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

for the Windows® operating system

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Deployment Guide

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1 Introducing the iSPI for IP Multicast

HP Network Node Manager i- series Smart Plug-in for IP Multicast (iSPI for IP Multicast) helps you extend the capability of HP Network Node Manager i-series (NNMi) to monitor the overall health of the network.

You can plan the deployment of the iSPI for IP Multicast based on how NNMi is deployed in the environment. While planning the deployment, consider the following areas to achieve an optimum size and performance of the system:

- Number of Multicast nodes
- Deployment of the iSPI for IP Multicast in a High Availability (HA) environment
- Deployment of the iSPI for IP Multicast in an Application Failover environment
- Deployment of the iSPI for IP Multicast with other iSPIs (iSPI for MPLS and iSPI for IP Telephony)

Preparing for Deployment

Before you start deploying the iSPI for IP Multicast, you must plan the installation based on your deployment requirements. You must identify the ideal deployment scenario among the supported configurations and ensure that all the prerequisites are met before you begin the installation process.

Factors that impact the deployment of the iSPI for IP Multicast include the type of database configured with NNMi and the size of the network that you want to monitor. In addition, ensure to install the latest NNMi patches before installing the iSPI for IP Multicast.

To install and configure the iSPI for MPLS in a HA and App failover environment, see the HA and App failover section of *NNMi Deployment Guide*.

Read the following NNMi documents before you start installing and configuring the iSPI for IP Multicast:

- *HP Network Node Manager i-series Deployment Guide, 8.10*
- *HP Network Node Manager i-series Release Notes, 8.10*
- *HP Network Node Manager i-series Support Matrix, 8.10*

In addition, read the following iSPI for IP Multicast documents before you start deploying the iSPI for IP Multicast:

- *HP Network Node Manager Smart Plug-in for IP Multicast Installation Guide, 8.10*
- *HP Network Node Manager Smart Plug-in for IP Multicast Release Notes, 8.10*
- *HP Network Node Manager Smart Plug-in for IP Multicast Support Matrix, 8.10*

2 Deploy the iSPI for IP Multicast

You should start deploying the iSPI for IP Multicast after installing NNMi on a system. To install and configure NNMi on a system, see the *NNMi Installation Guide and NNMi Deployment Guide*.

To install and configure the iSPI for IP Multicast in a High Availability (HA) environment, see the HA section of the *NNMi Deployment Guide*.

You can deploy the iSPI for IP Multicast for the following scenarios:

- Installing NNMi and iSPI for IP Multicast on a system.
- Installing the iSPI for IP Multicast in an NNMi environment.

Ensure to install the NNMi patches before installing the iSPI for IP Multicast in a non-English environment.

Deploying the iSPI for IP Multicast after Installing NNMi

To deploy the iSPI for IP Multicast on a management server after installing NNMi, follow these steps:

1. Start the NNMi installation process. Donot disable the HTTP communication after NNMi installation process.

Make sure to use the same database type (embedded or Oracle) as NNMi when you are installing the iSPI for IP Multicast.

2. Install the iSPI for IP Multicast.
3. Start the NNMi and iSPI for IP Multicast processes. This starts the NNMi and iSPI for IP Multicast discovery process automatically.

4 After installing the iSPI for IP Multicast, log on to the NNMi console, and then verify the availability of the Multicast workspace and Multicast views.

Seeding a new node (Multicast node) in the NNMi topology is done by using NNMi discovery process. The new node is discovered in the next NNMi discovery cycle.

Deploying the iSPI for IP Multicast in an NNMi Envioronment

To deploy the iSPI for IP Multicast on a management server where NNMi is UP and running, follow these steps:

1 Install the iSPI for IP Multicast on a management server where NNMi is already installed, running and nodes are discovered.

Make sure to use the same database type (embedded or Oracle) as NNMi when you are installing the iSPI for IP Multicast.

2 Install the iSPI for IP Multicast and start the Multicast processes. This starts the discovery process automatically.

Seeding a new node (Multicast node) in the NNMi topology is done by using NNMi discovery process. The new node is discovered in the next NNMi discovery cycle.

Deploying Multiple iSPIs (iSPI for MPLS, iSPI for IP Multicast and iSPI for IP Telephony) on a Management Server

You can deploy more than one add-on iSPIs (iSPI for MPLS, iSPI for IP Multicast, and iSPI for IP Telephony) on a management server. For installation and configuration information, see the specific deployment guide.

There is no chronological order to deploy the iSPIs (iSPI for MPLS or iSPI for IP Multicast or iSPI for IP Telephony) on a management server.

- Use Oracle database if you are deploying multiple iSPIs (iSPI for MPLS or iSPI for IP Multicast or iSPI for IP Telephony) on a management server.

Sizing and Performance of the Management Server iSPI for IP Multicast

For sizing information of the iSPI for IP Multicast, see the *iSPI for IP Multicast Support Matrix*.

To install the iSPI for IP Multicast,use embedded database for *Medium* scale. Update the following files as per your requirement to achieve optimal performance of the product:

- Stop all the processes and make sure to take backup of the below mentioned files.

  - Modify the value of `<max-pool-size>60</max-pool-size>` to `max-pool-size>100</max-pool-size>` in the `nms-ds.xml` from

    `/opt/OV/nonOV/jboss/nms/server/nms/deploy/nms-ds.xml`

  - Modify the value of `max_connections=100` to `max_connections=200` in the `postgresql.conf` from `<DATA_DIR>/shared/nnm/databases/Postgres/postgresql.conf`

After updating the above files, restart NNMi and iSPI for IP Multicast processes.

3 Migrate to the iSPI for IP Multicast,8.10 from Multicast SPI,7.5x

Before you start migrating the Multicast SPI from 7.5x to newer version, make sure that you migrate NNMi 7.5x version to 8x series. For migrating NNMi from previous versions, see the *NNMi Deployment Guide*.

The Multicast SPI, 7.53 is supported on UNIX 32 bit platform in contrast to the iSPI for IP Multicast which is supported on 64 bit Windows platform. For more information on supported database, hardware and software requirements, see the *iSPI for IP Multicast, Support Matrix, 8.10*.

There is no direct migration available for migrating the Multicast SPI, 7.53 to the iSPI for IP Multicast, 8.10.

To migrate the data from Multicast SPI, 7.53 to the iSPI for IP Multicast, 8.10 follow these steps:

1. Migrate community string configuration from NNM 7. 5x installation to NNMi 8.10. For more information, see the *NNMi Deployment Guide*. Make sure to migrate the community string information of Multicast nodes. Other SNMP parameters such as retry count and response interval are configured in NNMi 8.10.
2. Migrate the list of Multicast devices (7x) by providing the list of multicast nodes as discovery seeds to NNMi. A discovery seed is an IP address or hostname. The discovery seeds (IP addresses or hostnames) for Multicast SPI, 7.53 are available in `/var/opt/OV/share/conf/managed.mmon`. You can seed the nodes in NNMi, 8.10 by using the following command: **`nnmloadseeds.ovpl -f  < seed file>.`** For more information, see *Help for NNMi and NNMi Deployment Guide*.
3. Wait till the iSPI for IP Multicast discovery is complete and start the iSPI for IP Multicast processes.

The default polling interval for the iSPI for IP Multicast nodes and interfaces is 5 minutes. After migration of Multicast SPI, 7.53 to iSPI for IP Multicast, 8.10, the polling interval changes to 5 minutes.

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