

HP Network Node Manager i Software Smart Plug-in Performance for Quality Assurance

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

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Installation Guide

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

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1 Introducing the Network Node Manager iSPI Performance for Quality Assurance Software

The Network Node Manager iSPI Performance for Quality Assurance Software 9.00 is referred to as NNM iSPI Performance for QA in this document.

NNM iSPI Performance for QA extends the capability of NNMi to monitor the quality of traffic flow in the network. Pre-configured QA probes on the selected network elements ensures that the data packets traversing through the network are treated consistently by these elements.

NNM iSPI Performance for QA, in conjunction with NNMi, performs the following tasks:

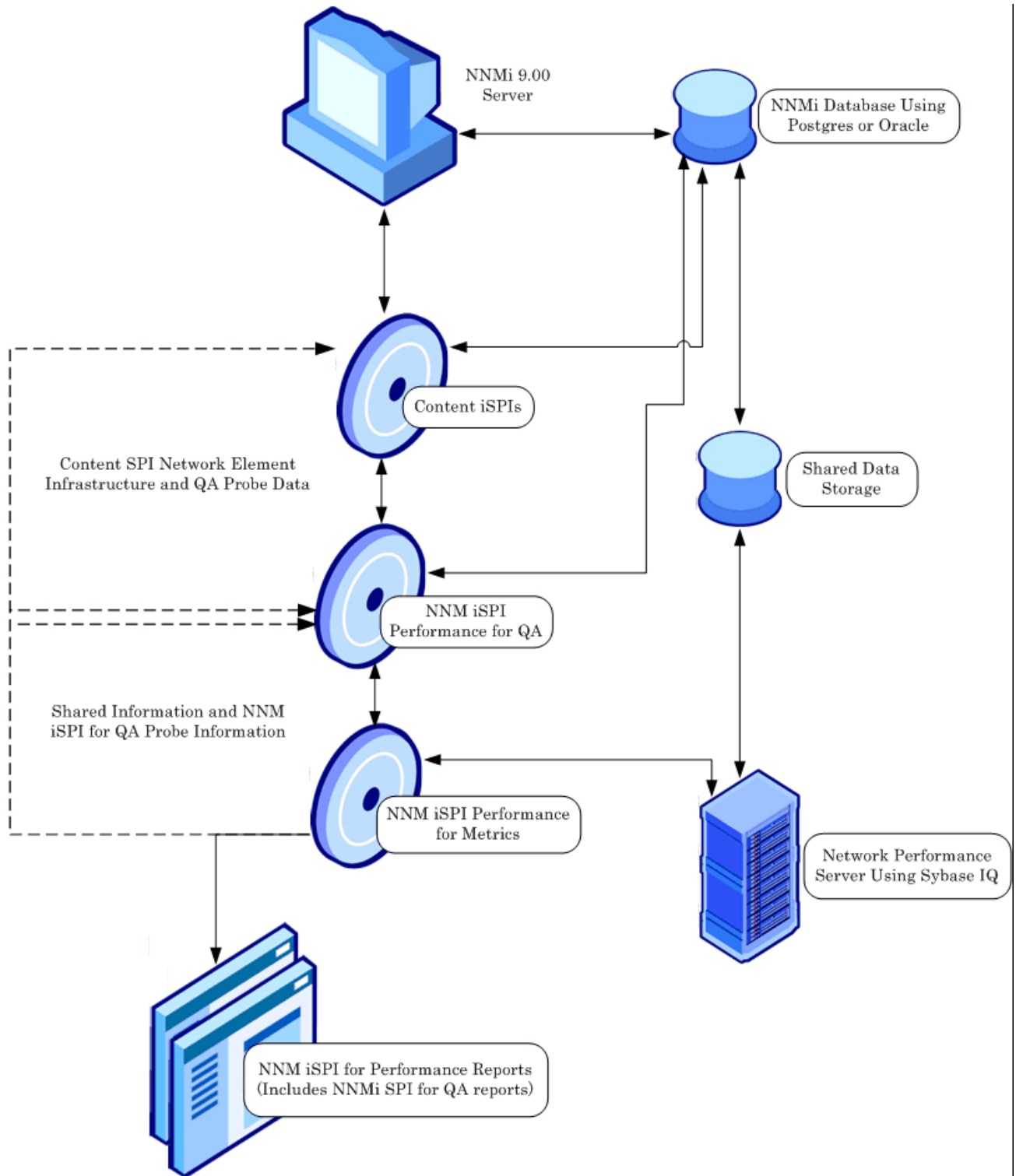
- Discover the pre-configured QA probes defined for various network elements.
- Run these QA probes on the network elements to ascertain any performance inconsistency.
- Display the QA probe results on the NNM iSPI Performance for QA views.

Integration with NNM iSPI Performance for Metrics 9.00

NNM iSPI Performance for QA interacts closely with NNMi and Network Performance Server to display the Quality of Service (QoS) reports.

Before installing NNM iSPI Performance for QA, it is recommended that you have Network Performance Server installed.

The following figure represents a scenario, where the NNM iSPI Performance for QA, and Network Performance Server share information through a shared data repository.



2 Before you Begin

Before you start installing NNM iSPI Performance for QA, you must plan the installation based on your deployment requirements. You must identify the ideal deployment scenario among the supported configurations and make sure that all the prerequisites are met before you begin the installation process.

See the following documents before you start the installation process:

- HP Network Node Manager 9.00 Installation Guide for Windows or HP Network Node Manager 9.00 Installation Guide for UNIX
- HP Network Node Manager 9.00 Deployment Reference
- HP Network Node Manager 9.00 Release Notes
- HP Network Node Manager 9.00 Support Matrix

Prerequisites

Before you begin the NNM iSPI Performance for QA installation, follow the steps as discussed below:

- 1 Install NNMi. Make sure that NNMi is installed in the environment and running.
- 2 Install available NNMi patches, if any.
- 3 Start the NNM iSPI Performance for QA installation process.

Install NNM iSPI Performance for QA on the NNMi management server following the instructions discussed in [Installing NNM iSPI Performance for QA](#).

Installation Process on the NNMi Management Server

Before installing the NNM iSPI Performance for QA on the NNMi management server, you must note down all the configuration related details of the NNMi installation and gather the following details:

- [NNMi Port Details](#)
- [Database Details](#)
- Create a Web service client with the Administrator privileges associated with it before installing NNM iSPI Performance for QA

For more details, see *NNMi Deployment Reference* guide.

NNMi Port Details

Note down the following port numbers of the NNMi installation:

- Port number of NNMi
- Port number of jboss on the management server

NNMi installer installs a default database that is embedded with NNM iSPI Performance for QA.

Database Details

To achieve higher scalability, you can choose an external Oracle database instead of the embedded database to store NNMi data. The external Oracle database can reside either on the NNMi management server, or on a remote server. You must note down the following details of the NNMi database.

- **Type:** The default embedded database or Oracle database.
- **Port:** The port used by the Oracle database.
- **Oracle Database server name:** The fully-qualified domain name of the Oracle server.
- **Oracle Database name:** Create the Oracle database to be used at time of NNM iSPI for QA installation.
- **Oracle Database Username:** Create the Oracle username to be used at time of NNM iSPI Performance for QA installation.
- **Password:** Password for the above user. Create the password to be used at time of NNM iSPI Performance for QA installation.



Before installing the NNM iSPI for QA, make sure to note down the database details if you are using Oracle database or embedded database.

Check System Requirements

Before installing the NNM iSPI for QA, verify that your computer meets the hardware and software requirements, and that the prerequisite software has been set up properly.

Make sure the management server meets all the hardware and software requirements.

Refer to the *HP Network Node Manager i-series Smart Plug-in for QA Support Matrix* and *HP Network Node Manager i-series Smart Plug-in for QA Release Notes* documents for a complete information on hardware and software requirements and dependencies.

Table 1 System requirements to install Network Node Manager iSPI Performance for Quality Assurance Software

Requirement	Reference Document	Complete (YES/NO)
Disk Space	<i>HP Network Node Manager iSPI Performance for Quality Assurance Software System and Device Support Matrix</i>	Yes
Operating System	<i>HP Network Node Manager iSPI Performance for Quality Assurance Software System and Device Support Matrix</i>	Yes
Database	<i>HP Network Node Manager iSPI Performance for Quality Assurance Software System and Device Support Matrix</i>	Yes

Preinstallation Tasks

Before you begin installing NNM iSPI for QA, perform the following tasks:

Task 1: [Create a New User with the Web Service Client Role](#)

Create a user from the NNMi console with the Web Service Client role. This user will be used during the course of installation.

Do not use the NNMi system account while installing the NNM iSPI for QA.

Task 2: [Only for Oracle. Create a New Oracle Database](#)

Skip this task if you choose to use the embedded database. You must create a new Oracle database before installing the NNM iSPI for QA. While installing and configuring the NNM iSPI for QA, do not use the same Oracle database that was configured with NNMi.

3 Installing NNM iSPI Performance for QA

You can install NNM iSPI Performance for QA on both types of management server; Windows and UNIX. See *HP Network Node Manager iSPI Performance for Quality Assurance Software System and Device Support Matrix* for more information on the supported operating systems.

You can use the installation wizard to install NNM iSPI Performance for QA. The installation wizard guides you through the installation process.

Install on a Windows Management Server

To install the NNM iSPI Performance for QA on a Windows management server, follow these steps:

- 1 Log on to the management server with Administrator privileges.
- 2 Insert the NNM iSPI Performance for QA installation media into the DVD drive. The installation should start automatically. If it does not start from the root directory, double-click the `setup.exe` file. The HP Install wizard for NNM iSPI Performance for QA opens.

If the Application requirement check warnings dialog box opens.
Click and review each warning and take appropriate actions
- 3 The Introduction (Install) screen opens. Click **Next**
- 4 The License Agreement screen opens.

Select the option **I accept the terms of the License Agreement**, and then click **Next**.
- 5 The Select Features screen opens with all the features selected by default. Click **Next**.
- 6 The HP Software Installer wizard verifies the free disk space required to complete installation. The Install Checks screen opens displaying the required disk space and available disk space on the system.

Review the indicated values, and then click **Next**.
- 7 The Pre-Install Summary screen opens. Review the options, and the click **Install**. The installation process begins.
- 8 During the installation process, you need to specify whether your NNMi 9.00 installation is using the embedded PostgreSQL database or not.

Click **Yes** in the Database Selection dialog box, if you are using embedded PostgreSQL database. Click **No**, to use the Oracle database.
- 9 If you are using the embedded database, specify the following details in the Parameters for QA iSPI to NNMi and NNMi to QA iSPI Communication dialog box:
 - Information required by NNM iSPI Performance for QA to communicate with NNMi:

NNMi FQDN/IP Address: The fully-qualified domain name (FQDN) of the NNMi management server. The host name can be fully qualified domain name or partial host name or IP Address.



The various cases for the (Fully Qualified Domain Name (FQDN) configuration parameters are listed below:

- The NNMi and NNM iSPI Performance for QA should use the same FQDN. If the NNM server is having more than one domain name, installation process chooses one and Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA) installation also chooses the same domain name.
- At the time of NNMi installation, if you are using the partial domain name as <people> or the IP Address as <xx.xx.xx.xx> and not the fully qualified domain name, NNM iSPI Performance for QA also contains the same partial domain name or the IP Address. In this case, the Single Sign-on is disabled.
 - NNMi HTTP Port: Type the same NNMi port number which you have entered while doing the NNMi installation. The default port number is 80. To update the NNMi port number, refer [Updating the NNMi Port Number](#).
 - NNMi Java Naming and Directory Interface (JNDI) Port: Port number used by the jboss application server for internal communication. Type the NNMi port number. The default port number is 1099.
 - NNMi Username: Type the Web Service client username for NNM iSPI Performance for QA.
 - NNMi Password: Type the Web Service client password.
 - Retype Password: Retype the password to confirm the password.
 - IsSecure: This option specifies that NNMi should use secured mode of transmission. By default the mode of transmission is unsecured, that is HTTP.
Select this option to support secure communication; that is to use HTTPS instead of HTTP.
- Information required by NNMi to communicate with NNM iSPI Performance for QA:
 - QA iSPI FQDN: The FQDN of the server where NNM iSPI Performance for QA should be installed. By default this field contains the FQDN for the NNMi management server.
 - QA iSPI HTTP Port: The NNM iSPI Performance for QA HTTP port number is 54040. The number cannot be changed; therefore the field is disabled.
 - QA iSPI HTTPS Port: The NNM iSPI Performance for QA HTTPS port number is 54043. The number cannot be changed; therefore the field is disabled.
 - JNDI Port: The JNDI port number for NNM iSPI Performance for QA is 54046. This is the port number used by the jboss application server for internal communication. The number cannot be changed; therefore the field is disabled.
 - IsSecure: This option specifies that NNM iSPI Performance for QA should use secured mode of transmission. By default the mode of transmission is unsecured, that is HTTP.

Select this option to support secure communication; that is to use HTTPS instead of HTTP.



Selecting IsSecure indicates whether NNMi and NNM iSPI Performance for QA should use secured mode of transmission, such as Hypertext Transfer Protocol Secure (HTTPS). By default, NNMi and NNM iSPI Performance for QA uses HTTP as a mode of transmission. Using the isSecure option, you can enable them to use HTTPS with Secure Sockets Layer (SSL) for additional security for the transmissions between NNMi and NNM iSPI Performance for QA.

HTTPS is a combination of the Hypertext Transfer Protocol with the Secure Sockets Layer (SSL) protocol to provide encryption and secure identification of the server. SSL uses a cryptographic system that encrypts data with two keys.

When a SSL Digital Certificate is installed on a web site, you can see a padlock icon at the bottom area of the navigator. When an Extended Validation Certificates is installed on a web site, users with the latest versions of some browsers (for example, Firefox, Internet Explorer or Opera) will see the green address bar at the URL area of the navigator.

Skip this step, if you are using Oracle database.



The NNMi configuration parameters should be same as you have entered while installing NNMi. Type the same configuration details while installing NNM iSPI Performance for QA.

Make sure to use the same database type (embedded or Oracle) while installing NNM iSPI Performance for QA which you have used while installing NNMi.

10 In the Database Configuration for SPI jboss dialog box, specify the following details:

- Oracle Database server name: The fully-qualified domain name of the Oracle server. Type the server name.
- Oracle Database Port: The default Oracle port number (1521) appears in the dialog box.
- Oracle Database name: Type the database name you have created for Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA).
- Oracle Database Username: Type the username you have created for Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA).
- Oracle Database Password: Type the password you have created for Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA).

11 Click **OK** to proceed with the installation process.

12 When the installation process is complete, click **Done**.

The NNM iSPI Performance for QA installation process is complete. You can check the necessary information about the installation from Summary and Details tab.

If the installation process fails to complete, you can Rollback the installation process and start installing NNM iSPI Performance for QA again.

Install on a UNIX Management Server

To install NNM iSPI Performance for QA on a UNIX management server, follow these steps:

- 1 Log on to the management server with root privileges.

- 2 Insert the NNM iSPI Performance for QA installation media into the DVD drive. From the root directory, double-click the `setup.bin` file. The HP Install wizard for NNM iSPI Performance for QA opens.

If the Application requirement check warnings dialog box opens.

Click and review each warning and take appropriate actions

- 3 The Introduction (Install) screen opens. Click **Next**

- 4 The License Agreement screen opens.

Select the option **I accept the terms of the License Agreement**, and then click **Next**.

- 5 The Select Features screen opens with all the features selected by default. Click **Next**.

- 6 The HP Software Installer wizard verifies the free disk space required to complete installation. The Install Checks screen opens displaying the required disk space and available disk space on the system.

Review the indicated values, and then click **Next**.

- 7 The Pre-Install Summary screen opens. Review the options, and the click **Install**. The installation process begins.

- 8 During the installation process, you need to specify whether your NNMi 9.00 installation is using the embedded PostgreSQL database or not.

Click **Yes** in the Database Selection dialog box, if you are using embedded PostgreSQL database. Click **No**, to use the Oracle database.

- 9 If you are using the embedded database, specify the following details in the Parameters for QA iSPI to NNMi and NNMi to QA iSPI Communication dialog box:

- Information required by NNM iSPI Performance for QA to communicate with NNMi:

NNMi FQDN/IP Address: The fully-qualified domain name (FQDN) of the NNMi management server. The host name can be fully qualified domain name or partial host name or IP Address.



The various cases for the (Fully Qualified Domain Name (FQDN) configuration parameters are listed below:

- The NNMi and NNM iSPI Performance for QA should use the same FQDN. If the NNM server is having more than one domain name, installation process chooses one and Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA) installation also chooses the same domain name.
- At the time of NNMi installation, if you are using the partial domain name as <people> or the IP Address as <xx.xx.xx.xx> and not the fully qualified domain name, NNM iSPI Performance for QA also contains the same partial domain name or the IP Address. In this case, the Single Sign-on is disabled.
 - NNMi HTTP Port: Type the same NNMi port number which you have entered while doing the NNMi installation. The default port number is 80. To update the NNMi port number, refer [Updating the NNMi Port Number](#).
 - NNMi Java Naming and Directory Interface (JNDI) Port: Port number used by the jboss application server for internal communication. Type the NNMi port number. The default port number is 1099.
 - NNMi Username: Type the Web Service client username for Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA).
 - NNMi Password: Type the Web Service client password.

- Retype Password: Retype the password to confirm the password.
- IsSecure: This option specifies that NNMi should use secured mode of transmission. By default the mode of transmission is unsecured, that is HTTP.
Select this option to support secure communication; that is to use HTTPS instead of HTTP.

- Information required by NNMi to communicate with NNM iSPI Performance for QA:
 - QA iSPI FQDN: The FQDN of the server where NNM iSPI Performance for QA should be installed. By default this field contains the FQDN for the NNMi management server.
 - QA iSPI HTTP Port: The NNM iSPI Performance for QA HTTP port number is 54040. The number cannot be changed; therefore the field is disabled.
 - QA iSPI HTTPS Port: The NNM iSPI Performance for QA HTTPS port number is 54043. The number cannot be changed; therefore the field is disabled.
 - JNDI Port: The JNDI port number for NNM iSPI Performance for QA is 54046. This is the port number used by the jboss application server for internal communication. The number cannot be changed; therefore the field is disabled.
 - IsSecure: This option specifies that NNM iSPI Performance for QA should use secured mode of transmission. By default the mode of transmission is unsecured, that is HTTP.
Select this option to support secure communication; that is to use HTTPS instead of HTTP.



Selecting IsSecure indicates whether NNMi and NNM iSPI Performance for QA should use secured mode of transmission, such as Hypertext Transfer Protocol Secure (HTTPS). By default, NNMi and NNM iSPI Performance for QA uses HTTP as a mode of transmission. Using the isSecure option, you can enable them to use HTTPS with Secure Sockets Layer (SSL) for additional security for the transmissions between NNMi and NNM iSPI Performance for QA.

HTTPS is a combination of the Hypertext Transfer Protocol with the Secure Sockets Layer (SSL) protocol to provide encryption and secure identification of the server. SSL uses a cryptographic system that encrypts data with two keys.

When a SSL Digital Certificate is installed on a web site, you can see a padlock icon at the bottom area of the navigator. When an Extended Validation Certificates is installed on a web site, users with the latest versions of some browsers (for example, Firefox, Internet Explorer or Opera) will see the green address bar at the URL area of the navigator.

Skip this step, if you are using Oracle database..



The NNMi configuration parameters should be same as you have entered while installing NNMi. Type the same configuration details while installing NNM iSPI Performance for QA. Make sure to use the same database type (embedded or Oracle) while installing NNM iSPI Performance for QA which you have used while installing NNMi.

- 10 In the Database Configuration for SPI jboss dialog box, specify the following details:
 - Oracle Database server name: The fully-qualified domain name of the Oracle server. Type the server name.
 - Oracle Database Port: The default Oracle port number (1521) appears in the dialog box.

- Oracle Database name: Type the database name you have created for Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA).
 - Oracle Database Username: Type the username you have created for Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA).
 - Oracle Database Password: Type the password you have created for Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA).
- 11 Click **OK** to proceed with the installation process.
 - 12 When the installation process is complete, click **Done**.

The NNM iSPI Performance for QA installation process is complete. You can check the necessary information about the installation from Summary and Details tab.

If the installation process fails to complete, you can Rollback the installation process and start installing NNM iSPI Performance for QA again.

Starting the NNM iSPI Performance for QA

To start the NNM iSPI Performance for QA and view the QA probes configured on the managed NNMi nodes, follow the steps as discussed below:

- 1 Check if the NNMi processes are running using the following command:

```
ovstatus -c
```

- If the processes are not running, start them manually using the following command:

```
ovstart -c ovjboss
```

- 2 Run the following command to start the NNM iSPI Performance for QA processes :

```
ovstart -c qajboss
```



- The qajboss process stops automatically if the ovjboss process stops.
- Restarting the ovjboss process does not automatically start the qajboss process. You have to start it manually.

However, to start the NNM iSPI Performance for QA manually in an application fail-over environment, run the following command:

```
nnmcluster -daemon
```



- You must **not** run the **ovstart** commands to start the NNM iSPI Performance for QA processes in an application fail-over environment.

Starting the NNM iSPI Performance for QA Workspace

After installing the NNM iSPI Performance for QA, log on to the NNMi console with an administrative privilege, and then verify the availability of Quality Assurance workspace.

Click Quality Assurance in the Workspaces pane. Check if the QA Probes view appears underneath.

Uninstalling NNM iSPI Performance for QA

Prerequisites

Before you start the uninstallation process, follow these steps to ensure that the QA process (qajboss) is stopped but the NNMi process (ovjboss) is running:

- 1 Check the status of the NNMi and QA process using the following command:

```
ovstatus -c
```

- 2 If the QA process is running, stop it manually using the following commands:

```
ovstop -c qajboss
```

If the QA process is running, the uninstallation process exits with an error message. If you see this error message, ensure that qajboss is not running and select **OK** to continue uninstalling NNM iSPI Performance for QA.:



Always uninstall the iSPI and then uninstall NNMi.

To uninstall NNM iSPI Performance for QA from an NNMi management server, follow these steps:

- 1 Log on to the management server with the Administrator (for Windows) or root (for UNIX) privileges.

- 2 Run the following program or command:

On Windows:

```
%ovinstalldrive%:\Program Files\HP\HP BTO  
Software\Uninstall\HPOvQAiSPI\setup.exe
```

On UNIX:

```
$OVINSTALLDIR/Uninstall/HPOvQAiSPI/setup.bin
```

The HP Install wizard to uninstall NNM iSPI Performance for QA opens.

- 3 Follow the instructions on the wizard and complete the procedure to remove NNM iSPI Performance for QA.
- 4 When the process is complete, click **Done**.

See [Appendix A, Troubleshooting](#) to resolve any error generated during uninstallation.

License Related Information

Visit the following website for license related issues:

<https://webware.hp.com/welcome.asp>

Accessing Log Files

The Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA) stores all the installation related information into the following directory:

For Windows: %temp%

For UNIX: /tmp/

List of QA log files

The log files are as follows:

- HPOVQASPI_9.00.000
- preInstall_qa.log
- postInstall_qa.log
- preRemove_qa.log
- postRemove_qa.log

Updating the NNMi Port Number

At the time of iSPI installation, type the same NNMi port numbers which you have specified while installing NNMi. If you want to update the NNMi port numbers while installing the NNM iSPI Performance for QA, you can update the following files:

- Update the `Djboss.nnm.port` field in `nms-QA.ports.properties` file.
- Update the `com.hp.ov.nms.spi.QA.Nnm.port` field in `nnm.extended.properties` file.

The files are available in the following directory:

For Windows:

`%nnmdatadir%\shared\qa\conf\`

For UNIX:

`$nnmdatadir/shared/qa/conf/`

Updating the NNMi System Password

The iSPI should be configured to use same system password as NNMi. After installation of iSPI, if the system password for NNMi is modified, the Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA) should be updated with the new system password.



Only user having root permission can run this script.

Run the following command to copy the NNMi password:

```
encryptqapasswd.ovpl -c qa
```

where:

`c` - Communicates between NNMi jboss and iSPI jboss

`qa` (case insensitive)

After updating the password, restart the iSPI to use the new system credentials. If the password is not updated the ovstop, ovstart and ovstatus commands will fail.

Updating the NNM iSPI Performance for QA (Web Service Password)

The NNM iSPI Performance for QA should be configured with Web service Username / Password to communicate with NNMi. The user should be added in NNMi with the role of Web Service Admin or System and then use the script to update the password.



Avoid System role for NNMi - iSPI communication.

Only user having root permission can run this command.

You can use the `encryptqapasswd.ovpl` script to update the iSPI password. This script will change the iSPI password. Avoid using the System password of NNMi.

```
encryptqapasswd.ovpl -e <qa> <password>
```

where:

- -e - encrypt supplied string
- password - string to be encrypted

After updating the password, restart the Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA) to use the new system credentials. If the password is not updated, ovstop, ovstart and ovstatus commands will fail.

Getting Started with NNM iSPI Performance for QA

Follow the steps as discussed below to start using Network Node Manager iSPI Performance for Quality Assurance Software (NNM iSPI for QA) for testing the performance consistency of your network:

- 1 Start the NNMi console. For more information on how to access the NNMi console, see *Getting Started with NNMi* in the *HP Network Node Manager i-series Installation Guide*.
- 2 Start the Quality Assurance workspace from the Workspaces pane.

Accessing the Online Help

The NNM iSPI Performance for QA Help provides the information on how to use this product. The detailed information in the NNM iSPI Performance for QA help is organized into the following sections:

- Help for Operators
- Help for Administrators

Follow the steps as discussed below to access the iSPI help:

- 1 Click Help on the NNMi console menu bar
- 2 Click Help for NNM iSPIs to select the Help for NNM iSPI Performance for QA.

The iSPI help appears in the NNMi console only if the NNM iSPI Performance for QA installation is successful. The help provides you the comprehensive information about NNM iSPI Performance for QA views, forms, and troubleshooting.

4 Installing in a High-Availability or Application Fail Over Environment

If you are installing the NNM iSPI Performance for QA in an application fail-over environment, you must install the NNM iSPI Performance for QA on both the primary and secondary NNMi management servers. See the *HP NNM i Software Smart Plug-in Performance for Quality Assurance Deployment Reference* guide for more details.

You can install NNM iSPI Performance for QA in a high-availability (HA) environment or application fail-over environment to achieve redundancy in your monitoring setup. You can install the NNM iSPI Performance for QA product in an HA environment where NNMi is installed.

Prerequisites for Installing iSPI on HA

Before you begin the installation for HA environment, see, *Configuring HP NNM i-series Software in a High Availability Cluster* in *NNMi Deployment and Migration Guide* to understand the NNMi HA configuration.

Ensure to meet the following requirements before installing iSPI in an HA environment. The NNM iSPI Performance for QA runs on the NNMi management server.

- The iSPI runs on the NNMi management server.
- The iSPI uses the same embedded database (PostgreSQL) instance as NNMi.

Installing the iSPI in HA Environment

To install the NNM iSPI Performance for QA when NNMi is running in the HA environment, follow these steps:

- 1 If NNMi management server is running in HA mode, disable HA on the management server. For more information on enabling and disabling HA, see [Enabling and Disabling HA for NNMi and the iSPI](#)
- 2 Start the iSPI installation.
- 3 Enable HA on the NNMi management server.
- 4 Enable HA for the iSPI.



If NNMi is not installed in an HA environment, install NNMi and the NNM iSPI Performance for QA together.

Enabling and Disabling HA for NNMi and the iSPI

To enable HA for NNM iSPI Performance for QA, first enable HA for the iSPI in primary node and then in the secondary node.

Use the following command to enable HA for NNM iSPI Performance for QA:

Windows

```
%NnmInstallDir%\misc\nnm\ha\nnmhaconfigure.ovpl NNM -addon QASPIHA
```

UNIX

```
$(NnmInstallDir)\misc\nnm\ha\nnmhaconfigure.ovpl NNM -addon QASPIHA
```

To disable HA for NNM iSPI Performance for QA, first disable HA for the iSPI from the secondary node and then from the primary node.

Use the following command to disable HA for NNM iSPI Performance for QA:

Windows

```
%NnmInstallDir%\misc\nnm\ha\nnmhaconfigure.ovpl NNM -addon QASPIHA
```

UNIX

```
$(NnmInstallDir)\misc\nnm\ha\nnmhaconfigure.ovpl NNM -addon QASPIHA
```

Uninstalling the NNM iSPI Performance for QA in HA Environment

To remove the NNM iSPI Performance for QA in HA environment, follow these steps:

- 1 If NNMi management server is running in HA mode, disable HA for the iSPI. For more information on enabling and disabling HA, see [Enabling and Disabling HA for NNMi and the iSPI](#)
- 2 Disable HA on the NNMi management server.
- 3 Uninstall NNM iSPI Performance for QA.
- 4 Enable HA on the NNMi management server.

For steps to disable HA on the NNMi management server, see *Configuring HP NNM i-series Software in a High Availability Cluster* in the *NNMi Deployment and Migration Guide*.

A Troubleshooting

Uninstallation Process Starts but does not Complete

Stop the SPI process but NNMi processes should be running before you start the uninstallation process. You can use the following command to stop the SPI process:

```
ovstop -c qajboss
```

Check the status again and start the uninstallation process.

Low Memory after the iSPI is Uninstalled

After the unistallation process, ensure that no javaprocess is running with the iSPI's name. Kill these processes manually otherwise they will increase the memory size.

Uninstallation Process is Complete, Status shows iSPI

After the uninstallation process is complete, still iSPI for NNM iSPI fPerformance or QA process appears as failed while checking the status. Stop the process and start again using the following commands:

```
Stop the process: ovstop -c
```

```
Start the process: ovstart -c
```

Check the status again, iSPI does not appear in the status.

iSPI Installation Process Stops and Exits

The iSPI installation process stops and exits as the installation process is not able to create and copy the folders.

Check the error messages and check the available disk space, permission issues.

Process is in Failed state and not able to Restart again

Stop and start ovspmd (all the processes) again if any of the processes (qajboss, nmsdbmgr) is in FAILED state and you are unable to restart the process. Check ovstatus -c to verify if the process state is changed from FAILED state to RUNNING state.

Despite being time consuming, this is only workaround available to start the processes.

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