

HP Network Node Manager i-series Smart Plug-in for IP Telephony

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

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Installation Guide

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Contents

1	Introduction	9
	IP Telephony Workspaces	10
	Related Documentation	10
2	Before You Begin	11
	Installation Plan on the NNMi Management Server	11
	Check System Requirements	13
	Preinstallation Tasks	13
	Additional Guidelines	15
3	Installing the iSPI for IP Telephony	17
	Installing on a Windows Management Server	17
	Installing on a UNIX Management Server	20
	Starting the iSPI for IP Telephony	22
	Verifying the Installation	23
	Removing the iSPI for IP Telephony	27
	Updating the iSPI for IP Telephony with the Modified Configuration Parameters	27
	Accessing Installation Log Files	29
4	Installing in a High-Availability Cluster Environment	31
	Prerequisites	31
	Installing the iSPI in an HA Environment	31
	Configuring and Unconfiguring the iSPI in the HA Environment	32
	Removing the iSPI in an HA Environment	32
5	Getting Started with the iSPI for IP Telephony	35
	Accessing the iSPI for IP Telephony	35
	Accessing the Online Help	36

A Troubleshooting Installation and Initial Startup	39
Installing the iSPI for IP Telephony	39
Removing the iSPI for IP Telephony	40
Index	43

1 Introduction

The HP Network Node Manager i-series Smart Plug-in for IP Telephony (**iSPI for IP Telephony**) extends the capability of NNMi to monitor and manage the IP telephony infrastructure in your network environment. The iSPI for IP Telephony presents additional views to indicate the states of discovered IP telephony devices and display the overall health of the IP telephony infrastructure.

The iSPI for IP Telephony, in conjunction with NNMi, performs the following tasks:

- Automatically discovering of the IP telephony infrastructure
- Displaying the IP telephony devices in the IP telephony views
- Monitoring the status of every discovered component of the IP telephony infrastructure

After you install (and configure) the iSPI for IP Telephony on the NNMi management server, you can monitor and troubleshoot the problems in your IP telephony infrastructure with the additional views provided by the iSPI for IP Telephony.

The iSPI for IP Telephony works with NNMi to introduce additional views and forms that help you view and analyze the data collected from the discovered IP telephony network. While NNMi presents the framework to monitor the state of the network and computing environment in your organization, the IP telephony-specific views, which are introduced in the NNMi console by the iSPI for IP Telephony, help you monitor the health and performance of the IP telephony network. With the operator-level access, you can view the data collected and displayed by the iSPI for IP Telephony to monitor the health, performance, and availability of the IP telephony network. With the administrative access, you can configure the details like the polling interval for a monitored device.

This version of the iSPI for IP Telephony supports Cisco and Nortel IP telephony networks.

IP Telephony Workspaces

The iSPI for IP Telephony introduces two new workspaces in the Workspaces pane in the NNMi console: **Cisco IP Telephony** and **Nortel IP Telephony**.

These workspaces present gateways to view all the details indicating the health, performance, and availability of the Cisco IP telephony network with the help of the different views. Every view lists the details of the discovered devices that indicate the states and properties of the devices. You can view additional details of every device listed in a view with the help of forms.

Related Documentation

Refer to the following guides for more information on iSPI for IP Telephony:

- **iSPI for IP Telephony Online Help**—includes information on the views and forms introduced by the iSPI for IP Telephony.
- **iSPI for IP Telephony Release Notes**
- **iSPI for IP Telephony Support Matrix**

2 Before You Begin

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

You can refer to the following documents before you start the installation process:

- *HP Network Node Manager i-series Software 8.10 Installation Guide for Windows or HP Network Node Manager i-series Software 8.10 Installation Guide for UNIX*
- *HP Network Node Manager i-series Software 8.10 Deployment and Migration Guide*
- *HP Network Node Manager i-series Software 8.10 Release Notes*
- *HP Network Node Manager i-series Software 8.10 Support Matrix*

Before you begin, make sure that NNMi is installed in the environment and running. You must install the iSPI for IP Telephony on the NNMi management server. You can also install the iSPI in High-Availability (HA) cluster environments that are supported by NNMi.

Installation Plan on the NNMi Management Server

Before installing the iSPI for IP Telephony on the NNMi management server, you must review and note down all the configuration-related details of the NNMi installation. These details will be required by the iSPI installer.

Port Details

Note down the following port numbers of the NNMi installation:

- HTTP port number of NNMI
- Java Naming and Directory Interface (JNDI) port configured with NNMI

To verify the port details, open the `nnm.ports.properties` file from the `%NnmDataDir%\shared\nnm\conf` or `$NnmDataDir/shared/nnm/conf` directory on the management server, and then note down the values of the following properties:

- `jboss.http.port` property for the HTTP port number
- `jboss.jnp.port` property for the JNDI port number

Database Details

NNMI installer installs a default database that is embedded with the product. However, to achieve higher scalability, you can choose an external Oracle database instead of the embedded database to store NNMI data. See the *HP Network Node Manager i-series Software 8.10 Installation Guide* for more information on configuring NNMI with Oracle. You must note down the following details of the NNMI database:

- **Type:** The default embedded database or Oracle.
- **Port:** *Only for Oracle.* The port used by the Oracle database.
- **Hostname:** *Only for Oracle.* This is applicable when you use an Oracle database residing on a remote server. Note down the fully-qualified domain name of the database server.
- **Database name:** *Only for Oracle.* Name of the Oracle database instance.
- **User name:** *Only for Oracle.* The Oracle user name created to access NNMI data.
- **Password:** *Only for Oracle.* Password of the above user.

With the iSPI for IP Telephony, you must use a unique Oracle instance, and not the Oracle instance configured with NNMI. Before you create a unique Oracle instance for the iSPI, refer to the *Database Installation* section in the *HP Network Node Manager i-series Software Installation Guide* for additional details. If you are using a unique Oracle instance, note down the aforementioned details for this instance as well.

Check System Requirements

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

Table 1 Preinstallation Checklist for Hardware and Software Requirements

Requirement	Reference Document	Complete? (Yes/No)
Disk space	<i>HP Network Node Manager i-series Smart Plug-in for IP Telephony Support Matrix</i>	
Operating system	<i>HP Network Node Manager i-series Smart Plug-in for IP Telephony Support Matrix</i>	
Database	<i>HP Network Node Manager i-series Smart Plug-in for IP Telephony Support Matrix</i>	
Browser	<i>HP Network Node Manager i-series Smart Plug-in for IP Telephony Support Matrix</i>	

Preinstallation Tasks

Before you begin installation, perform these 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 iSPI for IP Telephony.

Task 2: Enable the FTP-Communication Mode on the NNMi Management Server

Skip this section if you do not want to collect data from the Cisco CallManager Call Details Record (CDR) Repository server.



You can perform this task even after the installation of the iSPI for IP Telephony.

You must set up an FTP-communication mode on the NNMi management server to enable the iSPI for IP Telephony to send data from the Cisco CallManager CDR Repository server to the NNMi management server. To set up the FTP-communication mode, follow these steps:

- 1 Create a user on the NNMi management server with the read/write access to the following location:
 - On a Windows management server: `%NnmDataDir%\log\ipt\tmp`
 - On a UNIX management server: `$NnmDataDir/log/ipt/tmp`
- 2 Start the FTP service on the NNMi management server with the user created in [step 1](#).



For the Windows management server, you must configure the location `%NnmDataDir%\log\ipt\tmp` as the home directory (ftp root) for the FTP service. For the UNIX platforms, the root directory (`/`) remains as the ftp root directory. Do not delete the `tmp` directory in the above path (`$NnmDataDir/log/ipt/tmp`).



Note down the details of the user created in [step 1](#). You must specify the login name and password of this user in the *IPTSPI Server FTP Configuration to be used by Cisco IPT QOS/MOS monitor* section in the IPT QOS Configuration form.

Task 3: *Only for Oracle.* Create a New Oracle Instance

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

Additional Guidelines

- Before installation, apply the latest patch for NNMi 8.10.
- *For Cisco IP telephony networks only.* For the iSPI for IP Telephony to collect CDR data from the Cisco CallManager CDR Repository server, the time settings on the Cisco CallManager CDR Repository server and NNMi management server must be synchronized against the same value for UTC.
- While configuring NNMi for the HTTPS-communication mode by modifying the `server.xml` file, do not comment out or delete the `Connector` tag that specifies the details of the HTTP communication. Refer to the *NNMi Deployment and Migration Guide* for more information on different communication modes.

3 Installing the iSPI for IP Telephony

You can install the iSPI for IP Telephony on both types of management server—Windows and UNIX. You can use the installation wizard. The installation wizard guides you through the installation process.

Installing on a Windows Management Server

To install the iSPI for IP Telephony on a Windows management server, follow these steps:


- 1 Log on to the management server with the Administrator privileges.
- 2 Insert the iSPI installation CD into the CD-ROM drive.
- 3 In the root directory, double-click the `setup.bat` file. The installation wizard opens.
- 4 In the Introduction screen of the installation wizard, click **Next**. The License Agreement screen appears.
- 5 In the License Agreement screen, select the **I Accept...** option, and then click **Next**. The Feature Selection screen appears.
- 6 Click **Next**. The Install Checks screen appears. The wizard checks for the available disk space.
- 7 After the check is complete, click **Next**. The Pre-Install Summary screen appears.
- 8 Review the options, and then click **Install**. The installation process begins.



Select the Force reinstallation of the already installed components if you previously attempted an unsuccessful installation of the iSPI for IP Telephony and you did not manually removed the components that were already placed by the installer

- 9 During the installation process, the Database Selection pop-up box opens. Choose one of the following:
 - ▶ Before performing this step, make sure that you have noted down all configuration details of your NNMi installation.
 - Click **Yes** if you configured NNMi to use the embedded database. The *Parameters for IPTiSPI to NNMi and NNMi to IPTiSPI communication* dialog box opens. If you click **Yes**, go to [step 11](#) on page 18.
 - Click **No** if you configured NNMi to use an Oracle database. The ORACLE DB Configuration for iSPI for IP Telephony dialog box opens.
- 10 *Skip this step if you choose to use the embedded database.* In the ORACLE DB Configuration for iSPI for IP Telephony dialog box, follow these steps:
 - a Specify the following details:
 - ▶ You must create a new Oracle instance for use with the iSPI for IP Telephony. Do not use the same Oracle instance that was configured with NNMi.
 - Database server name: The fully-qualified domain name of the Oracle server.
 - Database port: The Oracle port number
 - Database name: Name of the Oracle instance that you want to use with the iSPI for IP Telephony.
 - Username: User name to access the Oracle database instance.
 - Password: Password for the above user.
 - b Click **OK**. The *Parameters for IPTiSPI to NNMi and NNMi to IPTiSPI communication* dialog box opens.
- 11 In the dialog box, specify the following details:
 - **Information required by IPTiSPI to communicate to NNMi**
 - ▶ Specify the values configured with NNMi.
 - NNMi FQDN/IP Address—specify the fully-qualified domain name of the NNMi management server. You can find out the fully-qualified domain name of the NNMi server in the

Management Server section of the *About HP Network Node Manager i-series* window. You can launch the *About HP Network Node Manager i-series* window by clicking **Help > About HP Network Node Manager i-series** from the NNMI console.

- NNMI HTTP Port—specify the port configured with NNMI (default: 80). To verify the NNMI HTTPS port number, open the `nnm.ports.properties` file from the `%NnmDataDir%\shared\nnm\conf` directory, and then see the value specified for `jboss.http.port`.
 - NNMI JNDI Port—specify the Java Naming and Directory Interface (JNDI) port configured with NNMI (default: 1099). To verify the NNMI JNDI port number, open the `nnm.ports.properties` file from the `%NnmDataDir%\shared\nnm\conf` directory, and then see the value specified for `jboss.jnp.port`.
 - NNMI Username—specify the NNMI Web Service Client user name. Do not use NNMI's **system** account. Use the user created in [Preinstallation Tasks](#) on page 13.
 - Password—password for the above user.
 - Protocol—always select **http**. Do not select **https**.
 - **Information required by IPTiSPI to communicate to NNMI**
 - IPT FQDN/IP Address—specify the fully-qualified domain name of the NNMI management server.
 - Protocol—always select **http**. Do not select **https**.
-  The parameters IPT HTTP Port (10080) and IPT JNDI Port (10099) are automatically supplied to the text boxes in this section.

12 Click **OK**.

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



Installing on a UNIX Management Server



To install the iSPI for IP Telephony on a UNIX management server, follow these steps:


- 1 Log on to the management server with the `root` privileges.
- 2 Insert the iSPI for IP Telephony installation media into the CD-ROM drive.
- 3 Make sure that the CD-ROM drive is mounted, and then go to the `/cdrom` directory.
- 4 Run the `setup` file with the following command:

```
./setup
```

The installation wizard opens.

- 5 In the Introduction screen of the installation wizard, click **Next**. The License Agreement screen appears.
- 6 In the License Agreement screen, select the **I Accept...** option, and then click **Next**. The Feature Selection screen appears.
- 7 Click **Next**. The Install Checks screen appears. The wizard checks for the available disk space.
- 8 After the check is complete, click **Next**. The Pre-Install Summary screen appears.
- 9 Review the options, and then click **Install**. The installation process begins.
 -  Select the Force reinstallation of the already installed components if you previously attempted an unsuccessful installation of the iSPI for IP Telephony and you did not manually removed the components that were already placed by the installer.
- 10 During the installation process, the Database Selection pop-up box opens. Choose one of the following:
 -  Before performing this step, make sure that you have noted down all configuration details of your NNMi installation.

- Click **Yes** if you configured NNMi to use the embedded database. The *Parameters for IPTiSPI to NNMi and NNMi to IPTiSPI communication* dialog box opens. If you click **Yes**, go to [step 12](#) on page 21.
 - Click **No** if you configured NNMi to use an Oracle database. The ORACLE DB Configuration for iSPI for IP Telephony dialog box opens.
- 11 *Skip this step if you choose to use the embedded database. In the ORACLE DB Configuration for iSPI for IP Telephony dialog box, follow these steps:*
- a Specify the following details:
 -  You must create a new Oracle instance for use with the iSPI for IP Telephony. Do not use the same Oracle instance that was configured with NNMi.
 - Database server name: The fully-qualified domain name of the Oracle server
 - Database port: The Oracle port number
 - Database name: Name of the Oracle instance that you want to use with the iSPI for IP Telephony
 - Username: User name to access the Oracle database instance
 - Password: Password for the above user
 - b Click **OK**. The *Parameters for IPTiSPI to NNMi and NNMi to IPTiSPI communication* dialog box opens.
- 12 In the dialog box, specify the following details:
- **Information required by IPTiSPI to communicate to NNMi**
 -  Specify the values configured with NNMi.
 - NNMi FQDN/IP Address—specify the fully-qualified domain name of the NNMi management server. You can find out the fully-qualified domain name of the NNMi server in the *Management Server* section of the *About HP Network Node Manager i-series* window. You can launch the *About HP Network Node Manager i-series* window by clicking **Help > About HP Network Node Manager i-series** from the NNMi console.

- NNMi HTTP Port—specify the port configured with NNMi (default: 80). To verify the NNMi HTTPS port number, open the `nnm.ports.properties` file from the `$NnmDataDir/shared/nnm/conf` directory, and then see the value specified for `jboss.http.port`.
 - NNMi JNDI Port—specify the Java Naming and Directory Interface (JNDI) port configured with NNMi (default: 1099). To verify the NNMi JNDI port number, open the `nnm.ports.properties` file from the `$NnmDataDir/shared/nnm/conf` directory, and then see the value specified for `jboss.jnp.port`.
 - NNMi Username—specify the NNMi Web Service Client user name. Do not use NNMi’s **system** account. Use the user created in [Preinstallation Tasks](#) on page 13.
 - Password—password for the above user.
 - Protocol—always select **http**. Do not select **https**.
 - **Information required by IPTiSPI to communicate to NNMi**
 - IPT FQDN/IP Address—specify the fully-qualified domain name of the NNMi management server.
 - Protocol—always select **http**. Do not select **https**.
-  The parameters IPT HTTP Port (10080) and IPT JNDI Port (10099) are automatically supplied to the text boxes in this section.

13 Click **OK**.

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

Starting the iSPI for IP Telephony

After installing the iSPI for IP Telephony on the NNMi management server, you must start the necessary processes.

Before starting the processes, you can check the status of NNMi with the following command:

```
ovstatus -c
```

Run the following command to start the necessary processes for the iSPI for IP Telephony:

```
ovstart -c iptjboss
```

If the above command fails to start the `iptjboss` process, follow these steps:

- 1 Run the following command to start all the processes required by NNMi and the iSPI for IP Telephony:

```
ovstart -c
```

- 2 Check the status of the `iptjboss` process with the following command:

```
ovstatus -c
```

You can stop the iSPI for IP Telephony processes with the following command:

```
ovstop -c iptjboss
```

Verifying the Installation

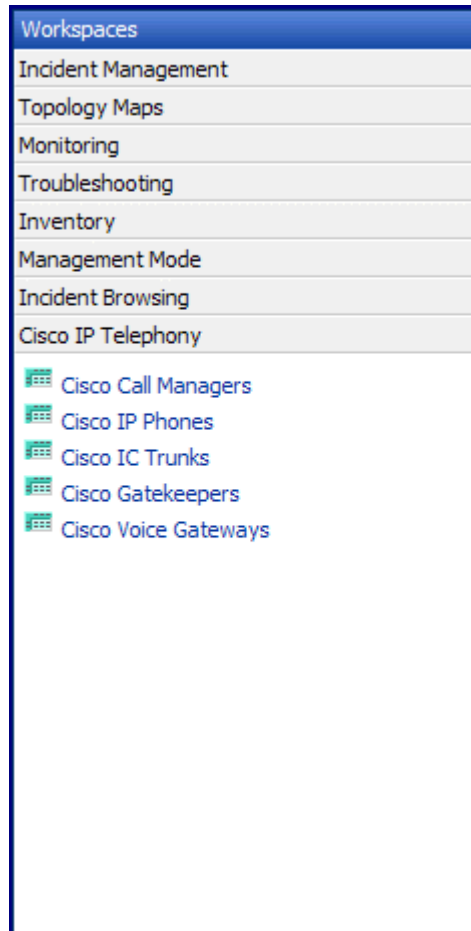
After installing the iSPI for IP Telephony, log on to the NNMi console with an administrative privilege, and then verify the availability of the following workspaces and views:

- **Cisco IP Telephony**

In the Workspaces pane, click **Cisco IP Telephony**. Check if the names of the following views appear underneath:

- Cisco Call Managers
- Cisco IP Phones
- Cisco IC Trunks
- Cisco Gatekeepers
- Cisco Voice Gateways

Figure 1 Cisco IP Telephony Workspace

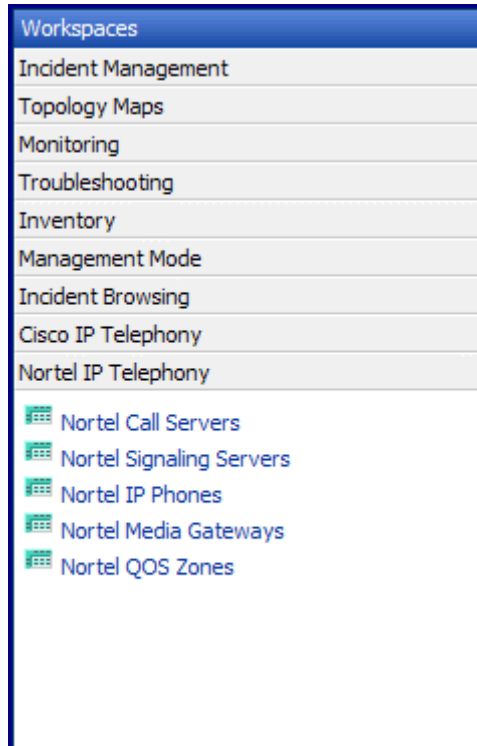


- **Nortel IP Telephony**

In the Workspaces pane, click **Nortel IP Telephony**. Check if the names of the following views appear underneath:

- Nortel Call Servers
- Nortel Signaling Servers
- Nortel IP Phones
- Nortel Media Gateways

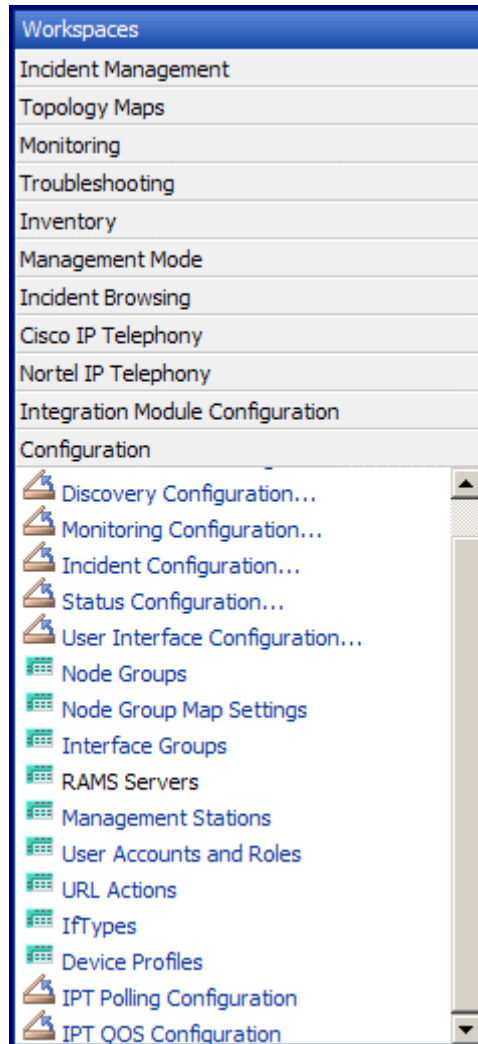
Figure 2 Nortel IP Telephony Workspace



- **Configuration Forms**

The iSPI for IP Telephony introduces two new configuration forms—**IPT Polling Configuration** and **IPT QOS Configuration**. Click the Configuration workspace to verify the availability of these two forms. You can access the Configuration workspace only if you log on to the NNMi console with an administrator account.

Figure 3 Configuration Forms



Removing the iSPI for IP Telephony

To remove the iSPI for IP Telephony from a management server, follow these steps:

- 1 Log on to the management server with the Administrator (for Windows) or root (for UNIX) privileges.
- 2 Stop the iSPI for IP Telephony processes with the `ovstop -c iptjboss` command.
- 3 Run the following command at the command prompt:

On Windows: %NnmInstallDir%\uninstall\HPOvIPTiSPI\setup.exe

On UNIX: \$NnmInstallDir/Uninstall/HPOvIPTiSPI/setup.bin

A wizard opens.

Alternatively, insert the iSPI for IP Telephony CD into the CD ROM, and then run the `setup.bat` or `setup` file (as applicable). The wizard to remove the iSPI for IP Telephony opens.

- 4 Follow the instructions on the wizard and complete the procedure to remove the iSPI for IP Telephony.
- 5 When the process is complete, click **Done**.

Updating the iSPI for IP Telephony with the Modified Configuration Parameters

After installing the iSPI for IP Telephony, you may modify configuration parameters like:

- NNMi HTTP port
- NNMi system account credentials
- Credentials of the account used during the iSPI for IP Telephony installation

If you modify the NNMi HTTP port number after installing the iSPI for IP Telephony, follow these steps to synchronize the change with the iSPI for IP Telephony setup:

- 1 On the management server, open the `nms-ipt.ports.properties` file from the `%NnmdataDir%\shared\ipt\conf` or `$NnmdataDir/shared/ipt/conf` directory (depending on the type of the management server) with a text editor.
- 2 Set the `Djboss.nnm.port` property to the changed HTTP port of NNMi.
- 3 On the management server, open the `nm.extended.properties` file from the `%NnmdataDir%\shared\ipt\conf` or `$NnmdataDir/shared/ipt/conf` directory (depending on the type of the management server) with a text editor.
- 4 Set the `com.hp.ov.nms.spi.ipt.Nnm.port` property to the changed HTTP port of NNMi.

If you modify the NNMi system account credentials after installing the iSPI for IP Telephony, follow these steps to synchronize the change with the iSPI for IP Telephony setup:

- 1 Log on to the NNMi management server.
- 2 Run the following command:
`encryptiptpasswd.ovpl -c ipt`
- 3 Restart the iSPI for IP Telephony with the following commands:
 - a **`ovstop -c iptjboss`**
 - b **`ovstart -c iptjboss`**

If you want to modify the credentials of the account used during the installation of the iSPI for IP Telephony (the user created in [Preinstallation Tasks](#) on page 13), follow these steps:

- 1 Log on to the NNMi management server.
- 2 Run the following command:
`encryptiptpasswd.ovpl -e ipt <new_password>`
The command changes the old password to `<new_password>` and updates the iSPI for IP Telephony components with the modified information.
- 3 Restart the iSPI for IP Telephony with the following commands:
 - a **`ovstop -c iptjboss`**

```
b ovstart -c iptjboss
```

Accessing Installation Log Files

NNMi stores all the installation-related information into the following directory:

- **On Windows:**

```
<DRIVE>:\Documents and Settings\Administrator\Local  
Settings\Temp
```

- **On UNIX:**

```
/tmp/
```


4 Installing in a High-Availability Cluster Environment

You can install NNMi in a high-availability (HA) environment to achieve redundancy in your monitoring setup. You can install the iSPI product in an HA environment where NNMi has been installed.

Prerequisites

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

Make sure to meet the following requirements before installing the iSPI for IP Telephony in an HA environment:

- The iSPI for IP Telephony runs on the NNMi management server.
- The iSPI for IP Telephony uses the same embedded database instance as NNMi.

Installing the iSPI in an HA Environment



If NNMi is not installed in an HA environment, install NNMi and the iSPI for IP Telephony together.

To install the iSPI for IP Telephony when NNMi is Running in the HA environment, follow these steps:

- 1 If NNMi is already configured and running in the HA environment, unconfigure NNMi.

- 2 Start the iSPI installation.
- 3 After installation, configure NNMi and iSPI in the HA environment.

Configuring and Unconfiguring the iSPI in the HA Environment

Use the following commands to configure the iSPI for IP Telephony:

- *Windows:*

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

- *UNIX:*

```
$NnmInstallDir/misc/nnm/ha/nnmhaconfigure.ovpl NNM -addon  
IPT
```

Use the following commands to unconfigure the iSPI for IP Telephony:

- *Windows:*

```
%NnmInstallDir%\misc\nnm\ha\nnmhaunconfigure.ovpl NNM  
-addon IPT
```

- *UNIX:*

```
$NnmInstallDir/misc/nnm/ha/nnmhaunconfigure.ovpl NNM  
-addon IPT
```

Removing the iSPI in an HA Environment

To remove the iSPI, follow these steps:

- 1 If NNMi is already configured and running in the HA environment, unconfigure the iSPI for IP Telephony.
- 2 Unconfigure NNMi in the HA environment.
- 3 Uninstall the iSPI for IP Telephony.

4 Configure NNMi in the HA environment.

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

5 Getting Started with the iSPI for IP Telephony

After you complete the installation of the iSPI for IP Telephony in your NNMi environment, you can start monitoring your IP telephony network with the combination of NNMi and iSPI for IP Telephony. After installation, the iSPI for IP Telephony starts automatically discovering the IP telephony network and all the associated devices with an interval of one day.

Accessing the iSPI for IP Telephony

To access the details collected by the iSPI for IP Telephony after the initiation of the first discovery polling cycle, follow these steps:

- 1 Launch the NNMi console.
- 2 Log on to the NNMi console with one of the following user roles:
 - Administrator
 - Operator level 1
 - Operator level 2
 - Guest
- 3 In the Workspace pane, click **Cisco IP Telephony** or **Nortel IP Telephony** (depending on the type of network you want to monitor), and then click individual views to see details on the discovered network and devices.

Accessing the Online Help

To see the details presented by individual views and forms that are introduced by the iSPI for IP Telephony, you can refer to the *iSPI for IP Telephony Online Help*.

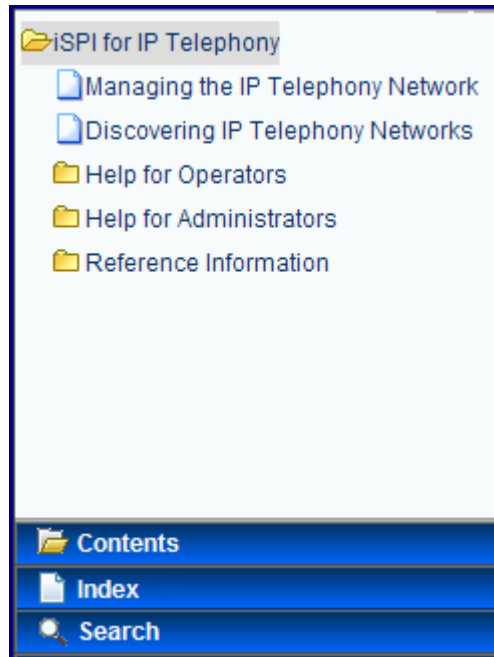
To launch the *iSPI for IP Telephony Online Help*, click **Help > Help for NNM iSPIs > IP Telephony Online Help**.

Figure 4 iSPI for IP Telephony Online Help



You can use the table of contents of the online help to navigate through different topics of the iSPI for IP Telephony online help. To open the table of contents for the online help, click **iSPI for IP Telephony** in the left pane of the online help.

Figure 5 Table of Contents of the iSPI for IP Telephony Online Help



A Troubleshooting Installation and Initial Startup

This chapter lists the trouble scenarios that you may encounter while installing iSPI for IP Telephony and tips to resolve these issues.

Installing the iSPI for IP Telephony

- *Problem:* Occasionally, the iSPI for IP Telephony process—**iptjboss**—does not get started after a successful installation of the iSPI for IP Telephony, and the following error message appears in the console:

```
#ovstart -c

Name                PID  State      Last Message(s)
OVsPMD              5112  RUNNING    -
nmsdbmgr            5113  RUNNING    Database available.
ovjboss             5133  RUNNING    Initialization
complete.
iptjboss            -     FAILED     Unable to start
process using start command
ovspmd: Attempt to start HP OpenView services is complete.

#ovstatus -c

Name                PID  State      Last Message(s)
OVsPMD              5112  RUNNING    -
pmd                 5212  RUNNING    Initialization
complete.
ovjboss             5133  RUNNING    Initialization
complete.
```

```

nmsdbmgr          5113  RUNNING          Database available.
ovspmd: Could not successfully run the status command
(nmsiptstatus.ovpl) for process iptjboss

iptjboss          -  FAILED          The LRF-specified
status command failed.

```

Eventually, the `ovstart` and `ovstop` processes hang.

Cause: The `iptjboss` process failed after completion of the installation process.

Solution:

- Make sure that all the necessary patches for NNMi 8.10 are installed.
- Reinstall the iSPI for IP Telephony.

- *Problem:* After installation, if you start the `iptjboss` process with the `ovstart -c iptjboss` command, the status of `iptjboss` is shown as `RUNNING` although `iptjboss` or the corresponding java process is not running. This can be verified by using the `ps` command on the UNIX management server and Task Manager on the Windows management server.

Cause: The underlying script that starts `iptjboss` may not work as expected if there are installation problems.

Solution: `OVSPMD` commands (`ovstart`, `ovstatus`, and `ovstop`) use the `nmsiptstart.ovpl`, `nmsiptstatus.ovpl`, and `nmsiptstop.ovpl` (within the `NNM_BIN` directory) scripts internally. If you see problems while starting `iptjboss`, you can run these commands at the command prompt to verify the problem. If there are any error messages from these scripts, reinstallation of the iSPI for IP Telephony will resolve the issue.

- *Problem:* The iSPI for IP Telephony installation stops abruptly.

Solution: Check the error messages and available disk space; check if you have necessary permissions on the management server.

Removing the iSPI for IP Telephony

- *Problem:* The uninstallation process starts but does not end.

Solution: Make sure that all the NNMI processes are running, stop the `iptjboss` process with the `ovstop -c iptjboss` command, and then try to remove the iSPI with the uninstallation wizard.

- *Problem:* After removing the iSPI for IP Telephony, the status of `iptjboss` appears as FAILED.

Solution: Run the following commands in the given sequence:

— `ovstop -c`

— `ovstart -c`

If you check the status again, `iptjboss` does not appear.

Index

C

configuration forms, 25

D

database

- details, 12
- embedded, 18
- remote, 12

F

force reinstallation, 17
ftp communication, 14
ftp root, 14

G

getting started, 35
guidelines, 15

H

high-availability environment, 31

I

installation

- before you begin, 11
 - documents, 11
 - review, 11
- system requirements, 13

install in an HA environment, 31

iSPI for IP Telephony, 9
benefits, 9

L

log files, 29

M

management server, 17
UNIX, 20
Windows, 17

O

online help, 36

P

port
HTTP, 12
JNDI, 12
preinstallation checklist, 13

R

remove the iSPI from an HA environment,
32

S

setup, 20
start the iSPI for IP Telephony, 22

T

troubleshooting, 39

U

user

- system, 14

- Web Service Client, 14

user roles, 35

W

Web Service Client role, 14