentage	Total percentage since the Global Mirror session has been in Running state
CG Interval Time	Interval time between attempts to form a consistency group.
Max Coordination Interval	Extended distance consistency maximum coordination interval.
Max CG Drain Time	Maximum time the consistent set of data is allowed to drain at the remote site before failing consistency group formation.
Last Failure LSS	Name of the storage system for the most recent failure of the consistency group formation. Includes storage system ID and subsystem ID.

-1 Displays detailed information for the Global Mirror session, including:

Column label	Details
Last Failure Reason	Reason code for the most recent failure of the consistency group formation.
Last Failure Master State	Master State for the most recent failure of the consistency group formation.
Previous Failure LSS	Name of the storage system for the previous failure of the consistency group formation. Includes storage system ID and subsystem ID.
Previous Failure Reason	Reason code for the previous failure of the consistency group formation.
Previous Failure Master State	Master state for the second most recent consistency group formation failure.
Subordinate Count	Number of subordinates for this Global Mirror session.
Subordinate Associations	Subordinate boxes for the Master Global Mirror box.

session\_name

Specifies the Global Mirror session for which the properties are to be displayed.

# Example

### Displaying management console properties

The following command displays detailed information for the Global Mirror session  ${\tt gmme}.$ 

csmcli> showgmdetails -1 gmme

The following output is returned:

0 1	
Session ID	0x2
Master LSS	DS8000:2107.FX102:LSS:71
Copy State	Running
Fatal Reason	0x00 Global Mirror Not Fatal
CG Time	2010/04/16 23:32:58 EDT
Query Time	2010/04/16 23:32:58 EDT
Data Exposure	1.00 s
Total Failed CGs	1
Total Successful CGs	725
Failed CG Attempts since last success	0
Successful CG Percentage	99
CG Interval Time	0 s

Max Coordination Interval	50 ms
Max CG Drain Time	30 s
Last Failure LSS	DS8000:2107.FX102:LSS:71
Last Failure Reason Last Failure Master State Previous Failure LSS	0x0FCC XDC starting increment with wrong state 0x4 Global Mirror Start Increment In Progress -
Previous Failure Reason	-
Previous Failure Master State	-
Subordinate Count	0
Subordinate Associations	-

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# showha

Use the **showha** command to display the high-availability status.

#### **Syntax**

showha_	
Showing	
	-help-
	h
	2

### **Parameters**

#### -help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### Description

This command displays the following information:

Column label	Details
Status	High availability status.
Error	Error message, if applicable

### Example

#### Listing high-availability status

The following command lists the high-availability status. csmcli> showha

The following output is returned: Status Synchronized Error None

IWNR3048I The high availability status from server tpc1.storage.tucson.ibm.com was successfully queried.

#### showmc

Use the **showmc** command to display the properties of a management console.

#### **Syntax**



#### **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

id | -

Specifies the management console ID in the element ID format (for example, HMC:127.0.0.1).

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

#### Description

The following information is listed for the management console:

Column label	Details
Management console ID	The management console ID in the element ID format.
MC IP address	The IP address or domain name of the management console. For dual management console configurations the IP addresses or domain names are separated by semicolon; for example 192.0.2.0;192.0.2.1.
Device Type	Device Type (HMC)
Location	User-defined location associated with the management console, or None.
User name	The user name for the management console.
Local Connection Status	The state of the connection to the local management server.
Remote Connection Status	The state of the connection to the remote management server.
Attached Devices	The devices that are attached to this management console.

#### Example

#### Displaying management console properties

The following command displays the properties of the management console with ID HMC:127.0.0.1.

csmcli> showmc HMC:127.0.0.1

The following output is returned:

Management Console ID	HMC:127.0.0.1
MC ID address	127.0.0.1
Device Type	HMC
Location	tucson
User name	admin
Local Connection Status	Connected
Remote Connection Status	-
Attached Devices	DS8000:BOX:2107.BRXXX,DS8000:BOX:2107.BRXXX,
	D\$8000.B0X.2107 ENXXX

### showsess

Use the **showsess** command to display properties for a selected session, including name, description, group managed, and copy type.

#### Syntax



#### **Parameters**

-help | -h | -?

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

session\_name | -

Specifies the session for which the properties are to be displayed.

Alternatively, use the dash (-) to specify that input for this parameter comes from an input stream (stdin). The dash is supported only in single-shot mode.

#### Description

For each session, the following information is listed:

Column Label	Details
Name	Session name.
Туре	Session type. Values include: FlashCopy Global Mirror Either Direction with Two Site Practice Global Mirror Failover/Failback Global Mirror Practice Global Mirror Single Direction Basic HyperSwap Metro Global Mirror Metro Global Mirror with Practice Metro Mirror Failover/Failback Metro Mirror Practice Metro Mirror Single Direction
1	

Column Label	Details
State	Session state. Values include: Defined Flashing Preparing Prepared Recovering Suspended SuspendedH2H3 SuspendedH1H3 Suspending TargetAvailable Terminating
Status	Session status. Values include: Unknown Normal Warning Error
Locations	A list of the locations associated with the session.
Copy sets	The number of copy sets that the session is managing.
Copying	An indicator of whether a copying operation is occurring. Values are Yes or No.
Recoverable	An indicator of whether the session is recoverable. Values are Yes or No.
Active host	Name of the active host.
Error Count	Number of errors for all roles.
Description	Session description that you define.

#### Listing session properties

The following command lists properties for the session named session1. csmcli> showsess session1

The following output is returned:

Name	session1
Туре	Metro Global Mirror w/ Practice
State	Defined
Status	Inactive
Locations	Site1, Site2, Site3
Copy sets	10
Copying	No
Recoverable	No
Active Host	H1
Error count	0
Description	-
Transitioning	No
Detailed Status	-

IWNR1500I Session information about session 203 was successfully obtained.

Use the **ver** command to display the current version of IBM Tivoli Storage Productivity Center for Replication.

#### Syntax



#### **Parameters**

```
-help | -h | -?
```

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### Example

#### Displaying the current version:

The following command displays the current version of IBM Tivoli Storage Productivity Center for Replication that is running on the local system. csmcli> ver

The following output is returned:

Tivoli Storage Productivity Center for Replication Command Line Interface (CLI) Copyright 2009 IBM Corporation Version: 4.1.1 Build: g100-090804

#### whoami

Use the **whoami** command to display the name of the user that is currently logged in.

#### Syntax



#### **Parameters**

```
-help | -h | -?
```

Lists help for the command. If you specify additional parameters and arguments, those parameters and arguments are ignored.

#### Example

#### Displaying the current user name

The following command displays the name of the current user.

ver

csmcli> whoami

The following output is returned: Currently logged in as administrator Server: server1 Port: 5110 Authentication file: null

# Notices

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