

HP Network Node Manager i Software

For the Windows[®] and Linux operating systems

Software Version: NNMi 10.00

HP Network Node Manager i Software—Cisco Systems CiscoWorks LAN Management Solution Integration Guide

Document Release Date: May 2014
Software Release Date: May 2014



Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notice

© Copyright 2008–2014 Hewlett-Packard Development Company, L.P.

Trademark Notices

Adobe® is a trademark of Adobe Systems Incorporated.

Intel® is a trademark of Intel Corporation in the U.S. and other countries.

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

Red Hat® is a registered trademark of Red Hat, Inc. in the United States and other countries.

UNIX® is a registered trademark of The Open Group.

Oracle Technology — Notice of Restricted Rights

Programs delivered subject to the DOD FAR Supplement are 'commercial computer software' and use, duplication, and disclosure of the programs, including documentation, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement. Otherwise, programs delivered subject to the Federal Acquisition Regulations are 'restricted computer software' and use, duplication, and disclosure of the programs, including documentation, shall be subject to the restrictions in FAR 52.227-19, Commercial Computer Software-Restricted Rights (June 1987). Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

For the full Oracle license text, see the license-agreements directory on the NNMi product DVD.

Acknowledgements

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

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

Available Product Documentation

In addition to this guide, the following documentation is available for NNMi:

- *HP Network Node Manager i Software Documentation List*—Available on the HP manuals web site. Use this file to track additions to and revisions within the NNMi documentation set for this version of NNMi. Click a link to access a document on the HP manuals web site.
- *NNMi Installation Guide*—This is an interactive document, and is available on the NNMi product media. See the `nnmi_interactive_installation_en_README.txt` file, located on the product media, for more information.
- *HP Network Node Manager i Software Upgrade Reference*—Available on the HP manuals web site.
- *HP Network Node Manager i Software Release Notes*—Available on the product media and the NNMi management server.
- *HP Network Node Manager i Software System and Device Support Matrix*—Available on the product media and the NNMi management server.
- *HP Network Node Manager iSPI Network Engineering Toolset Planning and Installation Guide*—Available on the NNM iSPI NET diagnostics server product media.

To check for recent updates or to verify that you are using the most recent edition of a document, go to:

<http://h20230.www2.hp.com/selfsolve/manuals>

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to:

<http://h20229.www2.hp.com/passport-registration.html>

Or click the **New users - please register** link on the HP Passport sign-in page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Support

Visit the HP Software Support Online web site at:

www.hp.com/go/hpsoftwaresupport

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches and associated patch documentation
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport user ID, go to:

<http://h20229.www2.hp.com/passport-registration.html>

To find more information about access levels, go to:

http://h20230.www2.hp.com/new_access_levels.jsp

May 2014

Contents

HP NNMi–Cisco Systems CiscoWorks LMS Integration	9
Value	9
Integrated Products	10
Documentation	10
Enabling the HP NNMi–Cisco Systems CiscoWorks LMS Integration	10
Using the HP NNMi–Cisco Systems CiscoWorks LMS Integration	11
Changing the HP NNMi–Cisco Systems CiscoWorks LMS Integration Configuration	12
Disabling the HP NNMi–Cisco Systems CiscoWorks LMS Integration	12
Troubleshooting the HP NNMi–Cisco Systems CiscoWorks LMS Integration	12
Cisco Systems CiscoWorks LMS Actions Do Not Work	12
OID Not Found in the MIB Cache Message in Traps	13
HP NNMi–Cisco Systems CiscoWorks LMS Integration Configuration Form Reference	13
NNMi Management Server Connection	13
Cisco Systems CiscoWorks LMS Server Connection	14

Cisco Systems CiscoWorks LAN Management Solution

Cisco Systems CiscoWorks LAN Management Solution (Cisco Systems CiscoWorks LMS) is an integrated suite of management tools for configuring, administering, monitoring, and troubleshooting Cisco networks.

This chapter contains the following topics:

- [HP NNMi–Cisco Systems CiscoWorks LMS Integration](#)
- [Enabling the HP NNMi–Cisco Systems CiscoWorks LMS Integration](#)
- [Using the HP NNMi–Cisco Systems CiscoWorks LMS Integration](#)
- [Changing the HP NNMi–Cisco Systems CiscoWorks LMS Integration Configuration](#)
- [Disabling the HP NNMi–Cisco Systems CiscoWorks LMS Integration](#)
- [Troubleshooting the HP NNMi–Cisco Systems CiscoWorks LMS Integration](#)
- [HP NNMi–Cisco Systems CiscoWorks LMS Integration Configuration Form Reference](#)

HP NNMi–Cisco Systems CiscoWorks LMS Integration

The HP NNMi–Cisco Systems CiscoWorks LMS integration provides actions for accessing Cisco Systems CiscoWorks LMS tools from the NNMi console.

Value

The HP NNMi–Cisco Systems CiscoWorks LMS integration adds Cisco Systems CiscoWorks LMS information to HP NNMi, so that HP NNMi users can detect and investigate potential network problems for Cisco devices.

Integrated Products

The information in this chapter applies to the following products:

- Cisco Systems CiscoWorks LMS



For the list of supported versions, see the *NNMi System and Device Support Matrix*.

- HP NNMi 10.00

HP NNMi and Cisco Systems CiscoWorks LMS must be installed on separate computers. The NNMi management server and the Cisco Systems CiscoWorks LMS server computer can be of the same or different operating systems.

For the most recent information about supported hardware platforms and operating systems for HP NNMi, see the *NNMi System and Device Support Matrix*.

For the most recent information about supported hardware platforms and operating systems for Cisco Systems CiscoWorks LMS, see the documentation for your version. For example:

- Cisco Systems CiscoWorks LMS:

http://www.cisco.com/en/US/docs/net_mgmt/cisoworks_lan_management_solution/4.0/install/guide/prereq.html

Documentation

This chapter describes how to configure HP NNMi to communicate with Cisco Systems CiscoWorks LMS and how to use the integration from the NNMi console.

Enabling the HP NNMi–Cisco Systems CiscoWorks LMS Integration

On the NNMi management server, configure the connection between HP NNMi and Cisco Systems CiscoWorks LMS by following these steps:

- 1 In the NNMi console, open the **HP NNMi–CiscoWorks LMS Integration Configuration** form (**Integration Module Configuration > CiscoWorks LMS**).
- 2 Select the **Enable Integration** check box to make the remaining fields on the form available.
- 3 Enter the information for connecting to the NNMi management server. For information about these fields, see [NNMi Management Server Connection](#) on page 13.
- 4 Enter the information for connecting to the Cisco Systems CiscoWorks LMS server. For information about these fields, see [Cisco Systems CiscoWorks LMS Server Connection](#) on page 14.

- 5 Click **Submit** at the bottom of the form.
A new window opens, showing a status message. If the message indicates a problem with connecting to the NNMi management server, click **Return**, then adjust the values as suggested by the text of the error message.
- 6 Load the incident definitions for Cisco Systems CiscoWorks LMS-managed devices:
 - a Change to the following directory:
 - *Windows*: %NnmInstallDir%\newconfig\HPOvNmsEvent
 - *Linux*: \$NnmInstallDir/newconfig/HPOvNmsEvent
 - b Import the Cisco Systems CiscoWorks LMS incident definitions by entering the following command:


```
nmmconfigimport.ovpl -f nnm-cisco-incidentConfig.xml \
-u <username> -p <password>
```
- 7 Optional and recommended. Load the MIB definition files for the traps that Cisco Systems CiscoWorks LMS-managed devices generate:
 - a Obtain the appropriate MIB files from the device media or the Cisco Systems web site:


```
tools.cisco.com/Support/SNMP/do/SearchOID.do?local=en&step=1
```
 - b Change to the directory where the MIB files are stored.
 - c Use the `nmmloadmib.ovpl` command to load the appropriate MIB files for the managed environment. For example:


```
nmmloadmib.ovpl -load cpqghost.mib -u <username> -p <password>
```
 - d Verify that the MIBs loaded correctly, by entering the following command:


```
nmmloadmib.ovpl -list -u <username> -p <password>
```

Using the HP NNMi–Cisco Systems CiscoWorks LMS Integration

The HP NNMi–Cisco Systems CiscoWorks LMS integration provides links from the NNMi console to Cisco Systems CiscoWorks LMS. The integration does not provide single sign-on between the products. You must enter your Cisco Systems CiscoWorks LMS user credentials to view the Cisco Systems CiscoWorks LMS pages.

Enabling the HP NNMi–Cisco Systems CiscoWorks LMS integration adds the following actions to the NNMi console:

- **CiscoWorks LMS Device Center**—Opens the Cisco Systems CiscoWorks LMS Device Center in the context of the selected node.
- **CiscoWorks LMS CiscoView**—Opens Cisco Systems CiscoWorks LMS CiscoView in the context of the selected node.

Changing the HP NNMi–Cisco Systems CiscoWorks LMS Integration Configuration

- 1 In the NNMi console, open the **HP NNMi–CiscoWorks LMS Integration Configuration** form (**Integration Module Configuration > CiscoWorks LMS**).
- 2 Modify the values as appropriate. For information about the fields on this form, see [HP NNMi–Cisco Systems CiscoWorks LMS Integration Configuration Form Reference](#) on page 13.
- 3 Verify that the **Enable Integration** check box at the top of the form is selected, and then click **Submit** at the bottom of the form.

 The changes take effect immediately. You do not need to restart ovjboss.

Disabling the HP NNMi–Cisco Systems CiscoWorks LMS Integration

- 1 In the NNMi console, open the **HP NNMi–CiscoWorks LMS Integration Configuration** form (**Integration Module Configuration > CiscoWorks LMS**).
- 2 Clear the **Enable Integration** check box at the top of the form, and then click **Submit** at the bottom of the form. The integration actions are no longer available.

 The changes take effect immediately. You do not need to restart ovjboss.

Troubleshooting the HP NNMi–Cisco Systems CiscoWorks LMS Integration

Cisco Systems CiscoWorks LMS Actions Do Not Work

If you have verified the values in the **HP NNMi–CiscoWorks LMS Integration Configuration** form and you are still not able to open a Cisco Systems CiscoWorks LMS page from the NNMi console, do the following:

- 1 Clear the web browser cache.
- 2 Clear all saved form or password data from the web browser.
- 3 Close the web browser window completely, and then re-open it.
- 4 Re-enter the values in the **HP NNMi–CiscoWorks LMS Integration Configuration** form.
- 5 Verify that Cisco Systems CiscoWorks LMS is running.

OID Not Found in the MIB Cache Message in Traps

If the MIB definition files for the traps that Cisco Systems CiscoWorks LMS-managed devices generate are not loaded in NNMi, you might see an error similar to the following text:

```
<Cia .1.3.6.1.4.1.11.5.7.5.2.1.1.1.7.0 with value 1 was not found within the mib cache>
```

To resolve these errors, load the MIBs as described in [step 7](#) on page 11.

HP NNMi–Cisco Systems CiscoWorks LMS Integration Configuration Form Reference

The **HP NNMi–CiscoWorks LMS Integration Configuration** form contains the parameters for configuring communications between HP NNMi and Cisco Systems CiscoWorks LMS. This form is available from the **Integration Module Configuration** workspace.



Only NNMi users with the Administrator role can access the **HP NNMi–CiscoWorks LMS Integration Configuration** form.

The **HP NNMi–CiscoWorks LMS Integration Configuration** form collects information for the following general areas:

- [NNMi Management Server Connection](#)
- [Cisco Systems CiscoWorks LMS Server Connection](#)

To apply changes to the integration configuration, update the values on the **HP NNMi–CiscoWorks LMS Integration Configuration** form, then click **Submit**.

NNMi Management Server Connection

[Table 1](#) lists the parameters for connecting to the NNMi management server. This is the same information that you use to open the NNMi console. You can determine many of these values by examining the URL that invokes an NNMi console session. Coordinate with the HP NNMi administrator to determine the appropriate values for this section of the configuration form.

Table 1 NNMi Management Server Information

Field	Description
NNMi SSL Enabled	The connection protocol specification. <ul style="list-style-type: none"> • If the NNMi console is configured to use HTTPS, select the NNMi SSL Enabled check box. This is the default configuration. • If the NNMi console is configured to use HTTP, clear the NNMi SSL Enabled check box.
NNMi Host	The fully-qualified domain name of the NNMi management server. This field is pre-filled with the hostname that was used to access the NNMi console. Verify that this value is the name returned by the <code>nnmofficialfqdn.ovpl -t</code> command run on the NNMi management server.

Table 1 NNMi Management Server Information (cont'd)

Field	Description
NNMi Port	<p>The port for connecting to the NNMi console. This field is pre-filled with the port that the jboss application server uses for communicating with the NNMi console, as specified in the following file:</p> <ul style="list-style-type: none"> <i>Windows:</i> %NnmDataDir%\conf\nnm\props\nms-local.properties <i>Linux:</i> \$NnmDataDir/conf/nnm/props/nms-local.properties <p>For non-SSL connections, use the value of <code>nmsas.server.port.web.http</code>, which is 80 or 8004 by default (depending on the presence of another web server when HP NNMi was installed).</p> <p>For SSL connections, use the value of <code>nmsas.server.port.web.https</code>, which is 443 by default.</p>
NNMi User	The user name for connecting to the NNMi console. This user must have the HP NNMi Administrator or Web Service Client role.
NNMi Password	The password for the specified HP NNMi user.

Cisco Systems CiscoWorks LMS Server Connection

Table 2 lists the parameters for connecting to the Cisco Systems CiscoWorks LMS server to open Cisco Systems CiscoWorks LMS pages. Coordinate with the Cisco Systems CiscoWorks LMS administrator to determine the appropriate values for this section of the configuration.

Table 2 Cisco Systems CiscoWorks LMS Management Server Information

Cisco Systems CiscoWorks LMS Server Parameter	Description
Cisco Systems CiscoWorks LMS SSL Enabled	<p>The connection protocol specification for connecting to Cisco Systems CiscoWorks LMS</p> <ul style="list-style-type: none"> If Cisco Systems CiscoWorks LMS is configured to use HTTPS, select the CiscoWorks LMS SSL Enabled check box. This is the default configuration. If Cisco Systems CiscoWorks LMS is configured to use HTTP, clear the CiscoWorks LMS SSL Enabled check box.
Cisco Systems CiscoWorks LMS Host	The fully-qualified domain name of the Cisco Systems CiscoWorks LMS server.
Cisco Systems CiscoWorks LMS Port	<p>The port for connecting to the Cisco Systems CiscoWorks LMS web services.</p> <p>If you are using the default Cisco Systems CiscoWorks LMS configuration, use port 1741 (for non-SSL connections to Cisco Systems CiscoWorks LMS) or port 443 (for SSL connections to Cisco Systems CiscoWorks LMS).</p>

We appreciate your feedback!

If an email client is configured on this system, by default an email window opens when you click *here*.

If no email client is available, copy the information below to a new message in a web mail client, and then send this message to **ovdoc-nsm@hp.com**.

Product name and version: NNMi 10.00

Document title: *HP Network Node Manager i Software - Cisco Systems CiscoWorks LMS Integration Guide*

Feedback:

