Oracle® Enterprise Manager

Command Line Interface

10*g* Release 3 (10.2.0.3.0)

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Contents

Preface

This manual covers installation and error codes of the Enterprise Manager Command Line Interface (EM CLI). A complete command reference, which duplicates the command line help, is also included.

Note that more recent versions of this and other Enterprise Manager books may be available on the Oracle Technology Network:

`http://www.oracle.com/technology/documentation/oem.html`

Audience

This guide is written for administrators who want to access Enterprise Manager console functions directly from scripts or an interactively from an OS shell. You should already be familiar with Enterprise Manager administrative tasks you want to perform.

You should also be familiar with the operation of your specific UNIX or Windows system. Refer to your platform-specific documentation, if necessary.

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For more information, see the following manuals in the Oracle Enterprise Manager 10*g* Release 2 documentation set:

- *Oracle Enterprise Manager Administrator's Guide*
- *Oracle Enterprise Manager Concepts*
- *Oracle Enterprise Manager Grid Control Quick Installation Guide*
- *Oracle Enterprise Manager Grid Control Installation and Basic Configuration*
- *Oracle Enterprise Manager Configuration for Oracle Collaboration Suite*
- *Oracle Enterprise Manager Policy Reference Manual*
- *Oracle Enterprise Manager Metric Reference Manual*
- *Oracle Enterprise Manager Extensibility*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Command Line Interface

The Enterprise Manager Command Line Interface (EM CLI) allows you to access Enterprise Manager Grid Control functionality from text-based consoles (shells and command windows) of a variety of operating systems. This capability provides administrators with the ability to call Enterprise Manager functionality using custom scripts such as SQL*Plus, OS shell, Perl, or Tcl, thus permitting easy integration of Enterprise Manager functionality with a company’s business process.

Using EM CLI, you can perform Enterprise Manager Grid Control console-based operations like monitoring/managing targets, jobs, groups, blackouts, notifications and alerts. EM CLI is intended for use by enterprise or system administrators writing scripts such as shell/batch files, Perl, Tcl or PHP that provide workflow in the customer's business process. EM CLI commands can also be used interactively from an operating system console.

EM CLI is fully integrated with Enterprise Manager’s security and user administration functions, thus allowing administrators to carry out operations using EM CLI with the same security and confidentiality as the Enterprise Manager Grid Control console. For example, the EM CLI user will only be able to see and operate on targets for which they are authorized.

Example Uses

- Enterprise Manager Integration with third party or custom software via scripting. Actions (such as add/delete target, submit/delete jobs, create/delete user) that are part of a customer's business model can be performed via scripting.
- Every day, send an e-mail list of backup jobs that were still running after 6 AM.
- Every week, write pertinent information about failed Enterprise Manager jobs to a file and then purge the Enterprise Manager job history.

1.1 Open Issues

- EM CLI setup Verb will not work if you have executed a UNIX "su" or "msu" command to operate as another user in the current window. To run the "setup" Verb as another user, open a new terminal window and run the "setup" Verb as the new user in that window.
- EM CLI does not allow OS Script jobs to be run against database targets. The Enterprise Manager Grid Control console, however, does allow this.
- EM CLI has only been certified for submitting OS Script and SQL Script jobs.
- The current version of EM CLI (10.2.0.0) will not work with Oracle Management Services (OMS) with single sign-on (SSO) enabled.

1.2 EM CLI QuickStart

Setting up and running EM CLI is simple. EM CLI consists of two components used to access the Enterprise Manager framework functionality:

- EM CLI Client
- EM CLI Oracle Management Service Extension

The EM CLI Client can be installed on any machine within your managed network and is a command line program (Java-based) that sends EM CLI Verbs to a specific Oracle Management Service (OMS). In some respects, the EM CLI Client functions as a command line equivalent of an Enterprise Manager Grid Control console. The EM CLI Oracle Management Service Extension is automatically installed with the OMS and serves as the communication conduit between the EM CLI Client and the OMS.

Requirements

Before installing EM CLI, you will need the following:

- Enterprise Manager 10*g* 10.2.0.0 Grid Control framework
- Java version 1.4.1 or greater
- Workstation running Solaris, Linux, HPUX, Tru64, AIX, or Windows with NTFS.

1.2.1 Installation and Setup

As mentioned earlier, the EM CLI OMS Extension is automatically installed with the OMS. You must install and setup the client portion. The following instructions cover installation and setup procedures for the EM CLI Client.

1.2.1.1 Installing the EM CLI Client

1. Obtain the EM CLI Client kit (emclikit.jar).

   The EM CLI client kit is downloadable from any 10.2 Grid Control installation at the following location:

   HTTP(S)://host:port/em/console/emcli/download

   The emclikit.jar file is physically located in the $ORACLE_HOME/sysman/jlib directory of the 10.2 Grid Control OMS home.

2. Set your JAVA_HOME environment variable and ensure that it is part of your PATH. You must be running Java 1.4.1 or greater. For example

   ```
   setenv JAVA_HOME /usr/local/packages/j2sdk1.4.1_02
   ```

   ```
   setenv PATH $JAVA_HOME/bin:$PATH
   ```

3. Install the EM CLI Client. You can install the client in any directory either on the same machine as the EM CLI Management Services or on any machine in your network (download the emclikit.jar to that machine). Run the following command:

   ```
   java -jar emclikit.jar client -install_dir=<emcli client dir>
   ```

After you have installed the EM CLI Client, you are ready to begin client setup.

1.2.1.2 Setting Up the EM CLI Client

Once the EM CLI Client is installed, you are ready to begin using EM CLI. At this point you can run the EM CLI Client out of the "install_dir" location, or alternatively, you can add it to your PATH.

Immediately after installation, only basic operational Verbs are installed:

- **argfile**: Executes an EM CLI Verb where the Verb and any arguments are contained in a file.
- **help**: Access command line help for EM CLI Verbs.
- **setup**: Configure EM CLI to work with a specific Enterprise Manager Management Service (OMS)
- **sync**: Synchronize the EM CLI Client with an OMS.
- **add_mp_to_mpa**: Add a Management Plug-in to a Management Plug-in Archive. The Management Plug-in Verb is used for adding new target types to Enterprise Manager.

You must run "setup" to connect the EM CLI Client to the OMS running the EM CLI Management Services. For information on how to use the setup Verb, see the command line help by entering the following:

```
> emcli help setup
```

Example 1–1 Setting Up the EM CLI Client

```
emcli setup -url=http://myworkstation.us.oracle.com:em_port/em -username=em_user
```

When the EM CLI Client connects with the EM CLI Management Services, you will be prompted at the command line to enter the user password. Running the "setup" Verb installs all available Verb-associated command line help from the EM CLI Management Service. Setup must be run each time you wish to connect to a different OMS.

After running the "setup" Verb, you are ready to begin using EM CLI.

1.2.1.3 EM CLI Log Files

EM CLI creates log files to record informational and error messages generated during operation. Not all of the logs in the following examples will necessarily be present. Logs are created as needed and are append-based—they are preserved between invocations of EM CLI. Log files may be safely deleted at any time without affecting EM CLI operation.

The logs contain stack traces, which may not be useful for the casual user, but may be of benefit to users with a high level of system knowledge. The following examples show possible log file locations:

```
CONFIG_DIR/.emcli.log
CONFIG_DIR/.emcli.log.1
```

CONFIG_DIR refers to the directory specified by the "-dir" option in the latest running of the "setup" Verb (with a ".emcli" subdirectory appended). The current "CONFIG_DIR" directory can be identified by executing the "setup" verb with no options to display the setup summary. Log files are limited to a maximum of 0.5 MB. EM CLI alternates between the two log files: As each file hits the 0.5 MB limit, EM CLI begins writing to the other file, overwriting the oldest log file once emcli.log.1 has been filled for the first time.

The following examples show possible log file locations:

Example 1–2 No configuration directory is specified with the setup Verb (Default location)

```
user.home/.emcli/.emcli.log
user.home/.emcli/.emcli.log.1
```

If no configuration directory is specified when the "setup" Verb is run ("-dir" option is omitted), EM CLI assumes the .emcli configuration directory is located within the user's local home directory. The log files are placed at the root level of the .emcli directory. The .emcli directory must be local (not mounted remotely).

Example 1–3 Local configuration directory is specified with the setup Verb (-dir=<local directory>

```
local.dir/.emcli/.emcli.log
local.dir/.emcli/.emcli.log.1
```

In this example, the configuration directory is specified using the "-dir" option when the `setup` Verb is run. This allows you to specify a local configuration directory in the event the user home directory is mounted remotely (via NFS, for example).

1.2.1.4 Configuring an HTTP Proxy Environment

If you are planning to use EM CLI through an HTTP proxy server, you need to set an additional environment variable (EMCLI_OPTS) that supplies EM CLI with the requisite proxy host and port information. The following examples illustrate setting the EMCLI_OPTS environment variable for both Windows and UNIX operating systems.

Example 1–4 Setting EMCLI_OPTS in a Microsoft Windows Environment

```
>set EMCLI_OPTS=-Dhttp.proxyHost=<proxy host> -Dhttp.proxyPort=<proxy port>
```

Example 1–5 Setting EMCLI_OPTS in a UNIX Environment (TCSH)

```
>setenv EMCLI_OPTS "-Dhttp.proxyHost=<proxy host> -Dhttp.proxyPort=<proxy port>"
```

1.2.2 EM CLI Command Line Help

The EM CLI incorporates a comprehensive command line help system that provides various levels of assistance. Available from any EM CLI Client installation, the help system provides a listing of all available verbs, descriptive overviews for each Verb, syntax, as well as usage examples. The command line help is the definitive EM CLI information source.

To access command line help, type the following:

```
>emcli help
```
Provides an overview of all available verbs.

OR

```
>emcli help <verb>
```
Provides a detailed description of the Verb, Verb arguments and options, and usage examples.

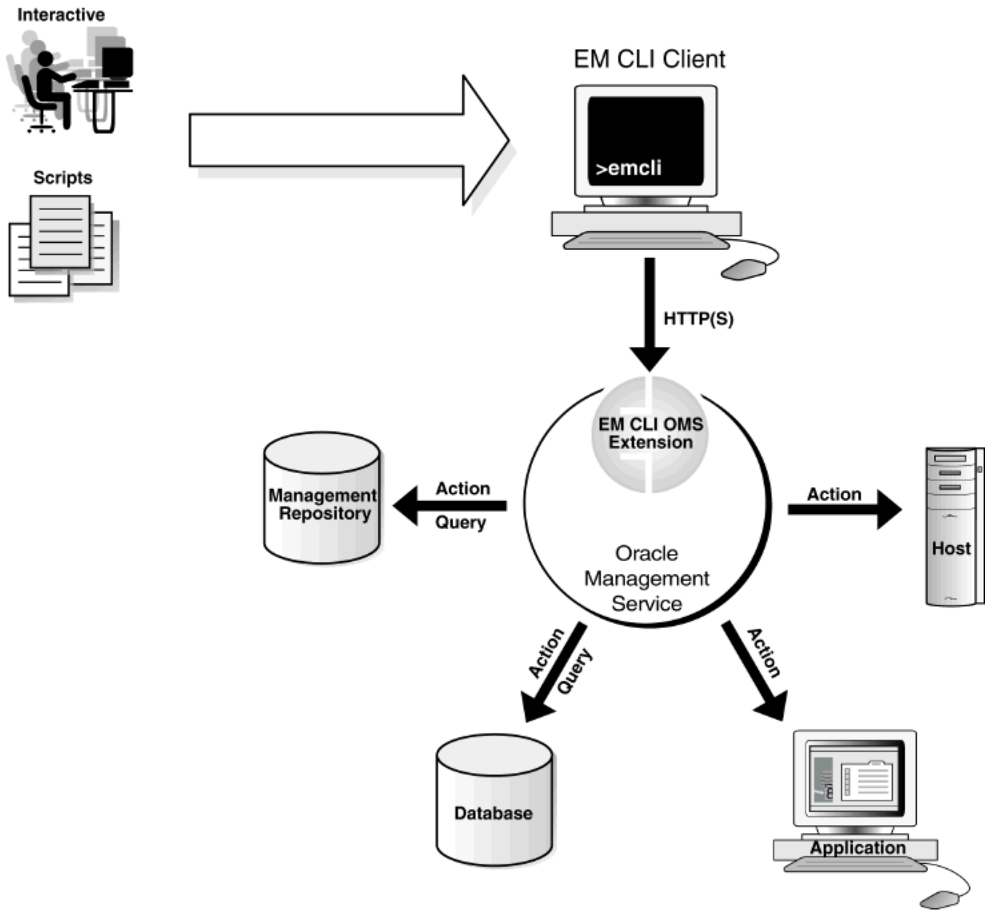
1.3 How the EM CLI Works

The EM CLI Client is a Java application that accepts a command as input. The EM CLI Client then uses the input command to identify a Verb to execute the command. A Verb is a Java plug-in extension to the EM CLI Client. A Verb services the command with its specific options and posts the results to the standard output stream. Any errors are posted to the error output stream. The Verb also returns an integer exit value that the EM CLI Client sets as the exit value of the command in the Client's calling environment (the operating system console).

A Verb can perform its operations locally, but most of the verbs that come with the EM CLI are covered by the remote Verb in the EM CLI Client. The remote Verb contacts the EM CLI OMS Extension in the Enterprise Manager OMS Console via HTTP/HTTPS and sends the command line via HTTP to the OMS for processing. The EM CLI OMS Extension is essentially a standard Enterprise Manager console page and is installed in the OMS just as any other standard console page. As with the EMCLI Client, the EM CLI OMS Extension uses the input command to identify a Verb to execute the command. The Verb can access the Management Repository or Management Agents via OMS services as necessary in processing the command.

The remote Verb will log on to the OMS and establish a session automatically, as necessary, to access the OMS-Side Controller. The remote Verb impersonates the Enterprise Manager user that instigated the command from the Client. The Enterprise Manager user credentials are established local to the EM CLI Client during a one-time, interactive exchange when the Enterprise Manager administrator uses the EM CLI `setup` Verb. Figure 1–1shows the high-level architecture of EM CLI.

Figure 1–1 EM CLI Architecture



For more information about any of these functional areas, see the Enterprise Manager Concepts Guide.

1.4 Security and Authentication

Each operating system user must execute a one-time EM CLI initialization that locally defines the location of the Oracle Management Services and the Enterprise Manager credentials to be used whenever this user invokes EM CLI.

Example 1–6 CLI-Enterprise Manager Authentication

```
>emcli setup -url="http[s]://host:port/em/" -username="<username>"  [-trustall]
[-novalidate]

>please enter password:
```

Note: You can find out the OMS connection information from any EM CLI Client by issuing the SETUP Verb without any options. For example:

```
>emcli setup
```

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CONFIG DIRECTORY: /home/emcli_install_dir/.emcli

```
OMS :  http://my_machine.my_co.com:port/em/
```

EM USER : username

```
TRUST ALL : false
```

1.4.1 HTTPS Trusted Certificate Management

For authenticating an OMS during the SSL server authentication phase of an HTTPS connection handshake, EM CLI looks for trusted certificates in the following key stores:

```
CONFIG_DIR/.emcli/.localkeystore
user.home/.emcli/.keystore
JRE_HOME/lib/security/cacerts
```

"CONFIG_DIR" is the directory specified by the "-dir" option in the latest running of the "setup" Verb (with a ".emcli" subdirectory appended). See "EM CLI Log Files" on page 1-3 for more information about the "CONFIG_DIR" parameter.

"JRE_HOME" in a JDK installation is typically "JAVA_HOME/jre".

The key stores can be managed by the JDK "keytool" command. For more information about this tool, see the security documentation for your Java VM installation or (at the time of this writing):

http://java.sun.com/j2se/1.4.2/docs/guide/security/SecurityToolsSummary.html

Not all of the key stores in the list above will necessarily be present.

1.4.2 Secure Clients

You can provide credentials to EM CLI in one of two ways:

- Provide credentials a the time of use.

- Make credentials persistent on the host machine where the EM CLI client is running, as might be the case when executing EM CLI verbs from a shell script.

Caution: Making credentials persistent on hosts should only done when the host is a secure client, since the only protection available for credentials is the file system security of the OS.

Oracle also recommends not using persistent credentials if the EM CLI user′s home directory is mounted over NFS or any other insecure file system.

1.5 EM CLI General Behavior

For easy parsing of Verb output by scripts a "–script" argument is available for all verbs that generate output data. If the "-script" argument is used then all output columns will be tab separated (with non-null values) and all rows will be newline separated. The default column and row separators may be overridden by using the "-format" argument in place of "-script".

```
[ -script | -format="name:<format type>;column_
separator:<separator_text>;row_separator:<separator_text>"]
```

Supported "-format" arguments are shown in the following table.

Table 1–1 Supported "-format" Arguments

Argument	Explanation
-format="name:pretty"	Pretty print the output. This is the default when both "-script" and "-format" are not specified.
-format="name:script"	This is identical to just specifying "–script". Columns will be tab separated and rows will be newline separated.
-format="name:script;column_separator:<column_sep_string>"	This causes the Verb output to be column separated by <column_sep_string>. Rows are separated by the newline character.
-format="name:script;row_separator:<row_sep_string>"	This causes the Verb output to be row separated by <row_sep_string>. Columns are separated by the tab character.
-format="name:script;column_separator:<column_sep_string>;row_separator:<row_sep_string>"	This causes the Verb output to be column separated by <column_sep_string> and row separated by <row_sep_string>.
-format="name:csv"	This produces a table with the columns separated by commas and the rows by newlines.

- ′-script′ is equivalent to ′–format="name:script;column_separator:\u0009;row_separator:\u000A"′
- The values for column and row separator are given as one or more character strings. Any of the characters may be represented by the unicode sequence "\uXXXX" (where X is a hex value). NOTE: The ASCII character set is represented by "\u00XX" where XX can range from 00 to 7F. So, for example, the tab character is represented by "\u0009" and the newline character is represented by "\u000A".
- Formats supported for the first release are "script", "pretty", and "csv".
- The "pretty" format type has no attributes.
- In "script" mode any Verb output cells which contain the separator strings will be substituted with the unicode values for those strings so that the output will not break any scripts required to parse the output.
- Separators need not be single characters and may be specified using both regular characters interspersed with unicode sequences as shown in the following example.
- "script" is the only format type for which separators may be specified.

Example 1–7 Complex Separator

Separator Specification: `xxx\u0009xxx\u0009`

This separator appears as "xxx" followed by a tab followed by "xxx" followed by another tab.

1.6 Using EM CLI

As mentioned previously, the EM CLI provides programmatic access to the functions of the Enterprise Manager Grid Control framework. A subset of framework functions accessed from the Enterprise Manager console can now be accessed via command line using the EM CLI Verbs. See Chapter 2, "Error Code/Verb Reference" for more information on available verbs.

2

Error Code/Verb Reference

This chapter covers errors and associated codes returned by EM CLI in addition to a complete listing of all EM CLI verbs. Complete syntax and usage information is also available for each Verb through EM CLI's command line help system.

This chapter includes the following:

- Verb Error Codes Returned by EM CLI
- Verb Reference

2.1 Verb Error Codes Returned by EM CLI

EM CLI return codes can be used to manage the control flow in a workflow/scripting environment. EM CLI return codes for Verb errors are positive integers. A Verb returns either 0 (successful execution) or an error number.

2.1.1 EM CLI Infrastructure Errors

Any execution of the EM CLI client could result in the following errors.

Table 2–1 Infrastructure Errors

Error Number	Description
242	A Verb has encountered a problem with a dependency that is specific to the implementation of the Verb (INSIDE of its abstraction barrier) - NOT HAVING TO DO WITH THE VERB'S SEMANTICS.
248	Configuration files are corrupt or inaccessible.
253	The command name is not recognized.
254	Unexpected condition occurred.

2.1.2 OMS Connection Errors

Verbs that execute at the OMS will return these error codes as indicated in the listing for each applicable Verb.

Table 2–2 OMS Connection Errors

Error Number	Description
243	License has not been accepted by the current user
249	Cannot connect to the OMS.

Table 2–2 (Cont.) OMS Connection Errors

Error Number	Description
250	Wrong credentials for log in to the OMS.

2.1.3 File-Fed Option Errors

Verbs that allow for file-fed options (rather than options where the values are explicitly defined on the command line) can return the following error codes.

Table 2–3 File-Fed Option Errors

Error Number	Description
244	Cannot find an option value file.
245	Cannot read in an option value file.
246	An option value file is too big.

2.1.4 Built-In Verb Errors

The following error codes are returned by each Verb (not including EM CLI Infrastructure Errors that apply to ALL Verbs).

Table 2–4 Built-In Verb Errors

Verb	Error Code
add_beacon	0—Beacon Added Successfully 129— Syntax Error. The displayed message indicates which argument is syntactically incorrect. 170—Service does not exist. 173—Beacon does not exist. 201—Beacon is already in the monitoring beacons list. 230—Insufficient Privileges. 255—Backend error. Verb failed.
add_mp_to_mpa	1—File does not exist, is unreadable, or an I/O error occurred. 2—I/O error occurred while writing to the MPA file. 3—The specified MP already exists in the MPA. 4—The target type definition file cannot be parsed. 5—The MPA filename is not between 1 and 255 characters. 6 —A file of a particular file type is required for another file. 223—The supplied options are syntactically incorrect

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
add_target	1—The supplied target type does not exist. Unable to retrieve target metadata from the specified host's Management Agent.
	2—Host does not exist.
	3—Agent does not exist.
	4—Group does not exist.
	5—No monitoring credentials set found for target in the repository.
	6—Target instance already exists in the repository.
	7—The supplied target properties are incomplete.
	8—One or more of the supplied target properties are invalid.
	15—Target deletion in progress.
	20—Unable to connect to the specified host's Agent.
	21—Unable to save the target instance to the specified host's Agent.
	22—Cannot add more than one Agent target for a single Agent URL.
	23—Unable to add an instance of an Agent target without a URL.
	219—Insufficient privileges to add target.
	Insufficient privileges to add target to group.
	223—Unable to parse command line correctly. Invalid argument value.
	File-Fed Option Errors—The errors associated with file-fed options.
	OMS Connection Errors—The errors associated with connecting to the executing OMS.
apply_template_tests	1—Error processing input XML file.
	4—Insufficient privileges for apply template.
	6—Target does not exist.
	7—Incompatible template and target types during apply.
	8—Test(s) specified for overwriteExisting do not exist in the template.
	9—Key test(s) specified as disabled for apply.
	10—Stepgroup contains a step that does not exist in the file.
	11—Some text property in file does not conform to valid syntax.
	12—Some text property contains variable but variable value is missing.
	13—Some transaction property/threshold/collection setting does not conform to required restrictions.
	50—Generic error.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
argfile	Possible return error codes consist of the following PLUS all of the errors returned by the Verb specified in the command line file for execution. 244—The file does not exist. 245—There is a problem reading in the file or does not exist. 246—The file ends inside a quoted token. 247—The argfile options are specified incorrectly.
assign_test_to_target	0—Test assigned to target type successfully. 129—Syntax Error. The displayed message indicates which argument is syntactically incorrect. 190—Test or target type invalid. 230—Insufficient Privileges. 255—Backend error. Verb failed
change_service_system_assoc	0—Service system changed successfully. 129—Syntax Error. The displayed message indicates which argument is syntactically incorrect. 170—Service does not exist. 171—System <system> does not exist. 172—Key component does not exist. 230—Insufficient Privileges 255—Backend error. Verb failed
clone_as_home	1—The source_params parameter is invalid or in wrong format. Example: Source Home location, hostname are missing. 2—Destination properties file format is invalid. 3—Source Home/software library data invalid. No Source Home/software library fetched from the repository matches data specified by user. 4—Product type does not match the specified cloning verb. Example: Attempted to clone a database but specified an Application Server as a source. 5—Invalid input parameters specified. This is a generic error message for all cases not covered by the previous error messages. In some cases the parameter itself may be in a valid format, but may point to a home that is not readable or corrupt. 6—Error validating Destination home. 7—Error validating/collecting information from Source Home. This error is typically returned during Application Server cloning when the Application Server properties file cannot be read from the Source Home. 8—Other internal error occurred: Exceptions within cloning APIs, or validation, database access APIs.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
clone_crs_home	1—The source_params parameter is invalid or in wrong format. Example: Source Home location, hostname are missing. 2—Destination properties file format is invalid. 3—Source Home/software library data is invalid. No Source Home/software library fetched from the repository matches data specified by user. 4—Product type does not match the cloning verb used. Example: Attempted to clone a database but supplied an Application Server as a source. 5—Invalid input parameters specified. Generic error message for all cases not covered by previous error messages. In some situations, the parameter itself may be in a valid format, but may point to a home that is not readable or corrupt. 6—Error validating Destination home. 7—Error validating/collecting information from Source Home. This error is typically returned during Application Server cloning when the Application Server properties file cannot be read from the Source Home. 8—Other internal error occurred. Exceptions raised within cloning APIs, or validation database access APIs.
clone_database_home	1—The source_params parameter is invalid or in wrong format. Example: Source Home location, hostname are missing. 2—Destination properties file format is invalid. 3—Source Home/software library data invalid- no Source Home /software library fetched from the repository matches data specified by user. 4—Product type not matching with the cloning verb used. Example: You attempted to clone a database but specified an Application Server as a source. 5—Invalid input parameters specified: generic error message for all cases not covered above. In some cases the parameter itself may be in a valid format, but may point to a home which is not readable or corrupt. 6—Error validating Destination home. 7—Error validating/collecting information from Source Home: This error is typically returned during Application Server cloning when the Application Server properties file cannot be read from the sourcehome. 8—Other internal error occurred: Exceptions within cloning APIs, or validation, database access APIs.
create_aggregate_service	1—Target does not exist. 2—Target exists.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
create_blackout	1—Blackout X already exists.
	2—Only Super Administrators are allowed to add a new reason. Use get_ blackout_reasons to view current reasons.
	3—Agent targets cannot be directly blacked out.
	217—The blackout end_time cannot be in the past.
	The dates specified will never cause this blackout to take effect.
	The difference between the end_time and the start_time must be equal to the duration.
	The difference between the repeat interval and the duration must be at least X minutes.
	The duration must be -1 (for indefinite blackouts) or positive.
	The duration must be at least X minutes.
	219—Current user does not have OPERATOR privilege over all blackout targets.
	220—Target X does not exist.
	223—Unable to parse command line correctly.
	OMS Connection Errors—The errors associated with connecting to the executing OMS.
create_blackout	1—Blackout X already exists.
	2—Only Super Administrators are allowed to add a new reason (use get_ blackout_reasons).
	3—Agent targets cannot be directly blacked out.
	217—The blackout end_time cannot be in the past.
	The dates specified will never cause this blackout to take effect.
	The difference between the end_time and the start_time must be equal to the duration.
	The difference between the repeat interval and the duration must be at least X minutes.
	The duration must be -1 (for indefinite blackouts) or positive.
	The duration must be at least X minutes.
	219—Current user does not have OPERATOR privilege over all blackout targets.
	220—Target X does not exist.
	223—Unable to parse command line correctly.
	OMS Connection Errors—The errors associated with connecting to the executing OMS.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
create_group	1—Group X already exists.
	2—Cannot add target X to typed group of base type Y.
	218—Group X is currently in the process of being deleted.
	219—Current user does not have privilege X over all member targets.
	220—Member target X does not exist.
	223—Unable to parse command line correctly.
	Invalid argument value.
	Group type is invalid.
	OMS Connection Errors—The errors associated with connecting to the executing OMS.
create_red_group	0—Redundancy Group "<red_group_name>" created successfully
	1—Redundancy Group "<red_group_name>" of target type <red_group_type> already exists.
	2—Cannot add target "<member_target_type>" to typed group of base type "<red_group_type>".
	3—Time Zone Region <timezone_region> does not exist.
	4—Redundancy Group Type "<red_group_type>" is invalid.
	218—Redundancy Group "<red_group_name>:<red_group_type>" is currently in the process of being deleted.
	220—Target "<member_target_name>:<member_target_type>" does not exist.
	223—Redundancy Group name "<red_group_name>" is not valid. It may contain only alphanumeric characters, multibyte characters, a space, "-", "_", ".", ":", and have length at most 256 characters.
	223—User name "<owner>" is not valid. It must begin with an alphabetic character, contain only alphanumeric characters, underscores (\"_\"), or periods (\".\"), and have length of at most 256 characters.
	223—Invalid value for parameter "add_targets": "<add_targets>". Reason: "<add_targets>" is not a name-value pair.
	223—Member Targets not of same type.
	223—"<generic_redundancy_group>" does not support member of type "<member_target_type>" .

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
create_role	1—Role by same name already exists. 2—User with same name as role already exists. 4—Privilege is invalid or nonexistent. 5—Target specified in one of the privileges is invalid. 6—The Super Administrator privilege cannot be granted to a role. 7—Role does not exist. 8—Group specified in one of the privileges is invalid. 9—Job in privilege is invalid or nonexistent. 10—Creating a role that you are assigning to the new role. 11—The specified user does not exist. 219—User is unauthorized to perform this action. 223—Unable to parse command line correctly. Invalid argument value. OMS Connection Errors—The errors associated with connecting to the executing OMS.
create_service	0—Web Application Created Successfully. 129—Syntax Error. The displayed message indicates which argument is syntactically incorrect. 130—Missing key components. 151—Test validation failed. 171—System <system> does not exist. 172—Key component does not exist. 173—Beacon does not exist. 181—No key tests defined. 182—No key beacons defined. 200—Service <target_name> already exists. 230—Insufficient Privileges. 255—Backend error. Verb failed.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
create_system	0—System "<system_name:system_type>" created successfully 110—System "<system_name:system_type>" already exists. 120—Member target "<member_target_name>:<member_target_type>" does not exist. 122—Type "<system_type>" is not a valid System type. 123—Time Zone Region "<timezone_region>" does not exist. 130—Type meta version "<type_meta_ver>" is invalid. 223—System name "<system_name>" is not valid. It must begin with an alphabetic char, contain only alphanumeric chars or any of "- _.:", and have length at most 256 chars. 223—Type meta version "<type_meta_ver>" is invalid. It must contain only numeric and "." characters, and have length of at most 8 chars. 223—Timezone_region cannot be null or blank. 223—Invalid value for parameter "add_members": "<add_members>". Reason: "<add_members>" is not a name-value pair.
create_user	1—Target specified in one of the privileges is invalid. 2—Group specified in one of the privileges is invalid. 3—Job specified in one of the privileges is invalid. 4—One of the specified privileges is invalid. 5—Such user already exists. 6—One or more roles to be granted to the new user does not exist. 7—A role with the same name as the new user already exists. 218—A delete is pending against this user until all blackouts and jobs submitted by this user are stopped. 219—User has insufficient privileges to perform this operation. 223—Unable to parse command line correctly: Invalid argument value. Username is somehow invalid. Supplied password does not have the proper format. Example: Password left empty. File-Fed Option Errors—The errors associated with file-fed options. OMS Connection Errors—The errors associated with connecting to the executing OMS.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
delete_blackout	1—Blackout X created by user Y does not exist.
	2—Cannot delete a blackout that has not ended or was not stopped.
	219—You (X) do not have the SUPER_USER privilege needed to stop, delete, or modify blackout Y created by user Z.
	Only the blackout owner can stop, delete, or modify the blackout.
	Current user does not have OPERATOR privilege over all blackout targets.
	223—Unable to parse command line correctly.
	OMS Connection Errors—The errors associated with connecting to the executing OMS.
delete_group	1—Group X does not exist.
	218—Group X is currently in the process of being deleted.
	219—Current user does not have sufficient privileges to perform this action.
	223—Unable to parse command line correctly.
	OMS Connection Errors—The errors associated with connecting to the executing OMS.
delete_job	1—Specified job is invalid or non-existent.
	219—User has insufficient privileges to perform this operation.
	218—Some executions are not stopped when delete happens.
	223—Unable to parse command line correctly.
	OMS Connection Errors—The errors associated with connecting to the executing OMS.
delete_metric_promotion	0—SUCCESS
	223—SYNTAX_ERRNUM: Input is malformed.
	255—VERB_FAILED_ERRNUM: Backend validation fails.
delete_role	1—Role does not exist.
	219—User is unauthorized to perform this action.
	223—Unable to parse command line correctly.
	OMS Connection Errors—The errors associated with connecting to the executing OMS.
delete_system	0—System "<system_name:system_type>" deleted successfully.
	121—System "<system_name:system_type>" does not exist.
	122—Type "<system_type>" is not a valid System type.
	219—Current user does not have sufficient privileges to perform this action.
	223—System name "<system_name>" is not valid. It must begin with an alphabetic character, contain only alphanumeric characters or any of "- _.:", and have length at most 256 chars.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
delete_target	15—Target deletion in progress. 219—Insufficient privileges to delete specified target. 220—Target does not exist. 223—Unable to parse command line correctly. OMS Connection Errors—The errors associated with connecting to the executing OMS.
delete_test	0—Test Deleted Successfully 129—Syntax Error. The displayed message indicates which argument is syntactically incorrect. 170—Service does not exist. 174—Test does not exist. 230—Insufficient Privileges. 255—Backend error. Verb failed.
delete_user	1—Cannot delete the repository owner. 2—Specified user does not exist. 3—Cannot delete the current user. 218—A delete is pending against this user until all blackouts and jobs submitted by this user are stopped. 219—User has insufficient privileges to perform this operation. 223—Unable to parse command line correctly. OMS Connection Errors—The errors associated with connecting to the executing OMS.
disable_test	0—Test Disabled Successfully 129—Syntax Error. The displayed message indicates which argument is syntactically incorrect. 170—Service does not exist. 174—Test does not exist 203—Test already disabled. 230—Insufficient Privileges 255—Backend error. Verb failed
enable_test	0—Test Enabled Successfully 129—Syntax Error. The displayed message indicates which argument is syntactically incorrect. 170—Service does not exist. 174—Test does not exist 202—Test already enabled. 230—Insufficient Privileges 255—Backend error. Verb failed

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
execute_hostcmd	0—Command execution succeeded for all targets. 2—Command execution failed for one or more targets. Detailed errors will be displayed for each failed target. 3—Invalid or unknown targets in the targets list. 4—Preferred credentials are missing for one or more targets. 5—Invalid credential set name. 223—Unable to parse the command line properly.
execute_sql	0—Command execution succeeded for all targets. 2—Command execution failed for one or more targets. Detailed errors will be displayed for each failed target. 3—Invalid or unknown targets in the targets list. 4—Preferred credentials are missing for one or more targets. 5—Invalid credential set name. 223—Unable to parse the command line properly.
extend_as_home	1—The source_params argument is invalid or in the wrong format. Example: Source Home location or hostname are missing. 2—Destination properties file format is invalid. 3—Source Home/software library data invalid. No Source Home/software library fetched from the repository matches data specfied by user. 4—Product type not matching with the cloning verb used. Example: Attempted to clone a database but specified an Application Server as a source. 5—Invalid input parameters specified. Generic error message for all cases not covered by previous error messages. In some cases the parameter itself may be in a valid format, but may point to a home that is not readable or corrupt. 6—Error validating Destination home. 7 —Error validating/collecting information from source home. Typically returned during Application Server cloning when the Application Server properties file cannot be read from the sourcehome. 8—Other internal error occurred: Exceptions within cloning APIs,or validation,database access APIs.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
extend_crs_home	1—The source_params parameter is invalid or in the wrong format. Example: Source Home location or hostname are missing. 2—Destination properties file format is invalid. 3—Source Home/software library data invalid. No Source Home/software library fetched from the repository matches data specfied by user. 4—Product type not matching with the cloning verb used. Example: Attempted to clone a database but specified an Application Server as a source. 5—Invalid input parameters specified. Generic error message for all cases not covered by previous error messages. In some cases the parameter itself may be in a valid format,but may point to a home that is not readable or corrupt. 6—Error validating Destination home. 7—Error validating/collecting information from Source Home: Typically returned during Application Server cloning when the Application Server properties file cannot be read from the sourcehome. 8—Other internal error occurred: Exceptions within cloning APIs,or validation,database access APIs.
extend_rac_home	1—The source_params parameter is invalid or in wrong format. Example: Source Home location, hostname are missing. 2—Destination properties file format is invalid. 3—Source Home/software lib data invalid- no Source Home /software library fetched from the repository matches data specfied by user. 4—Product type not matching with the cloning verb used. Example: tried to clone database but gave app server as source. 5—Invalid input parameters specified: generic error message for all cases not covered above. In some cases the parameter itself may be in a valid format,but may point to a home which is not readable or corrupt. 6—Error validating Destination home. 7—Error validating/collecting information from Source Home: Typically returned during Application Server cloning when the Application Server properties file cannot be read from the Source Home. 8—Other internal error occurred: Exceptions within cloning APIs,or validation,database access APIs.
extract_template_tests	2—Error serializing xml output. 3—Insufficient privileges for extract template. 5—Template does not exist in repository. 50—Generic error.
get_aggregate_service_info	1—Target does not exist. 2—Target exists.
get_aggregate_service_members	1—Target does not exist. 2—Target exists.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
get_blackout_details	1—Blackout X created by user Y does not exist. 223—Unable to parse command line correctly. OMS Connection Errors—The errors associated with connecting to the executing OMS.
get_blackout_reasons	OMS Connection Errors—The errors associated with connecting to the executing OMS.
get_blackout_targets	1—Host X does not exist. 223—Unable to parse command line correctly. 220—Target X does not exist.
get_blackouts	1—Host X does not exist. 220—Target X does not exist. 223—Unable to parse command line correctly. OMS Connection Errors—The errors associated with connecting to the executing OMS.
get_group_members	1—Group X does not exist. 223—Unable to parse command line correctly. OMS Connection Errors—The errors associated with connecting to the executing OMS.
get_groups	Other than the confirmation message, the get_groups verb only generates syntax errors. The SQL invoked by get_groups does not throw any exception. 0—All groups (TargetName , TargetType) in the repository are displayed. 223—Syntax Error: Argument -script cannot be specified with a value. 223—Syntax Error: -format argument "name" value must match one of these strings: "script|pretty|csv". 223—Syntax Error: Invalid value for parameter "format": "name:<format_name>;column_separator=<column_separator_char>". Reason: "column_separator=column_separator_char" is not a name-value pair. 223—Syntax Error: -format argument contains an unrecognized key name <key_name>
get_jobs	223—Unable to parse command line correctly. OMS Connection Errors—The errors associated with connecting to the executing OMS.
get_system_members	121—System "<system_name:system_type>" does not exist.
get_targets	223—Unable to parse command line correctly. OMS Connection Errors—The errors associated with connecting to the executing OMS.
help	1—There is no help available. 223—Unable to parse the command line correctly.
modify_aggregate_service	1—Target does not exist. 2—Target exists.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
modify_group	1—Group X does not exist.
	2—Cannot add target X to typed group of base type Y.
	3—Group X contains itself as a sub-group at some level.
	219—Current user does not have sufficient privileges to perform this action:
	Current user does not have privilege X over all member targets. Current user does not have sufficient privileges on target X to add it to the group.
	220—Target X does not exist.
	223—Unable to parse command line correctly. Group type is invalid.
	OMS Connection Errors—The errors associated with connecting to the executing OMS.
modify_red_group	0—Redundancy Group ""<red_group_name>" modified successfully.
	1—Redundancy Group ""<red_group_name>:<red_group_type>" does not exist.
	2—Cannot add target "<member_target_type>" to typed group of base type "<red_group_type>".
	4—Redundancy Group Type "<red_group_type>" is invalid.
	218—Redundancy Group "<red_group_name>:<red_group_type>" is currently in the process of being deleted.
	220—Target "<member_target_name>:<member_target_type>" does not exist.
	223—Redundancy Group name "<red_group_name>" is not valid. It may contain only alphanumeric characters, multibyte characters, a space, "-", "_", ".", ":", and have length at most 256 characters.
	223—User name "<owner>" is not valid. It must begin with an alphabetic character, contain only alphanumeric characters, underscores (\"_\"), or periods (\".\"), and have length of at most 256 characters.
	223—Invalid value for parameter "add_targets": "<add_targets>". Reason: "<add_targets>" is not a name-value pair.
	223—Member Targets not of same type.
	223—"Generic redundancy group" does not support member of type "<member_target_type>" .

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
modify_role	4—Privilege is invalid or nonexistent. 5—Target specified in one of the privileges is invalid. 6—The Super Administrator privilege cannot be granted to a role. 7—Role does not exist. 8—Group specified in one of the privileges is invalid. 9—Job in privilege is invalid or nonexistent. 10—Cannot have a circular chain of role grants. 11—The specified user does not exist. 219—User is unauthorized to perform this action. 223—Unable to parse command line correctly. Invalid argument value. OMS Connection Errors—The errors associated with connecting to the executing OMS.
modify_system	0—System "<system_name:system_type>" modified successfully. 101—System <system_name:system_type> contains itself as a sub-system at some level. 120—Member target "<member_target_name>:<member_target_type>" does not exist. 121—System "<system_name:system_type>" does not exist. 122—Type "<system_type>" is not a valid System type. 219—Current user does not have sufficient privileges on target <member_target_name> to add it to the system. 219—Current user does not have sufficient privileges to perform this action. 223—Invalid value for parameter "add_members": "<add_members>". Reason: "<add_members>" is not a name-value pair.
modify_target	8—One or more of the supplied target properties are invalid. 15—Target deletion in progress. 219—Insufficient privileges to modify target. 220—Target does not exist. 223—Unable to parse command line correctly. File-Fed Option Errors—The errors associated with file-fed options. OMS Connection Errors—The errors associated with connecting to the executing OMS.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
modify_user	1—Target specified in one of the privileges is invalid. 2—Group specified in one of the privileges is invalid. 3—Job specified in one of the privileges is invalid. 4—One of the specified privileges is invalid. 5—Specified user does not exist. 6—One or more roles to be granted to the new user does not exist. 218—A delete is pending against this user until all blackouts and jobs submitted by this user are stopped. 219—User has insufficient privileges to perform this operation. 223—Unable to parse command line correctly: Invalid argument value or Username is somehow invalid. File-Fed Option Errors—The errors associated with file-fed options. OMS Connection Errors—The errors associated with connecting to the executing OMS.
provision	1—An Internal error occurred. Could not get an Instance of the Assignment Manager. Exception occurred when getting URN from path. 2—Could not provision. Exception occurred either in getting editable ProvisioningAssigment object, or during call to Initiate Provisioning. 3—Could not get one or more URNs. Returned if any of imageUrn, bootServerUrn, stageServerUrn, networkProfileUrn, targetUrn retrieved is null. 4—Could not create assignment state. Failed to create an AssignmentState object. 5—Could not set assignment properties. Failed to set the assignment properties in the assignment state object. Since this verb uses the FileArgRemoteVerb, the following errors are also possible: ■ This Verb will post Verb.SYNTAX_ERRNUM if a specified option/file mapping on the command line is not properly formatted. ■ This Verb will post Verb.LOGIN_SYSTEM_ERRNUM if it cannot log in to the OMS. ■ This Verb will post Verb.OMS_CONNECTION_SYSTEM_ ERRNUM if it cannot connect to the OMS. ■ This Verb will post Verb.CONFIGURATION_SYSTEM_ ERRNUM if the configuration files are corrupt or inaccessible. ■ This Verb will post Verb.MISSING_FILE_SYSTEM_ ERRNUM if it cannot find an option value file. ■ This Verb will post Verb.FILE_READ_SYSTEM_ERRNUM if it cannot read in an option value file. ■ This Verb will post Verb.FILE_SYNTAX_SYSTEM_ ERRNUM

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code

relocate_targets	0—Moved all targets from Source Agent to Destination Agent.
	1—Target relocation has failed. The following errors are possible:
	■ SQL exception when relocating targets : <Database-specific error message>
	■ Communication exception when relocating targets : < communication exception message >
	■ Verb usage error..
	`emcli relocate_targets`
	`   -src_agent=<source agent target name>`
	`   -dest_agent=<dest agent target name>`
	`    {-target_name=<name of the target to be relocated>`
	`   - target_type=<type of the target to be relocated>}`
	`| {-input_file=dupTargets:<complete path to file>}`
	`  {-force=yes}; "`
	■ Errors relocating targets from Source Agent to Destination Agent.
	< error message >
	< error message >
	■ Exception in parsing targets from the command line argument <message>.

remove_beacon	0—Beacon Removed Successfully 129—Syntax Error. The displayed message indicates which argument is syntactically incorrect. 170—Service does not exist. 173—Beacon does not exist. 225—Beacon not in monitoring beacons list. 230—Insufficient Privileges 255—Backend error. Verb failed
remove_service_system_ assoc	0—System removed from service successfully. 129—Syntax Error. The displayed message indicates which argument is syntactically incorrect. 170—Service does not exist. 180—System does not exist. 230—Insufficient Privileges. 255—Backend error. Verb failed.
retry_job	1—Cannot restart job of a non-restartable type. 2—Specified job execution does not exist or has not failed. 3—The specified job execution has already been restarted and failed on restart. 219—User has insufficient privileges to perform this operation. 223—Unable to parse command line correctly. OMS Connection Errors—The errors associated with connecting to the executing OMS.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
set_availability	0—Availability set successfully. 129—Syntax Error. The displayed message indicates which argument is syntactically incorrect. 170—Service does not exist. 180—No system defined. 181—No key tests defined. 182—No key beacons defined. 230—Insufficient Privileges 231—Availability not changed. 255—Backend error. Verb failed
set_credential	1—Target type does not exist. 2—Target (of given target type) does not exist. 3—Credential set does not exist. 4—Insufficient privileges. 5—Credential column does not exist. 6—Credential column number mismatch.
set_key_beacons_tests	0—Key beacons and tests set successfully. 129—Syntax Error. The displayed message indicates which argument is syntactically incorrect. 135—Must specify at least one key beacon and test. 170—Service does not exist. 173—Beacon does not exist. 175—Beacon not in list of monitoring beacons. 230—Insufficient Privileges. 255—Backend error. Verb failed.
set_metric_promotion	0—SUCCESS 223—SYNTAX_ERRNUM: Input is malformed. 255—VERB_FAILED_ERRNUM: Backend validation fails.
set_properties	0—Properties set successfully 129—Syntax Error. The displayed message indicates which argument is syntactically incorrect. 132—Invalid property. 133—Invalid property value. 170—Service does not exist. 173—Beacon does not exist. 175—Beacon not in list of monitoring beacons. 230—Insufficient Privileges 255—Backend error. Verb failed

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
setup	1—The Verb cannot establish a configuration area or a corrupt area already exists. 2—A connection with the OMS cannot be established. 3—The login with the provided credentials fails at the OMS. 4—The supplied "url" option is malformed or is not http/https. 5—The configuration directory is not local as determined by the user in non-trustall HTTPS mode. 6—The Verb cannot collect the user password safely. 7—License is not been accepted by the user. 223—Unable to parse command line correctly.
stop_blackout	1—Blackout X created by user Y does not exist. 2—The blackout has already ended or stopped. 3—Agent-side blackouts cannot be edited or stopped. 218—The start of the blackout is currently being processed. The blackout is already pending stop. The last set of edits to the blackout have not yet been committed. 219—You (X) do not have the Super Administrator privilege needed to stop, delete, or modify blackout Y created by user Z. Only the blackout owner can stop, delete, or modify the blackout. Current user does not have OPERATOR privilege over all blackout targets. 223—Unable to parse command line correctly. OMS Connection Errors—The errors associated with connecting to the executing OMS.
stop_job	1—Specified job is invalid or non-existent. 219—User has insufficient privileges to perform this operation. 223—Unable to parse command line correctly. OMS Connection Errors—The errors associated with connecting to the executing OMS.
submit_job	1—Supplied job type is invalid or non-existent. 2—Job with the same name already exists. 3—One or more specified targets are invalid. 4—Missing job parameter. 5—Invalid job parameters, possibly including the security parameters such as "pwd". 217—Specified job schedule is invalid. 219—User has insufficient privileges to perform this operation. 223—Unable to parse command line correctly. Invalid argument value. File-Fed Option Errors—The errors associated with file-fed options. OMS Connection Errors—The errors associated with connecting to the executing OMS.

Table 2–4 (Cont.) Built-In Verb Errors

Verb	Error Code
subscribeto_rule	1—Rule with name X and owner Y does not exist.
	2—EM user X does not exist.
	3—EM user X has no email addresses set up (see console tab Preferences->General).
	4—Outgoing Mail (SMTP) Server not set up (see console tab Setup->Notification Methods).
	219—You (X) do not have the SUPER_USER or MANAGE_ ANY_ USER privilege needed to add email addresses for user Y.
	You (X) do not have the SUPER_USER or MANAGE_ANY_ USER privilege needed to subscribe Y to the rule owned by Z.
	223—Unable to parse command line correctly.
	Invalid argument value.
	OMS Connection Errors—The errors associated with connecting to the executing OMS.
sync	1—The Verb cannot establish a configuration area or a corrupt area already exists.
	2—A connection with the OMS cannot be established.
	3—The login with the provided credentials fails at the OMS.
	4—The license has not been accepted by the current user.
	223—Unable to parse the command line correctly.
sync_beacon	0—Beacon synced successfully.
	129—Syntax Error. The displayed message indicates which argument is syntactically incorrect.
	170—Service does not exist.
	173—Beacon does not exist.
	175—Beacon not in list of monitoring beacons.
	230—Insufficient Privileges.
	255—Backend error. Verb failed.
update_password	4—Target (of given target type) does not exist.
	5—Credential type does not exist for given target.
	6—Key value (e.g., user name) does not exist.
	7—Non-operator cannot change credentials.
	8—Wrong value for old password.
	9—Old and new passwords match.
	10—No such non_key_column name.

Verb Reference

- extend_rac_home on page 2-83
- get_aggregate_service_info on page 2-87
- get_aggregate_service_members on page 2-88
- get_blackout_details on page 2-89
- get_blackout_reasons on page 2-90
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add_beacon

Adds a beacons to the monitoring set of beacons. All enabled tests will be pushed to the beacon.

Format

```
add_beacon
      -name=target name
      -type=target type
      -bcnName=beacon name
```

Options

- **name**

  Service target name.

- **type**

  Service target type.

- **bcnName**

  Beacon name.

Examples

```
emcli add_beacon -name='MyTarget' -type='generic_service'
      -bcnName='MyBeacon'
```

Adds MyBeacon to MyTarget service target of type generic_service.

add_mp_to_mpa

Add a Management Plug-in (MP) to a Management Plug-in Archive (MPA). If the MPA file does not exist, it is created.

Format

```
add_mp_to_mpa
      -mpa="mpa"
      -mp_version="mp_version"
      -ttd="ttd"
      -dc="dc"
      [-oms_version="oms_version"]
      [-agent_version="agent_version"]
      [-file="file_type:file_path"]...
      [-func_desc="func_desc"]
      [-req_desc="req_desc"]
```

Options

- **mpa**

  Name of the MPA where the resulting MP is placed.

- **mp_version**

  Version of the MP to be created.

- **ttd**

  Path of the target type definition file. This file specifies the metadata for the target type.

- **dc**

  Path of the default collection file. This file specifies the scheduled collection of metrics for targets with this target type.

- **oms_version**

  The minimum OMS version that is compatible with this Management Plug-in.

- **agent_version**

  The minimum EM Agent version that is compatible with this Management Plug-in.

- **file**

  Type and path of other files to be included in the MP. This option may be specified more than once. The supported types are: MONITORING_BINARY, POLICY_DEPLOY, POLICY_UNDEPLOY, MONITORING_SCRIPT, REPORT_DEFINITION.

  POLICY_DEPLOY and POLICY_UNDEPLOY must be specified together.

- **func_desc**

  Functional description of the MP.

- **req_desc**

  Requirements description of the MP.

Examples

```
emcli add_mp_to_mpa
      -mpa="/my_dir/my_new_type.jar"
      -mp_version="2.0"
      -ttd="/my_dir/ttd/new_type.xml"
      -dc="/my_dir/dc/new_type.xml"
      -file="POLICY_DEPLOY:/my_dir/policy_deploy.sql"
      -file="POLICY_UNDEPLOY:/my_dir/policy_undeploy.sql"
      -file="MONITORING_SCRIPT:/my_dir/script1.pl"
      -file="MONITORING_SCRIPT:/my_dir/script2.pl"
      -file="MONITORING_BINARY:/my_dir/bin1"
      -func_desc="Management Plug-in to define target type new_type"
```

Adds Management Plug-in files to a Management Plug-in Archive called "my_new_type.jar"

add_target

Add a target to be monitored by Enterprise Manager. The target type specified is checked on the Management Agent for existence and for required properties, such as username and password for host target types, or login credentials for database target types. Any required properties of a target type must be specified when adding a new target of that type.

For oracle_database target types, Role must be specified with the monitoring credentials. If the Role is Normal, the UserName must be dbsnmp. Otherwise, the Role must be SYSDBA, and UserName may be any user with SYSDBA privileges.

Format

```
add_target
      -name="name"
      -type="type"
      -host="hostname"
      [-properties="pname1:pval1;pname2:pval2;..."]
      [-credentials="userpropname:username;pwdpropname:password;..."]
      [-input_file="parameter_tag:file_path"]
      [-display_name="display name"]
      [-groups="groupname1:grouptype1;groupname2:grouptype2;..."]
      [-timezone_region="gmt offset"]
      [-monitor_mode="monitor mode"]
```

Options

- **name**

  Target name. Names may not contain colons (:), semi-colons (;), or any leading or trailing blanks.

- **type**

  Target type. Standard target types include: host, oracle_database, oracle_apache, oracle_listener, oracle_emd. To see all available target types available for your environment, check the $AGENT_HOME/sysman/admin/metadata directory. A metadata file (XML) exists for each target type.

- **host**

  Network name of the machine running the Management Agent that is collecting data for this target instance.

- **properties**

  Name-value pair (e.g. prop_name:prop_value) list of properties for the target instance. The "name"s are identified in the target type metadata definition. They must appear exactly as they are defined in that file. Metadata files are located in $AGENT_HOME/sysman/admin/metadata.

- **credentials**

  Monitoring credentials (name-value pairs) for the target instance. The "name"s are identified in the target type metadata definition as credential properties. The credentials must be specified exactly as they are defined in the target's metadata file. Metadata files are located in $AGENT_HOME/sysman/admin/metadata.

- **input_file**

Used in conjunction with the "-credentials" option, this option allows the user to store specific target monitoring credential values, such as passwords, in a separate file. The "-input_file" option specifies a mapping between a tag and a local file path. The tag is specified in lieu of specific monitoring credentials of the "-credentials" option. The tag must not contain colons (:) or semi-colons (;).

- **display_name**

  The target name that is displayed in the Enterprise Manager Grid Control console.

- **groups**

  Name-value pair list of the groups to which this target instance belongs. Follows the format of "groupname:grouptype;groupname2:grouptype2".

- **timezone_region**

  GMT offset for this target instance (-7 or -04:00 are acceptable formats).

- **monitor_mode**

  Is either 0, 1, or 2 (default is 0). 1 indicates OMS mediated monitoring and 2 indicates agent mediated monitoring.

Examples

```
emcli add_target
      -name="database"
      -type="oracle_database"
      -host="myhost.us.oracle.com"
      -credentials="UserName:dbsnmp;password:dbsnmp;Role:Normal"
      -properties="SID:semcli;Port:15091;OracleHome:/oracle;
MachineName:smpamp-sun1.us.oracle.com"
      -groups="Group1:database_group;Group2:group"
```

Add an oracle_database target with name "database". Take notice of the way the credentials are specified. The "name"s in those name-value pairs come from the oracle_database metadata file. They must appear exactly as they are named in that file (the same goes for the property "name"s). This example uses the base minimum of required credentials and properties for the database target.

```
emcli add_target
      -name="database"
      -type="oracle_database"
      -host="myhost.us.oracle.com"
      -credentials="UserName:dbsnmp;password:PWD_FILE;Role:Normal"
      -properties="SID:semcli;Port:15091;OracleHome:/oracle;
MachineName:smpamp-sun1.us.oracle.com"
      -input_file="PWD_FILE:/emcli_dir/pwdfiles/at_pwd_file"
```

Add an oracle_database target with the name "database". This example illustrates the use of the input_file to camouflage the credentials.The password is actually in a file named at_pwd_file. The input_file argument is used to replace PWD_FILE with the contents of the at_pwd_file in the credentials argument.

```
emcli add_target
      -name="mylist"
      -type="oracle_listener"
      -host="myhost.us.oracle.com"
      -properties="LsnrName:LISTENER;ListenerOraDir:/oracle/lsnr;
Port:15091;OracleHome:/oracle;Machine:smpamp-sun1.us
```

Add an oracle_listener target with the name "mylist". The LsnrName is the name of the listener as configured in the listener.ora file andListenerOraDir is the directory containing the listener.ora file.

apply_template

Applies a template to a list of specified targets. The parameters to the verb can be supplied in any order.

Format

```
emcli apply_template
       -name="template_name"
       -targets="tname1: ttype1;tname2: ttype2;..."
       [-copy_flags="0" or "1"]
       [-input_file="FILE1:file_name"]

[ ] denotes that the parameter is optional
```

Options

- **name**

  Template name as it exists in the database. Names may not contain colons (:), semi-colons (;), or any leading or trailing blanks.

- **targets**

  The targets should be specified in the following sequence:

  TargetName1:TargetType1;TargetName2:TargetType2

  For example.

  db1:oracle_database;my db group:composite

  (semi colon) is the target separator. Ideally, non-composite targets should be of the target type applicable to the template.In case not, the template will not be applied to the said target.In case of composite targets, the template is applied only to those member targets, which belong to the target type, the template is applicable for.

- **copy_flags**

  This is applicable only for the metrics with multiple thresholds.

  '0' indicates: Apply threshold settings for monitored objects common to both template and target.

  '1' indicates: Duplicate threshold settings on target. The default would be option '0'.

- **input_file**

  The file should contain the credentials according to the following cases:

  One :

  In case, User-Defined Metric (UDM) credentials take value "All User-Defined Metrics use the same credentials" then the user needs to provide these credentials in the following format:

  Sample input file:

  ```
  credListType:all;
  usr_name:joe1;passwrd:pass1;
  ```

  Two :

In case, UDM Credentials take value "Each User-Defined Metric uses its own credentials" then the user needs to provide these credentials in the following format:

Sample input file:

```
credListType:perUDM;
udm_name:UDM1;usr_name:joe1;passwrd:pass1;
udm_name:UDM2;usr_name:joe2;passwrd:pass2;
```

Three :

In case, UDM Credentials take value "Each User-Defined Metric uses different credentials for different targets" then the user needs to provide these credentials in the following format:

Sample input file:

```
credListType:perTargetperUDM;
udm_name:UDM1;tgt_name:TNAME1;usr_name:joe1;passwrd:pass1;
udm_name:UDM1;tgt_name:TNAME2;usr_name:joe2;passwrd:pass2;
udm_name:UDM2;tgt_name:TNAME1;usr_name:joe3;passwrd:pass3;
udm_name:UDM2;tgt_name:TNAME2;usr_name:joe4;passwrd:pass4;
```

It is important that the user specifies the "credListType" in every input text file that he specifies.

Examples

```
emcli apply_template -name="my_db_template"
          -targets="db1:oracle_database;my_db_group:composite"
```

Applies monitoring template named my_db_template. This template is applicable to targets of type oracle_database and it is being applied to "db1" which is of type "oracle_database" and "my_db_group" which is of type "composite". In case of composite targets, the template is applied only to those member targets, which belong to the target type, the template is applicable for. Since the copy_flags option is not specified, the default option i.e. "Apply threshold settings for monitored objects common to both template and target" is meant.

```
emcli apply_template -name="my_db_template"
          -targets="db1:oracle_database;my_db_group:composite"
          -copy_flags="1"
```

Applies monitoring template named my_db_template. This template is applicable to targets of type oracle_database and it is being applied to "db1" which is of type "oracle_database" and "my_db_group" which is of type "composite". In case of composite targets, the template is applied only to those member targets, which belong to the target type, the template is applicable for. In this case since the copy_flags option is specified as "1", the threshold settings on target will be duplicated.

```
emcli apply_template -name="my_db_template"
          -targets="db1:oracle_database;my_db_group:composite"
          -copy_flags="1" -input_file= "FILE1:/usr/vmotamar/db_credentials.txt"
```

Applies monitoring template named my_db_template. This template is applicale to targets of type oracle_database and it is being applied to "db1" which is of type "oracle_database" and "my_db_group" which is of type "composite". In case of composite targets, the template is applied only to those member targets, which belong to the target type, the template is applicable for. In this case since the copy_flags option is specified as "1", the threshold settings on target will be duplicated. Further the credentials needed for the UDMs are present in the file "/usr/vmotamar/db_credentials.txt".

apply_template_tests

Applies the variables and test definitions, from the file(s) into a repository target.

Format

```
apply_template_tests
      -targetName=<target name>
      -targetType=<target type>
      -input_file=template:<template filename>
      [-input_file=variables:<variable filename>]
      [-overwriteExisting=<all | none | <test1>:<type1>;<test2>:<type2>;...>]
      [-encryption_key=<key>]
```

Options

- **targetName**

  Target name.

- **targetType**

  Target type.

- **input_file**

  The name of the input file containing the test definitions.

- **input_file**

  The name of the input file containing the variable definitions. If this attribute is not specified, the variables will be pulled from the same file containing the test definitions.

  The variables file format is as follows:

  ```
  <variables xmlns="template">
  <variable name="<name1>" value="<value1>"/>
  <variable name="<name2>" value="<value2>"/>
  ...
  </variables>
  ```

- **overwriteExisting**

  This parameter specifies which tests should be overwritten in case they already exist on the target. The possible values are:

  1. 'none' (default): none of the existing tests on the target will be overwritten.
  2. 'all': if a test with the same name exists on the target, it will be overwritten with the test definition specified in the template file.
  3. <test1>:<type1>;<test2>:<type2>;...: if any of tests with names <test1>, <test2>, etc. exist on the target, they will be overwritten with the definition in the template file.

- **encryption_key**

  An optional key to decrypt the file contents. This key should be the same as the one used to encrypt the file.

Examples

```
emcli apply_template_tests
```

```
    -targetName='my_target' -targetType='generic_service'
    -input_file=template:'my_template.xml' -encryption_key='my_password'
    -overwriteExisting='my_website:HTTP;my_script:OS'
```

Applies the test definitions contained in file 'my_template.xml' into the Generic Service target 'my_target', using key 'my_password' to decrypt the file contents. If tests with names 'my_website' or 'my_script' exist on the target, they will be overwritten by the test definitions in the file..

argfile

Executes a single EM CLI Verb where both Verb and arguments are contained in an ASCII file. This Verb allows you to use verbs with greater flexibility. For example, when specifying a large list of targets to be blacked out (create_blackout Verb), you can use the argfile Verb to input the target list from a file.

Note: The ASCII file can only operate using a single Verb. Using more than one Verb in the file will result in execution errors.

Format

```
argfile /path/to/<file_name>
```

Options

None.

Examples

```
emcli argfile my_verb_arguments
```

assign_test_to_target

Assigns a test-type to target-type. If a test-type t is assigned to target type T, then all targets of type T can be queried with tests of type t.

Format

```
assign_test_to_target
      -testtype=test-type to be assigned
      -type=target type
      [-tgtVersion]=version of target type
```

Options

- **testtype**

  The test-type to be assigned. Should be the internal name; i.e. 'HTTP' instead of 'Web Transaction'.

- **type**

  Service target type.

- **tgtVersion**

  Version of the target type. If not specified the latest version will be used.

Examples

```
emcli assign_test_to_target -testtype='HTTP' -type='generic_service'
      -tgtVersion='2.0'
```

Assigns test type HTTP to targets of type generic service v2..

change_service_system_assoc

Changes the system that hosts a given service.

Format

```
change_service_system_assoc
      -name='name'
      -type='type'
      -systemname='system name'
      -systemtype='system type'
      -keycomponents='keycomp1name:keycomp1type[;keycomp2name:keycomp2type;...]'
```

Options

- **name**

  Service name.

- **type**

  Service type.

- **systemname**

  System on which service resides.

- **systemtype**

  System type.

- **keycomponents**

  Name-type pair (e.g. keycomp_name:keycomp_type) list of key components in the system that are used for the service.

Examples

```
emcli change_service_system_assoc
      -name='my service' -type='generic_service'
      -systemname='my system' -systemtype='generic_system'
      -keycomponents='database:oracle_database; mytestbeacon:oracle_beacon'
```

Changes system for a generic service named 'my service' to generic system named 'my system' with specified key components.

clone_as_home

Clones the specified Application Server Oracle Home or S/W Library component from the target host to specified destinations. For a Portal and Wireless install, OID user and password are also needed. For a J2EE instance connected to only DB-based repository, a DCM Schema password is needed.

Passing Variables Through EMCLI

When working with variables such as %perlbin% or %oracle_home%, EM CLI will pass variable values from the current local environment instead of the variables themselves. To pass variables through an EM CLI command, as might be the case when using the -prescripts or -postscripts options, you can place the EM CLI command in a batch file and replace all occurrences of "%" with "%%".

Format

```
emcli clone_as_home
       -input_file="dest_properties:file_path"
       -list_exclude_files="list of files to exclude"
       -isSwLib="true/false"
       -tryftp_copy="true/false"
       -jobname="name of cloning job"
       -iasInstance=instance
       -oldIASAdminPassword=oldpass
       -newIASAdminPassword=newpass
       [-oiduser=oid admin user]
       [-oidpassword=oid admin password]
       [-dcmpassword=dcm schema password]
       [-prescripts="script name to execute"]
       [-run_prescripts_as_root="true/false"]
       [-postscripts="script to execute"]
       [-run_postscripts_as_root="true/false"]
       [-rootscripts="script name to execute"]
       [-swlib_component ="path:path to component;version:rev"]
       [-source_params="TargetName:name;HomeLoc:loc;HomeName:name;
         ScratchLoc:Scratch dir Location"
       [-jobdesc="description"]
```

Options

- **dest_properties**

  File containing information regarding the targets.

  Each line in the file corresponds to information regarding one destination.

  Format:

  Destination Host Name1;Destination Home Loc; Home Name; Scratch Location;

- **list_exclude_files**

  Comma separated list of files to exclude. Not required if source is software lib. "*" can be used as wild card.

- **isSwLib**

  Whether its an Oracle Home database or Software Library.

- **ryftp_copy**

Try FTP to copy or not.User should set the FTP copy option to false when using EM CLI from the command line.

- **jobname**

  Name of the Cloning job.

- **iasInstance**

  Name of instance.

- **oldIASAdminPassword**

  Old Application Server administrator password.

- **newIASAdminPassword**

  New Application Server administrator password.

- **oiduser**

  OID admin user.

- **oidpassword**

  OID admin password.

- **dcmpassword**

  DCM schema password.

- **prescripts**

  Path of script to execute.

  Note: Double-quoted parameters can be passed using an escape (\) sequence. For example:

  ```
  prescripts=" <some value here>=\"some value here\" "
  ```

- **run_prescripts_as_root**

  Run prescripts as "root". By default, the option is set to false.

- **postscripts**

  Path of script to execute.

- **run_postscripts_as_root**

  Run postscripts as "root". By default, the option is set to false.

- **rootscripts**

  Path of script to execute. The job system environment variables (%oracle_home%, %perl_bin%) can be used for specifying script locations.

- **swlib_component**

  Path to the Software Library to be cloned. "isSwLib" must be true in this case.

- **source_params**

  Source Oracle home information. "isSwLib" must be false in this case.

- **jobdesc**

  Description of the job. If not specified, a default description is generated automatically.

clone_crs_home

Creates a Oracle Clusterware cluster given a source Clusterware home location or a Clusterware S/W Library component, for specified destination nodes.

Format

```
emcli clone_crs_home
       -input_file="dest_properties:file_path"
       -list_exclude_files="list of files to exclude"
       -isSwLib="true/false"
       -tryftp_copy="true/false"
       -jobname="name of cloning job"
       -home_name="name of home to use when creating Oracle Clusterware cluster"
       -home_location="location of home when creating Oracle Clusterware cluster"
       -clustername=name of cluster to create
       -ocrLoc=ocr location
       -vdiskLoc=voting disk location
       [-prescripts="script name to execute"]
       [-run_prescripts_as_root="true/false"]
       [-postscripts="script to execute"]
       [-run_postscripts_as_root="true/false"]
       [-rootscripts="script name to execute"]
       [-swlib_component ="path:path to component;version:rev"]
       [-source_params="TargetName:name;HomeLoc:loc;HomeName:name;
         ScratchLoc:Scratch dir Location"]
       [-jobdesc="description"]
```

Options

- **dest_properties**

  File containing information regarding the targets.

  Each line in the file corresponds to information regarding one destination.

  Format:

  ```
  Destination Host Name;Destination Node Name;Scratch
  Location;PVTIC;VirtualIP;
  ```

- **list_exclude_files**

  Comma separated list of files to exclude. Not required if source is software lib. An Asterisk "*" can be used as a wildcard.

- **isSwLib**

  Whether its a Oracle Home database or Software Library.

- **tryftp_copy**

  Try ftp to copy or not.User should set the ftp copy option to false when using emcli from the command line.

- **jobname**

  Name of the Cloning job.

- **home_name**

  Name of home to use for all homes in the Oracle Clusterware cluster.

- **home_location**

Location of home to use for all homes in the Oracle Clusterware cluster.

- **clustername**

  Name of cluster to create.

- **ocrLoc**

  Oracle Cluster Registry Loaction.

- **vdiskLoc**

  Voting disk location.

- **prescripts**

  Path of script to execute.

> **Note:** Double-quoted parameters can be passed using an escape (\) sequence. For example:
>
> ```
> prescripts=" <some value here>=\"some value here\" "
> ```

- **run_prescripts_as_root**

  Run prescripts as "root". By default, this option is set to false.

- **postscripts**

  Path of script to execute.

- **run_postscripts_as_root**

  Run postscripts as "root". By default its false.

- **rootscripts**

  Path of script to execute.

- **swlib_component**

  Path to the Software Library to be cloned. "isSwLib" must be true in this case.

- **source_params**

  Source Oracle home info. "isSwLib" must be false in this case.

- **jobdesc**

  Description of the job. If not specified, a default description is generated automatically.

Examples

```
emcli clone_crs_home -input_file="dest_properties:crs.prop"  -isSwLib="true"
  -tryftp_copy="true" -jobname="crs cloning job2" -home_name="cloneCRS1"
  -home_location="/scratch/scott/cloneCRS1 " -clustername="crscluster"
  -ocrLoc="/scratch/shared/ocr" -vdiskLoc="/scratch/shared/vdisk"
  -postscripts="%perlbin%/perl%emd_root%/admin/scripts/cloning/samples/post_crs
_  create.pl ORACLE_HOME=%oracle_home%"
  -run_postscripts_as_root="true" -rootscripts="%oracle_home%/root.sh"
  -swlib_component="path:Components/crscomp;version:.1"
```

Passing Variables Through EMCLI

When working with variables such as %perlbin% or %oracle_home%, EM CLI will pass variable values from the current local environment instead of the variables themselves. To pass variables through an EM CLI command, as might be the case when using the -prescripts or -postscripts options, you can place the EM CLI command in a batch file and replace all occurrences of "%" with "%%".

clone_database_home

Clones the specified Oracle Home or S/W Library from the target host to specified destinations.If the isRac option is true, a Rac cluster is created. If the isRac option is true, the home name and location of the Rac cluster are needed

Format

```
emcli clone_database_home
      -input_file="dest_properties:file_path"
      -list_exclude_files="list of files to exclude"
      -isSwLib="true/false"
      -isRac="true/false"
      -tryftp_copy="true/false"
      -jobname="name of cloning job"
      [-home_name="name of home to use when creating RAC cluster"]
      [-home_location="location of home when creating RAC cluster"]
      [-prescripts="script name to execute"]
      [-run_prescripts_as_root="true/false"]
      [-postscripts="script to execute"]
      [-run_postscripts_as_root="true/false"]
      [-rootscripts="script name to execute"]
      [-swlib_component ="path:path to component;version:rev"]
      [-source_params="TargetName:name;HomeLoc:loc;HomeName:name;
        ScratchLoc:Scratch dir Location"
      [-jobdesc="description"]
```

Options

- **dest_properties**

  File containing information regarding the targets.

  Each line in the file corresponds to information regarding one destination.

  Format if cloning a database(isRac is false):

  Destination Host Name1;Destination Home Loc; Home Name; Scratch Location;

  Format if cloning a Rac cluster(isRac is true):

  Host Name;Node Name;Scratch Location;

- **list_exclude_files**

  Comma separated list of files to exclude.Not required if source is software lib. "*" can be used as wild card.

- **isSwLib**

  Whether the source is an Oracle Home database or Software Library.

- **isRac**

  Whether cloning in RAC mode.

- **tryftp_copy**

  Try FTP to copy or not. User should set the FTP copy option to false when using EM CLI from the command line.

- **jobname**

  Name of the Cloning job.

- **home_name**

  Name of home to use when creating RAC cluster.
- **home_location**

  Location of home to use when creating RAC cluster
- **prescripts**

  Path of script to execute.

> **Note:** Double-quoted parameters can be passed using an escape (\) sequence. For example:
>
> ```
> prescripts=" <some value here>=\"some value here\" "
> ```

- **run_prescripts_as_root**

  Run prescripts as "root". By default, it is false.
- **postscripts**

  Path of script to execute.
- **run_postscripts_as_root**

  Run postscripts as "root". By default its false.
- **rootscripts**

  Path of script to execute. The job system environment variables (%oracle_home%, %perl_bin%) can be used for specifying script locations
- **swlib_component**

  Path to the Software Library to be cloned. "isSwLib" must be true in this case.
- **source_params**

  Source Oracle home info. "isSwLib" must be false in this case.
- **jobdesc**

  Description of the job. If not specified, gets generated automatically.

Examples

```
emcli clone_database_home
      -input_file="dest_properties:clonedestinations"
      -list_exclude_files="*.log,*.dbf,sqlnet.ora,tnsnames.ora,listener.ora"
      -isSwLib="false"
      -isRac="false"
      -tryftp_copy="false"
      -jobname="clone database home"
      -prescripts="/home/joe/myScript"
      -run_prescripts_as_root="true"
      -rootscripts="%oracle_home%/root.sh"
      -source_params="TargetName:host.domain.com;HomeLoc=/oracle/database1;
HomeName=OUIHome1;ScratchLoc=/tmp"
```

Passing Variables Through EMCLI

When working with variables such as %perlbin% or %oracle_home%, EM CLI will pass variable values from the current local environment instead of the variables themselves. To pass variables through an EM CLI command, as might be the case when using the -prescripts or -postscripts options, you can place the EM CLI command in a batch file and replace all occurrences of "%" with "%%".

create_aggregate_service

Define an aggregate service: name and its sub-services. After the aggregate service is created, you can edit it from the Enterprise Manager Grid Control console to configure performance and usage metrics to be collected and displayed.

Format

```
create_aggregate_service
      -name="name"
      -type="type"
      -add_sub_services="name1:type1;name2:type2;..."
      -avail_eval_func="function to evaluate availability"
      [-timezone_region="timezone region"]
```

Options

- **name**

  Aggregate service name.

- **type**

  Aggregate service type.

- **add_sub_services**

  The sub-services list.

- **avail_eval_func**

  PL/SQL function to evaluate the availability of the aggregate service. Use [or|and] for predefined evaluate helper function.

- **timezone_region**

  Time Zone Region of the service.

Examples

```
emcli create_aggregate_service -name="My_Name"
      -type="aggregate_service"
      -add_sub_services="sub1:type1;sub2:type2"
      -avail_eval_func="my_pkg.my_eval_func"
      -timezone_region="PST"
```

create_blackout

Create a scheduled blackout to suspend any data collection activity on one or more monitored targets.

Format

```
create_blackout
      -name="name"
      add_targets="name1:type1;name2:type2;..."...
      reason="reason"
      -description="description"]
      -jobs_allowed]
      -propagate_targets]
      schedule=
         frequency:<once|interval|weekly|monthly|yearly>];
         duration:[HH...][:mm...];
         [start_time:<yy-MM-dd HH:mm>];
         [end_time:<yy-MM-dd HH:mm>];
         [repeat:<#m|#h|#d|#w>];
         [months:<#,#,...>];
         [days:<#,#,...>];
         [tzinfo:<specified|target|repository>]
         [tzoffset:#|[-][HH][:mm]]
```

Constraints on schedule arguments:

```
frequency:once
    requires => duration or end_time
    optional => start_time, tzinfo, tzoffset
frequency:interval
    requires => duration, repeat
    optional => start_time, end_time, tzinfo, tzoffset
frequency:weekly
    requires => duration, days
    optional => start_time, end_time, tzinfo, tzoffset
frequency:monthly
    requires => duration, days
    optional => start_time, end_time, tzinfo, tzoffset
frequency:yearly
    requires => duration, days, months
    optional => start_time, end_time, tzinfo, tzoffset
```

Options

- **name**

  Name of the blackout to create.

- **add_targets**

  Targets to add to the blackout, each specified as target_name:target_type. The -add_targets option may be specified more than once.

- **reason**

  Reason for the blackout. If you have the SUPER_USER privilege (you are an Enterprise Manager Super Administrator) any text string may be used for the reason. The reason will be added to the list of allowable blackout reasons if it is not already in the list. If you do not have the SUPER_USER privilege, you must specify one of the text strings returned by the get_blackout_reasons verb.

- **description**

  Description or comments pertaining to the blackout. The description, limited to 2000 characters, can be any text string.

- **jobs_allowed**

  When this option is specified, jobs are allowed to run against blacked out targets during the blackout period. When this option is not specified, jobs scheduled to be run against these targets are not allowed to run during the blackout period. Once a blackout has been created, you cannot change the "allowed jobs" option from either EM CLI or the Enterprise Manager Grid Control console.

- **propagate_targets**

  When this option is specified, a blackout for a target of type "host" applies the blackout to all non-agent targets on that host. Regardless of whether this option is specified, a blackout for a target that is a composite or a group applies the blackout to all members of the composite or group.

- **schedule**

  Blackout schedule. Note that the "frequency" argument determines which other arguments are required or optional.

- **schedule=frequency**

  The type of blackout schedule (default is "once").

- **schedule=duration**

  The duration in hours and minutes of the blackout (-1 means indefinite). Hours and minutes each may be up to 6 digits long.

- **schedule=start_time**

  The start date/time of the blackout. The default value is the current date/time. The format of the value is "yy-MM-dd HH:mm", for example: "2003-09-25 18:34"

- **schedule=end_time**

  The last date/time of the blackout. When "frequency" is weekly, monthly, or yearly, only the date portion is used. When "frequency" is interval or once, the date and time are taken into account. The format of the value is "yy-MM-dd HH:mm", for example: "2003-09-25 18:34"

- **schedule=repeat**

  The time between successive start times of the blackout. The letter following the number value represents the time units: "m" is minutes, "h" is hours, "d" is days, "w" is weeks.

- **schedule=months**

  A list of integer month values in the range 1-12. Each value must have a corresponding "day" value, to fully specify (month,day) pairs which indicate the blackout starting days of the year.

- **schedule=days**

  When "frequency" is weekly, this is a list of integer day-of-week values in the range 1-7 (1 is Sunday). When "frequency" is monthly, this is a list of integer day-of-month values in the range 1-31 or -1 (last day of month). When "frequency" is yearly, this is a list of integer day-of-month values in the range 1-31 or -1 (last day of month); in this case, the month is taken as the corresponding "month" value for each (month,day) pair.

- **schedule=tzinfo**

  The type of timezone. The tzinfo argument is used in conjunction with tzoffset. Available timezone types are: "specified" (offset between GMT and the target timezone), "target" (timezone of the specified target), and "repository" (repository timezone -- default setting when tzinfo is not specified). See -schedule=tzoffset for more information.

- **schedule=tzoffset**

  The value of the timezone. When the tzinfo argument is not specified or is "repository", the timezone value is the repository timezone. In this case, the tzoffset argument must not be specified. Otherwise, the tzoffset argument is required. When tzinfo is set to "specified", the tzoffset argument specifies the offset in hours and minutes between GMT and the timezone. When tzinfo is set to "target", the tzoffset argument specifies an integer index (the first is 1) into the list of targets passed as arguments. For example, for a tzoffset setting of 1, the timezone of the first target specified in the -add_targets option is used.

  Note that the timezone is applied to the start time and the end time of the blackout periods. The timezones associated with each target are not taken into account when scheduling the blackout periods (except that when tzinfo is set to "target", the specified target's timezone is used for the blackout times).

Examples

```
emcli create_blackout -name=b1 -add_targets=database2:oracle_database
      -schedule="duration::30"
      -reason="good reason1"
```

Create blackout b1 for the specified targets (database2) to start immediately and last for 30 minutes.

```
emcli create_blackout -name=b1 -add_targets=myhost:host
      -propagate_targets -jobs_allowed
      -schedule="end_time:2005-04-26 05:00;tzinfo:specified;tzoffset:-4"
      -reason="good reason2"
```

Create blackout b1 for all targets on myhost to start immediately and last until 2005-04-26 05:00 (in the timezone GMT-4hours).

```
emcli create_blackout -name=b1 -add_targets=mygroup:group
      -schedule="end_time:2005-04-26 05:00;tzinfo:specified;tzoffset:-4"
      -reason="good reason3"
```

Create blackout b1 for all targets in group mygroup to start immediately and last until 2005-04-26 05:00 (in the timezone GMT-4hours). No jobs are allowed to run during the blackout.

```
emcli create_blackout -name=b1
      -add_targets="database2:oracle_database;database3:oracle_database
      -schedule="frequency:once;start_time:04-10-24
22:30;duration::30;tzinfo:target:tzoffset:1"
      -reason="good reason4"
```

Create blackout b1 for the specified targets (database2, database3) to start at 2004-10-24 22:30 and last for 30 minutes. The timezone is the timezone for the database2 target.

```
emcli create_blackout -name=b1 -add_targets=database2:oracle_database
      -add_targets=database3:oracle_database
      -schedule="frequency:once;start_time:04-10-24
22:30;duration::30;tzinfo:target;tzoffset:2"
```

```
      -reason="good reason5"
```

Create blackout b1 for the specified targets (database2,database3) to start at 2004-10-24 22:30 and last for 30 minutes. The timezone is the timezone for the database3 target.

```
emcli create_blackout -name=b2 -add_targets=database2:oracle_database
      -schedule="frequency:interval;start_time:2004-10-25
03:00;duration:2;repeat=1d"
      -reason="good reason"
```

Create blackout b2 for the specified targets (database2) to start at 2004-10-25 03:00 and every day thereafter, and to last 2 hours each time. The timezone is the repository timezone.

```
emcli create_blackout -name=b2 -add_targets=database2:oracle_database
      -schedule="frequency:interval;duration:2:5;end_time:04-12-31
23:59;repeat=2d;tzinfo:repository"
      -reason="another good reason"
```

Create blackout b2 for the specified targets (database2) to start immediately and every 2 days thereafter (until 04-12-31 23:59), and to last 2 hours and 5 minutes each time. The timezone is the repository timezone.

```
emcli create_blackout -name=b4 -add_targets="myhost:host;otherhost:host"
      -propagate_targets
      -schedule="frequency:weekly;duration:1:;days=1,2,3,4,5"
      -reason="very good reason"
```

Create blackout b4 for all targets on myhost and otherhost to start every Sunday through Thursday at the current time. The blackout will last 1 hour each time.

```
emcli create_blackout -name=b5 -add_targets=mygroup:group
      -propagate_targets -jobs_allowed
      -schedule="frequency:monthly;duration:1:10;start_time:04-10-24 22:30;end_
time:04-12-24 23:59:days=15,-1"
      -reason="pretty good reason"
```

Create blackout b5 for all targets within group mygroup to start on the 15'th and last day of each month at time 22:30 and last until 2004-12-24 (2004-12-15 will be the actual last blackout date). The blackout will last 1 hour and 10 minutes each time. Jobs are allowed to run during the blackouts.

```
emcli create_blackout -name=b6 -add_targets=database2:oracle_database
      -propagate_targets
      -schedule="frequency:yearly;duration:2;start_time:04-10-24
13:30:months=3,4,9;days=2,22,23"
      -reason="most excellent reason"
```

Create blackout b6 for the specified targets (database2) to start at 13:30 on the following dates of each year: 03-02, 04-22, 09-23. The blackout will last 2 hours each time. Jobs are not allowed to run during the blackouts..

create_group

Define a group: name and its members. After the group is created, you can edit the group from the Enterprise Manager Grid Control console to configure Summary Metrics to be displayed for group members.

Format

```
create_group
      -name="name"
      [-type=<group>]
      [-add_targets="name1:type1;name2:type2;..."]...
```

Options

- **name**

  Name of the group.

- **type**

  Group type: group. Defaults to "group".

- **add_targets**

  Add existing targets to the group. Each target is specified as a name-value pair target_name:target_type. The -add_targets option may be specified more than once.

Examples

```
emcli create_group -name=db_group
      -add_targets="emp_rec:oracle_database"
      -add_targets="payroll:oracle_database"
```

Creates a database-only group named db_group. This group consists of two Oracle databases: emp_rec and payroll.

```
emcli create_group -name=my_group
      -add_targets="database2:oracle_database;dblistener:oracle_listener
      -add_targets="mymachine.myco.com:host"
```

Creates a mixed member type group named my_group that consists of an oracle database (database2), listener (dblistener), and host (mymachine.myco.com).

```
emcli create_group -name=my_hosts
      -add_targets="smpsun.oracle.com:host"
      -add_targets="dlsun.oracle.com:host;supersun.oracle.com:host"
```

Creates a host-only group named my_hosts that consists of three machines within the oracle.com domain: smpsun, dlsun, and supersun.

create_red_group

Define a redundancy group: name and its members. After the redundancy group is created, you can edit the redundancy group from the Enterprise Manager Grid Control console to configure Charts to be displayed for redundancy group members.

Format

```
create_red_group
      -name="name"
      [-type=<generic_redundancy_group>]
      -add_targets="name1:type1;name2:type2;..."...
      [-owner=<Redundancy Group Owner>]
      [-timezone_region=<actual timezone region>]
```

Options

- **name**

  Name of the redundancy group.

- **type**

  Redundancy Group type. Defaults to "generic_redundancy_group".

- **add_targets**

  Add existing targets to the redundancy group. Each target is specified as a name-value pair target_name:target_type. The -add_targets option may be specified more than once.

- **owner**

  Owner of the redundancy group.

- **timezone_region**

  Time Zone Region of this Redundancy Group.

Examples

```
emcli create_red_group -name=lsnr_group
      -add_targets="emp_rec:oracle_listener"
      -add_targets="payroll:oracle_listener"
```

Creates a redundancy group named lsnr_group. This group consists of two Oracle listeners: emp_rec and payroll.

create_role

Create a new Enterprise Manager admininistrator role.

Format

```
create_role
      -name="role_name"
      [-description="description"]
      [-roles="role1;role2;..."]
      [-users="user1;user2;..."]
      [-privilege="name;[[target_name:target_type]|jobid]"]...
```

Options

- **name**

  Role name.

- **description**

  Description of role.

- **roles**

  A list of roles to assign to this new role. Currently, the only built-in role is PUBLIC.

- **users**

  A list of users to whom this role is assigned.

- **privilege**

  A privilege to grant to this role. This option may be specified more than once. Note: Privileges are case-insensitive.

  The following system privileges do not require a target or a job ID:

  – CREATE_ANY_ROLE

  – CREATE_ANY_PRIVILEGE

  – MANAGE_CREDENTIAL_GROUP

  – CREATE_TARGET

  – DELETE_ANY_TARGET

  – VIEW_ANY_TARGET

  – USE_ANY_BEACON

  – EM_MONITOR

  – SUPER_USER

  The following target privileges require specifying target_name:target_type:

  – VIEW_TARGET

  – OPERATOR_TARGET

  – MAINTAIN_TARGET

  – CLONE_FROM_TARGET

  – FULL_TARGET

The following group privileges require specifying target_name:target_type:

- CREATE_TARGET_IN_GROUP

The following job privileges require specifying jobid

- VIEW_JOB
- FULL_JOB

Examples

```
emcli create_role
      -name="my_new_role"
      -desc="This is a new role called my_new_role"
      -roles="role1;role2;role3"
      -privilege="view_job;923470234ABCDFE23018494753091111"
      -privilege="view_target;host1.us.oracle.com:host"
      -users="johndoe;janedoe"
```

Creates a role named my_new_role with the one-sentence description - "This is a new role called my_new_role". The role combines three existing roles: role1, role2, and role3. The role also has three added privileges: to view the job with ID 923470234ABCDFE23018494753091111 and to view the target host1.us.oracle.com:host. The role is granted to johndoe and janedoe.

create_service

Creates a service to be monitored by Enterprise Manager.

Format

```
create_service
      -name='name'
      -type='type'
      -availType=availability type (can be 'test' or 'system')
      -availOp=availability operator (can be 'and' or 'or')
      [-hostName=host name]
      [-agentURL=agent url]
      [-properties='pname1|pval1;pname2|pval2;...']
      [-timezone_region='gmt offset']
      [-systemname='system name']
      [-systemtype='system type']
      [-keycomponents='keycomp1name:keycomp1type;keycomp2name:keycomp2type;...']
      [-beacons='bcn1name:bcn1isKey;bcn2name:bcn2isKey;...']
      [-input_file='template:Template file name;[vars:Variables file name]']
```

Options

- **name**

  Service name. Names may not contain colons (:), semi-colons (;), or any leading or trailing blanks.

- **type**

  Service type.

- **availType**

  Sets the availability to either test-based or system-based. If availability is set to 'test', template file, beacons and variable are required arguments, if availability is set to 'system', systemname, systemtype and keycomponents are required.

- **availOp**

  If 'and' it uses all key tests/components to decide availability. If 'or' it uses any key tests/components to decide availability

- **hostName**

  Network name of the machine running the Management Agent that is collecting data for this target instance.

- **agentURL**

  URL of the Management Agent that is collecting data for this target instance. If host name is entered, the agent URL of the host is entered to this field automatically.

- **properties**

  Name-value pair (e.g. prop_name|prop_value) list of properties for the service instance.

- **timezone_region**

  GMT offset for this target instance (-7 or -04:00 are acceptable formats).

- **systemname**

System on which service resides.

- **keycomponents**

  Name-type pair (e.g. keycomp_name:keycomp_type) list of key components in the system that are used for the service.

- **beacons**

  Name-isKey pairs that describes the beacons of the service. If isKey is set to 'Y' then beacon is set as a key-beacon of the service. The service should have at least one key beacon if the availability is set to test-based.

- **input_file**

  Template file name is the xml file that includes the template definition. Variable file defines the values for the template.

Examples

```
emcli create_service
      -name='my service' -type='generic_service'
      -availType='system' -availOp='or'
      -properties='prop1:value1; prop2:value2'
      -timezone_region='PST8PDT'
      -systemname='my system' -systemtype='generic_system'
      -keycomponents='database:oracle_database; mytestbeacon:oracle_beacon'
```

Create a generic service named 'my service' with specified properties on generic system named 'my system' with specified key components. The availability is set as system-based.

create_system

Define a system: name and its members. After the system is created, you can edit the system from the Enterprise Manager Grid Control console to configure Charts to be displayed for system members.

Format

```
create_system
      -name="name"
      [-type=<system>]
      [-add_members="name1:type1;name2:type2;..."]...
      -timezone_region="actual timezone region"
      [-owner="owner"]
      [-meta_ver="meta version of system type"]
```

Options

- **name**

  Name of the system.

- **type**

  System type: generic_system. Defaults to "generic_system".

- **add_members**

  Add existing targets to the system. Each target is specified as a name-value pair target_name:target_type. The -add_members option may be specified more than once.

- **timezone_region**

  Actual timezone region.

- **owner**

  Owner of the system.

- **meta_ver**

  Meta version of system type. Defaults to "1.0".

Examples

```
emcli create_system -name=db_system
      -add_members="emp_rec:oracle_database"
      -add_members="payroll:oracle_database"
      -timezone_region="PST8PDT"
      -owner="user1"
      -meta_ver="3.0"
```

Creates a generic system named db_system. This system consists of two Oracle databases: emp_rec and payroll. Owner of this system is user1. Meta version of the system type is 3.0.

```
emcli create_system -name=my_system
      -add_members="database2:oracle_database;dblistener:oracle_listener
      -add_members="mymachine.myco.com:host"
      -timezone_region="PST8PDT"
```

Creates a generic system named my_system that consists of an oracle database (database2), listener (dblistener),and host (mymachine.myco.com).   Owner of this system is the logged in user. Meta version of the system type is 1.0.

create_user

Create a new Enterprise Manager administrator.

Format

```
create_user
      -name="name"
      -password="password"
      [-roles="role1;role2;..."]
      [-email="email1;email2;..."]
      [-privilege="name;[[target_name:target_type]|jobid]"]...
```

Options

- **name**

  Administrator name.

- **password**

  Administrator password.

- **roles**

  A list of roles to grant to this administrator. Currently, the built-in roles include PUBLIC.

- **email**

  A list of e-mail addresses for this administrator.

- **privilege**

  A privilege to grant to this administrator. This option may be specified more than once.

  The following system privileges do not require a target or a job ID:

  - CREATE_ANY_ROLE
  - CREATE_ANY_PRIVILEGE
  - MANAGE_CREDENTIAL_GROUP
  - CREATE_TARGET
  - DELETE_ANY_TARGET
  - VIEW_ANY_TARGET
  - USE_ANY_BEACON
  - EM_MONITOR
  - SUPER_USER

  The following target privileges require specifying target_name:target_type:

  - VIEW_TARGET
  - OPERATOR_TARGET
  - MAINTAIN_TARGET
  - CLONE_FROM_TARGET
  - FULL_TARGET

The following group privileges require specifying target_name:target_type:

- – CREATE_TARGET_IN_GROUP

The following job privileges require specifying jobid:

- – VIEW_JOB
- – FULL_JOB

Examples

```
emcli create_user
      -name="new_admin"
      -password="oracle"
      -email="first.last@oracle.com;joe.shmoe@shmoeshop.com"
      -roles="public"
      -privilege="view_job;923470234ABCDFE23018494753091111"
      -privilege="view_target;host1.us.oracle.com:host"
```

Creates an Enterprise Manager administrator named new_admin. This administrator has two privileges: the ability to view the job with ID 923470234ABCDFE23018494753091111 and the ability to view the target host1.us.oracle.com:host. The administrator new_admin is granted the PUBLIC role.

delete_blackout

Delete a blackout that has already ended or has been fully stopped. You cannot delete a blackout that is either in progress or currently scheduled -- you need to first run stop_blackout.

Format

```
delete_blackout
      -name="name"
      [-createdby="blackout_creator" (default is current user)]
```

Options

- **name**

  Name of the blackout to delete.

- **createdby**

  Enterprise Manager user who created the blackout. The SUPER_USER privilege is required to delete a blackout created by another user.

Examples

```
emcli delete_blackout -name=backup_monthly
```

Delete blackout backup_monthly created by the current user.

```
emcli delete_blackout -name=db_maintenance -createdby=sysadmin2
```

Delete blackout db_maintenance that was created by Enterprise Manager administrator sysadmin2. The current user must either be user sysadmin2 or a user with the SUPER_USER privilege.

delete_group

Delete a group. Attempting to delete a non-existent group will not generate an error.

Format

```
delete_group
      -name="name"
      [-type=<group>]
```

Options

- **name**

  Name of group to delete.

- **type**

  Group type: group. Defaults to "group".

Examples

```
emcli delete_group -name=payroll_group
```

Removes the group payroll_group which consists of database target types.

```
emcli delete_group -name=my_hosts
```

Removes the group my_hosts which consists of host target types.

```
emcli delete_group -name=my_group
```

Removes the group my_group which consists of mixed target types.

delete_job

Delete a specified job. A job cannot be deleted if any of its executions are in the EXECUTING (Running) state. Use the get_jobs verb to obtain a list of existing jobs along with their job Ids and statuses.

Format

```
delete_job
      -job_id="jobID" | -name="jobName"
```

Options

- job_id

  Job ID of the job to delete.

- name

  Name of the job to delete. To uniquely identify the job, the current user is used.

Examples

```
emcli delete_job -job_id=12345678901234567890123456789012
```

Deletes an existing job with the job ID 12345678901234567890123456789012.

```
emcli delete_job -name=my_job
```

Deletes an existing job named my_job, which belongs to the current Enterprise Manager user.

delete_metric_promotion

Deletes a promoted metric.

Format

```
delete_metric_promotion
      -name=Service target name
      -type=Service target type
      [-category = Usage/Performance]
      [-promotedMetricName = Promoted Metric]
      [-promotedMetricColumn = Promoted Metric Column]
      -promotedMetricKey = Key Value of the promoted metric
```

Options

- **category**

  This defines whether the promoted metric is a usage or a performance metric of a service. Category is used to determine the promoted metric name and metric column. If this option is not specified, promotedMetricName and promotedMetricColumn options must be specified.

- **promotedMetricName**

  This is the promoted metric name. This is optional if the category is specified.

- **promotedMetricColumn**

  This is the promoted metric column. This is optional if the category is specified.

- **promotedMetricKey**

  This required argument determines the key value of the promoted metric. It is equivalent to the displayed name of the promoted metric in the UI.

Examples

```
emcli delete_metric_promotion -name='MyTarget' -type='generic_service'
      -category=Performance -promotedMetricKey=mymetric1
```

Deletes the promoted Performance metric with key value mymetric1 on service MyTarget.

delete_role

Delete an existing Enterprise Manager administrator role.

Format

```
delete_role
      -name="role_name"
```

Options

- **name**

  Role name.

Examples

```
emcli delete_role -name="existing_role"
```

Deletes a role named existing_role.

delete_system

Delete a system.

Format

```
delete_system
      -name="name"
      [-type=<generic_system>]
```

Options

- **name**

  Name of system to delete.

- **type**

  System type: generic_system. Defaults to "generic_system".

Examples

```
emcli delete_system -name=my_system
```

Deletes the system my_system.

delete_target

Delete a specified target from the Enterprise Manager Grid Control monitoring framework. Deleting a target removes it from the Management Repository and does not physically remove the target itself.

You can use the get_targets verb to obtain a list of available targets and their respective types.

Format

```
delete_target
      -name="name"
      -type="type"
```

Options

- **name**

  Target name.

- **type**

  Target type.

Examples

```
emcli delete_target
      -name="database"
      -type="oracle_database"
```

Delete the oracle_database target with name "database".

delete_test

Deletes a Services test along with its constituent steps and stepgroups.

Format

```
delete_test
      -name=target name
      -type=target type
      -testname=test name
      -testtype=test type
```

Options

- **name**

  Service target name.

- **type**

  Service target type.

- **testname**

  Test name.

- **testtype**

  Test type.

Examples

```
emcli delete_test -name='MyTarget' -type='generic_service'
      -testname='MyTest' -testtype='HTTP'
```

Deletes HTTP test named MyTest for generic_service target named MyTarget.

delete_user

Delete an existing Enterprise Manager administrator.

When a user is deleted, any jobs created by the user are stopped and deleted. Also, any blackouts created by the user are deleted. However, a user can not be deleted if there any blackouts created by the user that are active at the time the call to delete the user is issued. This situation is considered an invalid state from which to delete a user. First, any and all of these active blackouts must be stopped, and a thwarted delete user call must be reissued.

Format

```
delete_user
      -name="user_name"
```

Options

- name

  Administrator name.

Examples

```
emcli delete_user -name=sysman3
```

Deletes the Enterprise Manager administrator named sysman3.

disable_test

Disables a Services test monitoring.

Format

```
disable_test
      -name=target name
      -type=target type
      -testname=test name
      -testtype=test type
```

Options

- **name**

  Service target name.
- **type**

  Service target type.
- **testname**

  Test name.
- **testtype**

  Test type.

Examples

```
emcli disable_test -name='MyTarget' -type='generic_service'
      -testname='MyTest' -testtype='HTTP'
```

Disables HTTP test named MyTest for generic_service target named MyTarget.

enable_test

Enables a Services test monitoring. It will push the Service test collection to all the beacons.

Format

```
enable_test
      -name=target name
      -type=target type
      -testname=test name
      -testtype=test type
```

Options

- **name**

  Service target name.
- **type**

  Service target type.
- **testname**

  Test name.
- **testtype**

  Test type.

Examples

```
emcli enable_test -name='MyTarget' -type='generic_service'
      -testname='MyTest' -testtype='HTTP'
```

Enables HTTP test named MyTest for generic_service target named MyTarget.

execute_hostcmd

Execute a Host command across a set of targets.

Format

```
execute_hostcmd
      -cmd="host command"
      -osscript="os script to be executed with "cmd" "
      -targets="name1:type1;name2:type2;..."
      -credential_set_name="name"
      [-input_file="parameter_tag:script_file"]
```

Options

- **cmd**

  "host command" can be any valid host command or group of host commands.

- **targets**

  A list of target name, target type pairs. The host command will be executed across this list of EM targets. All targets must be of the type 'host' or 'composite', which represents a group of targets. If it is a group, then the group is expanded to extract all the host targets and the host command is executed across those host targets.

- **credential_set_name**

  The "credential_set_name" parameter refers to the set name of the preferred credentials stored in the Enterprise Manager repository. If this parameter is not present, the 'HostCredsNormal' is used for executing host commands. For 'host' target type, there exists 2 credential sets:

  – HostCredsNormal -- the default unprivileged credential set for a host target;

  – HostCredsPriv   -- the privileged credential set for a host target;

    The credential set parameter can only be specified when the override credential parameters such as "username" and "password" are not present.

    If provided, the override credential parameters must be specified fully. For host command, "username" and "password" must be specified together.

- **input_file**

  Used in conjunction with the "-osscript" option, this option allows the user to load the contents of an os script. The "-input_file" option specifies a mapping between a tag and a local file path. The tag is specified in lieu of an actual osscript contents of the "-osscript" option. The tag must not contain colons (:) or semi-colons (;).

Examples

```
emcli execute_hostcmd
      -cmd="ls -l;"
      -credential_set_name="HostCredsPriv"
      -targets="stach.us.oracle.com:host;grp:composite"
```

Executes the host command "ls -l;" against target "stach.us.oracle.com:host" and host targets contained in the group 'grp'. The stored 'HostCredsPriv' preferred credentials will be used for all the targets.

```
emcli execute_hostcmd
      -cmd="/bin/sh -s"
```

```
-osscript="FILE"
-input_file="FILE:/scratch/dba_scripts/shellscript.sh"
-credential_set_name="HostCredsNormal"
-targets="reference.us.oracle.com:host;grp:composite"
```

Loads the contents of the script "/scratch/dba_scripts/shellscript.sh" into the value of option "-osscript" and executes it against target "reference.us.oracle.com:host" and host targets contained in the group 'grp'. The stored 'HostCredsNormal' preferred credentials will be used for all the targets.

execute_sql

Execute a SQL command across a set of targets.

Format

```
execute_sql
      -sql="sql command"
      -targets="name1:type1;name2:type2;..."
      -credential_set_name="name"
      [-input_file="parameter_tag:script_file"]
```

Options

- **sql**

  "sql command" is a single sql statement.

- **targets**

  A list of target name, target type pairs. The sql command will be executed across this list of EM targets. All targets must be of the type 'oracle_database' or 'composite', which represents a group of targets. If it is a group, then the group is expanded to extract all the database targets and the sql command is executed across those database targets.

- **credential_set_name**

  The "credential_set_name" parameter refers to the set name of the preferred credentials stored in the Enterprise Manager repository. If this parameter is not present, the 'DBCredsNormal' and 'DBHostCreds' credential set is used for executing sql commands. For each target type, there exist several credential sets:

  - HostCredsNormal -- the default unprivileged credential set for a host target;
  - HostCredsPriv -- the privileged credential set for a host target;
  - DBHostCreds -- the host credential set for an oracle_database target;
  - DBCredsNormal -- the default normal credential set for an oracle_database target;
  - DBCredsSYSDBA -- the sysdba credential set for an oracle_database target.

  The credential set parameter can only be specified when the override credential parameters such as "[db_|host_]username" and "[db_|host_]password" are not present. If provided, the override credential parameters must be specified fully. For the SQL commands, "db_username", "db_password", "db_role", "host_username" and "host_password" must be present.

- **input_file**

  Used in conjunction with the "-sql" option, this option allows the user to load the contents of a sql script. The "-input_file" option specifies a mapping between a tag and a local file path. The tag is specified in lieu of an actual sql command for the "-sql" option. The tag must not contain colons (:) or semi-colons (;).

Examples

```
emcli execute_sql
      -sql="select * from sysman.mgmt_targets;"
      -credential_set_name="DBCredsSYSDBA"
      -targets="database:oracle_database;grp:composite"
```

Executes the sql command "select * from sysman.mgmt_targets;" against target "database:oracle_database" and database targets contained in the group 'grp'. The stored SYSDBA preferred credentials will be used for all the targets.

```
emcli execute_sql
      -sql="FILE"
      -input_file="FILE:/scratch/dba_scripts/enterprise_schema.sql"
      -credential_set_name="DBCredsSYSDBA"
      -targets="database:oracle_database;grp:composite"
```

Loads the contents of the script "/scratch/dba_scripts/enterprise_schema.sql" into the value of option "-sql" and executes it against target "database:oracle_database" and database targets contained in the group 'grp'. The stored SYSDBA preferred credentials will be used for all the targets.

extend_as_home

Clones the specified Application Server Oracle Home or Software Library component from the target host to specified destinations. The new hosts join an existing cluster. For a Portal and Wireless install, OID user and password are also needed. For a J2EE instance connected to only DB based repository,a DCM Schema password is needed.

Passing Variables Through EMCLI

When working with variables such as %perlbin% or %oracle_home%, EM CLI will pass variable values from the current local environment instead of the variables themselves. To pass variables through an EM CLI command, as might be the case when using the -prescripts or -postscripts options, you can place the EM CLI command in a batch file and replace all occurrences of "%" with "%%".

Format

```
emcli extend_as_home
       -input_file="dest_properties:file_path"
       -list_exclude_files="list of files to exclude"
       -isSwLib="true/false"
       -tryftp_copy="true/false"
       -jobname="name of cloning job"
       -iasInstance=instance
       -clustername=name of the cluster to join
       -oldIASAdminPassword=oldpass
       -newIASAdminPassword=newpass
       [-oiduser=oid admin user]
       [-oidpassword=oid admin password]
       [-dcmpassword=dcm schema password]
       [-prescripts=script name to execute"]
       [-run_prescripts_as_root="true/false"]
       [-postscripts=script to execute"]
       [-run_postscripts_as_root="true/false"]
       [-rootscripts=script name to execute"]
       [-swlib_component ="path:path to component;version:rev"]
       [-source_params="TargetName:name;HomeLoc:loc;HomeName:name;
         ScratchLoc:Scratch dir Location"
       [-jobdesc="description"]
```

Options

- **dest_properties**

  File containing information regarding the targets. Each line in the file corresponds to information regarding one destination.

  Format:

  ```
  Destination Host Name1;Destination Home Loc; Home Name;
  Scratch Location;
  ```

- **list_exclude_files**

  Comma separated list of files to exclude. Not required if the source is a Software Library. An asterisk "*" can be used as a wildcard.

- **isSwLib**

  Whether its a Oracle Home database or Software Library.

- **tryftp_copy**

  Try FTP to copy or not. User should set the FTP copy option to false when using EM CLI from the command line.

- **jobname**

  Name of the Cloning job.

- **iasInstance**

  Application Server instance.

- **clustername**

  Name of the cluster to join.

- **oldIASAdminPassword**

  Old Application Server administrator password.

- **newIASAdminPassword**

  New Application Server administrator password.

- **oiduser**

  OID administrator user.

- **oidpassword**

  OID administrator password.

- **dcmpassword**

  DCM schema password.

- **prescripts**

  Path of script to execute.

  Note: Double-quoted parameters can be passed using an escape (\) sequence. For example:

  ```
  prescripts=" <some value here>=\"some value here\" "
  ```

- **run_prescripts_as_root**

  Run prescripts as "root". By default, this option is set to false.

- **postscripts**

  Path of script to execute.

- **run_postscripts_as_root**

  Run postscripts as "root". By default , this option is set to false.

- **rootscripts**

  Path of script to execute. The job system environment variables (%oracle_home%, %perl_bin%) can be used to specify script locations.

- **swlib_component**

  Path to the Software Library to be cloned. "isSwLib" must be true in this case.

- **source_params**

Source Oracle Home information. "isSwLib" must be false in this case.

- **jobdesc**

  Description of the job. If not specified, a default description is generated automatically.

extend_crs_home

Extends a Oracle Clusterware cluster using a Oracle Clusterware source home location or a Oracle Clusterware Software Library component, to specified destinations. If a component is used, the user must provide information for a host that is part of the current cluster, along with the Oracle Home name and home location. When cloning from a source home, the user need not pass source information twice (-srchost, -home_name,-home_location): This information is extracted from the home. These are only needed when cloning from a Software Library component.

Format

```
emcli extend_crs_home
   -input_file="dest_properties:file_path"
   -list_exclude_files="list of files to exclude"
   -clusternodes="node1;node2;node3;node4"
   -isSwLib="true/false"
   -tryftp_copy="true/false"
   -jobname="name of cloning job"
   -ocrLoc=ocr location
   -vdiskLoc=voting disk location
    [-srchost=name of a host node present on the cluster being extended"]
    [-home_name="home name on a host for the existing Oracle Clusterware
      cluster"]
    [-home_location="location on a host for the existing Oracle Clusterware
      cluster"]
    [-prescripts=script name to execute"]
    [-run_prescripts_as_root="true/false"]
    [-postscripts=script to execute"]
    [-run_postscripts_as_root="true/false"]
    [-rootscripts=script name to execute"]
    [-swlib_component ="path:path to component;version:rev"]
    [-source_params="TargetName:name;HomeLoc:loc;HomeName:name;
      ScratchLoc:Scratch dir Location"]
    [-jobdesc="description"]
```

Options

- **dest_properties**

  File containing information regarding the targets. Each line in the file corresponds to information regarding one destination.

  Format:

  ```
  Destination Host Name1;Destination Node Name;Scratch
  Location;PVTIC;VirtualIP;
  ```

- **list_exclude_files**

  Comma separated list of files to exclude. Not required if the source is a Software Library. An asterisk "*" can be used as a wildcard.

- **clusternodes**

  List of current nodes in the cluster.

- **isSwLib**

  Whether its a Oracle Home database or Software Library.

- **tryftp_copy**

Try FTP to copy or not.User should set the FTP copy option to false when using EM CLI from the command line.

- **jobname**

  Name of the Cloning job.

- **srchost**

  Name of a host that is part of the Oracle Clusterware cluster being extended.

- **home_name**

  Name of home used by all the current Oracle Clusterware cluster nodes.

- **home_location**

  Home location used by all the current Oracle Clusterware cluster nodes.

- **ocrLoc**

  Oracle Cluster Registry Loaction.

- **vdiskLoc**

  Voting disk location.

- **prescripts**

  Path of script to execute.

Note: Double-quoted parameters can be passed using an escape (\) sequence. For example:

```
prescripts=" <some value here>=\"some value here\" "
```

- **run_prescripts_as_root**

  Run prescripts as "root". By default, this option is set to false.

- **postscripts**

  Path of script to execute.

- **run_postscripts_as_root**

  Run postscripts as "root". By default, this option is set to false.

- **rootscripts**

  Path of script to execute. The job system environment variables (%oracle_home%, %perl_bin%) can be used to specify script locations.

- **swlib_component**

  Path to the Software Library to be cloned. "isSwLib" must be true in this case.

- **source_params**

  Source Oracle home info. "isSwLib" must be false in this case.

- **jobdesc**

  Description of the job. If not specified, a default description is generated automatically.

Examples

```
emcli extend_crs_home -input_file="dest_properties:crs.prop"  -list_exclude_
files=""
   -isSwLib="false"
   -tryftp_copy="false" -jobname="crs extend job"
   -home_name="cloneCRS1"
   -home_location="/scratch/scott/cloneCRS1 "
   -clusternodes="node1;node2" -clustername="crscluster"
   -postscripts="%perlbin%/perl%emd_root%/admin/scripts/cloning/samples/post_crs_
extend.pl ORACLE_HOME=%oracle_home%"
   -run_postscripts_as_root="false" -rootscripts="%oracle_home%/root.sh"
   -source
params="TargetName:testhost;HomeLoc:/scratch/scott/cloneCRS1;HomeName:cloneCRS1;Sc
ratchLoc:/tmp"
```

Passing Variables Through EMCLI

When working with variables such as %perlbin% or %oracle_home%, EM CLI will pass variable values from the current local environment instead of the variables themselves. To pass variables through an EM CLI command, as might be the case when using the -prescripts or -postscripts options, you can place the EM CLI command in a batch file and replace all occurrences of "%" with "%%".

extend_rac_home

Extends a RAC cluster by taking a specified Oracle Home location or a RAC Software Library component, and cloning it to specified destinations. If a component is used, the user must provide information for a host that is part of the current cluster, along with the Oracle Home name and home location. When cloning from a source home, this information is automatically extracted from the home.

Format

```
emcli extend_rac_home
   -input_file="dest_properties:file_path"
   -list_exclude_files="list of files to exclude"
   -isSwLib="true/false"
   -tryftp_copy="true/false"
   -jobname="name of cloning job"
   -clusternodes="node1;node2;node3;node4"
    [-srchost=name of a host node present on the RAC cluster being extended"]
    [-home_name="home name on a host for the existing RAC cluster"]
    [-home_location="location on a host for the existing RAC cluster"]
    [-prescripts="script name to execute"]
    [-run_prescripts_as_root="true/false"]
    [-postscripts="script to execute"]
    [-run_postscripts_as_root="true/false"]
    [-rootscripts="script name to execute"]
    [-swlib_component ="path:path to component;version:rev"]
    [-source_params="TargetName:name;HomeLoc:loc;HomeName:name;
      ScratchLoc:Scratch dir Location"]
    [-jobdesc="description"]
```

Options

- **dest_properties**

  File containing information regarding the targets. Each line in the file corresponds to information regarding one destination.

  Format:

  `Destination Host Name;Destination Node Name;Scratch Location;`

- **list_exclude_files**

  Comma separated list of files to exclude. Not required if the source is Software Library. An asterisk "*" can be used as a wildcard.

- **isSwLib**

  Whether its a Oracle Home database or Software Library.

- **tryftp_copy**

  Try FTP to copy or not. User should set the FTP copy option to false when using EM CLI from the command line.

- **jobname**

  Name of the Cloning job.

- **clusternodes**

  Current nodes in the cluster.

- **srchost**

  Name of a host that is part of the RAC cluster being extended.

- **home_name**

  Name of home used by all the current RAC cluster nodes.

- **home_location**

  Home location used by all the current RAC cluster nodes.

- **prescripts**

  Path of script to execute.

> **Note:** Double-quoted parameters can be passed using an escape (\) sequence. For example:
>
> ```
> prescripts=" <some value here>=\"some value here\" "
> ```

- **run_prescripts_as_root**

  Run prescripts as "root". By default, this option is set to false.

- **postscripts**

  Path of script to execute.

- **run_postscripts_as_root**

  Run postscripts as "root". By default, this option is set to false.

- **rootscripts**

  Path of script to execute.

- **swlib_component**

  Path to the Software Library being cloned. "isSwLib" must be true in this case.

- **source_params**

  Source Oracle home info. "isSwLib" must be false in this case.

- **jobdesc**

  Description of the job. If not specified, a default description is generated automatically.

Examples

```
emcli extend_rac_home
      -input_file="dest_properties:clonedestinations"
      -list_exclude_files="*.log,*.dbf,sqlnet.ora,tnsnames.ora,listener.ora"
      -isSwLib="false"
      -tryftp_copy="false"
      -jobname="clone database home"
      -clusternodes="node1;node2"
      -prescripts="/home/joe/myScript"
      -run_prescripts_as_root="true"
      -rootscripts="%oracle_home%/root.sh"
      -source_params="TargetName:host.domain.com;HomeLoc:/oracle/database1;
       HomeName:OUIHome1;ScratchLoc:/tmp"
```

Passing Variables Through EMCLI

When working with variables such as %perlbin% or %oracle_home%, EM CLI will pass variable values from the current local environment instead of the variables themselves. To pass variables through an EM CLI command, as might be the case when using the -prescripts or -postscripts options, you can place the EM CLI command in a batch file and replace all occurrences of "%" with "%%".

extract_template_tests

Extracts variables and test definitions, from a repository template into a local file.

Format

```
extract_template_tests
      -templateName=<template name>
      -templateType=<template type>
      -output_file=<output filename>
      [-encryption_key=<key>]
```

Options

- **templateName**

  Template name.

- **templateType**

  Template type.

- **output_file**

  The name of the output file. If the file does not exist, it will be created; if it already exists, it will be overwritten. (This is assuming the extract operation was successful; if the operation fails, no files are created, and any existing files are left unchanged.)

- **encryption_key**

  An optional key to encrypt the file contents. The same key should be used to decrypt the file.

Examples

```
emcli extract_template_tests
      -templateName='my_template' -templateType='website'
      -output_file='my_template.xml' -encryption_key='my_password'
```

Creates a file named 'my_template.xml' containing the variable values and test definitions of Web Application template 'my_template'. The file contents are encrypted using key 'my_password'.

get_aggregate_service_info

Get timezone and availability evaluation function information of an aggregate service instance.

Format

```
get_aggregate_service_info
      -name="name"
      -type="type"
      [-noheader]
      [-script|-format=
      [name:"pretty|script|csv"];
      [column_separator:"sep_string"];
      [row_separator:"row_sep_string"]
```

Options

- **name**

  Aggregate service name.

- **type**

  Aggregate service type.

Examples

```
 emcli get_aggregate_service_info -name="My_Name"
      -type="aggregate_service"
```

get_aggregate_service_members

Get sub-services of an aggregate service instance.

Format

```
get_aggregate_service_members
      -name="name"
      -type="type"
      [-noheader]
      [-script|-format=
      [name:"pretty|script|csv"];
      [column_separator:"sep_string"];
      [row_separator:"row_sep_string"]
```

Options

- **name**

  Aggregate service name.

- **type**

  Aggregate service type.

Examples

```
emcli get_aggregate_service_members -name="My_Name"
      -type="aggregate_service"
```

get_blackout_details

Get detailed information for a specified blackout.

Format

```
get_blackout_details
      -name="name"
      [-createdby="blackout_creator" (default is current user)]
      [-noheader]
      [-script | -format=
      [name:<pretty|script|csv>];
      [column_separator:"column_sep_string"];
      [row_separator:"row_sep_string"];
      ]
```

Options

- **name**

  Name of the blackout.
- **createdby**

  Enterprise Manager user who created the blackout.
- **noheader**

  Display tabular information without column headers.
- **script**

  This option is equivalent to -format="name:script".
- **format**

  Format specification (default is -format="name:pretty").

  – format="name:pretty" prints the output table in a readable format not intended to be parsed by scripts.

  – format="name:script" sets the default column separator to a tab and the default row separator to a newline. The column and row separator strings may be specified to change these defaults.

  – format="name:csv" sets the column separator to a comma and the row separator to a newline.

Output Columns

Status, Status ID, Run Jobs, Next Start, Duration, Reason, Frequency, Repeat, Days, Months, Start Time, End Time, TZ Offset.

Examples

```
emcli get_blackout_details -name=blackout1
```

Show detailed information for blackout blackout1 created by the current user.

```
emcli get_blackout_details -name=blackout1 -createdby=joe
```

Show detailed information for blackout blackout1 that was created by user joe.

get_blackout_reasons

List all blackout reasons, one per line.

Format

```
get_blackout_reasons
```

Examples

```
emcli get_blackout_reasons
```

List all blackout reasons, one per line.

get_blackout_targets

List targets for a specified blackout.

Format

```
get_blackout_targets
      -name="name"
      [-createdby="blackout_creator" (default is current user)]
      [-noheader]
      [-script | -format=
      [name:<pretty|script|csv>];
         [column_separator:"column_sep_string"];
          [row_separator:"row_sep_string"];
      ]
```

Options

- **name**

  Name of the blackout.

- **createdby**

  Enterprise Manager user who created the blackout.

- **noheader**

  Display tabular information without column headers.

- **script**

  This option is equivalent to -format="name:script".

- **format**

  Format specification (default is -format="name:pretty").

  – format="name:pretty" prints the output table in a readable format not intended to be parsed by scripts.

  – format="name:script" sets the default column separator to a tab and the default row separator to a newline. The column and row separator strings may be specified to change these defaults.

  – format="name:csv" sets the column separator to a comma and the row separator to a newline.

Output Columns

Target Name,Target Type,Status,Status ID.

Examples

```
emcli get_blackout_targets -name=blackout1
```

Lists targets in the blackout blackout1 created by the current user..

```
emcli get_blackout_targets -name=blackout1 -createdby=joe
```

Lists targets in the blackout blackout1 that was created by user joe..

get_blackouts

List all blackouts or just those for a specified target or one or more hosts. Only the blackouts the user has privilege to view are listed.

Format

```
get_blackouts
      [-target="name1:type1" | -hostnames="host1;host2;..."]
      [-noheader]
      [-script | -format=
      [name:<pretty|script|csv>];
         [column_separator:"column_sep_string"];
         [row_separator:"row_sep_string"];
      ]
```

Options

- **target**

  List blackouts for this target. When neither this option nor the -hostnames option is specified, all blackouts the user has privilege to view are listed.

- **hostnames**

  List blackouts which have a target on one of the specified hosts. The hostname is just the target name part of the host target. For example, specify "host.us.oracle.com" rather than "host.us.oracle.com:host". When neither this option nor the -target option is specified, all blackouts the user has privilege to view are listed.

- **noheader**

  Display tabular information without column headers.

- **script**

  This option is equivalent to -format="name:script".

- **format**

  Format specification (default is -format="name:pretty").

  – format="name:pretty" prints the output table in a readable format not intended to be parsed by scripts.

  – format="name:script" sets the default column separator to a tab and the default row separator to a newline. The column and row separator strings may be specified to change these defaults.

  – format="name:csv" sets the column separator to a comma and the row separator to a newline.

Output Column

Name, Created By, Status, Status ID, Next Start, Duration, Reason, Frequency, Repeat, Start Time, End Time, Previous End, TZ Offset.

Examples

```
emcli get_blackouts
```

Show all blackouts with some details.

```
emcli get_blackouts -target=database2:oracle_database
```

Show all blackouts that cover the target database2:oracle_database.

```
emcli get_blackouts -hostnames=myhost.us.oracle.com
```

Show all blackouts that cover some target on host myhost.us.oracle.com.

```
emcli get_blackouts -hostnames="myhost.us.oracle.com"
-hostnames="yourhost.us.oracle.com"
```

Show all blackouts that cover some target on host myhost.us.oracle.com or on host yourhost.us.oracle.com.

get_group_members

List the members of the specified group.

Note that targets are only listed once, even though they may be in more than one sub-group of the group.

Format

```
get_group_members
      -name="name"
      [-type=<group>]
      [-depth=#  (default 1)]
      [-noheader]
      [-script | -format=
         [name:<pretty|script|csv>];
         [column_separator:"column_sep_string"];
         [row_separator:"row_sep_string"];
      ]
```

Options

- **name**

  Target name of the group.

- **type**

  Group type: group. Defaults to "group".

- **depth**

  List target members in sub-groups to the depth specified. When the depth is set to 0, no group target members are listed and only the group's existence is verified. When the depth is set to -1, all group and sub-group target members are listed; in this case no groups will appear in the output. Note that a target is listed at most once, even though it may be a member of several sub-groups.

- **noheader**

  Display tabular information without column headers.

- **script**

  This option is equivalent to -format="name:script".

- **format**

  Format specification (default is -format="name:pretty").

  – format="name:pretty" prints the output table in a readable format not intended to be parsed by scripts.

  – format="name:script" sets the default column separator to a tab and the default row separator to a newline. The column and row separator strings may be specified to change these defaults.

  – format="name:csv" sets the column separator to a comma and the row separator to a newline.

Output Columns

Target Name,Target Type.

Examples

```
emcli get_group_members -name=db2_group
```

List the databases in group db2_group.

```
emcli get_group_members -name=my_hosts -depth=0
```

Verify that group my_hosts:group exists.

```
emcli get_group_members -name=my_group -depth=-1
```

List the unique targets in group my_group:group and its sub-groups.

get_groups

List all groups.

Format

```
get_groups
      [-noheader]
      [-script | -format=
         [name:<pretty|script|csv>];
         [column_separator:"column_sep_string"];
         [row_separator:"row_sep_string"];
      ]
```

Options

- **noheader**

  Display tabular information without column headers.

- **script**

  This option is equivalent to -format="name:script".

- **format**

  Format specification (default is -format="name:pretty").

  – format="name:pretty" prints the output table in a readable format not intended to be parsed by scripts.

  – format="name:script" sets the default column separator to a tab and the default row separator to a newline. The column and row separator strings may be specified to change these defaults.

  – format="name:csv" sets the column separator to a comma and the row separator to a newline.

Output Columns

Target Name,Target Type.

Examples

```
emcli get_groups
```

List all groups.

get_instance_data_xml

Download instance data XML and generate an XML file containing that data.

Format

```
emcli get_instance_data_xml -instance={instance_guid}
```

Options

- **instance**

  The instance GUID.

Examples

```
emcli get_instance_data_xml -instance=16B15CB29C3F9E6CE040578C96093F61 > data.xml
```

get_instances

Display a list of procedure instances.

See Also: get_procedure_types

Format

```
emcli get_instances -type={procedure type}
```

Options

- **type={procedure type}**

  Display all the Procedure Instances of type {procedure type}.

Output Columns

```
GUID, Procedure Type, Instance Name, Status
```

get_jobs

List existing jobs.

Format

```
get_jobs
      [-job_ids="ID1;ID2;..."]
      [-targets="type1:name1;type2:name2;..."]
      [-status_ids="status1;status2;..."]
      [-noheader]
      [-script | -format=
            [name:<pretty|script|csv>];
            [column_separator:"column_sep_string"];
            [row_separator:"row_sep_string"];
      ]
```

Options

- **job_ids**

  List of job IDs to use as the output filters.

- **targets**

  List of targets (as name-type pairs) to use as the output filters.

- **status_ids**

  List of numeric status ID's to use as the output filters.

  The numeric codes for all possible job statuses are as follows:

  - SCHEDULED=1
  - EXECUTING(Running)=2
  - ABORTED(Failed Initialization)=3
  - FAILED=4
  - COMPLETED(Successful)=5
  - SUSPENDED_USER=6
  - SUSPENDED_AGENT_DOWN=7
  - STOPPED=8
  - SUSPENDED_LOCK=9
  - SUSPENDED_EVENT=10
  - SUSPENDED_BLACKOUT=11
  - STOP_PENDING=12
  - SUSPEND_PENDING=13
  - INACTIVE=14
  - QUEUED=15

- **noheader**

  Display tabular information without column headers.

- **script**

This option is equivalent to -format="name:script".

- **format**

  Format specification (default is -format="name:pretty").

  – format="name:pretty" prints the output table in a readable format not intended to be parsed by scripts.

  – format="name:script" sets the default column separator to a tab and the default row separator to a newline. The column and row separator strings may be specified to change these defaults.

  – format="name:csv" sets the column separator to a comma and the row separator to a newline.

Output Columns

Name, Type, ID, Execution ID, Scheduled, Completed, Status, Status ID, Owner, Target Type, Target Name.

Examples

```
emcli get_jobs
      -job_ids="12345678901234567890123456789012,
09876543210987654321098765432100"
```

Shows the jobs with the specified job Ids:

12345678901234567890123456789012 and 09876543210987654321098765432100.

```
emcli get_jobs
      -status_ids="1,5"
      -targets="mainhost.us.oracle.com:host"
```

Shows all jobs run against a host target named "mainhost.us.oracle.com" that are scheduled or have completed.

```
emcli get_jobs
      -status_ids=4
      -targets="payroll:oracle_database"
      -script
```

Shows all jobs run against an Oracle database target named "payroll" that have failed. Tabular output is generated using tabs as column separators and newlines as row separators.

get_procedure_types

Get the list of all Deployment Procedure types.

Format

```
emcli get_procedure_types
```

Output Column

```
Procedure Type
```

get_procedure_xml

Get the Deployment Procedure XML file. XML will be printed on standard output.

Format

```
emcli get_procedure_xml -procedure={procedure guid}
```

Options

- **procedure**

  The procedure GUID.

Output

The Deployment Procedure XML.

Examples

```
emcli get_procedure_xml -procedure=16B15CB29C3F9E6CE040578C96093F61 > proc.xml
```

get_procedures

Get a list of Deployment Procedures.

See Also: get_procedure_types

Format

```
emcli get_procedures [-type={procedure type}]
```

Options

- **-type={procedure type}**

  Display all the Deployment Procedure of type {procedure type}.

Output Columns

```
GUID, Procedure Type, Name, Version, Created By
```

get_system_members

List the members of the specified system.

Format

```
get_system_members
      -name="name"
      [-type=<generic_system>]
      [-depth=#  (default 1)]
      [-noheader]
      [-script | -format=
      [name:<pretty|script|csv>];
            [column_separator:"column_sep_string"];
            [row_separator:"row_sep_string"];
      ]
```

Options

- **name**

  Target name of the system.

- **type**

  System type: generic_system. Defaults to "generic_system".

- **depth**

  List target members in sub-systems to the depth specified. When the depth is set to 0, no system target members are listed and only the system's existence is verified. When the depth is set to -1, all system and sub-system target members are listed.

- **noheader**

  Display tabular information without column headers.

- **script**

  This option is equivalent to -format="name:script".

- **format**

  Format specification (default is -format="name:pretty").

  - format="name:pretty" prints the output table in a readable format not intended to be parsed by scripts.
  - format="name:script" sets the default column separator to a tab and the default row separator to a newline. The column and row separator strings may be specified to change these defaults.
  - format="name:csv" sets the column separator to a comma and the row separator to a newline.

Output Columns

Source Target Name   Member Target Name   Member Target Type   Level

Examples

```
emcli get_system_members -name=db2_system
```

List the databases in system db2_system.

```
emcli get_system_members -name=my_system -depth=0
```

Verify that system my_system:generic_system exists.

```
emcli get_system_members -name=my_system -depth=-1
```

List the unique targets in system my_system:generic_system and its sub-systems.

get_targets

Get status and alert information for targets.

Format

```
get_targets
      [-targets="[name1:]type1;[name2:]type2;..."]
      [-alerts]
      [-noheader]
      [-script | -format=
      [name:<pretty|script|csv>];
            [column_separator:"column_sep_string"];
            [row_separator:"row_sep_string"];
      ]
```

Options

- **targets=name:type**

  Name or type can be either a full value or a pattern match using "%". Also, name is optional, so the type may be specified alone.

- **alerts**

  Shows the count of critical and warning alerts for each target.

- **noheader**

  Display tabular output without column headers.

- **script**

  This option is equivalent to -format="name:script".

- **format**

  Format specification (default is -format="name:pretty").

  – format="name:pretty" prints the output table in a readable format not intended to be parsed by scripts.

  – format="name:script" sets the default column separator to a tab and the default row separator to a newline. The column and row separator strings may be specified to change these defaults.

  – format="name:csv" sets the column separator to a comma and the row separator to a newline.

Output Columns

Status ID Status Target Type Target Name Critical Warning.

Examples

```
emcli get_targets
```

Shows all targets. Critical and Warning columns are not included.

```
emcli get_targets
      -alerts
```

Shows all targets. Critical and Warning columns are shown.

```
emcli get_targets
      -targets="oracle_database"
```

Shows all "oracle_database" targets.

```
emcli get_targets
      -targets="%oracle%"
```

Shows all targets whose type contains the string "oracle".

```
emcli get_targets
      -targets="databa%:%oracle%"
```

Shows all targets whose name starts with "databa" and type contains "oracle".

```
emcli get_targets
      -targets="database3:oracle_database"
      -alerts
```

Shows status and alert information on the Oracle database named "database3".

grant_privs

Grant the privileges to existing Enterprise Manager user or Enterprise Manager Role.

Format

```
emcli grant_privs -name="username/rolename"
     [-privilege="name;[[target_name:target_type]|jobid]"]...
```

Options

- **name**

  User Name or Role Name to which privileges will be assigned.

- **privilege**

  Privilege, which will be granted to EM User or Role. This option may be specified more than once.

  The following system privileges do not require a target or a job ID:

  CREATE_ANY_ROLE

  CREATE_TARGET

  DELETE_ANY_TARGET

  VIEW_ANY_TARGET

  USE_ANY_BEACON

  EM_MONITOR

  The following target privileges require specifying target_name:target_type

  VIEW_TARGET

  OPERATOR_TARGET

  FULL_TARGET

  The following group privileges require specifying target_name:target_type:

  CREATE_TARGET_IN_GROUP

  The following job privileges require specifying jobid:

  VIEW_JOB

  FULL_JOB

Examples

```
1. emcli grant_privs
         -name="user1"
         -privilege="USE_ANY_BEACON"
         -privilege="FULL_JOB;923470234ABCDFE23018494753091111"
         -privilege="FULL_TARGET;host1.us.oracle.com:host"
Grant the privileges to Enterprise Manager user : user1
Three privileges are grant to user1 :
    1. Privilege to use any beacon
    2. Full control on the Jobs with ID 923470234ABCDFE23018494753091111
    3. Full control on the target host1.us.oracle.com:host

2. emcli grant_privs
```

```
          -name="Role1"
          -privilege="FULL_TARGET;host1.us.oracle.com:host"
Grant the target privileges to EM Role  : Role1
```

grant_roles

Grant the roles to an existing Enterprise Manager User or Enterprise Manager role.

Format

```
emcli grant_roles -name="username/rolename"
     [-roles="role1;role2;..."]
```

Options

- **name**

  User Name or Role Name to which roles will be assigned.

- **roles**

  Roles that will be granted to an Enterprise Manager User or Role. This option may be specified more than once.

Examples

```
1. emcli grant_roles
        -name="user1"
        -roles="SUPER_USER"
2. emcli grant_roles
        -name="Role1"
        -roles="BLACKOUT_ADMIN;MAINTAIN_TARGET"
```

help

Show summary of all verbs or command line help for individual EM CLI verbs.

> **Note:** EM CLI must be setup and configured before command line help is available for all verbs.

Format

```
help [verbname]
help
```

Options

None.

Examples

```
emcli help add_target (provides description, syntax, and usage examples for a
specific Verb.)
emcli help (provides an overview for all available verbs.)
```

modify_aggregate_service

Modify an aggregate service instance.

Format

```
modify_aggregate_service
      -name="name"
      -type="type"
      [-add_sub_services="name1:type1;name2:type2;..."]
      [-del_sub_services="name1:type1;name2:type2;..."]
      [-avail_eval_func="function to evaluate availability."]
      [-timezone_region="timezone region"]
```

Options

- **name**

  Aggregate service name.

- **type**

  Aggregate service type.

- **add_sub_services**

  The sub-services to be added.

- **del_sub_services**

  The sub-services to be deleted.

- **avail_eval_func**

  PL/SQL function to evaluate the availability of the aggregate service. Use [or|and] for predefined evaluation helper function.

- **timezone_region**

  Time Zone Region of the service.

Examples

```
emcli modify_aggregate_service -name="My_Name"
      -type="aggregate_service"
      -add_sub_services="sub1:type1;sub2:type2"
      -del_sub_services="sub3:type3"
      -avail_eval_func="my_pkg.my_eval_func"
      -timezone_region="CST"
```

modify_group

Add or remove targets from an existing group.

An error will not be generated when attempting to delete a non-existent target in the group or when attempting to add a target that already exists in the group.

Format

```
modify_group
      -name="name"
      [-type=<group>]
      [-add_targets="name1:type1;name2:type2;..."]...
      [-delete_targets="name1:type1;name2:type2;..."]...
```

Options

- **name**

  Target name of group to modify.

- **type**

  Group type: group. Defaults to "group".

- **add_targets**

  Targets to add, each specified as target_name:target_type. Option -add_targets may be specified more than once.

- **delete_targets**

  Targets to delete, each specified as target_name:target_type. Option -delete_targets may be specified more than once.

Examples

```
emcli modify_group -name=db2_group
      -add_targets=database:oracle_database
      -delete_targets=database2:oracle_database
```

Modify group db2_group by adding database database:oracle_database and deleting database database2:oracle_database from the group.

```
 emcli modify_group -name=my_hosts
      -add_targets=yourhost.us.oracle.com:host
```

Modify group my_hosts by adding host yourhost.us.oracle.com:host to the group.

```
emcli modify_group -name=my_group
      -add_targets=group_a:group
      -add_targets=database:oracle_database
      -delete_targets=nogroup:group
```

Modify group my_group by adding targets group_a:group and database:oracle_database and deleting the nonexistent target nogroup:group from the group.

modify_red_group

Add or remove targets from an existing redundancy group.

An error will not be generated when attempting to delete a non-existent target in the redundancy group.

Format

```
modify_red_group
      -name="name"
      -type=<generic_redundancy_group>
      [-add_targets="name1:type1;name2:type2;..."]...
      [-delete_targets="name1:type1;name2:type2;..."]...
      [-owner=<Redundancy Group Owner>]
```

Options

- **name**

  Target name of group to modify.

- **type**

  Redundancy Group type: generic_redundancy_group. Defaults to "generic_redundnacy_group".

- **add_targets**

  Targets to add, each specified as target_name:target_type. Option -add_targets may be specified more than once.

- **delete_targets**

  Targets to delete, each specified as target_name:target_type. Option -delete_targets may be specified more than once.

- **owner**

  Owner of the redundancy group.

Examples

```
emcli modify_red_group -name=Servers
      -add_targets=HTTP_Server1:oracle_apache
      -delete_targets=Server5:oracle_apache
```

Modify redundancy group Servers by adding Oracle Apache Server1:oracle_apache and deleting Oracle Apache Server5:oracle_apache from the redundancy group.

modify_role

Modify an existing Enterprise Manager administrator role.

Note: omit an argument to leave its value unchanged.

Format

```
modify_role
      -name="role_name"
      [-description="description"]
      [-roles="role1;role2;..."]
      [-privilege="name;[[target_name:target_type]|jobid]"]...
      [-users="user1;user2;..."]
```

Options

- **name**

  Role name.

- **description**

  Replace description of role.

- **roles**

  Replace the list of roles assigned to this existing role. Currently, the only built-in role is PUBLIC.

- **users**

  Replace the list of users to whom this role is assigned.

- **privilege**

  Replace privileges to granted to this role. This option may be specified more than once.

  Note: Privileges are case-insensitive.

  The following system privileges do not require a target or a job ID:

  - CREATE_ANY_ROLE
  - CREATE_ANY_PRIVILEGE
  - MANAGE_CREDENTIAL_GROUP
  - CREATE_TARGET
  - DELETE_ANY_TARGET
  - VIEW_ANY_TARGET
  - USE_ANY_BEACON
  - EM_MONITOR
  - SUPER_USER

  The following target privileges require specifying target_name:target_type:

  - VIEW_TARGET
  - OPERATOR_TARGET
  - MAINTAIN_TARGET

- CLONE_FROM_TARGET
- FULL_TARGET

The following group privileges require specifying target_name:target_type:

- CREATE_TARGET_IN_GROUP

The following job privileges require specifying jobid:

- VIEW_JOB
- FULL_JOB

Examples

```
emcli modify_role
      -name="existing_role"
      -desc="This role was changed"
      -roles="role1;role2;role3"
      -privilege="view_job;923470234ABCDFE23018494753091111"
      -privilege="view_target;host1.us.oracle.com:host"
      -users="johndoe;janedoe"
```

Modifies a role named existing_role with the one-sentence description -"This role was changed". The role combines three existing roles: role1, role2, and role3. The role also has three added privileges: to view the job with ID 923470234ABCDFE23018494753091111 and to view the target host1.us.oracle.com:host. The role is granted to johndoe and janedoe.

```
emcli modify_role
      -name="existing_role"
      -roles="role4;role5;role6"
```

Modifies a role named existing_role by assigning role4, role5, and role6 to it. The description, privileges, and users associated with this role remain unchanged.

modify_system

Add or remove targets from an existing system.

An error will not be generated when attempting to delete a non-existent target in the system or when attempting to add a target that already exists in the system.

If both the -add_members and -delete_members are given in the same command, then the members specified by -delete_members will be deleted first and then the members specified by -add_members will get added.

Format

```
modify_system
      -name="name"
      [-type=<generic_system>]
      [-add_members="name1:type1;name2:type2;..."]...
      [-delete_members="name1:type1;name2:type2;..."]...
      [-owner="new_owner"]
```

Options

- **name**

  Target name of system to modify.

- **type**

  System type: generic_system. Defaults to "generic_system".

- **add_members**

  Targets to add, each specified as target_name:target_type. Option -add_members may be specified more than once.

- **delete_members**

  Targets to delete, each specified as target_name:target_type. Option -delete_members may be specified more than once.

- **owner**

  New owner of the system.

Examples

```
emcli modify_system -name=db2_system
      -add_members=database:oracle_database
      -delete_members=database2:oracle_database
      -owner=user2
```

Modify system db2_system by adding database database:oracle_database and deleting database database2:oracle_database from the system. New owner of the system is user2.

```
emcli modify_system -name=my_hosts
      -add_members=yourhost.us.oracle.com:host
```

Modify system my_hosts by adding host yourhost.us.oracle.com:host to the system.

```
emcli modify_system -name=my_system
      -add_members=system_a:generic_system
      -add_members=database:oracle_database
      -delete_members=nosystem:generic_system
```

Modify system my_system by adding targets system_a:generic_system and database:oracle_database and deleting the nonexistent target nosystem:generic_system from the system.

modify_target

Modify a target instance definition.

Format

```
modify_target
      -name="name"
      -type="type"
      [-properties="pname1:pval1;pname2:pval2;..."]...
      [-separator=properties="sep_string"]
      [-subseparator=properties="subsep_string"]
      [-credentials="userpropname:username;pwdpropname:password;..."]
      [-input_file="parameter_tag:file_path"]
      [-display_name="display name"]
      [-on_agent]
```

Options

- **name**

  Target name.

- **type**

  Target type.

- **properties**

  Name-value pair list of properties for the target instance. The "name"s are identified in the target type metadata definition. They must appear exactly as they are defined in that file. Metadata files are located in $AGENT_ORACLE_HOME/sysman/admin/metadata.

- **separator=properties**

  Specify a string delimiter to use between name-value pairs for the value of the -properties option. The default separator delimiter is ";".

- **subseparator=properties**

  Specify a string delimiter to use between name and value in each name-value pair for the value of the -properties option. The default subseparator delimiter is ":".

- **credentials**

  Monitoring credentials (name-value pairs) for the target instance. The "name"s are identified in the target type metadata definition as credential properties. They must appear exactly as they are defined in that file. Metadata files are located in $AGENT_ORACLE_HOME/sysman/admin/metadata.

- **input_file**

  Used in conjunction with the "-credentials" option, this option allows the user to store specific target monitoring credential values, such as passwords, in a separate file. The "-input_file" option specifies a mapping between a tag and a local file path. The tag is specified in lieu of specific monitoring credentials of the "-credentials" option. The tag must not contain colons (:)or semi-colons (;)

- **display_name**

  Set target display name.

- **on_agent**

Propagates changes to the Management Agent collecting this target's metrics.

Examples

```
emcli modify_target
      -name="database"
      -type="oracle_database"
      -display_name="New Name DB"
```

Modifies the display name to "New Name DB" for the database with the internal name "database".

```
emcli modify_target
      -name="database"
      -type="oracle_database"
      -credentials="UserName:newuser;password:PWD_FILE;Role:SYSDBA"
      -input_file="PWD_FILE:at_pwd_file"
      -on_agent
```

Modifies the credentials for the oracle_database target with the name "database". This example illustrates the use of the input_file to camouflage the credentials. The password is actually in a file named at_pwd_file. The input_file argument is used to replace PWD_FILE with the contents of the at_pwd_file in the credentials argument. The on_agent flag ensures that the changes are propagated to the Management Agent collecting for this target.

```
emcli modify_target
      -name="database"
      -type="oracle_database"
      -display_name="New Name DB"
      -properties="SID=newsid|Port=15091|OracleHome=/oracle"
      -properties="MachineName=smpamp-sun1.us.oracle.com"
      -separator=properties="|"
      -subseparator=properties="="
      -on_agent
```

Modifies the display name and properties for the oracle_database target with the name "database". The on_agent flag ensures that the changes are propagated to the Management Agent collecting for this target.

```
emcli modify_target
      -name="payroll_db"
      -type="oracle_database"
      -credentials="UserName:Fred;password:PWD_FILE;Role:sysdba"
      -properties="Port:15067;OracleHome:/oradb"
      -input_file="PWD_FILE:at_pwd_file"
      -display_name=payroll
      -on_agent
```

Modifies an oracle_database target type with the name "payroll_db". In this example, the display name for this database (target name that is displayed in the Enterprise Manager UI) is being changed to "payroll". The port number is being changed to 15067 and the Oracle Home is being changed to /oradb. The administrator (dbsnmp), whose previous default role was "Normal" is being changed to "sysdba". This example also illustrates the use of the input_file to camouflage the credentials. The password is actually in a file named "at_pwd_file". The -input_file argument is used to replace PWD_FILE with the contents of the at_pwd_file in the -credentials option.

modify_user

Modify an existing Enterprise Manager administrator.

Format

```
modify_user
       -name="name"
       [-password="password"]
       [-roles="role1;role2;..."]
       [-email="email1;email2;..."]
       [-privilege="name;[[target_name:target_type]|jobid]"]...
```

Options

- **name**

  Administrator name.

- **password**

  Replace administrator password with the specified password.

- **roles**

  Replace current roles with the specified list of Enterprise Manager roles to grant to this administrator. Currently, the built-in roles include PUBLIC.

- **email**

  Replace current email addresses for this administrator with the specified list. To delete all email addresses for this administrator, specify an empty string.

- **privilege**

  A privilege to grant to this administrator.

  This option may be specified more than once. The original administrator privileges will be revoked.

  The following system privileges do not require a target or a job ID:

  – CREATE_ANY_ROLE

  – CREATE_ANY_PRIVILEGE

  – MANAGE_CREDENTIAL_GROUP

  – CREATE_TARGET

  – DELETE_ANY_TARGET

  – VIEW_ANY_TARGET

  – USE_ANY_BEACON

  – EM_MONITOR

  – SUPER_USER

  The following target privileges require specifying target_name:target_type:

  – VIEW_TARGET

  – OPERATOR_TARGET

  – MAINTAIN_TARGET

- CLONE_FROM_TARGET
- FULL_TARGET

The following group privileges require specifying target_name:target_type:

- CREATE_TARGET_IN_GROUP

The following job privileges require specifying jobid:

- VIEW_JOB
- FULL_JOB

Examples

```
emcli modify_user
      -name="new_admin"
      -password="oracle"
      -email="first.last@oracle.com;joe.shmoe@shmoeshop.com"
      -roles="public"
      -privilege="view_job;923470234ABCDFE230184947530911111"
      -privilege="view_target;host1.us.oracle.com:host"
```

Modifies the new_admin administrator. The user will have three privileges: to view the job with ID 923470234ABCDFE230184947530911111 and to view the target host1.us.oracle.com:host. The user will also be granted role PUBLIC. The user email addresses will be set to first.last@oracle.com and joe.shmoe@shmoeshop.com.

```
emcli modify_user
      -name="new_admin"
      -email=""
      -privilege=""
```

Deletes all the email addresses and privileges for administrator new_admin. Note that -privilege="" and -privilege are equivalent if specified at the command line in a UNIX shell.

provision

Provision a hardware server, using configuration properties from the input file. The configuration properties required for a component can be viewed from the Grid Control console. Once a provisioning request is made you can view the status of that request from the Enterprise Manager Grid Control console by using the assignment name (specified by you or the automatically generated name returned to you).

Format

```
provision
      -image="path to the image"
      -network="network profile path"
      -bootserver="boot server name"
      -stageserver="stage server name"
      -stgcredentials="username"
      -schedule="type:immediate/onetime;timezone:zone;
startdt:startdate;starttm:time"
      -resettimeout="time"
      -target="hardware server label"
      -input_file="config_properties:file_path"
      -assignment= "assignment name"
      [-desc= "assignment description"]
```

Options

- **image**

  Path to the image-includes the image name. This is the image used for provisioning.

- **network**

  Path Name of network profile.

- **bootserver**

  Name of the boot server.

  Format: hostName:Directory Path

- **stageserver**

  Name of the stage server. hostName:Directory Path.

- **Stgcredentials**

  Username of the stage server.

- **schedule**

  Time when provisioning should be scheduled. String argument that contains multiple name value pairs separated by `;'. Used to schedule the provisioning operation."type" can be `immediate' or `onetime'. If "type" is not immediate, then the other values are expected Time Zone: string, which is a timezone Id of the format:

  zone Sign TwoDigitHours:Minutes

  zone: Time zone id e.g. GMT, PDT etc.

  Sign: one of "+ -"

  TwoDigitHours: Digit Digit

Minutes: Digit Digit

Digit: one of 0 1 2 3 4 5 6 7 8 9

Startdt: Date string, of the format: MM/DD/YY

Starttm: Time string, of the format: HH:MM

- **resettimeout**

  Reset timeout for the hardware server in minutes.

- **target**

  Target hardware server is specified using hardware label type.

- **input_file**

  File containing Configuration properties.

- **assignment**

  Name of the Assignment.

- **desc**

  Assignment description. Description is automatically generated if not specified.

Examples

```
emcli provision
      -image="Images/myimage"
      -network="Networks/networkprofile"
      -bootserver="booservername.us.oracle.com"
      -stageserver="stageserver.us.oracle.com:/private/share"
      -stgcredentials="joe"
      -schedule="type:immediate"
      -resettimeout="100"
      -target="mylabel"
      -input_file="config_properties:properties.txt"
      -assignment="provision mylabel"
```

Submits a job that will provision myimage on target having label as mylabel. Job will run immediately with a reset timeout of 100 minutes. Image properties will be picked from properties.txt that will override default image properties.stageserver will be used as staging server and "/private/share" as staging storage with joe as the username.

relocate_targets

There are two flavors in this command:

1. First,

   ```
   emcli relocate_targets -src_agent=<source agent>
         -dest_agent=<destination agent>
         -input_file=dupTarget:<complete path to file>;
   ```

   Creates a list of targets on the destination agent that already exists and monitored by source agent in EM. Moves all the collections, blackouts for these targets from source agent to destination agent and makes the destination agent as the monitoring agent for these targets in EM.

2. Second,

   ```
   emcli relocate_targets
         -src_agent=<source agent target name>
         -dest_agent=<destination agent target name>
         -target_name=<target name>
         -target_type=<target type>
         {-force=yes};
   ```

   Makes the destination agent as the monitoring agent for this target.

Format

```
relocate_targets
      -src_agent=<source agent target name>
      -dest_agent=<destination agent target name>
      {-target_name=<name of target to be relocated>
      -target_type=<type of target to be relocated> } |
      {-input_file=dupTarget:<complete path to file>}
      {-force=yes};
```

Options

- **src_agent**

  This is the agent that is currently monitoring the targets specified in the first argument.

- **dest_agent**

  This is the agent that EM user wants to monitor the targets specified in the first argument.

- **target_name**

  The name of the target that needs to be moved.

- **target_type**

  The type of the target that needs to be moved.

- **input_file**

  This takes a file name that contains all the targets and its properties as seen in targets.xml. The contents of the file has to be in same format as targets.xml.

- **force**

This switch is optional. if command is executed with -force=yes switch, composite target would be relocated automatically with its related targets. If command is executed without this switch, then an appropriate error message will be displayed if it is composite target.

remove_beacon

Removes a beacon from the monitoring set of beacons.

Format

```
remove_beacon
      -name=target name
      -type=target type
      -bcnName=beacon name
      [-forceRemove]
```

Options

- **name**

  Service target name.

- **type**

  Service target type.

- **bcnName**

  If specified, skips the sanity checks for availability definition.

Examples

```
emcli remove_beacon -name='MyTarget' -type='generic_service'
      -bcnName='MyBeacon'
```

Removes MyBeacon from MyTarget service target of type generic_service.

remove_service_system_assoc

Removes the system for a given Service.

Format

```
remove_service_system_assoc
      -name='name'
      -type='type'
```

Options

- **name**

  Service name.

- **type**

  Service type.

Examples

```
emcli remove_service_system_assoc
      -name='my service' -type='generic_service'
```

Removes the system for generic service named 'my service'.

retry_job

Restart a previously failed job execution.

Format

```
retry_job
      -exec_id="executionID"
      [-noheader]
      [-script | -format=
      [name:<pretty|script|csv>];
            [column_separator:"column_sep_string"];
            [row_separator:"row_sep_string"];
      ]
```

Options

- **exec_id**

  ID of the job execution to be retried. Use the get_jobs verb to obtain specific job execution Ids.

- **noheader**

  Display tabular information without column headers.

- **script**

  This option is equivalent to -format="name:script".

- **format**

  Format specification (default is -format="name:pretty").

  – format="name:pretty" prints the output table in a readable format not intended to be parsed by scripts.

  – format="name:script" sets the default column separator to a tab and the default row separator to a newline. The column and row separator strings may be specified to change these defaults.

  – format="name:csv" sets the column separator to a comma and the row separator to a newline.

Output Columns:

Execution ID.

Examples

```
emcli retry_job -exec_id=12345678901234567890123456789012
```

Restarts the job execution with Id 12345678901234567890123456789012 and displays a new execution Id.

revoke_privs

Revoke the privileges from an existing Enterprise Manager User or Enterprise Manager Role.

Format

```
  emcli revoke_privs -name="username/rolename"
       [-privilege="name;[[target_name:target_type]|jobid]"]...
```

Options

- **name**

  User Name or Role Name from which privileges will be revoked.

- **privilege**

  Privilege, which will be revoked from EM User or Role. This option may be specified more than once.

  The following system privileges do not require a target or a job ID

  CREATE_ANY_ROLE

  CREATE_TARGET

  DELETE_ANY_TARGET

  VIEW_ANY_TARGET

  USE_ANY_BEACON

  EM_MONITOR

  The following target privileges require specifying target_name:target_type

  VIEW_TARGET

  OPERATOR_TARGET

  FULL_TARGET

  The following group privileges require specifying target_name:target_type

  CREATE_TARGET_IN_GROUP

  The following job privileges require specifying jobid

  VIEW_JOB

  FULL_JOB

Examples

```
1. emcli revoke_privs
         -name="user1"
         -privilege="FULL_JOB;923470234ABCDFE23018494753091111"
         -privilege="FULL_TARGET;host1.us.oracle.com:host"
    Revoke the privileges from Enterprise Manager user : user1
    Two privileges are revoked from user1 :
    1. Full control on the Jobs with ID 923470234ABCDFE23018494753091111
    2. Full control on the target host1.us.oracle.com:host

2. emcli revoke_privs
         -name="Role1"
```

```
          -privilege="FULL_TARGET;host1.us.oracle.com:host"
Revoke the target privileges from EM Role : Role1
```

revoke_roles

Revoke the roles to existing Enterprise Manager User or Enterprise Manager Role.

Format

```
emcli revoke_roles -name="username/rolename"
      [-roles="role1;role2;..."]
```

Options

- **name**

  User Name or Role Name from which roles will be revoked.

- **roles**

  Roles, which will be revoked from EM User or Role. This option may be specified more than once.

Examples

```
1. emcli revoke_roles
        -name="user1"
        -roles="SUPER_USER"

2. emcli revoke_roles
        -name="Role1"
        -roles="BLACKOUT_ADMIN;MAINTAIN_TARGET"
```

set_availability

Changes the availability definition of a given service.

Format

```
emcli set_availability
      -name=target name
      -type=target type
      -availType=availability type (can be 'test' or 'system')
      -availOp=availability operator (can be 'and' or 'or)
```

Options

-name=target name

Service target name

-type=target type

Service target type.

-availType=Type of availability

Switches the availability to either test-based or system-based

-availOp=Availability Operator

If 'and' it uses all key tests/components to decide availability

If 'or' it uses any key tests/components to decide availability

Examples

```
emcli set_availability -name='MyTarget' type='generic_service'
                       -availType='test' -availOp='and'
Sets the availability of service MyTarget to be based on all key-tests.

emcli set_availability -name='MyTarget' type='generic_service'
                       -availType='test' -availOp='or'
Sets the availability of service MyTarget to be based on any key-test.
```

set_credential

Set preferred credentials for given users.

Format

```
set_credential
      -target_type="ttype"
      [-target_name="tname"]
      -credential_set="cred_set"
      [-user="user"]
      -columns="col1:newval1;col2:newval2;..."
      [-input_file="tag1:file_path1;tag2:file_path2;..."]
      [-oracle_homes="home1;home2"]
```

Options

- **target_type**

  Type of target. Must be "host" in case "-oracle_homes" parameter is specified.

- **target_name**

  ame of target. Omit this argument to set enterprise preferred credentials. Must be hostname in case "-oracle_homes" parameter is specified.

- **credential_set**

  Credential set affected.

- **user**

  Enterprise Manager user whose credentials are affected. If omitted, the current user's credentials are affected.

- **columns**

  The name and new value of the column(s) to set. Every column of the credential set must be specified. Alternatively, a tag from the -input_file argument may be used so that the credential values are not seen on the command line. This argument may be specified more than once.

- **input_file**

  Path of file that has -columns argument(s). This option is used to hide passwords. Each path must be accompanied by a tag which is referenced in the -columns argument. This argument may be specified more than once.

- **oracle_homes**

  Name of oracle homes on the target host. Credentials will be added/updated for all specified homes.

Note: The list of columns and the credential sets they belong to is included in the metadata file for each target type. This and other credential information is in the <CredentialInfo> section of the metadata.

Examples

Example 1:

```
emcli set_credential
      -target_type=oracle_database
      -target_name=myDB
      -credential_set=DBCredsNormal
      -user=admin1
      -column="username:joe;password:newPass;role:newRole"
```

Example 2:

```
emcli set_credential
      -target_type=oracle_database
      -target_name=myDB
      -credential_set=DBCredsNormal
      -user=admin1
      -column=FILE1
      -input_file=FILE1:passwordFile
```

Contents of passwordFile: username:joe;password:newPass;role:newRole

Here, FILE1 is a tag used to refer to the contents of passwordFile. Note that Example 2 has the same effect as Example 1.

Example 3:

```
emcli set_credential
      -target_type=host
      -target_name=host.us.oracle.com
      -credential_set=OHCreds
      -user=admin1
      -column="OHUsername:joe;OHPassword:newPass"
      -oracle_homes="database1;mydb"
```

set_key_beacons_tests

Defines key beacons and tests of the service.

Format

```
set_key_beacons_tests
      -name=target name
      -type=target type
      [-beacons=beacon names]+
      [-tests='test1:type1;test2:type2;...']+
      [-removeKey]
```

Options

- **name**

  Service target name.

- **type**

  Service target type.

- **beacons**

  Names of beacons to set as key (or non-key).

- **tests**

  Names and types of tests to set as key (or non-key).

- **removeKey**

  If specified, the mode is (remove key) i.e. the specified tests and beacons will be set as non-key.

  If not specified, the mode is (add key) i.e. the specified tests and beacons will be set as key.

Examples

```
emcli set_key_beacons_tests -name='MyTarget' -type='generic_service'
      -tests='MyTest:HTTP;MyTest2:FTP'
      -beacons='MyBeacon' -removeKey
```

Sets MyTest/HTTP, MyTest2/FTP and MyBeacon as non-key elements of service MyTarget/generic_service.

```
emcli set_key_beacons_tests -name='MyTarget' -type='generic_service'
      -beacons='MyBeacon;MyBeacon2'
```

Sets MyBeacon and MyBeacon2 as key beacons of service MyTarget/generic_service.

set_metric_promotion

Creates or edits a metric promotion based on test or system.

Format

```
set_metric_promotion
      -name=Service target name
      -type=Service target type
      [-category = Usage/Performance]
      -basedOn = system/test
      -aggFunction = AVG|MAX|MIN|SUM|COPY
      [-promotedMetricName = Promoted Metric]
      [-promotedMetricColumn = Promoted Metric Column]
      -promotedMetricKey = Key Value of the promoted metric
      [-metricName = Dependent Metric Name]
      -column = Dependent Metric Column
      *[-depTargetType = Target type of dependent targets]
      *[-depTargets = 'target1;target2...']
      *[-depTargetKeyValues='target1:key11|key12|key13..;
target2:key21|key22|key23..']
      *[-depMetricKeyColumn= Dependent metric key column]
      **[-testname= Dependent Test Name]
      **[-testtype= Dependent Test Type]
      **[-metricLevel= TXN|STEP|STEPGROUP]
      **[-beacons='bcn1;bcn2..']
      **[-depTestComponent= Step or stepgroup name]
      [-threshold= 'Critical threshold value; Warning threshold value; Threshold
Operator (EQ|LE|LT|GT|GE)']
      -mode= CREATE|EDIT
```

*: Might be required if basedOn is set to 'system''

**: Might be required if basedOn is set to 'test'

Options

- **category**

  This defines whether the promoted metric is a usage or a performance metric of a service. Category is used to determine the promoted metric name and metric column. If this option is not specified, promotedMetricName and promotedMetricColumn options must be specified.

- **basedOn**

  Determines whether the promotion is test-based or system-based.

- **aggFunction**

  Determines the aggregate function that will be used to compute the promoted metric AVG/MAX/MIN/SUM takes average, max, min and sum of the dependent metrics respectively. COPY only takes a single dependent metric and copies it over to the promoted metric.

- **promotedMetricName**

  This is the promoted metric name. This is optional if the category is specified.

- **promotedMetricColumn**

  This is the promoted metric column. This is optional if the category is specified.

- **promotedMetricKey**

  This required argument determines the key value of the promoted metric. It is equivalent to the displayed name of the promoted metric in the UI.

- **metricName**

  This argument is required if the dependent metric column is collected by more than one metric.

- **column**

  Dependent metric column.

- **depTargetType**

  All dependent targets should be of this target type.

- **depTargets**

  This option specifies the dependent targets. This argument is ignored if depTargetKeyValues is specified.

- **depTargetKeyValues**

  This option specifies the key values associated with the dependent targets. Specify multiple key values for a single target by repeating the entry in the following format: 'tgt1:key1;tgt1:key2...'

- **depMetricKeyColumn**

  This is required if the dependent metric is a transpose metric. It is the key value that applies to all the dependent targets.

- **testname**

  This defines the name of the test which will be used in promoting the metric.

- **testtype**

  This defines the type of the test which will be used in promoting the metric.

- **metricLevel**

  Some metrics can be promoted on step-level. This option defines the level to be used during promotion.

- **beacons**

  List of beacons that will be used for promoting the metric data.

- **depTestComponent**

  If metricLevel is not TXN, then this option is required to specify which step or which step group is being promoted.

- **threshold**

  This is used to define a threshold on the promoted metric.-mode: Mode can be create or edit.

Examples

```
emcli set_metric_promotion -name='MyTarget' -type='generic_service'
      -category=Performance -basedOn=test -aggFunction=MAX
      -testname='MyTest' -testtype=HTTP
      -beacons='MyBeacon, mybcn1'
      -promotedMetricKey=mymetric1 -column=dns_time -metricName=http_response
      -metricLevel=TXN -threshold='200;100;GE' -mode=CREATE
```

Creates a promoted Performance metric with key value mymetric1 on service MyTarget using MyTest/HTTP. The promoted metric takes the maximum of the dns_time metric column returned by MyBeacon and mybcn1 beacons. It also has a threshold with 'greater or equal to' operator (GE) with critical value set to 200 and warning value set to 100.

```
emcli set_metric_promotion -name='MyTarget' -type='generic_service'
      -category=Usage -basedOn=system -aggFunction=COPY
      -promotedMetricKey=mymetric1 -column=cpuUtil -metricName=Load
      -depTargets='myhost.mydomain.com' -depTargetType=host
      -mode=CREATE
```

Creates a promoted Usage metric with key value mymetric1 on service MyTarget. The dependent target is 'myhost.mydomain.com' with type 'host'. The promoted metric just copies the cpuUtil column of the Load metric.

```
emcli set_metric_promotion -name='MyTarget' -type='generic_service'
      -category=Usage -basedOn=system -aggFunction=AVG
      -promotedMetricKey=AppServerComponentUsage -depTargetType=oracle_ias
      -column=cpu.component
      -metricName=opmn_process_info
      -depTargetKeyValues='myapp_server:petstore;myapp_server:http_server'
      -mode=CREATE
```

Creates a promoted Usage metric with key value AppServerComponentUsage on service MyTarget. The dependent target is 'myapp_server' with type 'oracle_ias'. The promoted metric computes the average value of the cpu.component metric column for the specified key values.

set_properties

Sets the property of a test or (test,beacon).

Format

```
set_properties
      -name=target name
      -type=target type
      -testname=test name
      -testtype=test type
      [-beacons=beacon names]
      [-properties='prop1:value1;prop2:value2;..']+
```

Options

- **name**

  Service target name.
- **type**

  Service target type.
- **testname**

  Name of test to set the property on.
- **testtype**

  Type of test to set the property on.
- **beacons**

  Names of beacons to set the property on.
- **properties**

  Names and values of the properties to be set (can be multiple).

Examples

```
emcli set_property -name='MyTarget' -type='generic_service'
      -testname='MyTest' -testtype='HTTP'
      -propertyName='timeout:3000;granularity:transaction'
```

Sets the property timeout to 30,000 and granularity to transaction of the test MyTest defined on MyTarget for all beacons.

```
emcli set_property -name='MyTarget' -type='generic_service'
      -testname='MyTest' -testtype='HTTP'
      -bcnName='MyBeacon;MyBeacon2'
      -propertyName='timeout' -propertyValue='30000'
```

Sets the property timeout to 30,000 and granularity to transaction of the test MyTest defined on MyTarget for only MyBeacon and MyBeacon2. This works only if the specified properties can be set on per beacon level.

setup

Configure emcli to work with a specific management server.

Format

```
setup
  -url="http[s]://host:port/em/"
  -username=<EM Console Username>
  [-dir=<local emcli configuration directory>]
  [-trustall]
  [-novalidate]
```

Options

- url="http[s]://host:port/em/"

  The URL of the Oracle management server (OMS). "host" specifies the host of the OMS. "port" specifies the listening port of the OMS. Both http and https protocols are supported.

- username

  The Enterprise Manager username to be used by all subsequent emcli commands when contacting the OMS.

- dir

  The directory where an EMCLI configuration directory will be created. This directory must be on a filesystem that is locally mounted. A warning and confirmation is issued for an HTTPS URL if the directory is not heuristically identified as such (unless trustall is specified). The directory can be relative to the working directory where setup is called, or it may be absolute. This option defaults to the user's home directory.

- trustall

  Automatically accept any server certificate from the OMS (lower security).

- novalidate

  Do not authenticate the Enterprise Manager username against the OMS. Assume the given username is valid.

Examples

```
emcli setup -url=http://myworkstation.us.oracle.com:7770/em -username=sysman
```

start_paf_daemon

Start Deployment Procedure Manager Daemon.

Format

```
emcli start_paf_daemon -interval={number in minutes}
```

Options

- **interval**

  Number in minutes that Deployment Procedure Manager Daemon should wait between each run.

status_paf_daemon

Get Deployment Procedure Manager Daemon status.

Format

```
emcli status_paf_daemon
```

Options

None.

stop_blackout

Stop a blackout.

A blackout may be stopped before it has fully started, for example when it has a "Scheduled" status. A blackout may also be stopped while it is in effect.

Format

```
stop_blackout
      -name="name"
      [-createdby="blackout_creator" (default is current user)]
```

Options

- **name**

  Name of the blackout to stop.

- **createdby**

  Enterprise Manager user who created the blackout. The SUPER_USER privilege is required to stop a blackout created by another user.

Examples

```
emcli stop_blackout -name=backup_db3
```

Stop blackout backup_db3 created by the current user..

```
emcli stop_blackout -name=weekly_maint -createdby=joe
```

Stop blackout weekly_maint that was created by user joe. The current user must either be user joe or a user with the SUPER_USER privilege.

stop_job

Stop a specified job. You can use the get_jobs verb to obtain a list of job Ids and names.

Format

```
stop_job
      -job_id="jobID" | -name="jobName"
```

Options

- **job_id**

  Job ID to identify the job to stop.

- **name**

  Name of the job to stop. To uniquely identify the job, the current administrator is used.

Examples

```
emcli stop_job -job_id=12345678901234567890123456789012
```

Stops a job with the specified Id.

```
emcli stop_job -name=Backup_Wednesday
```

Stops a job named "Backup_Wednesday", which is owned by the current Enterprise Manager administrator and which is scheduled to execute in the future.

stop_paf_daemon

Stop Deployment Procedure Manager Daemon.

Format

```
emcli stop_paf_daemon
```

Options

None.

submit_job

Create and submit a job.

Format

```
submit_job
      -job="name:type"
      -targets="name1:type1;name2:type2;..."
      -parameters="name1:value1;name2:value2;..."
      [-input_file="parameter_tag:file_path"]
      [-desc="job_description"]
      [-schedule=
            [frequency:<once|interval|weekly|monthly|yearly>];
            [start_time:<yy-MM-dd HH:mm>];
            [end_time:<yy-MM-dd HH:mm>];
            [repeat:<#m|#h|#d|#w|#M|#Y>];
            [months:<#,#,...>];
            [days:<#,#,...>];
            [tzoffset:#|[-][HH][:mm]]
            [tzinfo:<repository|target|specified>];
      ]
      [-noheader]
            [-script | -format=
                  [name:<pretty|script|csv>];
                  [column_separator:"column_sep_string"];
                  [row_separator:"row_sep_string"];
            ]
```

Constraints on schedule arguments:

`frequency:once`
optional => start_time, tzinfo, tzoffset

`frequency:interval`
requires => repeat

optional => start_time, end_time, tzinfo, tzoffset

`frequency:weekly`
requires => days

optional => repeat in #w, start_time, end_time, tzinfo, tzoffset

`frequency:monthly`
requires => days

optional => repeat in #M, start_time, end_time, tzinfo, tzoffset

`frequency:yearly`
requires => days, months

optional => repeat in #Y, start_time, end_time, tzinfo, tzoffset

Options

- **job**

  "name" represents the name for the submitted job.

  "type" represents the type of the submitted job. The supported job types are OSCommand and SQLScript, which are already pre-defined in the EM job system. The specified job type determines which targets and which parameters can be specified for the "-targets" and"-parameters" arguments.

- **targets**

  A list of target name, target type pairs. The newly submitted job will apply to this list of EM targets. All targets must be of the same type. The target list must not contain more than one element if the element's target type is "group". The OSCommand jobs are allowed to be submitted against targets of type host, oracle_database, and group(if it contains host targets). The SQLScript jobs are allowed to be submitted against targets of type oracle_database and group.

- **parameters**

  A list of name-value pairs which represent the parameters required by the job type for this job. The OSCommand jobs support the parameters named "command", "args", "os_script", "username", "password", and "credential_set_name". "command" is the only required parameter.

  The SQLScript jobs support the the parameters named "sql_script", "db_username", "db_password", "db_role", "host_username", "host_password", and "credential_set_name". The required parameter is "sql_script".

  The "credential_set_name" parameter refers to the set name of the preferred credentials stored in the Enterprise Manager repository. For each target type, there exist several credential sets:

  – HostCredsNormal: The default unprivileged credential set for a host target;

  – HostCredsPriv: The privileged credential set for a host target;

  – DBHostCreds: The host credential set for an oracle_database target;

  – DBCredsNormal: The default normal credential set for an oracle_database target;

  – DBCredsSYSDBA: The sysdba credential set for an oracle_database target.

  The credential set parameter can only be specified when the override credential parameters such as "[db_|host_]username" and "[db_|host_]password" are not present. If provided, the override credential parameters must be specified fully for each job type. For the OSCommand type, "username" and "password" must be specified together. For the SQLScript type, "db_username", "db_password", "db_role", "host_username" and "host_password" must be present.

- **input_file**

  Used in conjunction with the "-parameters" option, this option allows the user to store specific job parameter values, such as passwords or SQL scripts, in a separate file. The "-input_file" option specifies a mapping between a tag and a local file path. The tag is specified in lieu of specific job parameter values of the "-parameters" option. The tag must not contain colons (:) or semi-colons (;).

- **desc**

  A job description.

- **schedule**

  Job schedule. The "frequency" argument determines which other arguments are required or optional.

- **schedule**=frequency

  The type of job schedule (default is "once").

- **schedule=start_time**

The start date/time of the job. The default value is the current date/time. The format of the value is "yy-MM-dd HH:mm", for example: "2003-09-25 18:34".

- **schedule=end_time**

  The last date/time of the job. No job executions are scheduled after this date/time. When "frequency" is weekly, monthly, or yearly, only the date portion is used. When "frequency" is interval or once, the date and time are taken into account. The format of the value is "yy-MM-dd HH:mm", for example: "2003-09-25 18:34".

- **schedule=repeat**

  The time between successive start times when the job is scheduled. The letter following the number value represents the time units: "m" is minutes, "h" is hours, "d" is days, "w" is weeks.

- **schedule=months**

  A list of integer month values in the range 1-12. Each value must have a corresponding "day" value, to fully specify (month,day) pairs which indicate the days of the year the job scheduled.

- **schedule=days**

  When "frequency" is weekly, this is a list of integer day-of-week values in the range 1-7 (1 is Sunday). When "frequency" is monthly, this is a list of integer day-of-month values in the range 1-31 or -1 (last day of month). When "frequency" is yearly, this is a list of integer day-of-month values in the range 1-31 or -1 (last day of month); in this case, the month is taken as the corresponding "month" value for each (month,day) pair.

- **schedule=tzinfo**

  The type of timezone. The tzinfo argument is used in conjunction with tzoffset. Available timezone types are: "specified" (offset between GMT and the target timezone), "target" (timezone of the specified target), and "repository" (repository timezone -- default setting when tzinfo is not specified). See -schedule=tzoffset for more information.

- **schedule=tzoffset**

  The value of the timezone. When the tzinfo argument is not specified or is "repository", the timezone value is the repository timezone. In this case, the tzoffset argument must not be specified. Otherwise, the tzoffset argument is required. When tzinfo is set to "specified", the tzoffset argument specifies the offset in hours and minutes between GMT and the timezone. When tzinfo is set to "target", the tzoffset argument specifies an integer index (the first is 1) into the list of targets passed as arguments. For example, for a tzoffset setting of 1, the timezone of the first target specified in the -add_targets option is used.

  Note that the timezone is applied to the start time and the end time of the job schedule. The timezones associated with each target are not taken into account when scheduling the job (except that when tzinfo is set to "target",the specified target's timezone is used for the job schedule).

- **noheader**

  Display tabular information without column headers.

- **script**

  This option is equivalent to -format="name:script".

- **format**

Format specification (default is -format="name:pretty").

- format="name:pretty" prints the output table in a readable format not intended to be parsed by scripts.
- format="name:script" sets the default column separator to a tab and the default row separator to a newline. The column and row separator strings may be specified to change these defaults.
- format="name:csv" sets the column separator to a comma and the row separator to a newline.

Output Columns

Job ID, Execution ID.

Examples

```
emcli submit_job
      -job="job_host_0:OSCommand"
      -parameters="command:ls;args:-l;username:joe;password:greetings"
      -targets="hostname.us.oracle.com:host"
```

Submits a job that will run "ls -l" against target "hostname.oracle.com:host". The job will run under OS username "joe" with password "greetings".

```
emcli submit_job
      -job="job_host_1:OSCommand"
      -parameters='command:/bin/sh;args:-x;os_script:ls -l | grep x'
      -targets="hostname1.oracle.com:host;hostname2.oracle.com:host"
```

Submits a job that will run the shell (/bin/sh) script specified by parameter "os_script" against targets "hostname1.oracle.com:host" and "hostname2.oracle.com:host". The targets' preferred credentials will be used to run this job.

```
emcli submit_job
      -job="job_db_1:SQLScript"
      -parameters="sql_script:SQL_FILE"
      -targets="database:oracle_database"
      -input_file="SQL_FILE:script.sql"
```

Submits a job that will run the SQL script specified in file ./script.sql against target "database:oracle_database". The target's preferred credentials will be used to run this job.

submit_procedure

Submit a Deployment Procedure.

Format

```
emcli submit_procedure
     -procedure="guid of the procedure"
     -input_file="data:{file_path}"
     [-instance_name="name for the procedure instance"]
     [-schedule=start_time:yyyy/MM/dd HH:mm;tz:{java timezone ID}];]
```

Options

- **procedure**

  The GUID of the procedure to execute.

- **input_file**=data:file_path

  The input data for the Deployment Procedure. The file_path should point to a file containing the data XML file.

- **instance_name**

  The name of the procedure instance (optional).

- **schedule**

  The schedule for the Deployment Procedure (optional). If not specified, the procedure will be executed immediately.

  start_time - when the procedure should start

  tz - the timezone ID (optional)

Output Columns

Instance GUID

Examples

```
emcli submit_procedure -input_file=data:data.xml
     -procedure=16B15CB29C3F9E6CE040578C96093F61 -schedule="start_time:2006/6/21
      21:23;tz:America/New_York"
```

subscribeto_rule

Subscribe user to a rule with email notification.

It is not an error to specify email addresses that are already in the assignto user's preferences.

A message is issued if the outgoing mail server (SMTP) has not been set up. When the option -fail_if_no_mail_server is specified, this condition is an error and prevents the subscribe from occurring; otherwise this condition is a warning which does not affect the success of this command.

Format

```
subscribeto_rule
      -name="rule_name"
      -owner="rule_owner"
      [-assignto="em_username" (default is current user)]
      [-email="email_address";...]
      [-fail_if_no_mail_server]
```

Options

- **name**

  Name of the notification rule.

- **owner**

  Owner of the notification rule.

- **assignto**

  User to subscribe to the notification rule. If the assignto user is not the current user, or if the owner of the rule is not the current user, then the super-user privilege is needed.

- **email**

  List of email addresses to associate with the rule to which the assignto user is being subscribed. These addresses are first added to the preferences of the assignto user (duplicates are ignored) before being assigned to the notification rule. The email addresses are added only if the current user has the privilege to subscribe the assignto user to the rule.

- **fail_if_no_mail_server**

  A message is issued if the outgoing mail server (SMTP) has not been set up. When the option -fail_if_no_mail_server is specified, this condition is an error and prevents the subscribe from occurring; otherwise this condition is a warning which does not affect the success of this command.

Examples

```
emcli subscribeto_rule -name="Agent Upload Problems" -owner=sysman
```

Subscribe the current user to the rule "Agent Upload Problems" using the current user's email addresses for notification. The current user must have the SUPER_USER (or be sysman) privilege for this to succeed, since sysman owns the rule. Also, the current user must already have at least one email address in his preferences, for this command to succeed.

```
emcli subscribeto_rule -name="Agent Upload Problems" -owner=sysma
      -assignto=joe -email="joe@work.com;joe@home.com"
```

First add the two specified email addresses to the preferences for user joe. Then subscribe user joe to the rule "Agent Upload Problems" using joe's email addresses for notification. The current user must have the SUPER_USER privilege (or be joe) for this command to succeed.

sync

Synchronize the EMCLI client with an OMS. After synchronization, all verbs and associated command line help available to that OMS become available at the EMCLI client.

Synchronization occurs automatically during a call to setup.

Format

```
sync
```

Options

None.

Examples

```
emcli sync
```

sync_beacon

Synchronize a beacon which is monitoring the target (reloads all collections to beacon).

Format

```
sync_beacon
      -name=target name
      -type=target type
      -bcnName=beacon name
```

Options

- **name**

  Service target name.
- **type**

  Service target type.
- **bcnName**

  beacon name to sync.

Examples

```
emcli sync_beacon -name='MyTarget' -type='generic_service'
      -bcnName='MyBeacon'
```

Syncs MyBeacon which is monitoring MyTarget target of type generic_service.

update_password

Update passwords (or other credentials) for a given target.

Format

```
update_password
      -target_type="ttype"
      -target_name="tname"
      -credential_type="cred_type"
      -key_column="column_name:column_value"
      -non_key_column="col:oldvalue:newvalue;..."
      [-input_file="tag1:file_path1;tag2:file_path2;..."]
```

Options

- **target_type**

  Type of target.

- **target_name**

  Name of target.

- **credential_type**

  The credential type to use. The type must be a base type, not a derived type. A derived type contains within its definition the XML tag <CredentialTypeRef>.

- **key_column**

  The name and value of the key column for the credential type. Usually, the key column represents the user name.

- **non_key_column**

  The name, old value, and new value of the non-key column(s) to modify. Usually this is the name of the password column. Alternatively, a tag from the -input_file argument may be used so that the credential values are not seen on the command line. This argument may be specified more than once.

- **input_file**

  Path of file that has -non_key_column argument(s). This option is used to hide passwords. Each path must be accompanied by a tag which is referenced in the -non_key_column argument. This argument may be specified more than once.

Note: The list of columns and the credential types they belong to is included in the metadata file for each target type. This and other credential information is in the <CredentialInfo> section of the metadata.

Examples

Example 1:

```
emcli update_password
      -target_type=oracle_database
      -target_name=myDB
      -credential_type=DBCreds
      -key_column="DBUserName:joe"
      -non_key_column="DBPassword:oldPass:newPass"
      -non_key_column="DBRole:normal:sysdba"
```

Example 2:

```
emcli update_password
      -target_type=oracle_database
      -target_name=myDB
      -credential_type=DBCreds
      -key_column="DBUserName:joe"
      -non_key_column="FILE1"
      -input_file="FILE1:passwordFile"
```

Contents of passwordFile:

DBPassword:oldPass:newPass;DBRole:normal:sysdba

Here, FILE1 is a tag used to refer to the contents of passwordFile. Note that Example 2 has the same effect as Example 1.

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