

HP Network Node Manager i Software

For the Windows[®], HP-UX, Linux, and Solaris operating systems

Software Version: NNMi 9.22

HP Network Node Manager i Software—HP Intelligent Management Center Integration Guide

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Acknowledgements

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

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

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 9.20 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.

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HP Intelligent Management Center

HP Network Node Manager i Software (HP NNMi) enables you to quickly detect, isolate, and troubleshoot abnormal network behavior. Using HP NNMi, you can also record what has been done to date to troubleshoot or resolve a problem.

You can combine HP NNMi with other powerful HP tools by implementing Automated Network Management (ANM). ANM is a solution that integrates network fault detection, performance monitoring, configuration management and compliance, as well as diagnostic and automation tools. ANM enables the ITILv3 best practices in the network domain—namely event, incident, and problem management; change configuration; and release and deploy management. For more information, see the *HP Automated Network Management Concept Guide*.

When HP Networking devices are installed in your network, you can combine either ANM or HP NNMi with HP Intelligent Management Center (HP IMC) using the HP NNMi - HP IMC integration. The result is a better solution for managing your enterprise network. HP IMC adds change, configuration, and compliance features along with add-on modules for other device management needs.

For information about purchasing ANM (includes HP NNMi), HP NNMi, and HP IMC, contact your HP sales representative.

This document contains the following topics:

- [HP NNMi - HP IMC Integration](#)
- [Enabling and Configuring the HP NNMi - HP IMC Integration](#)
- [Using the HP NNMi - HP IMC Integration](#)
- [Disabling the HP NNMi - HP IMC Integration](#)

HP NNMi - HP IMC Integration

You can deploy the HP NNMi - HP IMC integration in either of two ways:

- Use the HP NNMi - HP IMC integration to leverage the features of HP NNMi and HP IMC together.

- Implement HP NNMi - HP IMC integration along with Automated Network Management (ANM).
ANM is a solution that integrates network fault detection, performance monitoring, configuration management and compliance, as well as diagnostic and automation tools. If you choose to implement the HP NNMi - HP IMC integration along with ANM, the result is complete network management using HP Software network management products. Wherever possible, these products automate network management tasks, thereby minimizing the time network engineers must spend on network maintenance.

Using either of these approaches combines the features of both HP NNMi and HP IMC. Together, HP NNMi and HP IMC provide better tools to manage networks with heterogeneous elements that require highly scalable and fully integrated network management tools.

Using the HP NNMi - HP IMC integration or using the HP NNMi - HP IMC integration with ANM provides the following functionality:

- Displays HP IMC fault events in HP NNMi.
- You can launch the HP IMC console from within HP NNMi to obtain H3C device details.
- Synchronizes the NNMi topology with the IMC inventory by using the IMC inventory as seeds for HP NNMi.

Value

The HP NNMi–HP Intelligent Management Center integration provides the following benefits:

- You see a consolidated and correlated list of network events and notifications, resulting in better root-cause analysis and reduced meant time to repair (MTTR).
- You see a comprehensive inventory, augmented by HP IMC’s rich model of H3C devices.
- You use one tool to monitor and manage your heterogenous network.
- You see a synchronized and consistent view of the network that enables self documentation and automation and reduces the total cost of ownership of your network.

Integrated Products

The information in this chapter applies to the following products:

- HP Intelligent Management Center



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

- NNMi 9.22

Documentation

This document describes how to configure and use the integration.

Obtain and read the following manuals to prepare for installing and configuring the HP NNMi - HP IMC integration:

- [HP Intelligent Management Center Installation Guide](#)
- [HP Intelligent Management Center Getting Started Guide](#)
- [HP Intelligent Management Center Base Platform Administrator Guide](#)

Enabling and Configuring the HP NNMi - HP IMC Integration

After you complete [Task 1](#) through [Task 4](#), HP IMC and HP NNMi begin sharing device information.

Steps to Enable the HP NNMi - HP IMC Integration

[Task 1: Installing NNMi 9.22 \(Patch 2\)](#)

[Task 2: Loading the MIBs Supported by HP IMC](#)

[Task 3: Loading the Trap Definitions](#)

[Task 4: Configuring the HP NNMi - HP IMC Integration](#)

Task 1: [Installing NNMi 9.22 \(Patch 2\)](#)

To obtain and install NNMi 9.22 (Patch 2), do the following:

- 1 Point your browser to <http://support.openview.hp.com/selfsolve/patches>.
- 2 Search for NNMi 9.22 (Patch 2) for your operating system, then download the patch.
- 3 Install the patch according to the NNMi 9.22 (Patch 2) installation instructions.

Task 2: [Loading the MIBs Supported by HP IMC](#)

By manually loading the MIBs supported by HP IMC, both HP NNMi and HP IMC can share incident and device information. During the NNMi 9.22 (Patch 2) installation, the MIBs supported by HP IMC are *installed* on the NNMi management server. Complete the following steps to manually load these installed MIBs into NNMi using the `nmloadmib.ovpl` script:

- 1 Look in the following directories and locate the additional MIBs that you want to load to support the HP NNMi - HP IMC integration

Windows:

- %NNM_SNMIP_MIBS%\Vendor\H3C
- %NNM_SNMIP_MIBS%\IMC

UNIX:

- \$NNM_SNMP_MIBS/Vendor/H3C
- \$NNM_SNMP_MIBS/IMC

- 2 To load the additional MIBs for devices supported by HP IMC that exist in your network, see the directories shown in [step 1](#). Run the following commands to load any of the MIBs for devices supported by HP IMC. Make sure to verify that the displayed results include the MIBs you load:

Windows:

```
nnmloadmib.ovpl -load %NNM_SNMP_MIBS%\Vendor\H3C\mib name -u
<username> -p <password>
```

```
nnmloadmib.ovpl -load %NNM_SNMP_MIBS%\IMC\mib name -u
<username> -p <password>
```

UNIX:

```
nnmloadmib.ovpl -load $NNM_SNMP_MIBS/Vendor/H3C/mib name -u
<username> -p <password>
```

```
nnmloadmib.ovpl -load $NNM_SNMP_MIBS/IMC/mib name -u
<username> -p <password>
```



Check for prerequisite MIBs before using the `nnmloadmib.ovpl` script to load these MIBs. The commands shown in this step will not load the MIBs if the prerequisite MIBs are not loaded.

Instead of using the `nnmloadmib.ovpl` script to load these MIBs, use the **Tools > Load/Unload MIB** menu in the NNMi console, as it lists any prerequisite MIBs.

- 3 Verify that the MIBs loaded correctly, by doing one of the following:

- Enter the following command:

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

- From the NNMi console, navigate to **Configuration > MIBs > Loaded MIBs**.

Verify the presence of the MIBs you loaded from [step 2](#).

Task 3: Loading the Trap Definitions

Load the trap definitions for HP IMC-managed devices:

- a Change to the following directory:

- *Windows:* %NnmInstallDir%\newconfig\HPOvNmsEvent

- *UNIX:* \$NnmInstallDir/newconfig/HPOvNmsEvent

- b Import the HP IMC incident definitions by entering the following command:
`nmmconfigimport.ovpl -f nms-imc-incidentConfig.xml -u <username> -p <password>`



The `nms-imc-incidentConfig.xml` file contains thousands of trap definitions. You might not want to load all of these trap definitions into HP NNMi. To stop from loading unnecessary trap definitions, edit the `nms-imc-incidentConfig.xml` file and remove any of the trap definitions you do not need.

If you must load a large number of trap definitions, split the `nms-imc-incidentConfig.xml` file into two separate files, each containing half of the trap definitions, then load each file separately.

Task 4: Configuring the HP NNMi - HP IMC Integration

To enable the HP NNMi - HP IMC integration, do the following:

- 1 From the NNMi console, click **Integration Module Configuration > IMC**. HP NNMi shows the **HP NNMi - HP IMC Integration Configuration** screen show in [Figure 1](#). See [Figure 1](#) while configuring the HP NNMi - HP IMC integration.

Figure 1 Enabling the HP NNMi - HP IMC Integration.

The screenshot shows the 'HP NNMi-HP IMC Integration Configuration' web interface. It features several configuration fields and buttons. A 'Help' button is located at the top right. The 'Enable HP IMC Integration' checkbox is checked and labeled 'Step 2'. Below it, there are fields for 'NNMi SSL' (unchecked), 'NNMi Host', 'NNMi User' (set to 'system'), and 'NNMi Password'. These three fields are grouped by a callout labeled 'Step 3'. The 'IMC Host', 'IMC Port' (set to '8080'), and 'IMC User' (set to 'admin') fields are grouped by a callout labeled 'Step 4'. The 'IMC Password' field is also present. Below these fields is an 'Add another IMC server' button, which is linked to a callout labeled 'Step 5'. Underneath is a list box for 'Additional IMC Servers' with a 'Clear' button. At the bottom, there are 'Submit' and 'Cancel' buttons, with 'Submit' linked to a callout labeled 'Step 6'.

- 2 Select **Enable IMC Integration**.
- 3 Add the following HP NNMi integration information:
 - NNMi host: This field contains the fully qualified domain name of the NNMi management server.
 - NNMi User: Enter an NNMi username that is mapped to an NNMi Administrators user group. This can also be an NNMi username mapped to an NNMi Web Service Clients user group.
 - NNMi Password: Enter the NNMi username password.
- 4 Add the following HP IMC integration information:
 - IMC host: This field contains the fully qualified domain name of the IMC server.
 - IMC Port: This field contains the port number used for accessing the IMC server.
 - IMC User: Enter the IMC username.
 - IMC Password: Enter the IMC username password.
- 5 Optional: You can configure the HP NNMi - HP IMC integration module for multiple IMC servers. These IMC servers function as element managers for a set of devices. These devices would then be seeded into NNMi so that NNMi is aware of the full set of devices. To add another IM server, click **Add another IMC server**.
 - ▶ You do not need to configure the same username and password on each IMC host. HP NNMi supports using a separate IMC host username and password for each IMC host.
- 6 Click **Submit** to finish enabling the HP NNMi - HP IMC integration. After you click **Submit**, HP IMC and HP NNMi begin sharing device information.
 - ▶ After NNMi discovers a device being managed by IMC, NNMi saves the device ID as a custom attribute on the NNMi node. NNMi periodically reads in the set of IP addresses from each configured IMC server and saves the device ID as a custom attribute on the NNMi node for each newly discovered device.
 - ▶ If a node is removed from HP IMC or HP NNMi, you must manually remove the node from the other application. There is no automatic discovery synchronization for removing a node from HP IMC or HP NNMi.

Using the HP NNMi - HP IMC Integration

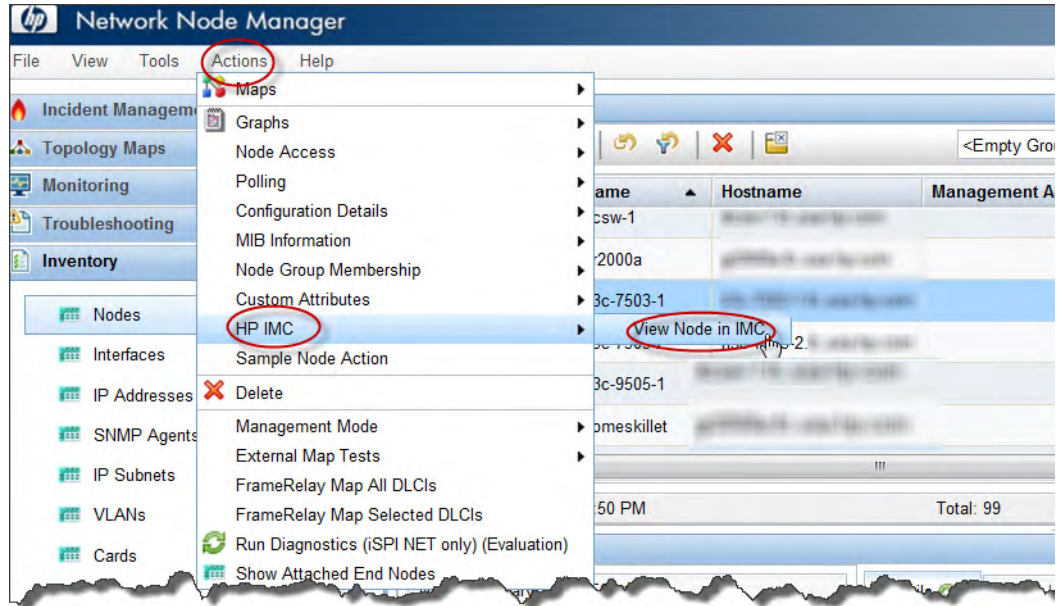
Opening an IMC console from a Node in NNMi

To select a node from the NNMi console and open a view of the node in the IMC console, do the following:

- 1 From the **Inventory > Nodes** workspace, select a node.

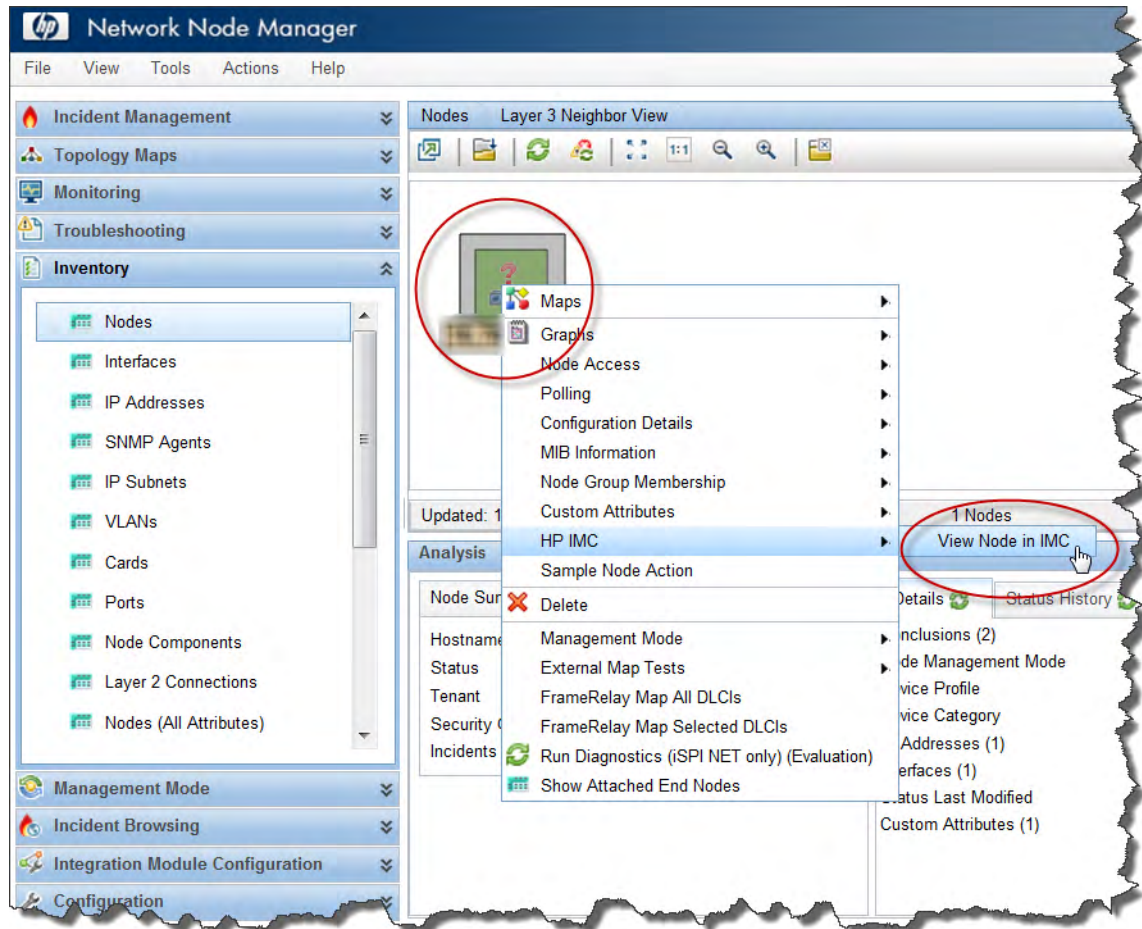
- 2 Use the **Action > HP IMC > View Node in IMC** menu to open a view of the node in the IMC console as shown in [Figure 2](#).

Figure 2 Open a View from HP NNMi to HP IMC.



- 3 You can also use nodes located in Topology Maps in the NNMi console to access the IMC console: for example, select a node from a Layer 3 Neighbor view; then right-click the node and use the **HP IMC > View Node in IMC** to open a view of the node in the IMC console as shown in [Figure 3](#).

Figure 3 Open a View from an NNMi to HP IMC



Disabling the HP NNMi - HP IMC Integration

To disable the HP NNMi - HP IMC integration, do the following:

- 1 From the NNMi console, click **Integration Module Configuration > IMC**. HP NNMi shows the **HP NNMi - HP IMC Integration Configuration** screen show in [Figure 4](#). See [Figure 4](#) while configuring the HP NNMi - HP IMC integration.

Figure 4 Disabling the HP NNMi - HP IMC Integration

HP NNMi-HP IMC Integration Configuration

Enable HP IMC Integration: **Step 2** Help

NNMi SSL:

NNMi Host:

NNMi User:

NNMi Password:

IMC Host:

IMC Port:

IMC User:

IMC Password:

Add another IMC server

Additional IMC Servers:

Clear

Submit **Step 3** Cancel

- 2 Deselect **Enable IMC Integration**.
- 3 Click **Submit** to finish disabling the HP NNMi - HP IMC integration.

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 9.22

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Feedback:

