

# HPE Storage Operations Manager

Software Version: 10.20 Windows® and Linux® operating systems

**CLI Reference Pages** 

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### Acknowledgements

This product includes software developed by the Apache Software Foundation. (http://www.apache.org)

This product includes software developed by the Indiana University Extreme! Lab. (http://www.extreme.indiana.edu)

This product uses the j-Interop library to interoperate with COM servers. (http://www.j-interop.org)

### **Documentation Updates**

The title page of this document contains the following identifying information:

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## Storage Operations Manager CLI Reference Page

| User Commands                         | Administrator Commands         | File Formats     |
|---------------------------------------|--------------------------------|------------------|
| ovjbosspath                           | ovaddobj                       | customProperties |
| ovjrepath                             | ovc                            | somProperties    |
| ovstatus                              | ovdelobj                       |                  |
| somadddiscoveryrange                  | ovjboss                        |                  |
| somagentlesshostcreator               | ovserror                       |                  |
| somassetrecordsconfigexportimport     | ovspmd                         |                  |
| somcustomproperties                   | ovstart                        |                  |
| somdatacollectionconfigexportimport   | ovstop                         |                  |
| somdiscoveryconfigexportimport        | sombackupembdb                 |                  |
| somemailconfiguration                 | somchangedbpw                  |                  |
| somgathersupportinfo                  | somchangeembdbpw               |                  |
| somhostcontainerconfigexportimport    | somchangesyspw                 |                  |
| somldap                               | somdataexportconfig            |                  |
| sommonitoringpolicyconfigexportimport | somdataretransfer              |                  |
| somnodegroupsexportimport             | somdatatransfercertconfig      |                  |
| sompolicymappings                     | sominventorydataexportondemand |                  |
| somproviderlist                       | somlicensemanager              |                  |
| somreleaseprovider                    | somofficialfqdn                |                  |
| somrollbackprovider                   | somresetembdb                  |                  |
| somsecurityinfoexport                 | somrestoreembdb                |                  |
| somsecurityinfoimport                 | somsetofficialfqdn             |                  |
| somsetcmduserpw                       | somobrgrantcertrequest         |                  |
| somstaleelements                      | somsecurity                    |                  |
| somwindowsAgentlessDiscovery          | somopcexport                   |                  |
| storagetiersexportimport              | somtrimincidents               |                  |
|                                       | somjbossrestart                |                  |

ovjbosspath.ovpl — script to determine where jboss is installed

# SYNOPSIS

ovjbosspath.ovpl

# DESCRIPTION

ovjbosspath.ovpl is a command used by scripts to determine where jboss is used. jboss is the underlying application architecture used by ovjboss. Although ovjboss knows where jboss resides, jboss requires that certain program files (jar files) be located in underlying directories of jboss. Because other Java applications require access to these files, this provides a standard method for retrieving the base directory path.

ovjbosspath.ovpl is used to eliminate hard-coded paths in other applications.

## **Parameters**

None.

# EXAMPLES

On Windows with the installation in the directory C:\Program Files(x86)\HP OpenView, running C:\Program Files(x86)\HP OpenView\bin\ovjbosspath.ovpl returns the following:

C:/Program Files(x86)/HP OpenView/se

This enables other applications to find jar files that exist under this directory structure, such as the following:

C:/Program Files(x86)/HP OpenView/se/lib/nms-licensing-api.jar

# AUTHOR

ovjbosspath.ovpl was developed by Hewlett-Packard Enterprise.

ovjrepath.ovpl — script to determine the version of JDK to use

# SYNOPSIS

ovjrepath.ovpl

# DESCRIPTION

ovjrepath.ovpl is a command used by scripts to determine the version of the JDK to use. Given multiple products being installed on the system, there can be multiple JDK versions installed. These versions are not guaranteed to be compatible with NetHP Jupiter. This script encapsulates this problem by ensuring the correct JDK is being used.

NOTE: Jupiter replaces JDKs from time to time. This script enables other scripts to use the new JDK without being changed.

## **Parameters**

None.

# EXAMPLES

On Windows with the installation in the directory C:\Program Files\HP OpenView, running C:\Program Files\HP

C:/Program Files/HP OpenView/nonOV/jdk/b

This enables scripts that others are writing to use the correct JDK.

# AUTHOR

ovjrepath.ovpl was developed by Hewlett-Packard Enterprise.

## **FILES**

\$InstallDir/nonOV/jdk

Directory where JDKs are installed.

ovstatus --- report status of HPE Storage Operations Manager managed processes

# SYNOPSIS

ovstatus [ [-c] [-d] [-v] [managed\_process\_names...]]

# DESCRIPTION

ovstatus reports the current status of the HPE Storage Operations Manager managed processes. ovstatus sends a status request (ovs\_REQ\_STATUS) to the process management process (UNIX operating system) or service (Windows operating system), ovspmd. If called with one or more managed\_process\_name arguments, it reports the status for the designated managed processes. If called with no arguments, it reports the status of all managed processes that have been added to the HPE Storage Operations Manager startup file (SUF), including ovspmd itself.

Unlike ovstart, ovstatus does not start ovspmd if it is not already running.

The managed processes are configured by ovaddobj from information in Local Registration Files (see lrf(4)). A managed process is named by the first field in the LRF describing it.

### **Parameters**

ovstatus recognizes the option described below. The first argument that is not an option, and any succeeding arguments, are interpreted as names of managed processes for which to report status, and are passed to ovspmd in the status request.

-C

Output one status line for each managed process.

-d

Report the important stages in its processing, including contacting and sending the status request to ovspmd, and closing the communication channel.

-v

Print verbose messages from managed processes. In particular, this option displays the verbose message from ovuispmd describing all current ovw sessions.

## **RETURN VALUE**

ovstatus normally exits with the status 0 (zero). It returns a non-zero status only if there is a system problem, such as ovspmd not running.

# DIAGNOSTICS

ovstatus reports certain command-line errors (in particular, too many arguments) and system errors. The messages are prefixed with ovstatus:, and are intended to be self-explanatory. ovstatus also outputs error messages received from ovspmd. These messages are prefixed with ovspmd:.ovstatus ignores unrecognized options.

ovstatus reports the known state of all OVs\_WELL\_BEHAVED and OVs\_NON\_WELL\_BEHAVED processes. OVs\_DAEMON processes run outside of ovspmd control. They report a PID, a state of unknown, and a final message of Does not communicate with ovspmd, as ovspmd cannot track these processes.

Note that ovspmd can process multiple requests (ovstart, ovstop, or ovstatus) at a time. If any of these commands is being handled, the new request will be queued by type until the previous command has completed.

# AUTHOR

ovstatus was developed by the Hewlett-Packard Enterprise.

# FILES

The environment variables below represent universal pathnames that are established according to your shell and platform requirements. See the nnm.envvars reference page (or the UNIX manpage) for information about using environment variables for the following files:

Windows: %HPSOM\_BIN%\ovstatus

Windows: %HPSOM\_BIN%\ovspmd

UNIX: \$HPSOM\_BIN/ovstatus

UNIX: \$HPSOM\_BIN/ovspmd

## **EXTERNAL INFLUENCES**

### **Environmental Variables**

\$LANG provides a default value if the internationalization variables, LC\_ALL, LC\_CTYPE, and LC\_MESSAGES are unset, null, or invalid.

If \$LANG is unset, null, or invalid, the default value of C (or English\_UnitedStates.1252 on Windows) is used.

 $\tt LC\_ALL$  (or <code>\$LANG</code>) determines the locale of all other processes started by <code>ovspmd</code> .

LC\_CTYPE determines the interpretation of text as single and/or multi-byte characters, the classification of characters as printable, and the characters matched by character class expressions in regular expressions.

LC\_MESSAGES determines the language in which messages are displayed.

# **SEE ALSO**

ovstart, ovstop, ovaddobj, ovdelobj, ovspmd.

somadddiscoveryrange — Script to discover elements based on IP address or IP range.

# SYNOPSIS

```
somadddiscoveryrange.ovpl [-h|-help] {-i <IP address> | -f <IP range file path> | -l
<lower IP> -m <higher IP> -n <discovery credentials name> -U <IP range Username> -P <IP
range Password> -d <true/false>}
```

# DESCRIPTION

This script is used to discover elements based on IP address, IP addresses contained in a file or based on the range of IP addresses provided as lower limit and higher limit.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows and Linux:

To discover based on IP address

somadddiscoveryrange.ovpl -i < IP Address > -n < Credential Name > -U < IP Username > -P < IP Password >

To discover based on IP range

somadddiscoveryrange.ovpl -l < lower IP Address > -m < higher IP Address > -n < Credential Name > -U < IP Range Username > -P < IP Range Password >

To discover based on IP range file

somadddiscoveryrange.ovpl -f < IP Range File >

The script displays following message after adding the IP address/range: "Successfully added IP address/range"

### **Parameters**

somadddiscoveryrange recognizes the following options. Any unrecognised options are reported by a usage message.

```
-i <ip address>
```

The IP address to discover.

```
-l <ip address>
```

The IP address at the low end of the range.

```
-m <ip address>
```

The IP address at the high end of the range.

```
-f <ip address range file path>
```

The file containing the list of IP ranges to discover.

-n

The name of the discovery credentials.

-U <ip address range user>

The user to be used to discover the range.

-P <ip address range password>

The password for the user to be used to discover the range.

-d

To trigger a discovery for the added ip/range (default: false).

## **Additional Parameters**

```
-jndiHost <hostname>
```

The server jndi host; default is localhost.

-jndiPort <port>

The server jndi port; default is 1099.

-u <username>

The username to run this command.

-p <password>

The password of the user.

# AUTHOR

somadddiscoveryrange was developed by Hewlett-Packard Enterprise.

somagentlesshostcreator — To create a host by providing a list of WWNs to add or a list of WWNs to delete.

# SYNOPSIS

somagentlesshostcreator.ovpl [-hostName <host\_Name>] [-addPortWWNs <WWNs to be added>] [deletePortWWNs <WWNs to be deleted>] [-dns <Host DNS Name>] [-ip <Host IP Address>] [-os
<Host OS>] [-version <Host OS Version>] [-csvFile <CSVFile Path>] [-xmlFile <XML File
Path>]

## DESCRIPTION

There are WWNs that are connected to the switch ports collected by SOM, and not associated with any host or storage ports that have been collected so far. The user can group these WWNs and associate them with a new or already created host. This script is used to create the host by providing a hostname, a list of WWNs to add and a list of WWNs to delete.

- 1. Log on to the HPE Storage Operations Manager management server as root or administrator.
- 2. Go to the following directory:

On Windows: HPSOM\_InstallDir\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows and Linux : somagentlesshostcreator.ovpl -hostName host\_name -addPortWWNs 210000e08b116a0f,200200051e031405 -deletePortWWNs 210000e08b1b74e9

where host\_name is the new host name 210000e08b116a0f,200200051e031405 are the WWNs which are to be added to the host 210000e08b1b74e9 is the WWNs which is to be deleted from the host

### **Parameters**

somagentlesshostcreator recognizes the following options. Any unrecognized options are reported by a usage message.

-hostName host Name

Host Name provided by user

-addPortWWNs comman separated WWNs

These WWNs are added to the host

-deletePortWWNscomman separated WWNs

These WWNs which are to be deleted from the host

#### Host DNS Name

-ipHost IP Address

This specifies the IP address of the host

-osHost OS

This specifies the OS of the host

#### -versionHost Version

This specifies the version of the host

-csvFilefilePath

The CSV file will be used to create hosts. If provided, other parameters will be ignored

-xmlFilefilePath

The xml file will be used to create hosts. If provided, other parameters will be ignored

### **EXAMPLES**

Using manual WWNs to add or delete. Here either of addPortWWNs or deletePortWWNs has to be provided

somagentlesshostcreator.ovpl -hostName host\_name -addPortWWNs
210000e08b116a0f,200200051e031405 -deletePortWWNs 210000e08b1b74e9

You will see following messages

Successfully created the host:hostname if the host did not exist earlier

Successfully edited the host:hostname if the host existed earlier

#### Providing the parameters in CSV file

somagentlesshostcreator.ovpl -csvFile C:\CSV\_File.csv

You will see following messages

Successfully created the host:hostName1

#### Providing the parameters in XML file

somagentlesshostcreator.ovpl -xmlFile C:\XML\_File.csv

You will see following messages

Successfully created the host:host1

# AUTHOR

somagentlesshostcreator was developed by Hewlett-Packard Enterprise.

# SEE ALSO

somassetrecordconfigexportimport - Export and import of configurations

# SYNOPSIS

somassetrecordconfigexportimport.ovpl

# DESCRIPTION

This utility can be used to export/import the asset records from one HPE Storage Operations Manager server to another HPE Storage Operations Manager server OR from a SE classic server to a HPE Storage Operations Manager server. If you are importing asset records in a HPE Storage Operations Manager server, prior to the import, you must perform the discovery and data collection for all the elements which were present in the server from where the asset records were exported.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows:

To export asset records :

 $somasset record configex portimport.ovpl\ -export\ C:\temp\Asset Records.xml$ 

To import asset records :

somassetrecordconfigexportimport.ovpl -import C:\temp\AssetRecords.xml

Where, C:\temp\AssetRecords.xml is the complete path of the XML file that is being used for asset records import/export.

On Linux:

To export asset records :

./somassetrecordconfigexportimport.ovpl -export /tmp/AssetRecords.xml

To import asset records :

./somassetrecordconfigexportimport.ovpl -import /tmp/AssetRecords.xml

Where, /tmp/AssetRecords.xml is the complete path of the XML file that is being used for asset records import/export.

If you are importing asset record configurations, the import tool displays the following warning message:

By Importing this Asset Record Settings file, you will lose all existing Asset Records. To save existing data, type 'no' and press enter to cancel this import. Use '-export' flag to save existing configurations. If you are sure, type 'yes' and press enter to proceed.

If you are exporting the asset record configurations, the export tool doesn't ask for any information and displays the following message after the export is done.

The filePath while export in AssetRecordConfigExportImportService is:{complete\_file\_path} Successfully exported the config settings to {complete\_file\_path}

4. Enter 'yes' to import.

The import tool displays the following message after importing the settings:

Asset Record Import Results:

Total number of records found: {number\_of\_asset\_records} Imported {number\_of\_asset\_records} records successfully

Note: If any of the elements which are associated with the asset records are not discovered on a given server where asset records import is being done, the import will fail for the record as it will be unable to stitch the element to the record. The utility will display a error message stating, "Import failed for the record : {record\_name}. Unable to find the {element\_type} element using unique Key = {unique\_key}."

### **Parameters**

somassetrecordconfigexportimport recognizes the following options. Any unrecognised options are reported by a usage message.

-export filePath

Exports the asset records configurations to the given file

-import filePath

Imports the asset records configurations from the given file

## AUTHOR

somassetrecordconfigexportimport was developed by Hewlett-Packard Enterprise.

somcustomproperties --- Import of custom properties to SOM

# SYNOPSIS

somcustomproperties.ovpl

# DESCRIPTION

This CLI enables you to import the custom properties into SOM

- 1. Log on to the HPE Storage Operations Manager management server as root or administrator.
- 2. Go to the following directory:

On Windows: HPSOM\_InstallDir\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows: somcustomproperties.ovpl -import C:\CustomProperties.zip On Linux: ./somcustomproperties.ovpl -import /tmp/CustomProperties.zip

where C:\CustomProperties.zip is the complete path of the zip file which is exported from SE.

4. The import tool displays the following message after importing the settings: "Successfully wrote to the properties file at the location:C:\ProgramData\HP\HP BTO Software\conf\som\custom.properties" And it gives an option to restart the server. User can choose to restart in order for the changes to take effect.

### **Parameters**

somcustomproperties recognizes the following options. Any unrecognised options are reported by a usage message.

-import filePath

Zip File exported from SE

# AUTHOR

somcustomproperties was developed by Hewlett-Packard Enterprise.

# SEE ALSO

somdatacollectionconfigexportimport - Export and import of configurations

# SYNOPSIS

somdatacollectionconfigexportimport.ovpl

# DESCRIPTION

This utility can be used to export/import the data collection configurations from one HPE Storage Operations Manager server to another HPE Storage Operations Manager server. If you are importing data collection configurations in a HPE Storage Operations Manager server, prior to the import, you must perform the discovery, data collection and node groups configuration import for all the elements which were present in the server from where the data collection settings were exported.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows:

To export data collection configurations :

somdatacollectionconfigexportimport.ovpl -export C:\temp\DataCollectionSettings.xml

To import data collection configurations :

somdatacollectionconfigexportimport.ovpl -import C:\temp\DataCollectionSettings.xml

Where, C:\temp\DataCollectionSettings.xml is the complete path of the XML file that is being used for data collection configurations import/export.

On Linux:

To export data collection configurations :

./somdatacollectionconfigexportimport.ovpl -export /tmp/DataCollectionSettings.xml

To import data collection configurations :

./somdatacollectionconfigexportimportovpl -import /tmp/DataCollectionSettings.xml Where, /tmp/DataCollectionSettings.xml is the complete path of the XML file that is being used for data collection configurations import/export.

If you are importing data collection configurationss, the import tool displays the following warning message:

By Importing this Data Collection Policy Settings file, you will lose all existing Data Collection Configuration and settings. To save existing data, type 'no' and press enter to cancel this import. Use '-export' flag to save existing configurations. If you are sure, type 'yes' and press enter to proceed.

If you are exporting the data collection configuration, the export tool doesn't ask for any information and displays the following message after the export is done.

The filePath while export in DataCollectionConfigExportImportService is:{complete\_file\_path} Successfully exported the settings to {complete\_file\_path}

4. Enter 'yes' to import.

The import tool displays the following message after importing the settings:

Blackout Period Import Results:

Total number of records found: {number\_of\_blackout\_periods} Imported {number\_of\_sucessful\_records} records successfully Import of {number\_of\_failed\_records} records failed

Data Collection Policy Import Results:

Total number of records found: {number\_of\_data\_collection\_policies} Imported {number\_of\_sucessful\_records} records successfully Import of {number\_of\_failed\_records} records failed

Data Collection Control Results:

Updated {no\_of\_updated\_collection\_control} records successfully

Note: The "Data Collection Control" section will be shown only if there is an change in the collection control between the source and the destination servers

Note: If any of the node groups associated with the data collection polices are not imported prior to the data collection policy import then the import will fail for the policy with a message - "Policy object could not be created. Please make sure node groups are imported and the input XML is not manually edited".

### **Parameters**

somdatacollectionconfigexportimport recognizes the following options. Any unrecognised options are reported by a usage message.

-export filePath

Exports the data collection configurations to the given file

Imports the data collection configurations from the given file

# AUTHOR

somdatacollectionconfigexportimport was developed by Hewlett-Packard Enterprise.

somdiscoveryconfigexportimport — Export and import of configuration

# SYNOPSIS

somdiscoveryconfigexportimport.ovpl [-h|-help] {-export <complete path to file> | -import <complete path to file> [-i] | [-filepassword <password for the file>] | [-exclude <config settings to exclude>]}

# DESCRIPTION

Information that is used to discover storage elements and nodes in a network can be reused for another storage network without having to manually enter the information. The network administrator can either import the pre-configured discovery settings to configure a new setup or import the discovery configuration settings from an XML or CSV file that is populated offline. The Discovery settings in the Configuration workspace enables you to specify the IP addresses and user credentials to be used while discovering storage elements and nodes in the network. These settings can be imported as an XML or CSV file from an existing setup and added to the current configuration settings. The passwords are exported as encrypted strings within the XML\CSV file. You can use the command line interface tool to run the import command.

- 1. Log on to the HPE Storage Operations Manager management server as root or administrator.
- 2. Go to the following directory:

On Windows: HPSOM\_InstallDir\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows: somdiscoveryconfigexportimport.ovpl -import C:\DiscoverySettings.xml somdiscoveryconfigexportimport.ovpl -import C:\DiscoverySettings.csv On Linux: ./somdiscoveryconfigexportimport.ovpl -import /tmp/DiscoverySettings.xml ./somdiscoveryconfigexportimport.ovpl -import /tmp/DiscoverySettings.csv

where C:\DiscoverySettings.xml and C:\DiscoverySettings.csv are respectively the complete path of the XML and CSV file that is imported.

The import tool displays the following warning message: "By Importing this Discovery Settings file, the entries from this file will be merged with the entries already existing on your SOM. To save existing data, type 'no' and press enter to cancel this import. Use '-export' flag to save existing configurations. If you are sure, type 'yes' and press enter to proceed. Enter your option -"

4. Enter Yes to import.

The import tool displays the following message after importing the settings: "Discovery IP Address Import Results: Total number of records found:xxx Imported yyy records successfully Import of zzz records failed"

Note: If incorrect IP addresses are found in the XML\CSV file are ignored by the import tool. Details of the IP addresses that are not imported can be found in the log file. The import continues for the remaining IP

addresses.

You can also import an XML or CSV settings file with clear text passwords. To do this, the "ENCRYPTED" attribute in the XML\_Element\_Config\_Discovery\_IP\_Address or "ENCRYPTED" field in CSV file should be false.

When you make changes to the XML manually, ensure that special characters in the comments fields must be replaced with their string equivalents. Below if the conversion list:

Use "<" instead of "<"

Use "&" in place of "&"

Use """ in place of """

Use ">" in place of ">"

Use ">" in place of ">"

Note that only a maximum of 253 characters are allowed for the comments. Any text beyond 253 characters will be trimmed off.

If user wants to import via a csv file, then that csv file has to be created following the syntax. Sample csv file is :<u>Sample csv file</u>

### **Parameters**

somdiscoveryconfigexportimport recognizes the following options. Any unrecognised options are reported by a usage message.

-export filePath

Exports the discovery configurations to the given file

-import filePath

Imports the discovery configurations from the given file

-filepassword password

Password for the file

-exclude config settings to exclude

This option would exclude the specified configuration settings for export/import. Allowed values for this parameter are "inferencerules" and "discoaddress"

-i ignore auto discovery

This option would not queue the specified configuration settings for auto discovery. If provided, the user has to manually start discovery for each imported element.

### Attributes

The attributes of the XML\_Element\_Config\_Discovery\_IP\_Address XML tag and CSV file are listed below.

ip

IP address of the element or node to be discovered.

#### USER

User name entered in the Discovery Credentials page.

#### COMMENT

Comment entered in the Discovery IP Addresses page.

#### PASSWD

Encrypted password for the user credential entered in the Discovery Credentials page.

DC\_NAME

Name of the user credential entered in the Discovery Credentials page and used to discover the IP address.

ENCRYPTED

Specifies whether the password is encrypted. This is true for an exported XML\CSV file. This is false if the XML\CSV file is manually coded and the user enters a clear text password.

#### TENANT\_NAME

Name of the Tenant that is associated with the IP address. If this value is blank, the default Tenant is associated. If the Tenant that is specified does not exist, a new Tenant is created and associated with the IP address.

#### SG\_NAME

Name of the Security Group that is associated with the Tenant. If this value is blank, the default Security Group is associated. If the Security Group that is specified does not exist, a new Security Group is created and associated with the Tenant.

# AUTHOR

somdiscoveryconfigexportimport was developed by Hewlett-Packard Enterprise.

# **SEE ALSO**

somemailconfiguration — Configuration of SMTP parameters for email

# SYNOPSIS

somemailconfiguration.ovpl

# DESCRIPTION

This CLI enables you to set up the SMTP parameters for sending emails. Takes a text file as an input

- 1. Log on to the HPE Storage Operations Manager management server as root or administrator.
- 2. Go to the following directory:

On Windows: HPSOM\_InstallDir\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows: somemailconfiguration.ovpl -configure C:\Configuration.txt -hostpassword \*\*\*\* On Linux: ./somemailconfiguration.ovpl -import /tmp/Configuration.txt -hostpassword \*\*\*\*

where C:\Configuration.txt is the complete path of the txt file having the configuration details.

The import tool displays the following warning message: "By configuring this email settings, the existing settings would be overwritten. If you want to continue, type 'yes' otherwise 'no' and press enter to proceed. Enter your option -"

4. Enter Yes to proceed.

The import tool displays the following message after importing the settings: "Successfully wrote email properties to email.properties file" And it gives an option to restart the server. User can choose to restart in order for the changes to take effect.

### **Parameters**

somemailconfiguration recognizes the following options. Any unrecognised options are reported by a usage message.

-configure *filePath* 

File containing the configuration parameters

-hostpassword hostpassword

Password for the SMTP server

# AUTHOR

somemailconfiguration was developed by Hewlett-Packard Enterprise.

# **SEE ALSO**

somgathersupportinfo — This utility retrieves logs and SOM server information to troubleshoot customer issues

# SYNOPSIS

somgathersupportinfo.ovpl

# DESCRIPTION

This utility generates support information archive. This contains SOM server logs, version information, custom properties, postgres logs and SOM environment details. It also has option to include SOM embedded database. This information will be helpful in troubleshooting customer issues.

1. Log on to the HPE Storage Operations Manager server as root or administrator user.

2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows:

To retrieve logs and SOM environment details :

somgathersupportinfo.ovpl

To include SOM embedded database along with logs :

somgathersupportinfo.ovpl -includedb

On Linux:

To retrieve logs and SOM environment details :

somgathersupportinfo.ovpl

To include SOM embedded database along with logs :

somgathersupportinfo.ovpl -includedb

If you are running the command somgathersupportinfo.ovpl, it will prompt for location to place support information archive file if not specified the default location will be [Windows: %OvDataDir%\log] [Linux: /var/opt/OV/log]

### **Parameters**

somgathersupportinfo recognizes the following options. Any unrecognized options are reported by a usage message.

# AUTHOR

somgathersupportinfo was developed by Hewlett-Packard Enterprise.

somhostcontainerconfigexportimport — Script to import or export hosts contained in a host container.

# SYNOPSIS

somhostcontainerconfigexportimport.ovpl

# DESCRIPTION

This script can be used to import or export hosts configuration from or to a host container in Storage Operations Manager.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: hpsom\_install\_dir\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows and Linux:

To export the hosts configuration

somhostcontainerconfigexportimport.ovpl -export < complete path to file >

To import the hosts configuration

 $somhost container configex portimport.ovpl \ \text{-import} < \text{complete path to file} >$ 

## **Parameters**

somhostcontainerconfigexportimport recognizes the following options. Any unrecognised options are reported by a usage message.

-exportfilePath

Export the hosts configuration to the given file.

```
-importfilePath
```

Imports the hosts configuration from the given file.

# AUTHOR

somhostcontainerconfigexportimport was developed by Hewlett-Packard Enterprise.

somldap.ovpl — reload or view LDAP configuration.

# SYNOPSIS

somldap.ovpl -reload [-h|-help] | -info | -diagnose <username> | -encrypt <password>

## DESCRIPTION

somldap.ovpl is a script that enables you to reload, view or diagnose changes to the Lightweight Directory Access Protocol (LDAP) sign-in configuration without restarting jboss.

- 1. Log on to the HPE Storage Operations Manager management server as root or administrator.
- 2. Go to the following directory:

On Windows: HPSOM\_InstallDir\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows and Linux : somldap.ovpl -info

### **Parameters**

somldap recognizes the following options. Any unrecognized options are reported by a usage message.

-info

Displays the LDAP configuration

-reload

Reloads the LDAP configuration.

-diagnose <username>

Verifies configuration in the ldap.properties file by attempting to access <username> in the Directory Service using the LDAP configuration parameters. This command will respond with information to help you diagnose LDAP configuration problems.

<username> must be a valid username in the Directory Service. It is the same name that is used in the SOM console username prompt of the SOM login screen.

```
-encrypt <password>
```

Encrypts the supplied LDAP bind password so that it can be safely stored in the ldap.properties file.

The output of this command should be copied into the bindCredential property in the ldap.properties file. Encrypted passwords start with the {ENC} prefix.

Encrypted passwords can only be decrypted by the same SOM which created them. If the database is reset or the properties are copied to a new SOM system then this command will need to be re-run to generate a new encrypted password. The exception to this is if you are using SOM in an application failover or High Availability (HA) configuration. In application failover or HA configurations, the encrypted password generated by the somldap.ovpl script is valid on both SOM management servers (since the database is the same on both SOM management servers).

## **EXAMPLES**

somldap.ovpl -info

Returns the current LDAP configuration.

somldap.ovpl -reload

Reads modifications to the ldap.properties file (such as enabling or disabling LDAP).

somldap.ovpl -diagnose <username>

Shows configuration parameters for the ldap.properties file, and verifies that information can be extracted from the Directory Service.

somldap.ovpl -encrypt <password>

Returns the encrypted value of the supplied password string. For example: {ENC}Mgnb1w007XYYenHvAFf3dQ==

# AUTHOR

somldap was developed by Hewlett-Packard Enterprise.

## **SEE ALSO**

sommonitoringpolicyconfigexportimport - Export and import of configurations

# SYNOPSIS

sommonitoringpolicyconfigexportimport.ovpl

# DESCRIPTION

This utility can be used to export/import the Monitoring Policy settings from one HPE Storage Operations Manager server to another HPE Storage Operations Manager server. If you are importing monitoring policy configuration in a HPE Storage Operations Manager server, prior to the import, you must complete the discovery ,data collection and node groups configuration import for all the elements which were present in the server from where the monitoring policy settings were exported.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows:

To export monitoring policy configuration :

sommonitoringpolicyconfigexportimport.ovpl -export C:\temp\MonitoringPolicySettings.xml

To import monitoring policy configuration :

 $sommonitoring policy configex portimport.ovpl - import C:\temp\Monitoring Policy Settings.xml$ 

Where, C:\temp\MonitoringPolicySettings.xml is the complete path of the XML file that is being used for monitoring policy configuration import/export.

On Linux:

To export monitoring policy configuration :

./sommonitoringpolicyconfigexportimport.ovpl -export /tmp/MonitoringPolicySettings.xml

To import monitoring policy configuration :

./sommonitoringpolicyconfigexportimport.ovpl -import /tmp/MonitoringPolicySettings.xml Where, /tmp/MonitoringPolicySettings.xml is the complete path of the XML file that is being used for monitoring policy configuration import/export.

If you are importing monitoring policy configurations, the import tool displays the following warning message:

By Importing this Monitoring Policy Settings file, you will lose all existing Monitoring Policy Configurations. To save existing data, type 'no' and press enter to cancel this import. Use '- export' flag to save existing configurations. If you are sure, type 'yes' and press enter to proceed.

If you are exporting the monitoring policy configurations, the export tool doesn't ask for any information and displays the following message after the export is done.

The filePath while export in MonitoringPolicyConfigExportImportService is: {complete\_file\_path} Successfully exported the monitoring policy settings to {complete\_file\_path}

4. Enter 'yes' to import.

The import tool displays the following message after importing the settings:

Monitoring Group Import Results:

Total number of records found:n {umber\_of\_monitoring\_groups} Imported {number\_of\_sucessful\_records} records successfully Import of {number\_of\_failed\_records} records failed

Monitoring Policy Import Results:

Total number of records found: {number\_of\_monitoring\_policies} Imported {number\_of\_sucessful\_records} records successfully Import of {number\_of\_failed\_records} records failed

Note: If any of the node groups associated with the monitoring polices are not imported prior to the monitoring policy import then the import will fail for the policy with a message - "Policy object could not be created. Please make sure node groups are imported and the input XML is not manually edited".

### **Parameters**

sommonitoringpolicyconfigexportimport recognizes the following options. Any unrecognised options are reported by a usage message.

-export filePath

Exports the monitoring policy configurations to the given file

-import filePath

Imports the monitoring policy configurations from the given file

# AUTHOR

sommonitoringpolicyconfigexportimport was developed by Hewlett-Packard Enterprise.

somnodegroupsconfigexportimport --- Export and import of configurations

# SYNOPSIS

somnodegroupsconfigexportimport.ovpl

# DESCRIPTION

This utility can be used to export/import the node groups configurations from one HPE Storage Operations Manager server to another HPE Storage Operations Manager server OR from a SE classic server to a HPE Storage Operations Manager server. If you are importing node groups configuration in a HPE Storage Operations Manager server, prior to the import, you must perform the discovery and data collection for all the elements which were present in the server from where the node groups configurations were exported.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows:

To export node groups configuration :

To import node groups configuration :

somnodegroupsconfigexportimport.ovpl -import C:\temp\NodeGroupsSettings.xml

Where, C:\temp\NodeGroupsSettings.xml is the complete path of the XML file that is being used for node groups configuration import/export.

#### On Linux:

To export node groups configuration :

./somnodegroups configex portimport.ovpl-export /tmp/NodeGroups Settings.xml

To import node groups configuration :

./somnodegroupsconfigexportimport.ovpl -import /tmp/NodeGroupsSettings.xml

Where, /tmp/NodeGroupsSettings.xml is the complete path of the XML file that is being used for node groups configuration import/export.

If you are importing node groups configurations, the import tool doesn't ask for any information and displays the following message after the import is done.

Total number of node groups found: {number\_of\_nodegroups} Imported {number\_of\_nodegroups} node groups successfully

If you are exporting the node groups configurations, the export tool doesn't ask for any information and displays the following message after the export is done.

Exported {number\_of\_nodegroups} node groups successfully Successfully exported the node groups settings to {complete\_file\_path}

Note: If some of the elements which are associated with the node groups are not discovered on a given server where node groups import is being done, the import utility will display a warning message stating, "Not able to find element :{element\_name} by unique key : {unique\_key} and element type: {element\_type}. Skipping the element and continuing with finding the next element". This means the element is not discovered on the target server, but the node group will be imported and the highlighted element will not be added to the node group.

Import to the destination SOM server will fail if -

1) Any of group name already existing in the destination SOM server.

2) If the total group-path exceeds 255 characters as SOM allows a max of 255 characters length.

### **Parameters**

somnodegroupsconfigexportimport recognizes the following options. Any unrecognised options are reported by a usage message.

```
-export filePath
```

Exports the node groups configurations to the given file

-import filePath

Imports the node groups configurations from the given file

## AUTHOR

somnodegroupsconfigexportimport was developed by Hewlett-Packard Enterprise.

sompolicymappings — This displays all the policymappings to the element and the next schedule time for the elements

## SYNOPSIS

sompolicymappings.ovpl

## DESCRIPTION

This CLI displays the policy mappings to the element and the next schedule time for the elements. A CSV file is generated with the details of element, the policy it belongs to and the next schedule.

- 1. Log on to the HPE Storage Operations Manager management server as root or administrator.
- 2. Go to the following directory:

On Windows: HPSOM\_InstallDir\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows: sompolicymappings.ovpl -all On Linux: ./sompolicymappings.ovpl -all

### **Parameters**

sompolicymappings recognizes the following options. Any unrecognised options are reported by a usage message.

-all

Prints the policy mapping details to a CSV file

### AUTHOR

sompolicymappings was developed by Hewlett-Packard Enterprise.

## **SEE ALSO**

somproviderlist --- Lists all providers in the SOM system

## SYNOPSIS

somproviderlist.ovpl

## DESCRIPTION

This utility is used to list all the providers in the system.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/0V/bin

3. Run the following command:

On Windows:

To list all the providers in the system:

somproviderlist.ovpl -all

To list all active providers in the system:

somproviderlist.ovpl -active

On Linux:

To list all inactive providers in the system:

somproviderlist.ovpl -inact

If you are running the command somproviderlist.ovpl -all, it will list all the providers on the system in the screen.

### **Parameters**

somproviderlist recognizes the following options. Any unrecognized options are reported by a usage message.

-all

Lists both the active and inactive providers in the system

-active

Lists all the active providers in the system

-inact

Lists all the inactive providers in the system

# AUTHOR

somproviderlist was developed by Hewlett-Packard Enterprise.

## **SEE ALSO**

somreleaseprovider, somrollbackprovider.

somreleaseprovider — Configuration utility to apply an off-cycle device bundle (provider).

## SYNOPSIS

somreleaseprovider.ovpl

## DESCRIPTION

This utility is used to apply an off-cycle release of a device bundle (provider). The command runs on a .bundle file, which contains the metadata about the device bundle to be deployed. The SOM services must be restarted for the changes to take effect.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/0V/bin

3. Run the following command:

On Windows and Linux:

To deploy the provider:

somreleaseprovider.ovpl -f {.bundle\_file\_with\_full\_path}

After the command is run and the provider is deployed successfully, it will prompt the user to restart the SOM services.

On user confirmation, the services will be restarted and the changes will take effect.

### **Parameters**

somreleaseprovider recognizes the following options. Any unrecognized options are reported by a usage message.

-f .bundle\_file\_with\_full\_path

Reads the metadata for the device bundle from the given .bundle file.

# AUTHOR

somreleaseprovider was developed by Hewlett-Packard Enterprise.

# SEE ALSO

somrollbackprovider, somproviderlist.

somrollbackprovider — To roll back the release an off-cycle device bundle (provider).

## SYNOPSIS

somrollbackprovider.ovpl

## DESCRIPTION

This utility is used to roll back the off-cycle device bundle (provider) already deployed. The SOM services must be retstarted for the changes to take effect.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows and Linux:

To see information regarding rollback of the provider:

somrollbackprovider.ovpl -name {bundle\_name}

where {bundle\_name} is the name of the bundle for which rollback information is to be displayed.

To perform rollback of the provider:

somrollbackprovider.ovpl -name {bundle\_name} -rollback

where {bundle\_name} is the name of the bundle to roll back.

To perform rollback of the provider to the factory version:

somrollbackprovider.ovpl -name {bundle\_name} -rollbacktoFactory

where {bundle\_name} is the name of the bundle to roll back to factory version.

After the command is run and the provider is rolled back, it will prompt the user to restart the SOM services.

On user confirmation, the SOM services will be restarted and the changes will take effect.

### **Parameters**

somrollbackprovider recognizes the following options. Any unrecognized options are reported by a usage message.

-name {bundle name}

Displays information regarding rollback of the device bundle.

-name {bundle name} -rollback

Performs the rollback of the device bundle to its earlier version.

-name {bundle name} -rollbacktoFactory

Performs the rollback of the device bundle to the factory version.

### AUTHOR

somrollbackprovider was developed by Hewlett-Packard Enterprise.

### **SEE ALSO**

somreleaseprovider, somproviderlist.

somsecurityinfoexport - Export the security configurations

## SYNOPSIS

```
somsecurityinfoexport.ovpl [-h|-help] -c [account|security|securitymappings|all] -f <complete path to zip file>
```

### DESCRIPTION

This script is used to export security configurations, such as user/role, user groups, user account mappings, security groups and tenants security group mappings to a zip file.

- 1. Log on to the HPE Storage Operations Manager management server as root or administrator.
- 2. Go to the following directory:

On Windows: HPSOM\_InstallDir\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows: somsecurityinfoexport.ovpl -c all -f C:\securityExport.zip On Linux: ./somsecurityinfoexport.ovpl -c all -f C:\securityExport.zip

```
where C:\securityExport.zip is the complete path of the zip file where the security settings have to be exported.
```

Security settings will be exported to zip file provided by user.

### **Parameters**

somsecurityinfoexport recognizes the following options. Any unrecognised options are reported by a usage message.

```
-c <Settings to export>
```

This can take parameters "account", "security", "securitymappings" and "all"

-f filePath

Export the security settings to given file

### AUTHOR

somsecurityinfoexport was developed by Hewlett-Packard Enterprise.

# SEE ALSO

somsecurityinfoimport — Import the security configurations

## SYNOPSIS

somsecurityinfoimport.ovpl [-h|-help] -f <complete path to zip file>

## DESCRIPTION

This script is used to import security configurations to Storage Operations Manager. This script will take the path of a zip file as input which contains user/role, user groups, user account mappings, security groups and tenants security group mappings.

- 1. Log on to the HPE Storage Operations Manager management server as root or administrator.
- 2. Go to the following directory:

On Windows: HPSOM\_InstallDir\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows: somsecurityinfoimport.ovpl -f C:\securityImport.zip On Linux: ./somsecurityinfoimport.ovpl -f C:\securityImport.zip

where C:\securityImport.zip is the complete path of the zip file, from where security settings have to be imported.

Security settings will be imported from zip file provided by the user.

### **Parameters**

somsecurityinfoimport recognizes the following options. Any unrecognised options are reported by a usage message.

-f filePath

Import the security settings from the given file

## AUTHOR

somsecurityinfoimport was developed by Hewlett-Packard Enterprise.

# **SEE ALSO**

somsetcmduserpw.ovpl — set the account credentials to be used in place of the -u/-p options when executing scripts as this user.

## SYNOPSIS

somsetcmduserpw.ovpl

## DESCRIPTION

You can use somsetcmduserpw.ovpl to set the SOM account credentials to be used when executing any scripts normally requiring the -u/-p option. The user and password values will be used when scripts are executed by this user without the -u/-p command line arguments. NOTE: The UNIX user root should never run this command. The "root" user does not need to provide -u/-p by default.

To run this command, make sure you are logged into the system as the user that will be executing the command line scripts. These values are set on a per user basis.

### **Parameters**

No supported parameters.

### **EXAMPLES**

You may want to set up account username and password values to be used when executing command line scripts normally requiring the -u/-p option. This can be done to avoid specifying password information on the command line.

Usage is:

```
# somsetcmduserpw.ovpl
WARNING: This change will affect the credentials to be used in place
        of the -u/-p command line options whenever this user executes
        a script requiring these. Please ensure you are logged in as
        the desired user before executing this script.
        Executing this script will create/edit the .nnm/nnm.properties
        file in the users home directory.
Would you like to continue? [n] y
Thank you!
Please provide the user name for the account.
user: myuser
Please provide a password for the user account.
password: mypass
enter password again: mypass
User/Password values stored successfully in /home/user/.nnm/nnm.properties
```

# AUTHOR

somsetcmduserpw.ovpl was developed by Hewlett-Packard Enterprise.

# FILES

somsetcmduserpw.ovpl resides in INSTALL\_DIR\bin directory.

somstaleelements — Displays stale elements in the System . Elements are considered as stale if they are not collected even once within their freshness criteria.

## SYNOPSIS

somstaleelements.ovpl

## DESCRIPTION

The utility is used to display all the stale elements in a system. An element is considered stale if it is not collected even once with the freshness criteria defined in the Data Collection Policy for that element.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows/Linux:

To display all stale elements in SOM :

somstaleelements -all

After running this command, it writes out the output to a csv file by the name of SOMStaleElm-{dd-mm-yyyy\_hhm}.csv as shown below.

Output written to CSV file /opt/OV/bin/SOMStaleElm-24-1-2015\_1254.csv

### **Parameters**

somstaleelements recognizes the following options. Any unrecognised options are reported by a usage message.

-all

Computes all the Stale Elements and writes them to an Excel file

### AUTHOR

somstaleelements was developed by Hewlett-Packard Enterprise.

somwindowsAgentlessDiscovery — Windows Agentless Discovery Configuration

## SYNOPSIS

somwindowsAgentlessDiscovery.ovpl

## DESCRIPTION

Discovery using Windows Agentless Configuration requires WMI to be enabled on the Windows Nodes. somwindowsAgentlessDiscovery.ovpl script allows the user auto configure the WMI on Windows Nodes so that Windows Node discovery can be performed.

- 1. Log on to the SOM management server as administrator.
- 2. Go to the following directory:

\$SomInstallDir/bin

3. Run the following command:

\$SomInstallDir/bin/somwindowsAgentlessDiscovery.ovpl

### **Parameters**

somwindowsAgentlessDiscovery recognizes the following options. Any unrecognised options are reported by a usage message.

-i

Enable WMI on Windows Host and queue the host for auto discovery.

### AUTHOR

somwindowsAgentlessDiscovery was developed by Hewlett-Packard Enterprise.

## SEE ALSO

somstoragetiersconfigexportimport --- Export and import of configurations

## SYNOPSIS

somstoragetiersconfigexportimport.ovpl

## DESCRIPTION

This utility can be used to export/import the storage tiers configurations from one HPE Storage Operations Manager server to another HPE Storage Operations Manager server OR from a SE classic server to a HPE Storage Operations Manager server. If you are importing storage tiers configuration in a HPE Storage Operations Manager server, prior to the import, you must perform the discovery and data collection for all the elements which were present in the server from where the storage tiers configurations were exported.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows:

To export storage tiers configuration :

 $somstorage tiers confige x portimport.ovpl \ -export \ C: \ temp \ Storage Tiers \\ Setting s. xml$ 

To import storage tiers configuration :

somstoragetiersconfigexportimport.ovpl -import C:\temp\StorageTiersSettings.xml

Where, C:\temp\StorageTiersSettings.xml is the complete path of the XML file that is being used for storage tiers configuration import/export.

#### On Linux:

To export storage tiers configuration :

./somstoragetiersconfigexportimport.ovpl -export /tmp/StorageTiersSettings.xml

To import storage tiers configuration :

./somstoragetiersconfigexportimport.ovpl -import /tmp/StorageTiersSettings.xml

Where, /tmp/StorageTiersSettings.xml is the complete path of the XML file that is being used for storage tiers configuration import/export.

If you are importing storage tiers configurations, the import tool displays the following warning message:

By Importing this storage tiers file, you will lose all existing Node Group Configurations. To save existing data, type 'no' and press enter to cancel this import. Use '-export' flag to save existing configurations. If you are sure, type 'yes' and press enter to proceed.

If you are exporting the storage tiers configurations, the export tool doesn't ask for any information and displays the following message after the export is done.

Exported {number\_of\_storagetiers} storage tiers successfully Successfully exported the storage tiers settings to {complete\_file\_path}

4. Enter 'yes' to import.

The import tool displays the following message after importing the settings:

Total number of storage tiers found: {number\_of\_storagetiers} Imported {number\_of\_storagetiers} storage tiers successfully

Note: If some of the elements which are associated with the storage tiers are not discovered on a given server where storage tiers import is being done, the import utility will display a warning message stating, "IMPORTANT : Not able to find element by cim path:{cim\_instance\_path}. Skipping the element and continuing with finding the next element". This means the element is not discovered on the target server, but the node group will be imported and the highlighted element will not be added to the node group.

### **Parameters**

somstoragetiersconfigexportimport recognizes the following options. Any unrecognised options are reported by a usage message.

-export filePath

Exports the storage tiers configurations to the given file

-import filePath

Imports the storage tiers configurations from the given file

### AUTHOR

somstoragetiersconfigexportimport was developed by Hewlett-Packard Enterprise.

ovaddobj --- object registration utility

## **SYNOPSIS**

ovaddobj[lrf-file]

### DESCRIPTION

ovaddobj is used to register object managers (i.e. agents) with the HP process management proces ovspmd(1M).

### **Parameters**

#### lrf-file

Specifies a Local Registration File (LRF), which must contain information about a single agent and the objects it manages.

### Note

You must specify all objects managed by the agent in the same LRF. Running ovaddobj against an LRF containing additional objects managed by a previously registered object manager does *not add* those objects. Instead, it *replaces* the previously registered objects with the new objects.

### **EXAMPLES**

ovaddobj *mylrf* 

This registers the agent and all the objects described in the LRF *mylrf* into the HPE Storage Operations Manager startup file.

### AUTHOR

ovaddobj was developed by Hewlett-Packard Enterprise.

### **SEE ALSO**

ovstatus, ovstart, ovstop, ovdelobj, ovspmd.

ovc — Perform actions on local components

### **SYNOPSIS**

```
ovc -h|-help ovc -start [<target> ... ] [-boot]{[-async]|[-verbose]} ovc -stop [<target>
... ][-nostart]{[-async]| [-verbose]} ovc -restart [<target> ... ] ovc -kill [-verbose]
ovc -status [<target> ... ] [-level <level>] ovc -trace [<target> ... ] ovc -notify
<event> [<target> ...] [-value <value>] ovc -version DESCRIPTION
```

### DESCRIPTION

ovc controls the starting and stopping, event notification, and status reporting of all components registered with the HP Operations Control service.

A component can be a server process belonging to any of the products such as HP Operations Manager for Windows, HP Operations agents (for example, the Performance Agent or the Discovery Agent), an event interceptor, or an application delivered by an integrator. Each component must have an associated registration file providing HP Operations Manager with configuration and process information about the component. For more information about registration, ovcreg(1).

A target can be either a component or a group of components, defined as a category. The ovc command first tries to initiate action on the category specified in target. If the category called target is not found, ovc then tries the individual component called target. Note that a category name must not match any component name.

The HP Operations Control daemon or service automatically restarts any component that terminates unexpectedly if the AutoRestart option in the registration file of the component is set to true. If the HP Operations Control daemon or service is stopped using the -kill option, all registered components are stopped, too.

### **Parameters**

ovc recognizes the following options:

-h|-help

Displays all available options for the ovc command.

```
-start [<target> ... ] [-boot]{[-async]|[verbose]}
```

Starts the selected components. <target> specifies a component or category. If <target> is not used, all components are started. If -boot is used, only components that start at boot time are started.

The -async option starts the components asynchr- -onously. If you use the -verbose option, ovc command displays the progress of the command execution. You can use the -async or the -verbose option, but you must not include these options together in a command.

```
-stop [<target> ... ] [-nostart]{[-async]|[verbose]}
```

Stops the selected components. <target> specifies a component or category. If <target> is not used, all components are stopped except components, which belong to the CORE component group. If you specify the -nostart option and if the control daemon is not running, the command does not perform any action. If you do not specify the -nostart option, the ovc -stop command starts the control daemon and ovbbccb components if these components are not running. The -async option starts the components asynchronously. If you use the -verbose option, the ovc command displays the progress of the command execution. You can use the -async or the -verbose option, but you must not include these options together in a command.

-restart [<target> ... ]

Stops components before they are restarted. <target> specifies a component or category. If <target> is not used, all components are stopped and restarted.

-kill [-verbose]

Stops all components registered with the HP Operations Control service. If you use the -verbose option, the ovc command displays the progress of the command execution.

-notify <event> [<target> ... ] [-value <value>]

Sends notification of an event with the value of <value> to the component or category specified by <target> ... . You can specify the <value> to the component that generates the event (event generator) and sends the event-related information to all components that request the event information (event subscribers). If target is not used, the event notification is sent to all components. If <value> is not used, only the event notification is sent.

-trace <target> ... ]

This option is reserved for use by HP Support.

-status [<target> ... ] [-level <level>]

Reports the status of a component or category specified by <target>. The status report contains the component's label, description, category, process ID, and STATE. Components can be in state: Stopped (0 in numeric format), Starting (1), Initializing (2), Running (3), Stopping (4), N/A (5) or Aborted (6). If <target> is not specified, the status of all components is returned. <level> specifies the type and quantity of information to display, as follows:

Level 0

Status of registered components monitored by HP Operations Manager.

Level 1

Status of registered components whether they are monitored by HP Operations Manager or not.

Level 2

Status of registered components and a dump of their registration information.

Level 3

ID of core processes. 0 (zero) indicates root, non-zero indicates non-root ownership.

Level 4

Similar to level 0, but the STATE is reported in numeric format.

Level 5

Similar to level 1, but the STATE is reported in numeric format.

Level 6

Similar to level 0, but the output is not formatted

Level 7

Similar to level 1, but the output is not formatted

-version

Prints the version of ovc

## AUTHOR

ovc was developed by Hewlett-Packard Enterprise.

## **EXIT STATUS**

The following exit values are returned:

0

Success.

1

Not defined.

2

Ignored.

62

The UNIX daemon or Windows service is not running.

63

The Control daemon is being initialized.

64

Generic error.

65

Invalid target.

67

Operation aborted.

69

Missing prerequisite.

70

Authorization error.

71

Operation on prerequisite failed.

73

Invalid event.

### **EXAMPLES**

The following examples show how to use the ovc command and some of its options to control and display important information about registered components.

To start the component registered as opcle:

ovc -start opcle

Before opcle itself starts, all the components that opcle depends on are started.

To start the component registered as opcle and display the progress of the command execution:

ovc -start opcle -verbose

Before opcle itself starts, all the components that opcle depends on are started.

To print the status of all registered components:

ovc -status

To stop the component registered as opcle:

ovc -stop opcle -verbose

Before opcle itself stops, all the components that depend on opcle are stopped. This command starts the control daemon and ovbbccb components if these components are not running.

To stop the component registered as opcle using the ovc -stop[starget] -nostart option:

ovc -stop opcle -nostart

Before opcle itself stops, all the components that depend on opcle are stopped. This command does not

perform any action if the control daemon is not running.

To send the event RECONFIGURE to all running components:

ovc -notify RECONFIGURE

- To start all components (and their dependents) belonging to category SERVER and AGENT. ovc-start SERVER AGENT
- To print the status of the component opcle and display the registration details:

ovc -status opcle -level 2

ovdelobj — object deregistration utility

## **SYNOPSIS**

ovdelobj[lrf-file]

### DESCRIPTION

ovdelobj is used to deregister the information for object managers (i.e. agents) from the HP process management process ovspmd(1M).

### **Parameters**

lrf-file

Specifies a Local Registration File (LRF), which contains information about a single agent and the objects it manages.

### **EXAMPLES**

ovdelobj mylrf

This deregisters the agent and all the objects described in the LRF mylrf.

### AUTHOR

ovdelobj was developed by Hewlett-Packard Enterprise.

### **FILES**

See the nnm.envvars reference page (and the UNIX manpage) for information about using environment variables for the following file:

install\_dir/bin/ovdelobj

### **SEE ALSO**

ovstatus, ovstart, ovstop, ovaddobj, ovspmd.

ovjboss — wrapper around the jboss Application Server

## SYNOPSIS

ovjboss

# DESCRIPTION

ovjboss is a service component that falls under the management of ovspmd. It uses properties files
(\$data\_dir/shared/nnm/conf/props/nms-support.properties, and
\$data\_dir/shared/nnm/conf/props/ovjboss.jvmargs) to pass arguments to the jboss application server.
Each file contains documentation on how to change the settings it controls.

This command should be never be executed directly but it falls under the management of ovspmd. It will be started when running ovstart or ovstart -c ovjboss. To stop it either call ovstop or ovstop -c ovjboss. To see the status of internal services it monitors, call ovstatus -v ovjboss.

If there are problems starting ovbjoss, one can look at the ovjboss.log and jbossServer.log log files and see if that might contain information to help solve the problem:

You must be logged on as administrator (Windows) or root (UNIX) user to run this command.

# EXAMPLES

To start HPE Storage Operations Manager including ovjboss run the following command:

\$InstallDir/bin/ovstart

To only start *ovjboss* run the following command:

\$InstallDir/bin/ovstart -c ovjboss

To find the status of services started by *ovjboss* run the following command:

\$InstallDir/bin/ovstatus -v ovjboss

# AUTHOR

ovjboss was developed by Hewlett-Packard Enterprise.

# FILES

\$data dir/shared/nnm/conf/props/nms-jboss.properties

Parameter file used by services started inside ovjboss.

\$data\_dir/shared/nnm/conf/props/nms-support.properties

Parameter file used by services started inside ovjboss.

\$data\_dir/shared/nnm/conf/props/ovjboss.jvmargs

#### Parameters passed to the JVM that jboss runs in

\$data\_dir/nnm/conf/nms-local.properties

Local configuration file, including Ports configuration

\$data\_dir/log/nnm/jbossServer.log

Log file containing exceptions (if any)

\$data\_dir/log/nnm/ovjboss.log

Log file containing stderr messages

## **SEE ALSO**

ovspmd

nms-local.properties

ovserror — Reports the most recently generated errors from the ovspmd process. The ovserror process is used internally by other processes, and should never be invoked by the user.

## SYNOPSIS

ovserror

# DESCRIPTION

ovserror reports the most recently generated errors from the ovspmd process. It takes no parameters.

### **RETURN VALUE**

ovserror reports the most recently generated errors from the ovspmd process.

# AUTHOR

ovserror was developed by Hewlett-Packard Enterprise.

### **SEE ALSO**

ovstatus, ovstart, ovstop, ovspmd.

ovspmd - HPE Storage Operations Manager process management service

## SYNOPSIS

ovspmd [ [install] [start] [stop] [remove] [-W] [-d] [-V] [-f startup\_file] ]

## DESCRIPTION

ovspmd manages the service processes that are part of HPE Storage Operations Manager. It starts, stops, and reports status on these processes in response to requests from ovstart, ovstop, and ovstatus. ovspmd is normally started automatically by ovstart. On Windows, ovspmd is registered as a service. ovspmd registers under the service name HP OpenView Process Manager.

ovstart sends a request to ovspmd to start the object manager programs specified in the HPE Storage Operations Manager startup file (SUF), by default ovsuf. HPE Storage Operations Manager-managed processes are configured in a local registration file (LRF), and added to the SUF by ovaddobj. If you call ovstart with no arguments, ovspmd starts all managed processes configured to be started automatically (that is, with the initial start flag ovs\_YES\_START in the LRF).

ovstop sends a request to ovspmd to stop configured managed processes. If you call ovstop with no arguments, ovspmd stops all currently running managed processes, and then exits.

ovstatus sends a request to ovspmd to report the current running status of configured managed processes.

Managed processes are started by ovspmd as services (that is, in the background, with stdin, stdout, and stderr ignored).

Each managed process can be configured with a dependency list (that is, a list of other processes that must already be running before the process can be started successfully). ovspmd does not start a managed process until all the processes on which it depends have already initialized successfully. On startup, ovspmd verifies that no LRF-specified dependencies form a cycle. (An example of a cycle is A -> B -> C -> A.) These dependencies determine a relative sequencing for starting, as well as a reverse order for stopping.

ovspmd has a mechanism to automatically restart processes that fail unexpectedly. This process entails adding a retry count for the daemon processes as listed in the

\$Data\_Dir/shared/nnm/conf/ovspmd.restart.properties file. By default, the number of retries is 3. When a process dies unexpectedly, this count is decremented by one until it reaches zero. At that point, the process will not be automatically restarted. Attempting to start the process with ovstart will reset the retry count and start the process again. If the process has been running for two hours, then the process resets its retry counter. Removing entries will cause ovspmd not to do restarts. This is also true if the retry count is 0.

ovspmd distinguishes between three classes of object managers:

#### OVs\_WELL\_BEHAVED

A well-behaved process uses the OVsPMD API (see OVsPMD\_API(3)) to communicate with ovspmd. It sends ovspmd status information about successful and unsuccessful initialization, normal termination

and abnormal termination, if configured to do so. ovspmd considers a well-behaved process to have initialized successfully only when it explicitly reports that it has done so. A well-behaved process also exits when it receives the command OVS\_CMD\_EXIT from ovspmd.

The status information passed by the managed process to ovspmd is forwarded to ovstart, ovstop, or ovstatus, if currently running. The last message received from each managed process is saved, and then forwarded, on request, to ovstatus. The messages received from well-behaved processes are also logged to the application event log (which can be examined with the Event Viewer).

#### OVs\_NON\_WELL\_BEHAVED

ovspmd can also manage object managers that do not use the OVsPMD API (non-well-behaved processes) only if they do *not* go into the background of their own accord (see OVs\_DAEMON below). Because a non-well-behaved process returns no status messages, ovspmd considers such a process to have initialized successfully if it is not exited within the LRF-specified timeout interval.

Non-well-behaved processes are terminated with Terminal Process if they do not exit within the configured timeout.

#### OVs\_DAEMON

Managed processes that go into the background cannot be managed with a communication channel or with signals. ovspmd can start such a process, but it cannot stop or report meaningful status about the process because it does not have a communication channel or a process ID for it.

#### **Parameters**

#### install

Install ovspmd as a service.

#### start

Start the ovspmd service.

#### stop

Stop the ovspmd service.

#### remove

Remove the ovspmd service.

#### -W

Do not start managed processes when ovspmd starts. Wait for ovstart to request it.

#### -d

Used for debugging. When used, ovspmd does not become a service.

#### -V

Run in very verbose mode. In this mode, ovspmd outputs very detailed information about the configuration of the managed processes. This is far too much information for ordinary use.

-f startup\_file

Read *startup\_file* as the startup file (SUF) instead of the default. Note that *startup\_file* must be an absolute path.

## **Application Authorization**

ovspmd governs the management of HPE Storage Operations Manager services. It uses the ovspmd.auth file to control which hosts, users, and applications can start and stop the HPE Storage Operations Manager services. The ovspmd.auth file is located in *data\_dir\shared\nnm\conf\*.

ovspmd searches the entries in the ovspmd.auth file from beginning to end. As soon as it finds an entry that either explicitly allows or denies the access under consideration, it stops looking. Therefore, more specific entries should precede more general entries.

The file contains lines specifying the authorized hosts, users, and applications. Each line lists a single host, user, and application list authorized to connect to ovspmd. The format of each line of the file is:

#comment

hostname [username [appname1 appname2 appname3 ... ]]

The pound sign (#) and anything following it is a comment, which is ignored. Blank lines are also ignored.

*username* and *appname* are optional. If no application is present, the line permits (or denies) access by any application. If no username is present, the line permits (or denies) access by any user running any application.

If *hostname* is a plus sign (+), the line refers to access from any host. If *username* is a plus sign (+), the line refers to access by any user. If a hostname is preceded by a minus sign (-), the line explicitly denies all access from that host. (Any username or application names that also happen to appear on the line are ignored.) If a username is preceded by a minus sign (-), the line explicitly denies any access by that user from the specified host. (Any application names that also happen to appear on the line are ignored.)

If any applications are listed, the line permits access only to the applications listed (by the specified user from the specified host). Note that the application names listed in the authorization file must match the registered name of the application, except that white space in the registered application name must be replaced with underscores.

The ovspmd.auth file created at installation contains more examples of the file format, and some examples are also included in the EXAMPLES section.

## DIAGNOSTICS

ovspmd issues error messages about configuration errors and system call failures. These messages are intended to be self-explanatory. If it currently has an open communication channel with ovstart, ovstop, or ovstatus, ovspmd forwards these error messages through the communication channel to be output by the program.

ovspmd can process multiple requests (start, stop, or status) at a time. Additional requests are queued by type until the current request completes.

In addition, ovspmd logs processing, configuration, and system errors using nettl in the OVS subsystem at the ERROR level. Messages indicating normal events, such as successful initialization, are logged at the INFORMATIVE level. Messages indicating initialization failure or abnormal termination are logged at the

WARNING level.

### EXAMPLES

The following is an example of the contents of the ovspmd.auth file:

# Normally, you should authorize any application # run by any user on the same host on which ovspmd is running. # To do so, use a single line listing the # name of the host on which this file is located # (for example, "thishost"): thishost # Similarly, if you are running Management # Consoles, you should authorize any application # run by any user on all the client hosts and on
# the server host. For example, if your server # system named "bigsystem" has one client named # "hohum", list each of them on a separate line in # this file on bigsystem: bigsystem hohum # It is possible to permit specific users to run # specific applications from a remote system. The # following line permits the user "shem" from host # "blimp" to run the applications "Toaster Manager" # and "Blender". Note that, because the application's
# registered name "Toaster Manager" contains white # space, you must replace the whitespace with the # underscore character in the authorization file: shem blimp Toaster Manager Blender # It is not possible to exclude specific applications, # except by explicitly permitting all non-excluded # applications. # The following line denies access by the user "fred" # from any host: + -fred # The following line denies any application access # from the host "badguy": -badquy

### AUTHOR

ovspmd was developed by Hewlett-Packard Enterprise.

### FILES

See the nnm.envvars reference page (and the UNIX manpage) for information about using environment variables for the following files:

install\_dir\bin\ovspmd

install\_dir\conf\ovsuf

See \$data\_dir/shared/nnm/conf/ovspmd.restart.properties for restart property configuration.

## **EXTERNAL INFLUENCES**

### **Environmental Variables**

\$LANG provides a default value if the internationalization variables, LC\_ALL, LC\_CTYPE, and LC\_MESSAGES are unset, null, or invalid.

If \$LANG is unset, null, or invalid, the default value of C (or English\_UnitedStates.1252 on Windows) is used.

LC\_ALL (or \$LANG) determines the locale of all other processes started by ovspmd.

LC\_CTYPE determines the interpretation of text as single-byte characters, multiple-byte characters, or both; the classification of characters as printable; and the characters matched by character class expressions in regular expressions.

LC\_MESSAGES determines the language in which messages are displayed.

All other environment variables are inherited from the shell executing ovspmd (or the initial ovstart that starts ovspmd). ovspmd and all service processes share this same environment. As a result, ovspmd must be stopped and restarted for any environment changes to take effect (see ovstart).

### **SEE ALSO**

ovstatus, ovstart, ovstop, ovaddobj, ovdelobj.

ovstart — start HPE Storage Operations Manager managed processes

# SYNOPSIS

ovstart [ [-C] [-d] [-O ovspmd\_path] [-V] [--][ovspmd\_options...][managed\_process\_names...]]

# DESCRIPTION

ovstart starts HPE Storage Operations Manager managed processes. If called with one or more *managed\_process\_name* arguments, it starts the designated managed process after first starting any other managed processes on which it depends. If called with no arguments, it starts all the managed processes that are configured to start by default.

ovstart does not exit until all the managed processes it has tried to start have either responded or timed out (failed to respond within the LRF-specified timeout interval). By default, it produces no output unless a managed process fails. When you execute it from the command line, it is advisable to use the -c or -v option to track the progress of the operation. Running ovstart again after the successful completion of a previous attempt to ovstart is completely harmless.

ovstart sends a start request (OVS\_REQ\_START) to the process management service, ovspmd. If ovspmd is not already running, ovstart starts it first.

ovstart must be run by the administrator or super-user.

The managed processes are configured by ovaddobj from information in local registration files (see lrf(4)). A managed process is named by the first field in the LRF describing it.

### Parameters

ovstart recognizes the following options. Any unrecognized options are reported by a usage message.

-C

Produce one line of information about the success or failure of each managed process.

-d

Report the important stages in processing, including starting, contacting, and sending the start request to ovspmd, and closing the communication channel.

-o ovspmd\_path

Specifies that the executable for ovspmd is in ovspmd\_path instead of in the default location, *install\_dir*bin. If ovspmd is already running, this option is ignored.

Produce several lines of information about the success or failure of each managed process.

- ovspmd\_options

Any option not known by ovstart is passed to ovspmd. Since the -d option is valid for both programs, it will be interpreted as an ovstart option, and will *not* be passed on to ovspmd. Likewise, the -v option *will be* passed to ovspmd since it is not valid for ovstart. If an option is not recognized by either, a usage message will be printed from ovspmd, not ovstart.

\_\_\_

Terminates the options section of the ovstart command line. Any arguments following the comment token (--) are interpreted as names of managed processes to start, and passed to ovspmd.

### **RETURN VALUE**

In a non HPE Storage Operations Manager cluster environment ovstart exits with the status representing the number of object managers from the start list that were *not* started successfully. If all requested managed processes were started successfully, ovstart exits with the status 0 (zero).

In a HPE Storage Operations Manager cluster environment ovstart always exit immediately with the status 0 (zero).

### DIAGNOSTICS

ovstart reports certain command-line errors (in particular, too many arguments) and system errors. The messages are prefixed with ovstart:, and are intended to be self-explanatory. ovstart also outputs error messages received from ovspmd. These messages are prefixed with ovspmd:.ovstart does not treat unrecognized options as errors, but ovspmd does.

Note that ovspmd can process multiple requests (ovstart, ovstop, or ovstatus) at a time. If any of these commands is being handled, the new request will be queued by type until the previous command has completed.

## EXAMPLES

ovstart

Request ovspmd to start all managed processes configured to start by default. If ovspmd is not already running, start it with no options. Only failures are reported.

ovstart -v -V -- ovjboss

Request ovspmd to start the ovjboss process, which results in starting the Jboss application server and all of the HPE Storage Operations Manager services that are deployed together within Jboss, after first starting any other managed processes that the ovjboss process depends on. If ovspmd is not already running, start it in verbose mode (-v option). Report program startup, whether successful or not (-v option). Note that the comment token (--) option is necessary so that ovstart does not interpret ovjboss as an argument to the unrecognized -v option.

# AUTHOR

ovstart was developed by Hewlett-Packard Enterprise.

## FILES

See the nnm.envvars reference page (or the UNIX manpage) for information on using environment variables for the following files:

install\_dir\bin\ovstart

install\_dir\bin\ovspmd

### **EXTERNAL INFLUENCES**

### **Environmental Variables**

\$LANG provides a default value if the internationalization variables, LC\_ALL, LC\_CTYPE, and LC\_MESSAGES are unset, null, or invalid.

If \$LANG is unset, null, or invalid, the default value of C (or English\_UnitedStates.1252 on Windows) is used.

LC\_ALL (or \$LANG) determines the locale of all other processes started by ovspmd.

LC\_CTYPE determines the interpretation of text as single-byte and/or multi-byte characters, the classification of characters as printable, and the characters matched by character class expressions in regular expressions.

LC\_MESSAGES determines the language in which messages are displayed.

If ovstart is executed, and no ovspmd process is currently running, ovspmd inherits the environment of the executing shell. All managed processes started by ovspmd inherit this same environment.

To change the environment for ovspmd or any managed process, you must restart ovspmd with the correct environment. This requires that all managed processes be stopped (ovspmd does not terminate until all managed processes have been shut down).

As a result, to change the environment for any managed process started from ovstart/ovspmd, you must do the following:

- 1. Execute ovstop with no arguments to shut down all managed processes and ovspmd.
- 2. Set up the correct environment variables.
- 3. Execute ovstart to restart ovspmd and any or all managed processes.

## **SEE ALSO**

ovstatus, ovstop, ovaddobj, ovdelobj, ovspmd.

ovstop — stop HPE Storage Operations Manager managed processes

## SYNOPSIS

ovstop [ [-c] [-d] [-v] [managed\_process\_names...]] [ [-nofailover|-failover|-cluster]]

## DESCRIPTION

ovstop stops the HPE Storage Operations Manager managed processes. ovstop sends a stop request (OVS\_REQ\_STOP) to the process management process (UNIX operating systems) or service (Windows operating systems), ovspmd. If called with one or more managed\_process\_name arguments, it stops the designated managed processes after first stopping any dependent processes. If called with no arguments, or if one of the named arguments is ovspmd, it stops all managed processes currently running, including ovspmd itself.

When a managed process does not respond to the ovstop request within the LRF-specified timeout interval, ovspmd forces the process to terminate by sending it termination signals, first SIGTERM, then SIGKILL (see kill(1)). Note that ovstop reports forced termination only if the -v or -coptions are used (for example, ovstop -v [managed\_process\_name]). Whenever a managed process times out during a stop request, it is advisable to increase its timeout value. To increase the number of seconds that ovspmd waits for a process to respond to an ovstop request, follow the instructions in \$HPSOM\_LRF/ov\* (UNIX operating system) or install\_dir\lrf\ov\* (Windows operating systems).

Unlike ovstart, ovstop will not start ovspmd if it is not already running.

The managed processes are configured by ovaddobj from information in Local Registration Files (see lrf(4)). A managed process is named by the first field in the LRF describing it. Like ovstart, ovstop uses dependency information from the LRF. If other managed processes depend on a managed process that is stopped, ovspmd notes their dependency and terminates all appropriate managed processes in reverse LRF dependency order.

ovstop must be run by the Windows administrator or UNIX superuser.

If an OVS\_DAEMON process is configured with a Stop Command in its LRF entry, ovstop runs the command (see lrf(4)). This feature is used to stop processes that are no longer in contact with ovspmd. The Stop Command is provided and configured by the developer of the process, if appropriate.

The names of the HPE Storage Operations Manager managed processes that were started by previous ovstart operation can be obtained by running the ovstatus -c command.

The ovstop ovjboss command would stop the Jboss application server and all of the HPE Storage Operations Manager services deployed together within Jboss. The names of Jboss deployed HPE Storage Operations Manager services can be obtained by running the ovstatus -v ovjboss command. The HPE Storage Operations Manager services could only be stopped altogether by running the ovstop ovjboss command. It is not supported to stop any of these HPE Storage Operations Manager services individually, independent of the other HPE Storage Operations Manager services.

#### **Parameters**

ovstop recognizes the options described below. The first argument that is not an option, and any succeeding arguments, are interpreted as names of managed processes to stop, and are passed to ovspmd in the stop request.

-C

Produce one line of information about the success or failure for each managed process.

-d

Report the important stages in its processing, including contacting and sending the stop request to ovspmd, and the closing the communication channel.

-v

Produce several lines of information about the success or failure of each managed process.

### **RETURN VALUE**

ovstop exits with a status representing the number of managed processes that were *not* stopped successfully. If all requested managed processes were successfully stopped, ovstop exits with the status 0 (zero).

## DIAGNOSTICS

ovstop reports certain command-line errors (in particular, too many arguments) and system errors. The messages are prefixed with ovstop:, and are intended to be self-explanatory. ovstop also outputs error messages received from ovspmd. These messages are prefixed with ovspmd:.ovstop ignores unrecognized options.

If a managed process is in a PAUSED, PAUSE\_ERROR, PAUSE\_TIMEOUT, RESUME\_ERROR, RESUME\_TIMEOUT, OR DEPENDENCY\_ERR state, it is stopped. However, a warning message is printed to inform you that ovstop was used on a process that was not in a running state.

Note that ovspmd can process multiple requests (ovstart, ovstop, or ovstatus) at a time. If any of these commands is being handled, the new request will be queued by type until the previous command has completed.

## AUTHOR

ovstop was developed by Hewlett-Packard Enterprise.

### **FILES**

The environment variables below represent universal pathnames that are established according to your shell and platform requirements. See the nnm.envvars(1) manpage for information on universal pathnames for

your platform and shell.

See the nnm.envvars reference page ((or the UNIX manpage) for information about using environment variables for the following files:

Windows: install\_dir\bin\ovstop

Windows: install\_dir\bin\ovspmd

 $UNIX: \texttt{SHPSOM}_\texttt{BIN}/\texttt{ovstop}$ 

 $UNIX: \texttt{SHPSOM}_\texttt{BIN}/\texttt{ovspmd}$ 

## **EXTERNAL INFLUENCES**

### **Environmental Variables**

If a com.hp.ov.nms.cluster.name is defined in the \$DataDir/shared/nnm/conf/props/nmscluster.properties file, then ovstop will defer startup to the nnmcluster command.

\$LANG provides a default value if the internationalization variables, LC\_ALL, LC\_CTYPE, and LC\_MESSAGES are unset, null, or invalid.

If \$LANG is unset, null, or invalid, the default value of C (or English\_UnitedStates.1252 on Windows) is used.

LC\_ALL (or \$LANG) determines the locale of all other processes started by ovspmd.

LC\_CTYPE determines the interpretation of text as single-byte characters, multiple-byte characters, or both; the classification of characters as printable; and the characters matched by character class expressions in regular expressions.

LC\_MESSAGES determines the language in which messages are displayed.

## **SEE ALSO**

ovstatus, ovstart, ovaddobj, ovdelobj, ovspmd.

sombackupembdb.ovpl — make a full backup of the HPE Storage Operations Manager embedded database.

## SYNOPSIS

sombackupembdb.ovpl [-?|-h|-help] [-noTimeStamp] -target <target directory> [-force]

## DESCRIPTION

Use the sombackupembdb.ovpl script to make a full backup of the SOM embedded database. The contents of the backup are uncompressed and stored in a file you specify. This file must be used to restore the SOM embedded database by using the nnmrestoreembdb.ovpl script.

If you plan to use the sombackupembdb.ovpl script to create a backup of the SOM embedded database, then use the nnmrestoreembdb.ovpl script to place embedded database records on a second SOM management server, both SOM management servers must have the same type of operating system and SOM version and patch level.

Before running the sombackupembdb.ovpl script, make sure you have adequate storage space in the target directory. Look for the embedded database data storage in the

 $\label{eq:hpsom_databases} \end{tabases} or$ 

\$HPSOM\_DATA/shared/nnm/databases/Postgres (UNIX) directory. Check the size of this directory to make sure the target directory has sufficient space to store the backup file. Compress the file after backup if necessary.

The backup file is created in the target directory and contains all data stored in the database at the start of the backup operation. Any statements run in the database while the backup is running are not included in the backup.

You can run this script while SOM is running; however, you may experience temporary performance degradation. At a minimum, the somdbmgr process must be running for the script to be successful. If you use the -force option, the script starts the somdbmgr process (if it is not running), and suppresses any interactive messages.

You must be logged in as administrator on Windows systems or root on UNIX systems to run this script.

### **Parameters**

#### -noTimeStamp

With this option, the sombackupembdb.ovpl script stores the backup files in a target directory without a timestamp in the name. Any previous backup which exists with that same folder/file name will be renamed to have ".previous" suffix. If there is already a ".previous" backup, it will be deleted. This option is provided to allow for daily backups, keeping latest two successful backups, and not keeping every backup that has been performed, over time, to reduce disk usage.

Directory name in which to store the backup file. (Will be created if it does not exist)

-force

If you provide this option, the script starts the somdbmgr process if it is not currently running.

-?|-h|-help

Display command usage.

### **EXAMPLES**

You can use this script to run an *on-demand* backup, or you can include running the script as a task in regularly scheduled backup scripts. Run the script as follows:

# sombackupembdb.ovpl -target /backups/nnm

You'll see these messages:

WARNING: Running this command while SOM is running, while allowed, will cause temporary performance problems. At a minimum, please make sure the somdbmgr process is running (ovstart somdbmgr). Are you sure you want to run a full database backup now? [n] y Ok, performing full embedded database backup... SOM embedded database successfully backed up to /backups/nnm/nnm-bak.2009092906.pgd. #

### AUTHOR

sombackupembdb.ovpl was developed by Hewlett-Packard Enterprise.

### **FILES**

*Windows*: %SOM\_BIN%\sombackupembdb.ovpl

UNIX: \$SOM\_BIN/sombackupembdb.ovpl

### **SEE ALSO**

ovstatus, ovstart, ovaddobj.

somchangedbpw.ovpl — change the user name and password used to authenticate with the HPE Storage Operations Manager database.

## SYNOPSIS

somchangedbpw.ovpl

## DESCRIPTION

Use the somchangedbpw.ovpl script to change the user name and password SOM uses to connect to the database. This script is useful when database passwords expire, or if you need to change the database user name. Before running this script, run the ovstop command to stop SOM.

#### Note

To avoid adverse behavior after changing the database user name and password, you must stop SOM before running the somchangedbpw.ovpl script. You can run this script while SOM is running, but any new database connections created by SOM fail during authentication.

You must be logged in as administrator on Windows systems or root on UNIX systems to run this script.

### **Parameters**

No supported parameters.

### **EXAMPLES**

Use the somchangedbpw.ovpl script if your organization requires frequent password changes for the SOM database, or to change the user name SOM uses to connect to the SOM database.

The somchangedbpw.ovpl script does not display the password as you type it in.

When using the somchangedbpw.ovpl script, you should see the following messages:

# somchangedbpw.ovpl
WARNING: Please make sure SOM has been stopped before running this tool.
Failure to stop SOM could result in unexpected database failures.
Have you stopped SOM (ovstop)? [n] y
Thank you!
Please provide a database user account name.
user: mydbuser
Please provide the password for database user account.
password: mynewpw
enter password again: mynewpw

```
User/Password changed successfully! #
```

# AUTHOR

somchangedbpw.ovpl was developed by Hewlett-Packard Enterprise.

### **FILES**

*Windows*: %SOM\_BIN%\somchangedbpw.ovpl

UNIX: \$SOM\_BIN/somchangedbpw.ovpl

## SEE ALSO

ovstatus, ovstart, ovaddobj.

somchangeembdbpw.ovpl — change the password used to authenticate with the HPE Storage Operations Manager embedded database.

## SYNOPSIS

somchangeembdbpw.ovpl

## DESCRIPTION

Use the somchangeembdbpw.ovpl script to change the password SOM uses to connect to the embedded database. This script is useful if you installed SOM with the embedded database option. Only use this script if you want to change the default password that was created for the embedded database during installation. If you do not run this script, SOM functions normally.

The somchangeembdbpw.ovpl script requires that SOM is stopped and nmsdbmgr is running. It will automatically bring the system to this state if necessary, i.e. automatically running ovstop followed by ovstart nmsdbmgr.

After the somchangeembdbpw.ovpl script finishes, the embedded database password is changed to the value supplied through the interactive prompts, and the SOM management server is reconfigured to use the new password to connect to the database.

You must be logged in as administrator on Windows systems or root on UNIX systems to run the somchangeembdbpw.ovpl script.

### **Parameters**

No supported parameters.

### **EXAMPLES**

Use the somchangeembdbpw.ovpl script if your organization requires frequent password changes for the SOM embedded database.

The somchangeembdbpw.ovpl script does not display the password as you type it in.

When using the somchangeembdbpw.ovpl script, you should see the following messages:

# somchangeembdbpw.ovpl

```
WARNING: Stop SOM and all SOM processes before running this tool.
Failure to stop SOM could result in unexpected database failures.
After stopping SOM, run ovstart nmsdbmgr to start only the database.
Have you stopped SOM (ovstop)? [n] y
Thank you!
```

Provide a new password for the embedded database user account. password: mynewpw enter password again: mynewpw Password changed successfully!

AUTHOR

#

somchangeembdbpw.ovpl was developed by Hewlett-Packard Enterprise.

### **FILES**

Windows: %SOM\_BIN%\somchangeembdbpw.ovpl

UNIX: \$SOM\_BIN/somchangeembdbpw.ovpl

### **SEE ALSO**

ovstatus, ovstart, ovaddobj.

somchangesyspw.ovpl — change the password for the system account normally set during HPE Storage Operations Manager installation.

## SYNOPSIS

somchangesyspw.ovpl

## DESCRIPTION

You can use the somchangesyspw.ovpl script to change the SOM system password. The SOM system password is normally set during installation and used for recovery purposes. Only use this command if you want to reset the system password that was set during SOM installation.

Before running the somchangesyspw.ovpl script, run the ovstop command to stop SOM. After running the somchangesyspw.ovpl script, run the ovstart command to start SOM. This will ensure that the new value for the password is valid immediately.

You must be logged in as administrator on Windows systems or root on UNIX systems to run this script.

### **Parameters**

No supported parameters.

### EXAMPLES

You might want to change the system password if you have deleted all other user accounts with administrator privileges, and do not remember the system password value set during SOM installation.

The somchangesyspw.ovpl script does not display the password as you type it in.

When using the somchangesyspw.ovpl script, you should see the following messages:

```
# somchangesyspw.ovpl
WARNING: This change may not take affect immediately unless SOM is
            restarted. Please run ovstop before executing this script,
            and ovstart after execution to ensure the change is immediate.
Would you like to continue? [n] y
Thank you!
Please provide a new password for the system user account.
password: mynewpw
enter password again: mynewpw
System password changed successfully
```

# AUTHOR

somchangesyspw.ovpl was developed by Hewlett-Packard Enterprise.

## FILES

Windows: %NNM\_BIN%\somchangesyspw.ovpl

UNIX: \$NNM\_BIN/somchangesyspw.ovpl

## **SEE ALSO**

ovstart(1M), ovstop(1M), ovstatus(1M).

somdataexportconfig — Configuration utility to enable or disable Data Export.

## SYNOPSIS

somdataexportconfig.ovpl [-?|-h|-help] [-silent] {-listconfig|-enable|-disable} [-dataset
{ALL|Inventory|Statistics|Incidents}]

### DESCRIPTION

This utility can be used to configure the data export from a HPE Storage Operations Manager server to a Operations Bridge Reporter server. You can enable or disable the data export using this. The enable or disable action can be done for all data or selectively for Inventory or Statistics or Incidents data.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows and Linux:

To enable data export for All data:

somdataexportconfig.ovpl -enable -dataset ALL

To disable data export for All data:

somdataexportconfig.ovpl -disable -dataset ALL

To enable data export for Inventory data:

somdataexportconfig.ovpl -enable -dataset Inventory

To disable data export for Inventory data:

somdataexportconfig.ovpl -disable -dataset Inventory

To enable data export for Statistics data:

somdataexportconfig.ovpl -enable -dataset Statistics

To disable data export for Statistics data:

somdataexportconfig.ovpl -disable -dataset Statistics

To enable data export for Incidents data:

somdataexportconfig.ovpl -enable -dataset Incidents

To disable data export for Incidents data:

somdataexportconfig.ovpl -disable -dataset Incidents

To list the current configuration:

somdataexportconfig.ovpl -listconfig

While enabling or disabling data export the tool displays a warning message (the message while enabling data export for ALL data would be like the following message):

WARNING: This would enable data export for dataset 'ALL'.

Is it OK to continue? [n]

Enter 'y' to enable.

The data export configuration tool displays the following message after enabling the data export:

Enabling data export for dataset 'ALL'

If you are listing the current configuration the export tool does not ask for any information and displays the following message (This is for the case when the data export is enabled for ALL. This message would change as per the current configuration).

Remote Server : ALL Inventory Export : ENABLED Statistics Export : ENABLED Incidents Export : ENABLED

### **Parameters**

somdataexportconfig recognizes the following options. Any unrecognised options are reported by a usage message.

-silent

Enables or Disables the data export without prompting the user for confirmation.

-enable

Enables the data export for the specified data set or for ALL if the data set is not specified.

-disable

Disables the data export for the specified data set or for ALL if the data set is not specified.

-dataset

Specifies the data set for which the data export has to be enabled or disabled. It can be either ALL,

Inventory, Statistics or Incidents. The default value is ALL.

-listconfig

Lists the current data export configuration.

## AUTHOR

somdataexportconfig was developed by Hewlett-Packard Enterprise.

somdataretransfer — Utility to re-transfer failed csv files to a specific target server.

### SYNOPSIS

somdataretransfer.ovpl [-?|-h|-help] -remoteserver <remote server> [-includeinventory]

#### DESCRIPTION

This utility can be used to re-transfer csv files to a remote server (Operations Bridge Reporter). The re-transfer is attempted on csv files that have failed during transfer earlier (when they were exported). The user can specify a valid (configured) remote server and this utility would identify failed csv files and attempt a re-transfer of these files to the specified remote server. The default behaviour is to re-transfer only the failed Statistics files and skip the failed Inventory files. The user can force the transfer of the Inventory files too optionally. The re-transfer of files would be aborted if the number of failures (during re-transfer) exceed a pre-defined limit.

1. Log on to the HPE Storage Operations Manager server as root or administrator user.

2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows and Linux:

To re-transfer failed csv files (Statistics data only) to a remote server:

somdataretransfer.ovpl -remoteserver Configured\_OBR\_server\_Hostname\_or\_IpAddress

To re-transfer all failed csv files (including Inventory data) to a remote server:

somdataretransfer.ovpl -remoteserver Configured\_OBR\_server\_Hostname\_or\_IpAddress -includeinventory

On a Windows installation of the Storage Operations Manager, the utility displays messages similar to the following for a successful re-transfer of files.

Attempting to re-transfer all failed csv files to Remote Server 'Configured\_OBR\_server\_Hostname\_or\_IpAddress'

Looking for files to transfer under C:\ProgramData\HP\HP BTO Software\se\CSV\_Export\_Folder\Configured\_OBR\_server\_Hostname\_or\_IpAddress\Failed

 $Transferring file: C:\ProgramData\HP\HP BTO Software\sciences\Failed\Switch_0_SwitchPort_0_1433320738583493682\_SERVERNAME.csv Software\sciences\Failed\Switch_0_SwitchPort_0_1433320738583493682\_SERVERNAME.csv Software\Sciences\Failed\Switch_0_SwitchPort_0_1433320738583493682\_SERVERNAME.csv Software\Sciences\Failed\Sciences\Sciences\Sciences\Scienc$ 

 $Transferring file: C:\ProgramData\HP\HP BTO Software\science{Sv} Export\_Folder\Configured\_OBR\_server\_Hostname\_or\_IpAddress\Failed\Switch\_0\_Switch\_0\_1433320744689889124\_SERVERNAME.csv$ 

Successfully transferred files to Remote Server : Configured\_OBR\_server\_Hostname\_or\_IpAddress

On a Windows installation of the Storage Operations Manager, the utility displays messages similar to the following for a failed re-transfer of files.

Attempting to re-transfer all failed csv files to Remote Server 'Configured\_OBR\_server\_Hostname\_or\_IpAddress'

Looking for files to transfer under C:\ProgramData\HP\HP BTO Software\se\CSV\_Export\_Folder\Configured\_OBR\_server\_Hostname\_or\_IpAddress\Failed

```
Transferring file : C:\ProgramData\HP\HP BTO
Software\se\CSV_Export_Folder\Configured_OBR_server_Hostname_or_IpAddress\Failed\StorageSystem_0_NASVolumeConfigStats_0_1433319337999966193_SERVERNAME.csv
Jun 03, 2015 2:11:51 PM com.hp.se.common.utils.dataexport.filetransfer.FileTransferWrapper transferFileToServer
WARNING: File transfer command exited with status : 1
Transferring file : C:\ProgramData\HP\HP BTO
Software\se\CSV_Export_Folder\Configured_OBR_server_Hostname_or_IpAddress\Failed\StorageSystem_0_NASVolumeConfigStats_0_1433320237881832199_SERVERNAME.csv
Jun 03, 2015 2:11:51 PM com.hp.se.common.utils.dataexport.filetransfer.FileTransferWrapper transferFileToServer
WARNING: File transfer command exited with status : 1
...
Aborting re-transfer since the number of file transfer failures reached 100 for Remote Server Configured_OBR_server_Hostname_or_IpAddress
Failed to transfer one or more files to Remote Server : Configured_OBR_server_Hostname_or_IpAddress
```

#### **Parameters**

somdataretransfer recognizes the following options. Any unrecognised options are reported by a usage message.

#### -remoteserver

Specifies the remote server (OBR server) to which the failed csv files have to be re-transferred.

-includeinventory

Includes Inventory csv files (by default Inventory data files are excluded for re-transfer).

### AUTHOR

somdataretransfer was developed by Hewlett-Packard Enterprise.

somdatatransfercertconfig — Utility to configure the certificate, remote server and folder for data transfer to a Operations Bridge Reporter server. Can be used to configure the OBR Database details for pulling data for the Analytics dashboards

## SYNOPSIS

```
somdatatransfercertconfig.ovpl [-?|-h|-help] [-silent] {-certserver <certificate server> |
-remoteserver <remote server> -remotefolder <remote folder> [-remoteservertype SHR] | -
removeremoteserver <remote server> | -shrdbconfig <OBR DB Server> <DB Port> <DB Username>
<DB Password> | -testtransfer}
```

### DESCRIPTION

This utility can be used to configure the certificate needed to export data from a HPE Storage Operations Manager server to a OBR (Operations Bridge Reporter) server. You can also set or remove the remote server and remote folder and test the connectivity to the OBR server using this. Additionally the OBR Database details can be configured using this utility, which would be used to pull data for the Analytics dashboards.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

- 3. Run the following command:
  - On Windows and Linux:

To request for a certificate from a OBR server

somdatatransfercertconfig.ovpl -certserver OBR\_server\_Hostname\_or\_IpAddress

To configure a remote server (OBR) and remote folder

somdatatransfercertconfig.ovpl -remoteserver OBR\_server\_Hostname\_or\_IpAddress -remotefolder /opt/HP/BSM/PMDB/extract

To remove a configured remote server

somdatatransfercertconfig.ovpl -removeremoteserver OBR\_server\_Hostname\_or\_IpAddress

To test data transfer to the configured OBR server

somdatatransfercertconfig.ovpl -testtransfer

To configure the OBR Database details

somdatatransfercertconfig.ovpl -shrdbconfig

While requesting for a certificate from a OBR server the tool displays a warning message (sample message below):

WARNING: Running this tool will delete any existing client certificates,

set the Certificate Server and request for a signed certificate

from the server.

Is it OK to delete any existing client certificates? [n]

Enter 'y' to continue.

The data export configuration tool displays the following message after requesting the certificate server (OBR server) for a certificate.

Performing certificate configuration

Checking if all OVC services are running...

All needed OVC services are running!

Removing Certificate '20761842-66ba-7574-051b-9c2056fefe9b'...

INFO: Certificate has been successfully removed.

Removing Certificate 'CA\_1ee90212-78a5-756f-023e-fe163bc26508\_2048'...

INFO: Certificate has been successfully removed.

Setting the certificate server to obr\_server\_hostname\_or\_ipaddress

Requesting the certificate server for a signed certificate

INFO: Certificate request has been successfully triggered.

The certificate server 'obr\_server\_hostname\_or\_ipaddress' has to grant

the request to complete the configuration.

If you are configuring the remote server and remote folder the utility displays the following messages.

Configuring server type SHR

Configuring Remote Folder <user specified remote path>

If the remote folder path that you specify does not match the standard path (/opt/HP/BSM/PMDB/extract) the utility displays the following warning message.

Found a non-standard Remote Folder path!!!

If you are removing a configured remote server the utility displays the following message.

Successfully removed configured remote server 'Configured\_OBR\_Remote\_Server'

If you are doing a test transfer to the remote server the utility displays the following messages.

Attempting to transfer temporary file C:\ProgramData\HP\HP BTO Software\se\test\_transfer\_from\_SERVERNAME.txt to all the configured Remote Servers

Successfully transferred file to Remote Server : Configured\_OBR\_Remote\_Server1

Successfully transferred file to Remote Server : Configured\_OBR\_Remote\_Server2

Successfully completed test transfer to all the configured Remote Servers

If you are configuring the OBR Database details the utility displays the following message (on a Windows installation of Storage Operations Manager).

Configuring the SHR Database details...

SHR Database Server : OBR\_DB\_Server\_HostName\_Or\_IpAddress

SHR Database Port : 21424

SHR Username : pmdb\_admin

SHR Password : Password123

Jun 03, 2015 3:22:43 PM com.hp.se.disco.common.analytics.CreateSHRDbConfig writeToConfigFile

INFO: SHR DB configuration written to C:\ProgramData\HP\HP BTO Software\se\conf\sdkConfig.cfg

Successfully created the SHR db configuration

Jun 03, 2015 3:22:43 PM com.hp.se.disco.common.analytics.CreateSHRDbConfig main

INFO: Successfully created the SHR db configuration

Successfully tested the connection to the specified SHR DB.

Jun 03, 2015 3:22:44 PM com.hp.se.disco.common.analytics.CreateSHRDbConfig main

INFO: Successfully tested the connection to the specified SHR DB.

### **Parameters**

somdatatransfercertconfig recognizes the following options. Any unrecognised options are reported by a usage message.

-silent

Configures the certificate without prompting the user for confirmation.

-certserver

Requests for a signed certificate from the specified certificate server.

-remoteserver

Specifies the remote server (SHR server) to which the exported csv files have to be transferred.

-remotefolder

Specifies the remote folder (on the remote server) to which the exported csv files have to be transferred.

```
-remoteservertype
```

Specifies the type of the remote server (defaults to 'SHR').

-removeremoteserver

Specifies the remote server that needs to be removed.

-testtransfer

Creates and transfers a temporary file to the configured remote server at the configured remote folder.

-shrdbconfig

Specifies the SHR Database configuration details.

### AUTHOR

somdatatransfercertconfig was developed by Hewlett-Packard Enterprise.

sominventorydataexportondemand — Utility to trigger export data for instances of a particular category.

# SYNOPSIS

sominventorydataexportondemand.ovpl [-?|-h|-help] -category
{Host|Switch|StorageSystem|Fabric|InferredHost}

## DESCRIPTION

This utility can be used to export on demand, inventory data for specific categories from a HPE Storage Operations Manager server to a Operations Bridge Reporter server. All the instances of the specified category type would be exported.

- 1. Log on to the HPE Storage Operations Manager server as root or administrator user.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows and Linux:

To export instances of all Hosts:

sominventorydataexportondemand.ovpl -category Host

To export instances of all Switches:

sominventorydataexportondemand.ovpl -category Switch

To export instances of all StorageSystems:

sominventorydataexportondemand.ovpl -category StorageSystem

To export instances of all Fabrics:

sominventorydataexportondemand.ovpl -category Fabric

To export instances of all Inferred and Created Hosts:

sominventorydataexportondemand.ovpl -category InferredHost

While exporting instances of a particular category (like 'Switch') the tool displays something similar to the following messages.

Triggering export of Inventory data for Category : 'Switch'

### **Parameters**

sominventorydataexportondemand recognizes the following options. Any unrecognised options are reported by a usage message.

-category

Specifies the category type for which the instances have to be exported. It can be either Host, Switch, StorageSystem, Fabric or InferredHost.

## AUTHOR

sominventorydataexportondemand was developed by Hewlett-Packard Enterprise.

somlicensemanager.ovpl — administer Storage Operations Manager licensing

## SYNOPSIS

 $\texttt{somlicensemanager.ovpl} \left[ \texttt{-}h \mid \texttt{-}help \right]$ 

somlicensemanager.ovpl [ <PRODUCT> [-nosync] [(-g|-gui)|(-install|-f <lic\_file>] ]

The -f|-install option installs license keys into the licensing database.

## DESCRIPTION

somlicensemanager.ovpl provides license management for HPE Storage Operations Manager (SOM). License management includes the ability to retrieve license keys from Hewlett-Packard, installing license keys from a file, the removal of license keys, and reporting valid licenses.

There are two steps to adding a license: updating the license database and notifying the running SOM processes that new license information is available. The -nosync option performs the former but does not notify SOM. If the -nosync option is not specified, the running SOM system is automatically notified; it is not necessary to stop and restart SOM.

The -nosync option allows you to perform multiple licensing tasks (e.g. removing a license and installing a replacement license). You then notify SOM with the following:

somlicensemanager.ovpl SOM

The -g|-gui option opens the license management GUI, which provides access to most license management capabilities:

Retrieve/Install License Key

Enables a license key to be retrieved from Hewlett-Packard.

Install/Restore License Key

Installs license keys from a text file.

Request License Key through Email/Fax

Provides the ability to to request a license for systems that cannot transfer data to Hewlett-Packard.

Report License Key

Reports license information for the particular product.

#### Backup License File

Enables the backing up of a license file before installing or removing licenses.

Remove License Key

Removes license keys (usually temporary or emergency licenses provided by Hewlett-Packard).

Recover License Key

Adds back licenses that were previously removed.

The license management GUI enables multiple operations before updating the running SOM system. For example, you can replace a license by removing the old license, and then adding a new one in its place.

### **Parameters**

PRODUCT

The short name for the product being licensed.

-nosync

Prevents synchronization with the running SOM system.

-g|-gui

Starts the license management GUI.

```
-f|-install <lic_file>
```

Install the license contained in the specified license file

### **EXAMPLES**

To install a license key contained in a file named "license.txt", perform the following:

\$SomInstallDir/bin/somlicensemanager.ovpl SOM -f license.txt

This will update the license database and notify SOM of the licensing change. To avoid notifying SOM, the - nosync option can be provided:

\$SomInstallDir/bin/somlicensemanager.ovpl SOM -nosync -f license.txt

## AUTHOR

somlicensemanager.ovpl was developed by Hewlett-Packard Enterprise.

### FILES

\$SomInstallDir/misc/nms/lic/SOM.pdf

Product definition file used by licensing.

\$SomDataDir/shared/nnm/conf/licensing/SOM.bin

Data file representing the license information that is consumed by somjboss.

<drive>:\ProgramData\AP

Data files for licensing on Microsoft Windows systems.

/var/adm/ap

Data files for licensing on UNIX-based systems.

### **SEE ALSO**

Installation Guide for future details on licensing.

somofficialfqdn.ovpl — Display the official Fully Qualified Domain Name (FQDN) of the HPE Storage Operations Management server.

## SYNOPSIS

somofficialfqdn.ovpl

## DESCRIPTION

Use somofficialfqdn.ovpl to display the official Fully Qualified Domain Name (FQDN). The official FQDN must be correct and consistent across systems to enable Single Sign On. HPSOM sets the official FQDN during installation. After installation, you can change it using the somsetofficialfqdn.ovpl command.

### Options

somofficialfqdn.ovpl by default displays verbose output with a ping test. somofficialfqdn.ovpl recognizes the following options:

-d

Display the domain name of the official FQDN. If the FQDN is only a short hostname or an IP address and if the terse option (-t) is used, HPSOM does not display a value; otherwise, HPSOM displays a message informing you that the domain name cannot be found.

-t

Terse mode. Displays the FQDN or domain name value only. When the FQDN or domain name is not found, no warning or informative text is shown. This option also skips the ping test.

-m

Query for the default FQDN and display the value. HPSOM displays whichever value it finds first using the following order:

- FQDN
- Short hostname
- IP address

If none of the above are found, then 'localhost' is displayed.

-h

Display the help menu listing all the options.

### **EXAMPLES**

Running the command without any options displays the official FQDN and performs a ping test:

```
# somofficialfqdn.ovpl
    FQDN: hostname.somedomain
    Ping test: pinging hostname.somedomain please wait...
    Ping OK
```

Running the command with the -t option displays the official FQDN as follows:

Running the command using the -d option displays the domain name as follows:

```
# somofficialfqdn.ovpl -d
Domain: somedomain
```

Running the command using the -d and -t options displays only the domain name:

### AUTHOR

somofficialfqdn.ovpl was developed by Hewlett-Packard Enterprise.

### **FILES**

somofficialfqdn.ovpl resides in \$SOM\_BIN directory.

### **SEE ALSO**

ovstatus, ovstart, ovaddobj, somsetofficialfqdn

somresetembdb.ovpl — drop (delete) and recreate the embedded database, if HPE Storage Operations Manager is configured to run with the embedded database

# SYNOPSIS

somresetembdb.ovpl [-?|-h|-help] [-silent] [-nostart]

## DESCRIPTION

Use somresetembdb.ovpl to drop (delete) and recreate the SOM embedded database. This command is useful only if you installed SOM with the embedded database option. You should use this command only if your database is corrupt, and you are willing to lose all of your data; or, if you simply want to reset your database to the state it was in after initial installation.

If SOM is running when this command is executed, the command first stops SOM (using ovstop), then starts the somdbmgr process to work with the database (using ovstart). Unless the -nostart option is present, SOM restarts (using ovstart) upon successful completion of the reset process.

When the database reset has completed, the embedded database has no tables or data in it. The tables are recreated when you restart SOM using the ovstart command, or when the somresetembdb.ovpl command automatically starts SOM. You must be logged in as root on UNIX systems, or as administrator on Windows systems to run this command.

### **Parameters**

The somresetembdb.ovpl command recognizes the following parameters:

-silent

The somresetembdb.ovpl command does not display the command results when you use the -silent option.

-nostart

The somresetembdb.ovpl command does not start SOM after the database reset when you use the - nostart option.

-?|-h|-help

Display command usage.

### EXAMPLES

You can use this script to reset your database if you have a bad discovery or a corrupted database; or if you

want to reset the database (including configuration items stored in the database) to the state the database was in after initial installation.

You'll see these messages:

# somresetembdb.ovpl -nostart WARNING: Running this tool will stop SOM, drop and recreate the database, and restart SOM. Please make sure no major activity is occurring at this time. Is it OK to stop SOM (ovstop)? [n] y Thank you! WARNING: This will delete all configuration and discovered data. You cannot recover from a reset unless you have taken a backup. Are you sure you wish to reset your database? [n] y Attempting to reset the embedded database... Starting somdbmgr process for database reset... Successfully started somdbmgr process for database reset. Successfully reset private database. #

AUTHOR

somresetembdb.ovpl was developed by Hewlett-Packard Enterprise.

### **FILES**

somresetembdb.ovpl resides in \$SOM\_BIN (UNIX) or install\_dir\bin (Windows) directories.

### **SEE ALSO**

ovstart, ovstop, ovstatus.

somrestoreembdb.ovpl --- restore a full backup of the SOM embedded database

## SYNOPSIS

somrestoreembdb.ovpl [-?|-h|-help] [-force] -source <backup file>

## DESCRIPTION

Use the somrestoreembdb.ovpl script to restore a full backup of the HPE Storage Operations Manager embedded database. Create the backup file required for the restore using the sombackupembdb.ovpl script. Because query planning statistics are not backed up, these statistics are gathered as part of the restore procedure to ensure good database performance after a restore.

If you plan to use the sombackupembdb.ovpl script to create a backup of the SOM embedded database, then use the somrestoreembdb.ovpl script to place embedded database records on a second SOM management server, both SOM management servers must have the same type of operating system and SOM version and patch level.

Before running the somrestoreembdb.ovpl script, make sure the embedded database is empty. You can do this by running the somresetembdb.ovpl script. If you do not clear the embedded database, the restore procedure runs the somresetembdb.ovpl script for you and the restore fails if the somresetembdb.ovpl script fails.

Do *not* run this script while SOM is running unless you specify the -force option. Only the somdbmgr process can (and must) be running when you run the somrestoreembdb.ovpl script. You must be logged in as as administrator on Windows systems or root on UNIX systems, to run this script.

### Parameters

-source <backup file>

The file to use when restoring the backup. This file must be a file that was created using the sombackupembdb.ovpl script.

-force

If you provide this option, the script stops SOM if it is currently running, then starts the somdbmgr process.

-?|-h|-help

Display script usage.

### **EXAMPLES**

Use this script to run a full database recovery when a restore from backup becomes necessary.

You will see these messages:

### AUTHOR

somrestoreembdb.ovpl was developed by Hewlett-Packard Enterprise.

### **FILES**

somrestoreembdb.ovpl resides in the following directories:

- Windows: %SOM\_BIN%
- UNIX: \$SOM\_BIN

### **SEE ALSO**

ovstart, ovstop, ovstatus, sombackupembdb, somresetembdb.

somsetofficialfqdn.ovpl — Set the official Fully Qualified Domain Name (FQDN) of the HPE Storage Operations Management server.

# SYNOPSIS

 $\texttt{somsetofficialfqdn.ovpl} \ [-f \ | \ -force] < \!\! \textit{fqdn} \!\!> \!\!$ 

## DESCRIPTION

Use the somsetofficialfqdn.ovpl script to change the official FQDN for the SOM management server after installation. If you run this script without any arguments, it sets the official FQDN to the default value. The default value is obtained by performing a hostname lookup. See the reference page for the nnmofficialfqdn.ovpl script using the -m option for more information about the default hostname lookup.

If the FQDN is changed, the user is prompted to auto generate a new SSL certificate. All certificates that SOM auto generates have the following alias syntax: fqdn.selfsigned. Because the SSL certificate is tied to the FQDN, HTTPS breaks if a new certificate is not generated and added to both the nnm.keystore and nnm.truststore files. If you provide the -force option, the somsetofficialfqdn.ovpl script generates and inserts the certificate into both the nnm.keystore and nnm.truststore files. If the new certificate's alias already exists in either the nnm.keystore or nnm.truststore files, the certificate is not inserted.

If a new certificate is generated, the system property com.hp.ov.nms.ssl.KEY\_ALIAS in the nmslocal.properties file is updated to reference the new certificate alias. This is a necessary step for HTTPS to work correctly when SOM is started again.

### Options

There are two optional arguments to somsetofficialfqdn.ovpl

<fqdn>

Resets the official FQDN to <fqdn> on confirmation from the user.

If the value of <fqdn> does not have a domain (for example, it is a short hostname, IP address or localhost), SSO is disabled.

#### -force|-f

This is a *force flag* that does not prompt the user for confirmation and does not print verbose information. When used alone, the force flag sets the official FQDN to the default. When  $f_{qdn}$  is used after this flag, it changes the official FQDN to  $f_{qdn}$ .

### **EXAMPLES**

Set the FQDN to the default value:

somsetofficialfqdn.ovpl

Set the FQDN to the value somehost.somedomain: somsetofficialfqdn.ovpl somehost.somedomain

Force the official FQDN to the default value:

```
somsetofficialfqdn.ovpl -f
```

## AUTHOR

somsetofficialfqdn.ovpl was developed by Hewlett-Packard Enterprise.

### FILES

 $\texttt{somsetofficialfqdn.ovpl}\ resides\ in\ the\ \texttt{som_BIN}\ (Windows)\ or\ \texttt{som_BIN}\ (UNIX)\ directory.$ 

## SEE ALSO

somofficialfqdn.

somobrgrantcertrequest — Utility to grant certificates and configure the data source servers to enable transfer of data from a Storage Operations Manager (SOM) server. This utility needs to be executed on a Operations Bridge Reporter (OBR) server.

### SYNOPSIS

somobrgrantcertrequest.ovpl [-?|-h|-help] [-silent] {-reqserver <requesting server> | datasource <SOM server1> <SOM server2>}

### DESCRIPTION

This utility can be used to grant certificates (requested from one or more Storage Operations Manager servers) and also to configure one or more data sources (Storage Operations Manager servers). This utility needs to be copied on to a OBR server and executed there.

- 1. Log on to the Operations Bridge Reporter server as root or administrator user.
- 2. Open a command prompt. Go to the directory where the 'somobrgrantcertrequest.ovpl' script has been copied to. Ensure the HP Perl is set in the PATH environment variable.

On Windows: INSTALL\_DIR\nonOV\perl\a\bin\perl.exe On Linux: /opt/OV/nonOV/perl/a/bin/perl

3. Run the following command:

On Windows and Linux:

To grant a certificate requested from a Service Operations Manager (SOM) server:

perl somobrgrantcertrequest.ovpl -reqserver SOM\_server\_Hostname\_or\_IpAddress

To configure one or more data sources (SOM servers):

perl somobrgrantcertrequest.ovpl -datasource SOM\_server\_Hostname\_or\_IpAddress Another\_SOM\_server\_Hostname\_or\_IpAddress

While granting a certificate for a SOM server the utility displays messages similar to the ones below.

Checking if all OVC services are running...

All needed OVC services are running!

Listing all pending requests:

RequestID: a78483b2-3433-757b-0be8-872ffdcc1071

Context:

CN: 45d6fc82-ee12-7576-1e74-8169b133391c

Nodename: SOM\_server\_hostname

IPAddress: 1.2.3.4

PeerAddress: 1.2.3.4

Platform: Windows 6.2, CPU: x64, OSBITS: 64

InstallType: Manual

TimeReceived: 02/16/2015 05:41:01 PM IST

Processing request id : a78483b2-3433-757b-0be8-872ffdcc1071

Completed certificate grant operation

If the certificate grant operation fails the utility displays messages similar to the ones below.

Checking if all OVC services are running...

All needed OVC services are running!

Listing all pending requests:

No pending requests.

Unable to find any pending requests for the mentioned server : abcd

In such cases, please check if the SOM server's request was sent correctly and if the hostname or ip address used in the argument is the correct one.

If you are configuring one or more data sources (SOM servers) the utility displays messages similar to the ones below.

Configuring the data source servers...

Getting OV Core id for SOM\_server\_Hostname\_or\_IpAddress...

Getting OV Core id for Another\_SOM\_server\_Hostname\_or\_IpAddress...

\* Starting policy installation on host 'localhost'.

Installing policy file

'2E1E3F7B-8BC0-4470-94D5-13C3448593BB\_header.xml'.

Triggering control service notification for host 'localhost'.

Install operation completed successfully.

Completed configuring the data source servers

\*\*\*Please ensure the remote data push path in the data source servers

is set to '/opt/HP/BSM/PMDB/extract' folder !!!\*\*\*

If the data source configuration fails the utility displays messages similar to the ones below.

Configuring the data source servers...

Getting OV Core id for SOM\_server\_hostname\_or\_IpAddress

Failed to get the OV Core id for SOM\_server\_hostname\_or\_IpAddress

In such cases please check if the SOM servers are reachable and the OVC services are running. Also, check if the needed ports are opened in the firewall settings.

### **Parameters**

somobrgrantcertrequest recognizes the following options. Any unrecognised options are reported by a usage message.

-silent

Grants the certificate or configures the data sources without prompting the user for confirmation.

-reqserver

Grants the certificate based on a request from a SOM server.

-datasource

Configures one or more data source servers (SOM servers) from where the exported data would be received.

### AUTHOR

somobrgrantcertrequest was developed by Hewlett-Packard Enterprise.

somsecurity.ovpl - SOM Security Management

## SYNOPSIS

somsecurity.ovpl -help

somsecurity.ovpl -assignNodeToSecurityGroup ((-node <name or hostname or management address or uuid> -securityGroup <name or uuid>) | -file <name>) | -assignNodeToTenant ((-node <name or hostname or management address or uuid> -tenant <name or uuid>) | -file <name>) | assignSecurityGroupToTenant (-tenant <name or uuid> -securityGroup <name or uuid>) | assignUserGroupToSecurityGroup ((-userGroup <name> -securityGroup <name or uuid> -role <role>) | file <name>) | -assignUserToGroup ((-user <name> -userGroup <name>) | -file <name>) | -file <name>) | -u <username> -p <password>] [-jndiHost <hostname> Default: localhost] [-jndiPort <port> Default: 1099]

somsecurity.ovpl -createSecurityGroup ((<name> [-securityGroupUuid <uuid>] [-description <description>]) | -file <name>) | -createTenant (<name> [-tenantUuid <uuid>] [-securityGroupUuid <uuid>] [-description <description>]) | -createUserAccount ((<username> -role <role> [-password <password>] [-directoryServiceAccount <true/false>]) | -file <name>) | -createUserGroup ((<name> [displayName <user friendly group name>] [-description <description>] [-directoryServiceName <dn>]) | -file <name>) [-u <username> -p <password>] [-jndiHost <hostname> Default: localhost] [-jndiPort <port> Default: 1099]

 $\label{eq:somsecurity.ovpl-deleteSecurityGroup(<groupName or uuid>|-file <name>)|-deleteUserAccount (<name>|-file <name>)|-deleteUserGroup <name>[-u <username>-p <password>][-jndiHost <hostname> Default: localhost][-jndiPort <port> Default: 1099]$ 

somsecurity.ovpl -displayConfigReport [<report>[, <report>]] [-u <username> -p <password>] [jndiHost <hostname> Default: localhost] [-jndiPort <port> Default: 1099]

somsecurity.ovpl -listNode <nodeName> | -listNodesInSecurityGroup <groupName or uuid> | listSecurityGroupForTenant <uuid> | -listSecurityGroups | -listTenants | -listUserGroupMembers
<groupName> | -listUserGroups <user> | -listUserGroupsForSecurityGroup <groupName or uuid> [-u
<username> -p <password>] [-jndiHost <hostname> Default: localhost] [-jndiPort <port> Default: 1099]

somsecurity.ovpl -removeUserFromGroup ((-user <name> -userGroup <name>) | -file <name>) | deleteUserGroup (<name> | -file <name>) | -removeUserGroupFromSecurityGroup ((-userGroup <groupName> -securityGroup <groupName or uuid> [-role <role>]) | -file <file>) | -updateUserGroup ((<name> [-displayName <user friendly group name>] [-description <description>] [directoryServiceName <dn>]) | -file <name>) [-u <username> -p <password>] [-jndiHost <hostname> Default: localhost] [-jndiPort <port> Default: 1099]

somsecurity.ovpl -reloadAuthConfig [-u <username> -p <password>] [-jndiHost <hostname> Default: localhost] [-jndiPort <port> Default: 1099]

## DESCRIPTION

If you frequently run SOM command line tools, create an file containing your username and password. Doing so permits you to run many SOM command line tools and scripts without entering a username and password. Place the som.properties file in a .som subdirectory within your home directory. For example, you might place the som.properties file you create in the *drive*:\Documents and Settings\username\.som\ (Windows) or ~/.som (UNIX) directory.

somsecurity.ovpl is used to manage SOM security configuration. It provides commands to create, update, and remove security objects such as user accounts, user groups, and security groups as well as to configure the relationships among these objects.

1. Log on to the HPE Storage Operations Manager management server as root or administrator.

2. Go to the following directory:

On Windows: HPSOM\_InstallDir\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows: somsecurity.ovpl -createTenant myTenant On Linux: ./somsecurity.ovpl -createTenant myTenant

Tenant with name "myTenant" will be created.

### **Parameters**

somsecurity.ovpl supports the following commands:

```
-assignNodeToSecurityGroup (-node <name or hostname or management address or uuid> -
securityGroup <name or uuid>) | -file <name>
```

Assigns nodes to security groups using either command line arguments or an input file.

-node

Identifies a node by name, hostname, management address, or UUID.

-securityGroup

Identifies a security group by name or UUID.

-file

Path to a CSV-formatted file containing lists of node to security group assignment with the format: securitygroup, node

-help

Prints the usage statement.

```
-assignNodeToTenant (-node <name or hostname or management address or uuid> -tenant <name or uuid>) | -file <name>
```

Assigns a node to a tenant using either command line arguments or an input file. The node-to-tenant assignment must be done on an SOM management server that directly manages both objects. Global node-to-tenant assignments are unsupported.

-node

Identifies a node by name, hostname, management address, or UUID.

-tenant

Identifies a tenant by name or UUID.

-file

Path to a CSV-formatted file containing lists of node to tenant assignments with the format: node, tenant

-assignSecurityGroupToTenant -tenant <name or uuid> -securityGroup <name or uuid>

Changes the default security group for a tenant. The default security group for a tenant is used to specify which security group to use when new nodes are seeded for the tenant. Changing this value does not affect existing nodes.

-tenant

The name or UUID of the tenant to modify.

-securityGroup

The name or UUID of the security group to set as the default for the tenant.

```
-assignUserGroupToSecurityGroup (-userGroup <name> -securityGroup <name or uuid> -role
<role>) | -file <name>
```

Assigns user groups to security groups. User groups are assigned to security groups to give the users in the group access to the nodes in the security group. Each assignment includes a role as part of the assignment which controls which actions are available to the users on the nodes.

-userGroup

Identifies the user group to assign by name.

-securityGroup

Identifies by name or UUID the security group to receive the user group.

-role

Identifies the role to use in the assignment by key. Available roles are: admin, level2, level1, guest

-file

Path to a CSV-formatted file containing lists of assignments with the format: userGroup, securityGroup, role

-assignUserToGroup (-user <name> -userGroup <name>) | -file <name>

Assigns users to user groups. Users are assigned to groups which are then given access to objects. A user can be assigned to multiple groups and has access to all objects from all of their groups. The default groups of admin, client, level2, level1 and guest also give the users assigned to them the matching role of the same name on SOM itself.

-user

Identifies the user to assign by name.

-userGroup

Identifies the user group to assign by name.

-file

Path to a CSV-formatted file containing lists of assignments with the format: user, userGroup

-createSecurityGroup (<name> [-securityGroupUuid <uuid>] [-description <description>]) | file <name>

Creates a new security group. Security groups group similar topology objects to simplify the security configuration. Each security group consists of a name, UUID, and description.

-securityGroupUuid

Optional UUID for the new security group. If this parameter is not supplied, SOM generates the value.

-description

Optional description for the new security group.

-file

Path to a CSV-formatted file containing lists of security groups with the format: <code>name</code>, <code>uuid</code>, <code>description</code>

```
-createTenant <name> [-tenantUuid <uuid>] [-securityGroupUuid <uuid>] [-description
<description>]
```

Creates a new tenant along with a matching security group of the same name.

-tenantUuid

Optional UUID for the new tenant. If this parameter is not supplied, SOM generates the value.

-securityGroupUuid

Optional UUID for the new security group. If this parameter is not supplied, SOM generates the value.

-description

Optional description for the new tenant.

```
-createUserAccount (<username> -role <role> [-password <password>] [-
directoryServiceAccount <true/false>]) | -file <name>
```

Creates a new user account.

-role

Internal accounts require that a role be specified. SOM automatically assigns the new user to the matching user group. External accounts do not require a role because the directory service might supply the roles.

-password

The password for the new user. Only used for internal accounts.

-directoryServiceAccount

Specifies whether an external directory service manages this user account. Use false for an account that is stored internally in the SOM database. Use true for an external account that is stored in a directory service. The default value is false.

-file

Path to a CSV-formatted file containing lists of user accounts with the format: username, password, role, directoryServiceAccount

-createUserGroup (<name> [-displayName <user friendly group name>] [-description
<description>] [-directoryServiceName <dn>]) | -file <name>

### Creates a new user group.

-displayName

Optional friendly name for the user group.

-description

Optional description of the new group.

-directoryServiceName

Optional for directory service users. Use this option to pair a directory service distinguished name with this user group.

-file

Path to a CSV-formatted file containing lists of user groups with the format: name, displayName, description, directoryServiceName

-deleteSecurityGroup <groupName or uuid> | -file <name>

Removes a security group by name or UUID. The security group must not have any nodes or tenants assigned to it.

-file

Path to a CSV-formatted file containing lists of security groups with the format: name, uuid, description. This format is the same as for createSecurityGroup however only the name (or UUID if present) is used.

-deleteUserAccount <name> | -file <name>

Removes a user account by name.

-file

Path to a CSV-formatted file containing lists of user accounts with the format: username, role, password, directoryServiceAccount. This format is the same as for createUserAccount however only the username is used to match the accounts to remove.

-deleteUserGroup <name>

Removes a user group by name.

-displayConfigReport [<report>[, <report>]]

Displays security configuration reports. Available reports are: unusualRoleCombinations, emptySecurityGroups, emptyUserGroups, securityGroupsWithSameName, usersWithoutGroups, tenantsWithSameName, usersWithoutRoles

If no reports are specified, all available reports are run.

-listNode <node name>

Displays the UUIDs of the security group and tenant associated with the specified node. The node can be specified as name, hostname, or UUID. The output lists node UUID and name; security group UUID and name; and tenant UUID and name on separate lines.

-listNodesInSecurityGroup <groupName or uuid>

Lists nodes in a security group by security group name or UUID.

-listSecurityGroupForTenant <uuid>

Displays the configured default security group for the specified tenant.

-listSecurityGroups

Lists the names of all configured security groups.

-listTenants

Lists the names of all configured tenants.

-listUserGroupMembers <groupName>

Lists users in the specified user group.

-listUserGroups <user>

List all configured user groups.

-listUserGroupsForSecurityGroup <groupName or uuid>

Lists user groups associated with the specified security group.

```
-removeUserFromGroup (-user <name> -userGroup <name>) | -file <filename>
```

Removes mappings between user accounts and user groups.

-user

The username of the user account to modify.

-userGroup

The name of the user group to unmap from the specified user account.

-file

Path to a CSV-formatted file containing lists of user to user group mappings with the format: user, userGroup

-deleteUserGroup <name> | -file <name>

Removes user groups by name. Mappings between the user group and user accounts and security

groups are also removed.

-file

Path to a CSV-formatted file containing lists of user to user group mappings with the format: usergroup, description. This format is the same as createUserGroup; however, only the name is used to match the groups to be removed.

```
-removeUserGroupFromSecurityGroup (-userGroup <groupName> -securityGroup <groupName or
uuid> [-role <role>]) | -file <name>
```

Removes mappings between user groups and security groups.

-userGroup

The name of the user group.

-securityGroup

The name or UUID of the security group.

-role

An optional role. If no role is specified, mappings for all roles are removed.

-file

Path to a CSV-formatted file containing lists of user to user group mappings with the format: userGroup, securityGroup, role

```
-updateUserGroup <name> ([-displayName <user friendly group name>] [-description <description>] [-directoryServiceName <dn>]) | -file <name>
```

Updates a user group. All user group attributes except name can be updated.

-displayName

Optional friendly name for the user group.

-description

Optional description of the group.

-directoryServiceName

Optional for directory service users. Use this option to pair a directory service distinguished name with this user group.

-file

Path to a CSV-formatted file containing lists of user groups with the format: name, displayName, description, directoryServiceName

-reloadAuthConfig

Reloads the contents of the nms-auth-config.xml file.

-u <*username*>

Supply the SOM administrator username to run the script. This script requires the SOM administrator username unless you use an som.properties file. See the som.properties.4 reference page for more information.

```
-p <password>
```

Supply the SOM administrator password to run the script. This script requires the SOM administrator password unless you use an som.properties file. See the som.properties.4 reference page for more information.

```
-jndiHost <hostname>
```

The server jndi host; default is localhost.

-jndiPort <port>

The server jndi port; default is 1099.

### **EXAMPLES**

somsecurity.ovpl -createTenant myTenant

Creates a tenant named myTenant.

somsecurity.ovpl -listTenants

Lists all configured tenants.

```
somsecurity.ovpl -createTenant "Tenant with a space", somsecurity.ovpl -createTenant
\!Tenant
```

Depending on the shell you use, you can use quotation marks around the tenant name to create a tenant with spaces in the name, or you can use the escape character to create a tenant with a special character in its name.

somsecurity.ovpl -createSecurityGroup mySecurityGroup

Creates the security group mySecurityGroup.

```
somsecurity.ovpl -createSecurityGroup "Group with a space", somsecurity.ovpl - createSecurityGroup \label{eq:group}
```

Depending on the shell you use, you can use quotation marks around the security group name to create a security group with spaces in the name, or you can use the escape character to create a security group with a special character in its name.

```
somsecurity.ovpl -listSecurityGroups
```

Lists all configured security groups.

somsecurity.ovpl -listNode myNode

Lists the associated security group and tenant for the supplied node.

## AUTHOR

somsecurity.ovpl was developed by Hewlett-Packard Enterprise.

## **SEE ALSO**

somopcexport.ovpl — export SOM management event and SNMP trap configurations to HPE OM policies (SNMP template) file.

### SYNOPSIS

somopcexport.ovpl -help

somopcexport.ovpl [-u <username> -p <password>] [-jndiHost <hostname> -jndiPort <port>] -template
<template\_name> -application <application\_name> [-agtmsi\_copy | -agtmsi\_divert] [-svmsi\_copy | svmsi\_divert] [-msgtype] [-author <author code>] [-oid <snmp oid prefix>] [-omi\_hi] -file <output\_file
name> [-force]

somopcexport.ovpl [-u <username> -p <password>] [-jndiHost <hostname> -jndiPort <port>] -template
<template\_name> -application\_name> [-agtmsi\_copy | -agtmsi\_divert] [-svmsi\_copy | svmsi\_divert] [-msgtype] [-author <author code>] [-oid <snmp oid prefix>] [-omi\_hi] -omi\_policy

### DESCRIPTION

somopcexport.ovpl reads the SOM management event and SNMP trap configurations and exports the configurations as an HPE OM policies file. This tool provides similar functionality to the HPE OM ovtrap2opc utility that converted legacy SOM trapd.conf files into HPE OM policies.

### **Parameters**

somopcexport.ovpl supports the following parameters:

-u <username>

Supply the SOM administrator username to run the script. This script requires the SOM administrator username unless you use an nnm.properties file. See the nnm.properties.4 reference page for more information.

-p <password>

Supply the SOM administrator password to run the script. This script requires the SOM administrator password unless you use an nnm.properties file. See the nnm.properties.4 reference page for more information.

-agtmsi\_copy

Copy matching messages to the OVO Agent Message Stream Interface.

-agtmsi\_divert

Divert matching messages to the OVO Agent Message Stream Interface.

Set the policy application name.

-author <author\_code>

Export events matching the author code.

```
-file <output_filename>
```

Save output to file with the specified name.

-force

Overwrite an existing policy file specified by -file <output\_file\_name>.

-jndiHost <hostname>

The server jndi host; default is localhost.

-jndiPort <port>

The server jndi port; default is 1099.

-msgtype

Set the message type to the name of the condition. The value of the resulting MSGTYPE field will be truncated to 32 characters for OM import compatibility.

-oid <snmp\_oid\_prefix>

Export events with snmp trap OIDs matching the provided OID.

-omi\_hi

Include HPE OMi health indicators for applicable SOM management events.

-omi\_policy

Export in OMi policy format. Using the <code>-omi\_policy</code> option is the recommended usage. Only generate policies without this option if you need to maintain backwards compatibility with previous OM integrations. A header file and a data file are created in the form <UUID>\_header.xml and <UUID>\_data where UUID is a Universally Unique Identifier. The -file option is ignored. Using the <code>-omi\_policy</code> option generates policies using the <code>RelatedCiInfo</code> OMi custom attribute. If you do not use the <code>-omi\_policy</code> option, the policy uses the older <code>OPR\_CI\_INFO</code> OM custom attribute.

```
-svmsi_copy
```

Copy matching messages to the OVO Server Message Stream Interface.

-svmsi\_divert

Divert matching messages to the OVO Server Message Stream Interface.

-template template name

Set the <template\_name>.

-help

Show help.

### **EXAMPLES**

Export an OM policy file containing all SOM management events and SNMP trap definitions:

somopcexport.ovpl -u user -p pass -template "SNMP Traps" -application "SOM" -file
policies.dat

Export an OMi policy file containing all SOM management events and SNMP trap definitions and OMi health indicators:

somopcexport.ovpl -u user -p pass -template "SNMP Traps" -application "SOM" -omi\_hi omi\_policy

### AUTHOR

somopcexport.ovpl was developed by Hewlett-Packard Enterprise.

somtrimincidents.ovpl - delete and (optionally) archive incidents

### SYNOPSIS

somtrimincidents.ovpl [ [ [-age age -incr incr] | -date date | -trimOldest numberToTrim ] [-nature nature] [-lifecycle lifecyclestate] [-severity severity] [-origin origin] [-nature name] [-path path] [-archiveOnly] [-trimOnly] [-trimOnly] [-trimOnly [ -trimOnly [ -trim

### DESCRIPTION

somtrimincidents.ovpl is used to delete incidents from the incident table. The deleted incidents are (optionally) saved in a compressed archive file:

data\_dir\tmp\incidentArchive.ISO 8601 Date.Time Ms.txt.gz

The default behavior is to delete incidents without archiving

### **ARCHIVE-FORMAT**

#### Incidents will be archived using a csv format. The column names are ordered as follows: TimeStamp(LastOccurance), Name, SourceObjectName, SysObjectID(ALWAYS\_EMPTY), FormattedMessage, LifeCycleState, Severity, Priority, AssignedTo, JournalNotes, Category, Family, Nature, Origin, IncidentNotes, DuplicateCount, FirstOccuranceTime, OriginOccuranceTime, PayLoad, ElementOID

TimeStamp - Last time this incident occurred, as a human readable time string.
Name - Incident Name
SourceGobjectMame - Sorce Object Mame
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### Parameters

-age age

Specifies the age of incidents to trim. You should use this option in conjunction with the incr option. If specified, the value for age must be greater than 0.

#### -incr increment

Specifies the increment for age option. Supported increments include days, weeks, and months

-trimOldest numberToTrim

Specifies a number of incidents to delete from the database. The oldest numberToTrim incidents will be selected from all incidents in the database based on the options specified.

#### -date date

Specifies the date from which older incidents are trimmed. The date is specified in ISO 8601 standard format: yyyy-mm-ddThh:mm:ss[+ or -]hh:mm.

#### -archiveOnly

Creates an archive file. Does not trim incidents. This option requires you to specify the age or date option.

#### -trimOnly

Trims incidents without archiving the deleted incidents. This is the default behavior.

-trimAndArchive

Trims incidents with archiving the deleted incidents.

### -batch batchSize

Specifies the batch size when trimming incidents. If specified, the value for batch must be greater than 0 and less than or equal to 1000.

#### -path path

Specifies the archive file name with a complete path. This path overrides the default archive file:

data\_dir\tmp\incidentArchive.txt.gz

#### -jndiHost hostname

Server jndi host. Default is localhost.

-jndiPort port

#### Server jndi port. Default is 1099.

-lifecycle lifecycle

#### Specifies the lifecycle state of incidents matching the age | date to trim.

- Example lifecycle states include:
- Registered
- InProgress
- Completed
- Closed

#### -severity severity

#### Specifies the severity of incidents matching the age | date to trim.

#### Example severity states include:

- Critical
- Major
- Minor
- .....
- Warning
- Normal

#### -name name

Specifies the name of incidents matching the age | date to trim.

#### -nature nature

Specifies the nature of incidents matching the age | date to trim.

- Examples of nature include:
- RootCause

SecondaryRootCause

- Symptom
- ServiceImpact
- StreamCorrelation

None

- Info
- Dedup\_Stream\_Correlation

Rate\_Stream\_Correlation

#### -origin origin

Specifies the origin of incidents matching the age | date to trim.

#### Example origin states include:

SOM

SnmpTrap

-u <username>

#### Supply the SOM administrator username to run the script.

-p <password>

Supply the SOM administrator password to run the script.

-quiet quiet

Specifies non-prompt mode.>

### EXAMPLES

Trim incidents older than 6 days: somtrimincidents.ovpl -age 6 -incr days Trim incidents older than 6 weeks with a nature of Symptom: somtrimincidents.ovpl -age 6 -incr weeks -nature Symptom Trim incidents older than 6 months with a lifecycle state of Closed: somtrimincidents.ovpl -age 6 -incr months -lifecycle Closed Trim incidents older than 6 months with a severity of Normal: somtrimincidents.ovpl -age 6 -incr months -severity Normal Trim incidents older than the specified date: somtrimincidents.ovpl -date 2007-07-16T19:20:30 Trim incidents older than the specified date with a nature of Symptom:

somtrimincidents.ovpl -date 2007-07-16T19:20:30+01:00 -nature Symptom

#### Trim incidents older than the specified date with a lifecycle state of Closed:

somtrimincidents.ovpl -date 2007-07-16T19:20:30-01:00 -lifecycle Closed

#### Trim incidents older than 6 days using the specified filename for the archive:

somtrimincidents.ovpl -age 6 -incr days -path "C:\BkupDir\saveIncidents.gz"

Trim incidents older than 6 days (without archiving):

somtrimincidents.ovpl -age 6 -incr days

Trim the oldest 10,000 SNMP traps with Symptom nature:

somtrimincidents.ovpl -trimOldest 10000 -nature Symptom -origin SnmpTrap

Trim incidents older than 6 days (without archiving):

somtrimincidents.ovpl -trimOnly -age 6 -incr days

Archive incidents older than 6 days (without trimming):

somtrimincidents.ovpl -archiveOnly -age 6 -incr days

### Trim and archive incidents older than 6 days:

somtrimincidents.ovpl -trimAndArchive -age 6 -incr days

### AUTHOR

somtrimincidents.ovpl was developed by Hewlett Packard Enterprise.

somjbossrestart — This utility is used to restart som jboss services

## SYNOPSIS

```
somjbossrestart.ovpl [-h|-help]
```

### DESCRIPTION

This utility is used to restart som jboss services.

- 1. Log on to the HPE Storage Operations Manager server which has root or administrator privilege.
- 2. Open a command prompt. Go to the following directory:

On Windows: INSTALL\_DIR\bin On Linux: /opt/OV/bin

3. Run the following command:

On Windows:

somjbossrestart.ovpl

On Linux:

./somjbossrestart.ovpl

somjbossrestart.ovpl script, it will restart som jboss services internally.

### **Parameters**

somjbossrestart - No Prarameter is required.

## AUTHOR

somjbossrestart was developed by Hewlett-Packard Enterprise.

custom.properties — This file is used to configure the custom properties used in the product.

## SYNOPSIS

custom.properties

## DESCRIPTION

This file is used to create/edit the properties that can be configured in the product. The file is available under: For Windows C:\ProgramData\HP\HP BTO Software\Conf\som\custom.properties.sample and For Linux /var/opt/OV/conf/som/custom.properties.sample Once the properties are modified, rename the file to custom.properties and the ovjboss server needs to be restarted. The properties can be used to tweak the application behaviour like changing the default cache refresh time, selecting SNMPv3 for Cisco discovery, etc. All the properties under the custom.properties files will be reloaded on the JVM during the ovjboss restart.

### Attributes

The properties that can be configured through custom.properties are listed below.

wbemcollector.collectioncachetimeout

Whem Data Collection Cache Refresh Period (in hours). Value should be an integer  $\geq 1$ , however, it is not recommended to change it.

cisco.useSNMPv3

Setting this property to true enables discovery of CISCO switches through SNMPv3.

cisco.snmp.timeout

Value in milliseconds after which CISCO switch discovery times out.

cisco.snmp.retries

Number of retries for CISCO switch discovery.

cisco.snmp.privacyProtocol

The privacy protocol for CISCO switch discovery through SNMPv3.

cisco.snmp.authenticationProtocol

The authentication protocol for CISCO switch discovery through SNMPv3.

cisco.showDisabledVsans

Setting the value to true enables the collection of disabled VSANs for Fabric.

Setting the value to true excludes discovery and data collection of ESX Virtual Machines for ESX servers.

discovery.snmp.timeout

Value in milliseconds after which the discovery process times out while attempting to discover any device through SNMP.

discovery.snmp.retries

Number of retries by the discovery process to discover a device using SNMP.

collection.command.execution.timeout

Command time out used for discovery and data collection.

### **EXAMPLES**

Please refer to custom.properties.sample file under DATA\_DIR/conf/se directory.

### **SEE ALSO**

som.properties — This file is used to configure SOM server properties.

### SYNOPSIS

som.properties

## DESCRIPTION

This file is used to configure SOM server properties like incident auto-trimming properties, etc. The file is available under: For Windows C:\ProgramData\HP\HP BTO Software\shared\nnm\conf\props\som.properties and For Linux /var/opt/OV/shared/nnm/conf/props/som.properties. Once the properties are modified, the somjboss server needs to be restarted for the changes to take effect. All the properties under the som.properties files will be reloaded during the somjboss restart.

### Attributes

The properties that can be configured through som.properties are listed below.

com.hp.nnm.events.snmpTrapAutoTrimSetting

This property determines if the auto-trim traps feature is enabled. The auto-trim traps functionality, if enabled, will be triggered when the number of traps in the database exceeds com.hp.nnm.events.snmpTrapAutoTrimStartPercentage(by default 50% of the SNMP Trap limit). The oldest traps in the database will be deleted. This functionality will only apply to snmp traps. Valid values for this property are Disabled, TrimOnly, TrimAndArchive and this property is set to Disabled by default.

com.hp.nnm.events.snmpTrapMaxStoreLimit

This property defines how many SNMP traps are allowed to be persisted as Incidents in the SOM database. After this limit is reached new SNMP traps will be dropped. The default value is 100,000. Setting the value above 100,000 could cause a drop in the performance of Incident database operations. Traps should be trimmed from the database on a periodic basis to ensure that the number of traps in the database does not exceed com.hp.nnm.events.snmpTrapMaxStoreLimit; otherwise newly arriving traps will be dropped.

com.hp.nnm.events.snmpTrapAutoTrimStartPercentage

This property determines when to start the auto-trim process. This is specified as a percentage of com.hp.nnm.events.snmpTrapMaxStoreLimit. The default value is 50.

com.hp.nnm.events.snmpTrapAutoTrimPercentageToDelete

This property determines how many traps to trim when auto-trim determines it is time to start the autotrim process. This is specified as a percentage of com.hp.nnm.events.snmpTrapAutoTrimStartPercentage. The default value is 25. com.hp.nnm.events.snmpTrapEnforce100KLimit

In order to protect the SOM system from performance problems, ordinarily the com.hp.nnm.events.snmpTrapMaxStoreLimit property can not be set to a value above 100,000. If traps are being dropped because of the 100,000 limit, and if more traps are to be saved, the com.hp.nnm.events.snmpTrapEnforce100KLimit property can be set to "false" and the com.hp.nnm.events.snmpTrapMaxStoreLimit property can be set to a higher limit. The snmpTrapEnforce100KLimit flag is only provided to protect the user from inadvertently setting the snmpTrapMaxStoreLimit to too high a value. If this is done and the performance of the SOM event system appears to degrade then incidents should be trimmed from the database either manually or by enabling the auto-trim feature.

### **SEE ALSO**

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