

HP Network Node Manager iSPI for IP Telephony Software

For the Windows[®] operating system

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Upgrade Reference

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Chapter 1: About This Guide

This guide contains information for upgrading from the following HP NNM iSPI for IP Telephony (NNM iSPI for IPT) versions to NNM iSPI for IPT 10.00:

- Upgrading from NNM iSPI for IP Telephony 9.10 (with patch 2 or higher) to 10.00
- Upgrading from NNM iSPI for IP Telephony 9.20 (with the patch 2) to 10.00

This guide is for an expert system administrator, network engineer, or HP support engineer with experience in deploying and managing networks in large installations.

Before using this guide, make sure you have completed the following tasks:

- Installing the version (9.10 with patch 2 or higher or 9.20 with the patch 2) of NNM iSPI for IP Telephony from which you are upgrading, using the *HPNetwork Node Manager iSPI for IP Telephony Software Installation Guide*.
- Reviewing the concepts described in the NNM iSPI for IP Telephony online help and the deployment information in the *HPNetwork Node Manager iSPI for IP Telephony Software Deployment Reference* for a general understanding of the iSPI for IPT functions.
- Understanding how to use the NNM iSPI for IP Telephony console.

For up-to-date, downloadable copies of the NNM iSPI for IP Telephony documentation, go to:

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

The information in this guide was formerly published in the *HPNetwork Node Manager iSPI for IP Telephony Software Deployment Reference*.

Chapter 2: Before you Upgrade

This chapter provides the steps to be followed before upgrading the NNM iSPI for IP Telephony from version 9.10 (with patch 2 or higher) or 9.20 (with the patch 2) to 10.00.

Note: The upgrade process deletes the following Cisco gateways from the NNM iSPI for IP Telephony inventory, along with all the Gateway Call Activity monitoring configurations associated with the gateway:

- An H.323 gateway associated with multiple Cisco Unified Communication Manager (CUCM) clusters
- A gateway that acts both as an MGCP and an H.323 gateway
- A gateway configured to a CUCM cluster using the short hostname or the Fully Qualified Domain Name (FQDN)

Before Upgrading from 9.10 to 10.00

Before you upgrade the NNM iSPI for IP Telephony from version 9.10 (with patch 2 or higher) to 10.00, follow these steps:

1. Configure the CDR data access for Cisco IP telephony.

To use the CDR data collection feature for monitoring the Cisco IP telephony environment in NNM iSPI for IP Telephony 10.00, you must perform the following steps:

- a. Note down the CDR collection configuration details.

To find the CDR collection configuration details, follow these steps:

- i. On the NNM iSPI for IP Telephony console, from the **Workspaces** navigation pane, select **Configuration**, and then click **iSPI for IP Telephony Configuration > Cisco Configuration**. The HP NNM iSPI for IP Telephony Cisco Configuration console opens.
 - ii. Click **Data Access Configuration**. The NNM iSPI for IP Telephony Cisco Data Access Configuration form opens.
 - iii. Click the **CDR Access** tab. From the **Current Configurations** section, you can note down the CDR collection configuration details.
- b. Create the following directory:

```
%NnmDataDir%\shared\ipt\IPTCiscoCDRCollection
```

Note: While upgrading the NNM iSPI for IP Telephony in a [High Availability](#) cluster, you must create the following directory:

```
<Shared_Drive>\NNM\dataDir\shared\ipt\IPTCiscoCDRCollection
```

- c. Set the %NnmDataDir%\shared\ipt\IPTCiscoCDRCollection directory as the **ftp-home-directory** for the FTP server.

Note: While upgrading the NNM iSPI for IP Telephony in a [High Availability](#) cluster, set the <Shared_Drive>\NNM\dataDir\shared\ipt\IPTCiscoCDRCollection as the **ftp-home-directory**.

- d. Create a new user with read-write access to the %NnmDataDir%\shared\ipt\IPTCiscoCDRCollection directory.

Note: For an existing user, make sure that the user has read-write access to the location.

Note: While upgrading the NNM iSPI for IP Telephony in a [High Availability](#) cluster, the new user must be given access to the following directory:

```
<Shared_Drive>\NNM\dataDir\shared\ipt\IPTCiscoCDRCollection
```

- e. *Only if you want to use the Billing Server mode.* Configure the CUCM to export CDR files into the newly created directory ([Step 2](#)) on the NNMi management server. This configuration task is performed in the Cisco Unified Serviceability console by specifying the Billing Application Server parameters.

2. Uninstall the following Cisco IP telephony extension packs from the Network Performance Server (NPS):

- Cisco_IPT_BChannel_Activity
- Cisco_IPT_Calls_Terminations_Types
- Cisco_IPT_Call_By_Details
- Cisco_IPT_GW_Calls
- Cisco_IPT_IP_Trunk_Calls
- Cisco_IPT_VM_Information

To uninstall the Cisco IP telephony extension packs, follow these steps:

a. Log on to NPS as administrator.

b. Go to the following directory:

```
<NPS_Install_Dir>\NNMPerformanceSPI\bin
```

c. Run the following commands:

- `uninstallExtensionPack.ovpl -p Cisco_IPT_BChannel_Activity`
- `uninstallExtensionPack.ovpl -p Cisco_IPT_Calls_Terminations_Types`
- `uninstallExtensionPack.ovpl -p Cisco_IPT_Call_By_Details`
- `uninstallExtensionPack.ovpl -p Cisco_IPT_GW_Calls`
- `uninstallExtensionPack.ovpl -p Cisco_IPT_IP_Trunk_Calls`
- `uninstallExtensionPack.ovpl -p Cisco_IPT_VM_Information`

3. Make sure the NNM iSPI for IP Telephony version 9.10 with the latest patch is installed on the management server.

4. Delete the Cisco IP telephony extension packs from the NNMi management server.

To delete the Cisco IP telephony extension packs, follow these steps:

a. Go to the following directory:

```
%nnmdatadir%\shared\perfSpi\datafiles\extension\final
```

Note: While upgrading the NNM iSPI for IP Telephony in a [High Availability](#) cluster, you must go to the following directory:

```
<NPS_Install_Dir>\NNMPerformanceSPI\bin
```

b. Delete the following files manually (in the given order):

- `Cisco_IPT_BChannel_Activity.tar.gz.processed`
- `Cisco_IPT_BChannel_Activity.tar.gz`
- `Cisco_IPT_Calls_Terminations_Types.tar.gz.processed`
- `Cisco_IPT_Calls_Terminations_Types.tar.gz`
- `Cisco_IPT_CDR_Collection.tar.gz.processed`
- `Cisco_IPT_CDR_Collection.tar.gz`

- Cisco_IPT_GW_Calls.tar.gz.processed
- Cisco_IPT_GW_Calls.tar.gz
- Cisco_IPT_IP_Trunk_Calls.tar.gz.processed
- Cisco_IPT_IP_Trunk_Calls.tar.gz
- Cisco_IPT_VM_Information.tar.gz.processed
- Cisco_IPT_VM_Information.tar.gz

5. *Skip this step if you are not using the Oracle database.* Drop the following Oracle tables manually (in the given order):

- a. ciscovmdevice
- b. vmdevice
- c. cktswitchedif
- d. monitoredcktsiface
- e. SIPSignalGateway
- f. SignalGateway
- g. CiscoGateKeeper
- h. Iptciscogatekeeperstatus
- i. NORTELH323GK
- j. H323Gatekeeper

6. *Skip this step if you are not using the Oracle database.* Drop the following Oracle tables manually (need not be in the given order):

- ccindex
- ciscocallmanagertogkmappper
- ciscocounty
- h323trunkstate
- producttype
- routegrnametodevnamemapping

- ciscocmexpress
- ciscocallmanager
- ciscocktswitchedchannel
- ciscocktswitchedif
- ciscoextension
- ciscoh323gateway
- ciscoediagateway
- ciscosipgateway
- ciscosrstrouter
- ciscocallcontroller
- ciscovoicegateway
- cktswitchedchanne
- monitoredchannelinterface
- h323trunk
- mediasignalgateway
- CiscoRLRGMapping
- CiscoRGDeviceMapping
- CiscoUnityPolledAttributes
- channelstatusconclusion
- ciscoextensionstatusconclusion
- ciscovmstatusconclusion
- cktswitchedifstatusconclusion
- gkictstatusconclusion
- ciscoextensionstatus
- ciscovmstatus

- cktswitchedchannelstatus
 - cktswitchedifstatus
 - ciscogkcontrolledictstatus
 - H323SignalGateway
7. Upgrade NNMi to version 10.00. For more information, see the *HP Network Node Manager iSPI Performance for Metrics Software Upgrade Reference 10.00*.
 8. Upgrade the NNM iSPI Performance for Metrics to version 10.00. For more information about upgrading the NNM iSPI Performance for Metrics to version 10.00, see the *Network Node Manager iSPI Performance for Metrics Software Upgrade Reference 10.00*.

After you upgrade the NNM iSPI Performance for Metrics to version 10.00, follow these steps:

- a. Stop the ETL processes on the NPS system by running the following command:

```
%NnmInstallDir%\NNMPerformanceSPI\bin\stopETL.ovpl
```

- b. Take a backup of perfspi.pm, which is available in the following location:

```
%NnmInstallDir%\nonOV\perl\lib\5.8.8
```

Before Upgrading from 9.20 to 10.00

Before you upgrade the NNM iSPI for IP Telephony from version 9.20 (with the patch 2) to 10.00, make sure to upgrade the following:

- NNMi to version 10.00
- NNM iSPI Performance for Metrics to version 10.00

Upgrading the NNM iSPI for IP Telephony

To upgrade the NNM iSPI for IP Telephony from version 9.10 (with patch 2 or higher) or 9.20 (with the patch 2) to 10.00, install the NNM iSPI for IP Telephony by following the instructions in the *HP Network Node Manager iSPI for IP Telephony Software Installation Guide 10.00*.

Chapter 3: Post-upgrade Steps

This section provides the steps to be followed after upgrading the NNM iSPI for IP Telephony from version 9.10 (with patch 2 or higher) or 9.20 (with the patch 2) to 10.00.

After Upgrading from 9.10 to 10.00

After upgrading the NNM iSPI for IP Telephony version 9.10 (with patch 2 or higher) to version 10.00, do the following:

- Start the ETL process on the NNM iSPI Performance for Metrics system by running the following command:

```
%NnmInstallDir%\NNMPerformanceSPI\bin\startETL.ovpl
```

- Verify the Data Access Configuration

The upgrade procedure does not retain the data that was collected by the previous version of the NNM iSPI for IP Telephony. It retains only the configuration data. Therefore, after upgrade, you must manually discover all the IP telephony nodes (or wait for the next polling cycle). In addition, you must manually make tenant selections for a set of forms as NNM iSPI for IP Telephony 9.10 did not support multi-tenancy of these forms.

To manually discover the IPT nodes and to make tenant selections, follow these steps:

- a. Log on to the NNMi console as an administrator.

Tip: If you use Mozilla Firefox, make sure to delete all the cookies from the browser before you log on to the NNMi console.

- b. From the **Workspaces** navigation pane, select **Configuration**, and then click **iSPI for IP Telephony Configuration > Cisco Configuration**. The NNM iSPI for IP Telephony Cisco Configuration Console opens.
- c. In the **Tenant** field of the following forms—where, by default the `Default Tenant` is selected—select a tenant of your choice:
 - **Add/Modify AXL Access Configuration for a Cluster** section of the NNM iSPI for IP Telephony Cisco Data Access Configuration form (**Cisco Configuration > Data Access Configuration > AXL Access** tab)
 - **NNM iSPI for IP Telephony Cisco IP Phone Configuration** form (**Cisco Configuration > IP Phone Configuration**)

- o **Add Cluster Specific QOS Configuration** section of the Cisco Call Monitoring Configuration form (**Cisco Configuration > Call Monitoring Configuration > Thresholds for QOS/MOS Monitoring** tab > **Thresholds for QOS/MOS Monitoring** tab page > **Cluster Specific Thresholds for QOS/MOS Monitoring** pane)
- d. Go to the **Add/Modify Configuration for Accessing CDR from Cisco Unified Communications Manager Clusters** section of NNM iSPI for IP Telephony Cisco Data Access Configuration form (**Cisco Configuration > Data Access Configuration > CDR Access** tab), and follow these steps:
 - i. Select a tenant of your choice.
 - ii. For a non-CDRonDemand-based collection configuration, make sure that the name of the directory for downloading the CDR files is the same as that created before the upgrade, and is a subdirectory of the following directory:

```
%NnmDataDir%\shared\ipt\IPTCiscoCDRCollection
```

You can also use the NNM iSPI for IP Telephony Quick Start Wizard to configure the Cisco CDR data access configuration.

You can now manually discover all the IP telephony nodes. Alternatively, you can use the iSPI inventories and reports after the next polling cycle.

After Upgrading from 9.20 to 10.00

After upgrading the NNM iSPI for IP Telephony version 9.20 (with the patch 2) to version 10.00, perform the following tasks:

Task 1: Integrating MS IPT Proxy with the NNM iSPI for IP Telephony

After upgrading the NNM iSPI for IP Telephony to version 10.00 and installing the MS IPT Proxy, you must integrate them so that they can communicate with each other. This ensures the discovery and monitoring of the Microsoft Lync Server environment by the NNM iSPI for IP Telephony. For information about the steps to integrate the MS IPT Proxy with the NNM iSPI for IP Telephony, see the *Integrating MS IPT Proxy with NNM iSPI for IP Telephony* topic of the *HP Network Node Manager iSPI for IP Telephony Software Installation Guide 10.00*.

Task 2: Configuring the Microsoft Frontend Server Communication

After intergarting the MS IPT Proxy with the NNM iSPI for IP Telephony you must seed the Microsoft front end server pools again to enable the discovery of the corresponding central Lync sites. You must change the password of the user of the systems in the front end server pool as well as the password of the SQL user. For more information, see the *Configuring Frontend Server Communication* topic (Help for Administrators > Microsoft IP telephony > Configuring Frontend Server Communication) of the Online Help for the NNM iSPI for IP Telephony console.

Chapter 4: Upgrading in a High Availability Cluster

This chapter provides a basic path for upgrading the NNM iSPI for IP Telephony from version 9.10 (with the patch 2 or higher) or 9.20 (with the patch 2) to 10.00 in a High Availability (HA) cluster.

Before you Upgrade from 9.10 to 10.00

Before you upgrade the NNM iSPI for IP Telephony from version 9.10 (with patch 2 or higher) to 10.00 in an HA cluster, follow these steps:

1. Follow the steps listed in [Before Upgrading from 9.10 to 10.00](#).
2. On the primary (active) NNMi management server in the HA cluster, do the following:
 - a. Put the NNMi resource group to the HA maintenance mode by placing the maintenance file under the following directory:

```
%nnmdatadir%\hacluster\<resource_group_name>
```
 - b. Upgrade the NNMi to version 10.00. For more information, see the *HP Network Node Manager i Software Upgrade Reference 10.00*.
 - c. Run `ovstatus -c` to make sure that `ovjboss` is running.

3. On the secondary (passive) nodes in the HA cluster, follow these steps:
 - a. Put the NNMi resource group to the HA maintenance mode by placing the maintenance file under the following directory:

```
%nnmdatadir%\hacluster\<resource_group_name>
```
 - b. Upgrade the NNMi to version 10.00. However, do not start the NNMi.

Before you Upgrade from 9.20 to 10.00

Before you upgrade the NNM iSPI for IP Telephony from version 9.20 (with the patch 2) to 10.00 in an HA cluster, make sure to upgrade the following:

- NNMi to version 10.00
- NNM iSPI Performance for Metrics to version 10.00

Upgrading the NNM iSPI for IP Telephony

To upgrade the NNM iSPI for IP Telephony from version 9.10 (with patch 2 or higher) or 9.20 (with the patch 2) to 10.00 in an HA cluster, install the NNM iSPI for IP Telephony by following the

instructions in the *HP Network Node Manager iSPI for IP Telephony Software Installation Guide 10.00*.

Post-upgrade Steps

After upgrading the NNM iSPI for IP Telephony version 9.10 (with patch 2 or higher) to version 10.00 in an HA cluster, do the following:

- Start the ETL process on the NNM iSPI Performance for Metrics system by running the following command:

```
%NnmInstallDir%\NNMPerformanceSPI\bin\startETL.ovpl
```

- Verify the primary (active) NNMi management server in the HA cluster

On the active node, follow these steps:

- a. Stop the ovjboss process.
- b. Make sure that the following files from the %NnmDataDir%\nmsas\ipt\conf contain the virtual FQDN for the corresponding parameters:

File Name	Variable Name
nms-ipt.jvm.properties	-Dcom.hp.ov.nms.ssl.keystore.alias
nnm.extended.properties	com.hp.ov.nms.spi.ipt.Nnm.hostname
nnm.extended.properties	com.hp.ov.nms.spi.ipt.spi.hostname

- c. Make sure that the `server.properties` file from the %NnmDataDir%\nmsas\ipt directory contains the virtual FQDN of the NNMi management server (for the `java.rmi.server.hostname` and `nmsas.server.net.hostname.private` parameters).
 - d. Make sure that the `login-config.xml` file from the %NnmInstallDir%\ipt\server\conf directory contains the virtual FQDN of the NNMi management server (for the `module-option` element).
 - e. Modify the relevant files in the %NnmDataDir%\shared\ipt\conf directory with the up-to-date information on both the primary and secondary cluster nodes.
 - f. Run the `ovstart -c` command.
- Verify the the secondary (passive) nodes in the HA cluster

On the passive nodes, follow these steps:

- a. Stop all the NNMi and iSPI processes.
- b. Make sure that the following files from the %NnmDataDir%\nmsas\ipt\conf contain the virtual FQDN for the corresponding parameters:

File Name	Variable Name
nms-ipt.jvm.properties	-Dcom.hp.ov.nms.ssl.keystore.alias
nnm.extended.properties	com.hp.ov.nms.spi.ipt.Nnm.hostname
nnm.extended.properties	com.hp.ov.nms.spi.ipt.spi.hostname

- c. Make sure that the server.properties file from the %nnmdatadir%\nmsas\ipt directory contains the virtual FQDN of the NNMi management server (for the java.rmi.server.hostname and nmsas.server.net.hostname.private parameters).
- d. Make sure that the login-config.xml file from the %nnminstalldir%\ipt\server\conf directory contains the virtual FQDN of the NNMi management server (for the module-option element).
- e. Modify the relevant files in the %NnmDataDir%\shared\ipt\conf directory with the up-to-date information on both the primary and secondary cluster nodes.
- f. Make sure that the contents of the files present in the following directories are identical on the primary server as well as the secondary server:
 - %nnmdatadir%\shared\ipt\avayacdr\conf
 - %nnmdatadir%\shared\ipt\NortelCSMessageCodes\conf
- g. Remove the maintenance file from all the passive nodes in the cluster.
- h. On the active server, do the following:
 - i. Run the ovstop -c command.
 - ii. Start the resource group by running the nnmhstarttrg.ovpl command.
 - iii. After the resource group is online, remove the maintenance file.
- Verify the Data Access Configuration

The upgrade procedure does not retain the data that was collected by the NNM iSPI for IP Telephony 9.10. It retains only the configuration data. Therefore, after upgrade, you must manually discover all the IP telephony nodes (or wait for the next polling cycle). In addition, you must manually make tenant selections for a set of forms as the NNM iSPI for IP Telephony 9.10 did not support multi-tenancy for these forms.

To manually discover the IPT nodes and to make tenant selections, follow these steps:

- a. Log on to the NNMi console as an administrator.

Tip: If you use Mozilla Firefox, make sure to delete all cookies from the browser before you log on to the NNMi console.

- b. From the **Workspaces** navigation pane, select **Configuration**, and then click **iSPI for IP Telephony Configuration > Cisco Configuration**. The NNM iSPI for IP Telephony Cisco Configuration Console opens.
- c. In the **Tenant** field of the following forms—where, by default the Default Tenant is selected—select a tenant of your choice:
 - o **Add/Modify AXL Access Configuration for a Cluster** section of the NNM iSPI for IP Telephony Cisco Data Access Configuration form (**Cisco Configuration > Data Access Configuration > AXL Access** tab)
 - o **NNM iSPI for IP Telephony Cisco IP Phone Configuration** form (**Cisco Configuration > IP Phone Configuration**)
 - o **Add Cluster Specific QOS Configuration** section of the Cisco Call Monitoring Configuration form (**Cisco Configuration > Call Monitoring Configuration > Thresholds for QOS/MOS Monitoring** tab > **Thresholds for QOS/MOS Monitoring** tab page > **Cluster Specific Thresholds for QOS/MOS Monitoring** pane)
- d. Go to the **Add/Modify Configuration for Accessing CDR from Cisco Unified Communications Manager Clusters** section of NNM iSPI for IP Telephony Cisco Data Access Configuration form (**Cisco Configuration > Data Access Configuration > CDR Access** tab), and follow these steps:
 - i. Select a tenant of your choice.
 - ii. For a non-CDRonDemand-based collection configuration, make sure that the name of the directory for downloading the CDR files is the same as that created before the upgrade, and is a sub-directory of the following directory:

<Shared_Drive>\NNM\dataDir\shared\ipt\IPTCiscoCDRCollection

You can now manually discover all the IP telephony nodes. Alternatively, you can use the inventories and reports of the NNM iSPI for IP Telephony after the next polling cycle.

We appreciate your feedback!

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Feedback on Upgrade Reference (Network Node Manager iSPI for IP Telephony Software 10.00)

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