

HPE Network Node Manager i Software

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Reference Pages

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nmscatgets — Get localized catalog strings for NNMi

SYNOPSIS

nmscatgets [-f CATFILE -S SETNUM -m MSGNUM -d DEFAULT]

DESCRIPTION

The nmscatgets command is used to query a message catalog and retrieve a localized (non-English) string from that catalog file. This string can then be displayed, for example, from a perl script. The caller must know the message catalog containing the desired localized strings, as well as the set-number and messagenumber within that file. If the specified message is not found, the default (English) value is returned.

The nmscatgets command is mostly used internally by other NNMi or HP-provided scripts. It doesn't provide much value for other uses.

Parameters

The nmscatgets command recognizes the following options.

-f FILE

The file name containing the localized strings to query.

-s SETNUM

The set number within the catalog file, generally "1".

-m MSGNUM

The message number within the catalog file.

-d DEFAULT

The default (English) string to be printed if one or more of the FILE, SETNUM, or MSGNUM values are not available.

RETURN VALUE

The nmscatgets command returns the localized string when the FILE, SETNUM, and MSGNUM values are all valid. Otherwise the nmscatgets command returns the DEFAULT (English) string provided to the command.

AUTHOR

nmscatgets was developed by Hewlett Packard Enterprise.

nnmcluster — start NNMi cluster services

SYNOPSIS

nnmcluster [-disable|-enable] [-display] [-interfaces] [-startnnm|-stopnnm] [-acquire|-relinquish] [-shutdown [-force]] [-dbsync] [-halt] [-node nodename] [[-daemon]]

DESCRIPTION

nnmcluster starts the NNMi cluster process. The NNMi cluster command permits an administrator to set up two systems for ensuring the availability of NNMi services if one system fails. After you run the nnmcluster command on each node, each one will detect the other and form a cluster. The first node to join the cluster comes up in the active state, and starts the NNMi services (using the ovstart command). The second node detects that there is already an active node, and assumes the standby state. If the standby node loses connectivity with the active node, (due to system shutdown or failure), then the standby node assumes the active state and starts the NNMi services.

If the nnmcluster is called with no command-line parameters, it starts the cluster in interactive mode. The interactive mode permits the system administrator to view and modify cluster settings in an interactive session. These settings include the ability to enable or disable automatic failover, shutdown a node in the cluster, transfer NNMi services from active to standby, and other settings.

If nnmcluster is called with the -daemon parameter, the NNMi cluster starts up as a background daemon process or Windows service.

If the nnmcluster command is called with other command-line parameters, it will initiate the actions specified on the command-line. These actions typically affect the NNMi cluster daemon process on the local node. However, if the -node nodename option is used, it affects the NNMi cluster daemon process on the specified node.

Most of the options available from the command-line are also available in interactive mode. For example, using the -shutdown option from the command line is the same as using the shutdown command in interactive mode. The interactive mode has some additional commands, such as help, to display a list of available commands, and quit, to exit the interactive mode. The -node nodename command is also available interactively.

Note that only NNMi cluster daemon processes are capable of starting NNMi services. The interactive mode and specifying actions on the command-line are methods for affecting the behavior of a daemon process on one of the nodes in the cluster. For example, using the <code>-acquire</code> option causes the daemon process on the local node (or the specified node if used with the <code>-node</code> option), to acquire the <code>active</code> state and start NNMi services. After an NNMi cluster daemon process is started, the only way of interacting with that daemon process is by using the command line or interactive mode settings. For example, if you want to terminate that daemon process, use the <code>nnmcluster -shutdown</code> command.

When NNMi is using the embedded database, the NNMi cluster application synchronizes the database between the active and standby nodes. This is achieved by sending a complete database backup to the

standby, followed by periodic incremental database transaction logs. The time intervals for the frequency of full backups and transaction logs, along with other cluster parameters, are defined in the nms-cluster.properties file.

For the embedded database scenario, the NNMi cluster application has a startup period that must occur before permitting the active node to send the database to the standby node. During this startup period, command options that would transfer the active state to the standby node are disabled. These options include shutdown, acquire, relinquish, and other available options, as they can leave the standby node in a state where it only has a portions of the database and is unable to run NNMi. However, after the standby node has received the entire database, there should be no critical times from that point forward, assuming both systems stay running (a restart causes the standby node to verify that it is still in-sync with the active node).

If NNMi is using the Oracle database, then no database replication is performed, as the Oracle database instance is on a third machine outside of NNMi control. In this scenario, the NNMi nnmcluster command still monitors the active NNMi management server and starts NNMi on the standby server if the active fails.

Parameters

The nnmcluster command recognizes the following options. Any unrecognized options are reported by a usage message. Options are always processed in the specified order. For example, using <code>-display -disable</code> is different from using <code>-display</code>. All of the parameters refer to the NNMi cluster daemon process on the local node, unless the <code>-node nodename</code> option is used.

-disable

Disables the automatic failover capability (automatic failover is enabled by default). The system administrator might choose to shutdown the active node briefly to perform some administrative tasks. The <code>-disable</code> parameter permits the active node to be shut down without the standby node becoming active and starting the NNMi services. You can restart the same node in the active state by using the <code>-acquire</code> option followed by the <code>-enable</code> option.

-enable

Re-enable automatic failover capability after being disabled as described above.

-interfaces

List the network interfaces (NICs) on the system, displaying the system nomenclature and the Java nomenclature. On Unix platforms, these are the same value, e.g. "eth0", "lan1", "bge3", etc. On Windows, the names are different, e.g. "Network Interface 1" might map to "eth3". The purpose of this parameter is to control the NIC used for NNMi cluster communications; e.g. to choose a management NIC instead of the data NIC. The NNMi cluster needs to know the Java name, e.g. "eth3" in the Windows case listed above.

-display

Connect to the cluster, query the current cluster state, then display that state to the administrator.

-startnnm

The active node may not be running NNMi services. For example, suppose you stopped the NNMi services earlier using the <code>-stopnnm</code> option. You can start up the NNMi services on the active node by using the <code>-startnnm</code> option.

Shut down the NNMi services on the active node, but do not release the active state. If you use this option, NNMi does not generate a failover event. For example, the standby node does not assume the active state.

-acquire

The system administrator might want to transfer NNMi services from a node which is currently in the active state to another node which is currently in the standby state. Without using the -node option, the local system becomes the new active node. If the administrator uses the -node nodename option, the specified node becomes the new active node.

-relinguish

Permits the system administrator to give up the active state on the local (currently active) node and causes the NNMi services to transfer control to the current standby node. The node being relinquished stops NNMi services and assumes the standby state.

-dbsync

Permits the system administrator to trigger an immediate database synchronization on active node. This option is only applicable when NNMi is using the embedded database (not using an Oracle database).

-shutdown [-force]

Shuts down the NNMi cluster daemon process on the local node. If the <code>-node</code> option is provided, then shut down the NNMi cluster daemon process on the specified node. The NNMi cluster program tries to prevent you from shutting down the cluster during times when doing so might compromise the data integrity on the standby server. For example, if the standby server is receiving a full database backup from the active server, it would be bad to have a failover event during that time. If you try to shut down the NNMi daemon process, you might get a message stating that the cluster is in a transition state, as in the standby node is receiving important data, so you need to permit it to complete before attempting ot shut down the cluster daemon process. If you want to force a shutdown anyway, use the "<code>-force</code>" option. This disables failover to the standby (since it is in an incomplete state), then shuts down the local (or specified) node.

-halt

Shuts down the NNMi cluster daemon process on all nodes in the cluster. This disables failover, shuts down all standby nodes, then shuts down the active node.

-node nodename

Causes one or more actions specified on the command line to affect the NNMi cluster daemon process on the specified nodename. Without specifying this option, the actions specified on the command line to apply to the local NNMi cluster daemon.

-daemon

Starts the NNMi cluster as a daemon. The command is immediately launched in the background. No other command line parameters can be specified in daemon mode.

RETURN VALUE

If running the nnmcluster command with command line options results in success, the command exits with the 0 (zero) status (there are no errors). However, if running the nnmcluster command with command line

options results in failure, the command exits with the 1 status (there are errors). In interactive mode, the exit status is always 0.

In daemon mode the nnmcluster command launches as a background process and the shell prompt is immediately returned. After you start a daemon process, you can monitor cluster status by using the nnmcluster -display or ovstatus commands: the NNMi cluster determines if or when to start NNMi services, depending on the active or standby status of the node in relation to other nodes in the cluster; ovstatus displays a not running status on the standby node, but running the nnmcluster -display command tells you that the node is in the standby state.

DIAGNOSTICS

nnmcluster logs output to the NNMi log directory (/var/opt/OV/log/nnm on Unix, and %NnmDataDir%\log\nnm on Windows). Each actively-running instance of the nnmcluster process, such as a daemon running in parallel with either or both the interactive or command-line mode, has a separate log file. The most-recent running threads will always be nnmcluster.0.*.log.

The NNMi cluster internally uses an open-source technology called *JGroups*. The log files for JGroups are in the same directory shown above, and are named jgroups.log.

EXAMPLES

```
nnmcluster -daemon
nnmcluster -display
```

The first command starts the NNMi cluster as a daemon process, and immediately returns a shell prompt, leaving a background daemon process. You can query, shut down, or apply other actions to this daemon process using interactive or command-line modes. You can repeatedly use the second command to monitor the status of the cluster, specifically the local daemon process, to determine if it comes up in the active or standby state.

```
nnmcluster -shutdown -node xyz.mycompany.com
```

Causes the NNMi cluster daemon process on the specified node to shut down. If that node is the current active node, and if automatic failover is enabled, then the NNMi services will transfer to the standby node.

```
nnmcluster
```

Enter the interactive mode of the NNMi cluster command to view or modify cluster parameters. To exit this program, use the exit or quit commands.

```
nnmcluster -acquire
```

Cause the daemon-mode NNMi cluster process on the local system to become the active node. The current active is set to standby mode then NNMi services start on the local node.

The following is a common system administration sequence to permit the administrator to temporarily shut down the NNMi cluster on the active node, then bring it back up later as active, without causing a failover event to the standby node.

Step 1: Run the **nnmcluster -disable -shutdown** command.

- Step 2: Perform some system administration tasks.
- Step 3: Run the **nnmcluster -daemon** command.
- Step 4: Run the **nnmcluster -display** command. Use this command to determine when the daemon is up.
- Step 5: Run the **nnmcluster -enable** command.

The command shown in step 1 disables failover first, then shuts down the local daemon process. In step 2, the system administrator performs some administration tasks without the risk of triggering a failover. The command shown in step 3 restarts the daemon NNMi cluster process. You can repeatedly use the command shown in step 4, to determine when the local daemon process is up and NNMi is running. The command shown in step 5 re-enables automatic failover after NNMi is running on the active node.

AUTHOR

nnmcluster was developed by Hewlett Packard Enterprise.

FILES

Windows: \$%NNM_PROPS%\nms-cluster.properties

UNIX: \$NNM_PROPS/nms-cluster.properties

This file defines the cluster parameters; specifically, you must uniquely name the cluster to differentiate it from other NNMi clusters that might be on the same network. You can optionally set other parameters such as timeouts.

SEE ALSO

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

nnm.envvars — A script to define the environment variables for universal paths in NNMi.

SYNOPSIS

Windows operating systems:

nnm.envvars.bat

UNIX operating systems:

nnm.envvars.sh

nnm.envvars.csh

DESCRIPTION

The nnm.envvars script defines the NNMi environment variables for universal paths. Universal paths simplify the use of NNMi and other HP Software products by providing paths and filenames common to all operating system platforms. Universal paths are provided for the Windows command interpreter and UNIX shells.

On UNIX operating systems, you can modify the .profile or the .login file, so that the shell script is sourced (activated) each time you log on to your system. Alternatively, you can activate the file for an individual terminal, user, and session by sourcing the file into the current environment.

To view the universal paths that are defined, read the nnm.envvars.sh file, which resides in /opt/OV/bin on UNIX operating systems or %NnmInstallDir%\bin on Windows operating systems.

EXAMPLES

To modify the .profile or .login file, add the appropriate line from the following examples to the file.

To source the nnm. envvars script, use one of the following commands.

• From a Windows command line:

%NnmInstallDir%\bin\nnm.envvars.bat

Where: %NnmInstallDir% is the directory where NNMi is installed. Note that the NNMi installer creates this variable as a system environment variable.

• From a Windows operating system with UNIX-style shells installed (for example, MKS Toolkit or CygWin):

Using sh, ksh, or bash:

\$NnmInstallDir/bin/nnm.envvars.sh

Where: \$NnmInstallDir is the directory where NNMi is installed.

Using csh:

source \$NnmInstallDir/bin/nnm.envvars.csh

Where: \$NnmInstallDir is the directory where NNMi is installed.

• From UNIX operating systems:

Using sh, ksh, or bash:

. /opt/OV/bin/nnm.envvars.sh

Using csh:

source /opt/OV/bin/nnm.envvars.csh

AUTHOR

nnm. envvars was developed by Hewlett Packard Enterprise.

FILES

Windows operating systems:

%NnmInstallDir%\bin\nnm.envvars.bat (for Windows command line)

%NnmInstallDir%\bin\nnm.envvars.sh (for sh, ksh, or bash)

%NnmInstallDir%\bin\nnm.envvars.csh (for csh)

UNIX operating systems:

/opt/OV/bin/nnm.envvars.sh (for sh, ksh, or bash)

/opt/OV/bin/nnm.envvars.csh (for csh)

EXTERNAL INFLUENCES

International Code Set Support: Supports single-byte and multi-byte character code sets.

nnmprops — Query values of NNMi properties.

SYNOPSIS

nnmprops [-l] [-q prop] [-m match] [-e expand]

DESCRIPTION

nnmprops is used to query the property values that run NNMi processes. The nnmprops command consolidates and displays these properties, which are stored in several locations in the file system. This command can be used in other scripts that need to query and act on the values of NNMi system properties.

Parameters

nnmprops recognizes the following options.

-1

Lists the value of all properties.

-q PROP

Queries the specified property. This option can be repeated to query multiple properties.

-m STRING

Queries all properties that start with the prefix STRING.

-e STRING

Expand any properties in the STRING with their corresponding value.

RETURN VALUE

nnmprops always exits with the status 0 (zero) if no errors were encountered; 1 otherwise.

EXAMPLES

```
nnmprops -1
```

Lists all properties and their values.

```
nnmprops -q com.hp.nms.ui.sso.isEnabled -q com.hp.nms.ui.sso.domain
```

Queries the property values of the *com.hp.nms.ui.sso.isEnabled* and *com.hp.nms.ui.sso.domain* properties.

```
nnmprops -m com.hp.nms.ui.sso
```

Queries all properties that start with com.hp.nms.ui.sso. For example, the values for .protectedDomains, .domain, .initString, and .isEnabled would be returned.

```
nnmprops -e "The values for com.hp.nms.ui.sso are ${com.hp.nms.ui.sso}."
```

Displays the string with the value of \${com.hp.nms.ui.sso} expanded. Note that the "\${" and "}" are required to delineate the property name.

AUTHOR

nnmprops was developed by Hewlett Packard Enterprise.

FILES

There are several properties files used by the nnmprops program. These files are separated into two categories: HP-provided default (out-of-the-box) values and user-modified override values. The intention is that HP can change the default properties values in future NNMi releases; however, user-modified values always override the HP-provided default.

The files found in the directory hierarchy below %NnmInstallDir%\misc\nnm\props (Windows) or \$NnmInstallDir/misc/nnm/props (UNIX) define the HP-provided default values.

Note

You should never modify any file below this location since future NNMi versions could overwrite any modifications.

The files in the %NnmDataDir%\shared\nnm\conf\props (Windows), %NnmDataDir%\conf\nnm\props (Windows), \$NnmDataDir/shared/nnm/conf/props (UNIX), and \$NnmDataDir/conf/nnm/props (UNIX) define modified values or values changed programmatically at installation or runtime. These values are initially commented-out copies of the HP-provided values. To edit these files, remove the comment and change a value. The new value overrides the default value.

The difference between the two directories is as follows:

- %NnmDataDir%\shared\nnm\conf\props (Windows) and \$NnmDataDir/shared/nnm/conf/props (UNIX) contain properties that are shared in a cluster (HA cluster or NNMi Application Failover cluster, for example).
- %NnmDataDir%\shared\nnm\conf\props (Windows) and \$NnmDataDir/shared/nnm/conf/props (UNIX) defines values which are not shared. For instance, each node in the cluster may have different values for the same property.

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

SYNOPSIS

nnmsetcmduserpw.ovpl

DESCRIPTION

You can use nnmsetcmduserpw.ovpl to set the NNM 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:

```
# nnmsetcmduserpw.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

nnmsetcmduserpw.ovpl was developed by Hewlett Packard Enterprise.

FILES

nnmsetcmduserpw.ovpl resides in \$NNM_BIN directory.

SEE ALSO

nnm.properties(4).

nnmtrapdump.ovpl — Print traps logged in the binary trap store to the console

SYNOPSIS

nnmtrapdump.ovpl [-u user] [-p password] [-t] [-from date] [-to date] [-source IP address] [-trapid Trap OID] [-last minutes] [-short] [-nodns] [-hexDump] [-javaDump]

DESCRIPTION

All incoming traps are logged in a binary trap store by the HP NNM Trap Service. nnmtrapdump.ovpl can be used to see the traps that have been logged. It can also be used to watch new incoming traps. When using trap tool any log or error messages are printed to the standard error. By redirecting the standard error to a different file, you can prevent these messages from getting mixed with the actual trap dump output.

Parameters

nnmtrapdump.ovpl supports the following parameters:

-u <username>

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

-p <password>

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

-t

Use -t to continuously print incoming traps. This option cannot be used with the -to option

-from date

Specifies the date from which traps are printed. The date is specified in ISO 8601 standard format: yyyy-mm-ddThh:mm:ss[+ or -]hh:mm. This option can be used to drill down from the analytics entries in the trapanalytics.0.0.log file. This option cannot be used with the -last option

-to date

Specifies the date till which traps are printed. The date is specified in ISO 8601 standard format: yyyy-mm-ddThh:mm:ss[+ or -]hh:mm. This option can be used to drill down from the analytics entries in the trapanalytics.0.0.log file.

Specifies the source IP address of the traps that should be printed. Only traps from the given source will be printed.

-trapid Trap OID

Specifies the trap OID of the traps that should be printed. Only traps with the given OID will be printed.

-last minutes

Specifies the age of the traps to be printed. The value is in minutes. Only traps are at the most this old will be printed. This option cannot be used along with the -from option.

-short

Use -short to print a short format of incoming traps. Only the trap OID, arrival time and source address are printed

-nodns

Use -nodns to prevent resolution of IP addresses to node names. This speeds up the printing of traps

-hexDump

Use -hexDump to print traps in hexadecimal format

-javaDump

Use - javaDump to print traps in java format

EXAMPLES

To print all the traps in the binary trap store to the console:

```
nnmtrapdump.ovpl
```

To wait in a loop and print all incoming traps:

```
nnmtrapdump.ovpl -t
```

To print traps within the 5 minute window from 9:00AM to 9:05AM MDT on July 31 2008:

```
nnmtrapdump.ovpl -from 2008-07-31T09:00:00-06:00 -to 2008-07-31T09:05:00-06:00
```

To print traps that came within the last 5 minutes and then wait for incoming traps:

```
nnmtrapdump.ovpl -last 5 -t
```

To print traps from IP address 192.168.0.1:

```
nnmtrapdump.ovpl -source 192.168.0.1
```

FILES

\$NNM_DB/traps is the directory that contains the files that constitute the trap database.

\$NNM_LOG/trapanalytics.0.0.log is the analytics log file containing information about the most frequent trapids and sources sending traps.

AUTHOR

nnmtrapdump.ovpl was developed by Hewlett Packard Enterprise.

nnmfindattachedswport.ovpl — Find the switch port to which the input end node is attached

SYNOPSIS

 $\label{eq:continuity} \begin{tabular}{ll} nnmfindattachedswport.ovpl $[-u < user>] [-p < password>] $\{ -i < end node file> | -n < end node> $\} [-0 < output file>] $$$

DESCRIPTION

The **nnmfindattachedswport.ovpl** script displays the switch port that is connected to an end node. When using the **nnmfindattachedswport.ovpl** script, specify the end node as a MAC address, an IP address, or a hostname. Specify the MAC address in upper case with no leading 0x or 0x. You can also specify the input as a seed file, using one line per entry within the seed file.

The display consists of the following:

- The end node.
- The switch hostname.
- The interface name of the switch port that is connnected to an end node.
- The VLAN name that the end node belongs to.
- The VLAN ID that the end node belongs to.
- A status code for the interface.

The status code indicates either Success, if NNMi successfully retrieved the end node information, or an error code. The display is in Comma Separated Value (CSV) format. If any of the values are not present then NNMi displays the value -1 instead. NNMi indicates the completion of the script by displaying a CSV with all the values being -1.

NNMi initially displays a header naming each of the values in the CSV. There is an option to redirect the output to a file. The file can then be imported into MicrosoftTM Excel.

Parameters

nnmfindattachedswport.ovpl supports the following parameters:

```
-u <user name>
```

Supply an NNMi user name to use when running the script. The user could be system, an administrator or a Level 2 operator. Required unless a nmm.properties(4) file exists.

```
-p <password>
```

Supply the password for the user. Required unless a <u>nnm.properties(4)</u> file exists.

```
-i <end node file>
```

Use -i to provide an input file containing a list of end nodes. NNMi then searches for the switch port connected to each end node. The file should have only one entry per line. The value on each line could be a MAC address, an IP address or a hostname. The MAC address needs to be specified in upper case with no leading 0×0 or 0×0 . This parameter is required if the -n is not specified.

```
-n <end node>
```

Use the -n to provide an end node for the **nnmfindattachedswport.ovpl** script. The **nnmfindattachedswport.ovpl** script finds the switch port that is connected to this end node. The end node could be a MAC address, an IP address or a hostname. The MAC address needs to be specified in upper case with no leading 0x or 0x.

```
-o <output file>
```

Use -o to supply a file name to which the output of the script will be redirected.

EXAMPLES

An example of an input file is given below:

```
10.45.130.2 # this is a comment line con5.acme.com 000087D064CB 10.12.149.4 laserj.acme.com
```

An example of the display looks similar to the following:

```
\label{eq:continuous} EndNode, SwitchName, IfName, VLANName, VLANId, StatusCode \\ 10.45.130.2, -1, -1, -1, -1, UNABLE\_TO\_LOCATE\_ENTRY\_IN\_FDB \\ con5.acme.com, -1, -1, -1, -1, UNABLE\_TO\_LOCATE\_ENTRY\_IN\_ARP\_CACHE \\ 000087D064CB, 10.45.130.143, 2/1, Network\_B\_IPv4, 4, SUCCESS \\ 10.12.149.4, swl-loop0.acme.com, Fa2/21, VLAN0490, 490, SUCCESS \\ laserj.acme.com, swl-loop0.acme.com, Fa2/12, mpls-intercon, 169, SUCCESS \\ -1, -1, -1, -1, -1, -1 \\ .
```

AUTHOR

nnmfindattachedswport.ovpl was developed by Hewlett Packard Enterprise.

nnmversion.ovpl — display the version of Network Node Manager

SYNOPSIS

nnmversion.ovpl

DESCRIPTION

nnmversion.ovpl can be used to display the version of Network Node Manager that is installed. It also displays the patch number of the NNM patch that is installed. If no patches are installed, it displays a message indicating that no patches are listed.

Parameters

nnmversion.ovpl does not have any options.

EXAMPLES

Print out the version of NNM and any installed patches.

nnmversion.ovpl

AUTHOR

nnmversion.ovpl was developed by Hewlett Packard Enterprise.

FILES

The following files store product version and patch information:

Windows: data_dir\NNMVersionInfo

UNIX: /var/opt/OV/NNMVersionInfo

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/NNM

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

 ${\tt C:/Program\ Files(x86)/HP\ OpenView/NNM/lib/nms-licensing-api.jar}$

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 Network Node Manager (NNM). This script encapsulates this problem by ensuring the correct JDK is being used.

NOTE: NNM 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 OpenView\bin\ovjrepath.ovpl returns the following:

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 NNM managed processes

SYNOPSIS

ovstatus [[-c][-d][-v][managed_process_names...]]

DESCRIPTION

ovstatus reports the current status of the NNM 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 NNM 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: %NNM BIN%\ovstatus

Windows: %NNM_BIN%\ovspmd

UNIX: \$NNM BIN/ovstatus

UNIX: \$NNM 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 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

 $\underline{ovstart}(1M), \underline{ovstop}(1M), \underline{ovaddobj}(1M), \underline{ovdelobj}(1M), \underline{ovspmd}(1M), \underline{nnmcluster}(1M).$

nnmsnmpnotify.ovpl — issue an SNMP notification (Trap or Inform request)

SYNOPSIS

nnmsnmpnotify.ovpl [-V version] [-C community] [-p port(default:162)] [-A] [-t timeout] [-r retries] [-d] [-T] [-a agent_addr] [-e enterprise] node trap-oid variable type value [variable type value]...

DESCRIPTION

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

The nnmsnmpnotify.ovpl script sends an SNMP notification request to notify another system of an event on the local system. You can use options with the nnmsnmpnotify.ovpl script to acknowledge (SNMPv2 Inform) or unacknowledge (SNMPv1 or SNMPv2 Trap) the notification. You cannot send acknowledged notifications to systems that support only SNMP Version 1.

By default, the notification is unacknowledged. The nnmsnmpnotify.ovpl script sends an SNMP Version 1 or SNMP Version 2 Trap depending on the protocol version you specify. When you use the default version of the nnmsnmpnotify.ovpl script, it terminates immediately after sending the SNMP Trap request. There is no confirmation that the notification reached the destination system.

Use the -A option to send an acknowledged notification. The nnmsnmpnotify.ovpl script sends an SNMP Version 2 Inform request to the destination system. It waits for the corresponding acknowledgment, and retransmits an SNMP Version 2 Inform request if necessary. If an SNMP Version 2 Inform request retransmission occurs, the nnmsnmpnotify.ovpl script uses the timeout and retry values you specify on the command line. If the nnmsnmpnotify.ovpl script displays an acknowledgment within the time period and retry attempts you specify, you know the notification reached the destination system. If the nnmsnmpnotify.ovpl script does not display an acknowledgment within the time period and retry attempts you specify, the notification did not reach the destination system.

node can be an IP-addressable system that supports SNMP. You can identify IP nodes by Internet address or hostname. You can supply node in Internet address form or hostname form. If you supply an empty string ("") to the nnmsnmpnotify.ovpl script instead of a node, the script uses localhost as the destination.

Specify the trap type as an object identifier in the <code>trap_oid</code> command-line argument. You must identify all notifications using the object identifier form. You can supply notifications defined in the SNMPv2 MIB or in a vendor-specific SNMPv1 MIB directly to the <code>nnmsnmpnotify.ovpl</code> script. However, you must convert traps defined in a vendor-specific SNMPv1 MIB to the object identifier form before supplying them to the <code>nnmsnmpnotify.ovpl</code> script. For an SNMP Version 1 trap, if you supply an empty string ("") instead of a <code>trap_oid</code>, the Generic trap type value is set to 6 and the Specific trap type value is set to 0. For an SNMP Version 2 trap, if you supply an empty string ("") instead of a <code>trap_oid</code> the <code>trap_oid</code> variable binding is not

When providing trap object identifiers to the nnmsnmpnotify.ovpl script, follow these guidelines:

- Use the corresponding object identifiers defined in RFC 1907 to generate a trap for any of the six generic SNMP traps: coldStart, warmStart, linkDown, linkUp, authenticationFailure, and egpNeighborLoss. For example, use the 1.3.6.1.6.3.1.1.5.1 trap OID to generate a coldStart trap. .
- To generate a trap that is not SNMP-generic but is defined in SNMPv2 form, use the NOTIFICATION-TYPE identifier from the SNMPv2-compatible MIB.
- To generate a trap that is not SNMP-generic but is defined in SNMPv1 form, determine the trap enterprise and specific numbers from the SNMPv1-compatible MIB. From these trap enterprise and specific numbers, construct an object identifier in the <code>enterprise.0.specific field</code> form. For example, consider a vendor-specific MIB for a device test. The MIB defines a trap with enterprise 1.3.6.1.4.1.11.2.17.1 and specific trap field 4. The resulting trap object identifier would be 1.3.6.1.4.1.11.2.17.1.0.4.

The nnmsnmpnotify.ovpl script passes data to the remote node as a triple of variable, type, value. Supply one or more triples to the nnmsnmpnotify.ovpl script as command-line arguments.

Each variable is an object instance identifier in either dotted decimal format or mnemonic string format. For example, you can use either the .1.3.6.1.4.1.11.2.17.2.1.0 or the openViewSourceId.0 format.

Each *type* must be one of the following types:

INTEGER 32

IPADDRESS

COUNTER

COUNTER32

COUNTER64 (for SNMPv2c or v3 capable remote nodes)

GAUGE

GAUGE32

OBJECTIDENTIFIER

OCTETSTRING

OCTETSTRINGASCII

OCTETSTRINGHEX

OCTETSTRINGOCTAL

OPAQUE

OPAQUEASCII

OPAQUEHEX

OPAQUEOCTAL

TIMETICKS

UNSIGNED32

For a complete description of each type, refer to RFC 1155 and RFC 1902.

The *value* parameter must be valid for the type specified. When using a type that requires a hexadecimal or octal value, you must fully define each byte of the value. For example, if you specify fff (or 17377), it is missing a byte, and will not work. Use 0fff (or 017377) instead. You must specify a *value* on the command line. *value* must not be larger than 512 bytes.

Parameters

-v version

Requests the nnmsnmpnotify.ovpl script to use a specific version of SNMP to communicate with the remote node. Valid choices for version are 1, 2c, or 3.

-c community

Specifies the community string to use for authentication on the remote node.

Note: If the community string contains characters the shell interferes with, use one or more escape symbols or quotation marks as required.

-p port

Specifies the port to use to communicate with the remote node.

-t timeout

Specifies a timeout period, in tenths of seconds, to wait for an acknowledgment when using an SNMP Version 2 Inform request. This option is only valid when used with the -A option.

-r retries

Specifies the number of retransmissions to attempt when no acknowledgment is received when using an SNMP Version 2 Inform request. This option is only valid when used with the -A option.

-d

Dump ASN.1 packet trace

-T

Prints the OID in dotted decimal format.

-a agent_add

Overrides the local host as the source of the notification with the given agent address. agent_addr must be an IP address or hostname.

```
-e enterprise
```

Overrides the default enterprise object identifier for the notification with the given enterprise value.

EXAMPLES

The following command sends an SNMP link down Inform request to the node v2c_node:

```
nnmsnmpnotify.ovpl -A -v2c v2c_node .1.3.6.1.6.3.1.1.5.3
```

The following command sends an SNMP link down trap request to the node v1_node with the agent address set to agent:

```
nnmsnmpnotify.ovpl -a agent v1_node .1.3.6.1.6.3.1.1.5.3
```

AUTHOR

nnmsnmpnotify.ovpl was developed by Hewlett Packard Enterprise.

FILES

The environment variable below represents a universal path that is established according to your shell and platform requirements:

```
Windows: %NNM BIN%\nnmsnmpnotify.ovpl
```

UNIX: \$NNM_BIN/nnmsnmpnotify.ovpl

SEE ALSO

<u>nnmsnmpwalk.ovpl(1M)</u>, <u>nnmsnmpset.ovpl(1M)</u>, <u>nnmsnmpbulk.ovpl(1M)</u>.

```
RFC 1155, 1157, 1212: SNMP Version 1.
```

RFC 1901 - 1908, 2576, 2578, 3416 - 3418: SNMP Version 2.

RFC 3411 - 3415: SNMP Version 3.

EXTERNAL INFLUENCES

Environmental Variables

\$LANG determines the language in which messages appear. If \$LANG is not specified or is set to an empty

string, a default of c is used instead of \$LANG. If any internationalization variable contains an invalid setting, nnmsnmpnotify.ovpl behaves as if all internationalization variables are set to c.

International Code Set Support

Supports single-byte and multiple-byte character code sets.

NOTE: SNMP MIB values of the type octetstringascii are restricted to NVT-ASCII.

nmsdbmgr — controls the NNMi embedded database, including periodic database connectivity testing

SYNOPSIS

nmsdbmgr [-ovspmd] [-start] [-test] [-initnmsdb] [-stop] [-status] [-kill]

DESCRIPTION

nmsdbmgr is a program that provides an interface for the ovspmd process to control the NNMi embedded database. The nmsdbmgr program enables the ovspmd process to start, stop, and check the status of the embedded database.

While running, the program tests database connectivity every five minutes and updates the status message reported to the ovspmd process, depending on the results of the connectivity test. If the database test succeeds, the message reported is Database Available. If the connectivity test fails, the message reported is Data Warehouse Inaccessible. If you see the failure message, you may experience database-related problems in NNMi, such as the failure to retrieve and display the node inventory in the NNMi console.

While it is technically possible to run this command independently of the ovspmd process, doing so is highly discouraged and could cause unexpected results.

NOTE: If you examine the process table while the nmsdbmgr program is running, notice that this program spawns many child processes named postgres or postgres.exe, depending on the platform. These child processes represent the embedded database itself. Having many instances of them is normal.

EXAMPLES

Normal usage of this command is indirect, using the ovspmd process.

Typical usage starts or stops the process as follows:

```
# ovstart -c nmsdbmgr
# ovstop -c nmsdbmgr
# ovstatus -c nmsdbmgr
```

AUTHOR

nmsdbmgr was developed by Hewlett Packard Enterprise.

FILES

 $Windows: %NNM_DB%\postgres$

Windows: %NNMInstallDir%\nonOV\Postgres

 $U\!N\!I\!X$: \$NNM_DB/Postgres

UNIX: \$NNMInstallDir/nonOV/Postgres

SEE ALSO

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

nnmaction — wrapper process for the HP NNMi Action Server (action server).

SYNOPSIS

nnmaction

DESCRIPTION

nnmaction is a process referred to as the action server. It is managed by the ovspmd process. You can pass arguments to the action server by adding entries to the nnmaction.properties file.

Never run the nnmaction command manually. The ovspmd process starts and manages the nnmaction process. To restart the nnmaction process, run the ovstop nnmaction command followed by the ovstart nnmaction command. Run the ovstatus nnmaction command to determine the status of the nnmaction process.

You must be logged on as root or ar administrator to run the ovstart or ovstop commands.

AUTHOR

nnmaction was developed by Hewlett Packard Enterprise.

FILES

Windows: %NNM_SHARED_CONF%\props\nnmaction.properties

Parameter file used by the action server.

UNIX: \$NNM_SHARED_CONF/props/nnmaction.properties

Parameter file used by the action server.

SEE ALSO

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

nnmbackup.ovpl — script used to back up NNMi data and files

SYNOPSIS

 $\label{lem:nnmbackup.ovpl [-?|-h|-help] [-type (online|offline)] [-scope (config|topology|events|all)] [-force] [-archive] \\ [-noTimeStamp] - target < \textit{directory}> \\$

DESCRIPTION

nnmbackup.ovpl is the main backup script for NNMi. For NNMi installations using an embedded database, the nnmbackup.ovpl script determines the directories and tables to back up using the %NNM_DATA%\shared\nnm\backup.properties (Windows) or \$NNM_DATA/shared/nnm/backup.properties (UNIX) file. The backup.properties file also defines any files and directories that require extra processing during the restore phase. The nnmbackup.ovpl script accepts arguments to determine things like backup scope (config, topology, events, all), backup location, and backup type (online or offline).

If you plan to use the nnmbackup.ovpl script to create an NNMi backup, then use the nnmrestore.ovpl script to place database records on a second NNMi management server, both NNMi management servers must have the same type of operating system and NNMi version and patch level. Placing the backup data from one NNMi management server onto a second NNMi management server means that both servers have the same database UUID. After you restore NNMi on the second NNMi management server, uninstall NNMi from the original NNMi management server.

Before running the nnmbackup.ovpl script, make sure you have adequate storage space in the target directory. For most NNMi installations, if you have enough space to store the contents of the NNMi installation, %NNM_DATA% (Windows), or \$NNM_DATA (UNIX) directories, you should have adequate storage space. Check the available storage space in the following locations:

- Windows: %NnmInstallDir%
- UNIX:/opt/OV (UNIX)

If you selected the embedded database option during the NNMi installation, you can find the embedded database data storage in the %NNM_DATA%\shared\nnm\databases\Postgres (Windows) or \$NNM_DATA/shared/nnm/databases/Postgres (UNIX) directory.

The target directory contains all of the files applicable for the backup options you have selected, or a single tar file if you use the <code>-archive</code> option. Each backup operation stores files in a parent directory called <code>nnm-bak-<TIMESTAMP></code> inside of target directory. Any database operations occurring during the backup are included in the backup. You can compress the files after the backup completes.

Files that require extra processing during the restore phase are stored with their full paths beneath the target_directory/special_files/handling_routine directory. During the restore phase, NNMi selects files for exclusion, restoration, or merge. For more information, see the nnmrestore.ovpl reference page, or the UNIX manpage.

The nnmbackup.ovpl script includes the necessary data to perform a restore operation. You must be logged

in as administrator on Windows NNMi management servers or root on UNIX NNMi management servers to run the nnmbackup.ovpl script.

Caution

Database backups performed by the nnmbackup.ovpl script only apply to the embedded database. If you chose a different database at install time, the table data is not backed up using this script. File-system backups work regardless of the database type. For details about how to back up NNMi data if you select a different database at install time, see the *NNMi Deployment Reference* (available at http://h20230.www2.hp.com/selfsolve/manuals).

Parameters

The nnmbackup.ovpl script supports the following options:

```
-type (online|offline)
```

This option determines the type of backup to be performed. If you specify the online option, both NNMi and the nmsdbmgr process must be running before running the nnmbackup.ovpl script. If you specify the offline option, completely stop NNMi before running the nnmbackup.ovpl script.

```
-scope (config|topology|events|all)
```

This option determines the scope of the backup operation. There are two types of data that the nnmbackup.ovpl script backs up: files in the file system and tables in the database. The -scope option value for files in the file system is always applicable, regardless of the backup type you choose (see the -type option). However, the -scope option value for tables in the database is applicable only when you run an online backup using the -type online) option. For offline scoped backups, you get the entire contents of the database, not just the scope you request. For this reason, HP recommends that you do not define scope when doing offline backups (the default is all). The scopes available are config, topology, events, and all. Each scope includes all of the data and files from the previous scope (all \rightarrow events \rightarrow topology \rightarrow config). The %NNM_DATA%\shared\nnm\backup.properties (Windows) or \$NNM_DATA/shared/nnm/backup.properties (UNIX) file contains a list of the files and tables backed up for each scope.

-force

If you use the -force option, the nnmbackup.ovpl script starts and stops NNMi based on the type of backup you requested. For online backups, if NNMi is not running, the nnmbackup.ovpl script starts the nmsdbmgr process (required for backups). For offline backups, if NNMi is running, the command stops all NNMi processes.

-archive

If you provide the -archive option, the nnmbackup.ovpl script stores the backup files in a tar file in the target directory.

```
-noTimeStamp
```

With this option, the nnmbackup.ovpl script stores the backup files in a target directory without a timestamp in the name, i.e. just "nnm-bak" or "nnm-bak.tar". 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.

```
-target <directory>
```

Specifies the output directory where you want the backup files stored. The nnmbackup.ovpl script creates a parent directory named nnm-bak-<TIMESTAMP> inside the target directory where all backup files are stored. If the archive option is present, the nnmbackup.ovpl script creates a temporary directory, nnm-bak-<TIMESTAMP>, then replaces this directory with a tar file using the same name as the temporary directory.

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

Display command usage.

EXAMPLES

Suppose you want to save the NNMi configuration before discovering your network, but do not want to save the discovery results. To do this, you might run a backup using the online and config options:

```
#./nnmbackup.ovpl -type online -scope config -target /tmp/bak/config
```

Suppose you want to save the NNMi configuration, discovered topology, and event data without bringing the application down. To do this, you might run a backup using the online, events, and force options:

```
#./nnmbackup.ovpl -type online -scope events -target /tmp/bak/evt
```

Suppose you want to run a regularly scheduled backup. To do this you might perform a backup using the offline and full options:

```
#./nnmbackup.ovpl -force -type offline -scope all -target /tmp/bak/all
```

AUTHOR

The nnmbackup.ovpl script was developed by Hewlett Packard Enterprise.

FILES

Windows: %NNM DATA%\shared\nnm\backup.properties

UNIX: \$NNM DATA/shared/nnm/backup.properties

SEE ALSO

nnmrestore.ovpl(1).

nnmbackupembdb.ovpl — make a full backup of the NNMi embedded database.

SYNOPSIS

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

DESCRIPTION

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

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

Before running the nnmbackupembdb.ovpl script, make sure you have adequate storage space in the target directory. Look for the embedded database data storage in the %NNM_DATA%\shared\nnm\databases\Postgres (Windows) or

\$NNM_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 NNMi is running; however, you may experience temporary performance degradation. At a minimum, the nmsdbmgr process must be running for the script to be successful. If you use the -force option, the script starts the nmsdbmgr 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 nnmbackupembdb.ovpl script stores the backup files in a target directory without a timestamp in the name, i.e. just "nnm-bak". 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 nmsdbmgr 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:

```
# nnmbackupembdb.ovpl -target /backups/nnm
```

You'll see these messages:

```
WARNING: Running this command while NNM is running, while allowed, will cause temporary performance problems. At a minimum, please make sure the nmsdbmgr process is running (ovstart nmsdbmgr).

Are you sure you want to run a full database backup now? [n] y

Ok, performing full embedded database backup...

NNM embedded database successfully backed up to /backups/nnm/nnm-bak.2009092906.pgd.
#
```

AUTHOR

nnmbackupembdb.ovpl was developed by Hewlett-Packard Company.

FILES

Windows: %NNM_BIN%\nnmbackupembdb.ovpl

UNIX: \$NNM_BIN/nnmbackupembdb.ovpl

SEE ALSO

ovstart(1M), ovstop(1M), ovstatus(1M), nmsdbmgr(1M), nnmrestoreembdb.ovpl(1M).

nnmcertmerge.ovpl — Automation of trust and key store merges into NNMi certificate stores

SYNOPSIS

nnmcertmerge.ovpl [-?|-h|-help] [-keystore <file> -truststore <file>]|[-directory <directory>]

DESCRIPTION

Use the nnmcertmerge.ovpl script to automate certificate store merges into the nnm.keystore and nnm.truststore files. The nnmcertmerge.ovpl script simplifies the task of merging all certificates when NNMi is using the Global Network Management, High Availability, or application failover features.

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

Parameters

nnmcertmerge.ovpl supports the following options:

```
-keystore <file>
```

If you provide this option, the target file is merged into the nnm. keystore file. This option can be provide at the same time as the -truststore option.

```
-truststore <file>
```

If you provide this option, the target file is merged into the nnm. truststore file. This option can be provide at the same time as the -keystore option.

```
-directory <directory>
```

You must use the -directory option by itself. If you provide this option, the script handles all files in the target directory as follows:

The script merges all files ending in .keystore into the nnm.keystore file.

The script merges all files ending in .truststore into the nnm.truststore file.

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

Displays the command usage.

EXAMPLES

Merge a keystore with NNMi:

nnmcertmerge.ovpl -keystore /tmp/hostA.keystore

Merge a truststore with NNMi:

nnmcertmerge.ovpl -truststore /tmp/hostA.truststore

Merge a keystore and truststore with NNMi:

nnmcertmerge.ovpl -keystore /tmp/hostA.keystore -truststore /tmp/hostA.truststore

Merge a set of keystores and truststores with NNMi:

nnmcertmerge.ovpl -directory /tmp/AppFailoverHosts/

AUTHOR

nnmcertmerge.ovpl was developed by Hewlett Packard Enterprise.

FILES

The nnmcertmerge.ovpl script resides in the $nnm_Bin directory$ (Windows) or the $nnm_Bin directory$ (UNIX).

nnmchangedbpw.ovpl — change the user name and password used to authenticate with the NNMi database.

SYNOPSIS

nnmchangedbpw.ovpl

DESCRIPTION

Use the nnmchangedbpw.ovpl script to change the user name and password NNMi 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 NNMi.

Note

To avoid adverse behavior after changing the database user name and password, you must stop NNMi before running the nnmchangedbpw.ovpl script. You can run this script while NNMi is running, but any new database connections created by NNMi 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 nnmchangedbpw.ovpl script if your organization requires frequent password changes for the NNMi database, or to change the user name NNMi uses to connect to the NNMi database.

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

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

User/Password changed successfully!
#

AUTHOR

nnmchangedbpw.ovpl was developed by Hewlett Packard Enterprise.

FILES

Windows: %NNM_BIN%\nnmchangedbpw.ovpl

 \emph{UNIX} : \$NNM_BIN/nnmchangedbpw.ovpl

SEE ALSO

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

nnmchangeembdbpw.ovpl — change the password used to authenticate with the NNMi embedded database.

SYNOPSIS

nnmchangeembdbpw.ovpl

DESCRIPTION

Use the nnmchangeembdbpw.ovpl script to change the password NNMi uses to connect to the embedded database. This script is useful if you installed NNMi 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, NNMi functions normally.

The nnmchangeembdbpw.ovpl script requires that NNMi 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 nnmchangeembdbpw.ovpl script finishes, the embedded database password is changed to the value supplied through the interactive prompts, and the NNMi 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 nnmchangeembdbpw.ovpl script.

Parameters

No supported parameters.

EXAMPLES

Use the nnmchangeembdbpw.ovpl script if your organization requires frequent password changes for the NNMi embedded database.

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

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

password: mynewpw
enter password again: mynewpw
Password changed successfully!
#

AUTHOR

 ${\tt nnmchangeembdbpw.ovpl}\ was\ developed\ by\ Hewlett\ Packard\ Enterprise.$

FILES

 $Windows: %NNM_BIN%\nnmchangeembdbpw.ovpl$

UNIX: \$NNM_BIN/nnmchangeembdbpw.ovpl

SEE ALSO

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

nnmchangesyspw.ovpl — change the password for the system account normally set during NNMi installation.

SYNOPSIS

nnmchangesyspw.ovpl

DESCRIPTION

You can use the nnmchangesyspw.ovpl script to change the NNMi system password. The NNMi 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 NNMi installation.

Before running the nnmchangesyspw.ovpl script, run the ovstop command to stop NNMi. After running the nnmchangesyspw.ovpl script, run the ovstart command to start NNMi. 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 NNMi installation.

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

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

```
# nnmchangesyspw.ovpl
WARNING: This change may not take affect immediately unless NNM 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

nnmchangesyspw.ovpl was developed by Hewlett Packard Enterprise.

FILES

Windows: %NNM_BIN%\nnmchangesyspw.ovpl

 $U\!N\!I\!X$: \$NNM_BIN/nnmchangesyspw.ovpl

SEE ALSO

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

nnmchangetrappw.ovpl — Change the TrapReceiver password

SYNOPSIS

nnmchangetrappw.ovpl [-u <user> -p <password>] [-indiHost <hostname>] [-indiPort <port>] [-?]

DESCRIPTION

nnmchangetrappw.ovpl is used to modify the password the TrapReceiver uses to secure connections between itself and JBoss. The password will be prompted on the command line, it cannot be passed in.

If you are using nnmchangetrappw.ovpl in a HA or application failover environment, HP suggests stopping and starting the TrapReceiver on the inactive server to ensure that both the active and inactive node are using the same password.

Parameters

nnmchangetrappw.ovpl supports the following parameters:

```
-u <username>
```

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

```
-p <password>
```

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

-?

Prints the usage statement and exits.

```
-jndiHost < hostname >
```

The server jndi host; default is localhost.

```
-jndiPort <port>
```

The server indi port; default is 1099.

EXAMPLES

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

```
# nnmchangetrappw.ovpl
WARNING: This change may cause the TrapReceiver to become unavailable
for a period of time, ensure that you can afford to lose a
few traps.

Would you like to continue? [No]:
y
Proceeding with password change

Please enter your password:

Please enter your password again:
It will take a period of time for this password update to complete
#
```

AUTHOR

nnmchangetrappw.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

<u>nnmtrapreceiver(1M)</u>.

nnmcommconf.ovpl — display communication configuration information

SYNOPSIS

nnmcommconf.ovpl [-u username] [-p password] [-jndiHost host name] [-jndiPort port Default is 1099] - proto <icmp | snmp> -host <host name>

DESCRIPTION

nnmcommconf.ovpl is a script that reads information from NNMi about how NNMi tries to communicate with a given host using a specific protocol, then displays this information. The nnmcommconf.ovpl script displays information based on either SNMP or ICMP protocols.

Parameters

nnmcommconf.ovpl recognizes the following options.

-proto <protocol>

protocol: SNMP or ICMP

-host

The name of the host you plan to retrieve information from.

-u <username>

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

-p <password>

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

-indiHost

The server JNDI host; the default is localhost.

-jndiPort

The server JNDI port; the default is 1099.

EXAMPLES

```
nnmcommconf.ovpl -username foo -password bar -proto icmp -host baz
```

By running the command as shown above, you might get the information displayed below.

address =10.2.1.2

timeout =2000

address =10.2.1.2

retries =1

enabled =true

region name =default

nnmcommconf.ovpl -username foo -password bar -proto snmp -host baz

By running the command as shown above, you might get the information displayed below.

name =baz

address =10.2.1.1

addressForced =false

getCommunity =public

timeout =5000

retries =1

port =161

enabled =true

region name =default

AUTHOR

nnmcommconf.ovpl was developed by Hewlett Packard Enterprise.

FILES

nnmcommconf.ovpl resides in the following directory:

Windows: %NNM_BIN%\nnmcommconf.ovpl

 \emph{UNIX} : \$NNM_BIN/nnmcommconf.ovpl

SEE ALSO

nnm.properties(4), nnmcommload.ovpl(1M).

nnmcommload.ovpl — load communication settings from a comma separated file

SYNOPSIS

nnmcommload.ovpl [-u username] [-p password] [-jndiHost hostname] [-jndiPort port Default is 1099] -file <filepath | filename>

DESCRIPTION

Use the nnmcommload.ovpl script to import communication settings for a group of devices in bulk. This is useful if the community strings are managed by a change control mechanism. You can bulk insert the assignments into NNMi. Depending upon the format of the data entered in the configuration file, each assignment will show up in the NNMi console as either an individual entry in the Regions or Specific Node Settings tab of the Communication Configuration dialog.

If you specify hostnames as IP addresses, the nnmcommload.ovpl script does not resolve the IP addresses to fully qualified names. If you specify actual hostnames, the nnmcommload.ovpl script resolves the hostnames to their fully qualified names using DNS. This can take some time to work through large import files. For files containing more than 500 lines, the nnmcommload.ovpl script saves the entries to the database in batches of 500. After the nnmcommload.ovpl script reads 500 lines from the import file, the SNMP configuration entries for those lines will be resolved based on any existing SNMP region or default settings and saved to the database.

To perform the import, create a text file that includes the information shown below. Create one line for each device. Within each line, add the information in the order shown in the list below. Separate each value with a comma. Enter comments in lines that start with a number (#) character. The nnmcommload.ovpl script interprets the data strictly by position within the line, so you must specify a comma as a placeholder for non-specified values. You can embed commas by quoting the string. For example: "comm, string"

• Target node name or IP address (required for Specific Node Setting configuration)

One or more Hostname Filters separated by ";;" (optional for Region configuration)

Single Read community string (optional for Specific Node Setting configuration)

One or more read community strings separated by ";;" (optional for Region configuration)

If community string priority is desired, append the string "#PRI#" followed by the priority to each region community string. For example "public#PRI#5" would assign a priority of 5 to community string "public"

• Management address (optional for Specific Node Setting configuration)

One or more address ranges separated by ";;" (optional for Region configuration)

- Write community string (optional)
- Timeout in milliseconds (optional)
- Number of retries (optional)
- Port (optional)

- Proxy address (optional)
- Proxy port (optional)
- User name (SNMP V3 optional for Specific Node Setting Configuration)

One or more User Names separated by ";;" (SNMP V3 optional for Region Configuration)

• Context name (SNMP V3 optional for Specific Node Setting Configuration)

One or more Context Names separated by ";;" (SNMP V3 optional for Region Configuration)

• Authentication protocol (SNMP V3 optional for Specific Node Setting Configuration - MD5|SHA)

One or more Authentication Protocols separated by ";;" (SNMP V3 optional for Region Configuration)

Authentication password (SNMP V3 optional for Specific Node Setting Configuration)

One or more Authentication Passwords separated by ";;" (SNMP V3 optional for Region Configuration)

Privacy protocol (SNMP V3 optional for Specific Node Setting Configuration - DES|3DES|AES|4ES192|AES256)

One or more Privacy Protocols separated by ";;" (SNMP V3 optional for Region Configuration)

Privacy password (SNMP V3 optional for Specific Node Setting Configuration)

One or more Privacy Passwords separated by ";;" (SNMP V3 optional for Region Configuration)

- Preferred SNMP version (optional 1/2/3 for Specific Node Setting Configuration only)
- Enable SNMP Communication flag (optional true|false)
- Enable SNMP Address Rediscovery flag (optional true|false)
- Enable SNMP GetBulk flag (optional true|false)
- Description (optional for either Specific Node Setting or Region Configuration)
- Enable ICMP Communication flag (optional true|false)
- ICMP Timeout in milliseconds (optional)
- ICMP Number of retries (optional)
- Device Credential User Name(optional for Specific Node Setting Configuration)

One or more Device Credential User Names separated by ";;" (optional for Region Configuration)

• Device Credential Password (optional for Specific Node Setting Configuration)

One or more Device Credential Passwords separated by ";;" (optional for Region Configuration)

Device Credential Type (optional for Specific Node Setting Configuration)

One or more Device Credential Types separated by ";;" (optional for Region Configuration) Currently the only type supported is "Shell". There can only be one configuration per type per region

- Region Name (Optional for Region Configuration Defaulted to "Region" + Ordering, e.g. Region15)
- Region Ordering (Optional for Region Configuration Defaulted to 1 greater than the current max ordering value for existing regions)
- Minimum SNMP Security Level (Optional for Region Configuration V1-ONLY|V1V2-ONLY|COMMUNITY|NOAUTH-NOPRIV|AUTH-NOPRIV|AUTH-PRIV) If not specified, defaulted to value of COMMUNITY

For example, all of the following entries are considered valid entries for loading a Specific Node Configuration:

```
hostname,
hostname,
hostname,,
hostname,public
hostname,,10.2.2.3,,1000,2,161
nodel,community,10.3.7.96,writecommunity
node2, community,10.3.7.95 (the space character before community will be removed)
10.2.23.34,community,10.2.23.8
10.2.23.34,community,10.2.23.88,writecommunity,2000,2,161,10.56.22.199,162
```

Here's an example for loading a Region Configuration with multiple hostname filters, address ranges, read community strings, SNMPv3 configurations, and device credentials. Note also the community string priority being assigned.

```
testv3*;;cisco*.fc.usa.hp.com, public;;readcommunity#PRI#1, 3.3.3.3;;4.4.4.4, writecommunity,
3333,3,161,7.7.7,777,v3User1;;v3User2,v3Context1;;v3Context2,MD5;;SHA,authPass1;;authPass2,AES;;DES,privPass1;;privPass2,3,true,T,T,my region
description,T,3,3,user1,password1,shell,myregion,10,Community
```

Here's another example for loading a Region Configuration with multiple SNMPv3 configurations. Only the V3 and region parameters are specified.

- v3User1 is a No Authentication/No Privacy user
- v3User2 has MD5 Authentication and No Privacy
- v3User3 has SHA Authentication and 3DES Privacy

Note how the ";;" separators are used to skip specifying authentication and privacy information where appropriate

```
,,,,,,,,v3User1;;v3User2;;v3User3,v3Context1;;;;v3Context3,;;MD5;;SHA,;;authPass2;;authPass3,;;;;3DES,;;;privPass3,3,,,,,,,,,,,,myregion,10,Community
```

Parameters

nnmcommload.ovpl recognizes the following options.

-u <username>

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

-p <password>

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

-jndiHost (optional)

The hostname of the server running the jboss application server. If you do not specify a hostname, the nnmcommload.ovpl script uses localhost as the default value.

-jndiPort (optional)

The jboss application server port. If you do not specify this port, the nnmcommload.ovpl script uses 1099 as the default value.

-file (required)

A file name or full path to a file created with the format described above containing the data to be loaded.

EXAMPLES

```
nnmcommload.ovpl -u joe -p secret -file C:\temp\import.txt
nnmcommload.ovpl -u joe -p secret -file /tmp/import.txt
nnmcommload.ovpl -u joe -p secret -jndiHost myserver -jndiPort 1117 -file import.txt
```

AUTHOR

nnmcommload.ovpl was developed by Hewlett Packard Enterprise.

FILES

nnmcommload.ovpl resides in the following location:

Windows: %NNM_BIN%\nnmcommload.ovpl

UNIX: \$NNM_BIN/nnmcommload.ovpl

SEE ALSO

nnm.properties (4), nnmcommconf.ovpl(1M).

nnmcommunication.ovpl — Allows management of communication settings.

SYNOPSIS

```
nnmcommunication.ovpl -?
nnmcommunication.ovpl addCertificate (-default|-region (<name>|<uuid>)| -nodeSetting (<name>|<uuid>)) (-cert
<cert_file>)
nnmcommunication.ovpl addCommunity (-default|-region < region>) -community < value> [-ordering < order>]
nnmcommunication.ovpl addCredential (-default|-region < region>|-nodeSetting < nodeName>) -type (SHELL|VMWARE) -
username <username> -password <password>
nnmcommunication.ovpl addSnmpV3Setting (-default | -region (<name>|<uuid>)) -snmpV3Setting (<name>|<uuid>)
nnmcommunication.ovpl createAddressRange [-uuid <uuid>] -region <region> -range <ip_range>
nnmcommunication.ovpl createHostnameFilter -hostname pattern> -region <reqion> [-uuid <uuid>]
nnmcommunication.ovpl createNodeSettings -name < name > [-addressDiscovery (true|false)] [-description < description >] [-
icmpEnabled (true|false)] [-icmpRetries <number>] [-icmpTimeout <timeout>] [-managementAddress <ip>] [-shellCredential
<credential>] [-shellUser <username>] [-vmWareCredential < credential>] [-vmWareUser <username>] [-
snmpCommunity <string>] [-snmpEnabled (true|false)] [-snmpGetBulk (true|false)] [-snmpPort <port>] [-snmpFort <port>] [-snmpFor
snmpPreferredVersion (V1|V2C|V3)] [-snmpRetries <number>] [-snmpTimeout <timeout>] [-snmpV3Setting (<name>|
<uuid>)] [-snmpWriteCommunity < community_string>] [-uuid < uuid>]
nnmcommunication.ovpl createRegionSettings -name < name > -ordering < order > [-addressDiscovery (true|false)] [-
addressFilter <filter>] [-description <description>] [-hostnameFilter <filter>] [-icmpEnabled (true|false)] [-icmpRetries
<number>] [-icmpTimeout <timeout>] [-name <name>] [-ordering <integer>] [-shellCredential <credential>] [-shellUser
<username>] [-vmWareCredential <credential>] [-vmWareUser <username>] [-snmpCommunities <strings>] [-
snmpEnabled (true|false)] [-snmpGetBulk (true|false)] [-snmpPort <port>) [-snmpPreferredVersion (V1|V2C|V3)] [-snmpPort <port>) [-snmpPreferredVersion (V1|V2C|V3)] [-snmpPort <port>) [
snmpRetries < number > ] [-snmpSecurityLevel
(COMMUNITY_ONLY|COMMUNITY|NO_AUTH_NO_PRIV|AUTH_NO_PRIV|AUTH_PRIV|COMMUNITY_ONLY_V1)]
[-snmpTimeout < timeout>] [-snmpV3Settings (<name>|<uuid>)] [-snmpWriteCommunity < community_string>] [-uuid
<uuid>]
nnmcommunication.ovpl createSnmpV3Settings -name < name> [-authPass < string>] [-authProtocol
(HMAC_MD5_96|HMAC_SHA_1)] [-contextName < string>] [-name < name>] [-privPass < string>] [-privProtocol
(DES_CBC|TripleDES|AES_128|AES_192|AES_256)] [-username < name > ] [-uuid < uuid > ]
nnmcommunication.ovpl delete (-region < region > | -nodeSetting < nodeSetting > | -snmpV3Setting < v3Setting > |
nnmcommunication.ovpl deleteAddressRange (-region (<name>|<uuid>) | -range <ip_range> | -uuid <uuid>)
nnmcommunication.ovpl deleteHostnameFilter (-hostname cpattern> -region cregion> | -uuid <uuid>)
nnmcommunication.ovpl listAddressRanges [-range <ip_range>] [-region (<name>|<uuid>)] [-uuid <uuid>]
nnmcommunication.ovpl listCertificates (-default|-region (<name>|<uuid>)|-nodeSetting (<name>|<uuid>))
nnmcommunication.ovpl listCommunities (-default|-region < region > | -nodeSetting < node >)
{\tt nnmcommunication.ovpl}\ listDefaults
nnmcommunication.ovpl listCredentials (-default|-region < region>|-nodeSetting < nodeName>) [-type (SHELL|VMWARE)]
```

```
nnmcommunication.ovpl listEffective -node < node >
nnmcommunication.ovpl listHostnameFilters (-hostname pattern> -region <region>) | (-uuid <uuid>)
nnmcommunication.ovpl listNodeSettings -name < name >
nnmcommunication.ovpl listRegionSettings [-name < name >]
nnmcommunication.ovpl listSnmpAgentSettings [-node (<name>|<uuid>)]
nnmcommunication.ovpl listSnmpV3Settings [(-name < name > | -uuid < uuid >)]
nnmcommunication.ovpl listWebAgentSettings [-node (<name>|<uuid>)]
nnmcommunication.ovpl removeCertificate (-default|-region (<name>|<uuid>)|-nodeSetting (<name>|<uuid>)) (-uuid
<uuid>|-subjectDN <subjectDN>| -fingerPrint <fingerPrint>|-serialNumber <serialNumber>)
nnmcommunication.ovpl removeCommunity (-default|-region < region>) (-community < value>|-ordering < order>) -uuid
<uuid>: The object unique identifier.
nnmcommunication.ovpl removeCredential (-default|-region < region>|-nodeSetting < nodeName>) -type (SHELL|VMWARE)
[-username < username >]
nnmcommunication.ovpl removeSnmpV3Setting (-default | -region (<name>|<uuid>)) -snmpV3Setting (<name>|<uuid>)
nnmcommunication.ovpl updateCredential (-default|-region < region>|-nodeSetting < nodeName>) -type (SHELL|VMWARE)
(-username <username>|-password <password>)
nnmcommunication.ovpl updateDefaults [-addressDiscovery (true|false)] [-default] [-icmpEnabled (true|false)] [-icmpRetries
<number>] [-icmpTimeout <timeout>] [-interfaceMatcher <value>] [-managementAddressSelection <ALG1, ALG2, ALG3>] [-
preferIPVersion (IPv4|IPv6|IPAny)] [-shellCredential < credential >] [-shellUser < username >] [-snmpCommunities
<strings>] [-snmpEnabled (true|false)] [-snmpGetBulk (true|false)] [-snmpPort <port>] [-snmpPreferredVersion
(V1|V2C|V3)] [-snmpRetries < number>] [-snmpSecurityLevel
(COMMUNITY ONLY|COMMUNITY|NO AUTH NO PRIV|AUTH NO PRIV|AUTH PRIV|COMMUNITY ONLY V1)]
[-snmpTimeout <timeout>] [-snmpV3Settings (<name>|<uuid>)] [-snmpWriteCommunity <community_string>]
nnmcommunication.ovpl updateSnmpAgentSettings -node (<name> | <uuid>) [-address <ip>] [-community <string>] [-
enabled (true|false)] [-mode (AUTO|LOCKED)] [-port <port>] [-retries <integer>] [-timeout <duration>] [-version
(V1|V2C|V3)] [-writeCommunity <string>]
nnmcommunication.ovpl updateNodeSettings -nodeSetting (<name>|<uuid>) [-addressDiscovery (true|false)] [-description
<description>] [-icmpEnabled (true|false)] [-icmpRetries < number>] [-icmpTimeout < timeout>] [-managementAddress
<ip>| [-name < name >] [-shellCredential < credential >] [-shellUser < username >] [-vmWareCredential < credential >] [-shellUser < username >] [-vmWareCredential < credential >] [-shellCredential < credential < credital < credential < credital < credential < credital < credential < credi
vmWareUser <username>] [-snmpCommunity <string>] [-snmpEnabled (true|false)] [-snmpGetBulk (true|false)] [-snmpPort
<port>] [-snmpPreferredVersion (V1|V2C|V3)] [-snmpRetries <number>] [-snmpTimeout <timeout>] [-snmpV3Setting
(<name>|<uuid>)] [-snmpWriteCommunity <community_string>]
nnmcommunication.ovpl updateRegionSettings -region (<name>|<uuid>) [-addressDiscovery (true|false)] [-addressFilter
<filter>] [-description <description>] [-hostnameFilter <filter>] [-icmpEnabled (true|false)] [-icmpRetries <number>] [-
icmpTimeout <timeout>] [-name <name>] [-ordering <integer>] [-shellCredential <credential>] [-shellUser <username>]
[-vmWareCredential < credential >] [-vmWareUser < username >] [-snmpCommunities < strings >] [-snmpEnabled
(true|false)] [-snmpGetBulk (true|false)] [-snmpPort <port>] [-snmpPreferredVersion (V1|V2C|V3)] [-snmpRetries <number>]
[-snmpSecurityLevel
(COMMUNITY ONLY|COMMUNITY|NO AUTH NO PRIV|AUTH NO PRIV|AUTH PRIV|COMMUNITY ONLY V1)]
[-snmpTimeout <timeout>] [-snmpV3Settings (<name>|<uuid>)] [-snmpWriteCommunity <community_string>]
nnmcommunication.ovpl updateSnmpV3Setting -snmpV3Setting (<name>|<uuid>) [-authPass <string>] [-authProtocol
(HMAC MD5 96|HMAC SHA 1)] [-contextName < string>] [-name < name>] [-privPass < string>] [-privProtocol
(DES CBC|TripleDES|AES 128|AES 192|AES 256)] [-username < name>]
nnmcommunication.ovpl updateWebAgentSettings -node (<name>|<uuid>) [-mode <(AUTO/LOCKED)>] [-agentEnabled
true|false)] [-username <string>] [-password <string>] [-port <port>] [-scheme (HTTP|HTTPS)] [-timeout <duration>] [-
cert <cert_file>]
```

```
nnmcommunication.ovpl -batch <batch_file>[-quiet]
```

The following additional options are available to most/all of the commands listed above:

nnmcommunication.ovpl-fields < fields > -format < style > -http.host < host > -http.port < port > -jndiHost < host name > -jndiPort < port > -p < password > -u < username > -jndiPort < port > -p < password > -u < username > -jndiPort < port > -jndiPort < po

DESCRIPTION

The general format of the nnmcommunication.ovpl command line is the following:

```
nnmcommunication.ovpl <command> <options>
```

Each of the available choices for *command* are listed below, in the <u>Commands</u> section. Similarly, the available *options* for each of the commands are found in the <u>Options</u> section. Many commands share similar options. See the <u>Synopsis</u> section above for the appropriate list of options for each command.

Commands

addCertificate

Adds device trusted certificate to default or specific node or regions settings communication configuration

addCommunity

Adds a community string to default, region or node settings. If ordering is not provided then the specified community string will be tried last.

addCredential

Adds device credentials for communication configuration to default, node-specific, or regions settings.

addSnmpV3Setting

Assigns the specified SNMPv3 setting to default or region settings.

batch

Runs the tool in batch mode with the supplied input file or \"-\" to read from standard-in. Note that in batch mode, the input file lists several other commands to perform. The entire batch operation is performed as a single database transaction, which means that if there is an error part way through the batch operation, all previous operations which had succeeded are rolled back. The error message will list the line number in the batch file that had the error.

createAddressRange

Creates a new address range entry whose name is the specified <region>. Note that the region name can have multiple address range entries associated with it.

createHostnameFilter

Creates a new hostname filter entry.

createNodeSettings

Creates a new per-node configuration.

createRegionSettings

Creates a new region configuration.

 ${\tt createSnmpV3Settings}$

Creates a new SNMPv3 configuration.

delete

Deletes a region, per-node setting or SNMPv3 setting.

deleteAddressRange

Removes one or more address range entries.

deleteHostnameFilter

Removes one or more hostname filter entries.

listAddressRanges

Lists address range entries.

listCertificates

Lists device trusted certificates configured for default or specific node or regions settings communication configuration.

listCommunities

Lists the community string for default, region or node settings.

listCredentials

Lists device credentials for communication configuration to default, node-specific, or regions settings.

listDefaults

Lists the default communication settings.

listEffective

Lists the effective communication settings configured for a node.

listHostnameFilters

Lists hostname filter entries.

listNodeSettings

Lists the per-node settings.

listRegionSettings

Lists the configured communication regions. If a name is provided, then only that region is listed, otherwise all regions are listed.

listSnmpAgentSettings

Lists the active settings for SNMP agents managed by the local NNMi server.

listWebAgentSettings

Lists the settings of all Web Agents managed by the local NNMi management server. To view a list of Web Agents running on a specific node, provide the hostname or UUID of the node with the command.

removeCertificate

Removes configured device trusted certificates from default or specific node or regions settings communication configuration.

listSnmpV3Settings

Lists the SNMPv3 configuration(s). If a name is provided, then only the SNMPv3 settings matching that name are listed, otherwise all SNMPv3 settings are listed.

 ${\tt removeCommunity}$

Removes a community string from default, region or node settings.

removeCredential

Deletes device credentials for communication configuration from default, node-specific, or regions settings.

removeSnmpV3Setting

Removes the specified SNMPv3 setting from default or region settings.

updateSnmpAgentSettings

Directly updates agent settings for node managed by the local NNMi server. Directly updating agent settings will cause the agent mode to become LOCKED unless the -mode AUTO argument is specified with the command.

updateCredential

Updates device credentials for communication configuration in default, node-specific, or regions settings.

updateDefaults

Updates fields on the default communication configuration.

updateNodeSettings

Updates fields on a per-node configuration.

updateRegionSettings

Updates fields on a communication region configuration.

updateSnmpV3Setting

Change values on an SNMPv3 configuration.

updateWebAgentSettings

Directly updates the settings of a Web Agent hosted on a node managed by the local NNMi management server. Directly updating agent settings will cause the agent mode to become LOCKED unless the -mode AUTO argument is specified with the command. "-cert" option can be specified without any value to delete trusted certificates from Web Agent Settings.

Options

This section lists common options to the commands listed above.

```
-address <ip>
```

The management address to use for the node.

```
-addressDiscovery (true|false)
```

If true NNMi will attempt to discover a new management address if the old one stops responding.

```
-addressFilter <filter>
```

The address range for included nodes. For example 10.1.0.0/16, 192.168.1-20.* or fc00::/7. Multiple entries can be concatenated with a semi-colon separator.

```
-authPass <string>
```

The SNMPv3 authentication pass-phrase.

```
-authProtocol (HMAC_MD5_96 | HMAC_SHA_1)
```

The SNMPv3 authentication protocol.

```
-cert <cert_file>
```

```
Fully qualified path to the trusted certificate file. The supported trusted certificate file extensions are .pem, .crt, .cer and
     .der
-community <string>
     The value of the community string.
-contextName < string>
     The SNMPv3 Context Name.
-default
     Changes values on the default settings in case of add/update/remove options, enumerates the default settings for list
     options
-description <description>
     The settings description.
-fingerPrint <fingerPrint>
     Public key fingerprint of the trusted certificate.
-hostnameFilter <filter>
     The hostname pattern for included nodes, for example *.usa.myco.com.
-icmpEnabled (true|false)
     True to enable ICMP communication; false to disable.
-icmpRetries < number>
     The ICMP retries.
-icmpTimeout <timeout>
     The ICMP timeout in milliseconds.
-interfaceMatcher <value>
     Expression to match an interface to use as the preferred management address.
-managementAddress <ip>
     The management address to use for the node.
-managementAddressSelection <ALG1,ALG2,ALG3>
     The order to run management address selection algorithms. Valid values are: LOW_LOOPBACK, HIGH_LOOPBACK,
     SEED, or INTERFACE. If INTERFACE is used, then you must also specify the <interfaceMatcher> parameter.
-mode (AUTO LOCKED)
     Mode of the agent. AUTO means apply from configuration LOCKED means values are explicitly set by the user.
-name <name>
     Filters the output by name; wildcards * and ? are supported.
-name < name >
     The settings name.
-node < node >
     Filters the output by node name; FQDN, short name and IP address are supported.
-nodeSetting (<name>|<uuid>)
```

Specifies a per-node setting; valid inputs are the setting name or setting UUID. -ordering <integer> The priority ordering of the settings. Settings are tried in priority order, from 1 to the highest number. Having two items with same priority order will result in an error. -password <string> Password for the device communication. -preferIPVersion (IPv4 | IPv6 | IPAny) The preferred IP version. -privPass <string> The SNMPv3 privacy pass-phrase. -privProtocol (DES_CBC|TripleDES|AES_128|AES_192|AES_256) The SNMPv3 privacy protocol. -range <ip_range> An ip address range. Examples are: 192.168.1.0/24 or 192.168.1-10.*. -retries <integer> The number of SNMP retries. -region (<name>|<uuid>) Specifies the region. Valid values are the region name or UUID. -serialNumber < serialNumber > Serial Number of the trusted certificate. -shellCredential < credential > The device shell credential. -shellUser <username> The device shell username. -snmpCommunities <strings> The SNMP read community string(s), which is a semicolon-separated list. Note that shells on the Linux platforms treat the semicolon character as a special character, therefore the list must be quoted to avoid this special interpretation. -snmpCommunity <string> The snmp community to use for the node. -snmpEnabled (true|false) Enables or disables SNMP communication. -snmpGetBulk (true|false) If true NNMi will use SNMPv2c GetBulk commands. -snmpPort <port>

The port to use for SNMP communication.

-snmpPreferredVersion (V1|V2C|V3)

The default SNMP version to use.

```
-snmpRetries < number>
     The number of SNMP retries.
-snmpSecurityLevel (COMMUNITY_ONLY|COMMUNITY|NO_AUTH_NO_PRIV|AUTH_NO_PRIV|AUTH_PRIV|COMMUNITY_ONLY_V1)
     The SNMP minimum security level.
-snmpTimeout <timeout>
     The SNMP timeout in milliseconds.
-snmpV3Setting (<name>|<uuid>)
     Reference to an SNMP V3 Setting by Name or UUID.
-snmpV3Settings (<name>|<uuid>)
     Reference to one or more SNMP V3 Settings by Name or UUID.
-snmpWriteCommunity <community_string>
     The SNMP write community string.
-subjectDN < subjectDN>
     Subject DN of the trusted certificate.
-timeout <duration>
     The timeout for the Snmp Agent or Web Agent. Format is either 1000 or PT1S for one second for the Snmp Agent ,PT1S
     for one second for the Web Agent.
-type <SHELL | VMWARE>
     The credential type; valid values are SHELL, VMWARE.
-username <name>
     The username for this configuration.
-uuid <uuid>
     The object unique identifier.
-version (V1|V2C|V3)
     The SNMP version used by this agent. Valid values are V1, V2C or V3.
-writeCommunity <string>
     The SNMP write community string.
-agentEnabled (true|false)
     Enables or disables Web Agent communication.
-scheme (HTTP | HTTPS)
     The scheme to be used by the Web Agent for communication.
```

Additional Parameters

-fields <fields>

Selects the output fields for table data as a comma-separated list

-format <style>

Sets the output format for table data; valid values are TEXT, LIST, CSV or XML. -http.host <host> The server host; default is localhost. -http.port <port> The server port; default is 80. -jndiHost <hostname> The server indi host; default is localhost -jndiPort <port> The server jndi port; default is 1099 -p <password> The password of the user -quiet Suppresses the normal output and only print errors. -u <username> The username to run this command **EXAMPLES** Create region settings for all nodes in the USA (as determined by hostname), and set the ordering to 10: nnmcommunication.ovpl -createRegionSettings -name UsaNodes -ordering 10 -hostnameFilter *.usa.myco.com. Update the region settings created above to set some fields: nnmcommunication.ovpl -updateRegionSettings -region UsaNodes -addressDiscovery true -snmpPreferredVersion V2C -snmpTimeout 200 $\,$ List the region settings created above: nnmcommunication.ovpl -listRegionSettings -region UsaNodes Create SNMPV3 settings to be used by some node nnmcommunication.ovpl -createSnmpV3Settings -name xyzSettings -username xyzUser -contextName xyzContext -authProtocol HMAC_MD5_96 -authPass myPass -privProtocol AES_192 -privPass myPrivPass List the SNMPv3 settings created above: nnmcommunication.ovpl -listSnmpV3Settings -name xyzSettings Create per-node settings for the node xyz.myco.com, using the SNMPv3 settings created above: nnmcommunication.ovpl -createNodeSettings -name xyz.myco.com -snmpPreferredVersion V3 -snmpV3Setting xyzSettings List the effective node settings for xyz.myco.com: nnmcommunication.ovpl -listEffective -node xyz.myco.com

Update the node settings for xyz.myco.com to turn off ICMP:

Update the management address and lock the agent settings for node mynode

nnmcommunication.ovpl -updateNodeSettings -nodeSetting xyz.myco.com -icmpEnabled false

nnmcommunication.ovpl updateSnmpAgentSettings -node mynode -address 192.168.1.1

Update the management address without locking the agent settings for mynode

nnmcommunication.ovpl updateSnmpAgentSettings -node mynode -address 192.168.1.1 -mode AUTO

Update the Web Agent hosted on mynode, set the port to 80, scheme to HTTP, and timeout to 3 minutes

nnmcommunication.ovpl updateWebAgentSettings -node mynode -port 80 -scheme HTTP -timeout PT3M

Update the Web Agent hosted on mynode to set the trusted certificate specified

nnmcommunication.ovpl updateWebAgentSettings -cert /tmp/trustedCert-host1.pem

Add new default credentials to communicate with a VMware hypervisor.

nnmcommunication.ovpl addCredential -default -type VMWARE -username vmwareuser -password vmwarepass

List all the default credentials.

nnmcommunication.ovpl listCredentials -default

Remove the default VMWARE credentials.

nnmcommunication.ovpl removeCredential -default -type VMWARE

Update the default VMWARE credentials.

nnmcommunication.ovpl updateCredential -default -type VMWARE -username username -password password

Add trusted certificate to default communication configuration.

nnmcommunication.ovpl addCertificate -default -cert /tmp/trustedCert-host1.pem

List all trusted certificates configured for the "Americas" region in the communication configuration

nnmcommunication.ovpl listCertificates -region Americas

Remove trusted certificate configured from default with matching Serial Number

nnmcommunication.ovpl removeCertificate -default -serialNumber "1111111111"

NOTE

This command currently does not support configuration of SNMP Proxy Address or SNMP Proxy Port.

AUTHOR

nnmcommunication.ovpl was developed by Hewlett Packard Enterprise.

FILES

\$NNM_BIN/nnmcommunication.ovpl

nnmconfigexport.ovpl — Export the configuration to one or more files that can be imported on another system.

SYNOPSIS

```
\label{lem:nnmconfigerport.ovpl--} $$\operatorname{nnmconfigerport.ovpl--}$ [-c < \operatorname{configuration}] [-c < \operatorname{conf
```

DESCRIPTION

nnmconfigexport.ovpl is a Perl script that enables you to export the customized configuration to stdout, or to save it in a file.

Parameters

nnmconfigexport.ovpl supports the following options:

-?

Displays the usage statement.

```
-u <username>
```

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

```
-p <password>
```

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

```
-c <configuration>[,configuration...]
```

Exports the XML schema for the specified configuration. Use a comma separated list for multiple configurations. If there are multiple configurations, you must specify a directory when using the -f option.

Valid configurations:

account

Exports user accounts, user roles, user principals, user groups and user account mappings.

author

Exports authors. Can be optionally filtered using the -a argument.

customCorrelation

Exports custom correlation configuration. Can be optionally filtered using the -a argument.

comm

Exports communication configuration. Does not export SNMPv3 communication configuration and device credentials. The encryption algorithms used with this data rely on an internal key specific to the NNMi installation. It is not possible to import this data, so the data is excluded from the export.

custpoll

Exports custom poller configuration.

device

Exports device profiles. Can be optionally filtered using the -a argument.

disco

Exports discovery configuration (does not include seeds).

discoseed

Exports discovery seeds.

icons

Exports icons.

ifgroup

Exports interface groups.

iftype

Exports interface types (IfTypes). Can be optionally filtered using the -a argument.

incident

Exports incident configuration. Can be optionally filtered using the -a argument.

menu

Exports menus. Can be optionally filtered using the -a argument.

menuitem

Exports all menu items configured for the Actions menu. If you supply the -a argument, the output contains the related parent menus and sub-menus.

mibexpr

Exports MIB expressions. Can be optionally filtered using the -a argument.

mibtypes

Exports MIB OID Types.

monitoring

Exports monitoring configuration.

nodegroup

Exports node groups.

ngmap

Exports node group maps. The node host names must match between both NNMi management servers for the node coordinates to import successfully.

oam

Exports Overlapping Address Mappings.

rams

Exports one or more route analytics management server configurations.

NOTE: The Query Password field of a RAMS configuration will only be valid when you import it into the same NNMi installation on the same system. If you import the Query Password field into a different system, you will have to re-enter the Query Password.

security

Exports security groups and tenants.

securitymappings

Exports security group mappings.

station

Exports NNM 6.x/7.x management stations.

status

Exports the node group status configuration.

trap

Exports the trap logging configuration. Can be optionally filtered using the -a argument.

ui

Exports user interface settings.

all

Exports all of the available configuration areas. If you use this option, you must direct the output to a directory.

```
-a <author_key>
```

Export only the configuration items created by author with key author_key in a special XML format used for incremental import. The nnmconfigimport.ovpl script automatically detects this XML format. You do not need to use a special option when using the nnmconfigimport.ovpl script. This option is only available for configurations author, customCorrelation, device, incident, menu, and

menuitem. You can find available author keys by doing an export of authors. See the examples shown below.

-f <output file or directory>

Saves the output to the specified file or directory.

-x <file_prefix>

A file name prefix that is used to name files when the specified output is a directory. Files will be named cprefix-<area>.xml.

EXAMPLES

nnmconfigexport.ovpl -u myusername -p myadminpassword -c comm

Exports the communication configuration to stdout.

nnmconfigexport.ovpl -u myusername -p myadminpassword -c comm,disco -f /tmp -x my

Exports the communication and discovery configurations to files named /tmp/my-comm.xml and /tmp/my-disco.xml.

nnmconfigexport.ovpl -u myusername -p myadminpassword -c author

Exports all authors with author key and label to stdout.

nnmconfigexport.ovpl -u myusername -p myadminpassword -c menuitem -a com.mycorp.nnm.author
-f /tmp/mycorpmenuitems.xml

Exports the menuitem configuration created by author with key com.mycorp.nnm.author to the /tmp/mycorpmenuitems.xml file.

AUTHOR

nnmconfigexport.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

nnmconfigimport.ovpl(1M), nnm.properties(4).

nnmconfigimport.ovpl — import the nnmconfigexport.ovpl XML output to the NNMi database.

SYNOPSIS

 $\label{lem:configure} $$\operatorname{nnmconfigurent.ovpl-?} | [-u < username > -p < password >] -f < input file or directory > [-x < file prefix >] [-memory < number of megabytes >] [-timeout < time in seconds >] [-sync-f < input file or directory >] [-jndiHost < hostname >] [-jndiPort < port >] [-jndiHost < hostname >] [-jndiHo$

DESCRIPTION

nnmconfigimport.ovpl is a Perl script that enables you to import the output from the nnmconfigexport.ovpl script into the NNMi database.

NOTE: When performing an action import, you must restart the NNMi console (sign out, then sign in) for the changes to take effect.

Parameters

The nnmconfigimport.ovpl script supports the following options:

-?

Displays the usage statement.

-u <username>

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

-p <password>

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

-f <input file or directory>

Imports the configuration XML file, or, if you specify a directory, imports all of the files in that directory.

-x <file prefix>

The file prefix used to filter files to be imported when you use the -f option and specify a directory. Any files within the specified directory that are named <file prefix>-* will be imported, then sorted by dependencies.

```
-memory <memory in megabytes>
```

The amount of memory available for the nnmconfigimport.ovpl script to perform work. The default is 512 megabytes. Larger import files may require this value be set to 1024 or 2048. This option is not presented in the usage message since it is used by the nnmconfigimport.ovpl script and not passed to the actual import tool.

```
-timeout <time in seconds>
```

The amount of time available for the import of a particular file to complete. Some import types such as incidents might require a larger timeout value based on the amount of data. The default is 3600 (60 minutes). This option is not presented in the usage message since it is used by the nnmconfigimport.ovpl script, and not passed to the actual import tool.

```
-sync -f <input file or directory>
```

Updates the target system to exactly match the contents of the import file(s). This means that objects not listed in the input file will be deleted on the target system.

```
-jndiHost <hostname>
```

The server indi host. Default is localhost.

```
-jndiPort <port>
```

The server jndi port. Default port is 1099.

NOTES

For a majority of areas nnmconfigimport.ovpl appends to the existing configuration. And in a few areas like Discovery, Communication, Monitoring, and Status, the existing configuration settings are replaced. Please see *Export/Import Behavior and Dependencies* in the Online Help for more information.

In order to add configuration elements, you must run the nnmconfigexport.ovpl script with a provided author_key.

The nnmconfigimport.ovpl script automatically detects if you ran the nnmconfigexport.ovpl script using a provided author_key, and adds configuration entries instead of replacing them.

The Query Password field of a RAMS configuration will only be valid when you import it into the same NNMi installation on the same system. If you import it into a different system, you will need to re-enter the Query Password.

Never edit the nnmconfigexport.ovpl output files before importing them.

EXAMPLES

```
nnmconfigimport.ovpl -u system -p openview -f /tmp/nnmconfig.xml
```

Imports the customized configuration in the /tmp/nnmconfig.xml file to the NNMi database. (You must provide an NNMi username and password. In this case, the username is system and the password is openview.)

AUTHOR

nnmconfigimport.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

nnmconfigexport.ovpl(1M), nnm.properties(4).

nnmconfigpoll.ovpl — poll a node for discovery information

SYNOPSIS

nnmconfigpoll.ovpl [-v] [-t timeout in secs] [-u <username> -p <password>] [-jndiHost <hostName> Default: localhost] [-jndiPort <port> Default: 1099] [-tenant <name>] node

DESCRIPTION

The nnmconfigpoll.ovpl script sends a request to the discovery service to poll the node for discovery information. The node must exist in the discovered topology. The *node* parameter you enter can be a node name in the topology or an IP address associated with a node.

Running the nnmconfigpoll.ovpl script starts a layer 2 connectivity analysis for the node. NNMi displays status messages for the layer 3 discovery information in the NNMi console as the discovery service polls the device.

The nnmconfigpoll.ovpl script polls for discovery information. To poll for status information, use the the nnmstatuspoll.ovpl script.

Parameters

The nnmconfigpoll.ovpl script recognizes the following parameters and options:

-v

Display verbose information about the discovery poll.

```
-t <timeout in secs>
```

The client waits timeout in secs seconds for a response.

```
-u <username>
```

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

```
-p <password>
```

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

```
-jndiHost < serverName >
```

The server JNDI host; default is localhost.

```
-jndiPort <port>
```

The server JNDI port; default is 1099.

```
-tenant < name >
```

The tenant group the node belongs to; must be used when the node name is not unique in the network such as using an IP address that has duplicates; no default.

EXAMPLES

The following examples show how to use the nnmconfigpoll.ovpl script to poll a node using different options.

Poll a node using its node name.

```
nnmconfigpoll.ovpl -u username -p password thisnode
```

Poll a node using its fully qualified node name.

```
nnmconfigpoll.ovpl thisnode.x.y.z
```

Poll a node using its IP address.

```
nnmconfigpoll.ovpl 10.97.247.129
```

Poll a node using its IP address and tenant name.

```
nnmconfigpoll.ovpl -tenant myDuplicateAddressesDomain 10.97.247.129
```

AUTHOR

nnmconfigpoll.ovpl was developed by Hewlett Packard Enterprise.

FILES

Windows: %NNM BIN%\nnmconfigpoll.ovpl

UNIX: \$NNM_BIN/nnmconfigpoll.ovpl

SEE ALSO

nnmstatuspoll.ovpl(1M).

nnmconnedit.ovpl — make corrections to the L2 (layer 2) connection topology. Users can add and delete connections.

SYNOPSIS

nnmconnedit.ovpl -f corrections file -t [add|delete] [-help] [-u <username> -p <password>] [-jndiHost <hostName> Default: localhost] [-jndiPort <port> Default: 1099]

DESCRIPTION

Due to a variety of factors, NNMi L2 connection topology discovery can contain inaccuracies. The nnmconnedit.ovpl script provides a way for the user to add connections to or delete connections from NNMi. The administrator creates the *corrections file* and must follow the following structured XML format:

Where:

operation identifies whether the connection is to be added or deleted.

node is identified by its short name, long name (DNS name) or IP address.

interface is identified in order by ifIndex, ifName, ifDescr, or ifAlias. This value must be unique. Note that using ifIndex is discouraged due to the interface renumbering feature supported by some devices. For non-SNMP nodes, ifAlias or ifDescr are recommended.

For each connection element, there must be at least two nodes and two interfaces. The number of nodes and interfaces must be equal. Each node and interface pair is known as an endpoint, so a single connection element can have two or more endpoints specified. Multiple connection elements are permitted within a corrections file.

When adding a connection, each endpoint will be removed from any existing connection of which it may be a member, then added to the new connection. If there are more than two endpoints specified in the connection element, the connection will appear on maps as a shared-media connection symbol. If the connection element specifies a connection which already exists in the NNMi database, then nothing will be changed.

When deleting a connection, nothing will be changed unless a connection with the same set of endpoints already exists in the NNMi database. In that case, all of the specified endpoints will be left in a disconnected state. If network devices are reporting a connection, deleting that connection will only be temporary. In this case, the deleted connection reappears in NNMi the next time NNMi discovers the nodes involved in the

connection.

Parameters

The nnmconnedit.ovpl script recognizes the following parameters and options:

```
-f corrections file
```

Specifies the name of the file that contains the formatted connection add and delete directives.

```
-t [add | delete]
```

Generates a template file that can be used to create a corrections file. Specifying *add* will create an add operation template while specifying *delete* will generate a delete operation template.

```
-u <username>
```

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

```
-p <password>
```

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

```
-jndiHost <serverName>
```

The server JNDI host; default is localhost.

```
-jndiPort <port>
```

The server JNDI port; default is 1099.

-help

This option displays the script usage information.

EXAMPLES

Suppose that NNMi connection discovery was unable to find the L2 connection between two switches manufactured by different vendors. To remedy this, go to each device and get the node names and interface names that need to be connected. Next, create the add template file, mychg.xml, passing the -t option of the nnmconnedit.ovpl script. Next, edit the file, filling in the node and interface information. Save your changes in the mychg.xml file.

The following is an example of the mychg.xml (add template) file:

Finally, run the nnmconnedit.ovpl script, passing the mychg.xml file with the -f option.

```
nnmconnedit.ovpl -f mychg.xml
```

Suppose that NNMi connection discovery creates an L2 connection where none should exist. To remedy this, get the node names and interfaces involved in the incorrect connection. Then create the mychg.xml (delete template) file, passing the -t option of the nnmconnedit.ovpl script. Next, edit the file by filling in the node and interface information. Save your changes in the mychg.xml file.

The following is an example of the mychg.xml (delete template) file:

Finally, run the nnmconnedit.ovpl script, passing the mychg.xml file with the -f option.

```
nnmconnedit.ovpl -u username -p password -f mychg.xml
```

AUTHOR

nnmconnedit.ovpl was developed by Hewlett Packard Enterprise.

FILES

None

See Also

None

nnmcustompollerconfig.ovpl — Create, list, update, delete, enable, and disable Custom Poller configuration.

SYNOPSIS

nnmcustompollerconfig.ovpl

nnmcustompollerconfig.ovpl createCollection [-uuid <object uuid>] -name < name> -type <collection type> [-filterVariable < mib filter variable>] [-affectNodeStatus < true|false>] [-exportCollection < true|false>] [-compressExport < true|false>] [-generateIncident < true|false> -incidentSource < incident source object>]

nnmcustompollerconfig.ovpl createComparisonMap [-uuid <object uuid>] -variable <name>|<uuid> -ordering <ordering> -comparisonOperator <comparisonOperator <comparisonOperator> -comparisonValue <comparison value> -stateMapping <state mapping>

nnmcustompollerconfig.ovpl createCountThreshold [-uuid <object uuid>] -variable <name>|<uuid> { (-lowState <low state> -lowValue <low value> [-lowValueRearm>] [-lowTriggerCount <low trigger count>]) | (-highState <high state> -highValue <high value> [-highValueRearm <high value rearm>] [-highTriggerCount <high trigger count>]) }

nnmcustompollerconfig.ovpl createMibDefinition -conversionType <conversion type> -isTabular <true|false> -oidType <oid type> -oid <oid> [-uuid <object uuid>]

nnmcustompollerconfig.ovpl createMibExpression -expression <mib expression> [-displayVariable <display variable>] -author <unique key> [-desc < "description">] [-displayFilter < name>] [-conversionAlgorithm < conversation algorithm>] -key < unique key> -name < name>

 $nnmcustompollerconfig.ovpl \ create Policy - name < -name > -polling Interval < -polling \ interval > -ordering < -createring > [-uuid < -object \ uuid >] -collection < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -name > | < -uuid > -node Group < -nam$

 $nnmcustompollerconfig.ovpl\ create Report Collection\ -report Group\ < name > | < uuid > \{[-uuid\ < object\ uuid >]\ -collection\ < name > | < uuid >\}\ |\ \{-list\ < csv\ list\ of\ identifiers>\}$

nnmcustompollerconfig.ovpl createReportGroup [-uuid <object uuid>] -name <name>

nnmcustompollerconfig.ovpl createTimeThreshold [-uuid <object uuid>] -variable <name>|<uuid> { (-lowState <low state> -lowValue <low value> [-lowValueRearm>] -lowDuration <low duration> -lowWindowDuration <low window duration>) | (-highState <high state> -highValue <high value> [-highValueRearm <high value rearm>] -highDuration <high duration> -highWindowDuration <high window duration>) }

nnmcustompollerconfig.ovpl createVariable -collection <name>|<uuid>[-uuid <object uuid>] -reportDataType <report data type> -mibExpression <key>| <name> -name < name>

 $\verb|nnmcustompollerconfig.ovpl| \ delete Collection - collection < \verb|name|| < \verb|uuid>| - list < csv | list | of | identifiers > list | of | identifi$

```
nnmcustompollerconfig.ovpl deleteComparisonMap -map <uuid> | -list <csv list of identifiers>
nnmcustompollerconfig.ovpl deleteCountThreshold -threshold <uuid> | -list <csv list of identifiers>
nnmcustompollerconfig.ovpl deleteMibDefinition -mibDefinition <oid>|<uuid>| -list <csv list of identifiers>
nnmcustompollerconfig.ovpl deleteMibExpression -mibExpression <a href="mailto:key">mibExpression <a href="mailto:key">key</a> | -list <a href="mailto:csv">csv</a> list of identifiers>
nnmcustompollerconfig.ovpl deletePolicy -policy < name> | < uuid> | -list < csv list of identifiers>
nnmcustompollerconfig.ovpl deleteReportCollection -reportCollection <uuid> | -list <csv list of identifiers>
nnmcustompollerconfiq.ovpl deleteReportGroup -reportGroup /aume|<uuid>| -list <csv list of identifiers>
nnmcustompollerconfig.ovpl deleteTimeThreshold -threshold <uuid> | -list <csv list of identifiers>
nnmcustompollerconfig.ovpl deleteVariable -variable <name>|<uuid>| -list <csv list of identifiers>
nnmcustompollerconfig.ovpl disable
nnmcustompollerconfig.ovpl enable
nnmcustompollerconfig.ovpl listCollection [-exportCollection <true|false>] [-name < name>] [-generateIncident < true|false>] [-incidentSource < incident source
object>] [-compressExport <true|false>] [-uuid <object uuid>] [-type <collection type>] [-filterVariable <mib filter variable>] [-affectNodeStatus
<true|false>]
nnmcustompollerconfig.ovpl listComparisonMap [-ordering < ordering >] [-stateMapping < state mapping >] [-comparisonOperator < comparison operator >]
[-uuid <object uuid>] [-comparisonValue <comparison value>] [-variable <name>|<uuid>]
nnmcustompollerconfiq.ovpl listCountThreshold [-highState < high state >] [-lowTriggerCount < low trigger count >] [-lowValueRearm < lowValueRearm >]
[-lowValue < low value >] [-highTriggerCount < high trigger count >] [-lowState < low state >] [-uuid < object uuid >] [-highValueRearm < high value
rearm>| [-variable <name>| <uuid>| [-highValue <high value>]
nnmcustompollerconfig.ovpl listMibDefinition [-conversion Type < conversion type>] [-isTabular < true|false>] [-oidType < oid type>] [-oid < oid>] [-uuid
<object uuid>]
nnmcustompollerconfig.ovpl listMibExpression [-author <unique key>] [-conversionAlgorithm <conversation algorithm>] [-desc < "description">] [-
displayFilter < name>] [-display Variable < display variable>] [-expression < mib expression>] [-key < unique key>] [-name < name>]
nnmcustompollerconfig.ovpl listPolicy [-activeState <active state>] [-collection <name>| <uuid>] [-filter <mib filter>] [-name <name>] [-nodeGroup
<name>|<uuid>] [-ordering <ordering>] [-pollingInterval <polling interval>] [-uuid <object uuid>]
nnmcustompollerconfig.ovpl listReportCollection [-collection < name>| < uuid>] [-list < csv list of identifiers>] [-reportGroup < name>| < uuid>] [-uuid
<object uuid>]
nnmcustompollerconfig.ovpl listReportGroup [-name < name>] [-uuid < object uuid>]
```

nnmcustompollerconfig.ovpl listTimeThreshold [-highDuration < high duration>] [-highState < high state>] [-lowWindowDuration < low window duration>] [-lowDuration < low duration>] [-lowValueRearm>] [-lowValue < low value>] [-lowState < low state>] [-uuid < object uuid>] [-highValueRearm < high value rearm>] [-variable < name>| < uuid>] [-highWindowDuration < high window duration>] [-highValue < high value>]

nnmcustompollerconfig.ovpl listVariable [-collection <name>|<uuid>] [-uuid <object uuid>] [-reportDataType <report data type>] [-mibExpression <key>| <name>] [-name <name>]

nnmcustompollerconfig.ovpl status

nnmcustompollerconfig.ovpl updateCollection -collection <name>|<uuid> [-exportCollection <true|false>] [-name <name>] [-generateIncident <true|false>] [-incidentSource <incident source object>] [-compressExport <true|false>] [-type <collection type>] [-filterVariable <mib filter variable>] [-affectNodeStatus <true|false>]

nnmcustompollerconfig.ovpl updateComparisonMap -map <uuid> [-variable <name>|<uuid>] [-ordering <ordering>] [-comparisonOperator <comparisonOperator <comparisonOperator>] [-comparisonValue <comparison value>] [-stateMapping <state mapping>]

nnmcustompollerconfig.ovpl updateCountThreshold <uuid> [-variable <name>|<uuid>] [-lowState <low state>] [-lowValue <low value>] [-lowValueRearm>] [-lowTriggerCount <low trigger count>] [-highState <high state>] [-highValue <high value>] [-highValueRearm <high value rearm>] [-highTriggerCount <high trigger count>]

nnmcustompollerconfig.ovpl updateMibDefinition -mibDefinition <oid>|<uuid>[-oid <oid>] [-oidType <oid type>] [-conversionType <conversion type>] [-isTabular <true|false>]

nnmcustompollerconfig.ovpl updateMibExpression -mibExpression <key>|<name> [-expression <mib expression>] [-displayVariable <display variable>] [-author <unique key>] [-desc <"description">] [-displayFilter <name>] [-conversionAlgorithm <conversation algorithm>] [-key <unique key>] [-name <name>]

nnmcustompollerconfig.ovpl updatePolicy -policy <name>|<uuid> [-name <name>] [-pollingInterval <polling interval>] [-ordering <ordering>] [-collection <name>|<uuid>] [-nodeGroup <name>|<uuid>] [-filter <mib filter>]

nnmcustompollerconfig.ovpl updateReportGroup -reportGroup <name>|<uuid> [-name <name>]

nnmcustompollerconfig.ovpl updateTimeThreshold <uuid> [-variable <name>|<uuid>] [-lowState <low state>] [-lowValue <low value>] [-lowValueRearm>] [-lowDuration <low duration>] [-lowWindowDuration <low window duration>] [-highValue <high value>] [-highValueRearm <high value rearm>] [-highDuration <high duration>] [-highWindowDuration <high window duration>]

nnmcustompollerconfig.ovpl updateVariable -variable <name>|<uuid>| [-reportDataType <report data type>] [-mibExpression <key>|<name>| [-name <name>]

DESCRIPTION

The general format of the nnmcustompollerconfig.ovpl command line is the following:

nnmcustompollerconfig.ovpl <command> <options>

Each of the available choices for *command* are listed below, in the <u>Commands</u> section. Similarly, the available *options* for each of the commands are found in the <u>Options</u> section. Many commands share similar options. See the <u>Synopsis</u> section above for the appropriate list of options for each command.

For more info on how to correctly specify a Mib Expression, refer to the Mib Expressions section.

To understand how deleting Report Groups affect NPS, please read Report Groups and NPS.

Please read <u>Deleting Collections and Policies from the Command Line</u> to fully understand how removing select configuration will affect other Custom Poller configuration.

See Oid Output Format for information on changing the output format for the Expression field on MibExpressions.

Commands

batch

Runs the tool in batch mode with the supplied input file or \"-\" to read from standard-in. Note that in batch mode, the input file lists several other commands to perform. The entire batch operation is performed as a single database transaction, which means that if there is an error part way through the batch operation, all previous operations which had succeeded are rolled back. The error message will list the line number in the batch file that had the error.

createCollection

Creates a new Custom Poller Collection with the specified name and type. Refer to the <u>Collection Type</u> for more information on the which fields are supported for different Collection Types.

createComparisonMap

Creates a new Comparison Map for the specified variable. Note, Ordering must be unique per variable.

createCountThreshold

Creates a new Count Threshold for the specified Variable.

createMibDefinition

Creates a new Mib Definition. Note, Oid must be unique.

createMibExpression

Creates a new Mib Expression using the specified key. An Author must exist to create new Mib Expressions. Note, Key must be unique.

createPolicy

Creates a new Policy. A Node Group must exist to create new Policies. A Collection must have Variables before mapping to a Policy. Note, Ordering must be unique per Collection. Cannot create duplicate Policies with the same Collection and Node Group.

createReportCollection

Creates a new Report Collection.

createReportGroup

Creates a new Report Group.

createTimeThreshold

Creates a new Time Threshold for the specified Variable.

createVariable

Creates a new Variable for the specified Collection.

deleteCollection

Deletes either a single Collection or a list of Collections.

deleteComparisonMap

Deletes either a single Comparison Map or a list of Comparison Maps.

deleteCountThreshold

Deletes either a single Count Threshold or a list of Count Thresholds.

deleteMibDefinition

Deletes either a single Mib Definition or a list of Mib Definitions.

deleteMibExpression

Deletes either a single Mib Expression or a list of Mib Expressions.

deletePolicy

Deletes either a single Policy or a list of Policies.

deleteReportCollection

Deletes either a single Report Collection or a list of Report Collections.

deleteReportGroup

Deletes either a single Report Group or a list of Report Groups.

deleteTimeThreshold

Deletes either a single Time Threshold or a list of Time Thresholds.

deleteVariable

Deletes either a single Variable or a list of Variables.

enable

Enable Custom Poller.

disable

Disable Custom Poller.

listCollection

List Collections based on optional filters. Specifying no filters will list all Collections. All Collections matching the filter(s) will be listed. The wildcards "*" and "?" are supported.

The fields for listCollection are: uuid,name,type,filterVariable,affectNodeStatus,generateIncident,exportCollection,compressExport,incidentSource

listComparisonMap

List Comparison Maps based on optional filters. Specifying no filters will list all Comparison Maps. All Comparison Maps matching the filter(s) will be listed. The wildcards "*" and "?" are supported.

The fields for listComparisonMap are: uuid, variable, stateMapping, comparisonValue, comparisonOperator, ordering

listCountThreshold

List Count Thresholds based on optional filters. Specifying no filters will list all Count Thresholds. All Count Thresholds matching the filter(s) will be listed. The wildcards "*" and "?" are supported.

The fields for listCountThreshold are: uuid,variable,lowValue,lowValueRearm,lowState,lowTriggerCount,highValue,highValueRearm,highState,highTriggerCount

listMibDefinition

List Mib Definitions based on optional filters. Specifying no filters will list all Mib Definitions. All Mib Definitions matching the filter(s) will be listed. The wildcards "*" and "?" are supported.

The fields for listMibDefinition are: uuid,oid,oidType,conversionType,isTabular

listMibExpression

List Mib Expressions based on optional filters. Specifying no filters will list all Mib Expressions. All Mib Expressions matching the filter(s) will be listed. The wildcards "*" and "?" are supported.

The fields for listMibExpression are: key,name,desc,author,expression,displayVariable,displayFilter,conversionAlgorithm

listPolicy

List Policies based on optional filters. Specifying no filters will list all Policies. All Policies matching the filter(s) will be listed. The wildcards "*" and "?" are supported.

The fields for listPolicy are: uuid,name,collection,ordering,activeState,nodeGroup,filter,pollingInterval

listReportCollection

List Report Collections based on optional filters. Specifying no filters will list all Report Collections. All Report Collections matching the filter(s) will be listed. The wildcards "*" and "?" are supported.

The fields for listReportCollection are: uuid,reportGroup,collection

listReportGroup

List Report Groups based on optional filters. Specifying no filters will list all Report Groups. All Report Groups matching the filter(s) will be listed. The wildcards "*" and "?" are supported.

The fields for listReportGroup are: uuid,name

listTimeThreshold

List Time Thresholds based on optional filters. Specifying no filters will list all Time Thresholds. All Time Thresholds matching the filter(s) will be listed. The wildcards "*" and "?" are supported.

The fields for listTimeThreshold are:

uuid, variable, low Value, low Value, low Value, low Duration, low Window Duration, high Value, high

listVariable

List Variables based on optional filters. Specifying no filters will list all Variables. All Variables matching the filter(s) will be listed. The wildcards "*" and "?" are supported.

 $The fields for list Variable \ are: uuid, name, collection, mib Expression, report Data Type$

status

The status of Custom Poller.

updateCollection

Update fields on a Collection.

updateComparisonMap

Update fields on a Comparison Map.

updateCountThreshold

Update fields on a Count Threshold.

```
updateMibDefinition
     Update fields on a Mib Definition.
updateMibExpression
     Update fields on a Mib Expression.
updatePolicy
     Update fields on a Policy.
updateReportGroup
     Update fields on a Report Group.
updateTimeThreshold
     Update fields on a Time Threshold.
updateVariable
     Update fields on a Variable.
Options
-activeState <active state>
     The Active State of the Policy (active | inactive | suspended).
-affectNodeStatus <true|false>
     Affect Node Status (true | false).
-author <unique key>
     Unique Author Key. The Author indicates who created or last modified the MIB Expression.
-collection <name>|<uuid>
      The name of the Collection.
-comparisonOperator <comparison operator>
```

The value returned when the MIB Expression is evaluated when polled. While this is not required for default, is Null, and is NotNull, please specify any string

Operator used to evaluate the Comparison Value and subsequently determine State (< | < | = | = | > | > | isNull | isNotNull | default).

-comparisonValue < comparison value>

for a fake value.

-compressExport <true|false>

Compress Export File (true | false).

-conversionAlgorithm <conversation algorithm>

Used to determine the display format for the Display Variable (numeric | mib_variable | alphabetic | ifname_indirect | iface_name). Configurable but not supported for Bulk collection.

-desc <"description">

The user defined description for the MIB Expression.

-displayFilter < name >

The value that NNMi displays for the Display Variable is determined by the criteria you provide here. Enter a valid regular expression.

-displayVariable <display variable>

Specify the MIB Variable you want to display.

-exportCollection <true | false >

Export Collection (true | false).

-expression <mib expression>

Specify the expression string in quotes. Refer to the Mib Expressions section for more info on how to successfully provide all necessary information.

-filter <mib filter>

The MIB Filter value to be used as the filter for determining the Polling instances.

-filterVariable <mib filter variable>

Required for multiple instance (repeating) MIB Variables only. The MIB Filter Variable is the MIB Variable whose value you want to use as a filter to determine which instances of the MIB Expression to Custom Poll. You must also specify a MIB Filter value when creating the associated policy.

-generateIncident <true|false>

Generate Incident (true | false).

-highDuration < high duration>

Designate the minimum time within which the value must remain in the High range before the threshold state changes to High and (optionally) an incident is generated. See the Specifying a Duration section to understand how to provide this information correctly.

-highState <high state>

The State when the results of polling the MIB Expression exceed the specified High Value for the specified Count or Duration (normal | warning | minor | major | critical).

-highTriggerCount <high trigger count>

Designate the number of consecutive polling intervals the returned value must be greater than the specified High Value to meet the threshold criteria. The default value is 1.

-highValue < high value>

Designate the value that above will become a threshold situation. The appropriate value depends on the MIB Expression definition.

-highValueRearm < high value rearm>

Designate the lower boundary of the High Threshold range of values. The appropriate value depends on the MIB Expression definition.

-highWindowDuration < high window duration>

Designate the window of time within which the High Duration criteria must be met. See the <u>Specifying a Duration</u> section to understand how to provide this information correctly.

-incidentSource <incident source object>

Incident Source Object (custom_code_collection | custom_polled_instance).

-isTabular <true/false>

Specifies whether the MIB variable represented by the selected OID defines multiple instances grouped in a MIB table.

-key <unique key>

Unique Key.

-list <csv list of identifiers>

A comma separated list of identifiers for the objects. Specifying different identifier types (uuid, name, etc) per object is allowed.

-lowDuration < low duration>

Designate the minimum time within which the value must remain in the Low range before the threshold state changes to Low and (optionally) an incident is generated. See the Specifying a Duration section to understand how to provide this information correctly.

-lowState <low state>

The State when the results of polling the MIB Expression are below the specified Low Value for the specified Count or Duration (normal | warning | minor | major | critical).

-lowTriggerCount <low trigger count>

Designate the number of consecutive polling intervals the returned value must be less than the specified Low Value to meet the threshold criteria. The default

value is 1.

-lowValue <low value>

Designate the value that below which indicates entering the Low range. The appropriate value depends on the MIB Expression definition.

-lowValueRearm < lowValueRearm>

Designate the upper boundary of the Low Threshold range of values. The appropriate value depends on the MIB Expression definition.

-lowWindowDuration < low window duration>

Designate the window of time within which the Low Duration criteria must be met. See the <u>Specifying a Duration</u> section to understand how to provide this information correctly.

-map <uuid>

The uuid of the Comparison Map.

-mibDefinition <oid>| <uuid>

The oid or uuid of the Mib Definition.

-mibExpression <key> | < name>

The name or key of the MIB Expression.

-name <name>

The name of the settings.

-nodeGroup <name>|<uuid>

The name or uuid of the Node Group to which the Policy applies.

-oid <oid>

The numeric representation of the OID (Object Identification) value for an associated MIB variable.

-oidType <oid type>

The base type to be used for the associated MIB variable value (integer | unsigned_integer | octet_string | counter | counter64 | gauge | time_ticks | ip_address).

-conversionType <conversion type>

The conversion type to be used for the associated MIB variable value (default | bigint | long | string | hex_string | byte_array | ip_address).

-ordering <ordering>

The priority ordering for the settings.

```
-policy <name>|<uuid>
      The name or uuid of the Policy.
-pollingInterval <polling interval>
      The interval in which to perform the Custom Poll. Enter either a Java Duration or number of milliseconds.
-reportCollection <uuid>
      The uuid of the Report Collection.
-reportDataType <report data type>
      The data type for the Report (gauge | percent | counter | integer | string | unset).
-reportGroup <name> | <uuid>
      The name or uuid of the Report Group.
-stateMapping <state mapping>
      The State to assign to the Polled Instance when the polled value is returned (normal | warning | minor | major | critical).
-threshold <uuid>
      The uuid of the Count or Time Threshold.
-type <collection type>
      Collection type (instance | bulk)
-uuid <object uuid>
      The unique object identifier.
-variable <name>|<uuid>
      The name or uuid of the Variable.
Additional Parameters
-fields <fields>
      Selects the output fields for table data as a comma-separated list
-format <style>
```

Sets the output format for table data; valid values are TEXT, LIST, CSV or XML.

```
-http.host <host>
The server host; default is localhost.

-http.port <port>
The server port; default is 80.

-jndiHost <hostname>
The server jndi host; default is localhost

-jndiPort <port>
The server jndi port; default is 1099

-p <password>
The password>
The password of the user

-quiet
Suppresses the normal output and only print errors.

-u <username>
```

The username to run this command

Mib Expressions

This section explains how to correctly specify the "-expression" option for Mib Expression commands.

An expression can be either a single operand OR an arithmetic expression of multiple operands.

The two halves that make up an operand is an oid and a name. The user can specify either 1) an oid, 2) a name, or 3) an oid and name. Option 1) is always successful. If the corresponding MIB is loaded, the correct name will be found. Otherwise, the name will be set to the oid. Option 2) requires the MIB to be loaded as the oid must be looked up. An error will be thrown if the MIB is not loaded. Option 3) is always successful. In all cases, the oid is not validated upon creation or modification of the Mib Expression. If the provided oid is incorrect, it will be found upon polling.

The format for an operand is: "oid:name", "oid", or "name". A colon ":" is the delimiter between the oid and name. Note: numerical constants can also be specified as operands for arithmetic expressions.

Operand Examples:

```
oid = .1.3.6.1.2.1.2.2.1.10 --> looked up name --> .1.3.6.1.2.1.2.2.1.10:ifInOctets
oid = .1.3.6.1.2.1.2.2.1.10 --> could not find name --> .1.3.6.1.2.1.2.2.1.10:.1.3.6.1.2.1.2.2.1.10
```

```
name = ifInOctets --> looked up \ oid --> .1.3.6.1.2.1.2.2.1.10: ifInOctets oid:name = .1.3.6.1.2.1.2.2.1.10: ifInOctets constant = 0.5
```

Supported operators for arithmetic expressions are: "+", "-", "/", and "*". There can be any amount of whitespace or none between operands, operators, and parentheses. Operators must be explicitly defined and not implicitly inferred.

Arithmetic Expression Examples:

```
Correctly formatted expression = ((.1.3.6.1.2.1.2.2.1.11+.1.3.6.1.2.1.31.1.1.1.5)/(.1.3.6.1.2.1.1.3*0.01))

Correctly formatted expression = ((.1.3.6.1.2.1.2.2.1.11+.1.3.6.1.2.1.31.1.1.1.5)/(.1.3.6.1.2.1.1.3*0.01))

Incorrectly defined = (.1.3.6.1.2.1.2.2.1.11+.1.3.6.1.2.1.31.1.1.1.5) (10.0)

Correctly defined = (.1.3.6.1.2.1.2.2.1.11+.1.3.6.1.2.1.31.1.1.1.5)*10.0
```

Collection Type

At this time, some features of Custom Poller are not supported for BULK Collections. Fields associated with these features may still be configured using this tool but will not be used. If the fields were configured and the Collection Type is changed to INSTANCE, the fields will retain their values. For more information on all the features not support for BULK Collection, please refer to the Help.

Unsupported fields for BULK Collection:

Affect Node Status for Collections

Incident Generation for Collections

Thresholds for Variables

Comparison Maps for Variables

Report Groups and NPS

Caution: If you delete a Report Group, NNM iSPI Performance for Metrics removes all historical reporting data associated with that Report Group. To retain the historical reporting data, change the Active State of the associated Custom Poller policy to Suspend.

Deleting Collections and Policies from the Command Line

Caution: If you delete a Collection or Policy using the command line tool, related configuration will also be removed. This tool mimics the same functionality as the UI. When deleting a collection, all Policies, Variables, Custom Node Collections and Custom Polled Instances that were a result of the collection will also be removed. If a Policy is removed, Custom Node Collections and Custom Polled Instances are also deleted.

Specifying a Duration

A Duration can be specified either in number of milliseconds or the following format. The format should be: "PddDThhHmmMss.nnnS" where dd=days, hh=hours, mm=minutes, ss=seconds, nnn=milliSeconds.

Examples:

```
25 minutes = 1500000 = PT25M

10 minutes 30 seconds = 630000 = PT10M30S

4 hours 30 minutes = 16200000 = PT4H30M
```

OID Output Format

By default, the command line output for the Expression field of a MibExpression is displayed in OID format. There is a NNM Java System Property that allows the user to change the output of the expression to instead show Object names. Set the following property to true to instead see Object names instead of OIDs.

com.hp.nnm.custompoller.nnmcustompollerconfig.ovpl.showObjectNameInsteadOfOid=true

Examples:

```
Without property: (.1.3.6.1.2.1.2.2.1.10 / (.1.3.6.1.2.1.1.3 * 0.01))
With property: (ifInOctets / (sysUpTime * 0.01))
```

EXAMPLES

Create an Instance Collection:

nnmcustompollerconfig.ovpl createCollection -name "xyz instance collection" -type instance

Create a Mib Expression with a simple expression:

 $nnmcustompoller config. ovpl \ create \texttt{MibExpression} \ -key \ test \texttt{Key} \ -name \ "abc \ expression" \ -author \ com. customer. author \ -expression \ .1.3.6.1.2.1.2.2.1.10$

Update a Policy's polling interval:

nnmcustompollerconfig.ovpl updatePolicy -policy "xyz policy" -pollingInterval 1500000

List all Report Collections associated with a specific Collection:

nnmcustompollerconfig.ovpl listReportCollection -collection abcCollection

List all Report Groups whose name starts with USA:

nnmcustompollerconfig.ovpl listReportGroup -name USA*

Delete a Variable:

nnmcustompollerconfig.ovpl deleteVariable -variable xyzVariable

AUTHOR

nnmcustompollerconfig.ovpl was developed by Hewlett Packard Enterprise.

FILES

\$NNM_BIN/nnmcustompollerconfig.ovpl

nnmdeleteattributes.ovpl — delete custom attributes from a comma separated values (CSV) file or line for Nodes, Interfaces, and PhysComps (Cards/Chassis).

SYNOPSIS

 $\label{local-post} $$\operatorname{nnmdeleteattributes.ovpl} [-?] - t < type> (-f < path & filename of csv file>) | (-s < "csv formatted line">) [-u < username> -p < password>] [-jndiHost < hostName> Default: localhost] [-jndiPort < port> Default: 1099]$

DESCRIPTION

nnmdeleteattributes.ovpl allows custom attributes to be deleted from a comma separated values (CSV) file, such as a .csv file from MicrosoftTM Excel. This command is useful if you have previously created custom attributes that are no longer needed. This command will delete attributes from either nodes, interfaces, or phys comps. For nodes, once the attributes are deleted, any nodes in a node group formed by referencing those attributes will disappear from the node group.

Parameters

 ${\tt nnmdeleteattributes.ovpl} \ supports \ the \ following \ options:$

-?

Prints the usage statement.

-t <type>

Supply the object type to delete attributes on. Must be either "node", "interface", or "physcomp".

-f <path & filename of csv file>

Supply the CSV file name (with path, e.g. /tmp/csvfile.csv) that contains the custom attributes to delete.

-s <"csv formatted line">

Supply a single CSV formatted line. Eliminates the need to create a file for a small change.

-u <username>

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

-p <password>

Supply the NNMi administrator password to run the script. This script requires the NNMi administrator nnm.properties nnm.properties.4

```
-jndiHost <serverName>
```

The server JNDI host; default is localhost.

```
-jndiPort <port>
```

The server JNDI port; default is 1099.

Syntax of Comma Separated File for Nodes

The CSV file you supply must have the following syntax for deleting attributes from nodes.

Empty lines are ignored.

Lines that being with the # character are ignored.

• Column 1(A): Node DNS | IP Address

Specify the DNS name of the node OR the IP address. This field is compulsory.

• Column 2(B) : Attribute Name

The name of the custom attribute.

Additional attribute names may be specified on the same line or on a separate line with the same node DNS | IP Address.

Example lines:

192.168.1.1, Project, Service Type

192.168.1.1,Asset Tracking

192.168.2.2, Project, Service Type, Asset Tracking

Syntax of Comma Separated File for Interfaces

The CSV file you supply must have the following syntax for deleting attributes from interfaces.

Empty lines are ignored.

Lines that being with the # character are ignored.

• Column 1(A): Node DNS | IP Address

Specify the DNS name of the node OR the IP address. This field is compulsory.

• Column 2(B): Interface Id

Specify the identifier of the interface on the node specified in the previous field. The value

may be the interface index, alias, name or description and is searched in this same order. All matching interfaces have the attribute(s) deleted. This field is compulsory.

• Column 3(C) : Attribute Name

The name of the custom attribute.

Additional attribute names may be specified on the same line or on a separate line with the same node DNS | IP Address and Interface Id.

Example lines:

192.168.1.1,1001,Project,Service Type

192.168.1.1,1001,Asset Tracking

192.168.2.2,A1,Project,Service Type,Asset Tracking

Syntax of Comma Separated File For PhysComp Attributes

The CSV file you supply must have the following syntax for adding attributes on PhysComps (Cards/Chassis).

Empty lines are ignored.

Lines that being with the # character are ignored.

• Column 1(A): Node DNS | IP Address

Specify the DNS name of the node OR the IP address. This field is compulsory.

• Column 2(B): PhysComp Id

Specify the identifier of the phys comp on the node specified in the previous field. The value may be the phys comp physical index, name or description and is searched in this same order. All matching phys comps will have the attribute(s) deleted. This field is compulsory.

• Column 3(C): PhysComp Type

The name to identify the type of PhysComp. "card" and "chassis" are valid types.

• Column 4(D) : Attribute Name

The name of the custom attribute.

Additional attribute name and value pairs may be specified on the same line or on a separate line with the same node DNS | IP Address, PhysComp Id, and PhysComp Type.

Example lines:

192.168.1.1,7,chassis,Location,Service Type

192.168.1.1,7,chassis,Asset Tracking

Use of Microsoft Excel

Microsoft Excel is a handy tool to create comma separated files, but .csv files do not maintain the Excel spreadsheet's column width, comments, etc. It is recommended that you store a nnmdeleteattributes.ovpl input file as a native .xls format, and then perform File: Save As... to create a .csv file. Then you can add Excel comments to the file, make columns wider, and you do not need to worry about escaping the comma character.

EXAMPLES

```
Sample CSV file contents for nodes:
```

```
192.168.2.2, Project, Service Type, Asset Tracking
```

To delete the Node custom attributes from a CSV file:

```
nnmdeleteattributes.ovpl -t node -f /tmp/test.csv
```

To delete the Node custom attributes from the command line:

```
nnmdeleteattributes.ovpl -t node -s "192.168.1.1, Project"
```

Sample CSV file contents for interfaces:

```
192.168.2.2,1001,Project,Service Type,Asset Tracking
```

To delete the Interface custom attributes from a CSV file:

```
nnmdeleteattributes.ovpl -t interface -f /tmp/test.csv
```

To delete the Interface custom attributes from the command line:

```
nnmdeleteattributes.ovpl -t interface -s "192.168.1.1, Project"
```

Sample phys comp CSV file (/tmp/test.csv) contents:

```
192.168.2.2,7, chassis, Location, Service Type, Asset Tracking
```

To delete the Phys Comp custom attributes from a CSV file:

```
nnmdeleteattributes.ovpl -t physcomp -f /tmp/test.csv
```

To load a single PhysComp custom attributes line from the command line:

```
nnmdeleteattributes.ovpl -t physcomp -s "192.168.1.1,/AmdFE,card,Project"
```

Error Codes

There are several error codes that help identify problems:

INFO: information message.

- ATTR_ERROR: A problem was found with the specified attribute.
- DEL_FAIL_ERROR : An attempt to delete the specified attribute failed.
- OBJECT_ERROR: The specified object was not found.
- BAD_LINE_ERROR : The line provided is not properly formatted.
- IO_ERROR: The CSV file was not found or is not readable.
- BAD_NAME_WARNING: The specified attribute name is too long (50 character maximum).
- BAD_VALUE_WARNING: The specified value is too long (2000 character maximum).

AUTHOR

nnmdeleteattributes.ovpl was developed by Hewlett Packard Enterprise.

FILES

Windows: %NNM_BIN%\nnmdeleteattributes.ovpl

UNIX: \$NNM_BIN/nnmdeleteattributes.ovpl

SEE ALSO

nnmloadattributes.ovpl (1M), nnmloadnodegroups.ovpl (1M), nnm.properties (4).

nnmdeleteurlaction.ovpl — delete URL actions and menus for the supplied author key.

SYNOPSIS

nnmdeleteurlaction.ovpl [-h | -help | -?] <authorKey> [-u username] [-p password]

DESCRIPTION

The nnmdeleteurlaction.ovpl Perl script enables you to delete URL actions and menus by providing the author key to actions or menus.

NOTE: When using the nnmdeleteurlaction.ovpl script to delete an action or menu, you must restart the NNMi console (sign out; then sign back in) to implement the changes.

Use the nnmdeleteurlaction.ovpl script to remove (during uninstall) any actions or menus created during the installation of NNMi iSPIs or third party integrations.

Parameters

nnmdeleteurlaction.ovpl supports the following options:

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

Displays the usage statement.

-u <username>

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

-p <password>

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

EXAMPLES

nnmdeleteurlaction.ovpl com.hp.nms.author.nas

Deletes the URL actions and menus that are created when the NAS integration is installed.

AUTHOR

nnmdeleteurlaction.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

nnmconfigimport.ovpl(1M), nnmconfigexport.ovpl(1M).

NAME

nnmdisableperfspi.ovpl - unconfigure NPS and Metrics

SYNOPSIS

Usage: nnmdisableperfspi.ovpl [-s <shareName>] | [-h]

-s: shareName: the name of the NPS share, default <perfSpi>

-h Usage

DESCRIPTION

Utility to help unconfigure NPS and Metrics.

Equivalent to running the following configuration scripts with the disable/remove options:

nnmEnableMetrics.ovpl -disable nnmEnableNpsActions.ovpl -disable nnmEnableNpsEtl.ovpl -r [-s <shareName>]

All shares (NFS or CIFS) are removed.

AUTHOR

nnmdisableperfspi.ovpl was developed by Hewlett-Packard Company.

nnmdiscocfg.ovpl

SYNOPSIS

 $\label{localized-control} $$\operatorname{nnmdiscocfg.ovpl-autodisco}$ - autodisco rule=rulename rangetype=ignore/include [-fipAddressRangeFile|-nipAddressRangeS] [-u < username > -p < password >] [-jndiHost < hostName > Default: localhost] [-jndiPort < port > Default: 1099]$

 $\label{localized-exclude} $$\operatorname{nnmdiscocfg.ovpl-exclude}$ - \operatorname{ipAddressRangeFile} - \operatorname{nipAddressRangeS} [-u < username > -p < password >] [-jndiHost < hostName > Default: localhost] [-jndiPort < port > Default: 1099] $$$

DESCRIPTION

The nnmdiscocfg.ovpl script permits the addition of ip address ranges to existing auto-discovery rules. The auto-discovery ip address ranges control how discovery finds devices in your network.

You can add discovery IP address range exclusion filters to prevent the creation of unwanted ip addresses in the NNMi topology. NNMi does not associate addresses matching the filters with nodes or interfaces and none of these nodes or interfaces will show up in the IP Address inventory. IP address range filters do not control how auto-discovery locates and identifies devices in your network.

Parameters

The nnmdiscocfq.ovpl script recognizes the following parameters and options:

-autodisco rule=ruleName rangetype=ignore|include

Add ip address ranges to an existing auto-disovery rule specified by ruleName. The ranges can be included in the rule by specifying rangetype=include or ignore.

-excludeipaddrs

Add ip address ranges to the discovery *Excluded IP Addresses* configuration.

-f ipAddressRangeFile

Specify a text file for the script to read that contains the IP address ranges.

-n *ipAddressRanges*

Specify IP address ranges to load directly from the command line, with each range separated by a space.

-u <username>

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

```
-p <password>
```

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

```
-jndiHost < serverName >
```

The server JNDI host; default is localhost.

```
-jndiPort <port>
```

The server JNDI port; default is 1099.

EXAMPLES

Add a list of IP address ranges to an existing auto-discovery rule:

```
nnmdiscocfg.ovpl -autodisco rule=bld1floor2 rangetype=include -n 10.2.112.21-34 10.2.112.36 10.1.*.1-98
```

Add an IP address range to the IP Address exclusion configuration:

```
nnmdiscocfg.ovpl -u username -p password -excludeipaddrs -n 198.2.*.117
```

Load IP address range from a file named privateNet1.txt located on your local files system in the tmp directory:

```
nnmdiscocfg.ovpl -autodisco rule=bld1floor2 rangetype=exclude -f /tmp/lab3devices.txt
```

Load IP address range filters from a file named ignoreAddresses.txt located on your local files system in the tmp directory:

```
nnmdiscocfg.ovpl -excludeipaddrs -f /tmp/ignoreAddresses.txt
```

AUTHOR

nnmdiscocfg.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

nnmnoderediscover.ovpl(1M), nnm.properties(4)

NAME

nnmEnableMetrics.ovpl - Enables Metrics related functionality.

SYNOPSIS

nnmEnableMetrics.ovpl [-disable]

DESCRIPTION

Enable Metrics related functionality. As a result of this, NNMi will start polling performance related metric data for various topology objects such as nodes and interfaces. This data can be correspondingly visualized in in the iSPI Performance for Metrics reports as well as graphs in NNMi's Performance Workbench as well as analysis panes.

-h Display this help page

-disable Disables Metrics related functionality.

AUTHOR

nnmEnableMetrics.ovpl was developed by Hewlett-Packard Company.

NAME

nnmEnableNPSActions.ovpl - Deploys URL actions in NNMi menu system for NPS Report launches

SYNOPSIS

usage: nnmEnableNPSActions.ovpl [-spiHost <hostname>] [-spiPort <port>] [-spiProtocol <http|https>] - disable

```
-h Display this help page

-spiHost <hostname> Specify the host NPS will be running on (default: NNMi server FQDN)

-spiPort <port> Specify the port NPS will be running on (default: 9300)

-spiProtocol <protocol> Specify the protocol (http/https)

-a Only install NPS actions

-disable Disable the URL actions - remove them from the NNMi Actions Menu
```

DESCRIPTION

This utility program is designed to deploy URL actions in the NNMi menu system that are related to NNM iSPI for Performance. It installs the URL actions in the NNMi menu system and also updates relevant configuration with the NPS server's host, port and protocol details. As a result the URL actions for the reports launch to the correct server and port.

AUTHOR

nnmEnableNPSActions.ovpl was developed by Hewlett-Packard Company.

NAME

nnmEnableNpsEtl.ovpl - set up access to a CIFS share from network server

SYNOPSIS

Usage: nnmEnableNpsEtl.ovpl [[-a][-u <username>][-c [-p <password> |-i]][-s <shareName>] [-d <path_to_share>] | [-r] | [-h]

DESCRIPTION

Utility to set up a credential based CIFS filesystem share on the server, to be used primarily for setting up shared directory access to the NNMi perfSpi datafiles folder for NPS ETL server(s) to access.

The Network Path to the CIFS share (output by the script) can be used directly when configuring NPS on Windows servers.

The NPS utility, setupSharedDriveAccess.ovpl, can be used on Linux NPS servers to mount the share to a local mountpoint. The mountpoint path is then used to configure NPS.

Example 1: Add a share, dynamically creating new user account, with default username/password/shareName/directory

C:\>nnmEnableNpsEtl.ovpl -a -c

Creating new local user account <NpsUser>

Creating share <PerfSpi> on directory <C:/OV Data Dir/shared/perfSpi/datafiles> for user <NpsUser>

Share details: Share name PerfSpi Path C:/OV Data Dir/shared/perfSpi/datafiles Remark NNMi NPS Shared Directory; Maximum users No limit Users Caching Manual caching of documents Permission BUSHMILLS\NpsUser, FULL

Network Path to Share < \\bushmills.usa.hp.com\PerfSpi > Accessible by user < NpsUser >

Example 2: Remove default share

C:\>nnmEnableNpsEtl.ovpl -r

Share details: Share name PerfSpi Path C:/OV Data Dir/shared/perfSpi/datafiles Remark NNMi NPS Shared Directory; Maximum users No limit Users Caching Manual caching of documents Permission BUSHMILLS\NpsUser, FULL

Removing share <PerfSpi>

The User Account associated with the share must be removed manually

AUTHOR

nnmEnableNpsEtl.ovpl was developed by Hewlett-Packard Company.

NAME

nnmenableperfspi.ovpl - set up NPS and Metrics

SYNOPSIS

Usage: nnmenableperfspi.ovpl [-f <configFile>] | [-u] | [-h]

- -f: configuration file containing saved responses
- -u Perform a onetime upgrade from 9.1x / 9.2x configuration to 10.00 configuration
- -h Usage

DESCRIPTION

Utility to help configure NNM iSPI Performance and Network Performance Server.

If no parameters are passed, interactive mode is enabled and this script will prompt for appropriate values. The script will ask the user if they would like to use values previously recorded in a configuration response file.

When a response file is specified using -f, configuration parameters are obtained from the file.

When used with -u, parameters are obtained from a prior 9.1x / 9.2x configuration file. Default values are used for parameters that did not exist in the earlier version. The -u mode should only be used by the product installer and can only be run once.

If an empty parameter is given, either interactively or via a response file, then a default value is used. A password is only requested if a username is specified.

Parameters are saved in an output file suitable for subsequent use as a configuration response file. The script returns the name of the file created. The file contains one line per parameter, the format is 'name = value'

Response file parameters

spiHost: the host name of the Network Performance Server

This must respond to a ping. For a distributed multi-host NPS environment, this will be the host configured with the UiBi role.

spiPort: the port number of the Network Performance Server

Default is 9300.

spiProtocol: the protocol used by the Network Performance Server [http|https]

Default is http.

shareType: the sharing mechanism, CIFS or NFS (linux only)

If NFS is selected the following parameters are ignored

userName: username (or domain\\username) for share access control

Username for share access control.

password: password for new local user

Password to use for a new local user.

shareName: share name

Share name available on the network.

sharedDir: shared directory

Directory which is shared.

Response files must be owned by the current user and accessible only by the owner or they will be rejected

AUTHOR

nnmenableperfspi.ovpl was developed by Hewlett-Packard Company.

nnmhealth.ovpl — Prints NNMi health information

SYNOPSIS

nnmhealth.ovpl [-u <username> -p <password>] (-print [quiet|brief|detailed|conclusions|verbose|agents|history] [-refresh] | -activate <conclusions> | -suppress <conclusions>)

DESCRIPTION

The nnmhealth.ovpl script prints out information about the internal health of NNMi. It supports several levels of output from no output, except for the return code (quiet), to the full health report (verbose).

In addition to viewing the current health of NNMi, you might use the nnmhealth.ovpl script to suppress or activate individual health conclusions. The administrator might suppress health conclusions if he or she is aware of the problem and does not want NNMi to report more warnings until the issue is resolved.

If the administrator modifies the suppressed list using the nnmhealth.ovpl script, the modifications take effect on the next health scan. The modifications to the suppressed list continue until the administrator activates them or until the administrator restarts NNMi.

Parameters

The nnmhealth.ovpl script supports the following options:

```
-u <username>
```

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

```
-p <password>
```

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

```
-print <level>
```

Prints information about the health of NNMi. The level can be one of the following: brief|conclusions|detailed||quiet|agents|verbose

If no level is specified the command will default to brief

-print brief: Prints the overall system status. The value can be one of the following:

Normal Warning Minor Major Critical -print conclusions: Prints the active and suppressed conclusions. -print detailed: Prints detailed system health information. -print agents: Prints the registered agents. -print quiet: Returns an integer value that represent the system status. The value can be one of the following: 0 - Normal 1 - Warning 2 - Minor 3 - Major

4 - Critical

-print verbose [-filter AgentList]: Prints verbose information for all registered agents. Optionally you can supply a list of comma separated agent names using the -filter option. The verbose output is for support use only.

-refresh

An optional argument to the -print command which will cause the monitoring system to refresh its information before returning the report.

-suppress <conclusions>

Configures the supplied conclusions to be suppressed until NNMi is restarted or until the conclusion is activated again. Specify conclusions as a comma separated list. You can find active conclusions using the -print conclusions option.

Note that suppressing a conclusion does not imply it would otherwise be active.

-activate <conclusions>

Removes the supplied conclusions from the suppressed list. Specify the conclusions as a comma separated list. You can find suppressed conclusions available to be activated by using the -print conclusions option.

-help

Prints the usage statement.

EXAMPLES

nnmhealth.ovpl -u username -p password -print brief

Prints the overall status of NNMi.

```
nnmhealth.ovpl -print brief -refresh
```

Updates and prints the current status of NNMi. If no credentials are specified then the stored password for the logged in user will be used.

```
nnmhealth.ovpl -u username -p password -print detailed
```

Prints the current list of health warnings.

```
nnmhealth.ovpl -u username -p password -print agents
```

Prints the current list of registered agents that report health related information.

```
nnmhealth.ovpl -u username -p password -print history
```

Prints history information of registered health agents..

```
nnmhealth.ovpl -u username -p password -suppress "SystemLowSwap, SystemLowSwapPercent"
```

Configures NNMi to skip checking the health of swap space in absolute terms and also as a percentage.

```
nnmhealth.ovpl -u username -p password -activate "SystemLowSwap"
```

Configures NNMi to resume checking for the SystemLowSwap conclusion.

AUTHOR

nnmhealth.ovpl was developed by Hewlett Packard Enterprise.

nnmicons.ovpl — NNMi UI Configuration

SYNOPSIS

```
nnmicons.ovpl -help

nnmicons.ovpl -list | -create (<iconSpec1,iconSpec2,...> | -file <file>) | -update (<iconSpec1,iconSpec2,...> | -file <file>) | -delete (<iconName1,iconName2,...> | -file <file>) [-preview] [-u <username> -p <password>] [-jndiHost <hostName> Default: localhost] [-jndiPort <port> Default: 1099]
```

DESCRIPTION

nnmicons.ovpl provides access to icons that are stored in the NNM database. The icons can be listed, created, update and deleted.

Parameters

nnmicons.ovpl supports the following commands:

-list

List the icons that are stored in the NNMi database

```
-create (<iconSpec1,iconSpec2,...> | -file <file>)
```

Create icons using either icon specifications or an input file.

```
<iconSpec1,iconSpec2,...>
```

comma separated list of icon specifications, where iconSpecN is of the form: iconName:authorKey[:<iconImageSpec1>[:<iconImageSpec2>]]

An iconImageSpecN is of the form, size:path. size is the size of the square image in pixels, and must either 16 or 32 path is the file path to the image file. The image file must be either a GIF, JPEG, or PNG, and the corresponding file suffix must be one .gif, .jpeg, .jpg, or .png

-file

Path to a file containing contain a list of iconSpecs, one per line. Blank lines and comment may also be included in the file. Comments are denoted by a '#' character at the beginning of a line.

```
-update (<iconSpec1,iconSpec2,...> | -file <file>)
```

Update icons using either icon specifications or an input file. If the icons do not exist, they will be created.

```
<iconSpec1,iconSpec2,...>
```

comma separated list of icon specifications, where iconSpecN is of the form: iconName:authorKey:<iconImageSpec1>: <iconImageSpec2>:...

An iconImageSpec is of the form, size:path. size is the size of the square image in pixels. path is the file path to the image file. The image file must be either a GIF, JPEG, or PNG, and the corresponding file suffix must be one .gif, .jpeg, .jpg, or .png

-file

Path to a file containing contain a list of iconSpecs, one per line. Blank lines and comment may also be included in the file. Comments are denoted by a '#' character at the beginning of a line.

```
-delete (<iconName1,iconName2,...> | -file <file>)
```

Delete icons using either icon names or an input file. If the icons do not exist, they will be ignored

```
<iconName1,iconName2,...>
```

iconNameN is the icon name associated with the icon.

-file

Path to a file containing contain a list of icon names, one per line. Blank lines and comment may also be included in the file. Comments are denoted by a '#' character at the beginning of a line.

-u <username>

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

-p <password>

Supply the NNMi administrator password to run the script. This script requires the NNMi administrator password unless you use an nnm.properties file. See the nnm.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

List icons in NNMi database

```
nnmicons.ovpl -list
```

Create icons using icons specifications:

```
nnmicons.ovpl -create
iconName1:com.customer.author:16:image16.gif:32:image32.gif,iconName2:com.customer.author:16:anotherimage16.gif
```

Update icons using a specification file:

```
nnmicons.ovpl -update -f /tmp/iconSpecificationFile.txt
```

Delete icons using icon names:

```
nnmicons.ovpl -delete iconName1,iconName2
```

AUTHOR

nnmicons.ovpl was developed by Hewlett Packard Enterprise.

FILES

 $Windows: install_dir \bin\nnmicons.ovpl$

 $UNIX: $NNM_BIN/nnmicons.ovpl$

SEE ALSO

nnmincidentcfg.ovpl — create incident configurations from SNMP MIBs

SYNOPSIS

DESCRIPTION

nnmincidentcfg.ovpl is used to create incident configurations for SNMP traps defined in a TRAP-TYPE or NOTIFICATION-TYPE macro in an SNMP MIB file. To load a MIB into NNMi for defining MIB Expressions or to display numeric SNMP Object Identifiers as text, use the nnmloadmib.ovpl command.

The created incident will have the following values, which can then be manually updated with the NNMi user interface:

- 1. Name will be set to the name of the trap/notification in the MIB file.
- 2. Oid will be set to the oid of the trap/notification in the MIB file.
- 3. Enable will be set to "true."
- 4. Category will be set to "Status."
- 5. Family will be set to "Node."
- 6. Severity will be set to "Normal."
- 7. Message Format will be set to the name of the incident configuration.
- 8. Description will be set to the trap/notification description in the MIB file.

The created incident can be accessed using the Incident Configuration view. This can be further customized as required.

nnmincidentcfg.ovpl supports a special annotation called #SUMMARY. The value for the #SUMMARY annotation will be used as Message Format value in the created incident configuration entry. This annotation is applied to the MIB file just after the trap description as a MIB comment. The following shows an example of this:

```
MyTrap TRAP-TYPE
ENTERPRISE hp
VARIABLES {
    serverName, trapTime, volumeName, volumeNum
}
DESCRIPTION "The disk volume is out of space. Please consult your sysop, and/or the proper manual."
--#SUMMARY "Volume $1 on system $2 is out of space."
```

Parameters

nnmincidentcfg.ovpl supports the following options:

```
-loadTraps <mib_module_name>
```

Specify the MIB module name that has the trap definitions. nnmincidentcfg.ovpl parses trap/notification definitions (TRAP-TYPE or NOTIFICATION-TYPE macros) found in the MIB module, and creates incident configurations for each entry.

```
-authorLabel <author label>
```

Specifies the label of the author for the target incident configurations. This is an optional parameter. If author label is specified, then author key must also be specified.

```
-authorKey <author_key>
```

Specifies the key of the author for the target incident configurations. This is an optional parameter. If author key is specified, then author label must also be specified. It is recommended that java packaging notation with your company's domain be used, such as com.example.nnm.author.

```
-deleteAuthor <author key>
```

It may be desirable to delete an Author that is no longer being used by the incident configuration. This option may be used to delete an Author by specifying the Author key value as long as no configurations reference the Author object.

```
-deleteCategory <category_key>
```

It may be desirable to delete a Category that is no longer being used by the incident configuration. This option may be used to delete a Category by specifying the Category key value as long as no incidents or incident configurations reference the Category object.

```
-deleteFamily <family_key>
```

It may be desirable to delete a Family that is no longer being used by the incident configuration. This option may be used to delete a Family by specifying the Family key value as long as no incidents or incident configurations reference the Family object

```
-disableAllTraps <true/false>
```

If true all traps should be loaded as disabled in the incident configuration. The default value is false, meaning the incident configuration is enabled by default.

```
-u <username>
```

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

```
-p <password>
```

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

EXAMPLES

 $\label{local_composition} nnmincidentcfg.ovpl -loadTraps "CISCO-VTP-MIB" -authorLabel "Cisco" -authorKey com.example.cisco.nnm.author$

nnmincidentcfg.ovpl -loadTraps "mpls"

AUTHOR

nnmincidentcfg.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

RFC 2578 Structure of Management Information Version 2 (SMIv2)

RFCs 1155, 1212, 1215: SNMP Version 1 Structure of Management Information

RFCs 1902, 1903, 1904: SNMP Version 2 Structure of Management Information

nnmloadmib.ovpl(1M),

nnm.properties(4).

nnmincidentcfgload.ovpl — load and validate formatted incident configuration files

SYNOPSIS

DESCRIPTION

The nnmincidentcfgload.ovpl is used to load and validate incident configuration files. These configuration files must conform to the required tag format described in nnmincidentcfg.format for each configuration type.

Valid configuration types include the following:

```
*MgmtEventConfig
*PairwiseConfig
```

Incident configurations must first have been created using the NNMi console or be loaded into the database using the nnmincidentcfg.ovpl command.

Before using the nnmincidentcfgload.ovpl command, do one of the following:

*Use the nnmincidentcfgdump.ovpl command to create a formatted file. Edit the incident configurations using the required format described in nnmincidentcfg.format.
*Use an editor to create the formatted file with all required tags and modifications using the format requirements described in nnmincidentcfg.format.

When using the nnmincidentcfgload.ovpl command, note the following:

*To avoid errors, if you need to edit complex incident configurations, use the nnmincidentcfg.ovpl command to create the formatted file rather than using a text editor. *The content of the formatted file replaces the configurations that are stored in the NNMi database.

*The nnmincidentcfgload.ovpl also re-formats the incident configuration file by inserting white space where needed to clarify the format hierarchy. This re-formatted file does not contain any original comments.

Parameters

nnmincidentcfgload.ovpl supports the following options:

-load <filename>

Loads the formatted incident configuration file you specify into the NNMi database. Invalid file

^{*}SnmpTrapConfig

^{*}SyslogMessageConfig

formats are not loaded into the NNMi database. NNMi reports each validation error, including the line number and error.

-validate <filename>

Displays the line number and validation error for all errors encountered in the formatted incident configuration file you specify. It does not load the incident configurations into the NNMi database.

-formats < sourceFilename >

Formats the file you specify and writes the file to the filename specified using -formatd <destinationFilename>.

-formatd <destinationFilename>

Specifies the filename that will contain the formatted version of -formats <sourceFilename>.

-expression <expression>

Validates the specified expression.

-timeout <timeout>

Specifies the transaction time out in seconds that NNMi should use for the nnmincidentdump.ovpl command.

-memory <memory>

Specifies the maximum heap size in Megabytes (MB). The minimum <memory> value is 512 MB. The default <memory> value is 1536 MB.

-u <username>

Supply the NNMi administrator password to run the script. Required unless a <u>nnm.properties(4)</u> file exists.

-p <password>

Supply the NNMi administrator password to run the script. Required unless a <u>nnm.properties(4)</u> file exists.

-jndiHost <host name>

The server JNDI host. The default value is localhost.

-jndiPort <port>

The server JNDI port. The default value is 1099.

EXAMPLES

Load an incident configuration file:

```
nnmincidentcfgload.ovpl -load dumped-config.tag
```

Validate an incident configuration file:

```
nnmincidentcfgload.ovpl -validate modified-config.tag
```

Reformat an incident configuration file:

```
nnmincidentcfgload.ovpl -formats custom.tag -formatd formatted-output.tag
```

Validate an expression string:

```
nnmincidentcfgload.ovpl -expression "ciaName like \"whatTimeIsIt\""
```

The following example configuration file contains all of the required tags for an incident configuration of type SnmpTrapConfig:

The following example adds an action to the SNMP Trap Incident configuration:

```
*ConfigurationType=SnmpTrapConfig
        *Name MinimalistTrapConfig
        *Oid .1.3.4.5.6
        -Author
                -Key com.customer.author
                -Key com.hp.nms.incident.category.Fault
       -ActionConfiguration
            -Actions
                -Action
                -Command echo "hello" > /tmp/hello.test
                -CommandType SCRIPT_OR_EXECUTABLE
                -LifecycleState InProgress
       -Family
                -Key com.hp.nms.incident.family.Node
        -MessageFormat Custom message format
       -Severity MINOR
```

AUTHOR

nnmincidentcfgload.ovpl was developed by Hewlett Packard Enterprise.

FILES

NNMi provides example configuration files and a description of the valid formats in the following directory:

```
\label{local_dir_examples_nnm_incidentcfg} $$\operatorname{UNIX: /opt/OV/examples/nnm/incidentcfg}$$
```

SEE ALSO

```
<u>nnmincidentcfgdump.ovpl</u> (1M).
```

nnmincidentcfg.format (4).

nnmincidentcfgdump.ovpl — copies incident configuration data from the database into a tag formatted file.

SYNOPSIS

 $\begin{array}{l} \text{nnmincidentcfgdump.ovpl } \left\{ \begin{array}{l} -\text{dump} < \text{filename} > [-\text{authorKey} < \text{author}(s) > | -\text{name} < \text{names}(s) > | -\text{oid} < \text{oid} \\ \text{pattern}(s) > | -\text{mib} < \text{mib} \quad \text{name}(s) >] \left[-\text{type} < \text{type}(s) >] \left[-\text{timeout} < \text{timeout} >] \left[-\text{memory} < \text{memory} >] \left[-\text{u} < \text{user} \quad \text{name} > -\text{p} < \text{password} >] \left[-\text{jdniHost} < \text{host} \quad \text{name} > -\text{jdniPort} < \text{port} >] \right\} \left\{ \begin{array}{l} -\text{listAuthors} \left[-\text{u} < \text{user} \quad \text{name} > -\text{p} < \text{password} > \right] \left[-\text{jdniHost} < \text{host} \quad \text{name} > -\text{jdniPort} < \text{port} > \right] \right\} \\ \end{array} \right. \end{aligned}$

DESCRIPTION

nnmincidentcfgdump.ovpl is used to copy incident configurations from the database into a tag formatted file. These configuration files can be edited and loaded back into the database by using nnmincidentcfgload.ovpl.

Valid configuration types include the following:

```
*MgmtEventConfig
```

*PairwiseConfig *SnmpTrapConfig

Incident configurations must first have been created using the NNMi console or be loaded into the database using the nnmincidentcfg.ovpl command.

Parameters

nnmincidentcfgdump.ovpl supports the following options:

```
-dump <filename>
```

Specifies the destination file to which the incident configurations will be copied. If this file exists on the filesystem before the configuration is copied, the user will be notified to delete it.

```
-authorKey <author(s)>
```

Specifies the author keys to include in the formatted configuration file. All configurations which are tied to the specified author keys are included. If this argument is not provided all author keys are included.

Cannot be used with the -name, -oid, or -mib parameters

```
-name < name(s) >
```

Specifies one or more incident configuration names to include in the formatted configuration file. All configurations with matching names will be included. If this argument is not provided all incident configurations for the specified type are included.

^{*}SyslogMessageConfig]

Cannot be used with the -authorKey, -oid, or -mib parameters

```
-oid <oid pattern(s)>
```

Specifies one or more Object Identifier (OID) patterns to be included in the formatted configuration file. The OID Pattern must follow these syntax requirement:

```
*Can contain one wild card "*".
*Must start with ".".
*Can contain only numbers or wild card separated by "."
```

Cannot be used with the -name, -authorKey, -mib, or -type parameters

```
-mib <mib names(s)>
```

Specifies the MIB module that must be contained in an incident configuration to be included in the formatted configuration file. Note the following requirements for the MIB module name:

```
*Must already exist in the NNMi database.
*Must already have traps loaded in the NNMi database.
```

Cannot be used with the -name, -authorKey, -oid, or -type parameters

```
-type \langle type(s) \rangle
```

Specifies one or more configuration types to include in the formatted configuration file. Only the configuration types that are specified are included. If this argument is not provided all configuration types are included.

Valid configuration types include the following:

NOTE: Configuration types are not case sensitive.

```
*MgmtEventConfig
*PairwiseConfig
*SnmpTrapConfig
*SyslogMessageConfig
```

Cannot be used with the -oid, or -mib parameters

```
-timeout <timeout>
```

Specifies the transaction time out in seconds that NNMi should use for the nnmincidentdump.ovpl command.

```
-memory <memory>
```

Specifies the maximum heap size in Megabytes (MB). The minimum <memory> value is 512 MB. The default <memory> value is 1536 MB.

```
-u <username>
```

You must supply the administrator (Windows) or root (UNIX) username to run the script. Required unless a nnm.properties(4) file exists.

```
-p <password>
```

You must supply the administrator (Windows) or root (UNIX) password to run the script. Required unless a nnm.properties(4) file exists.

```
-jndiHost <host name>
```

The server JNDI host. The default value is localhost.

```
-jndiPort <port>
```

The server JNDI port. The default value is 1099.

EXAMPLES

Include the entire Events configuration:

```
nnmincidentcfgdump.ovpl -dump full-dump.tag
```

Include all Management and Snmp Trap configurations:

```
nnmincidentcfgdump.ovpl -dump type-dump.tag -type MgmtEventConfig SnmpTrapConfig
```

Include all NNMi and Customer Event configurations:

```
{\tt nnmincidentcfgdump.ovpl-dump~nnm-and-customer-author-dump.tag-authorKey~com.hp.nms.author.nnm~com.customer.author}
```

Include all NNMi Management Event configurations:

```
{\tt nnmincidentcfgdump.ovpl-dump\ author-type-dump.tag-authorKey\ com.hp.nms.author.nnm-type\ MgmtEventConfig}
```

Include the following named configurations, NodeDown and DuplicateCorrelation:

```
nnmincidentcfgdump.ovpl -dump names-dump.tag -name NodeDown DuplicateCorrelation
```

Include all trap configurations that were loaded by the CISCO-VTP-MIB to a tag file named ciscoVtpMib.tag:

```
nnmincidentcfgdump.ovpl -dump ciscoVtpMib.tag -mib CISCO-VTP-MIB
```

Include the SnmpLinkDown/Up trap configurations:

```
nnmincidentcfgdump.ovpl -dump snmpLinkDownAndUp.tag -oid .1.3.6.1.6.3.1.1.5.3 .1.3.6.1.6.3.1.1.5.4
```

Include all LinkDown trap configurations (This includes CiscoLinkDown):

```
nnmincidentcfgdump.ovpl -dump linkDownTraps.tag -oid .1.3.6.1.6.3.1.1.5.3.*
```

Include all CiscoSNMPTrap configurations:

```
nnmincidentcfgdump.ovpl -dump ciscoSnmpTraps.tag -oid .1.3.6.1.6.3.1.1.5.*.1.3.6.1.4.1.9
```

List all available author key / label pairs

```
nnmincidentcfqdump.ovpl -listAuthors
```

AUTHOR

nnmincidentcfgdumpovplwas developed by Hewlett Packard Enterprise.

FILES

Configuration formats, and example configuration files for each configuration type are provided under the following directories.

 $\label{lem:windows:install_dir} $$\operatorname{UNIX: opt/OV/examples/nnm/incidentcfg:} $$\operatorname{UNIX: opt/OV/examples/nnm/incidentcfg}$$$

nnmincidentcfgdumpovplwas developed by Hewlett Packard Enterprise.

SEE ALSO

nnmincidentcfgload.ovpl (1M).

nnmincidentcfg.format (4).

nnmkeytool.ovpl — Key and Certificate Management Tool for NNMi

SYNOPSIS

nnmkeytool.ovpl [commands]

DESCRIPTION

The nnmkeytool.ovpl enables NNMi administer to use all java keytool commands without knowing provider parameters. nnmkeytool uses keytool to store keys and certificates in a so called keystore. The default keystore is a file and protected with a NNMi specific password.nnmkeytool.ovpl should be used for PKCS#12 keystore type only.

COMMANDS

Displaying Data

```
-list [-alias <alias>] -storetype <storetype> -keystore <keystore> [-storepass
<storepass>]
```

Prints contents of *keystore* entry identified by *alias* and *storetype* as PKCS12.It uses keytool options internally and add security provider information to genarate output. The output format is same as keytool output format.

```
-printcert -file <cert file> -storetype <storetype> [-rfc]
```

Reads the certificates from the file *cert_file* and prints either in human readable format or RFC style with help of keytool. *storetypes*hould be PKCS12 only.

```
-printcertreq -file <filename> -storetype <storetype>
```

Prints the contents of certificate request file filename with storetypeas PKCS12.

Managing the Keystore

```
-genkeypair -alias <alias> -keyalg <keyalg> [-keysize <keysize>] [-sigalg <sigalg>] [-
dname <dname>] [-keypass <keypass>] -validity <valDays> -storetype <storetype> -keystore
<keystore> [-storepass storepass]
```

Generates a key pair (a public key and associated private key). It uses keytool options internally and add security provider information to genarate output. storetype is always PKCS12 as user input.

```
-certreq -alias <alias> [-sigalg <sigalg>] -file <certreq_file> [-keypass <keypass>] -
storetype <storetype> -keystore <keystore> [-storepass <storepass>]
```

Generates a Certificate Signing Request (CSR). It uses keytool options internally and add security provider information to genarate CSR in PKCS#12 format. storetype is always PKCS12 as user input.

```
-importcert -alias <alias> -file <cert_file> [-keypass <keypass>] -trustcacerts -storetype
```

```
<storetype> -keystore <keystore> [-storepass storepass]
```

Reads the certificate or certificate chain from the file <code>cert_file</code>, and stores it in the keystore entry identified by <code>alias</code>. <code>storetype</code> is always PKCS12 as user input. Security provider information was added internally and transparent to user of this tool.

-importkeystore -srckeystore <nnmkeystore> -destkeystore <nnmPl2store> -srcstoretype <storeType> -deststoretype <dStoreType> -srcprovidername <sprovider> -destprovidername <dprovider>

Migrates NNMi users from old keystore format to new PKCS12 format. Internally the command uses keytool options. nnmkeystoreis legacy keystore file and nnmP12store is new keystore file which is in PKCS12 format. Only JKS is allowed asstoreType. Only PKCS12 is allowed as dstoreType. Allowed input for sprovider is SUN and dprovider is JsafeJCE.

```
-changealias -alias <alias> [-destalias destalias] [-keypass key- pass] -storetype <storetype> -keystore <keystore> [-storepass storepass]
```

Move an existing keystore entry from the specified alias to a new alias, *destalias*. Internally the command uses keytool options with provider as JsafeJCE.Only supported *storetype* is PKCS12.

```
-delete -alias <alias> -storetype <storetype> -keystore <keystore> [-storepass
<storepass>]
```

Deletes from the keystore the entry identified by alias. Internally the command uses keytool options with provider as JsafeJCE. Only supported storetype is PKCS12.

```
-exportcert -alias <alias> -storetype <storetype> -keystore <keystore> [-storepass
<storepass>] [-rfc] -file <filename>
```

Exports certificate in binary encoding format by default. A certificate in the printable encoding format is available with -rfc option. Internally the command uses keytool options with provider as JsafeJCE. Only supported storetype is PKCS12.

```
-genseckey -alias <alias> -keyalg <keyalg> -keysize <keysize> [-key-pass <keypass>] -
storetype <storetype> -keystore <keystore> [-storepass storepass]
```

Generates a secret key and stores it in a new KeyStore.SecretKeyEntry identified by alias.Internally the command uses keytool options with provider as JsafeJCE. Only supported storetype is PKCS12.

```
-gencert [-rfc] -infile <infile> -outfile <outfile> -alias <alias> -sigalg <sigalg> -dname
<dname> -startdate <startdate> -validity <valDays> -keypass <keypass> -keystore <keystore>
[-storepass storepass] -storetype <storetype>
```

Generates certificate from a certificate request. Internally the command uses keytool options with provider as JsafeJCE. Only supported storetype is PKCS12

```
-importpass -alias <alias> -keypass <arg> -keyalg <keyalg> -keysize <keysize> -keystore <keystore> -storepass <arg> -storetype>
```

Imports a password.Internally the command uses keytool options with provider as JsafeJCE. Only supported storetype is PKCS12

```
-keypasswd -alias <alias> [-keypass <old_keypass>] [-new <new_keypass>] -storetype
<storetype> -keystore <keystore> [-storepass <storepass>]
```

Changes the password under which the private/secret key identified by alias is protected, from old_keypass to new_keypass.Internally the command uses keytool options with provider as JsafeJCE. Only supported storetype is PKCS12

RETURN VALUE

 ${\tt nnmkeytool.ovpl} \ returns \ the \ appropriate \ output \ shown \ in \ the \ above \ COMMANDS \ section.$

AUTHOR

nnmkeytool.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

None

nnmldap.ovpl — reload or view LDAP configuration.

SYNOPSIS

nnmldap.ovpl -reload | -info | -diagnose <username> | -encrypt <password>

DESCRIPTION

nnmldap.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.

Parameters

nnmldap.ovpl supports the following options:

-info

Displays the LDAP configuration, such as

Configuration=providerURL:"ldap://example.com:636/". Number of available Incident assignment users:0

-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 NNMi console username prompt of the NNMi 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 NNMi which created them. If the database is reset or the properties are copied to a new NNMi 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 NNMi in an application failover or High Availability (HA) configuration. In application failover or HA configurations, the encrypted password generated by the nnmldap.ovpl script is valid on both NNMi management servers

(since the database is the same on both NNMi management servers).

EXAMPLES

nnmldap.ovpl -info

Returns the current LDAP configuration.

nnmldap.ovpl -reload

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

nnmldap.ovpl -diagnose <username>

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

nnmldap.ovpl -encrypt password

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

AUTHOR

nnmldap.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

nnmsso.ovpl(1M), ldap.properties(4).

nnmlicense.ovpl — administer Network Node Manager licensing

SYNOPSIS

```
nnmlicense.ovpl [-h | -help]
nnmlicense.ovpl [ <PRODUCT> [-nosync] [(-g|-gui)|(-install|-f <lic_file>] ]
```

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

DESCRIPTION

nnmlicense.ovpl provides license management for HP Network Node Manager (NNMi). License management includes the ability to retrieve license passwords from Hewlett-Packard, installing license passwords from a file, the removal of license passwords, and reporting valid licenses.

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

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

```
nnmlicense.ovpl NNM
```

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

Retrieve/Install License Key

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

Install/Restore License Key

Installs license passwords 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 NNMi 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 NNMi 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 password contained in a file named "license.txt", perform the following:

```
$NnmInstallDir/bin/nnmlicense.ovpl NNM -f license.txt
```

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

```
$NnmInstallDir/bin/nnmlicense.ovpl NNM -nosync -f license.txt
```

The following example demonstrates replacing a license with a new one. Suppose the customer is given a temporary license for the NNM product, with a capacity of 500 nodes. Sometime later this customer receives their official license. The temporary license must first be removed the permanent license is accepted. This can be done using the license management GUI. First remove the temporary license (Remove License Key), and then add the permanent license (Install/Restore License Key). The running NNMi system is updated when they exit the GUI.

AUTHOR

nnmlicense.ovpl was developed by Hewlett Packard Enterprise.

FILES

\$NnmInstallDir/misc/nms/lic/NNM.pdf

Product definition file used by licensing.

\$NnmDataDir/shared/nnm/conf/licensing/NNM.bin

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

<drive>:\Program Files (x86)\Common Files\Hewlett-Packard\HPOvLIC

Program files and data files for licensing on Microsoft Windows systems.

/opt/OV/HPOvLIC

Program files for licensing on UNIX-based systems.

/var/opt/OV/HPOvLIC

Data files for licensing on UNIX-based systems.

SEE ALSO

Installation Guide for future details on licensing.

nnmloadinterfacegroups.ovpl — script to load Interface Group definitions from a comma-separated values (CSV) file.

SYNOPSIS

nnmloadinterfacegroups.ovpl [-?] [-u < username > -p < password >] [-r true | false] -f < csv_filename >

DESCRIPTION

NOTE: This script will do as much validation as possible on the comma-separated values (CSV) file before injecting data in the NNMi data store.

The nnmloadinterfacegroups.ovpl script loads Interface Group definitions from a comma-separated values (CSV) file, such as a .csv file exported from MicrosoftTM Excel. This script is useful if you have a large amount of interface data defined in an external data store, and you want to load it into the NNMi database as Interface Group definitions. After loading the contents of the .csv file into NNMi, you can use the Interface Group form to further refine the definition of each Interface Group.

Parameters

nnmloadinterfacegroups.ovpl supports the following options:

-?

Prints the usage statement.

-u <username>

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

-p <password>

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

```
-r true | false
```

Back up the existing Interface Group configuration before using this option.

- -r false (the default setting) means if the Interface Group Name already exists in the NNMi database, the nnmloadinterfacegroups.ovpl command does not change the previous settings.
- -r true means all the settings for any existing Interface Group with the same Name (column 1) are overwritten with the values in your CSV file. Caution: this is not a merge, it is a complete replacement

of that Interface Group configuration.

```
-f <csv_filename>
```

Enter the CSV file name and the path for the CSV file.

Syntax of Comma-Separated File

NOTE: Fields containing special characters such as newlines, commas or quotes should be surrounded by double-quotes in the CSV file. Fields containing embedded double-quote characters must also use the escaped form of two double-quote characters in the field which is surrounded by double-quotes as specified by RFC 4180 - Common Format and MIME Type for Comma-Separated Values (CSV) Files.

The CSV file you supply must have the following syntax:

Required. Column 1. You must provide a value for the Interface Group Name.

Optional. Columns 2-7 are optional. Leave any combination of these columns blank.

You do not need to add a comma to indicate the end of Column 7. No semicolon ";" is required at the end of a list of values in a CSV field within a column (between commas ",").

NNMi combines the results of all settings in the following manner:

- 1. NNMi first evaluates any ifType Filters (column 6). Interfaces must match at least one specification to belong to this Interface Group.
- 2. NNMi then evaluates any Additional Filters (column 7). Interfaces must also pass all Additional Filters specifications to belong to this Interface Group.
- 3. If a Node Group (column 5) is specified for this Interface Group, any interface in this group must be contained in a node that is a member of that Node Group.

Empty lines or lines starting with a # character are ignored as comments. Add the following comment to line 1 to make it easy to remember the syntax for each required column.

#InterfaceGroupName,[Notes],[AddtoFilterList],[AddtoPerformanceFilterList],[NodeGroupName], [ifType1;...], [AdditionalFilters]

• Column 1(A): Interface Group Name

Required. Specify the Name of the Interface Group you want to import. (This becomes the Name attribute value in the Interface Group form.)

• Column 2(B) : Notes

Optional. Describe the Interface Group in your own terms. (This becomes the Notes field text in the Interface Group form.)

• Column 3(C): Add to View Filter List

Optional. Sets the Add to View Filter List field of the Interface Group form.

1 (the default setting) this Interface Group is available in the drop-down filter

list when viewing tables, such as the All Interfaces table.

o do not include this Interface Group in the view drop-down filter list.

Recommendation: Set this value to 1 only for the most commonly used Interface Groups. Avoid too many Interface Groups or the view filter list is too long and difficult to use.

• Column 4(D) : Add to Performance Filter List

Optional. Sets the NNMi iSPI Performance Add to Filter List field of the Interface Group form.

0 (the default setting) this Interface Group is not available as a filter in NNM iSPI Performance reports.

1 this Interface Group appears in the Optional Filters selection panel of the NNM iSPI Performance reports.

Recommendation: Set this value to 1 only for Interface Groups that are needed as filters in NNM iSPI Performance reports.

• Column 5(E): Node Group Name

Optional. The specified Node Group serves as a filter for this Interface Group.

Note: If you specify a Node Group, the Node Group must already exist in the NNMi database.

• Column 6(F) : ifType Filters

Optional. Add if Type Filters settings, separated by semicolon ";" (After importing, these specifications appear on the if Type Filters tab of the Interface Group form.) Each if Type is identified by the if Type name.

Provide the exact if Type name as it appears in the NNMi console.

Example entries for ifType Filters:

- ds0;ds0Bundle;ds1;ds1FDL;ds3;g703at2mb
- ppp;pppMultilinkBundle;propPointToPointSerial;slip
- ethernetCsmacd
- Column 7(G) : Additional Filters

Optional. Specify additional filter expressions used to further define the interfaces to be included in an Interface Group. The format of additional filters is:

- 1. Define a filter condition operator and its associated filter conditions within a matching set of parentheses.
- 2. Define a filter by specifying the filter attribute followed by a filter operator and then finally by the filter value.

All filter attributes and operators that are available in the interface group form are supported. Multiple filter values can be specified by using a ':' to separate them while multiple filters for a filter condition operator will be separated by a ';'. A space is used to separate a filter attribute and the filter operator and a space is also used to separate a filter operator and the filter value.

Filter Attributes:

- ifAlias
- ifDesc
- ifIndex
- ifName
- ifSpeed
- hostedOn
- ipAddress
- isSnmpInterface
- sysOidInterface
- devCategoryInterface
- devVendorInterface
- devFamilyInterface
- customAttrName
- customAttrValue
- capability
- vlanId
- vlanName
- ipPhysAddress
- configuredDuplexSetting

Filter Operators:

- o !=
- o >
- o >=
- <

- o <=
- 0 =
- between
- in
- is_not_null
- is_null
- like
- not_between
- not_in
- not_like

Filter Condition Operators:

- AND
- OR
- NOT
- EXISTS
- NOT_EXISTS

Examples:

```
o (AND hostedOn like *.mycompany.com (OR (EXISTS (AND customAttrName = circuit; customAttrValue = 12) ) (EXISTS (AND customAttrName = circuit; customAttrValue = 15) ) ) )
o (AND hostedOn like *.mycompany.com (EXISTS (AND customAttrName = circuit; customAttrValue in 12:15) ) )
o hostedOn like *.mycompany.com
o ifAlias = " Alias with leading and trailing spaces "
o ifAlias = Alias with embedded \"double quotes\"
```

These examples show the field value as it should be entered in a tool, like Microsoft Excel, which creates CSV files with correct formatting. When formatting CSV files by hand the rules specified in RFC 4180 should be followed, resulting in files such as:

```
"My Group",,,,,"ifAlias = Alias with embedded \""double quotes\"""
```

Note

When entering filter values, avoid using the special characters '"', '(', ')', ':' and ';'. If you need to use these special characters then escape them with a '\'. For example:

- 'circuit:57' must be entered as 'circuit\:57'
- 'circuit(57)' must be entered as 'circuit\(57\)'
- 'circuit"57"' must be entered as 'circuit\"57\"'
- 'circuit;57' must be entered as 'circuit\;57'
- 'circuit\:57' must be entered as 'circuit\\\:57'

These examples show the field value as it should be entered in a tool, like Microsoft Excel, which creates CSV files with correct formatting. When formatting CSV files by hand the rules specified in RFC 4180 should be followed, resulting in files such as:

```
"My Group",,,,,"ifAlias = circuit\(57\)"
"My Group",,,,,"ifAlias = circuit\""57\"""
```

Use of Microsoft Excel

Microsoft Excel is a useful tool to create comma-separated files, but .csv files do not maintain their column width, comments, and other spreadsheet options. HP recommends that you store a nnmloadinterfacegroups.ovpl input file as a native .xls format, then complete a File:Save As... command to create a .csv file. You can then add Excel comments to the file, make columns wider, and do not need to escape the comma character.

Note that typing a comma in a line after a leading # in Microsoft Excel generates a non-commented entry when the .xls file is saved as a .csv file (creating a Interface Group with a Name starting with the # character).

EXAMPLES

Sample CSV file contents:

```
Point to Point Interfaces, Point to Point Interfaces are usually associated with dial-up.,1,1,,ppp;ppMultilinkBundle;propPointToPointSerial;slip
```

To load the Interface Groups from a CSV file without overwriting any existing Interface Group that matches a Name defined in column 1 of your CSV file:

```
nnmloadinterfacegroups.ovpl -u system -p myadminpasswd -f /tmp/test.csv
```

To load the Interface Groups from a CSV file, and overwrite any existing Interface Group that matches a Name defined in column 1 of your CSV file (Caution: this is not a merge, it is a complete replacement of that matching Interface Group's configuration):

```
nnmloadinterfacegroups.ovpl -u system -p myadminpasswd -r true -f /tmp/test.csv
```

AUTHOR

nnmloadinterfacegroups.ovpl was developed by Hewlett Packard Enterprise.

FILES

Windows: %NNM_BIN%\nnmloadinterfacegroups.ovpl

 $\label{eq:UNIX: NNM_BIN/nnmload} UNIX: \verb§NNM_BIN/nnmloadinterfacegroups.ovpl]$

SEE ALSO

nnmconfigimport.ovpl(1M), nnmloadnodegroups.ovpl(1M), nnm.properties(4).

nnmloadipmappings.ovpl — load overlapping IP address information

SYNOPSIS

 $\label{localine} \verb| nnmloadipmappings.ovpl-f mapping file [-u < username> -p < password>] [-jndiHost < hostName> Default: localhost] [-jndiPort < port> Default: 1099]$

DESCRIPTION

nnmloadipmappings.ovpl allows customer to load IP address mappings configured in static NAT [RFC2663] environment from a text file. The loaded mappings will be populated into the corresponding IP Address inventory.

The -f option accepts a file with a single entry specified per line. Each line has the following format:

```
Tenant Name, "Public IP Address", "Private IP Address"
```

Where:

Tenant Name = The name of a tenant. Public IP Address = A specific NATed IPv4 address exposed to the ourside network. Private IP Address = A specific internal IPv4 address corresponding to the NATed public IP address.

Comments can be deliminated with a # character.

Note that one public IP address can only map to one private IP address in a tenant. Same for the private IP address in a tenant, it only can map to one public IP address. However, multiple mappings on a device is supported.

Parameters

The nnmloadipmappings.ovpl command recognizes the following parameters and options:

```
-f mapping file
```

Specify a text file to read the IP Address mappings from.

```
-u <username>
```

Supply the NNMi administrator password to run the script. Required unless a <u>nnm.properties(4)</u> file exists.

```
-p <password>
```

Supply the NNMi administrator password to run the script. Required unless a <u>nnm.properties(4)</u> file exists.

```
-jndiHost <serverName>
```

The server JNDI host; default is localhost.

```
-jndiPort <port>
```

The server JNDI port; default is 1099.

EXAMPLES

Load IP address mappings from a file name that is named Tenant1Mappings.txt:

```
nnmloadipmappings.ovpl -f /tmp/TenantlMappings.txt
```

Load IP address mappings from a file name that is named Tenant2Mappings.txt with username and password:

```
nnmloadipmappings.ovpl -u username -p password -f /tmp/Tenant2Mappings.txt
```

AUTHOR

nnmloadipmappings.ovpl was developed by Hewlett Packard Enterprise.

FILES

Windows: install_dir\bin\nnmloadipmappings.ovpl

UNIX: \$NNM_BIN/nnmloadipmappings.ovpl

nnmloadattributes.ovpl — load custom attributes from a comma separated values (CSV) file or line for Nodes, Interfaces, and PhysComps (Cards/Chassis).

SYNOPSIS

```
\label{local-post-post-post-post-post-post} $$\operatorname{nnmloadattributes.ovpl} [-?] [-r < true \ / \ false>] -t < type> (-f < path & filename of csv file>) | (-s < "csv formatted line">) [-u < username> -p < password>] [-jndiHost < hostName> Default: localhost] [-jndiPort < port> Default: 1099]
```

DESCRIPTION

nnmloadattributes.ovpl allows custom attributes to be loaded from a comma separated values (CSV) file, such as a .csv file from MicrosoftTM Excel. This command is useful if you have a large number of nodes, interfaces, or phys comps that are defined in an external datastore, and you would like to load these attributes into NNM. For nodes, after loading into NNM you can use the Node Group forms to group nodes according to their custom attributes.

Parameters

nnmloadattributes.ovpl supports the following options:

-?

Prints the usage statement.

```
-r <true | false>
```

Existing attribute values are not changed unless this argument is provided with the value of true.

```
-t <type>
```

Supply the object type to load attributes on. Must be either "node", "interface", or "physcomp".

```
-f <path & filename of csv file>
```

Supply the CSV file name (with path, e.g. /tmp/csvfile.csv) that contains the custom attributes to load.

```
-s <"csv formatted line">
```

Supply a single CSV formatted line. Eliminates the need to create a file for a small change.

```
-u <username>
```

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

```
-p <password>
```

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

-jndiHost <serverName>

The server JNDI host; default is localhost.

-jndiPort <port>

The server JNDI port; default is 1099.

Syntax of Comma Separated File For Node Attributes

The CSV file you supply must have the following syntax for adding attributes on Nodes.

Empty lines are ignored.

Lines that being with the # character are ignored.

• Column 1(A): Node DNS | IP Address

Specify the DNS name of the node OR the IP address. This field is compulsory.

• Column 2(B) : Attribute Name

The name of the custom attribute.

• Column 3(C): Attribute Value

The value of the custom attribute.

Additional attribute name and value pairs may be specified on the same line or on a separate line with the same node DNS | IP Address.

Example lines:

192.168.1.1,Location,Building Five Upper,Service Type,eCommerce

192.168.1.1, Asset Tracking, N1234

192.168.2.2, Location, Fort Collins, Service Type, IT, Asset Tracking, F4321

Syntax of Comma Separated File For Interface Attributes

The CSV file you supply must have the following syntax for adding attributes on Interfaces.

Empty lines are ignored.

Lines that being with the # character are ignored.

• Column 1(A): Node DNS | IP Address

Specify the DNS name of the node OR the IP address. This field is compulsory.

• Column 2(B): Interface Id

Specify the identifier of the interface on the node specified in the previous field. The value may be the interface index, alias, name or description and is searched in this same order. All matching interfaces will have the attribute(s) loaded. This field is compulsory.

• Column 3(C): Attribute Name

The name of the custom attribute.

• Column 4(D) : Attribute Value

The value of the custom attribute.

Additional attribute name and value pairs may be specified on the same line or on a separate line with the same node DNS | IP Address and Interface Id.

Example lines:

192.168.1.1,1001,Location,Building Five Upper,Service Type,eCommerce

192.168.1.1,1001,Asset Tracking,N1234

192.168.2.2,A1,Location,Fort Collins,Service Type,IT,Asset Tracking,F4321

Syntax of Comma Separated File For PhysComp Attributes

The CSV file you supply must have the following syntax for adding attributes on PhysComps (Cards/Chassis).

Empty lines are ignored.

Lines that being with the # character are ignored.

• Column 1(A): Node DNS | IP Address

Specify the DNS name of the node OR the IP address. This field is compulsory.

• Column 2(B) : PhysComp Id

Specify the identifier of the phys comp on the node specified in the previous field. The value may be the phys comp physical index, name or description and is searched in this same order. All matching phys comps will have the attribute(s) loaded. This field is compulsory.

• Column 3(C) : PhysComp Type

The name to identify the type of PhysComp. "card" and "chassis" are valid types.

• Column 4(D) : Attribute Name

The name of the custom attribute.

• Column 5(E): Attribute Value

The value of the custom attribute.

Additional attribute name and value pairs may be specified on the same line or on a separate line with the same node DNS | IP Address, PhysComp Id, and PhysComp Type.

Example lines:

192.168.1.1,7, chassis, Location, Building Five Upper, Service Type, eCommerce

192.168.1.1,7,chassis,Asset Tracking,N1234

192.168.2.2,/AmdFE,card,Location,Fort Collins,Service Type,IT,Asset Tracking,F4321

Error Codes

There are several error codes that help identify problems:

- INFO: information message.
- ATTR ERROR: A problem was found with the specified attribute.
- DEL_FAIL_ERROR : An attempt to delete the specified attribute failed.
- OBJECT_ERROR: The specified object was not found.
- BAD LINE ERROR: The line provided is not properly formatted.
- IO_ERROR: The CSV file was not found or is not readable.
- BAD NAME WARNING: The specified attribute name is too long (50 character maximum).
- BAD VALUE WARNING: The specified value is too long (2000 character maximum).

Use of Microsoft Excel

Microsoft Excel is a handy tool to create comma separated files, but .csv files do not maintain the Excel spreadsheet's column width, comments, etc. It is recommended that you store a nnmloadattributes.ovpl input file as a native .xls format, and then perform File: Save As... to create a .csv file. Then you can add Excel comments to the file, make columns wider, and you do not need to worry about escaping the comma character.

EXAMPLES

Sample node CSV file (/tmp/test.csv) contents:

192.168.2.2, Location, Fort Collins, Service Type, IT, Asset Tracking, F4321

To load the Node custom attributes from a CSV file overwriting existing values:

```
nnmloadattributes.ovpl -t node -f /tmp/test.csv -r true
```

To load a single Node custom attributes line from the command line:

```
nnmloadattributes.ovpl -t node -s "192.168.1.1, Project, IT Update of Building Five"
```

Sample interface CSV file (/tmp/test.csv) contents:

```
192.168.2.2,A1,Location,Fort Collins,Service Type,IT,Asset Tracking,F4321
```

To load the Interface custom attributes from a CSV file overwriting existing values:

```
nnmloadattributes.ovpl -t interface -f /tmp/test.csv -r true
```

To load a single Interface custom attributes line from the command line:

```
nnmloadattributes.ovpl -t interface -s "192.168.1.1,1001,Project,IT Update of Building Five"
```

Sample phys comp CSV file (/tmp/test.csv) contents:

```
192.168.2.2,7,chassis,Location,Fort Collins,Service Type,IT,Asset Tracking,F4321
```

To load the PhysComp custom attributes from a CSV file overwriting existing values:

```
nnmloadattributes.ovpl -t interface -f /tmp/test.csv -r true
```

To load a single PhysComp custom attributes line from the command line:

```
nnmloadattributes.ovpl -t physcomp -s "192.168.1.1,/AmdFE,card,Project,IT Update of
Building Five"
```

AUTHOR

nnmloadattributes.ovpl was developed by Hewlett Packard Enterprise.

FILES

Windows: install_dir\bin\nnmloadattributes.ovpl

UNIX: \$NNM_BIN/nnmloadattributes.ovpl

SEE ALSO

<u>nnmdeleteattributes.ovpl</u> (1M), <u>nnmloadnodegroups.ovpl</u> (1M), <u>nnm.properties</u> (4).

Return to Reference Pages Index

nnmloadmib.ovpl — load and unload SNMP MIBs

SYNOPSIS

nnmloadmib.ovpl [[-load mib-file] [-unload mib module[:mib module...]] [-list] [-u username] [-p password] [-jndiHost hostname] [-jndiPort port Default is 1099]]

DESCRIPTION

nnmloadmib.ovpl is a script that loads an SNMP Management Information Base (MIB) in the Internet Structure of Management Information (SMI) format into NNMi. NNMi applications use this MIB information when converting SNMP Object Identifiers (OIDs) from numeric to human readable text. Load any new MIB information into NNMi before using the NNMi console to create a MIB expression that relies on the newly loaded MIB information. NNMi supports SMI Version 1 (RFC1155, 1212, 1215) and SMI Version 2 (RFC2578) SMI formats.

The nnmloadmib.ovpl script compiles and loads MIB modules for use by NNMi applications and stores the resulting information in the NNMi database.

To load corresponding NNMi Incident Configuration for TRAP-TYPE and NOTIFICATION-TYPE macros from a MIB, use the nnmincidentcfg.ovpl script after using the nnmloadmib.ovpl script to load the MIB into the NNMi MIB database.

Parameters

The nnmloadmib.ovpl script supports the following parameters:

-load mib-file

Load the contents of the mib-file file into the MIB database.

Note: HP recommends copying the <code>mib-file</code> file to the <code>\$NNM_DATA/shared/nnm/user-snmp-mibs</code> (UNIX) or <code>\$NNM_DATA%\shared/nnm/user-snmp-mibs</code> (Windows) directory (or a child directory) before running the <code>nnmloadmib.ovpl</code> script. Copying the <code>mib-file</code> file in this way enables the <code>Actions > Display MIB File</code> menu and the <code>-list</code> option to locate the original MIB file.

-unload mib module[:mib module...]

Unload the list of MIB modules from the MIB database, where mib module is the name of a MIB module that has been loaded into the MIB database.

-list

Lists the MIBs loaded in the database.

This option does not require the user to provide a username and password.

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

-p <password>

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

-jndiHost<jndiHost> (optional)

The hostname of the server running the jboss application server. If you do not specify a hostname, the nnmcommload.ovpl script uses localhost as the default value.

-jndiPort<jndiPort> (optional)

The jboss application server port. If you do not specify this port, the nnmcommload.ovpl script uses 1099 as the default value.

Loading/Unloading Validation

When loading and unloading MIBs all of the existing MIBs that have been loaded are parsed to ensure that the load/unload operation will pass given the current state. This may result in warnings being displayed (such as overlapping OIDs) that my be unrelated to the given MIB being loaded or unloaded. As long as a successful status is returned from the command line invocation, all is well and these warnings can be ignored.

Syntax of MIB Files

Most of the relevant syntax for MIB files is described in RFC documents. See the "SEE ALSO" section of this reference page (and the UNIX manpage).

Diagnostics

The nnmloadmib.ovpl script returns the following exit codes:

0

The script ran successfully.

1

Invalid command-line usage.

20

An unexpected exception occurred after running the script.

21

You were not permitted to run the script with the credentials you supplied.

The script detected a syntax error in the MIB file, or there was a failure to load the MIB due to a service failure.

23

You used an illegal argument - typically you typed an option such as -load without including the required file name.

24

The script could not communicate with the mib loader service running in NNMi.

25

You did not supply any arguments. This script requires you to supply several arguments

27

NNMi is available, but the mib loader service is not resolvable.

30

The list operation failed due to database issues.

When the nnmloadmib.ovpl command fails, it will display a descriptive error message to help diagnose and fix potential problems with the MIB. All error messages have a similar format:

```
SEVERITY: MESSAGE FILENAME:LINE NUMBER:COLUMN NUMBER: DETAIL MESSAGE
```

Below are some common failures and recommended fixes for each.

```
ERROR: Cannot find symbol file:///tmp/CHECKPOINT-MIB.mib:2620:16:cpvTNlMonCurrAddr
```

The symbol name listed was either not found as a declaration in the MIB being loaded, or it is not listed as an import at the top of the MIB definition. This could be caused by a typo in the symbol name or a missing import delaration.

```
ERROR: Cannot find symbol file:///var/opt/OV/shared/nnm/user-snmp-mibs/example.mib:Line 13233: Column 16:COUNTER64
```

In order to properly load MIB files in NNMi, MIB files must be compliant with either the SNMP SMI v1 or SMI v2 standards, RFC1155 or RFC2578. Special consideration needs to be taken for case sensitive scenarios and the importing of objects from the correct defining MIB. In some cases, MIBs that used to load correctly on older versions of NNMi may need to be amended. A common example is the erroneous use of COUNTER64 instead of the correct definition of Counter64 for example scenarios such as "SYNTAX COUNTER64" which needs to be changed to "SYNTAX Counter64".

```
ERROR: Found symbol file:///tmp/CHECKPOINT-MIB.mib:3509:27:routingDest but expected a class org.jsmiparser.smi.SmiType instead of class org.jsmiparser.smi.SmiVariable
```

The symbol name listed is not of the expected type. In this case, an SMI type was expected, but a MIB variable name was provided instead. The solution in this particular case was to specify the correct SMI type, which was IPAddress.

```
ERROR: Cannot find module file:///tmp/rfc1472-PPP-SEC-MIB.mib:9:26:PPP-LCP-MIB
```

This error indicates that the specified MIB module, which is listed as an import, has not been loaded,

and the parser cannot follow the import as a result. The solution is to load the referenced MIB first.

```
ERROR: Parse error: unexpected token: --#
```

NNMi supports some custom trap message formatting information that can be specified in a TRAP-TYPE or NOTIFICATION-TYPE macro definition. The following are valid values:

--#TYPE
--#SUMMARY
--#ARGUMENTS
--#SEVERITY
--#GENERIC
--#CATEGORY
--#SOURCE_ID
--#TIMEINDEX
--#HELP
--#HELP
--#HELPTAG
--#STATE

This error indicates you have invalid keyword following the --#, or a sequence of keywords that NNMi does not expect. To correct this problem, remove any --# entries that do not correspond to the above list, or add an extra comment character sequence (--) to the beginning of the line.

EXAMPLES

To load the \$NNM_DATA/shared/nnm/user-snmp-mibs/corp.mib MIB file, run the nnmloadmib.ovpl script as follows:

```
nnmloadmib.ovpl -load $NNM_DATA/shared/nnm/user-snmp-mibs/corp.mib-u user -p password
```

To list the loaded MIBs, run the nnmloadmib.ovpl script as follows::

```
nnmloadmib.ovpl -list -u user -p password
```

AUTHOR

nnmloadmib.ovpl was developed by Hewlett Packard Enterprise.

FILES

```
Windows: %NnmInstallDir%\misc\nnm\snmp-mibs\*
Windows: %NnmDataDir%\shared\nnm\user-snmp-mibs/*
UNIX:$NnmInstallDir/misc/nnm/snmp-mibs/*
UNIX:$NnmDataDir/shared/nnm/user-snmp-mibs/*
```

SEE ALSO

RFC 2578 Structure of Management Information Version 2 (SMIv2)

RFCs 1155, 1212, 1215: SNMP Version 1 Structure of Management Information

RFCs 1902, 1903, 1904: SNMP Version 2 Structure of Management Information

nnmincidentcfg.ovpl(1M),

nnmsnmpwalk.ovpl(1M).

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nnmloadnodegroups.ovpl — script to load Node Group definitions from a comma-separated values (CSV) file.

SYNOPSIS

nnmloadnodegroups.ovpl [-?] [-u < username > -p < password >] [-r true | false] -f < csv_filename >

DESCRIPTION

NOTE: This script will not validate comma-separated values (CSV) files before injecting data in the NNMi data store.

The nnmloadnodegroups.ovpl script loads Node Group definitions from a comma-separated values (CSV) file, such as a .csv file exported from MicrosoftTM Excel. This script is useful if you have a large amount of node data defined in an external datastore, and you want to load it into the NNMi database as a starting point for Node Group definitions. After loading the contents of the .csv file into NNMi, you can use the Node Group form to further refine the definition of each Node Group.

The following settings cannot be set in the CSV file. You must import the Node Group and then use the Node Group form to modify these default settings:

• Calculate Status = true (NNMi calculates the Node Group status)

Parameters

nnmloadnodegroups.ovpl supports the following options:

Prints the usage statement.

-u <username>

-?

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

-p <password>

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

-r true | false

Back up the existing Node Group configuration before using this option.

- -r false (the default setting) means if the Node Group Name already exists in the NNMi database, the nnmloadnodegroups.ovpl command does not change the previous settings.
- -r true means all the settings for any existing Node Group with the same Name (column 1) are overwritten with the values in your CSV file. Caution: this is not a merge, it is a complete replacement of that Node Group configuration.

NOTE: When using the replace option with groups in a hierarchy it is required that all child groups are included in the same CSV file.

```
-f <csv_filename>
```

Enter the CSV file name and the path for the CSV file.

Syntax of Comma-Separated File

The CSV file you supply must have the following syntax:

Required. Column 1. You must provide a value for Node Group Name.

Optional. Columns 2-15 are optional. Leave any combination of these columns blank.

You do not need to add a comma to indicate the end of Column 15. No semicolon ";" is required at the end of the last entry within a column (between commas ",").

NNMi combines the results of all settings in the following manner:

- 1. NNMi first evaluates any Device Filters (column 5). Nodes must match at least one specification to belong to this Node Group.
- 2. NNMi then evaluates any Additional Filters (columns 7-14). Nodes must also pass all Additional Filters specifications to belong to this Node Group. Note: After importing, the Node Group form's Additional Filters tab displays the combined columns 7-14 settings. You can change the default Boolean logic using the Node Group form's Additional Filters Editor.
- 3. Any Additional Nodes specified (column 6) are always included in the Node Group, regardless of any filters.
- 4. Any Child Node Groups (column 4) results are treated the same as Additional Nodes.

Empty lines or lines starting with a # character are ignored as comments. Add the following comment to line 1 to make it easy to remember the syntax for each required column.

```
#[NodeGroupName],[Notes],[AddtoFilterList],
[ChildNodeGroup:0/1;...],DeviceFilter[Category1:Vendor1:Family1:Profile1;...],AdditionalNodes[Fully-Qaul-hostname;...],AdditionalFilters > [hostname;...],[hostedIPAddress;...],[mgmtIPAddress;...],
[customAttrName/customAttrValue;...],[capability;...]
```

• Column 1(A): Node Group Name

Required. Specify the Name of the Node Group you want to import. (This becomes the Name attribute value in the Node Group form.)

• Column 2(B): Notes

Optional. Describe the Node Group in your own terms. (This becomes the Notes field text in the Node Group form.)

• Column 3(C): Add to View Filter List

Optional. Sets the Add to View Filter List field of the Node Group form.

1 (the default setting) means this Node Group is available in the drop-down filter list when viewing tables, such as the All Nodes table.

o means do not include this Node Group in the view drop-down filter list.

Recommendation: Set this value to 1 only for top-level or most commonly used Node Groups. Avoid too many Node Groups or the view filter list is too long and difficult to use.

• Column 4(D) : Child Node Groups

Optional. Specify a list of child Node Groups for this Node Group, separated by semicolon ";" (After importing, these specifications appear on the Child Node Groups tab of the Node Group form.) Note: If you are configuring Child Node Groups, the specified child Node Group must either already exist in the NNMi database or be defined in the same CSV file.

```
Example: ChildNodeGroup1:1[;ChildNodeGroup2:0;...]
```

o (the default setting) means that child Node Group is shown as a Node Group icon in maps of the parent Node Group.

1 means expand the child Node Group in a map of the parent Node Group. This option displays all nodes as if they were defined within the parent Node Group.

Valid entries for Child Node Groups are:

- computers:1
- computers:0
- computers:
- computers::printers:1

• Column 5(E) : Device Filters

Optional. Add Device Filters settings, separated by semicolon ";" (After importing, these specifications appear on the Device Filters tab of the Node Group form.) Each filter specification consists of 4 optional colon-separated parts in the following format:

```
Category1:Vendor1:Family1:Profile1[;Category2:Vendor2:Family2:Profile2
...]
```

Provide the exact specification from the device's MIB file (not the text string displayed in the NNMi console's Device Profile form).

To match more filters, you may omit portions of a filter specification. For example, if you want to match any family for Category1 and Vendor1, add an entry such as the following:

```
Category1:Vendor1::
```

To leave family unspecified for filter1 and family and profile unspecified for filter2:

```
Category1:vendor1::profile1;Category2:vendor2::;
```

Valid example entries for device profile:

- com.hp.ov.nms.devices.printer:com.hp.ov.nms.devices.hewlettpackard::.1.3.6.1.4.1.9.1.380
- com.mycomp.ov.nms.devices.printer:com.hp.ov.nms.devices.mycompanyname::
- com.hp.ov.nms.devices.printer:::
- · :::.1.3.6.1.4.1.9.1.380
- Column 6(F) : Additional Nodes

Optional. Specify a list of specific node hostnames you want added to this Node Group, separated by a semicolon ";" (After importing, these specifications appear on the Additional Nodes tab of the Node Group form.) The hostnames you provide must be the current value of the fully-qualified, case-sensitive Hostname attribute as it appears on the Node form.

```
For example hostname1.x.y.z;hostname2.x.y.z;hostname3.x.y.z
```

• Column 7(G): Additional Filters "sysName" code (Hostname Wildcards)

Optional. List the hostname wildcards separated by semicolon ";" (equivalent to the Operator "="). If you need other Operators, use the Node Group form after importing (these specifications appear on the Additional Filters tab of the Node Group form).

```
For example: *.cnd.hp.com; *snmp.hp.com
```

• Column 8(H): Additional Filters "hostedIPAddress" code (Hosted IP Address Ranges)

Optional. List the hosted IP address ranges separated by semicolon ";" (equivalent to the Operator "=") If you need other Operators, use the Node Group form after importing (these specifications appear on the Additional Filters tab of the Node Group form). Ranges have a lower and an upper address, separated by a dash. The addresses are inclusive. To include a single IP address, use the same value for the lower and upper address values. Note that if any address on a node matches this range, the node will be included in the Node Group.

```
Valid example: 10.20.30.1-10.20.30.254;192.168.177.1-192.168.180.254;1.1.1.1-1.1.1.1
```

• Column 9(I): Additional Filters "mgmtIPAddress" code (Management Address Ranges)

Optional. List the management Address ranges separated by semicolon ";" (equivalent to the Operator "=") Ranges are in the same format as hosted IP address ranges. If you need other Operators, use the Node Group form after importing (these specifications appear on the Additional Filters tab of the Node Group form). Note that Spiral Discovery only creates management IP Addresses on nodes that support SNMP. See the online help for the Node form's Management Address field for more information about how Spiral Discovery selects the Management Address.

• Column 10(J): Additional Filters "customAttrName:customAttrValue" codes (Custom Node Attributes)

Optional. List the custom attributes assigned to nodes as follows: "custom attribute name" operator "custom attribute value"[;...] and note the name and the value must be surrounded by quotes. After importing, these Custom Node Attribute specifications appear on the Additional Filters tab of the Node Group form.

Valid values for operator are as follows:

=, !=, like, not like, between, not between, >, >=, <, <=, is null, is not null (If you need other values, use the Node Group form after importing.) The operators is null and is not null do not have a value, for example, "my attribute" is not null. The values for between and not between are specified as x AND y (for example, "my attribute" between "100 AND 200").

For more than one custom attribute statement, place a semicolon between statements (for example, "Location" = "Bldg. Five"; "Service Type" = "eCommerce"). Multiple "customAttrName:customAttrValue" statements are AND'ed together. Therefore, all the statements must evaluate to true for each node to be included in the Node Group.

• Column 11(K): Additional Filters "capability" code (Capabilities)

Optional. List the capabilities assigned to nodes as follows: capability operator "capability value"[;...] Note the value must be surrounded by quotes. After importing, these Capabilities specifications appear on the Additional Filters tab of the Node Group form.

The valid values for operator are as follows:

=, !=, like, not like (If you need other values, use the Node Group form after importing.)

For more than one capability statement, place a semicolon between statements (for example, capability = "com.hp.ov.nms.isLANSwitch"; capability != "com.hp.ov.nms.isIPv4Router"). Multiple capability statements are AND'ed together. Therefore, all the statements must evaluate to true for each node to be included in the Node Group.

• Column 12(L) : Security Group Details

For example 12345678-1234-1234-123456123456; test_security_group_name

• Column 13(M): Tenant Details

associated with a tenant by name.

For example 12345678-1234-1234-123456123456; test security group name

• Column 14(N): Node Name

Optional. Specify a list of nodes by name that you want to add to this node-group, separated by semicolon ";". To associate this node-group with a node by node-name, include the node names in a list of semicolon-separated values.

For example test_node_name; node_name_2

• Column 15(O) : Add to Filter List

Optional. Sets the Add to Filter List field of the Node Group form.

0 (the default setting) means this Node Group is not available as a filter in NNM iSPI Performance reports.

1 means this Node Group appears in the Optional Filters selection panel of the NNM iSPI Performance reports.

Recommendation: Set this value to 1 only for Node Groups that are needed as filters in NNM iSPI Performance reports.

Use of Microsoft Excel

Microsoft Excel is a useful tool to create comma-separated files, but .csv files do not maintain their column width, comments, and other spreadsheet options. HP recommends that you store a nnmloadnodegroups.ovpl input file as a native .xls format, then complete a File:Save As... command to create a .csv file. You can then add Excel comments to the file, make columns wider, and do not need to escape the comma character. Microsoft Excel also makes it easy to populate the list of child Node Groups. To do this, make column 4(D) contain a calculated value such as the following:

```
=\$A1\&":0;"\&\$A2\&":0;"\&\$A3\&":0;"\&\$A4\&":0;"\&\$A5\&":0;"\&\$A6\&":0;"\&\$A6\&":0;"\&\$A7\&":0;"\&\$A6\&":0;"\&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&\$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6\&":0;"&$A6
```

This example combines the Node Group Names defined in the first column of the first 7 rows, as child Node Groups of the Node Group Name defined in the first cell of the current row. Using this Excel reference, if you rename the child Node Group in the first column, you do not need to go back and change the reference in the parent Node Group's column 4(D). Note that typing a comma in a line after a leading # in Microsoft Excel generates a non-commented entry when the .xls file is saved as a .csv file (creating a Node Group with a Name starting with the # character).

EXAMPLES

Sample CSV file contents:

```
SNMP, Nodes that support SNMP and that are present in Colorado,,,,,server1.myco.com;server2.myco.com,*.hp.com
```

When entering data in CSV files, do not use the separator characters (":" and ";") for other purposes (for example, in the Names - column 1 - of Node Groups). If you need to use the separator characters, escape them with "\". For example:

- "computer:1" must be entered as "computer\:1"
- "computer;1" must be entered as "computer\;1"
- "computer\:1" must be entered as "computer\\\:1"

To load the Node Groups from a CSV file without overwriting any existing Node Group that matches a Name defined in column 1 of your CSV file:

```
nnmloadnodegroups.ovpl -u system -p myadminpasswd -f /tmp/test.csv
```

To load the Node Groups from a CSV file, and overwrite any existing Node Group that matches a Name defined in column 1 of your CSV file (Caution: this is not a merge, it is a complete replacement of that matching Node Group's configuration):

```
nnmloadnodegroups.ovpl -u system -p myadminpasswd -r true -f /tmp/test.csv
```

AUTHOR

nnmloadnodegroups.ovpl was developed by Hewlett Packard Enterprise.

FILES

Windows: %NNM BIN%\nnmloadnodegroups.ovpl

UNIX: \$NNM_BIN/nnmloadnodegroups.ovpl

SEE ALSO

nnmconfigimport.ovpl(1M), nnmloadinterfacegroups.ovpl(1M), nnm.properties(4).

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nnmloadseeds.ovpl — load discovery node seed information

SYNOPSIS

DESCRIPTION

nnmloadseeds.ovpl allows discovery seeds to be loaded using command line arguments (-n option) or from a text file (-f option) or listed (-list option). A seed is a device that you want NNM to use as a starting point for the spiral discovery process. Seed values are either IP addresses or host names. When using the -n option the seeds are entered on the command line, separated by white space. Seeds are always added to NNM even if they do not support SNMP.

The -f option accepts a file with a single entry specified per line. Each line has the following format:

IPAddress/HostName, "Optional Tenant Name or UUID" # (optional comment to help identify the node, if
desired)

Where:

IPAddress = the IP address of the node you wish to add.

HostName = the host name of the node you wish to add.

Tenants can be optionally specified using either the tenant name or tenant UUID. The tenant specification must be contained within quotation marks. The node discovered from the seed will be assigned to the specified tenant. If no tenant is specified, the node will be assigned to the default tenant.

Comments can be deliminated with a # character. Additionally, you can use INCLUDE-FILE filename to include other seedfiles.

If you specify the -t option, the tenant you specify will be used for all nodes passed in via the -n option, or all nodes in the seed file specified with the -f option. If you use -t and -f and your seed file contains seeds with tenants specified, all seeds with specified tenants will be rejected as invalid seeds.

Note that you should set up the SNMP configuration for the devices being loaded before running this command.

Parameters

The nnmloadseeds.ovpl command recognizes the following parameters and options:

Specify a text file to read the seeds from.

Note: The directory and filename of the seed file must be accessible for non-root users.

-n seeds

Specify seeds to load directly from the command line, with each seed separated by a space.

-list

Lists all seeds loaded by NNMi for discovery. The utility uses the standard formats defined for other NNMi tools: TEXT, CSV, XML, or LIST. The fields for the seed data can be limited by specifying: name, tenant, results, modified, and/or notes. These are pseudonyms for the column headers shown in the NNMi UI.

-t tenant name or UUID

Specify the tenant to be used for all seeds being loaded.

-u <username>

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

-p <password>

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

-indiHost <serverName>

The server JNDI host; default is localhost.

-jndiPort <port>

The server JNDI port; default is 1099.

EXAMPLES

Load a list of devices as seeds:

```
nnmloadseeds.ovpl -n mimcisco8540 15.2.112.22
```

Load seed for a node using its fully qualified name with username and password:

```
nnmloadseeds.ovpl -u username -p password -n mimcisco8540.superpoller3.mim
```

Load seeds from a file name that is named seeds_to_load.txt:

```
nnmloadseeds.ovpl -f /tmp/seeds_to_load.txt
```

Load seed for a node using its fully qualified name and specific tenant assignment:

```
nnmloadseeds.ovpl -n mimcisco8540.superpoller3.mim -t Customer1
```

Load seeds from a file name that is named seeds_to_load.txt and assign all seeds to a given tenant:

```
nnmloadseeds.ovpl -f /tmp/seeds_to_load.txt -t Customer2
```

List all loaded seeds in CSV format showing name and results of the seed discovery:

```
nnmloadseeds.ovpl -list -format CSV -fields name, results
```

AUTHOR

nnmloadseeds.ovpl was developed by Hewlett Packard Enterprise.

FILES

Windows: install_dir\bin\nnmloadseeds.ovpl

 $UNIX: $NNM_BIN/nnmloadseeds.ovpl$

SEE ALSO

nnmseeddelete.ovpl(1M), nnmnodedelete.ovpl(1M), nnmnoderediscover.ovpl(1M), nnm.properties(4).

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nnmmanagementmode.ovpl — Change the NNM management mode of one or more nodes or interfaces.

SYNOPSIS

```
nnmmanagementmode.ovpl -node.name <nodename> -mode <mode>
nnmmanagementmode.ovpl -t <object type> -f <csv_filename>
nnmmanagementmode.ovpl -t <object type> -s <csv_line>
nnmmanagementmode.ovpl -t <object type> -f <uuid_file> -mode <mode_spec> [-format <format>] [-fields <fields>]
```

DESCRIPTION

nnmmanagement mode . ovpl allows the system administrator to set the management mode of a node or interface in the NNM database.

Parameters

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

-h

Prints the usage statement.

```
-node.name < nodename >
```

The name of a node to change management mode on.

```
-mode <mode>
```

The desired management mode to set. Valid values are MANAGED, NOTMANAGED, or OUTOFSERVICE for nodes and INHERITED, NOTMANAGED or OUTOFSERVICE for interfaces

```
-mode <MODE_SPEC>
```

When using the input uuid file to perform a batch change the mode argument accepts two styles. The first is a simple mode with values of MANAGED, NOTMANAGED, or OUTOFSERVICE (INHERITED, NOTMANAGED or OUTOFSERVICE for interfaces). The second style consists of a current and new mode in the form <code>CURRENT:NEW</code> where <code>CURRENT</code> and <code>NEW</code> have the same values of MANAGED, NOTMANAGED, or OUTOFSERVICE. In the second form the tool will only update objects that have the supplied current value and skip any that have a different value.

```
-t <object type>
```

Supply the object type to set the management mode on. Valid values are "node" or "interface".

```
-f <csv_filename>
```

Supply the CSV file name (with path, e.g. /opt/tmp/mynodes.csv) from where you want to set the management mode. If the file contains incorrect entries (too many/few columns, incorrect mode) the command will report these but will not execute any of the entries.

```
-b <batch size>
```

If the input comes from a file, the command will process all entries and send the request to the server in chunks specified by this option. The default is 1000 entries at a time.

```
-s <csv_line>
```

Supply a single CSV formatted line. Eliminates the need to create a file for a simple change.

```
-format (csv|list|text|xml)
```

Changes the output format when tabular data is being presented.

```
-fields <comma_separated_fields>
```

Selects the output fields when tabular data is being presented.

```
-jndiHost <hostname>
```

The server indi host; the default is localhost.

```
-jndiPort <port>
```

The server jndi port; the default is auto-detected.

```
-u <username>
```

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

```
-p <password>
```

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

Batch changing management modes

To perform a batch change of management modes the following command may be used. Input to this command is from a file containing the UUIDs of the objects to update and the mode supplied on the command line. All objects listed in the file will be processed according to the supplied mode.

```
nnmmanagementmode.ovpl -t <type> -f <filepath> -mode <MODE_SPEC>
```

In this mode the command output will consist of a table of the input UUIDs and the result code for that object. The result codes are:

• UPDATED - The object has been updated to the new mode.

- NOT_FOUND No object with the specified UUID was found in the system.
- SKIPPED The object did not match the current mode filter.
- NO_CHANGE The object already has the requested mode.
- ACCESS_DENIED The user does not have permission to change the management mode for the object.

For example if the neighbors.txt file contains a list of interface UUIDs each on a single line then the following command would change each of those interfaces to the OUTOFSERVICE mode only if it was currently INHERITED. Interfaces in the UNMANAGED mode would be left unchanged.

nnmmanagementmode.ovpl -t interface -f neighbors.txt -mode INHERITED:OUTOFSERVICE

_		
	UUID	State
	6f988a0f-c759-42d0-8e99-f3adce84fdd7 4dd87c33-9d0d-4713-b484-68c964ede6a6 bc0af80f-d729-40d6-bb2f-ad8bd68e2deb bed3fff5-2385-4b09-9e3a-2572caaa624d bd0723c0-6c53-47b1-ac13-41ecab16994e	UPDATED UPDATED SKIPPED UPDATED UPDATED

Syntax of Comma Separated File for node management mode

The CSV file you supply must have the following syntax for setting management mode on nodes.

Empty lines are ignored.

Lines that begin with the # character are ignored.

All columns are mandatory

• Column 1(A): Node DNS|IP Address

Specify the DNS name of the node OR the IP address. The search algorithm is as follows:

- find a node that has a matching management ip address
- find a node that has a matching ip address in the default domain
- find a node that has a matching host name
- find a node that has a matching name
- Column 2(B) : Management mode

The mode to set the node to. Valid values are "MANAGED", "NOTMANAGED", or "OUTOFSERVICE"

Example lines:

192.168.1.1,OUTOFSERVICE

my.fqdn.com, MANAGED

Syntax of Comma Separated File for interface management mode

The CSV file you supply must have the following syntax for setting management mode on interfaces.

Empty lines are ignored.

Lines that begin with the # character are ignored.

All columns are mandatory

• Column 1(A): Node DNS|IP Address

Specify the DNS name of the node OR the IP address. The search algorithm is the same as specified above.

• Column 2(B): Interface id

Interface Id Specify the identifier of the interface on the node specified in the previous field. The search algorithm is as follows:

- ifIndex
- ifName
- ifAlias
- ifDescription
- Column 3(C): Mode

The management mode to set the interface to. Valid entries are "INHERITED", "NOTMANAGED", or "OUTOFSERVICE"

Example lines:

192.168.1.1,1,OUTOFSERVICE

my.fqdn.com, myAlias, MANAGED

RETURN VALUE

nnmmanagementmode.ovpl exits with the status 0 (zero) if no errors were encountered, 1 otherwise.

AUTHOR

nnmmanagementmode.ovpl was developed by Hewlett Packard Enterprise.

EXTERNAL INFLUENCES

Environmental Variables

Return to Reference Pages Index

nnmmigrateovpi.ovpl — Generates Custom Poller configuration commands for nnmcustompollerconfig.ovpl from OVPI collections.

SYNOPSIS

```
nnmmigrateovpi.ovpl
```

nnmmigrateovpi.ovpl ((-policyName <policy name> -teelFile <file name> -pollInterval <interval> nodeGroup <name>|<uuid> [-type <collection type>] [-ordering <ordering>] [-author <author key>] [filterVariable <mib filter variable>] [-filter <mib filter>]) | (-policyFile <file name> -teelDir
<Directory name>)) [-batchFile <file name>]

DESCRIPTION

This command makes it easier to migrate OVPI's SNMP collections to NNMi's Custom Poller. This command converts the OVPI's SNMP collectable TEEL file into configuration commands for nnmcustompollerconfig.ovpl. The generated output from this command can be used as input to nnmcustompollerconfig.ovpl, which will create the correct Custom Poller configuration.

This command has two basic forms of operation: In the first form, the command reads a single TEEL file and generates commands for nnmcustompollerconfig.ovpl to create a single Custom Poller Policy and an associated Collection. In the second form, the command takes a policy configuration file containing multiple TEEL file names and a directory name that contains the TEEL files as input and generates Custom Poller config commands for creating multiple Custom Poller Policies and associated Collections.

After executing the migration tool, a user should always review the converted Custom Poller configuration commands to verify their validity. One of most important areas to pay attention to is the MIB filtering. Without correct filtering configuration, a Custom Poll may fail. Please read MIB Filtering for more information.

Options

```
-author <author key>
```

The author key for this configuration. The author should already be configured in NNMi. If this option is not given, then the default value of "com.customer.author" is assumed. If the Author does not exist at time of running the commands for nnmcustompollerconfig.ovpl, the default of "com.customer.author" is assumed.

```
-batchFile <file name>
```

Name of the file in which the generated configuration commands for nnmcustompollerconfig.ovpl are written. This file can be used with -batch option of nnmcustompollerconfig.ovpl. If this option is not given, the generated commands are written to standard out.

-filter <mib filter>

The MIB Filter value to be used as the filter for determining the Polling instances.

-filterVariable <mib filter variable>

Required for multiple instance (repeating) MIB Variables only. The MIB Filter Variable is the MIB Variable whose value you want to use as a filter to determine which instances of the MIB Expression to Custom Poll. You must also specify a MIB Filter value when creating the associated policy.

-nodeGroup < nodegroup name >

Name or Uuid of the Node Group. The Node Group must have already been configured in NNMi.

-ordering <ordering>

The priority ordering for the Policy. If this option is not given, a default value for -ordering is used in the generated Custom Poller configuration commands. The default value may not be suitable or correct for the Custom Poller configuration.

-policyFile <file name>

Name of the Policy configuration file. This file contains the information for polling policy creation. This file should be in CSV (comma separated values) format. Please see the section Notes about Policy File Format for more details.

-policyName <policy name>

Name of the Policy configuration.

-pollInterval <interval>

Polling interval expressed in seconds.

-teelDir <directory name>

Name of the directory that contains the TEEL files, which are to be migrated.

-teelFile <file name>

Name of the TEEL file that needs to be migrate to Custom Poller configuration.

-type <collection type>

Collection Type. Must either be "instance" or "bulk". If this option is not given, the default value of "bulk" is assumed.

Notes about Policy File Format

This section explains the CSV format of the policy file.

The CSV format for the policy file is: policy name, Teel File name, poll_interval, Node group, collection Type, ordering, author, filter variable, filter

The first 4 fields are mandatory. The next 5 fields are optional. The optional fields must still be delimited by ','. For example, the following are all valid entries:

```
policy1,teel1,5,nodegroupA,,,,,
policy2,teel2,10,nodegroupB,,2,authorX,,
policy3,teel3,15,nodegroupC,bulk,,authorY,,
policy4,teel4,20,nodegroupD,bulk,3,,,
policy4,teel4,20,nodegroupD,instance,3,..1.3.6.1.2.1.2.2.1.3,6
```

Default values are assumed when the optional fields are not given.

The policy file format is chosen such that it makes it easier to export OVPI collection policy and modify it for use with nnmmigrateovpi.ovpl. The polling policy can be obtained from OVPI by using the OVPI command "collection_manager -export <file name>".

The exported OVPI collection policy file contains the following columns: policy_name, table_name, poll_interval, datapipe_name, poll_from, user_name, server_name, group, group_server, desc

From the exported file from OVPI, one can extract the mandatory fields for the policy file as, cut -f1,2,3,8 -d',' <exported filename> Please note that the "table name" field in the OVPI's exported collection policy is assumed to be same as the TEEL file name, without the "teel". If the TEEL file name is different from the table_name, then you must manually edit the file such that it has correct TEEL file name.

MIB Filtering

For some Custom Poller collections, a MIB filter is required to successfully poll SNMP MIB Expressions. The MIB Filter Variable is the MIB variable value to use as a filter to determine which instances of the MIB expression to Custom Poll. For Custom Poller configuration, if you specify a MIB Filter Variable, you must also specify a MIB Filter (value). Review the NNMi help for more information.

The migration tool has optional arguments to specify the filter variable and filter value. If the user does not supply these arguments, the filter variable defaults to the first OID in the TEEL file and the filter value defaults to an asterisk ("*"). These defaults may not be the desired values so it is important to the user to review the generated configuration commands.

AUTHOR

nnmmigrateovpi.ovpl was developed by Hewlett Packard Enterprise.

FILES

\$NNM_BIN/nnmmigrateovpi.ovpl

SEE ALSO

 $\underline{nnmcustompollerconfig.ovpl}\ (1M)\ .$

nnmnodedelete.ovpl — Remove node(s) and associated data from the NNM topology database

SYNOPSIS

nnmnodedelete.ovpl -help | -node <hostName> | -rm <Regional NNMi management server> | -file <filename> [-u <username> -p <password>] [-jndiHost <hostName> Default: localhost] [-jndiPort <port> Default: 1099]

DESCRIPTION

nnmnodedelete.ovpl removes a node and its associate data like interfaces, ip addresses etc from the system. If this results in empty VLANs and/or subnets they will be removed as well. If incidents point to this node, the Source Node field will be blanked out, but the incidents will not be removed. The node is identified using the hostName field.

The -rm option accepts the name of a Regional NNMi management server. Nodes that are managed by that Regional Manager, will be removed from the local database.

The -file option accepts a file with a single entry specified per line. Each line has the following format:

HostName # (optional comment to help identify the node, if desired) Where: HostName = the host name of the node you wish to add. Comments can be deliminated with a # character.

Parameters

nnmnodedelete.ovpl supports the following options:

-node <hostName>

The host name or the management IP address of the node to delete.

-rm < Regional Manager Name >

The name of the Regional NNMi management server.

-file <fileName>

Specify a text file to read the nodes from.

-u <username>

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

-p <password>

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

```
-jndiHost <serverName>
     The server JNDI host; default is localhost.
-jndiPort <port>
     The server JNDI port; default is 1099.
```

-help

Prints the usage statement.

EXAMPLES

```
nnmnodedelete.ovpl -u username -p password -node myNode
```

Removes the node myNode. (You must provide an NNM username and password.)

```
nnmnodedelete.ovpl -u username -p password -rm myRegionalManager
```

Removes all nodes associated with myRegionalManager (You must provide an NNM username and password.)

```
nnmnodedelete.ovpl -u username -p password -file myFile
```

Reads the nodes specified in the myFile file and attempts to remove them from the database. (You must provide an NNM username and password.)

Diagnostics

nnmnodedelete.ovpl returns the following exit codes:

0

Operation was successful.

1

An error occured; see error message for details.

2

Partly successful but some nodes were not deleted; see error messages for details.

AUTHOR

nnmnodedelete.ovpl was developed by Hewlett Packard Enterprise.

FILES

\$NNM_BIN/nnmnodedelete.ovpl

NOTES

The deleted node could be rediscovered if it was created due to a Auto Discovery Rule. The workaround would be to add the node's ip address to the Excluded IP Addresses entry in the Discovery Configuration form.

SEE ALSO

<u>nnmseeddelete.ovpl(1M)</u>, <u>nnmnoderediscover.ovpl(1M)</u>, <u>nnmtopodump.ovpl(1M)</u>, <u>nnmresetembdb.ovpl(1M)</u>, <u>nnm.properties(4)</u>.

Return to Reference Pages Index

nnmnodegroup.ovpl — Manages node groups and node group hierarchies.

SYNOPSIS

-p <password>] [-quiet]

```
nnmnodegroup.ovpl -?
nnmnodegroup.ovpl -add -group (<name>|<uuid>) [-file <file>|-node <nodeList>] [-deviceType
<deviceType>] [-jndiHost <hostname> Default: localhost] [-jndiPort <port> Default: 1099] [-u <username>
-p <password>] [-quiet]
nnmnodegroup.ovpl -batch <source> [-jndiHost <hostname> Default: localhost] [-jndiPort <port> Default:
1099] [-u <username> -p <password>] [-quiet]
nnmnodegroup.ovpl -create -name < name > [-file < file > | -node < nodeList > ] [-filter < filter > ] [-notes
<notes>] [-parent <parent> [-expand (true|false)]] [-uuid <uuid>] [-addToPerfSPIReports (true|false)] [-
addToViewFilterList (true|false)] [-calculateStatus (true|false)] [-deviceType <deviceType>] [-jndiHost
<hostname> Default: localhost] [-jndiPort <port> Default: 1099] [-u <username> -p <password>] [-quiet]
nnmnodegroup.ovpl -delete -group (<name>|<uuid>) [-jndiHost <hostname> Default: localhost] [-jndiPort
<port> Default: 1099] [-u <username> -p <password>] [-quiet]
nnmnodegroup.ovpl -list [-fields <fields>] [-format <format>] [-jndiHost <hostname> Default: localhost]
[-jndiPort <port> Default: 1099] [-u <username> -p <password>] [-quiet]
nnmnodegroup.ovpl -listChildGroups -group < group > [-fields < fields >] [-format < format >] [-indiHost
<hostname> Default: localhost] [-jndiPort <port> Default: 1099] [-u <username> -p <password>] [-quiet]
nnmnodegroup.ovpl -listMembers -group (<name>|<uuid>) [-deep] [-fields <fields>] [-format <format>]
[-jndiHost <hostname> Default: localhost] [-jndiPort <port> Default: 1099] [-u <username> -p
<password>] [-quiet]
nnmnodegroup.ovpl -listParentGroups -group < group > [-fields < fields >] [-format < format >] [-jndiHost
<hostname> Default: localhost] [-indiPort <port> Default: 1099] [-u <username> -p <password>] [-quiet]
nnmnodegroup.ovpl -printNodes <group name> [ -hostName | -shortName | -uuid | -ip ] [-jndiHost
<hostname> Default: localhost] [-indiPort <port> Default: 1099] [-u <username> -p <password>] [-quiet]
nnmnodegroup.ovpl -relate -child <child> -parent <parent> [-expand (true|false)] [-jndiHost <hostname>
Default: localhost] [-jndiPort <port> Default: 1099] [-u <username> -p <password>] [-quiet]
nnmnodegroup.ovpl-reload [-jndiHost <hostname> Default: localhost] [-jndiPort <port> Default: 1099] [-u
<username> -p <password>] [-quiet]
nnmnodegroup.ovpl -remove -group (<name>|<uuid>) [-file <file>|-node <nodeList>] [-deviceType
<deviceType>] [-jndiHost <hostname> Default: localhost] [-jndiPort <port> Default: 1099] [-u <username>
```

nnmnodegroup.ovpl -unrelate -child <child> -parent <parent> [-jndiHost <hostname> Default: localhost]

[-indiPort <port> Default: 1099] [-u <username> -p <password>] [-quiet]

nnmnodegroup.ovpl -update -group (<name>|<uuid>) [-addToPerfSPIReports (true|false)] [-addToViewFilterList (true|false)] [-calculateStatus (true|false)] [-deviceType <deviceType>] [-filter <filter>] [-name <name>] [-notes <notes>] [-jndiHost <hostname> Default: localhost] [-jndiPort <port> Default: 1099] [-u <username> -p <password>] [-quiet]

DESCRIPTION

Use the nnmnodegroup.ovpl script to manage node group and node group hierarchies. This script allows you to create, update, and delete node groups; create and delete node group hierarchies; and manage nodes associated with node groups by allowing you to add nodes or configure the node group filters.

nnmnodegroup.ovpl provides multiple listing operations, including the following:

- List the information and hiearchy for node groups by listing either the child node groups or parent node groups.
- Use the -listMembers operation to list the nodes in the node group.
- Use the -list operation to list all node groups in the database.

The -printNodes operation will print node attributes belonging to a certain node group. When printing the node attributes, the group name is a required argument; if no other arguments are given, the hostName, shortName, UUID and management IP address attributes of each node are dumped; one comma-separated line per node. Note that the -printNodes command is a deprecated/legacy command which was available in earlier NNMi versions and its usage retained for backwards compatibility. As such you must specify the leading dash character, i.e. -printNodes will work, but printNodes will not. The new listMembers command is the replacement for printNodes.

Parameters

nnmnodegroup.ovpl supports the following options:

```
-add -group (<name>|<uuid>) [-file <file>|-node <nodeList>] [-deviceType <deviceType>]
```

Adds nodes or device type filters to a node group. At least one additional argument must be specified in addition to the group argument.

```
-group (<name>|<uuid>)
```

The name or UUID of the node group.

```
-file <file>
```

A text file that can contain node names, UUIDs, and IP addresses.

```
-node <nodeList>
```

A comma-separated list of node names, UUIDs, and IP addresses.

```
-deviceType <deviceType>
```

Used for selecting nodes for the node group. The deviceType parameter is a semicolon-separated list of strings, each having a format of category:vendor:family:profile

-batch < source >

Runs the script in batch mode with the supplied input file or \"-\" to read from standard input.

source

The source can be either - (for standard input) or a file.

```
-create -name <node group name> [-addToPerfSPIReports (true|false)] [-addToViewFilterList
(true|false)] [-calculateStatus (true|false)] [-deviceType <deviceType>] [-expand
(true|false)] [-file <file>|-node <nodeList>] [-filter <filter>] [-notes <notes>] [-parent
cparent>] [-uuid <uuid>]
```

Creates a new node group.

```
-name < name >
```

The name of the node group being created.

```
-addToPerfSPIReports (true | false)
```

Allows the node group to be a filter for NNM iSPI Performance for Metrics reports. Changing this flag will have no effect unless an NNM iSPI Performance for Metrics license is installed.

```
-addToViewFilterList (true|false)
```

Includes the node group in the drop-down filter list when viewing tables.

```
-calculateStatus (true|false)
```

Allows the node group to have its status calculated.

```
-deviceType <deviceType>
```

Used for selecting nodes for the node group. The deviceType parameter is a semicolon-separated list of strings, each having the format of category:vendor:family:profile

```
-expand (true|false)
```

Expands the node group in its parent map. The -parent option must be specified.

```
-file <file>
```

A text file that can contain node names, UUIDs, and IP addresses.

```
-filter <filter>
```

A filter expression used for selecting nodes in the node group. Nodes whose attributes match the expression will be included in the group.

```
-node < nodeList>
```

A comma-separated list of node names, UUIDs, and IP addresses.

```
-notes <notes>
```

Notes to attach to the node group.

```
-parent parent>
```

The name of a parent node group if the node group you are adding is being added as a child node

```
group.
      -uuid <uuid>
           The UUID to be assigned to the node group.
-delete -group (<name>|<uuid>)
     Deletes the node group.
      -group (<name>|<uuid>)
           The name or UUID of the node group being deleted.
-list [-fields <fields>] [-format <format>]
     Print the names of the node groups in the database.
     -fields <fields>
           Selects the output fields for table data as a comma-separated list.
      -format <format>
           Sets the output format for table data; valid values are TEXT, LIST, CSV or XML.
-listChildGroups -group <group> [-fields <fields>] [-format <format>]
     List child node groups for the specified node group.
      -group <group>
           The name of the node group to list children for.
     -fields <fields>
           Selects the output fields for table data as a comma-separated list.
      -format <format>
           Sets the output format for table data; valid values are TEXT, LIST, CSV or XML.
-listMembers -group (<name>|<uuid>) [-deep] [-fields <fields>] [-format <format>]
     Print nodes in the specified node group.
     -group (<name>|<uuid>)
           The name or UUID of the node group.
      -deep
           By default, listMembers will only list the nodes of the node group. The -deep option will list all
           nodes in the node group and all child node groups.
     -fields <fields>
           Selects the output fields for table data as a comma-separated list.
      -format <format>
```

Sets the output format for table data; valid values are TEXT, LIST, CSV or XML.

```
-listParentGroups -group <group> [-fields <fields>] [-format <format>]
```

List parent node groups for the specified node group.

```
-group <group>
```

The name of the node group to list parent groups for.

```
-fields <fields>
```

Selects the output fields for table data as a comma-separated list.

```
-format <format>
```

Sets the output format for table data; valid values are TEXT, LIST, CSV or XML.

```
-printNodes <node group name> [-hostName | -shortName | -uuid | -ip]
```

Prints attributes of nodes belonging to the specified node group. If no additional parameters are provided, the hostName, shortName, UUID and management IP address attributes of each node will be printed; one comma-separated line per node.

Optionally, one of the following parameters can be specified (only the specified attribute will be printed):

-hostName

Prints the hostName of each node belonging to the node group.

-shortName

Prints the shortName of each node belonging to the node group.

-uuid

Prints the UUID of each node belonging to the node group.

-ip

Prints the management IP address of each node belonging to the node group. If the IP address cannot be determined, the hostname will be printed.

```
-relate -child <child> -parent <parent> [-expand (true|false)]
```

Link a node group to another node group to create a parent and child relationship.

```
-child <child>
```

The name of the child node group.

```
-parent <parent>
```

The name of the parent node group.

```
-expand (true|false)
```

Expands the node group in maps.

Reloads the node group cache. This operation may be required when adding or removing nodes by either updating the list of additional nodes or by updating the filters for node groups, as the cache may not reflect the changes for several minutes.

The reload operation cannot be used as part of a batch operation because other operations might be committed only after the batch operation completes. The reload operation can be run as a separate command after the batch operation in order to refresh the cache.

```
-remove -group (<name>|<uuid>) [-file <file>|-node <nodeList>] [-deviceType <deviceType>]
```

Removes nodes from a node group. At least one additional argument must be specified in addition to the group argument.

```
-group (<name>|<uuid>)
```

The name or UUID of the node group.

```
-file <file>
```

A text file that can contain node names, UUIDs, and IP addresses.

```
-node < nodeList>
```

A comma-separated list of node names, UUIDs, and IP addresses.

```
-deviceType <deviceType>
```

Used for selecting nodes for the node group. The deviceType parameter is a semicolon-separated list of strings, each having the format of category:vendor:family:profile

```
-unrelate -child <child> -parent <parent>
```

Removes the node group hierarchy between a child and parent node group.

```
-child <child>
```

The name of the child node group.

```
-parent <parent>
```

The name of the parent node group.

```
-update -group (<name>|<uuid>) [-addToPerfSPIReports (true|false)] [-addToViewFilterList
(true|false)] [-calculateStatus (true|false)] [-deviceType <deviceType>] [-filter
<filter>] [-name <newName>] [-notes <notes>]
```

Set attributes on a node group. At least one additional argument must be specified in addition to the group argument.

```
-group (<name>|<uuid>)
```

The name or UUID of the node group.

```
-addToPerfSPIReports (true | false)
```

Allows the node group to be a filter for NNM iSPI Performance for Metrics reports. Changing this flag will have no effect unless an NNM iSPI Performance for Metrics license is installed.

```
-addToViewFilterList (true|false)
```

Includes the node group in the drop-down filter list when viewing tables.

```
-calculateStatus (true|false)
```

Allows the node group to have its status calculated.

```
-deviceType <deviceType>
```

Used for selecting nodes for the node group. The deviceType parameter is a semicolon-separated list of strings, each having the format of category:vendor:family:profile

```
-filter <filter>
```

A filter expression used for selecting nodes in the node group. Nodes whose attributes match the expression will be included in the group.

```
-name < newName >
```

Changes the name of the node group to the specified newName.

```
-notes < notes >
```

Notes to attach to the node group.

-help

Prints the usage statement.

```
-u <username>
```

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

```
-p <password>
```

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

```
-indiHost
```

The server JNDI host: default is localhost.

```
-jndiPort
```

The server JNDI port; default is 1099.

EXAMPLES

To create a node group named mygroup:

```
nnmnodegroup.ovpl -create -name mygroup
```

To create a node group named mygroup2 with nodes a and b:

```
nnmnodegroup.ovpl -create -name mygroup -node "a,b"
```

To create a node group hierarchy with mygroup as the parent and mygroup2 as the child:

```
nnmnodegroup.ovpl -relate -parent mygroup -child mygroup2
```

To print the hostName, shortName, UUID and management IP address of all nodes that belong to the node group Routers:

```
nnmnodegroup.ovpl -printNodes Routers
```

To print only the hostname of all nodes that belong to the node group Non-SNMP Devices:

```
nnmnodegroup.ovpl -printNodes "Non-SNMP Devices" -hostName
```

To list the node group names in the database:

```
nnmnodegroup.ovpl -list
```

To change the name of an existing node group and also change its calculate status to false:

```
nnmnodegroup.ovpl -update -group myGroup -name newName -calculateStatus false
```

RETURN VALUE

nnmnodegroup.ovpl exits with the status 0 (zero) if no errors were encountered; otherwise it returns 1.

AUTHOR

nnmnodegroup.ovpl was developed by Hewlett Packard Enterprise.

FILES

\$NNM BIN/nnmnodegroup.ovpl

nnmnodegroupmapsettings.ovpl — Command line tool used to create, update, modify, and delete Node Group Map Settings.

SYNOPSIS

```
nnmnodegroupmapsettings.ovpl -u <user> -p p password> [-?]

-create -nodeGroup <NODEGROUP> [<OPTIONS>]

-delete (-nodeGroup <NODEGROUP>]) | -uuid <UUID>
-exists (-nodeGroup <NODEGROUP>]) | -uuid <UUID>
-list [-nodeGroup <NODEGROUP> | -uuid <UUID>] [-format <FORMAT>]

-update (-nodeGroup <NODEGROUP> | -uuid <UUID>) [<OPTIONS>]

<OPTIONS> ::= -bgImage <BGIMAGE> -bgScale <BGSCALE> -connThresh <CONN_THRESHOLD> -connType

<CONNTYPE>
-ifaceFilter <IFACE_FILTER> -isConnNodeGroups <IS_CONN_NODE_GROUPS> -isConnNodes

<IS_CONN_NODES> -isL2conn <IS_L2CONN>
-isShowIncidents <IS_SHOW_INCIDENTS> -isVisio <IS_VISIO> -isL2connEdit <IS_L2CONN_EDIT>

<-isNeighborConn > <-neighborConnFilter > -mapRefresh <MAP_REFRESH>
-maxEndpoints <MAX_ENDPOINTS> -maxNodes <MAX_NODES> -nodeGroup <NODEGROUP> -order <ORDER>
-role <ROLE>
```

DESCRIPTION

nnmnodegroupmapsettings.ovpl is a command line tool used to create, update, modify and delete Node Group Map Settings. Node Group Map Settings are created individually for a Node Group. Node Group Map Settings may be updated or deleted by the Node Group name or UUID or the Map Settings UUID. Additionally Settings can be listed verbosely by any Node Group to the screen, or formatted into various formats such as CSV or XML.

Parameters

nnmnodegroupmapsettings.ovpl supports the following options:

-?

Prints the usage statement.

```
-u <username>
```

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

```
-p <password>
```

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

-batch < BATCH>

The name of a text file that contains a list of batch commands to be executed when running the nodegroupmapsettings.ovpl command in batch mode. The file can contain blank lines or comments beginning with "#" character. Any remaining lines are considered to be valid for Node Group Map Settings.

-bgImage <string>

Name of a background image file to be associated with the Node Group Map.

-bgScale <float>

Scale for a background image file to be associated with the Node Group Map. Interpreted as a floating point value. Default value is 1.0

-connThresh < number >

Multiple connection threshold. The maximum number of connections between Nodes or Node Groups before the connection is collapsed into a Multiconnection

-connType <string>

Connection type. Type of connection to be displayed in the associated Node Group Map. Valid values are "none", "L2" or "L3". Arguments will be interpreted in a case-insensitive manner. Default value is "none".

-create

Create new Node Group Map Settings for the specified Node Group.

-delete

Delete the specified Node Group Map Settings.

-exists

Determines whether or not Node Group Map Settings exist for the specified Node Group. Displays "true" if the Node Group Map Settings exist; otherwise "false";

-format <style>

Format to list the output, currently 'text', 'list', 'csv' and 'xml' are available.

-ifaceFilter <string>

The name of an endpoint interface filter to applied to the contents of the associated Node Group Map.

-isConnNodeGroups (true|false)

Flag indicating whether or not Node Groups are to be connected on the associated Node Group Map. Interpreted as a boolean value. "True" in all combinations of case will be interpreted as true, while all other argument values will be interpreted as false.

-isConnNodes (true|false)

Flag indicating whether or not Nodes are to be connected on the associated Node Group Map. Interpreted as a boolean value. "True" in all combinations of case will be interpreted as true, while all other argument values will be interpreted as false.

```
-isL2Conn (true|false)
```

Flag indicating whether or not Layer 2 connections determined by IPv4 Subnet Connection Rules are displayed on the associated Node Group Map. Interpreted as a boolean value. "True" in all combinations of case will be interpreted as true, while all other argument values will be interpreted as false.

```
-isL2ConnEdit (true|false)
```

Flag indicating whether or not Layer 2 connection edits added usin gthe nnmconnedit.ovpl command line tool are to be displayd on the associated Node Group Map. Interpreted as a boolean value. "True" in all combinations of case will be interpreted as true, while all other argument values will be interpreted as false.

```
-isNeighborConn (true|false)
```

Flag indicating whether or not additional connections to key networking devices (one hop away) which are not members of the Node Group will be added. Interpreted as a boolean value. "True" in all combinations of case will be interpreted as true, while all other argument values will be interpreted as false. Neighbor connections are restricted to device categories defined in the neighborConnFilter argument. If no filter is provided the Networking Infrastructure Devices Node Group will be used as a filter. Any child node group device filters will be ignored.

```
-isShowIncidents (true|false)
```

Flag indicating whether or not Incidents should be displayed on the associated Node Group Map. Interpreted as a boolean value. "True" in all combinations of case will be interpreted as true, while all other argument values will be interpreted as false.

```
-isVisio (true|false)
```

Flag indicating whether or not Visio export from the associated Node Group Map is supported. Interpreted as a boolean value. "True" in all combinations of case will be interpreted as true, while all other argument values will be interpreted as false.

```
-mapRefresh < interval>
```

Map refresh interval in minutes and seconds. Format is mmMssS, where mm is a number from 0 to 59 and ss is a number from 0 to 59. Examples: 59M59S (the maximum value), 1S (1 second), 5M (5 minutes), 5M30S (5 minutes 30 seconds)

```
-maxEndpoints < number >
```

The maximum number of endpoints to be displayed on the associated Node Group Map.

```
-maxNodes < number >
```

The maximum number of nodes to be displayed on the associated Node Group Map.

```
-neighborConnFilter < number>
```

A Node Group which will act as a filter for displaying one hop neighbor nodes that do not belong to the node group in Node Group Maps. Any Device Filters defined for the Node Group will be applied to candidate neighbor nodes. IMPORTANT NOTE - Child Node Groups will be ignored when applying the filter. Also see the description above for the isNeighborConn argument.

```
-nodeGroup (<name>|<uuid>)
```

Node Group name or UUID.

-list

List Node Group Map Settings information for the specified Node Group name or UUID, or list all settings for all Node Groups if no Node Group name or UUID are specified.

-order < number >

Priority order specified as an integer for the Node Group Map Settings. The lower the number the higher the priority. (e.g. 1 is higher priority than 10)

-role <string>

User role required to access the Node Group Map Settings. Valid values include "admin", "client", "level1", "level2", "guest". Arguments will be interpreted in a case-insensitive manner. Default value is "admin".

-update

Update the specified Node Group Map Settings. Specify the argument without a value to set a Node Group Map Settings field to null. For example,

nnnodegroupmapsettings.ovpl -update =nodeGroup Routers =ifaceFilter

wpi;d set the endpoint interface filter to null. The nodeGroup, connType, and role fields are required fields and cannot be set to null.

-uuid

UUID of the Node Group Map Settings.

FORMATTING RULES

As mentioned above, when specifying a Node Group name, enclose the name in double quotes if there are spaces present. (e.g. "Important Nodes"

EXAMPLES

Create Node Group Map Settings showing only the required arguments:

nnmnodegroupmapsettings.ovpl create -nodegroup Routers -connType L3 -role admin

Create Node Group Map Settings showing the optional arguments:

nnmnodegroupmapsettings.ovpl create -nodegroup Switches -connType L2 -role guest -bgImage /images/Colorado.png -bgScale .75 -connThresh 3 -ifaceFilter "VLAN Interfaces" - isConnNodeGroups true -isConnNodes t -isL2conn true -isVisio f -isL2connEdit True - mapRefresh 5M -maxEndpoints 200 -maxNodes 100 -order 10 -role admin

List the Node Group Map Settings for the specified Node Group. The attribute data are displayed in a table.

nnmnodegroupmapsettings.ovpl list -nodegroup "Important Nodes"

List all of the Node Group Map Settings. The attribute data are displayed in a table.

nnmnodegroupmapsettings.ovpl list

List Node Group Map Settings for the specified Node Group in CSV format

nnmnodegroupmapsettings.ovpl list -nodeGroup "Non-SNMP Devices" -format csv

Delete Node Group Map Settings by Node Group name.

nnmnodegroupmapsettings.ovpl delete -nodegroup "Routers"

Delete Node Group Map Settings by the UUID of the settings.

nnmnodegroupmapsettings.ovpl delete -uuid 204846c0-a35b-4a92-9726-4ce0a8be596d

Update the Node Group Map Settings for a Node Group.

nnmnodegroupmapsettings.ovpl update -nodegroup Routers -bgImage /images/Denver.png -bgScale .75 -connThresh 2 -ifaceFilter "Point to Point Interface" -isConnNodeGroups true -isConnNodes t -isL2conn false -isVisio T -isL2connEdit False -mapRefresh 4M30S -maxEndpoints 200 -maxNodes 100 -order 15 -role admin

AUTHOR

nnmnodegroupmapsettings.ovpl was developed by Hewlett Packard Enterprise.

FILES

\$NNM_BIN/nnmnodegroupmapsettings.ovpl

SEE ALSO

nnmnoderediscover.ovpl — Discover node details after the node has changed

SYNOPSIS

nnmnoderediscover.ovpl -help | -node <hostName> [-tenant <name>] [-fullsync] | -rm <Regional NNMi management server> [-fullsync] | -file <filename> [-tenant <name>] [-fullsync] | -all [-fullsync] [-u <username> -p <password>] [-jndiHost <hostName> Default: localhost] [-jndiPort <port> Default: 1099]

DESCRIPTION

nnmnoderediscover.ovpl places node(s) into the NNMi discovery queue. The amount of time before the node starts discovery is dependent on how long NNMi takes to get to the node in the queue.

If the node is already in the discovery queue, it is not added again.

Note that when using the NNMi Advanced Global Network Management feature, nodes that are managed by a Regional Manager only go through discovery on the Regional Manager (NNMi management station) and are not rediscovered by the Global Manager.

The -rm option is for the NNMi Advanced Global Network Management feature. It is used when issuing the nnmnoderediscover.ovpl script on a Global Manager. NNMi requests that the Regional Manager (NNMi management server) send the most recent discovery results to the Global Manager.

The -file option accepts a file with a single entry specified per line. Each line contains a short name, or a fully-qualified DNS domain name, or an IP address. Each line has the following format: HostName # (optional comment to help identify the node) Where: HostName = the short name or DNS name or IP address of the node you want to add.

The -all option causes all nodes managed by the local NNMi management server to be rediscovered. Note that when you use the NNMi Advanced Global Network Management feature and issue the nnmnoderediscover.ovpl script on a Global Manager, the most recent discovery results are sent from the Regional Manager to the Global Manager.

The -tenant option identifies nodes with non-unique names or IP addresses such as might can the case with overlapping address domains. The name passed with the argument is the quoted tenant name.

The -fullsync option causes resynchronization to the node's states and status following the rediscovery of the node. When run from a Global Manager, the Global Manager's nodes are updated from the Regional Manager's nodes. When run from a Regional Manager, the command does a resynchronization for the regional node(s) and also does a resynchronization on the Global Manager for those nodes that belong to the given Regional Manager. This is an optional flag, which does not affect the algorithm for choosing which nodes are of rediscovered.

Parameters

nnmnoderediscover.ovpl supports the following options:

-node <hostName>

The hostname of the node to rediscover.

-rm < Regional Manager Name >

When using the NNMi Advanced Global Network Management feature and issuing the nnmnoderediscover.ovpl script on a Global Manager, the Name attribute value identifies a Regional NNMi management server.

-file <fileName>

Specifies a text file to read the nodes from.

-all

Specifies all nodes are to be rediscovered.

-tenant < name >

Optional parameter that when paired with a node name or IP will identify the node in domains where the name or IP can be non-unique.

-fullsync

Optional parameter that directs NNMi to resynchronize a node's states and status following the rediscovery of each node.

-u <username>

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

-p <password>

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

-jndiHost <serverName>

The server JNDI host; default is localhost.

-jndiPort <port>

The server JNDI port; default is 1099.

-help

Displays the usage statement.

EXAMPLES

nnmnoderediscover.ovpl -u username -p password -node myNode -tenant myTenant

Rediscovers the node myNode that is a member of the tenant myTenant. You must provide a valid administrator username and password.

```
nnmnoderediscover.ovpl -u username -p password -rm myRegionalManager
```

Rediscovers all nodes associated with myRegionalManager. You must supply a valid NNMi administrator username and password.

```
nnmnoderediscover.ovpl -u username -p password -file myFile -fullsync
```

Reads the nodes specified in the myFile file and places them into the NNMi discovery queue. Following the rediscovery of each node, the state and status for the node will be resynchronized. You must provide a valid adminstrator username and password.

Diagnostics

nnmnoderediscover.ovpl returns the following exit codes:

0

Operation was successful.

1

An error occurred; see error message for details.

AUTHOR

nnmnoderediscover.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

nnmdiscocfg.ovpl(1M), nnmloadseeds.ovpl(1M), nnmseeddelete.ovpl(1M), nnm.properties(4).

nnmofficialfqdn.ovpl — Display the official Fully Qualified Domain Name (FQDN) of the NNMi management server.

SYNOPSIS

nnmofficialfqdn.ovpl

DESCRIPTION

Use nnmofficialfqdn.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 with NNM iSPIs. NNMi sets the official FQDN during installation. After installation, you can change it using the nnmsetofficialfqdn.ovpl command.

Options

nnmofficialfqdn.ovpl by default displays verbose output with a ping test. nnmofficialfqdn.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, NNMi does not display a value; otherwise, NNMi 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. NNMi 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:

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:

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

AUTHOR

 ${\tt nnmofficialfqdn.ovpl}\ was\ developed\ by\ Hewlett\ Packard\ Enterprise.$

FILES

nnmofficialfqdn.ovpl resides in \$NNM_BIN directory.

SEE ALSO

nnmsetofficialfqdn.ovpl(1M), nnmsso.ovpl(1M).

disco.NoVLANIndexing — Specifies certain nodes where VLAN Indexing should be skipped during discovery polling.

SYNOPSIS

disco.NoVLANIndexing

DESCRIPTION

One of the methods NNMi uses to learn layer 2 connectivity between and among switch devices in a managed network is to retrieve the dotldTpFdbTable (FDB) from the switches. However, for Cisco switches, NNMi must use a VLAN-indexing method to retrieve the entire FDB. Using this method, NNMi retrieves the FDB once for each configured VLAN on the Cisco device. If there is a large number of VLANs configured on each device, retrieving the FDB with VLAN-indexing might take a very long time, sometimes even hours, to complete.

Cisco switches are often configured to use the Cisco Discovery Protocol (CDP). CDP is considered to be a superior method for learning layer 2 connectivity. Large switches located in the in the core of the network might contain many VLANs. These switches typically do not have end nodes connected directly to them. If the switches you want to manage do not have end nodes connected directly to them, you might want to suppress the collection of the FDB on these large switches. NNMi still completes the layer 2 discovery using data collected from CDP. These large switches are prime candidates for suppression of VLAN-indexing. Do not suppress VLAN-indexing on smaller switches located at the network's edge (often known as access switches) that have many end nodes attached to them.

You can configure NNMi to suppress VLAN indexing. To do this, the NNMi administrator needs to create the disco.NoVLANIndexing file, where the name of the file is case-sensitive. The ovjboss service reads the disco.NoVLANIndexing file when it starts. If the NNMi administrator makes changes to the disco.NoVLANIndexing file after the ovjboss service starts, those changes will not take effect until the next time the ovjboss service starts. By default, the disco.NoVLANIndexing file does not exist. If the disco.NoVLANIndexing does not exist, this feature is disabled and NNMi attempts to use VLAN-indexing to collect the entire FDB table on all devices.

The disco.NoVLANIndexing file can contain IP addresses, IP address ranges, and comments. A comment consists of the pound (or hash) sign (#) and all characters between # and the end of the line. NNMi treats an empty line as a comment. IP addresses are specified in the standard IP version 4 dotted-decimal notation or standard IP version 6 format (RFC 2373).

For details on the format of IP address ranges, see the *Configure Address Ranges for Regions* section of the NNMi help.

NNMi considers a node to match if one of the listed IP addresses matches a node's management address. Other IP addresses hosted by the node are not considered. If a node matches one of the addresses in the disco.NoVLanIndexing file, NNMi collects only the default FDB (the FDB which is accessible by using the community string with no @vlan-id suffix appended).

Disabling the collecting of the entire FDB might cause some inaccuracies in the layer 2 layout of the

managed network. HP is not responsible for these inaccuracies. Carefully consider which switches you include in the disco.NoVLANIndexing file.

EXAMPLES

The following is an example of a disco. NoVLANIndexing file:

AUTHOR

disco.NoVLANIndexing was developed by Hewlett Packard Enterprise.

FILES

```
$NnmDataDir/shared/nnm/conf/disco/disco.NoVLANIndexing
%NnmDataDir%\shared\nnm\conf\disco\disco.NoVLANIndexing
```

SEE ALSO

See the *Maintaining NNMi* chapter in the newest version of the *NNMi Deployment Reference* for more information.

See the *Configure Address Ranges for Regions* section of the NNMi help.

disco.SkipXdpProcessing — Contains a list of management IP addresses for nodes NNMi should not query for discovery protocol information.

SYNOPSIS

disco.SkipXdpProcessing

DESCRIPTION

One method NNMi uses to discover layer 2 connectivity between and among network devices in a managed network is to collect information from the devices related to their discovery protocols. There are many defined discovery protocols. For example, Link Layer Discovery Protocol (LLDP) is an industry standard protocol, while there are many vendor-specific protocols like Cisco Discovery Protocol (CDP) for Cisco devices. These are all handled by NNMi discovery in the xdpAnalyzer.

You can configure NNMi to suppress discovery protocol collections for devices you specify. This feature makes use of a configuration file, disco.SkipXdpProcessing, that the NNMi administrator creates. The name of the file is case-sensitive. The ovjboss service reads the disco.SkipXdpProcessing when it starts up. If the NNMi administrator makes changes to this file after the ovjboss service starts up, those changes will not take effect until the next time the ovjboss service starts. By default, the disco.SkipXdpProcessing file does not exist. If the disco.SkipXdpProcessing does not exist, this feature is disabled and NNMi attempts to collect discovery protocol information from all managed nodes.

For more information about the known problems fixed by this feature, refer to the SEE ALSO section below.

The disco.SkipxdpProcessing file can contain IP addresses and comments. A comment consists of the pound (or hash) sign (#) and all characters between # and the end of the line. NNMi treats an empty line as a comment. Specify IP addresses in the standard IP version 4 dotted-decimal notation or standard IP version 6 format (RFC 2373).

NNMi considers a node to match if one of the listed IP addresses matches a node's management address. Other IP addresses hosted by the node are not considered. If a node matches one of the addresses in the disco.SkipXdpProcessing file, NNMi skips the XdpAnalyzer service for that node and does not collect discovery protocol information.

Disabling the discovery protocol processing of a node or nodes might cause some inaccuracies in the layer 2 layout of the managed network. HP is not responsible for these inaccuracies.

EXAMPLES

The following is an example of a disco. SkipXdpProcessing file:

 $\#This\ entry\ supresses\ the\ XdpAnalyzer\ processing\ for\ the\ node\ whose\ management\ address\ is\ 10.2.37.149\ 10.2.37.149$

192.168.100.1 #This entry causes the node 192.168.100.1 to be skipped, too

Here are some examples of IPv6 addresses:
 2136::8:800:200C:417a
 fd01::a352:1245:fc4B

AUTHOR

disco.SkipXdpProcessing was developed by Hewlett Packard Enterprise.

FILES

\$NnmDataDir/shared/nnm/conf/disco/disco.SkipXdpProcessing
%NnmDataDir%\shared\nnm\conf\disco\disco.SkipXdpProcessing

SEE ALSO

See the *Maintaining NNMi* chapter in the newest version of the *NNMi Deployment Reference* for more information.

hostnolookup.conf — file containing hostnames or hostname wildcards that should not be resolved to IP addresses using the system IP name server

SYNOPSIS

hostnolookup.conf

DESCRIPTION

hostnolookup.conf is a file used by the ovjboss process to determine whether a hostname should be resolved to an IP address using the system IP name server. The ovjboss process attempts to match a hostname against each entry in the hostnolookup.conf file before attempting to resolve the hostname to an IP address. If a match is found, the ovjboss process does not attempt to resolve the hostname to an IP address using the system IP name server.

Add entries to the file containing one hostname or hostname wildcard. Each entry must be on a single line. To add comments, place a number sign (#) in front of the comment. That causes the remainder of the line to be ignored. You can add blank lines to the hostnolookup.conf file.

Use the hostnolookup.conf file if you determine that a specific hostname (or set of hostnames) cannot be resolved to an IP address using the systems IP name server.

The administrator must create the hostnolookup.conf file. It does not exist by default.

If you modify the hostnolookup.conf file while the ovjboss process is running, use the \$NnmInstallDir/support/nmsdnssync.ovpl script to load the updated file. The nmsdnssync.ovpl script also reloads the ipnolookup.conf file.

EXAMPLES

The following is an example of a hostnolookup.conf file:

A single hostname
badsys.mydomain.mycorp.com
An IP wildcard
*.baddomain.mycorp.com

In the first example, the system name is bad in some way, causing some DNS servers to respond with unexpected results. In the second example, there is a domain that cannot be resolved. Adding these entries to the hostnolookup.conf file stops NNMi from attempting to resolve the hostnames.

AUTHOR

hostnolookup.conf was developed by Hewlett Packard Enterprise.

FILES

%NNM_DATA%\shared\nnm\conf\hostnolookup.conf
\$NNM_DATA/shared/nnm/conf/hostnolookup.conf

SEE ALSO

ipnolookup.conf(4).

ipnolookup.conf — file containing IP addresses or IP wildcards that should not be resolved to hostnames using the system IP name server

SYNOPSIS

ipnolookup.conf

DESCRIPTION

ipnolookup.conf is a file used by all NNMi processes to determine whether an IP address should be resolved to a hostname using the system IP name server. NNMi processes attempt to match an IP address against each entry in the ipnolookup.conf file before attempting to resolve the IP address to a hostname. If a match is found, the NNMi process does not attempt to resolve the IP address to a hostname using the system IP name server.

Add entries to the file containing one IP address or IP wildcard per line. Each entry must be on a single line. To add comments, place a number sign (#) in front of the comment. This causes the remainder of the line to be ignored. You can add blank lines to the ipnolookup.conf file.

Use the ipnolookup.conf file when you determine that a specific IP address (or range of IP addresses) cannot be resolved to a hostname using the system IP name server.

The administrator must create the ipnolookup.conf file. It does not exist by default.

If you modify the ipnolookup.conf file while NNMi processes are running, run the \$NnmInstallDir/support/nmsdnssync.ovpl script with no arguments to load the modifications you made to the ipnolookup.conf file.

EXAMPLES

The following is an example of a ipnolookup.conf file:

```
# A single IP address
192.168.1.100
# An IP wildcard
10.*.*.*
# An IP wildcard range
192.168.1.101-255
```

In the first example, the single IP address could be routed to the Internet because many web sites use a 192.168.*.* IP address. In the second example, the IP wildcard range could be NAT addresses. As such, they are not suitable for communications. In the third example, the IP wildcard range could be a set of addresses used for some purpose other than the primary IP address.

AUTHOR

ipnolookup.conf was developed by Hewlett Packard Enterprise.

FILES

UNIX: \$NNM_DATA/shared/nnm/conf/ipnolookup.conf

SEE ALSO

hostnolookup.conf(4).

macdedupexceptions.txt — file containing sysObjectId values for types of nodes that are to be considered exceptions to the mac-address-based node deduplication logic

SYNOPSIS

macdedupexceptions.txt

DESCRIPTION

NNMi uses a number of complex algorithms to detect that a node being processed is really a duplicate of another node in the database. In some cases, NNMi compares MAC addresses to try to determine if a node has received a new IP address due to a DHCP lease expiring. This might cause issues with some network devices such as firewalls and loadbalancers. There are some cases where these devices might use common IP addresses and MAC addresses across multiple distinct devices. Normally, NNMi distinguishes between these devices by seeing that the SNMP sysName is different. However, there are also cases where the SNMP sysName can not be made different. In these cases, NNMi might delete one of the devices from the database claiming that it is a duplicate.

For devices such as these loadbalancers and firewalls, NNMi can be told to modify its de-duplication algorithm by listing these devices' SNMP sysObjectId values in the macdedupexceptions.txt file. Devices that are good candidates for inclusion in this file have the following characteristics:

- The device must not obtain its IP address from a DHCP server. Its IP address should be statically assigned.
- The device must use a unique management IP address.

The following are examples of devices where this configuration file can prove useful:

- The device is configured in a redundant configuration with another device that uses some common IP and MAC addresses, and shares a common SNMP sysName.
- The device is a physical device that supports several virtual instances, where each instance might be using similar IP and MAC addresses, and sharing a common SNMP sysName.

HP recommends that the NNMi administrator only add entries to this file if they are needed to have devices properly discovered. Adding entries which are not needed may cause unexpected results.

The file can contain one or more SNMP sysObjectId values, one value per line. Lines starting with a # are treated as comment lines, as are blank lines. Also, a comment can follow a sysObjectId, starting with a # to the end of the line. White-space in front of or following a sysObjectId is ignored. And a leading dot (.) on the sysObjectId value is optional.

This file does not exist by default. If it is needed, the NNMi administrator must create it. The file is read by NNMi at startup time. Any changes made after NNMi starts will not be active until NNMi is re-started.

EXAMPLES

The following is an example of a macdedupexceptions.txt file:

```
# F5 BIG-IP Pb200 loadbalancer device
.1.3.6.1.4.1.3375.2.1.3.4.19

1.3.6.1.4.1.9.1.1291 #Cisco ACE Service Module
```

AUTHOR

macdedupexceptions.txt was developed by Hewlett Packard Enterprise.

FILES

Windows: %NNM_DATA%\shared\nnm\conf\disco\macdedupexceptions.txt

 \emph{UNIX} : \$NNM_DATA/shared/nnm/conf/disco/macdedupexceptions.txt

nnm.ports — The following information shows the ports the NNMi management server listens on. In the case of port conflicts, you can change many of these port numbers.

SYNOPSIS

nnm.ports

There is no command synopsis. The *nnm.ports* reference page documents the well-known ports you can change by modifying the nms-local.properties file.

DESCRIPTION

To change these port numbers, follow these steps:

- 1. Edit the %NnmDataDir%\conf\nnm\props\nms-local.properties (Windows) or /var/opt/OV/conf/nnm/props/nms-local.properties (Unix) file to modify the ports used by NNMi.
- 2. Identify the line containing the port number you need to change.
- 3. If necessary, remove the #! characters at the beginning of the line.
- 4. Modify the port number; then save your changes.
- 5. From a command prompt, run ovstop, then ovstart to restart NNMi.

The following ports are currently defined:

nmsas.server.port.web.http=80

This TCP port is used as the default HTTP port for Web UI and Web Services. The installation script prompts you to set this value during the NNMi installation. You can change this port value by modifying the nms-local.properties file or during NNMi installation.

nmsas.server.port.web.https=443

This TCP port is used as the default secure HTTPS port (SSL) for Web UI and Web Services. The installation script prompts you to set this value during the NNMi installation.

nmsas.server.port.naming.rmi=1098

This is the default TCP port of the RMI naming service.

nmsas.server.port.remoting.ejb3 =1099

This TCP port is the default listening port for the bootstrap JNP service (JNDI provider).

nmsas.server.port.remoting.ejb3=3873

This TCP port is used for remote access by command line tools running on the global NNMi management server.

nmsas.server.port.jmx.jrmp=4444

This TCP port is the RMI Object port (Java Remote Method Protocol) used by RMI to transfer data (JRMP invoker).

nmsas.server.port.jmx.rmi=4445

This TCP port is the default port (invoker port) used when pooling RMI requests.

nmsas.server.port.invoker.unified=4446

This TCP port is the default RMI remoting server connector port. The jboss Remoting service uses this port.

nmsas.server.port.hq=4457

This TCP port is used for un-encrypted Global Network Management traffic.

nmsas.server.port.hq.ssl=4459

This TCP port is used for encrypted Global Network Management traffic.

nmsas.server.port.ts.recovery=4712

This TCP port is an internal transaction service port used by NNMi.

nmsas.server.port.ts.status=4713

This TCP port is an internal transaction service port used by NNMi.

nmsas.server.port.ts.id=4714

This TCP port is an internal transaction service port used by NNMi.

com.hp.ov.nms.postgres.port=5432

This TCP port is the port the embedded database listens on for this NNMi management server (PostgreSQL port).

AUTHOR

nnm.ports was developed by Hewlett Packard Enterprise.

FILES

Windows: %NnmDataDir%\conf\nnm\props\nms-local.properties

UNIX: /var/opt/OV/conf/nnm/props/nms-local.properties

SEE ALSO

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

nnm.properties — file containing the username and password for command line tools

SYNOPSIS

nnm.properties

DESCRIPTION

If you frequently run NNMi command line tools, HP recommends you create an nnm.properties file. This file contains a username and password that you can use in place of the -u and -p command line options. Using the nnm.properties file, you can run many commands without entering your password. The nnm.properties file contains an encrypted version of the password and should be created by running the nnmsetcmduserpw.ovpl script. Never manually edit the nnm.properties file. The nnmsetcmduserpw.ovpl script creates or edits a file placed in an .nnm subdirectory under your home directory at the following locations:

- Windows: drive: \Documents and Settings\username \.nnm\
- *UNIX*: ~/.nnm/

The contents of this file must be defined as follows:

nnm.username

The account user name.

nnm.password

The account encrypted password.

Most command line tools require an administrative user with an admin role assigned to the tool.

AUTHOR

nnm.properties was developed by Hewlett Packard Enterprise.

FILES

The environment variable below represents a universal path that is established according to your shell and platform requirements:

Windows: drive: \Documents and Settings\username\.nnm\nnm.properties

UNIX: \$HOME/.nnm/nnm.properties

SEE ALSO

nnmsetcmduserpw.ovpl(1).

ldap.properties — file containing the settings for communicating with and building LDAP queries to the directory service

SYNOPSIS

ldap.properties

DESCRIPTION

For detailed information about the contents of the ldap.properties file, see the *Integrating NNMi with a Directory Service through LDAP* chapter of the *NNMi Deployment Reference*.

After modifying this file, run the nnmldap.ovpl -reload command to reload the configuration.

AUTHOR

ldap.properties was developed by Hewlett Packard Enterprise.

FILES

Windows: %NNM_SHARED_CONF%\ldap.properties

UNIX: \$NNM_SHARED_CONF/ldap.properties

SEE ALSO

nnmldap.ovpl(1M).

nnmtrapd.conf — Filter file to block traps based on IP address or OID

SYNOPSIS

nnmtrapd.conf

DESCRIPTION

nnmtrapd.conf file can be used to configure filters to block traps based on both IP address and trap OID.

The filters are entered one per line. Each filter consists of an IP address, range or wildcard followed by one or more comma separated list of trap OIDs or range of trap OIDs or wildcards.

The format of the filter is:

```
<IP Address, OID[,OID]*>
```

IP Address could be a single IP Address or a pattern in prefix/prefix-length notation or range-wildcard notation. The special notation of "*" indicates all addresses. You may not combine the prefix/prefix-length notation with the range-wildcard notation in the same address. Host name cannot be specified instead of an address. Every filter entry should have a unique address (single, wild card or range). Examples of addresses in prefix/prefix-length notation are:

```
10.2.112.0/20
1080:0:a00::/44
```

The same addresses in range-wildcard notations are:

```
10.2.112-127.*
1080:0:a00-a0f:*:*:*:*
```

The trap OID can also be specified as a range or as wildcard. However, you may only use either a range or a wildcard in one OID. Only the last sub OID of an OID can be specified as a wildcard or range. The special notation ".*" indicates all OIDs. Some examples are:

```
.1.3.6.1.4.1.11.2.17.1.0.58915834-58915868
.1.3.6.1.4.1.11.*
```

For generic traps like link up, you can append the enterprise OID of the vendor to the trap OID for blocking a specific vendor. Conversely, to block a generic trap from all vendors you need to append a wildcard to the trap OID.

Blocking all traps from all address is not allowed. So the following entry is ignored:

```
<*, .*>
```

To apply filter changes to the running configuration, use the following command:

```
nnmtrapconfig.ovpl -readFilter
```

EXAMPLES

The following example blocks all generic traps from all subnets in the range 10.2.120 to 10.2.127:

```
<10.2.120.0/21, .1.3.6.1.6.3.1.1.5.*>
```

The following example blocks link up traps from all devices in the 10.6.112/21 subnet whose enterprise OID is .1.3.6.1.4.1.11.2.3.7.11.17:

```
<10.6.112.0/21, .1.3.6.1.6.3.1.1.5.4.1.3.6.1.4.1.11.2.3.7.11.17>
```

The following example blocks link up traps from all devices in the 10.6.112/21 subnet.

```
<10.6.112.0/21, .1.3.6.1.6.3.1.1.5.4.*>
```

The following example blocks all traps under the OID .1.3.6.1.4.1.11.2.17 and the authentication failure trap from a single IPv6 address.

```
<1080::8:800:200c:417a, .1.3.6.1.4.1.11.2.17.*, .1.3.6.1.6.3.1.1.5.5.*>
```

AUTHOR

nnmtrapd.conf was developed by Hewlett Packard Enterprise.

FILES

\$NnmDataDir/shared/nnm/conf/nnmtrapd.conf

SEE ALSO

nnmtrapconfig.ovpl(1M).

trapFilter.conf — Filter file to block traps based on IP address or OID

SYNOPSIS

trapFilter.conf

DESCRIPTION

Use the trapFilter.conf file to configure filters to block traps based on both IP address and trap OID. This is similar to using the nnmtrapd.conf file, except that traps blocked by the trapFilter.conf file do not get stored in the trap binary store, nor are they used to analyze trap rates. Trap rates are not affected by incoming traps blocked by the trapFilter.conf. file. NNMi does not store incoming traps blocked by the trapFilter.conf file.

Enter the filters one filter per line. Each filter consists of an IP address, range, or wildcard followed by one or more comma separated trap OIDs, range of trap OIDs, or wildcards.

The format of the filter is as follows:

```
<IP Address, OID[,OID]*>
```

TP Address could be a single IP Address or a pattern in prefix/prefix-length notation or range-wildcard notation. The special notation of "*" indicates all addresses. Do not combine the prefix/prefix-length notation with the range-wildcard notation in the same address. Do not specify the hostname instead of an address. Every filter entry should have a unique address (single, wildcard, or range). Examples of addresses in prefix/prefix-length notation are as follows:

```
10.2.112.0/20
1080:0:a00::/44
```

The same addresses in range-wildcard notations are:

```
10.2.112-127.*
1080:0:a00-a0f:*:*:*:*
```

Specify the trap OID as a range or as wildcard. Only use a range or a wildcard in one OID. Only specify the last sub OID of an OID as a wildcard or range. The special notation ".*" indicates all OIDs. Some examples are as follows:

```
.1.3.6.1.4.1.11.2.17.1.0.58915834-58915868
.1.3.6.1.4.1.11.*
```

For generic traps like linkup, you can append the enterprise OID of the vendor to the trap OID for blocking a specific vendor. Conversely, to block a generic trap from all vendors you need to append a wildcard to the trap OID.

Blocking all traps from all addresses is not allowed. So the following entry is ignored:

```
<*, .*>
```

To apply filter changes to the running configuration, use the following command:

```
nnmtrapconfig.ovpl -readFilter
```

EXAMPLES

The following example blocks all generic traps from all subnets in the range 10.2.120 to 10.2.127:

```
<10.2.120.0/21, .1.3.6.1.6.3.1.1.5.*>
```

The following example blocks link up traps from all devices in the 10.6.112/21 subnet whose enterprise OID is .1.3.6.1.4.1.11.2.3.7.11.17:

```
<10.6.112.0/21, .1.3.6.1.6.3.1.1.5.4.1.3.6.1.4.1.11.2.3.7.11.17>
```

The following example blocks link up traps from all devices in the 10.6.112/21 subnet.

```
<10.6.112.0/21, .1.3.6.1.6.3.1.1.5.4.*>
```

The following example blocks all traps under the OID .1.3.6.1.4.1.11.2.17 and the authentication failure trap from a single IPv6 address.

```
<1080::8:800:200c:417a, .1.3.6.1.4.1.11.2.17.*, .1.3.6.1.6.3.1.1.5.5.*>
```

AUTHOR

trapFilter.conf was developed by Hewlett Packard Enterprise.

FILES

\$NnmDataDir/shared/nnm/conf/trapFilter.conf

SEE ALSO

nnmtrapconfig.ovpl(1M).

hosted-object-trapstorm.conf — Configuration file for hosted object trap storm detection and suppression. Block sets of traps by a hosted object's overall trap rate.

SYNOPSIS

hosted-object-trapstorm.conf

DESCRIPTION

Use the hosted-object-trapstorm.conf file to configure filters to block traps from hosted objects. Configure groups of trapOID to varbindOID pairs for blocking. When a trap is processed by this filter, the trap's source device is resolved by the configured varbindOID. The statistical tracker for the resolved hosted object is checked to ensure that its trap rate is below a configurable threshold. If the trap rate is above the threshold, the trap is dropped.

A message is logged to nnm-trace.#.#.log when a trap is dropped. Traps blocked by the hosted-object-trapstorm.conf file do not get stored in the trap binary store. Traps blocked by the hosted-object-trapstorm.conf file do not affect trap rates. NNMi does not store traps blocked by the hosted-object-trapstorm.conf file.

Configuration blocks are used to accomplish configuration, and can span multiple lines. Configuration blocks consist of the following comma separated values: GroupID, TrapOID, VarbindOID.

The format of a configuration block is as follows:

```
<GroupID, TrapOID, VarbindOID [,TrapOID, VarbindOID]*>
```

The following rules govern configuration blocks:

```
    All entries are separated by ","
    Never start a configuration line with a ","
    If a configuration line does not end with a "," then a comma is implied.
    Any text following "#" is considered a comment and will not be parsed.
    Comments are allowed within the configuration block.
    Configuration blocks must contain a GroupID; this is the first entry in the configuration block.
    Configuration blocks may contain one or more TrapOID, VarbindOID pairs.
```

GroupID is the first entry in the configuration block. If a GroupID contains a ", " or ">" these symbols must be preceded by "/". GroupIDs may not contain "#". The GroupID does not have to be unique. However, to avoid inconsistent mapping it is recommended that all configuration blocks start with a unique GroupID.

TrapOID / VarbindOID are OIDPattern pairs. A TrapOID is always followed by a VarbindOID. The OIDPattern format follows:

```
Invalid OID Patterns:
    .* (Which matches all OIDs is not allowed)
    .1.3.5-4.3.1 (Range must be low to high)
    .1.3.4-5.3.1-3 (Contains 2 ranges)
    .1.3.*.4.1 (wild cards can only occur at the end of the pattern)
```

For generic traps like linkup, you can append the enterprise OID of the vendor to the trap OID for configuration to a specific vendor. Conversely, to configure a generic trap from all vendors you need to append a wild card to the trap OID.

Resolving all traps is not allowed. So the following OIDPattern is ignored: .*

EXAMPLES

The following configuration will allow the filter to detect trap storms from CiscoModuleDown traps, on a ModuleIndex basis.

```
< ModuleID=, .1.3.6.1.4.1.9.5.0.4, .1.3.6.1.4.1.9.5.1.3.1.1.1.* >
```

The following configuration will allow the filter to detect trap storms from both CiscoModuleDown and CiscoModuleUp traps. Like the first example, these traps are normalized to the ModuleIndex

```
< ModuleID=, .1.3.6.1.4.1.9.5.0.4, .1.3.6.1.4.1.9.5.1.3.1.1.1.*
.1.3.6.1.4.1.9.5.0.3, .1.3.6.1.4.1.9.5.1.3.1.1.1.* >
```

The following configuration will allow the filter to detect trap storms from both CiscoModuleDown and CiscoModuleUp traps. This configuration is less verbose than the previous example.

```
< ModuleID=, .1.3.6.1.4.1.9.5.0.3-4, .1.3.6.1.4.1.9.5.1.3.1.1.1.* >
```

This configuration will allow the filter to detect trap storms from both CiscoModuleDown and CiscoModuleUp traps, this configuration will also block all sub CiscoModule Down/Up traps. It is recommended that this pattern be followed. Devices sometimes append additional information on to the trapOID. Without this wild card those traps would not be considered for trap storm analysis.

```
< ModuleID=, .1.3.6.1.4.1.9.5.0.3-4.*, .1.3.6.1.4.1.9.5.1.3.1.1.1.* >
```

The default configuration, which spans multiple lines and has embedded comments, follows. This configuration allows the filter to detect the 2 generic SNMP traps: snmpLinkUp and snmpLinkDown, on an InterfaceIndex basis.

AUTHOR

hosted-object-trapstorm.conf was developed by Hewlett Packard Enterprise.

FILES

SEE ALSO

nnmtrapconfig.ovpl(1M).

nnmincidentcfg.format — file containing incident configurations that can be loaded into the NNMi database. This file format is created by nnmincidentcfgdump.ovpl and loaded into the database by nnmincidentcfgload.ovpl

SYNOPSIS

nnmincidentcfg.format

DESCRIPTION

The nnmincidentcfg.format file contains NNMi incident configurations that can be loaded into the NNMi database. This file uses a required set of tags to identify its content.

Each configuration must start with one of the following configuration type tags that identify the five possible incident configuration types.

```
*ConfigurationType=MgmtEventConfig
*ConfigurationType=PairwiseConfig
*ConfigurationType=SnmpTrapConfig
*ConfigurationType=SyslogMessageConfig
```

When editing the incident configurations, note the following:

```
*The pound sign (#) denote comments.
*All comments must appear before the configuration type tag.
*If a pound sign (#) appears within the configuration data, it is treated as part of the
current tag's value.
*Comments are not saved in the NNMi database. Therefore, they do not appear in the output
from a subsequent nnmincidentdump.ovpl command.
*All tags that appear after a configuration type tag are considered to be part of the
configuration for that incident configuration type.
*You can modify any tag that begins with a dash (-).
*You cannot modify any tags that begin with an asterisk (*) after they have been imported
for the first time.
*(OPTIONAL) denotes that a tag is optional.
*Brackets ([]) indicate that the tag value must comply with a specified format or list of
valid values.
*Tags that are annotated with the text "(Direct child tags may occur multiple times)" are
a placeholder for a list of child configuration tags.
*The UUID tag is optional. UUIDs are used by NNMi as unique database identifiers. Do not
define UUIDs in a configuration file.
*NNMi creates Label tags if you do not provide them.
*Tags that require a Key/Label result in a validation error under the following
circumstances:
*You do not provide either the Key and Label value.
*NNMi is unable to determine the Label from the Key value provided.
```

Note the following exception: NNMi assigns "Customer" as the Author Key and Label value for any incident configuration that is changed.

Before loading an numincident efg. format file, try the following recommended process:

- Use the nnmincidentcfgdump.ovpl command with the -name option to select an example incident configuration that is the type of incident you want to edit.
 Examine the output so that you can identify the tag hierarchy.
 After you are familiar with the file format, locate the incident configuration type in
- 3. After you are familiar with the file format, locate the incident configuration type in the list of examples below, determine the type of change you want to make, and insert the information where is it required.

```
4. Validate your changes using the nnmincidentcfgload.ovpl -validate command. 5. Test your changes by loading the file into the NNMi database using the nnmincidentcfgload.ovpl -import command.
```

NOTE: The nnmincidentcfgload.ovpl command generates errors for those values that do not match the required format.

FILES

NNMi provides example configuration files and a description of the valid formats in the following directory:

```
Windows: install_dir\examples\nnm\incidentcfg
UNIX: /opt/OV/examples/nnm/incidentcfg
```

EXAMPLES

Create a management event configuration using only the required tags:

Add an enrichment configuration to the management event incident:

Configure a syslog message incident configuration that has comments before the configuration type tag:

PAIRWISE CONFIGURATION FORMAT

The following example contains the valid format for PairwiseConfig configuration types.

```
*ConfigurationType=PairwiseConfig (ROOT TAG)
    -SetOfPairItems (OPTIONAL TAG) (Direct child tags may occur multiple times)
        -SetOfPairItem (OPTIONAL TAG)
            -FirstInPair
            -FirstParamType
            -SecondInPair
            -SecondParamType
            *UUID (OPTIONAL TAG)
   -Author
        -Label (OPTIONAL TAG)
    -DeleteWhenClosed (OPTIONAL TAG)
   -Description (OPTIONAL TAG)
   -Duration
    -Enable (OPTIONAL TAG)
   -FirstIncidentConfigRef
        -Type = [MgmtEventConfig, SnmpTrapConfig, SyslogMessageConfig]
   -FirstIncidentName
    -FirstIncidentPayloadFilter (OPTIONAL TAG)
        -Expression [Format = Formatted Expression String]
        *UUID (OPTIONAL TAG)
   -SecondIncidentConfigRef
        -Key
        -Type = [MgmtEventConfig, SnmpTrapConfig, SyslogMessageConfig]
   -SecondIncidentName
    -SecondIncidentPayloadFilter (OPTIONAL TAG)
        -Expression [Format = Formatted Expression String]
        *UUID (OPTIONAL TAG)
```

MANAGEMENT EVENT CONFIGURATION FORMAT

The following example contains the valid format for MgmtEventConfig configuration types.

```
*ConfigurationType=MgmtEventConfig (ROOT TAG)
    *Name
    *Oid
    -Author
        -Label (OPTIONAL TAG)
    -Category
        -Kev
        -Label (OPTIONAL TAG)
    -Enable (OPTIONAL TAG)
    -ActionConfiguration (OPTIONAL TAG)
        -Enable (OPTIONAL TAG)
        *UUID (OPTIONAL TAG)
        -Actions (OPTIONAL TAG) (Direct child tags may occur multiple times)
            -Action (OPTIONAL TAG)
                 -Command (OPTIONAL TAG)
                 -CommandType
                 -LifecycleState = [Registered, InProgress, Completed, Closed, Dampened]
                 *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
-Expression [Format = Formatted Expression String]
                     *UUID (OPTIONAL TAG)
    -DampenConfiguration (OPTIONAL TAG)
        -Enable (OPTIONAL TAG)
        -HourInterval
        -MinuteInterval
        -SecondInterval
```

```
*UUID (OPTIONAL TAG)
    -PayloadFilter (OPTIONAL TAG)
        -Expression [Format = Formatted Expression String]
        *UUID (OPTIONAL TAG)
-DedupConfiguration (OPTIONAL TAG)
    -ComparisonCriteria
    -CorrelationIncidentConfig (OPTIONAL TAG)
        *Name
    -DedupCount (OPTIONAL TAG)
    -Enable (OPTIONAL TAG)
    -HourInterval (OPTIONAL TAG)
    -MinuteInterval (OPTIONAL TAG)
    -SecondInterval (OPTIONAL TAG)
    *UUID (OPTIONAL TAG)
   -ComparisonParamList (OPTIONAL TAG) (Direct child tags may occur multiple times)
        -ComparisonParam (OPTIONAL TAG)
            -ParamType (OPTIONAL TAG)
            -ParamValue
            *UUID (OPTIONAL TAG)
-Description (OPTIONAL TAG)
-Family
   -Kev
    -Label (OPTIONAL TAG)
-MessageFormat
-Severity
-EnrichConfiguration (OPTIONAL TAG)
    -Enable (OPTIONAL TAG)
    *UUID (OPTIONAL TAG)
    -Enrichments (OPTIONAL TAG) (Direct child tags may occur multiple times)
        -Enrichment (OPTIONAL TAG)
            -AssignedTo (OPTIONAL TAG)
            -Category (OPTIONAL TAG)
                -Key
                -Label (OPTIONAL TAG)
            -Description (OPTIONAL TAG)
            -Family (OPTIONAL TAG)
                -Key
                -Label (OPTIONAL TAG)
            -MessageFormat (OPTIONAL TAG)
            -Nature (OPTIONAL TAG)
            *UUID (OPTIONAL TAG)
            -PayloadFilter (OPTIONAL TAG)
                 -Expression [Format = Formatted Expression String]
                *UUID (OPTIONAL TAG)
            -Priority (OPTIONAL TAG)
                -Kev
                -Label (OPTIONAL TAG)
            -EnrichCias (OPTIONAL TAG) (Direct child tags may occur multiple times)
                -EnrichCia (OPTIONAL TAG)
                     -CiaName
                    -EnrichCiaType
                    -Expression [Format = Formatted Expression String]
                    *UUID (OPTIONAL TAG)
            -Severity (OPTIONAL TAG)
-SuppressConfiguration (OPTIONAL TAG)
    -Enable (OPTIONAL TAG)
    *UUID (OPTIONAL TAG)
    -PayloadFilter (OPTIONAL TAG)
        -Expression [Format = Formatted Expression String]
        *UUID (OPTIONAL TAG)
-InterfaceGroups (OPTIONAL TAG) (Direct child tags may occur multiple times)
    -InterfaceGroup (OPTIONAL TAG)
        -Enable
        *UUID (OPTIONAL TAG)
        -DampenConfiguration
            -Enable (OPTIONAL TAG)
            -HourInterval
            -MinuteInterval
            -SecondInterval
            *UUID (OPTIONAL TAG)
            -PayloadFilter (OPTIONAL TAG)
                 -Expression [Format = Formatted Expression String]
                *UUID (OPTIONAL TAG)
        -EnrichConfiguration
            -Enable (OPTIONAL TAG)
            *UUID (OPTIONAL TAG)
            -Enrichments (OPTIONAL TAG) (Direct child tags may occur multiple times)
                -Enrichment (OPTIONAL TAG)
                     -AssignedTo (OPTIONAL TAG)
```

```
-Category (OPTIONAL TAG)
                            -Key
                             -Label (OPTIONAL TAG)
                        -Description (OPTIONAL TAG)
                        -Family (OPTIONAL TAG)
                             -Key
                             -Label (OPTIONAL TAG)
                        -MessageFormat (OPTIONAL TAG)
                        -Nature (OPTIONAL TAG)
                         *UUID (OPTIONAL TAG)
                         -PayloadFilter (OPTIONAL TAG)
                             -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
                        -Priority (OPTIONAL TAG)
                             -Kev
                             -Label (OPTIONAL TAG)
                        -EnrichCias (OPTIONAL TAG) (Direct child tags may occur multiple
times)
                             -EnrichCia (OPTIONAL TAG)
                                 -CiaName
                                 -EnrichCiaType
                                 -Expression [Format = Formatted Expression String]
                                 *UUID (OPTIONAL TAG)
                         -Severity (OPTIONAL TAG)
            *InterfaceGroup
            -Ordering
            -ActionConfiguration
                 -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -Actions (OPTIONAL TAG) (Direct child tags may occur multiple times)
                     -Action (OPTIONAL TAG)
                         -Command (OPTIONAL TAG)
                        -CommandType
                        -LifecycleState = [Registered, InProgress, Completed, Closed,
Dampened]
                        *UUID (OPTIONAL TAG)
                        -PayloadFilter (OPTIONAL TAG)
                             -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
            -SuppressConfiguration
                -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
                     -Expression [Format = Formatted Expression String]
                     *UUID (OPTIONAL TAG)
    -NodeGroups (OPTIONAL TAG) (Direct child tags may occur multiple times)
        -NodeGroup (OPTIONAL TAG)
            -Enable (OPTIONAL TAG)
            *UUID (OPTIONAL TAG)
            -DampenConfiguration (OPTIONAL TAG)
                -Enable (OPTIONAL TAG)
                -HourInterval
                -MinuteInterval
                -SecondInterval
                *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
                     -Expression [Format = Formatted Expression String]
                     *UUID (OPTIONAL TAG)
            -EnrichConfiguration (OPTIONAL TAG)
                -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -Enrichments (OPTIONAL TAG) (Direct child tags may occur multiple times)
                    -Enrichment (OPTIONAL TAG)
                         -AssignedTo (OPTIONAL TAG)
                        -Category (OPTIONAL TAG)
                             -Kev
                             -Label (OPTIONAL TAG)
                         -Description (OPTIONAL TAG)
                        -Family (OPTIONAL TAG)
                             -Key
                             -Label (OPTIONAL TAG)
                        -MessageFormat (OPTIONAL TAG)
                        -Nature (OPTIONAL TAG)
                        *UUID (OPTIONAL TAG)
                        -PayloadFilter (OPTIONAL TAG)
                             -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
                        -Priority (OPTIONAL TAG)
                             -Key
```

```
-Label (OPTIONAL TAG)
                        -EnrichCias (OPTIONAL TAG) (Direct child tags may occur multiple
times)
                             -EnrichCia (OPTIONAL TAG)
                                 -CiaName
                                 -EnrichCiaType
                                 -Expression [Format = Formatted Expression String]
                                 *UUID (OPTIONAL TAG)
                         -Severity (OPTIONAL TAG)
            -FlowDefinitions (OPTIONAL TAG) (Direct child tags may occur multiple times)
                -FlowDefinition (OPTIONAL TAG)
                    -Enable (OPTIONAL TAG)
                    *FlowDefinition
                    -LifecycleState
                        -Key
                         -Label (OPTIONAL TAG)
                    *UUID (OPTIONAL TAG)
            *NodeGroup
            -Ordering
            -ActionConfiguration (OPTIONAL TAG)
                 -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -Actions (OPTIONAL TAG) (Direct child tags may occur multiple times)
                    -Action (OPTIONAL TAG)
                         -Command (OPTIONAL TAG)
                        -CommandType
                        -LifecycleState = [Registered, InProgress, Completed, Closed,
Dampened]
                        *UUID (OPTIONAL TAG)
                        -PayloadFilter (OPTIONAL TAG)
                             -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
            -SuppressConfiguration (OPTIONAL TAG)
                -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
                     -Expression [Format = Formatted Expression String]
                    *UUID (OPTIONAL TAG)
    -RateConfiguration (OPTIONAL TAG)
        -ComparisonCriteria
        -CorrelationIncidentConfig (OPTIONAL TAG)
            *Name
        -Enable (OPTIONAL TAG)
        -HourInterval (OPTIONAL TAG)
        -MinuteInterval (OPTIONAL TAG)
        -RateCount (OPTIONAL TAG)
        -SecondInterval (OPTIONAL TAG)
        *UUID (OPTIONAL TAG)
        -ComparisonParamList (OPTIONAL TAG) (Direct child tags may occur multiple times)
            -ComparisonParam (OPTIONAL TAG)
                -ParamType (OPTIONAL TAG)
                -ParamValue
                *UUID (OPTIONAL TAG)
```

SNMP TRAP CONFIGURATION FORMAT

The following example contains the valid format for SnmpTrapConfig configuration types.

```
*ConfigurationType=SnmpTrapConfig (ROOT TAG)
    *Name
    *Oid
    -Author
        -Key
        -Label (OPTIONAL TAG)
    -Category
        -Kev
        -Label (OPTIONAL TAG)
    -Enable (OPTIONAL TAG)
    -ActionConfiguration (OPTIONAL TAG)
        -Enable (OPTIONAL TAG)
        *UUID (OPTIONAL TAG)
        -Actions (OPTIONAL TAG) (Direct child tags may occur multiple times)
            -Action (OPTIONAL TAG)
                -Command (OPTIONAL TAG)
                -CommandType
```

```
-LifecycleState = [Registered, InProgress, Completed, Closed, Dampened]
            *UUID (OPTIONAL TAG)
            -PayloadFilter (OPTIONAL TAG)
                 -Expression [Format = Formatted Expression String]
                *UUID (OPTIONAL TAG)
-DampenConfiguration (OPTIONAL TAG)
    -Enable (OPTIONAL TAG)
    -HourInterval
    -MinuteInterval
    -SecondInterval
    *UUID (OPTIONAL TAG)
    -PayloadFilter (OPTIONAL TAG)
        -Expression [Format = Formatted Expression String]
        *UUID (OPTIONAL TAG)
-DedupConfiguration (OPTIONAL TAG)
    -ComparisonCriteria
    -CorrelationIncidentConfig (OPTIONAL TAG)
        *Name
    -DedupCount (OPTIONAL TAG)
    -Enable (OPTIONAL TAG)
    -HourInterval (OPTIONAL TAG)
    -MinuteInterval (OPTIONAL TAG)
    -SecondInterval (OPTIONAL TAG)
    *UUID (OPTIONAL TAG)
   -ComparisonParamList (OPTIONAL TAG) (Direct child tags may occur multiple times)
        -ComparisonParam (OPTIONAL TAG)
            -ParamType (OPTIONAL TAG)
            -ParamValue
            *UUID (OPTIONAL TAG)
-Description (OPTIONAL TAG)
-Family
    -Key
    -Label (OPTIONAL TAG)
-GeoCentralForwardConfiguration (OPTIONAL TAG)
    -Enable (OPTIONAL TAG)
    *UUID (OPTIONAL TAG)
    -PayloadFilter (OPTIONAL TAG)
        -Expression [Format = Formatted Expression String]
        *UUID (OPTIONAL TAG)
-MessageFormat
-Severity
-EnrichConfiguration (OPTIONAL TAG)
    -Enable (OPTIONAL TAG)
    *UUID (OPTIONAL TAG)
    -Enrichments (OPTIONAL TAG) (Direct child tags may occur multiple times)
        -Enrichment (OPTIONAL TAG)
            -AssignedTo (OPTIONAL TAG)
            -Category (OPTIONAL TAG)
                -Kev
                -Label (OPTIONAL TAG)
            -Description (OPTIONAL TAG)
            -Family (OPTIONAL TAG)
                -Label (OPTIONAL TAG)
            -MessageFormat (OPTIONAL TAG)
            -Nature (OPTIONAL TAG)
            *UUID (OPTIONAL TAG)
            -PayloadFilter (OPTIONAL TAG)
                -Expression [Format = Formatted Expression String]
                *UUID (OPTIONAL TAG)
            -Priority (OPTIONAL TAG)
                -Key
                -Label (OPTIONAL TAG)
            -EnrichCias (OPTIONAL TAG) (Direct child tags may occur multiple times)
                -EnrichCia (OPTIONAL TAG)
                    -CiaName
                    -EnrichCiaType
                    -Expression [Format = Formatted Expression String]
                    *UUID (OPTIONAL TAG)
            -Severity (OPTIONAL TAG)
-SuppressConfiguration (OPTIONAL TAG)
    -Enable (OPTIONAL TAG)
    *UUID (OPTIONAL TAG)
    -PayloadFilter (OPTIONAL TAG)
        -Expression [Format = Formatted Expression String]
        *UUID (OPTIONAL TAG)
-InterfaceGroups (OPTIONAL TAG) (Direct child tags may occur multiple times)
    -InterfaceGroup (OPTIONAL TAG)
        -Enable
```

```
*UUID (OPTIONAL TAG)
            -DampenConfiguration
                -Enable (OPTIONAL TAG)
                -HourInterval
                -MinuteInterval
                -SecondInterval
                *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
                     -Expression [Format = Formatted Expression String]
                    *UUID (OPTIONAL TAG)
            -EnrichConfiguration
                -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -Enrichments (OPTIONAL TAG) (Direct child tags may occur multiple times)
                    -Enrichment (OPTIONAL TAG)
                         -AssignedTo (OPTIONAL TAG)
                        -Category (OPTIONAL TAG)
                             -Key
                             -Label (OPTIONAL TAG)
                        -Description (OPTIONAL TAG)
                        -Family (OPTIONAL TAG)
                             -Kev
                             -Label (OPTIONAL TAG)
                        -MessageFormat (OPTIONAL TAG)
                        -Nature (OPTIONAL TAG)
                        *UUID (OPTIONAL TAG)
                        -PayloadFilter (OPTIONAL TAG)
                             -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
                        -Priority (OPTIONAL TAG)
                             -Kev
                             -Label (OPTIONAL TAG)
                        -EnrichCias (OPTIONAL TAG) (Direct child tags may occur multiple
times)
                             -EnrichCia (OPTIONAL TAG)
                                 -CiaName
                                 -EnrichCiaType
                                 -Expression [Format = Formatted Expression String]
                                 *UUID (OPTIONAL TAG)
                        -Severity (OPTIONAL TAG)
            *InterfaceGroup
            -Ordering
            -ActionConfiguration
                -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -Actions (OPTIONAL TAG) (Direct child tags may occur multiple times)
                    -Action (OPTIONAL TAG)
                        -Command (OPTIONAL TAG)
                         -CommandType
                        -LifecycleState = [Registered, InProgress, Completed, Closed,
Dampened]
                        *UUID (OPTIONAL TAG)
                        -PayloadFilter (OPTIONAL TAG)
                             -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
            -SuppressConfiguration
                -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
                     -Expression [Format = Formatted Expression String]
                    *UUID (OPTIONAL TAG)
    -NodeGroups (OPTIONAL TAG) (Direct child tags may occur multiple times)
        -NodeGroup (OPTIONAL TAG)
            -Enable (OPTIONAL TAG)
            *UUID (OPTIONAL TAG)
            -DampenConfiguration (OPTIONAL TAG)
                -Enable (OPTIONAL TAG)
                -HourInterval
                -MinuteInterval
                -SecondInterval
                *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
                    -Expression [Format = Formatted Expression String]
                    *UUID (OPTIONAL TAG)
            -EnrichConfiguration (OPTIONAL TAG)
                -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -Enrichments (OPTIONAL TAG) (Direct child tags may occur multiple times)
                    -Enrichment (OPTIONAL TAG)
```

```
-AssignedTo (OPTIONAL TAG)
                         -Category (OPTIONAL TAG)
                             -Kev
                             -Label (OPTIONAL TAG)
                        -Description (OPTIONAL TAG)
                        -Family (OPTIONAL TAG)
                             -Key
                             -Label (OPTIONAL TAG)
                        -MessageFormat (OPTIONAL TAG)
                         -Nature (OPTIONAL TAG)
                         *UUID (OPTIONAL TAG)
                        -PayloadFilter (OPTIONAL TAG)
                             -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
                        -Priority (OPTIONAL TAG)
                             -Кеу
                             -Label (OPTIONAL TAG)
                        -EnrichCias (OPTIONAL TAG) (Direct child tags may occur multiple
times)
                             -EnrichCia (OPTIONAL TAG)
                                 -CiaName
                                 -EnrichCiaType
                                 -Expression [Format = Formatted Expression String]
                                 *UUID (OPTIONAL TAG)
                         -Severity (OPTIONAL TAG)
            -FlowDefinitions (OPTIONAL TAG) (Direct child tags may occur multiple times)
                -FlowDefinition (OPTIONAL TAG)
                     -Enable (OPTIONAL TAG)
                    *FlowDefinition
                    -LifecycleState
                        -Kev
                        -Label (OPTIONAL TAG)
                    *UUID (OPTIONAL TAG)
            *NodeGroup
            -Ordering
            -ActionConfiguration (OPTIONAL TAG)
                -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -Actions (OPTIONAL TAG) (Direct child tags may occur multiple times)
                     -Action (OPTIONAL TAG)
                        -Command (OPTIONAL TAG)
                        -CommandType
                        -LifecycleState = [Registered, InProgress, Completed, Closed,
Dampened]
                         *UUID (OPTIONAL TAG)
                        -PayloadFilter (OPTIONAL TAG)
                             -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
            -SuppressConfiguration (OPTIONAL TAG)
                 -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
                     -Expression [Format = Formatted Expression String]
                    *UUID (OPTIONAL TAG)
    -RateConfiguration (OPTIONAL TAG)
        -ComparisonCriteria
        -CorrelationIncidentConfig (OPTIONAL TAG)
        -Enable (OPTIONAL TAG)
        -HourInterval (OPTIONAL TAG)
        -MinuteInterval (OPTIONAL TAG)
        -RateCount (OPTIONAL TAG)
        -SecondInterval (OPTIONAL TAG)
        *UUID (OPTIONAL TAG)
        -ComparisonParamList (OPTIONAL TAG) (Direct child tags may occur multiple times)
             -ComparisonParam (OPTIONAL TAG)
                -ParamType (OPTIONAL TAG)
                -ParamValue
                *UUID (OPTIONAL TAG)
    -UserRootCause (OPTIONAL TAG)
```

SYSLOG MESSAGE CONFIGURATION FORMAT

The following example contains the valid format for SyslogMessageConfig configuration types.

```
*ConfigurationType=SyslogMessageConfig (ROOT TAG)
    *Name
    -Author
        -Key
        -Label (OPTIONAL TAG)
    -Category
        -Kev
        -Label (OPTIONAL TAG)
    -Enable (OPTIONAL TAG)
    -ActionConfiguration (OPTIONAL TAG)
        -Enable (OPTIONAL TAG)
        *UUID (OPTIONAL TAG)
        -Actions (OPTIONAL TAG) (Direct child tags may occur multiple times)
            -Action (OPTIONAL TAG)
                 -Command (OPTIONAL TAG)
                -CommandType
                -LifecycleState = [Registered, InProgress, Completed, Closed, Dampened] *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
                     -Expression [Format = Formatted Expression String]
                     *UUID (OPTIONAL TAG)
    -DampenConfiguration (OPTIONAL TAG)
        -Enable (OPTIONAL TAG)
        -HourInterval
        -MinuteInterval
        -SecondInterval
        *UUID (OPTIONAL TAG)
        -PayloadFilter (OPTIONAL TAG)
            -Expression [Format = Formatted Expression String]
            *UUID (OPTIONAL TAG)
    -DedupConfiguration (OPTIONAL TAG)
        -ComparisonCriteria
        -CorrelationIncidentConfig (OPTIONAL TAG)
            *Name
        -DedupCount (OPTIONAL TAG)
        -Enable (OPTIONAL TAG)
        -HourInterval (OPTIONAL TAG)
        -MinuteInterval (OPTIONAL TAG)
        -SecondInterval (OPTIONAL TAG)
        *UUID (OPTIONAL TAG)
        -ComparisonParamList (OPTIONAL TAG) (Direct child tags may occur multiple times)
-ComparisonParam (OPTIONAL TAG)
                 -ParamType (OPTIONAL TAG)
                 -ParamValue
                 *UUID (OPTIONAL TAG)
    -Description (OPTIONAL TAG)
    -Family
        -Key
        -Label (OPTIONAL TAG)
    -GeoCentralForwardConfiguration (OPTIONAL TAG)
        -Enable (OPTIONAL TAG)
        *UUID (OPTIONAL TAG)
        -PayloadFilter (OPTIONAL TAG)
            -Expression [Format = Formatted Expression String]
            *UUID (OPTIONAL TAG)
    -MessageFormat
    -Severity
    -EnrichConfiguration (OPTIONAL TAG)
-Enable (OPTIONAL TAG)
        *UUID (OPTIONAL TAG)
        -Enrichments (OPTIONAL TAG) (Direct child tags may occur multiple times)
            -Enrichment (OPTIONAL TAG)
                -AssignedTo (OPTIONAL TAG)
                -Category (OPTIONAL TAG)
                     -Key
                     -Label (OPTIONAL TAG)
                -Description (OPTIONAL TAG)
                -Family (OPTIONAL TAG)
                     -Kev
                     -Label (OPTIONAL TAG)
                -MessageFormat (OPTIONAL TAG)
                 -Nature (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
                     -Expression [Format = Formatted Expression String]
                     *UUID (OPTIONAL TAG)
                -Priority (OPTIONAL TAG)
                     -Kev
                     -Label (OPTIONAL TAG)
```

```
-EnrichCias (OPTIONAL TAG) (Direct child tags may occur multiple times)
                     -EnrichCia (OPTIONAL TAG)
                         -CiaName
                         -EnrichCiaType
                         -Expression [Format = Formatted Expression String]
                         *UUID (OPTIONAL TAG)
                 -Severity (OPTIONAL TAG)
    -SuppressConfiguration (OPTIONAL TAG)
        -Enable (OPTIONAL TAG)
        *UUID (OPTIONAL TAG)
        -PayloadFilter (OPTIONAL TAG)
             -Expression [Format = Formatted Expression String]
            *UUID (OPTIONAL TAG)
    -InterfaceGroups (OPTIONAL TAG) (Direct child tags may occur multiple times)
        -InterfaceGroup (OPTIONAL TAG)
             -Enable
            *UUID (OPTIONAL TAG)
            -DampenConfiguration
                -Enable (OPTIONAL TAG)
                -HourInterval
                 -MinuteInterval
                 -SecondInterval
                *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
-Expression [Format = Formatted Expression String]
                     *UUID (OPTIONAL TAG)
            -EnrichConfiguration
                 -Enable (OPTIONAL TAG)
                 *UUID (OPTIONAL TAG)
                -Enrichments (OPTIONAL TAG) (Direct child tags may occur multiple times)
                     -Enrichment (OPTIONAL TAG)
                         -AssignedTo (OPTIONAL TAG)
                         -Category (OPTIONAL TAG)
                             -Kev
                             -Label (OPTIONAL TAG)
                         -Description (OPTIONAL TAG)
                         -Family (OPTIONAL TAG)
                             -Key
                             -Label (OPTIONAL TAG)
                         -MessageFormat (OPTIONAL TAG)
                         -Nature (OPTIONAL TAG)
                         *UUID (OPTIONAL TAG)
                         -PayloadFilter (OPTIONAL TAG)
                              -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
                         -Priority (OPTIONAL TAG)
                             -Kev
                             -Label (OPTIONAL TAG)
                         -EnrichCias (OPTIONAL TAG) (Direct child tags may occur multiple
times)
                             -EnrichCia (OPTIONAL TAG)
                                  -CiaName
                                 -EnrichCiaType
                                 -Expression [Format = Formatted Expression String]
                                 *UUID (OPTIONAL TAG)
                         -Severity (OPTIONAL TAG)
            *InterfaceGroup
            -Ordering
            -ActionConfiguration
                 -Enable (OPTIONAL TAG)
                 *UUID (OPTIONAL TAG)
                -Actions (OPTIONAL TAG) (Direct child tags may occur multiple times)
                     -Action (OPTIONAL TAG)
                         -Command (OPTIONAL TAG)
                         -CommandType
                         -LifecycleState = [Registered, InProgress, Completed, Closed,
Dampened]
                         *UUID (OPTIONAL TAG)
                         -PayloadFilter (OPTIONAL TAG)
                             -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
            -SuppressConfiguration
                 -Enable (OPTIONAL TAG)
                *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
-Expression [Format = Formatted Expression String]
                     *UUID (OPTIONAL TAG)
    -NodeGroups (OPTIONAL TAG) (Direct child tags may occur multiple times)
        -NodeGroup (OPTIONAL TAG)
```

```
-Enable (OPTIONAL TAG)
            *UUID (OPTIONAL TAG)
            -DampenConfiguration (OPTIONAL TAG)
                 -Enable (OPTIONAL TAG)
                 -HourInterval
                -MinuteInterval
                 -SecondInterval
                 *UUID (OPTIONAL TAG)
                 -PayloadFilter (OPTIONAL TAG)
                     -Expression [Format = Formatted Expression String]
                     *UUID (OPTIONAL TAG)
            -EnrichConfiguration (OPTIONAL TAG)
                 -Enable (OPTIONAL TAG)
                 *UUID (OPTIONAL TAG)
                 -Enrichments (OPTIONAL TAG) (Direct child tags may occur multiple times)
                     -Enrichment (OPTIONAL TAG)
                         -AssignedTo (OPTIONAL TAG)
                         -Category (OPTIONAL TAG)
                             -Key
                             -Label (OPTIONAL TAG)
                         -Description (OPTIONAL TAG)
                         -Family (OPTIONAL TAG)
                             -Key
                             -Label (OPTIONAL TAG)
                         -MessageFormat (OPTIONAL TAG)
                         -Nature (OPTIONAL TAG)
                         *UUID (OPTIONAL TAG)
                         -PayloadFilter (OPTIONAL TAG)
                              -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
                         -Priority (OPTIONAL TAG)
                             -Kev
                             -Label (OPTIONAL TAG)
                         -EnrichCias (OPTIONAL TAG) (Direct child tags may occur multiple
times)
                             -EnrichCia (OPTIONAL TAG)
                                 -CiaName
                                  -EnrichCiaType
                                  -Expression [Format = Formatted Expression String]
                                  *UUID (OPTIONAL TAG)
            -Severity (OPTIONAL TAG)
-FlowDefinitions (OPTIONAL TAG) (Direct child tags may occur multiple times)
                 -FlowDefinition (OPTIONAL TAG)
                     -Enable (OPTIONAL TAG)
                     *FlowDefinition
                     -LifecycleState
                         -Kev
                         -Label (OPTIONAL TAG)
                     *UUID (OPTIONAL TAG)
            *NodeGroup
            -Ordering
            -ActionConfiguration (OPTIONAL TAG)
                 -Enable (OPTIONAL TAG)
                 *UUID (OPTIONAL TAG)
                 -Actions (OPTIONAL TAG) (Direct child tags may occur multiple times)
                     -Action (OPTIONAL TAG)
                         -Command (OPTIONAL TAG)
                         -CommandType
                         -LifecycleState = [Registered, InProgress, Completed, Closed,
Dampened]
                         *UUID (OPTIONAL TAG)
                         -PayloadFilter (OPTIONAL TAG)
                             -Expression [Format = Formatted Expression String]
                             *UUID (OPTIONAL TAG)
            -SuppressConfiguration (OPTIONAL TAG)
                 -Enable (OPTIONAL TAG)
                 *UUID (OPTIONAL TAG)
                -PayloadFilter (OPTIONAL TAG)
-Expression [Format = Formatted Expression String]
                     *UUID (OPTIONAL TAG)
    -RateConfiguration (OPTIONAL TAG)
        -ComparisonCriteria
        -CorrelationIncidentConfig (OPTIONAL TAG)
            *Name
        -Enable (OPTIONAL TAG)
        -HourInterval (OPTIONAL TAG)
        -MinuteInterval (OPTIONAL TAG)
        -RateCount (OPTIONAL TAG)
        -SecondInterval (OPTIONAL TAG)
```

```
*UUID (OPTIONAL TAG)
-ComparisonParamList (OPTIONAL TAG) (Direct child tags may occur multiple times)
-ComparisonParam (OPTIONAL TAG)
-ParamType (OPTIONAL TAG)
-ParamValue
*UUID (OPTIONAL TAG)
-UserRootCause (OPTIONAL TAG)
```

AUTHOR

nnmincidentcfg.format was developed by Hewlett Packard Enterprise.

SEE ALSO

nnmincidentcfgload.ovpl (1M).

nnmincidentcfgdump.ovpl (1M).

nnmooflow.ovpl — Manage available HP OO flow definitions used by NNMi iSPI NET.

SYNOPSIS

```
nnmooflow.ovpl [-h] [-l] [-i xmlfilename] [-d uuid] [--flow_uuid uuid] [--flow_name flowname] [--flow_desc flowdescription] [--baseline] [--flow_arg_username flowarguementusername] [--flow_arg_password flowarguementpassword] [--flow_arg_hostname flowarguementhostname] [--flow_arg_ifname flowarguementinterfacename] [--flow_arg_iftype flowarguementinterfacetype] [--flow_arg_ifalias flowarguementinterfacealias] [--flow_arg_ifindex flowarguementinterfaceindex] [--flow_arg_portname flowarguementportname] [--flow_arg_portname_req] [--flow_arg_ifname_req] [--flow_arg_ifname_req] [--flow_arg_ifname_req] [--flow_arg_ifname_req] [--flow_arg_portname_req] [--flow_arg_por
```

DESCRIPTION

Manage user defined HP OO flow definitions. This command can be used to list current HP OO flow definitions available to NNMi, import a new HP OO flow definition to NNMi, or delete an existing HP OO flow definition from NNMi.

HP OO flows are authored using HP Operations Orchestration Studio. Flows in HP OO can be invoked from NNMi during incident processing. A number of arguments can be passed to HP OO flows. See below for the full list of arguments which can be passed.

This list option will show all available HP OO flow definitions including those shipped with the iSPI NET diagnostics server and those previously imported. Note that only user defined HP OO flow definitions can be deleted.

An HP OO flow definition is imported into NNMi by creating an xmlfile using the format described below and importing the definition using the -i option. A single xml file can contain a single flow definition. If multiple flow definitions need to be imported to NNMi, create a separate xml file for each.

Alternatively, a flow can be imported into NNMi by describing the flow definition via command line arguements.

The following is a sample import xmlfile

```
<type>SHELL_USERNAME</type>
            <name>user</name>
            <required>false</required>
        </arqument>
        <argument>
            <type>SHELL_PASSWORD</type>
            <name>password</name>
            <required>true</required>
        </arqument>
    </arquments>
    <filters>
        <filter>
            <vendor>com.hp.ov.nms.devices.cisco</vendor>
            <category>com.hp.ov.nms.devices.router</category>
<family>com.hp.ov.nms.devices.cisco3600seriesmultiservicebranchofficerouter</family>
       </filter>
    </filters>
</definition>
```

The XML document requires the following structure:

<definition> - XML document element.

<name>string</name> - contains the name of the flow to be displayed in NNMi. Name can be a maximum of 128 characters. More than 128 characters will cause a parse exception when reading the xml file.

<description>string</description> - contains the description of the flow to be displayed in NNMi.
Description can be a maximum size of 2048 characters. More than 2048 characters will cause a parse exception when reading the xml file.

<arguments> - contains a list of 1 or more <argument> elements to pass to the flow. Include as many <argument> children as necessary. Each flow defined in HP OO Studio can accept named inputs. The <arguments> list allows HP NNMi to pass NNMi defined variables to these inputs. The <type> element defines the variable NNMi will pass to the input identified in the <name> element. SHELL_USERNAME and SHELL_PASSWORD are defined using NNMi's creditional configuration in NNMi's Communication configuration workspace. The variables passed to the HP OO flow are determined based on the incident's related device, interface, or port. If a argument is specified as required but NNMi can't determine an appropriate value based on the incident, the HP OO flow will not be invoked.

An <argument> element contains a <type>, a <name>, and <required> elements.

The <type> element can be any of the following: SHELL_USERNAME, SHELL_PASSWORD, HOST, IFACE IFNAME, IFACE IFTYPE, IFACE IFALIAS, IFACE IFINDEX, PORT NAME, PORT INDEX.

The <name> element represents the name of the input as defined in the HP OO Flow. The variable will be passed to the HP OO Flow using this input name.

The <required> element may be true or false and indicates if the argument must be supplied to HP OO.

Multiple <filter> elements can be specified. <filter> elements define the types of devices where a flow can be excuted. <filter> elements are constructed using <vendor>, <category>, and <family> child elements.

Filters specify the vendor, category, and family of the device or devices the flow supports. As such flows can be defined for generic use across a vendor's product line or defined to more narrowly execute on a category or family of devices from a vendor. Use the "unique key" as indentified in sub forms for Device Profile. You can find the "unique key" by opening the form corresponding to a specific Device vendor, Device Category, or Device Family using the Device Profile workspace.

A filter can specify just vendor, category, or family or all three to indicate a very specific device profile. <filters> can be empty, if the flow can operate on any device.

Once a flow definition has been imported to NNMi, it is available to be used in NNMi Incident Configuration. See NNMi online help for instructions on configuring incident flows.

Parameters

nnmooflow.ovpl supports the following parameters:

-h

Displays command summary

-1

Displays a list of all HP OO flow definitions available for use in incident configuration.

-d uuid

Removes the flow definition identified by the uuid. HP defined flow definitions can not be removed. User defined flow definitions which are referenced in incident configuration also may not be removed.

-i xmlfilename

Imports the flow definition defined by the xml file. A flow can be repeatly imported to NNMi. Only the last flow definition for a unid imported by this command will be retained in the configuration.

--flow_uuid flowuuid

Defines the UUID of the flow being imported via command line to be flowuuid

--flow_name flowname

Defines the name of the flow being imported via command line to be flowname

--flow_desc flowdesc

Defines the description of the flow being imported via command line as flowdesc

--baseline

Defines that the flow being imported via the command line should be marked as baseline by NNMi

--flow_arg_username flowargusername

Defines that the shell username (SHELL_USERNAME) generated by NNMi should be passed to OO as a flow input variable with name flowargusername

--flow_arg_password flowargpassword

Defines that the shell password (SHELL_PASSWORD) generated by NNMi should be passed to OO as a flow input variable with name flowargpassword

--flow_arg_hostname flowarghostname

Defines that the hostname (HOST) generated by NNMi should be passed to OO as a flow input variable with name flowarghostname

--flow_arg_ifname flowargifname

Defines that the interface name (IFACE_IFNAME) generated by NNMi should be passed to OO as a flow input variable with name flowargifname

--flow_arg_iftype flowargiftype

Defines that the interface type (IFACE_IFTYPE) generated by NNMi should be passed to OO as a flow input variable with name flowargiftype

--flow_arg_ifalias flowargifalias

Defines that the interface alias (IFACE_IFALIAS) generated by NNMi should be passed to OO as a flow input variable with name flowargifalias

--flow_arg_ifindex flowargifindex

Defines that the interface index (IFACE_IFINDEX) generated by NNMi should be passed to OO as a flow input variable with name flowargifindex

--flow arg portname flowargportname

Defines that the interface port name (PORT_NAME) generated by NNMi should be passed to OO as a flow input variable with name flowargportname

--flow arg portindex flowargportindex

Defines that the interface port name (PORT_INDEX) generated by NNMi should be passed to OO as a flow input variable with name flowargportindex

--flow_arg_username_req

Defines that the flow argument username is required

--flow_arg_pssword_req

Defines that the flow argument password is required --flow arg hostname reg Defines that the flow argument hostname is required --flow_arg_ifname_req Defines that the flow argument interface name is required --flow_arg_iftype_req Defines that the flow argument interface type is required --flow_arg_ifalias_req Defines that the flow argument interface alias is required --flow arg ifindex reg Defines that the flow argument interface index is required --flow_arg_portname_req Defines that the flow argument interface portname is required --flow arg portindex reg Defines that the flow argument interface port index is required --filter filter Defines the filters which should be applied to the flow definition. Filters should be of the form "vendor, category, family". Multiple filter definitions are allowed for the same flow definition. **EXAMPLES** To list currently available HP OO Flow Definitions: nnmooflow.ovpl -1 To load a flow definition nnmooflow.ovpl -i flow.xml To delete a flow definition nnmooflow.ovpl -d 01d616b0-e852-4235-b447-48185bd31444

nnmooflow.ovpl --flow_uuid 40499f32-434d-4179-8ade-9c68d3920ffd --flow_name "Test NNMi Baseline Flow" --flow_desc "A Baseline Flow" --baseline --flow_arg_username Username --flow_arg_password Password --flow_arg_hostname Hostname --filter "com.hp.ov.nms.devices.cisco,com.hp.ov.nms.devices.router" --flow_arg_username_req --flow_arg_password_req --flow_arg_hostname_req

To import a flow definiton directly via command line

AUTHOR

nnmooflow.ovpl was developed by Hewlett Packard Enterprise.

nnmopcexport.ovpl — export NNMi management event and SNMP trap configurations to HP OM policies (SNMP template) file.

SYNOPSIS

```
nnmopcexport.ovpl -help
```

nnmopcexport.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]

nnmopcexport.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] -omi_policy

DESCRIPTION

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

Parameters

nnmopcexport.ovpl supports the following parameters:

-u <username>

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

-p <password>

Supply the NNMi administrator password to run the script. This script requires the NNMi 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.

-application <application_name>

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 indi host; default is localhost.

-jndiPort <port>

The server indi 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 HP OMi health indicators for applicable NNMi 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 <code><UUID>_header.xml</code> and <code><UUID>_data</code> 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 NNMi management events and SNMP trap definitions:

```
nnmopcexport.ovpl -u user -p pass -template "SNMP Traps" -application "NNMi" -file
policies.dat
```

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

```
nnmopcexport.ovpl -u user -p pass -template "SNMP Traps" -application "NNMi" -omi_hi -
omi_policy
```

AUTHOR

nnmopcexport.ovpl was developed by Hewlett Packard Enterprise.

NAME

nnmperfspisync.ovpl - synchronize Interface Group and Node Group configuration changes between NNMi and NNM iSPI Performance for Metrics.

SYNOPSIS

Usage: nnmperfspisync.ovpl

DESCRIPTION

NNMi automatically synchronizes Interface Group and Node Group configuration changes between NNMi and NNM iSPI Performance for Metrics. However, in some cases, additional configuration changes that affect Node Group or Interface Group membership might take longer to synchronize. If you do not see one or more nodes in an NNMi Performance for Metrics report that are visible in NNMi, run the nnmperfspisync.ovpl command. This command forces NNMi to synchronize the Interface and Node Group information between NNMi and NNM iSPI Performance for Metrics more quickly than the default time frame. Alternatively, you can click:

Actions->HP NNM iSPI Performance->Sync Interface and Node Groups in the NNMi console.

AUTHOR

nnmperfspisync.ovpl was developed by Hewlett-Packard Company.

FILES

nnmperfspisync.ovpl resides in the following directory:

Windows: %NNM BIN%

UNIX: \$NNM BIN

nnmrbaconfig.ovpl — Manage HP OO Configuration used by NNMi iSPI NET.

SYNOPSIS

 $\label{eq:continuous} $$\operatorname{nnmrbaconfig.ovpl-?} - \operatorname{add} \left[-u < username > -p < password > \right] - \operatorname{oohost} < oo \ host > -\operatorname{ooport} < oo \ port > -\operatorname{oouser} < oo \ user > -\operatorname{oopassword} < oo \ password > -\operatorname{oocertificate} < oo \ certificate > | -\operatorname{remove} | -\operatorname{list} > -\operatorname{oopassword} < -\operatorname{oopassword} > -\operatorname{oocertificate} < -\operatorname{oopassword} > -\operatorname{oo$

DESCRIPTION

nnmrbaconfig.ovpl is a Perl script that enables you to manage the HP OO configuration used by NNMi iSPI NET.

Parameters

nnmrbaconfig.ovpl supports the following options:

-?

Displays the usage statement.

-add

Add HP OO configuration.

```
-u <username>
```

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

```
-p <password>
```

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

```
-oohost <oo host>
```

Supply the host on which HP OO is running.

```
-ooport <oo port>
```

Supply the port on which HP OO is running.

```
-oouser <oo user>
```

Supply the HP OO administrator user name.

-oopassword <oo password>

Supply the HP OO administrator password.

-oocertificate <oo certificate>

Supply the path to HP OO certificate.

-remove

Remove HP OO configuration.

-list

List HP OO configuration.

EXAMPLES

 $\verb|nnmrbaconfig.ovpl-add-oohost hpoo.mycompany.com-ooport 8443-oouser admin-oopassword admin-oocertificate/home/user/Desktop/pascert.cer-u username-p adminpassword|$

Adds the specified HP OO configuration.

nnmrbaconfig.ovpl -remove -u myusername -p myadminpassword

Removes HP OO configuration.

nnmrbaconfig.ovpl -list -u myusername -p myadminpassword

Lists HP OO configuration.

AUTHOR

nnmrbaconfig.ovpl was developed by Hewlett Packard Enterprise.

nnmresetembdb.ovpl — drop (delete) and recreate the embedded database, if NNMi is configured to run with the embedded database

SYNOPSIS

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

DESCRIPTION

Use nnmresetembdb.ovpl to drop (delete) and recreate the NNMi embedded database. This command is useful only if you installed NNMi 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 NNMi is running when this command is executed, the command first stops NNMi (using ovstop), then starts the nmsdbmgr process to work with the database (using ovstart). Unless the -nostart option is present, NNMi 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 NNMi using the ovstart command, or when the nnmresetembdb.ovpl command automatically starts NNMi. You must be logged in as root on UNIX systems, or as administrator on Windows systems to run this command.

Parameters

The nnmresetembdb.ovpl command recognizes the following parameters:

-silent

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

-nostart

The nnmresetembdb.ovpl command does not start NNMi 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:

```
# nnmresetembdb.ovpl -nostart

WARNING: Running this tool will stop NNM, drop and recreate the database, and restart NNM. Please make sure no major activity is occurring at this time.

Is it OK to stop NNM (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 nmsdbmgr process for database reset...
Successfully started nmsdbmgr process for database reset.
Successfully reset private database.
Successfully reset NNM embedded database.
```

AUTHOR

nnmresetembdb.ovpl was developed by Hewlett Packard Enterprise.

FILES

nnmresetembdb.ovpl resides in \$NNM_BIN (UNIX) or install_dir\bin (Windows) directories.

SEE ALSO

nmsdbmgr(1M), nnmnodedelete.ovpl(1M), ovstart(1M), ovstart(1M), ovstatus(1).

nnmrestore.ovpl — restore a backup created by the nnmbackup.ovpl script

SYNOPSIS

nnmrestore.ovpl [-?|-h|-help] [-force] [-lic] [-partial] -source <directory>

DESCRIPTION

nnmrestore.ovpl is the main restore script for NNMi. The command uses a previous NNMi backup created using the nnmbackup.ovpl script to restore NNMi to the state stored in the backup files. The scope of the restore is determined by the content of the backup and by the command-line arguments you provide. The nnmrestore.ovpl script restores only the data contained in the backup files.

If you plan to use the nnmbackup.ovpl script to create an NNMi backup, then use the nnmrestore.ovpl script to place database records on a second NNMi management server, both NNMi management servers must have the same type of operating system and NNMi version and patch level. Placing the backup data from one NNMi management server onto a second NNMi management server means that both servers have the same database UUID. After you restore NNMi on the second NNMi management server, uninstall NNMi from the original NNMi management server.

The nnmrestore.ovpl script detects the following:

- Was the backup performed on the target system? If the backup was taken locally, the -lic parameter permits the restoration of licensing information.
- Is the target system running an Oracle or Postgres database? If you require a full restore of an Oracle database, for example, running the nnmrestore.ovpl script without the -partial parameter, the nnmrestore.ovpl script prompts you for information to determine if the target system is using the same Oracle database instance as the backup, or if an Oracle backup and restore operation has already taken place on the target system. You must answer these questions correctly or the script will copy or merge the SSL certificates incorrectly and the database will become unaccessible from the target installation.

The source directory contains either all of the files required for the restore options you have selected, or a single tar file. If the source is a tar file, the nnmrestore.ovpl script extracts the tar file to a temporary folder in the current working directory. The nnmrestore.ovpl script removes the temporary folder after completing the restore.

NNMi must be stopped to complete restore operations. If you use the <code>-force</code> option, the <code>nnmrestore.ovpl</code> script stops NNMi. If the files present in the source folder indicate that the original backup was an <code>online</code> backup, the restore process starts the <code>nmsdbmgr</code> process to make sure the embedded database is available. To restore the files from an online backup, you must use the <code>-force</code> option.

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

Caution

The database restore performed by the nnmrestore.ovpl script applies only to the embedded database. If you chose a different database at installation, the table data is not restored using the nnmrestore.ovpl script. File-system restores work regardless of database type. For details about what you need to restore if you select a different database at installation, refer to the NNMi Deployment Reference (available at http://h20230.www2.hp.com/selfsolve/manuals).

Parameters

nnmrestore.ovpl supports the following options:

-force

If you provide this option, the nnmrestore.ovpl script stops NNMi before running the restore procedure. Also, the script starts the nmsdbmgr process if it must restore the type of backup on which the restore is based. This restore from an online backup to use this option.

-lic

If you provide this option, the nnmrestore.ovpl script restores licensing information. Note that the script only restores licensing information if it successfully validates that the backup operation was performed on the same system.

-partial

Without this option, the nnmrestore.ovpl script restores the database and corresponding SSL certificates. In the case of a system-to-system restore, the nnmrestore.ovplscript merges the nnm.keystore and nnm.truststore files with the target system's nnm.keystore and nnm.truststore files. The merge routine merges all certificate aliases from the backed up stores that do not already exist on the target system. There is one exception, if the FQDN.selfsigned key alias exists in both stores, the target system's key alias is removed and replaced with the one stored in the backup. Before the certificates are merged or restored, a backup is performed, stored in the same directory, and labeled *.original.

When you use the -partial option, the nnmrestore.ovpl script will not restore the database and corresponding SSL certificates. The -partial option is only useful for restoring configuration files.

-source<directory>

Specifies the input directory containing the restore files. If the source you provide is a tar file, the nnmrestore.ovpl script extracts the tar file to a temporary folder in the current working directory. The script removes the temporary folder after completing the restore.

-?|-h|-help

Display command usage.

EXAMPLES

To restore a previous backup:

#./nnmrestore.ovpl -source /tmp/bak/config

To restore with the -force option:

```
#./nnmrestore.ovpl -force -source /tmp/bak/all
```

To restore everything except the database, SSL certificates, and licenses, use the -partial option:

```
#./nnmrestore.ovpl -partial -source /tmp/bak/all
```

To restore everything, including licensing information on a local system, use the -lic option:

```
#./nnmrestore.ovpl -lic -source /tmp/bak/all
```

AUTHOR

nnmrestore.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

nnmbackup.ovpl(1M).

nnmrestoreembdb.ovpl — restore a full backup of the NNMi embedded database

SYNOPSIS

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

DESCRIPTION

Use the nnmrestoreembdb.ovpl script to restore a full backup of the NNMi embedded database. Create the backup file required for the restore using the nnmbackupembdb.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 nnmbackupembdb.ovpl script to create a backup of the NNMi embedded database, then use the nnmrestoreembdb.ovpl script to place embedded database records on a second NNMi management server, both NNMi management servers must have the same type of operating system and NNMi version and patch level.

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

Do *not* run this script while NNMi is running unless you specify the -force option. Only the nmsdbmgr process can (and must) be running when you run the nnmrestoreembdb.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 nnmbackupembdb.ovpl script.

-force

If you provide this option, the script stops NNMi if it is currently running, then starts the nmsdbmgr 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

nnmrestoreembdb.ovpl was developed by Hewlett Packard Enterprise.

FILES

nnmrestoreembdb.ovpl resides in the following directories:

• Windows: %NNM_BIN%

• *UNIX*: \$NNM_BIN

SEE ALSO

ovstart(1M), ovstop(1M), ovstatus(1M), nmsdbmgr(1M), nnmbackupembdb.ovpl(1M).

nnmscheduledoutage.ovpl — Command line tool used to schedule an outage for node(s).

SYNOPSIS

```
nnmscheduledoutage.ovpl -u <user> -p p password>[-?]
  -create (-node <NODE>| -nodeGroup <NODEGROUP>| -file <FILE) <TIME-SPEC> -name <NAME> [ -
description <DESCRIPTION>] [-retroactive]
  -delete (-name <NAME> [-node <NODE>]) | -uuid <UUID>
  -list [-v] [-node <NODE> | -uuid <UUID>] [-format <FORMAT>]
  -dump [-node <NODE>] [<TIME-SPEC>] [-retroactive] [-format <FORMAT>]
  -update (-name <NAME> [-NODE <NODE>] | -uuid <UUID>) (<TIME-SPEC> | -addNode <NODE> | -
removeNode <NODE>)
<TIME-SPEC> ::= -start <TIME> (-duration <DURATION> | -end <TIME>) [-tz <TIMEZONE>]
```

DESCRIPTION

nnmscheduledoutage.ovpl is a command line tool used to create scheduled outages for nodes. During the scheduled outage time frame, the nodes within the outage are moved to a Management Mode of Out of Service and moved back to Managed once the outage time frame has passed. Nodes may be grouped into outages individually, by node group or added via text file. Outages may be deleted by outage name, by node within the outage or by the UUID of the outage. Outages can be listed verbosely by any participating node to the screen, or formatted into various formats such as CSV. An outage may be updated to add or remove additional nodes or to change the time specification of the outage.

Parameters

nnmscheduledoutage.ovpl supports the following options:

-?

Prints the usage statement.

```
-u <username>
```

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

```
-p <password>
```

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

```
-addNode <NODE>
```

This is used when updating an outage, to add a node to the specified outage.

-create

Create a new scheduled outage for the specified system(s).

-delete

Delete the specified scheduled outage.

-description

Provide additional descriptive notes to the outage.

-duration <DURATION>

duration of the outage, in minutes. This can also be specified with a number followed by "m: for minutes (the default if "m" is omitted), "h" for hours or "d" for days, e.g. "3h" is a 3 hour outage.

-end <TIME>

The end time of the outage. See formatting rules below for syntax. The "-retroactive" flag is required if the end time is prior to the current time.

-file <FILE>

The name of a text file that contains a list of nodes to associate with the outage. The file can contain blank lines, comments beginning with "#" character, remaining lines are considered nodes. The nodes can be specified as either hostnames, IP addresses, or the node UUID. If a hostname or IP address is not unique, then an error is generated, since the outage cannot determine which node applies.

-format < FORMAT >

Format to list the output, currently only 'csv' or 'xml' is available.

-nodeGroup < NODEGROUP >

Node group name.

-list

List scheduled outage information for the specified system, or list all outages if no system specified. With the verbose flag, detailed information is printed including affected nodes. Listing by UUID always provides the detailed information for the outage specified.

-dump

Lists node outage history with start time and end time. Note that outage history includes any time that the node(s) moved from MANAGED state to either UNMANAGED or OUTOFSERVICE (which would be the start time) and then back to MANAGED (the end time). Any nodes which are currently in the UNMANAGED or OUTOFSERVICE state will be marked as having an end time of the current time. The output of this command can be used as input to the iSPI Performance server (NPS) so that NPS can adjust database records associated with nodes that were offline during specific time windows.

When the -retroactive option is specified only outages which were retroactively created are output.

When given a node parameter, it dumps outages for the specified node.

When given a time specification, it dumps outages that completed in that time window. The time specification must include a start time, and can optionally include duration or end time. Without a duration or end time the meaning is essentially "dump all outages since start time". Time windows are

inclusive for the start time and exclusive for the end time.

Note that either node or start time must be specified. If both are specified, then outages are listed for for the specified node, in the time window.

-name <NAME>

Name of the scheduled outage. The name is semi-unique in that outages can be referred to by name. However outage names do not have to be unique, and two outages with the same name can be further specified by listing a node that is included in the desired outage.

-node <NODE>

Node name, hostname, management address or UUID.

-retroactive

Create an outage in the past, retroactively. This is used to create an outage entry in the database, for some past outage that had occurred without being scheduled beforehand.

-removeNode < NODE >

Remove a node from the specified outage.

-start <TIME>

Start time for the outage (see formatting rules).

-tz <TIMEZONE>

Timezone specification (see formatting rules)

-update

Update the specified scheduled outage. The timing of the outage can be updated, as well as the included nodes

-uuid

UUID of the scheduled outage.

FORMATTING RULES

Start time and end time are specified as YYYY-MM-DDTHH:MM, for example 2013-05-08T14:56 is May 8th, 2013, at 2:56PM. Start and end time can also be specified as "now", to begin an outage immediately, or to end an outage currently in progress.

As mentioned above, duration can be a number (in minutes), or a number followed by "m", "h", or "d", for minutes, hours, and days, respectively. Case is ignored, so "1d" is the same as "1D".

The timezone parameter can be any valid Java timezone parameter, for example "US/Mountain" or "Australia/Perth". The timezone parameter can also be "target" (case ignored), which means that the time of the outage is specified in the timezone as the target node(s). If "target" is specified, then all nodes must be in the same timezone. Note also that "target" also requires that the nodes have had a timezone attribute attached. The timezone could also be specified as "server", meaning to use the timezone of the NNMi server, which might be different than the timezone of the user's shell process. If no timezone is specified, then the timezone

of the user's shell process is used.

Note: When creating an outage, you must specify the start time, and either the end time or the duration (but not both).

Note: The minimum outage duration is 15 minutes, any outage less than that is rejected. This also applies to ending an outage "now", if the start time was less than 15 minutes prior.

EXAMPLES

Create a scheduled outage, lasting 1 day, for a node using the timezone of the node (assuming May 21, 2013 is a future date):

```
nnmscheduledoutage.ovpl create -node cisco6509 -start 2013-05-21T09:00 -tz TARGET -duration 1d -name "Replace power supply"
```

Same as above, but retroactively (assuming May 21, 2013 was in the past, instead of future in the previous example):

```
nnmscheduledoutage.ovpl create -node cisco6509 -retroactive -start 2013-05-21T09:00 -tz TARGET -duration 1d -name "Replace power supply" -retroactive
```

Create a scheduled outage for a node using a local start and end time

```
nnmscheduledoutage.ovpl create -node cisco6509 -start 2013-05-21T10:00 -end 2013-05-21T14:00 -name "Replace power supply"
```

Scheduling in a specified timezone

```
nnmscheduledoutage.ovpl create -node cisco6509 -start 2013-05-21T09:00 -end 2013-05-21T10:00 -tz Australia/Perth -name "Replace power supply"
```

Schedule an outage for a list of nodes which are listed in the file "nodes.txt"

```
nnmscheduledoutage.ovpl create -file nodes.txt -start 2013-05-21T09:00 -tz TARGET -duration 1d -name "Weekly Maintenance"
```

Schedule an outage in a specified timezone by duration. The node group UUID is used in this example.

```
nnmscheduledoutage.ovpl create -nodeGroup 75f95c1a-0ee0-49ac-a815-c32ab74b1449 -start 2013-05-25T09:00 -end 2013-05-25T11:00 -tz Australia/Perth -name "Weekly Router Maintenance"
```

List outages for the specified node. The UUID, Name, Start Time, End Time and Duration of the outage(s) are displayed in a table.

```
nnmscheduledoutage.ovpl list -node cisco6509
```

List outages in CSV format

```
nnmscheduledoutage.ovpl list -node cisco6509 -format csv
```

Dump node outage history in CSV format, for all outages since July 1st 2013

```
nnmscheduledoutage.ovpl dump -node cisco6509 -format csv -start 2013-07-01T00:00
```

Dump all retroactive outages for December 2013 in CSV format

```
nnmscheduledoutage.ovpl dump -retroactive -start 2013-12-01T00:00 -end 2014-01-01T00:00 - format CSV
```

Delete an outage by name. If multiple outages have the same name, then they are all deleted.

nnmscheduledoutage.ovpl delete -name "Weekly Router Maintenance"

Delete an outage by outage UUID, which is unique, so only the specified outage is deleted.

nnmscheduledoutage.ovpl delete -uuid 204846c0-a35b-4a92-9726-4ce0a8be596d

Extend an outage by name with new outage end date

nnmscheduledoutage.ovpl update -name "Weekly Router Maintenance" -end 2013-05-21T12:00

Extend an outage by outage UUID by providing a new duration (relative to the scheduled start time)

nnmscheduledoutage.ovpl update -uuid 204846c0-a35b-4a92-9726-4ce0a8be596d -duration 2h

Delay a scheduled outage by target and name with a new start time (but keeping the same end time)

nnmscheduledoutage.ovpl update -node cisco6509 -name "Replace power supply" -start 2013-05-21T08:00

AUTHOR

nnmscheduledoutage.ovpl was developed by Hewlett Packard Enterprise.

FILES

\$NNM BIN/nnmscheduledoutage.ovpl

SEE ALSO

nnmsecurity.ovpl — NNMi Security Management

SYNOPSIS

```
nnmsecurity.ovpl -help
```

nnmsecurity.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{local_norm} $$\operatorname{nnmsecurity.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]$

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

nnmsecurity.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]

 $\label{local_continuous_continu$

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

DESCRIPTION

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

nnmsecurity.ovpl is used to manage NNMi 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. This command replaces the deprecated nnmprincipalconfig.ovpl command.

Parameters

nnmsecurity.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>) \mid -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 NNMi 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 NNMi 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, NNMi 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: name, uuid, description

-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, NNMi generates the value.

-securityGroupUuid

Optional UUID for the new security group. If this parameter is not supplied, NNMi 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. NNMi 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 NNMi 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 NNMi administrator username to run the script. This script requires the NNMi administrator username unless you use an nnm.properties file. See the nnm.properties.4 reference page for more information.

-p <password>

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

-jndiHost <hostname>

The server indi host; default is localhost.

-jndiPort <port>

The server jndi port; default is 1099.

EXAMPLES

nnmsecurity.ovpl -createTenant myTenant

Creates a tenant named myTenant.

nnmsecurity.ovpl -listTenants

Lists all configured tenants.

 $\verb|nnmsecurity.ovpl-createTenant| \verb| "Tenant| with a space", \verb|nnmsecurity.ovpl-createTenant| \\ | Tenant| | Tenant|$

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.

nnmsecurity.ovpl -createSecurityGroup mySecurityGroup

Creates the security group mysecurityGroup.

nnmsecurity.ovpl -createSecurityGroup "Group with a space",nnmsecurity.ovpl createSecurityGroup \!MyGroup

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.

nnmsecurity.ovpl -listSecurityGroups

Lists all configured security groups.

nnmsecurity.ovpl -listNode myNode

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

DIAGNOSTICS

nnmsecurity.ovpl returns the following exit codes:

0

Operation was successful.

1

An error occurred; see error message for details.

AUTHOR

nnmsecurity.ovpl was developed by Hewlett Packard Enterprise.

FILES

The environment variable below represents a universal path that is established according to your shell and platform requirements:

Windows: %NNM_BIN%\nnmsecurity.ovpl

UNIX: \$NNM_BIN/nnmsecurity.ovpl

SEE ALSO

nnm.properties(4).

nnmseeddelete.ovpl — Remove seed from the NNM topology database

SYNOPSIS

 $\label{lem:nnmseeddelete.ovpl-help-f} $$\operatorname{nnmseeddelete.ovpl-help-f-seed}$ - v < -person-pe$

DESCRIPTION

 ${\tt nnmseeddelete.ovpl}\ removes\ a\ seed\ from\ the\ system.$

Parameters

nnmseeddelete.ovpl supports the following options:

-seed <seed>

The seed to delete. A seed can be a host name or an IP address and must match exactly as listed in the seed list.

-f seedFile

Specify a text file to read the seeds from.

-u <username>

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

-p <password>

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

-jndiHost < serverName >

The server JNDI host; default is localhost.

-jndiPort <port>

The server JNDI port; default is 1099.

EXAMPLES

```
nnmseeddelete.ovpl -u username -p password -seed 10.1.2.3
```

Removes the seed 10.1.2.3. (You must provide an NNMi administrator username and password.)

```
nnmseeddelete.ovpl -f /tmp/seeds_to_delete.txt
```

Removes each seed listed in the file.

Diagnostics

nnmseeddelete.ovpl returns the following exit codes:

0

Operation was successful.

1

Seeds were deleted.

2

An error occured; see error message for details.

-help

Prints the usage statement.

AUTHOR

nnmseeddelete.ovpl was developed by Hewlett Packard Enterprise.

FILES

\$NNM_BIN/nnmseeddelete.ovpl

SEE ALSO

nnmloadseeds.ovpl(1M), nnm.properties(4).

nnmsetdampenedinterval.ovpl — sets the dampened interval for all incident configurations

SYNOPSIS

 $\verb|nnmsetdampenedinterval.ovpl| [-hours hours] [-minutes minutes] [-seconds seconds] [-u username] [-p password]]|$

DESCRIPTION

nnmsetdampenedinterval.ovpl Sets the dampened interval for all incident configurations. The maximum dampened interval that can be set is 60 minutes. A dampened interval of at least 6 minutes is recommended. At least one of hours, minutes, or seconds must be specified. To disable dampening, set hours, minutes, and seconds to 0.

Parameters

-hours hours

Specify the number of hours for the dampened interval. If specified, the value for *hours* must be greater than or equal to 0.

-minutes minutes

Specify the number of minutes for the dampened interval. If specified, the value for minutes must be greater than or equal to 0.

-seconds seconds

Specify the number of seconds for the dampened interval. If specified, the value for seconds must be greater than or equal to 0.

-jndiHost hostname

Server jndi host. Default is localhost.

-jndiPort port

Server jndi port. Default is 1099.

-u <username>

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

-p <password>

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

EXAMPLES

Set the dampened interval for all incident configurations to 10 minutes 10 seconds:

nnmsetdampenedinterval.ovpl -hours 0 -minutes 10 -seconds 10

Set the dampened interval for all incident configurations to 1 hour:

nnmsetdampenedinterval.ovpl -hours 1

Set the dampened interval for all incident configurations to 6 minutes:

nnmsetdampenedinterval.ovpl -minutes 6

Set the dampened interval for all incident configurations to 30 seconds:

nnmsetdampenedinterval.ovpl -seconds 30

Set the dampened interval for all incident configurations to 10 minutes 10 seconds:

nnmsetdampenedinterval.ovpl -minutes 10 -seconds 10

Disable dampening for all incident configurations:

nnmsetdampenedinterval.ovpl -hours 0 -minutes 0 -seconds 0

AUTHOR

nnmsetdampenedinterval.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

nnm.properties(4)

nnmsetiospeed.ovpl — Set the input or output speed on interfaces

SYNOPSIS

nnmsetiospeed.ovpl { -? [-node < node ID> | -interface < interface ID list> | -input < input speed> | -output < output speed>] [-file < CSV file>]} [-verbosity command verbosity] [-failfast fail-fast behavior] [-jdniHost hostname] [-jdniPort port] [-u username -p password]

DESCRIPTION

nnmsetiospeed.ovpl sets the input or output speed of the specified interfaces on the specified nodes. Speeds are suffixed by the units desired, e.g. 10mb is equivalent to 10000kb. If fail-fast behavior is desired, the command will not make any modifications if any errors are encountered during execution.

Parameters

nnmsetiospeed.ovpl supports the following options:

```
-file <file path>
```

A file containing a comma-delineated list of commands to process

```
-node <node name, long name, UUID, or IP address (v4 or v6)> -interface <interface ID list>
```

Change the input or output speed of the specified interfaces on the indicated node. The \$ALL option will process all the interfaces on the indicated node. Nodes may be identified by short name, long name, UUID, or IP address. The \$ALL macro may be used in batch mode as well. The list of interface identifiers should be enclosed in quotation marks to prevent the shell or console from prematurely terminating the command.

Optionally, the following parameters can be specified; only the specified attribute will be printed:

```
-failfast
```

Ensures that no changes will be made if an error is encountered.

```
-verbosity <verbosity level>
```

Sets the verbosity of the command. Levels include "silent", "verbose", or "normal". When verbosity is set to "silent," no output is provided. When verbosity is set to "verbose," every error and status message is displayed. Normal (the default value) provides output somewhere between "silent" and "verbose".

-?

Prints the usage statement.

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

-p <password>

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

-jndiHost <serverName>

The server JNDI host; default is localhost.

-jndiPort <port>

The server JNDI port; default is 1099.

Syntax of Comma-Separated File

The CSV file you supply must have the following syntax:

Required. Column 1. You must provide a value for the node identifier

Required. Column 2. You must provide a value for interface identifiers

Required. One of Column 2 or Column 3 (input/output speed)

You can omit an input or output speed by inserting nothing at the position in question.

• Column 1(A): Node Identifier

Required. The short name, long name, UUID, or IP address of the node on which to set the speed of interfaces

• Column 2(B): Interface Identifier List

Required. A semicolon-delineated list of interface identifiers or \$ALL macro. Interface IDs may be one of the following: interface index, alias, name, or description of the interface. The list of interface identifiers should be enclosed in quotation marks to prevent the shell or console from prematurely terminating the command.

• Column 3(C): Input speed

Optional (if output speed is specified). The input speed of the interfaces to set

• Column 3(C): Output speed

Optional (if input speed is specified). The output speed of the interfaces to set

EXAMPLES

To set the speed of all the interfaces on a node with the name example-node to 10 MB

nnmsetiospeed.ovpl -node example-node -interface \$ALL -input 10mb -output 10mb

To set the speed of individual interfaces specified by ifname, ifdescr, ifalias, and index of 10 MB

nnmsetiospeed.ovpl -node example-node -interface "ifname; ifdescr; ifalias; 10" -input 10mb - output 1gb

CSV file to change the input and output speed of a single interface named FA0/3 to 7 GB:

example-node,Fa0/3,7gb,7gb

CSV file to change the input and output speed of a single interface with index 50 to 4 GB:

example-node,50,4gb,4gb

CSV file to change the input and output speed of interfaces named H1, A1, D1, F1, F2, and F3 to 5 GB:

example-node, H1; A1; D1; F1; F2; F3, 5gb, 5gb

RETURN VALUE

nnmsetiospeed.ovpl exits with the status 0 (zero) if no errors were encountered, 1 otherwise.

AUTHOR

nnmsetiospeed.ovpl was developed by Hewlett Packard Enterprise.

FILES

\$NNM_BIN/nnmsetiospeed.ovpl

nnmsetofficialfqdn.ovpl — Set the official Fully Qualified Domain Name (FQDN) of the NNMi management server.

SYNOPSIS

nnmsetofficialfqdn.ovpl $[-f \mid -force] < fqdn >$

DESCRIPTION

Use the nnmsetofficialfqdn.ovpl script to change the official FQDN for the NNMi 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 generate a new self-signed SSL certificate for the new hostname. If you are instead using CA signed certificates, you may need to obtain a new certificate from your CA with the new hostname.

For more information, please refer to the deployment guide.

Options

There are two optional arguments to nnmsetofficialfqdn.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 fqdn is used after this flag, it changes the official FQDN to fqdn.

EXAMPLES

Set the FQDN to the default value:

nnmsetofficialfqdn.ovpl

Set the FQDN to the value somehost.somedomain:

nnmsetofficialfqdn.ovpl somehost.somedomain

Force the official FQDN to the default value:

nnmsetofficialfqdn.ovpl -f

AUTHOR

nnmsetofficialfqdn.ovpl was developed by Hewlett Packard Enterprise.

FILES

nnmsetofficialfqdn.ovpl resides in the %NNM_BIN% (Windows) or \$NNM_BIN (UNIX) directory.

SEE ALSO

nnmofficialfqdn.ovpl(1M), nnmsso.ovpl(1M).

nnmsnmpbulk.ovpl — Queries a node for information using an SNMPv2c GetBulk request.

SYNOPSIS

```
nnmsnmpbulk.ovpl -u user_name -p passwd [options] node object-id[,object-id]...
```

options: [-d] [-V version] [-c community] [-port port(default:161)] [-t timeout(default:5000)] [-r retries(default:1)] [-T] [-n non-repeaters] [-m max-repetitions] [-pp Proxy Port] [-pa Proxy Address] [-a Authentication Protocol] [-A Authentication Pass phrase] [-X Privacy Protocol] [-X Privacy Passphrase] [-N Context Name] [-oen OID and Output Encoding] [-oex OIDs that are not encoded] [-v3u SNMPv3 user name] [-jndiHost hostname] [-jndiPort port Default is 1099]

DESCRIPTION

The nnmsnmpbulk.ovpl script uses the SNMPv2c/v3 GetBulk request to retrieve information from an SNMP agent. The SNMP GetBulk request minimizes the number of protocol exchanges required to retrieve a large amount of information. This increases performance, as the nnmsnmpbulk.ovpl script uses fewer SNMP requests to retrieve management information from the remote node.

If the node is an SNMPv1-only agent, the nnmsnmpbulk.ovpl script automatically downgrades the GetBulk request to an SNMPv1-supported GetNext request.

node can be a system with an IP address that supports SNMP. You can supply IP nodes to the nnmsnmpbulk.ovpl script using either a node's IP address or its hostname.

Supply command arguments for one or more OIDs in dotted decimal format or as a mnemonic name. Before attempting to supply a mnemonic name, load the MIB that defines the OID by using the nnmloadmib.ovpl script.

Only users who belong to System, Administrator or Web Service Client roles can run the nnmsnmpbulk.ovpl script. Users who are in Level1, Level2 or Guest roles cannot run the nnmsnmpbulk.ovpl script.

Parameters

-d

Dumps all SNMP packets to standard output in a hexadecimal and decoded ASN.1 format.

-v version

Requests a specific version of SNMP be used to communicate with the remote node. Valid choices for *version* are 1, 2, 2c, or 3.

If you do not specify the version, the nnmsnmpbulk.ovpl script uses 2c as the default for nodes not in the topology.

-c community

Specifies the community string to use for authentication on the remote node.

Note: If the community string contains characters the shell interferes with, use one or more escape symbols or quotation marks as required.

-port port

Specifies the port to use to communicate with the remote node.

-t timeout

Specifies a timeout period, in milliseconds, for communication with the remote node.

-r retries

Specifies the number of retries to use for communication with the remote node.

-T

Prints the OID in dotted decimal format and the MIB variable value with no textual conventions applied.

-n

non-repeaters specifies the number of variables for which a single lexicographic successor is to be returned. This value represents the number of non-repeating varbinds (values) you want the nnmsnmpbulk.ovpl script to retrieve.

-m

Max-Repetitions specifies the number of lexicographic successors to be returned for the remaining variables. This value represents the number of rows to retrieve for a repeating varbind (value). The repeating varbind is present in each table row.

-pp Proxy Port

Specifies the Proxy Port to use in communication with the node

-pa *Proxy Address*

Specifies the Proxy IP Address to use to communicate with the node.

-a Authentication Protocol

SNMPv3 Authentication Protocol (MD5|SHA)

-A Authentication Passphrase

SNMPv3 Authentication Passphrase

-x Privacy Protocol

SNMPv3 Privacy Protocol (DES|3DES|AES|AES192|AES256)

-X Privacy Passphrase

SNMPv3 Privacy Passphrase

-N context

SNMPv3 Context Name (for example, vlan1)

-oen <OID>:<encoding>

OID and Output Encoding (e.g. 1.3.6.1.2.1.1.4:UTF-8)

-oex <*OID1,OID2,...>*

OIDs that are not encoded

-v3u SNMPv3 user name

SNMPv3 security name (for example, testV3user)

-u <username>

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

-p <password>

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

-jndiHost<jndiHost>

The hostname of the server running the jboss application server. If you do not specify a hostname, the nnmcommload.ovpl script uses localhost as the default value.

-jndiPort<jndiPort>

The jboss application server port. If you do not specify this port, the nnmcommload.ovpl script uses 1099 as the default value.

If the nnmsnmpbulk.ovpl script does not receive a response, it uses a linear backoff algorithm based on the timeout and retries arguments to resend the SNMP request. For example, if the timeout argument is 2000 (two seconds) and the retries argument is 3, the initial request would time out after two seconds, the first retry would time out after four seconds, the second retry would time out after six seconds, and the last retry would time out after eight seconds. The nnmsnmpbulk.ovpl script requires additional time to resolve the configuration.

EXAMPLES

The following command retrieves all information under the system MIB OID from node testnode:

```
nnmsnmpbulk.ovpl -c community testnode .1.3.6.1.2.1.1.0
```

AUTHOR

nnmsnmpbulk.ovpl was developed by Hewlett Packard Enterprise.

FILES

The environment variable below represents a universal path that is established according to your shell and platform requirements:

Windows: %NNM_BIN%\nnmsnmpbulk.ovpl

UNIX: \$NNM_BIN/nnmsnmpbulk.ovpl

SEE ALSO

<u>nnmloadmib.ovpl(1M)</u>, <u>nnmsnmpnotify.ovpl(1M)</u>, <u>nnmsnmpset.ovpl(1M)</u>, <u>nnmsnmpwalk.ovpl(1M)</u>.

RFC 1155, 1157, 1212: SNMP Version 1.

RFC 1901 - 1908, 2576, 2578, 3416 - 3418: SNMP Version 2.

RFC 3411 - 3415: SNMP Version 3.

EXTERNAL INFLUENCES

Environmental Variables

\$LANG determines the language in which messages appear. If \$LANG is not specified or is set to an empty string, a default of C is used instead of \$LANG. If any internationalization variable contains an invalid setting, the nnmsnmpbulk.ovpl script functions as if all internationalization variables are set to C.

International Code Set Support

Supports single-byte and multiple-byte character code sets.

NOTE: SNMP MIB values of the type DISPLAY STRING are restricted to NVT-ASCII.

nnmsnmpwalk.ovpl — Query a node using SNMP GET or GETNEXT requests

nnmsnmpwalk.ovpl -u user name -p passwd [options] node object-id

SYNOPSIS

```
nnmsnmpget.ovpl -u user_name -p passwd [options] node object-id [,object-id]...

nnmsnmpnext.ovpl -u user_name -p passwd [options] node object-id [,object-id]...

options: [-d] [-v version] [-c community] [-port port(default:161)] [-t timeout(default:5000)] [-r retries(default:1)] [-T] [-pp Proxy Port] [-pa Proxy Address] [-a Authentication Protocol] [-A Authentication Pass phrase] [-X Privacy Protocol] [-X Privacy Passphrase] [-N Context Name] [-
```

oen OID and Output Encoding [-oex OIDs that are not encoded] [-v3u SNMPv3 user name] [-indiHost

DESCRIPTION

hostname] [-indiPort port Default is 1099]

The nnmsnmpwalk.ovpl script sends repeated SNMP GETNEXT requests to retrieve values for all instances of MIB objects registered on node node. The nnmsnmpwalk.ovpl script determines whether to use SNMP Version 1 or Community-based SNMP Version 2 (SNMPv2c) or version 3, based on the value supplied for the -v option and the type of remote node. If you do not specify a variable, the nnmsnmpwalk.ovpl script retrieves all values beneath object.iso.org. If you do supply a variable, the variable's value determines the starting point in the object identifier space that is searched. For example, the nnmsnmpwalk.ovpl script retrieves the entire system group if you supply .1.3.6.1.2.1.1.1 as a variable value. The nnmsnmpwalk.ovpl script terminates when all object information beneath the specified variable has been returned.

The nnmsnmpget.ovpl script uses the SNMP Get request to query node for information.

Normally an SNMP instance number needs to be appended, such as using .0 in .1.3.6.1.2.1.1.1.0 to get the system.sysDescr.0 value).

The nnmsnmpnext.ovpl script performs the same action as the nnmsnmpwalk.ovpl script, except that the nnmsnmpnext.ovpl script only returns a single value.

node can be an IP-addressable system that supports SNMP, or a target name for which an SNMP proxy configuration is defined. You can identify IP nodes by Internet address or hostname.

You might supply one or more variables as arguments to any of these scripts. Each variable is an object identifier in dotted decimal format or mnemonic name. If you plan to specify the variables by mnemonic name, use the nnmloadmib.ovpl script to load the MIB that defines the object identifier before using this method.

If you attempt to search beyond the end of the remote node's MIB with either the nnmsnmpwalk.ovpl or nnmsnmpnext.ovpl scripts, the scripts display an End of MIB message.

Only users who belong to System, Administrator or Web Service Client roles can run these scripts. Users

who are in Level1. Level2 or Guest roles cannot run these commands.

Options

-d

Dumps all SNMP packets to standard output in a hexadecimal and decoded ASN.1 format.

-v version

Requests the script to use a specific version of SNMP to communicate with the remote node. Valid choices for *version* are 1, 2c, or 3.

If you do not specify the version, the script uses 2c as the default for nodes not in the topology.

-c community

Specifies the community string to use for authentication on the remote node.

Note: If the community string contains characters the shell interferes with, use one or more escape symbols or quotation marks as required.

-port port

Specifies the port to use in communication with the remote node.

-t timeout

Specifies a timeout period, in milliseconds, for communication with the remote node.

-r retries

Specifies the number of retries to use for communication with the remote node.

-T

Prints the OID in dotted decimal format and the MIB variable value with no textual conventions applied.

-pp Proxy Port

Specifies the Proxy Port to use in communication with the node

-pa *Proxy Address*

Specifies the Proxy IP Address to use in communication with the node

-a Authentication Protocol

SNMPv3 Authentication Protocol (MD5|SHA)

-A Authentication Passphrase

SNMPv3 Authentication Passphrase

-x Privacy Protocol

SNMPv3 Privacy Protocol (DES|3DES|AES|AES192|AES256)

-X Privacy Passphrase

SNMPv3 Privacy Passphrase

-N context

SNMPv3 Context Name (for example, vlan1)

-oen <OID>:<encoding>

OID and Output Encoding.

The output shows the encoded string for the octet string of the collected MIB only if that octet string is encoded as provided. The command shows hexa-decimal strings, In case octet strings are not encoded by specified encoding.

-oex <0ID1,0ID2,...>

OIDs that are not encoded

Specifies OID that is excluded from the encoding target. The OID specified by this option is not encoded and printed as hexa-decimal.

-v3u SNMPv3 user name

SNMPv3 security name (for example, testV3user)

-u <username>

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

-p <password>

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

-jndiHost<jndiHost>

The hostname of the server running the jboss application server. If you do not specify a hostname, the nnmcommload.ovpl script uses localhost as the default value.

-jndiPort<jndiPort>

The jboss application server port. If you do not specify this port, the nnmcommload.ovpl script uses 1099 as the default value.

If the nnmsnmpget.ovpl, nnmsnmpnext.ovpl, or nnmsnmpnnmsnmpwalk.ovpl scripts do not receive a response, a linear backoff algorithm based on the <code>timeout</code> and <code>retries</code> arguments is used to resend the SNMP request. For example, if the <code>timeout</code> argument is 2000 (two seconds) and the <code>retries</code> argument is 3, the initial request would time out after two seconds, the first retry would time out after four seconds, the

second retry would time out after six seconds, and the last retry would time out after eight seconds. The nnmsnmpget.ovpl, nnmsnmpnext.opvl, and nnmsnmpwalk.ovpl scripts require additional time to resolve the configuration.

EXAMPLES

The following script usage requests the system subtree for the node testnode:

```
nnmsnmpwalk.ovpl testnode system
```

Output for the above command typically resembles the following:

```
nnmsnmpwalk.ovpl -c community 10.97.1.7 .1.3.6.1.2.1.1  
.1.3.6.1.2.1.1.1.0: ASN_OCTET_STR = Ethernet Switch 470-24T-PWR  
.1.3.6.1.2.1.1.2.0: ASN_OBJECT_ID = .1.3.6.1.4.1.45.3.63.1  
.1.3.6.1.2.1.1.3.0: ASN_TIMETICKS = 63050579  
.1.3.6.1.2.1.1.4.0: ASN_OCTET_STR = Bob Jones 933-558-3453  
.1.3.6.1.2.1.1.5.0: ASN_OCTET_STR = wr3-2-front-storage-n91-60-2  
.1.3.6.1.2.1.1.6.0: ASN_OCTET_STR = Woods Run 3 2nd floor  
.1.3.6.1.2.1.1.7.0: ASN_INTEGER = 3
```

The following example shows the usage of the option -oen and -oex for node 192.168.50.1

```
nnmsnmpwalk.ovpl -v 2c -c public -oen .1.3.6.1.2.1.1.4:shift-jis 192.168.50.1 .1.3.6.1.2.1.1
```

The output shows shift-jis encoded strings for the octet string of the collected MIB only if that octet string is valid shift-jis. In case the octet string is not encoded by specified encoding, the command output shows hexadecimal strings.

```
nnmsnmpwalk.ovpl -v 2c -c public -oen .1.3.6.1.2.1.1.4:shift-jis -oex .1.3.6.1.2.1.1.4.0 192.168.50.1 .1.3.6.1.2.1.1
```

The output shows the returned MIB value for the .1.3.6.1.2.1.1 and the shift-jis encoded characters for the hexa-decimal values which are children of the 1.3.6.1.2.1.1.4 except for the 1.3.6.1.2.1.1.4.0

AUTHOR

nnmsnmpwalk.ovpl, nnmsnmpget.ovpl, and nnmsnmpnext.ovpl were developed by Hewlett Packard Enterprise.

FILES

```
Windows: %NNM_BIN%\nnmsnmpwalk.ovpl
```

 $Windows: %NNM_BIN%\nnmsnmpget.ovpl$

Windows: %NNM BIN%\nnmsnmpnext.ovpl

UNIX: \$NNM_BIN/nnmsnmpwalk.ovpl

UNIX: \$NNM_BIN/nnmsnmpget.ovpl

UNIX: \$NNM BIN/nnmsnmpnext.ovpl

For information about universal paths for your platform and shell, see the nnm.envvars(1) reference page.

SEE ALSO

<u>nnmsnmpset.ovpl(1M)</u>, <u>nnmsnmpbulk.ovpl(1M)</u>, <u>nnmsnmpnotify.ovpl(1M)</u>.

RFC 1155, 1157, 1212: SNMP Version 1.

RFC 1901 - 1908, 2576, 2578, 3416 - 3418: SNMP Version 2.

RFC 3411 - 3415: SNMP Version 3.

EXTERNAL INFLUENCES

Environmental Variables

\$LANG determines the language in which messages appear. If \$LANG is not specified or is set to an empty string, a default of c is used instead of \$LANG. If any internationalization variable contains an invalid setting, nnmsnmpget.ovpl behaves as if all internationalization variables are set to c.

International Code Set Support

Supports single-byte and multiple-byte character code sets.

NOTE: SNMP MIB values of the type DISPLAY STRING are restricted to NVT-ASCII.

nnmsnmpset.ovpl — issue an SNMP set request

SYNOPSIS

nnmsnmpset.ovpl -u user_name -p passwd[options] node object-id asnType value[object-id asnType value]...

options: [-d] [-V version] [-c write community] [-port port(default:161)] [-t timeout(default:5000)] [-r retries(default:1)] [-T] [-pp Proxy Port] [-pa Proxy Address] [-a Authentication Protocol] [-A Authentication Pass phrase] [-X Privacy Protocol] [-X Privacy Passphrase] [-N Context Name] [-v3u SNMPv3 user name] [-jndiHost hostname] [-jndiPort port Default is 1099]

DESCRIPTION

The nnmsnmpset.ovpl script sends an SNMP set request to alter MIB objects on the remote node.

node can be an IP-addressable system that supports SNMP, or a target name for which an SNMP proxy configuration is defined. You can identify IP nodes by an Internet address or by a hostname.

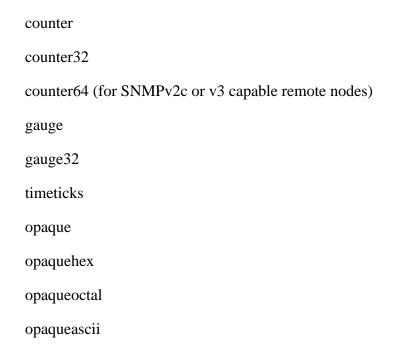
The nnmsnmpset.ovpl script passes data to the remote node as a triple of object-id,asnType,value. Supply one or more triples to the nnmsnmpset.ovpl script as command-line arguments.

Each object-id is an object instance identifier in dotted decimal format (for example, .1.3.6.1.4.1.11.2.17.2.1.0 or mnemonic string format (for example, openViewSourceId.0).

Each asnType must be one of the following asnTypes:

integer
integer32
unsigned32
octetstring
octetstringhex
octetstringoctal
octetstringascii
objectidentifier
null

ipaddress



For a complete description of each asnType, refer to RFC 1155 and RFC 1902.

The *value* parameter must be valid for the asnType specified. When using a asnType that requires a hexadecimal or octal value, you must fully define each byte of the value. For example, if you specify fff (or 17377), it is missing a byte, and will not work. Use <code>0fff</code> (or <code>017377</code>) instead. The <code>nnmsnmpset.ovpl</code> script ignores the <code>null</code> asnType. You must specify a <code>value</code> on the command line. If you try to use a <code>null</code> type, the <code>nnmsnmpset.ovpl</code> script ignores the <code>null</code> type when it creates the request. <code>value</code> must not be larger than 512 bytes.

Only users who belong to System, Administrator or Web Service Client roles can run the nnmsnmpset.ovpl script. Users who are in Level1, Level2 or Guest roles cannot run the nnmsnmpset.ovpl script.

Parameters

-d

Dumps all SNMP packets to standard output in a hexadecimal and decoded ASN.1 format.

-v version

Requests the nnmsnmpset.ovpl script to use a specific version of SNMP to communicate with the remote node. Valid choices for *version* are 1, 2c, or 3.

If you do not specify the version, the nnmsnmpset.ovpl script uses 2c as the default for nodes not in the topology.

-c write community

Specifies the write community string to use for authentication on the remote node.

Note: If the community string contains characters the shell interferes with, use one or more escape symbols or quotation marks as required.

-port port

Specifies the port to use in communication with the remote node.

-t timeout

Specifies a timeout period, in milliseconds, for communication with the remote node.

-r retries

Specifies the number of retries to use for communication with the remote node.

-T

Prints the OID in dotted decimal format and the MIB variable value with no textual conventions applied.

-pp Proxy Port

Specifies the Proxy Port to use in communication with the node

-pa *Proxy Address*

Specifies the Proxy IP Address to use in communication with the node

-a Authentication Protocol

SNMPv3 Authentication Protocol (MD5|SHA)

-A Authentication Passphrase

SNMPv3 Authentication Passphrase

-x Privacy Protocol

SNMPv3 Privacy Protocol (DES|3DES|AES|AES192|AES256)

-X Privacy Passphrase

SNMPv3 Privacy Passphrase

-N context

SNMPv3 Context Name (for example, vlan1)

-v3u*SNMPv3 user name*

SNMPv3 security name (for example, testV3user)

-u <username>

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

-p <password>

Supply the NNMi administrator password to run the script. This script requires the NNMi administrator

password unless you use an nnm.properties file. See the nnm.properties.4 reference page for more information.

```
-jndiHost<jndiHost> (optional)
```

The hostname of the server running the jboss application server. If you do not specify a hostname, the nnmcommload.ovpl script uses localhost as the default value.

```
-jndiPort<jndiPort> (optional)
```

The jboss application server port. If you do not specify this port, the nnmcommload.ovpl script uses 1099 as the default value.

If the nnmsnmpset.ovpl script does not receive a response, it uses a linear backoff algorithm based on the timeout and retries arguments to resend the SNMP request. For example, if the timeout argument is 2000 (two seconds) and the retries argument is 3, the initial request would time out after two seconds, the first retry would time out after four seconds, the second retry would time out after six seconds, and the last retry would time out after eight seconds. The nnmsnmpset.ovpl script requires additional time to resolve the configuration.

EXAMPLES

The following command sets the system contact to Bob Jones for the node testnode:

```
nnmsnmpset.ovpl -c writeCommunity testnode system.sysContact.0 octetstring "Bob Jones"
```

The output for this command is as follows:

```
system.sysContact.0 OCTET STRING-(ascii): Bob Jones
```

AUTHOR

nnmsnmpset.ovpl 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\nnmsnmpset.ovpl
install_dir\doc\rfc*.txt
```

SEE ALSO

<u>nnmsnmpwalk.ovpl(1M)</u>, <u>nnmsnmpbulk.ovpl(1M)</u>, <u>nnmsnmpnotify.ovpl(1M)</u>.

RFC 1155, 1157, 1212: SNMP Version 1.

RFC 1901 - 1908, 2576, 2578, 3416 - 3418: SNMP Version 2.

RFC 3411 - 3415: SNMP Version 3.

EXTERNAL INFLUENCES

Environmental Variables

\$LANG determines the language in which messages appear. If \$LANG is not specified or is set to an empty string, a default of c is used instead of \$LANG. If any internationalization variable contains an invalid setting, nnmsnmpset.ovpl behaves as if all internationalization variables are set to c.

International Code Set Support

Supports single-byte and multiple-byte character code sets.

NOTE: SNMP MIB values of the asnType octetstringascii are restricted to NVT-ASCII.

nnmsso.ovpl — reload single sign-on configuration.

SYNOPSIS

nnmsso.ovpl -reload

DESCRIPTION

nnmsso.ovpl is a script that enables you to reload the single sign-on (SSO) configuration from the nms-ui.properties file without restarting ovjboss.

Note: Other applications integrating with NNMi might use a different configuration file for enabling and configuring single sign-on. See the integrating product's documentation for instructions about enabling single sign-on and setting the user interface initialization string (initString) parameter that needs to be configured.

Parameters

The nnmsso.ovpl script supports the following options:

-reload

Reloads the SSO configuration.

EXAMPLES

nnmsso.ovpl -reload

Reads modifications made to the nms-ui.properties file. These changes could include enabling SSO, disabling SSO, or changing the initString.

AUTHOR

nnmsso.ovpl was developed by Hewlett Packard Enterprise.

FILES

Windows: %NNM_PROPS%\nms-ui.properties

UNIX: \$NNM_PROPS/nms-ui.properties

SEE ALSO

 $\underline{nnmofficialfqdn.ovpl}(1M), \underline{nnmsetofficialfqdn.ovpl}(1M), \underline{nnmldap.ovpl}(1M).$

nnmstatuspoll.ovpl — update the status for a node using the State Poller

SYNOPSIS

nnmstatuspoll.ovpl [-node <nodename | IP Address> [-tenant tenant name] [-t timeout in secs] [-v]]

DESCRIPTION

The nnmstatuspoll.ovpl script enables you to dynamically poll a device that is being monitored. This results in a refresh of key collected state values. When all of the information for the state demand poll has been collected and displayed, the nnmstatuspoll.ovpl script informs you that the task that you requested is complete.

Parameters

```
-node < nodename | IP Address>
```

Target node name or IP address.

```
-tenant <tenant name>
```

Tenant the given node is paired with. This option is useful when node names and IP addresses are non-unique in the topology such as can occur in overlapping address domain environments.

```
-t <timeout in secs>
```

Client waits till given timeout in sec.

-v

Displays the detailed verbose log message on console.

```
-jndiHost <hostname>
```

Jboss server host. Default is localhost.

```
-jndiPort <port>
```

Jboss server port. Default is 1099.

```
-u <username>
```

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

```
-p <password>
```

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

-help

Prints the usage statement.

RETURN VALUE

nnmstatuspoll.ovpl returns the appropriate output shown in the above Parameters section.

When using -v option, you see the information in the following columns:

Column 1: Indicates which protocol is used to collect the data.

Column 2: Indicates which device name was polled.

Column 3: Indicates which MIB instance was polled.

Column 4: Indicates the result of the poll.

Column 5: Indicates a mapped value, if it exists.

AUTHOR

nnmstatuspoll.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

nnm.properties(4)

nnmtopodump.ovpl — Displays the contents of the NNMi topology database

SYNOPSIS

nnmtopodump.ovpl [-h] -u <username> -p <password> -type <type> [-legacy <format>] [-filter <filter>]

DESCRIPTION

nnmtopodump.ovpl displays the contents of the topology database. By default, NNMi displays the output in xml format unless you specify the -legacy option.

Parameters

The nnmtopodump.ovpl script supports the following options:

-h

Displays the usage statement.

-u <username>

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

-p <password>

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

-http.host <host>

The server host; default is localhost.

-http.port <port>

The server port; default is 8004.

-type <type>

The type of the objects available to be printed. Use one of the following types: node|interface|incident|ip|subnet|rrp|vlan|nodeSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|physComp|physSensor|interfaceAggregation|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|card|l2connection|car

```
-legacy [short|long]
```

If you use the legacy option, NNMi displays the data in text output. If you do not specify this option, then NNMi displays the output in xml form. Use the legacy option with the following type values only: node, interface, ip, 12connection and interfaceAggregation. For -legacy short, this is only valid for the type values node, interface, and 12connection.

-filter <filter>

Filters the output by property. The nnmtopodump.ovpl script supports the following filters:

node - node.name | node.shortname | node.id | node.uuid | node.status | node.snmpaddress |

node.managementMode | node.deviceCategory | node.deviceDescription | node.deviceFamily | node.deviceVendor

interface - node.name | node.shortname | node.id | node.snmpaddress | node.deviceCategory | node.deviceDescription | node.deviceFamily | node.deviceVendor | node.managementMode | interface.ifType | interface.id | interface.uuid | interface.managementMode | interface.managementState

ip - interface.id | node.id | ip.value | ip.id

vlan - node.name | node.id | vlan.id | vlan.name | vlan.value

nodeSensor - node.name | node.hostname | node.id | nodeSensor.id | nodeSensor.name | nodeSensor.type

physSensor - node.name | node.hostname | node.id | physComp.name | physComp.id | physSensor.id | physSensor.name | physSensor.type

card - node.name | node.hostname | node.id | card.id | card.name

12connection - connection.name | connection.id | connection.uuid

interfaceAggregation - master.id | master.uuid | master.index | master.alias | slave.id | slave.uuid | slave.index | slave.alias

EXAMPLES

nnmtopodump.ovpl -u username -p password -type node

Displays all of the nodes in the topology database in xml format. (You must provide an NNMi administrator username and password.)

nnmtopodump.ovpl -u username -p password -legacy long -type node

To display the nodes in text format, you must use the legacy option. When you use the legacy option with -type node, NNMi displays the nodes and their interfaces.

Equivalent command in NNM 6.x/7.x: ovtopodump -1

nnmtopodump.ovpl -u username -p password -type node -filter node.name=foo.hp.com

Display information about node foo.hp.com in xml format.

nnmtopodump.ovpl -u username -p password -legacy long -type node -filter node.name=foo.hp.com

Display information about node foo.hp.com in text format. When you use the legacy option with -type node, it displays the nodes with the interfaces attached to the node.

Equivalent command in NNM 6.x/7.x: ovtopodump -lr foo.hp.com

```
nnmtopodump.ovpl -u username -p password -legacy long -type node -filter node.id=2345
```

Display information about the node having nodeid as 2345 in text format. NNMi also displays all interfaces of the node.

Equivalent command in NNM 6.x/7.x: ovtopodump -lr 2345

```
nnmtopodump.ovpl -u username -p password -type interface -filter interface.managementState=MANAGED
```

Display information about all interfaces that are managed. Filter values can be MANAGED, INHERITED, NOTMANAGED, and OUTOFSERVICE.

AUTHOR

nnmtopodump.ovpl was developed by Hewlett Packard Enterprise.

SEE ALSO

nnmnodedelete.ovpl(1M), nnm.properties(4).

nnmtopoquery.ovpl — Performs select queries on the NNMi topology.

SYNOPSIS

```
nnmtopoquery.ovpl findConnectedNeighborInterfacesByNode -node (<name>|<uuid>)
nnmtopoquery.ovpl findL2ConnectionsByNode -node (<name>|<uuid>)
nnmtopoquery.ovpl findWebAgentSettingsByNode -node (<name>|<uuid>)
nnmtopoquery.ovpl listWebAgentSettings
```

DESCRIPTION

nnmtopoquery.ovpl performs queries against the NNMi management server and outputs the result in selectable table format.

Parameters

nnmtopoquery.ovpl recognizes the following options.

-h

Prints the usage statement.

```
-node (<name>|<uuid>)
```

Specifies the node for queries that accept a node as input. Nodes may be referenced by name, hostname or UUID.

```
-format (csv|list|text|xml)
```

Changes the output format. Available output modes are CSV, LIST, TEXT and XML.

```
-fields <comma separated fields>
```

Selects the output fields in a comma-separated list. If this argument is not provided all fields are shown in the output by default. When this argument is provided fields will be shown in the output in the order specified.

Wildcards such as '*' to match any sequence of characters and '?' to match a single character are available.

```
-u <username> -p <password>
```

Supply the credentials to run the script. This script requires valid NNMi credentials unless you use an nnm.properties file. See the nnm.properties.4 reference page for more information.

Listing Connected Neighbor Interfaces for a node

Use the findConnectedNeighborInterfacesByNode query to list all neighbor interfaces connected to a specified node.

The available output fields for this query are: uuid, name, nodeUUID, nodeName, ifIndex, ifAlias, speed, inSpeed, outSpeed, ifDescr, ifName, ifType, physicalAddress and managementMode.

Example:

nnmtopoquery.ovpl findConnectedNeighborInterfacesByNode -node mynode -fields
nodeName,name,physicalAddress,managementMode

Listing Layer 2 Connections for a Node

Use the findL2ConnectionsByNode query to list all layer 2 connections on a specified node.

The available output fields for this query are: connUUID, connName, connStatus, connStatusTimestamp, localNodeUUID, localNodeName, localIfUUID, localIfIndex, localIfAlias, localIfName, localIfDesc, localIfAddr, remoteNodeUUID, remoteNodeName, remoteIfUUID, remoteIfIndex, remoteIfAlias, remoteIfName, remoteIfDesc and remoteIfAddr.

Example:

nnmtopoquery.ovpl findL2ConnectionsByNode -node mynode -fields connUUID,connName,localIfIndex,remoteIfIndex

Listing Web Agent Settings of a Node

Use the findWebAgentSettingsByNode query to list Web Agent settings of a specified node.

The available output fields for this query are: agentUuid, hostName, name, nodeUuid, nodeName, mode, agentEnabled, userName, port, scheme, timeout, lastModifiedBy and lastModified.

Example:

nnmtopoquery.ovpl findWebAgentSettingsByNode -node mynode -fields agentUuid, hostName, nodeUuid, nodeName, mode, userName

Listing All Web Agent Settings

Use the listWebAgentSettings query to list all the Web Agent settings.

The available output fields for this query are: agentUuid, hostName, name, nodeUuid, nodeName, mode, agentEnabled, userName, port, scheme, timeout, lastModifiedBy and lastModified.

Example:

nnmtopoquery.ovpl findWebAgentSettingsByNode -node mynode -fields agentUuid, hostName, nodeUuid, nodeName, mode, userName

RETURN VALUE

nnmtopoquery.ovpl exits with the status 0 (zero) if no errors were encountered, 1 otherwise.

AUTHOR

nnmtopoquery.ovpl was developed by Hewlett Packard Enterprise.

nnmtrapconfig.ovpl — Configure HP NNM Trap service

SYNOPSIS

nnmtrapconfig.ovpl -u <user> -p <password> [-showProp] [-start] [-stop] [-readFilter] [-dumpBlockList] [-resetBlockCache]

DESCRIPTION

nnmtrapconfig.ovpl can be used to display or modify the current properties of the Trap Service. In addition it can be used to start or stop the Trap Service. It also provides the following filter related functionalities: read filter configuration files, print out the current filter configuration and blocking caches or reset the blocking caches

Parameters

nnmtrapconfig.ovpl supports the following parameters:

-u <username>

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

-p <password>

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

-showProp

Show the properties associated with Trap Service and their current values.

Start the Trap Service. NOTE this command only starts the TrapServer which is running in JBoss. Use nnmtrapreceiver to start the standalone TrapReceiver.

-stop

Stop the Trap Service. NOTE this command only stops the TrapServer which is running in JBoss. If the TrapReceiver is not stopped as well, your server will continue to receive and cache traps. Use nnmtraprecevier to stop the standalone TrapReceiver.

-readFilter

Cause Trap Service to read the filter configuration files.

-dumpBlockList

Print out the filter configuration and the blocking caches that the Trap Service creates.

-resetBlockCache

Reset the blocking caches in the Trap Service.

To set values for one or more properties, run nnmtrapconfig.ovpl with the following options

-u user

The name of a user with system or administrator roles.

-p password

The password for the specified user.

-setProp

Set values for properties associated with Trap Service.

trapInterface ip address

Set IP address on which the Trap Service listens for traps. By default it listens on all interfaces.

unsetTrapInterface

Set Trap Service to listen on all interfaces.

trapPort port

Set the port on which the Trap Service listens for traps. By default this is 162.

recvSocketBufSize size

Set the size of socket buffer, in kilobytes, on which Trap Service listens for traps.

disallowV1V2

Block all incoming SNMP v1 and v2 traps, forwarding only v3 traps. Disabled by default.

allowV1V2

Accept every incoming SNMP trap, including v1 and v2. This is the default.

loopbackAddrOverride ip address

Sets the IP Address to replace the source address of a trap if the source address is a loopback address before forwarding the trap.

resetLoopbackAddrOverride

Resets the loopback override address. When this options is executed, the user supplied loopback override address will be removed. In this case, NNM chooses one of the server's addresses as the loopback override address.

blockTraps

Block traps based on filter and threshold configurations.

unblockTraps

Do not block traps.

thresholdRate rate

Set the rate in traps/sec at which trap sources or trap oids are blocked.

rearmRate rate

Set the rate in traps/sec at which blocked trap sources or trap oids are unblocked. This rate should be less than or equal to the thresholdRate.

overallThresholdRate rate

Set the rate in traps/sec at which all incoming traps are blocked.

overallRearmRate rate

Set the rate in traps/sec at which all incoming traps are unblocked. This rate should be less than or equal to the overallThresholdRate

windowSize time

Set monitoring window size in seconds. This determines the window size in which trap sources are monitored. This means that whenever this time expires the counters keeping track of incoming traps are reset and a new window is started.

updateSourcesPeriod time

Set the time period in seconds after which the list of blocked traps and sources are updated.

notifySourcesPeriod time

Set the time period in seconds after which the list of blocked traps and sources are reported in the trapanalytics log file under the NNM_LOG directory. This is also the time period after which a trap storm incident is generated, in case a trap storm occurs and the overallThresholdRate is violated.

minTrapCount count

Set the minimum number of traps to be received from a source before it is considered for blocking. Also the minimum number of the same trap received before that trap is considered for blocking.

numSources count

Set the number of nosiest sources to monitor at any given time. These will be the sources that are sending the most traps as well as the traps that occur most frequently. This information is reported in the trapanalytics log file in the NNM_LOG directory.

databaseQSize count

Set the maximum number of traps that can be held in the queue that writes traps to the database.

pipelineQSize count

Set the maximum number of traps that can be held in the queues for each stage of the trap pipeline.

databaseFileSize size

Set the maximum size, in MB, for one file in the trap database. When the file size reaches this value a rollover happens.

databaseFileCount count

Set the maximum number of files in the trap database.

hostedObjectTrapstorm enabled

Enable or disable hosted object trap storm detection and suppression.

hostedObjectThreshold rate

If a hosted object's trap rate is greater than this threshold in seconds, its traps will be suppressed.

trapLoggingMode log mode

The mode that the trap logger will operate with, valid values are: OFF, CSV, TXT, BOTH. Default value: CSV

```
OFF: Turns off all trap logging
CSV: Traps will be logged in a CSV format
TXT: Traps will be logged in a txt format similiar to trapd.log
BOTH: Traps will be logged in both formats
```

 ${\tt trapLoggingCompression}\ boolean$

If true, traps will be logged in a gz compression, Default: false

trapLoggingMaxFileSize size

Maximum size in MB that the trap log files will grow to before being rolled archived to a .old file. Only 1 .old file is retained for each log format. Defaul: 5MB

trapLoggingRollAttempts count

Maximum number of attempts the trap logger will try to roll a log file internally. Default: 1

trapLoggingTaskInterval time

Time in seconds the trap logger will wait before writing traps to the filesystem. Defult: 6 seconds

trapLoggingBatchSize size

Maximum number of traps that will be written to the filesystem during each interval. Default: 256

trapReceiverNettyPort port

Set the port the TrapReceiver will monitor for connections from JBoss. Default: 5447

trapReceiverJmsMemory size bytes

Set the maximum amount of memory in bytes each JMS queue can consume, this value must be more than jms-page. Default: 128MB (134217728)

trapReceiverJmsPage size bytes

Set the maximum file size in bytes for JMS queue pages, this value must be more than 1,048,576 and less than jms-memory. Default: 10MB (10485760)

trapReceiverJmsTTL time miliseconds

Set the JMS message TTL in ms. Must be a non-negative long. This is the amount of time that traps will be cached by the TrapReceiver. If JBoss is down for longer than this time, data will be lost. Default: 5 Minutes (300000)

trapReceiverReplay time miliseconds

Set the time delta in ms, to use when replaying traps during startup after a failover. Must be a non-negative long. A value of zero guarantees no duplicate data, however a value of zero may lead to lost data. Default: 10 Seconds (10000)

-persist

Persist the current properties so that on future restarts these values will be used.

If you are persisting properties in a HA or application failover environment, HP suggests stopping and starting the TrapReceiver on the inactive server to ensure that both the active and inactive nodes are using the same properties.

EXAMPLES

Show the properties associated with the Trap Service and their values:

```
nnmtrapconfig.ovpl -u user -p pass -showProp
```

Start the Trap Service:

```
nnmtrapconfig.ovpl -u user -p pass -start
```

Set the trap port to 1162:

```
nnmtrapconfig.ovpl -u user -p pass -setProp trapPort 1162
```

Enable the hosted object trap storm detection and suppression stage, with a per device traps/second threshold of 50. This command will also persist the current values for future invocations of the Trap Service.

nnmtrapconfig.ovpl -u user -p pass -setProp hostedObjectTrapstorm true hostedObjectThreshold 50 -persist

Log recieved traps using both formats, with a maximum file size of 32MB, using a task interval of 30 seconds and a batch size of 1024. Also persist the current values for future invocations of Trap Service.

 ${\tt nnmtrapconfig.ovpl-u user-p pass-setProp trapLoggingMode BOTH trapLoggingMaxFileSize 32 trapLoggingTaskInterval 30 trapLoggingBatchSize 1024-persist}$

Enable blocking and also persist the current values for future invocations of Trap Service

nnmtrapconfig.ovpl -u user -p pass -setProp blockTraps -persist

Persist the current values for future invocations of Trap Service

nnmtrapconfig.ovpl -u user -p pass -setProp -persist

FILES

The following file stores properties for NNM Trap Service:

Windows:data_dir\shared\nnm\conf\nnmtrapserver.properties

UNIX:/var/opt/OV/shared/nnm/conf/nnmtrapserver.properties

The blocking filters can be configured in the following file:

Windows:data_dir\shared\nnm\conf\nnmtrapd.conf

UNIX:/var/opt/OV/shared/nnm/conf/nnmtrapd.conf

The hosted object trap storm detection and suppression filter can be configured in the following file:

UNIX:/var/opt/OV/shared/nnm/conf/hosted-object-trapstorm.conf

SEE ALSO

hosted-object-trapstorm.conf(4), nnmtrapreceiver(1M).

AUTHOR

nnmtrapconfig.ovpl was developed by Hewlett Packard Enterprise.

nnmtrapreceiver — Wrapper around the TrapReceiver service

SYNOPSIS

```
nnmtrapreceiver [-start] [-stop] [-status] [-?]
```

DESCRIPTION

nnmtrapreceiver is a service component that falls under the management of the operating system.

*** NOTE: This command should be never be executed directly, users should use the nettrap init.d script on UNIX and the NNM TrapReceiver Service from the local services manager on Windows. ***

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

EXAMPLES

To start the *TrapReceiver*, if not already started, run the following command:

\$InstallDir/bin/nnmtrapreceiver -start

To stop the TrapReceiver run the following command:

\$InstallDir/bin/nnmtrapreceiver -stop

To return the status of the *TrapReceiver* process:

\$InstallDir/bin/nnmtrapreceiver -status

To print the command's usage statement:

\$InstallDir/bin/nnmtrapreceiver -?

AUTHOR

nnmtrapreceiver was developed by Hewlett Packard Enterprise.

FILES

\$NNM_DATA/log/nnm/public/nnmtrapreceiver.log

Log file containing wrapper messages.

\$NNM_DATA/log/nnm/public/trapReceiver.0.log

Log file containing service messages.

SEE ALSO

ovstart(1)

nnmtrimincidents.ovpl - delete and (optionally) archive incidents

SYNOPSIS

nnmtrimincidents.ovpl [[[-age age -incr incr]| -date date|-trimOldest numberToTrim] [-nature nature] [-ificycle lifecycleState] [-severity severity] [-origin origin] [-name name] [-family family] [-sysobjectid] [-youth path] [-trimOnly] [-trimAndArchive] [-batch batchSize] [-username] [-family family] [-sysobjectid] [-youth path] [-trimOnly] [-trimAndArchive] [-trimAndA password] [-quiet]]

DESCRIPTION

nnmtrimincidents.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(ALMAYS_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
TimeStamp - Last time this incident occurred, as a human readable time string.

Name - SourceNodeName - Source Node Short Name

SourceObjectName - Source Node Short Name

SourceState - Source Node Short Name

SourceState - Source Node Short Name

FormattedMessage - Formatted string describing the incident LifecycleState - Incident lifecycle state

Severity - Incident severity - Incident priority localized label

AssignedTo JournalNotes - Incident JournalNote
                                                                                                                                                                                   Incident category localized label
Incident family localized label
Incident nature
        Category
Family
Nature
  Nature - Incident nature
Origin - Incident origin
IncidentNotes - Incident origin
IncidentNotes - Incident notes
DuplicateCoat - Times the incident has occured in the system
DuplicateCoat - Times the incident has occured in the first one
OriginOccuranceTime - Timestamp for when the trap/syslog arrived into the system (if any)
PayLoad: All CIAS, 'Mame[Type] Value' seperated by | (In the case of multiple CIA)
Name - Name of CIA (50 chars max)
Type - Value type of the CIA
Value of the CIA (2000 chars max)
ElementOID - OID for the incident if it exists
```

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.

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

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

Trims incidents with archiving the deleted incidents.

-hatch batch@ize

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
      Warning
 -name name
     Specifies the name of incidents matching the age | date to trim.
-family family
     Optionally specify the family of incidents matching age|date to trim.
 -sysobjectid sysobjectid
      Optionally specify the device system object id of incidents matching age|date to trim.
 -nature nature
      Specifies the nature of incidents matching the age | date to trim.
     Examples of nature include:
      RootCause
      SecondaryRootCause
      Symptom
     StreamCorrelation
      Info
      Dedup_Stream_Correlation
     Rate_Stream_Correlation
 -origin origin
      Specifies the origin of incidents matching the age | date to trim.
     Example origin states include:
      ManagementSoftware
      ManuallyCreated
      RemotelyGenerated
     SnmpTrap
      Syslog
     Other
      Supply the NNMi administrator username to run the script. This script requires the NNMi administrator username unless you use an nnm.properties file. See the nnm.properties.4 reference page for more information.
      Supply the NNMi administrator password to run the script. This script requires the NNMi administrator password unless you use an nnm.properties file. See the nnm.properties.4 reference page for more information.
 -quiet quiet
      Specifies non-prompt mode.>
EXAMPLES
Trim incidents older than 6 days:
```

nnmtrimincidents.ovpl -age 6 -incr days

Trim incidents older than 6 weeks with a nature of Symptom:

```
nnmtrimincidents.ovpl -age 6 -incr weeks -nature Symptom

Trim incidents older than 6 months with a lifecycle state of Closed:

nnmtrimincidents.ovpl -age 6 -incr months -lifecycle Closed

Trim incidents older than 6 months with a severity of Normal:

nnmtrimincidents.ovpl -age 6 -incr months -severity Normal

Trim incidents older than the specified date:

nnmtrimincidents.ovpl -date 2007-07-16T19:20:30

Trim incidents older than the specified date with a nature of Symptom:

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

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

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

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

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

Trim incidents older than 6 days (without archiving):

nnmtrimincidents.ovpl -age 6 -incr days
```

Trim the oldest 10,000 SNMP traps with Symptom nature:
nnmtrimincidents.ovpl -trimOldest 10000 -nature Symptom -origin SnmpTrap

Trim incidents older than 6 days (without archiving):

nnmtrimincidents.ovpl -trimOnly -age 6 -incr days

Archive incidents older than 6 days (without trimming):

nnmtrimincidents.ovpl -archiveOnly -age 6 -incr days

Trim and archive incidents older than 6 days:

nnmtrimincidents.ovpl -trimAndArchive -age 6 -incr days

AUTHOR

 ${\tt nnmtrimincidents.ovpl}\ was\ developed\ by\ Hewlett\ Packard\ Enterprise.$

SEE ALSO

nnm.properties(4)

nnmgnmattrcfg.ovpl — Add or remove replicated custom attribute(s) for nodes, interfaces, cards, and chassis from regional to global NNMi.

SYNOPSIS

 $\label{local-continuous} $$\operatorname{nnmgnmattrcfg.ovpl-add} \operatorname{attrName} [-file < file name>] > | -remove < attrName [-file < file name>] > | -list | [-u < username> -p < password>] [-jndiHost < hostName> Default: localhost] [-jndiPort < port> Default: 1099]$

DESCRIPTION

nnmgnmattrcfg.ovpl adds or removes replicated custom attributes for nodes, interfaces, cards, and chassis. By default, custom attributes are not replicated from regional NNMi system to global NNMi system. In this case, admins can add or remove the custom attribute on the global system using this tool.

The -list option lists all the configured custom attributes.

The -add option accepts the name of a custom attribute. The custom attribute that needs to be replicated from regional system to global NNMi.

The -remove option accepts the name of a custom attribute. The custom attribute that needs to be remove from the replication from regional system to global NNMi.

The -file option accepts a file with a single entry specified per line. This option must be used with -add or -remove option. Each line has the following format:

CustomAttributeName # (optional comment to help identify the attribute, if desired) Where:
CustomAttributeName = the attribute name of the node, interface, card, or chassis you wish to replicate.
Comments can be deliminated with a # character.

Parameters

nnmgnmattrcfg.ovpl supports the following options:

-add <attrName>

The custom attribute of the node, interface, card, or chassis to add.

-remove <attrName>

The name of the custom attribute to remove.

-file <fileName>

Specify a text file to read the attributes from. Must be used with -add or -remove option

-u <username>

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

```
-p <password>
```

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

```
-jndiHost <serverName>
```

The server JNDI host; default is localhost.

```
-jndiPort <port>
```

The server JNDI port; default is 1099.

EXAMPLES

```
nnmgnmattrcfg.ovpl -add myAttr
```

Added the custom attributemyAttr.

```
nnmgnmattrcfg.ovpl -remove myAttr
```

Removes the customer attribute myAttr

```
nnmgnmattrcfg.ovpl -add -file myFile
```

Reads the attributes specified in the myFile file and attempts to add them.

Diagnostics

nnmgnmattrcfg.ovpl returns the following exit codes:

0

Operation was successful.

1

An error occured; see error message for details.

AUTHOR

nnmgnmattrcfg.ovpl was developed by Hewlett Packard Enterprise.

FILES

NOTES

The admin must know the correct name of the custom attribute created in the regional system. The attributes are case sensitive. There is no validation done when adding the custom attribute that the attribute exist in the regional system.

SEE ALSO

nnmloadattributes.ovpl(1M).

nnmunnumberedcfg.ovpl — Add or Remove nodegroup(s) and subnet(s) for unnumbered interface connectivity

SYNOPSIS

```
nnmunnumberedcfg.ovpl -list | -enable | -disable | -add <nodegroup> [-subnet <subnet range>] | -remove <nodegroup> [-subnet <subnet range>] | -add -file <filename> | -remove -file <filename> | [-u <username> -p <password>] [-jndiHost <hostName> Default: localhost] [-jndiPort <port> Default: 1099]
```

DESCRIPTION

nnmunnumberedcfg.ovpl adds or removes unnumbered node groups and subnet IP ranges for unnumbered interface connectivity.

The -list option lists all available unnumbered interface connectivity configuration.

The -enable option enables the unnumbered interface connectivity.

The -disable option disables the unnumbered interface connectivity.

The -add option adds nodegroup and subnet IP ranges to unnumbered interface connectivity.

The -remove option removes nodegroup and subnet IP ranges from unnumbered interface connectivity.

The -file option used to "-add" or "-remove" multiple items. This option accepts a file with a single entry specified per line. If the line contains both nodegroup name and subnet, only the subnet would be deleted. If the line contains just the nodegroup name then the entire nodegroup and associated subnets would be deleted. Each line has the following format: # Comments # e.g # Routers:10.0.0.*,192.168.0.1 # Switches NodeGroupName:IP Subnet1, IP Subnet2 NodeGroupName

NodeGroupName # (optional comment to help identify the node, if desired) Where: NodeGroupName = the node group name you wish to add or remove. Comments can be deliminated with a # character. IP Subnet1 # Where: IP Subnet1 = the IP subnet range you wish to add or remove.

Parameters

nnmunnumberedcfg.ovpl supports the following options:

```
-add <NodeGroupName> [-subnet <subnet range>]
```

The name of the node group to be added for unnumbered interface connectivity. Also, optional subnet ranges can be specified

```
-add -file <fileName>
```

Specify a text file to read the node group and subnet range from.

```
-remove <NodeGroupName> [-subnet <subnet range>]
```

The name of the node group to be added for unnumbered interface connectivity. Also, optional subnet ranges can be specified

```
-remove -file <fileName>
```

Specify a text file to read the node group and subnet range from.

```
-u <username>
```

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

```
-p <password>
```

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

```
-jndiHost < serverName >
```

The server JNDI host; default is localhost.

```
-jndiPort <port>
```

The server JNDI port; default is 1099.

EXAMPLES

```
nnmunnumberedcfg.ovpl -add
```

Adds the nodegroup to the unnumbered interface connectivity myNodeGroup. (You must provide an NNM username and password.)

```
nnmunnumberedcfq.ovpl -remove
```

Removes the nodegroup from unnumbered interface connectivity myNodeGroup. (You must provide an NNM username and password.)

```
nnmunnumberedcfg.ovpl -add -file myFile
```

Reads the nodegroup and subnet ranges specified in the myFile file and attempts to add them to the unnumbered group and subnet configuration. (You must provide an NNM username and password.)

Diagnostics

nnmunnumberedcfg.ovpl returns the following exit codes:

0

Operation was successful.

An error occured; see error message and nnm.log for details.

AUTHOR

nnmunnumberedcfg.ovpl was developed by Hewlett Packard Enterprise.

FILES

\$NNM_BIN/nnmunnumberedcfg.ovpl

SEE ALSO

nnmloadattributes.ovpl(1M)

nnmwhat — get specific NNM information from executables and libraries

SYNOPSIS

nnmwhat FILE

DESCRIPTION

The nnmwhat command is the equivalent command to the what command available on most Unix systems. This command is used to pull select string information from files such that specific information can be returned. This includes the copyright, operating system, patch level and product level. This is useful for the patching process and Support when determining the versions of files that are on the system.

Parameters

Provide a file name to execute the command against. If no file is provided then STDIN is used.

EXAMPLES

nnmwhat ovaddobj.exe will return the information from the ovaddobj.exe command.

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 <code>ovaddobj</code> 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 NNM startup file.

AUTHOR

ovaddobj 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/ovaddobj

SEE ALSO

ovstatus(1), ovstart(1M), ovstop(1M), ovdelobj(1M), ovspmd(1M), nnmcluster(1).

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(1), ovstart(1M), ovstop(1M), ovaddobj(1M), ovspmd(1M), nnmcluster(1).

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 (\$NNM_DATA/shared/nnm/conf/props/nms-support.properties \$NNM_DATA/shared/nnm/conf/props/nms-jboss.properties, and \$NNM_DATA/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 NNM including ovjboss run the following command:

\$InstallDir/bin/ovstart

To only start ov jboss 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

Parameter file used by services started inside ovjboss.

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

Parameter file used by services started inside ovjboss.

\$NNM_DATA/shared/nnm/conf/props/ovjboss.jvmargs

Parameters passed to the JVM that jboss runs in

\$NNM_DATA/nnm/conf/nms-local.properties

Local configuration file, including Ports configuration

\$NNM_DATA/log/nnm/jbossServer.log

Log file containing exceptions (if any)

\$NNM_DATA/log/nnm/ovjboss.log

Log file containing stderr messages

SEE ALSO

ovspmd(1)

nms-local.properties(4)

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

ovspmd — NNM 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 NNM. 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 NNM startup file (SUF), by default ovsuf. NNM-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

\$NNM_DATA/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.

-M

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 NNM services. It uses the ovspmd.auth file to control which hosts, users, and applications can start and stop the NNM services. The ovspmd.auth file is located in <code>data_dir\shared\nnm\conf\</code>.

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":
-badguy
```

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 \$NNM_DATA/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(1M)).

SEE ALSO

ovstatus(1), ovstart(1M), ovstop(1M), ovaddobi(1M), ovdelobi(1M), nnmcluster(1).

ovstart — start NNM managed processes

SYNOPSIS

ovstart[[-c][-d][-0 ovspmd_path][-V][--][ovspmd_options...][managed_process_names...]]

DESCRIPTION

ovstart starts NNM 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.

If ovstart is used on a node configured for NNM clustering (see nnmcluster(1M)) then the behavior of ovstart is different than described above. Specifically, ovstart behaves exactly like the "nnmcluster - daemon" command.

In a NNM cluster environment ovstart returns immediately (after launching the NNM cluster in the background). Instead, the nnmcluster command will determine if/when to start the other NNM processes. Please monitor ovstatus output to determine if NNM processes have completed startup.

In a NNM clustered environment the other command-line options to ovstart are not supported.

Note that for fine-grain control of NNM cluster attributes use the nnmcluster command directly. The ovstart command in a NNM cluster environment is provided for convenience starting NNM using a familiar command.

Parameters

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

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.

-v

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 NNM 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 NNM 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 NNM 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.

NNM Cluster

If a com.hp.ov.nms.cluster.name is defined in the NnmDataDir/shared/nnm/conf/props/nms-cluster.properties file, then ovstart will defer startup to the nnmcluster command.

SEE ALSO

ovstatus(1), ovstop(1M), ovaddobj(1M), ovdelobj(1M), ovspmd(1M), nnmcluster(1M).

ovstop — stop NNM managed processes

SYNOPSIS

ovstop [[-c][-d][-v][managed_process_names...]] [[-nofailover|-failover|-cluster]]

DESCRIPTION

ovstop stops the NNM 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 <code>ovstop</code> request within the LRF-specified timeout interval, <code>ovspmd</code> forces the process to terminate by sending it termination signals, first <code>sigterm</code>, then <code>sigkill</code> (see kill(1)). Note that <code>ovstop</code> reports forced termination only if the <code>-v</code> or <code>-coptions</code> are used (for example, <code>ovstop -v [managed_process_name]</code>). 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 <code>ovspmd</code> waits for a process to respond to an <code>ovstop</code> request, follow the instructions in <code>\$NNM_LRF/ov*</code> (UNIX operating system) or <code>install_dir\lrf\ov*</code> (Windows operating systems).

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

The managed processes are configured by <code>ovaddobj</code> from information in Local Registration Files (see lrf(4)). A managed process is named by the first field in the LRF describing it. Like <code>ovstart</code>, <code>ovstop</code> uses dependency information from the LRF. If other managed processes depend on a managed process that is stopped, <code>ovspmd</code> 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 NNM 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 NNM services deployed together within Jboss. The names of Jboss deployed NNM services can be obtained by running the ovstatus -v ovjboss command. The NNM services could only be stopped altogether by running the ovstop ovjboss command. It is not supported to stop any of these NNM services individually, independent of the other NNM services.

If ovstop is used on a node configured for NNM clustering (see nnmcluster(1M)) then the behavior of ovstop is different than described above. Specifically, ovstop (with no parameters) behaves exactly like the

"nnmcluster -shutdown" command.

In a NNM cluster environment ovstop returns immediately (after sending the NNM cluster a shutdown signal in the background). The nnmcluster command then shuts down NNM processes which might trigger a failover of NNM services to the standby cluster node. Please monitor ovstatus output to determine if NNM processes have completed shutdown.

In a NNM clustered environment the only command-line options recognized by ovstop are -nofailover, - failover, and -cluster.

Note that for fine-grain control of NNM cluster attributes use the nnmcluster command directly. The ovstop command in a NNM cluster environment is provided for convenience shutting down NNM services using a familiar command.

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.

-failover

(NNM cluster only) Causes the local NNM node to shutdown NNM processes (if it is the active node) and the NNM cluster process will terminate. At the same time, automatic failover is enabled so that NNM services will transfer to the standby node.

-nofailover

(NNM cluster only) Causes the local NNM node to shutdown NNM processes (if it is the active node) and the NNM cluster process will terminate. At the same time, automatic failover is disabled so that NNM services will not transfer to the standby node.

-cluster

(NNM cluster only) Causes all nodes in the NNM cluster to shutdown. The NNM cluster process on the standby node(s) will be shutdown first, then the active node will stop NNM services, and finally the NNM cluster process on the active node will shutdown.

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: \$NNM_BIN/ovstop

UNIX: \$NNM BIN/ovspmd

EXTERNAL INFLUENCES

Environmental Variables

If a com.hp.ov.nms.cluster.name is defined in the \$NnmDataDir/shared/nnm/conf/props/nms-cluster.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 LANG is unset.) 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.

NNM Cluster

If a NNMCLUSTER_NAME is defined in the ov.conf file, then ovstop will defer startup to the nnmcluster command.

SEE ALSO

ovstatus(1), ovstart(1M), ovaddobi(1M), ovdelobi(1M), ovspmd(1M), nnmcluster(1).