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

For the Windows® operating systems

Software Version: 8.10

Online Help

Document Release Date: February 2008

Software Release Date: December 2008

Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

For information about third-party license agreements, see the license-agreements directory on the product installation media.

Copyright Notices

© Copyright 2009 Hewlett-Packard Development Company, L.P.

This product includes software developed by the Apache Software Foundation (http://www.apache.org/). Portions Copyright © 1999-2003 The Apache Software Foundation. All rights reserved.

This product includes ASM Bytecode Manipulation Framework software developed by Institute National de Recherche en Informatique et Automatique (INRIA). Copyright © 2000-2005 INRIA, France Telecom. All Rights Reserved.

This product includes Commons Discovery software developed by the Apache Software Foundation (http://www.apache.org/). Copyright © 2002-2008 The Apache Software Foundation. All Rights Reserved.

This product includes Netscape JavaScript Browser Detection Library software, Copyright © Netscape Communications 1999-2001

This product includes Xerces-J xml parser software developed by the Apache Software Foundation (http://www.apache.org/). Copyright © 1999-2002 The Apache Software Foundation. All rights reserved.

This product includes software developed by the Indiana University Extreme! Lab (http://www.extreme.indiana.edu/). Xpp-3 Copyright © 2002 Extreme! Lab, Indiana University. All rights reserved.

Trademark Notices

DOM4J® is a registered trademark of MetaStuff, Ltd.

HP-UX Release 10.20 and later and HP-UX Release 11.00 and later (in both 32 and 64-bit configurations) on all HP 9000 computers are Open Group UNIX 95 branded products.

Java™ is a US trademark of Sun Microsystems, Inc.

Oracle® is a registered trademark of Oracle Corporation and/or its affiliates.

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

UNIX® is a registered trademark of The Open Group.

Oracle Technology — Notice of Restricted Rights

Programs delivered subject to the DOD FAR Supplement are ‘commercial computer software’ and use, duplication, and disclosure of the programs, including documentation, shall be subject to the licensing

restrictions set forth in the applicable Oracle license agreement. Otherwise, programs delivered subject to the Federal Acquisition Regulations are ‘restricted computer software’ and use, duplication, and disclosure of the programs, including documentation, shall be subject to the restrictions in FAR 52.227-19, Commercial Computer Software-Restricted Rights (June 1987). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

For the full Oracle license text, see the license-agreements directory on the NNMi product DVD.

Table of Contents

HP Network Node Manager Smart Plug for IP Multicast

The HP Network Node Manager (NNM) i-series Smart Plug-in for IP Multicast (iSPI for IP Multicast) provides real-time data that enables you to monitor the health of your Multicast network.

The iSPi for IP Multicast integrates and utilizes the properties of NNMi to gather information and monitor Multicast enabled nodes. The iSPI gives you enhanced visualization of your converged network and the ability to perform fault analysis. The Multicast workspace helps you monitor traffic on the Multicast network.

You must install iSPI for IP Multicast on an NNMi management station.

About IP Multicast Network

IP Multicast is a technology that efficiently sends data to a group of receivers, which saves network bandwidth. It is ideal for applications where the same large set of data is transmitted efficiently to many destinations at one time.

IP Multicast is implemented by using complex protocols in routers and switches and requires careful network configuration. Protocol Independent Multicast (PIM) is the most important Multicast routing protocol. The diagnosis of multicast faults requires distributed, real-time analysis, and intricate knowledge.

Detailed information about all the Multicast views can be found in the following sections:

Learning your Multicast Network

Accessing the Multicast Device Details

Monitoring the Multicast Network

Knowing the Multicast Incidents

Features and Benefits of iSPI for IP Multicast

The following list outlines the features of the iSPI for IP Multicast and its benefits to you:

- Discovers the IP Multicast routing topology relationships in the management network.
- Monitors the health of Multicast enabled nodes. Measures IP Multicast traffic flow to ensure the availability of the business-critical IP multicast-enabled applications.
- Generates incidents based on IP Multicast activity to enable rapid identification of multicast problems.
- Helps in the fault management.

Help for iSPI for IP Multicast Operator

The iSPI for IP Multicast enables you to quickly monitor, detect, and troubleshoot abnormal behavior in your Multicast network.

After you install and discover the NNMi topology, iSPI for IP Multicast discovers the Multicast enabled routers. The iSPI discovers the multicast nodes, interfaces, and multicast neighbors network topology. The iSPI also helps you to discover and monitor the status and state of multicast nodes, interfaces and multicast neighbors.

The following table describes some of the ways that iSPI for IP Multicast assists in making your job easier and the associated help topics.

Tasks	Help Topics
View an inventory of what you can manage	Learning your Multicast Inventory
Viewing the details of the devices	Accessing Forms
Monitoring the Multicast Network	Monitoring your Multicast Network
Viewing the Multicast Incidents	Multicast Incidents

IP Multicast Inventory

After the regular discovery of the Multicast nodes in Network Node Manager topology, you have several options for exploring what is discovered from various IP Multicast views. The Multicast views provide the comprehensive attributes of all the discovered Multicast nodes.

Types of Multicast views

View Type	Purpose
Multicast Node View	Provides collective information about the Multicast enabled nodes in the Multicast network.
Multicast Interfaces View	Provides collective information about the interfaces in the Multicast network.

Launching the Multicast Views

To launch the Multicast specific views

1. From the workspace navigation panel, select the IP Multicast workspace.
2. Click < *Multicast views*> to view the .For example, Multicast Node view.

Features in the views

- Click the Open icon to view detailed information about a specific node.
- To know more about the selected object attributes, click the Quick view icon.
- You can filter the columns in the table views to categorize and view the relevant information. You can filter the table view using more than one column.
- You can sort the column in ascending or descending order. Sorting is enabled only for limited columns.

Related Topics

Multicast Node View

Multicast Interface View

Multicast Nodes View

The Multicast NodeInventory view displays high-level information about the routers which are Multicast enabled in the network.

Basic Attributes

Attribute	Description
Status	The status of the node is calculated by the Causal Engine. The Node State and Interface status contributes in node status. Possible values for the status of the node are: No status - The node state is not polled, thus the status of the node is No status. Normal - The node state is Enabled and all the interfaces in the node have the Normal status, the status of the node is Normal. Disabled - The node state is Disabled, the status of the node is Disabled. Unknown - The node is Unknown when the MIB stops reporting and there is no SNMP response from the node. This is only possible when the node is not managed or is not reachable at the time of polling. Minor - If the node state is enabled and the at least one interface status is Critical or Warning, the status of the node is Minor. Critical - All the interfaces in the node are having Critical or Warning or Unknown status , the node status is Critical.
Name	The name assigned to this device. This name cannot be modified in the Multicast Node View.
Hostname	The hostname for this device (according to any hostname resolution strategy currently in use in your network environment.
Device Profile	Name of the device profile that determines how devices of this type are managed.
Num(Nbr)	The count of the number of multicast neighbors for the current node.
State	The state of the polled multicast routers. Possible values are: Enabled - If the node is Multicast router, value is Enabled. Disabled - If the node is not a Multicast router, value is Disabled. Unknown - The SNMP agent is not responding and not able to determine the state of the node, value is Unknown. Not Polled - The node is not polled on the basis of the configuration settings. No-Polling Policy - No policy is found to poll the device,state is No Polling Policy.

You can sort in ascending or descending order in the following fields:

- Status
- Hostname
- Device Profile

Multicast Interfaces

The Multicast Interfacesinventory view displays high-level information about the interfaces of the Multicast enabled nodes.

The Multicast Interfaces inventory view in the Multicast Inventory workspace is useful for identifying all of the interfaces participating in Multicast nodes and are managed by NNMi.

Attributes	Description
Status	The overall status of the current interface of the Multicast node. The Interface and Neighbor state results in Interface status. Possible values are: No Status - If the interface state is not polled, the status of the interface is No status. Normal - If the Interface state is Active and the Neighbor state is Normal, the status of the interface is Normal. Unknown - The node is Unknown when the MIB stops reporting and there is no SNMP response from the node. This is only possible when the node is not managed or is not reachable at the time of polling. Warning - Indicates the status is Warning in the following conditions: • Interface state is Active and Neighbor state is invalid. • Interface state is in transient state (either NotReady, or CreateAndGo, or CreateAndWait, or Destroy). Critical - Indicates the status is Critical in the following conditions: • Interface state is NotInService. • Interface state is inconsistent.
Hosted on Node	Node on which the Multicast interface resides.
IfName	The name of the interface.
IP Address	The IP Address of the interface.
State	The state of the PIM on the selected interface. The State Poller does the polling and updates in the view. Possible values are: Active - The interface is normal and operational condition. NotInService - The interface is down or critical. Transient state - The interface is in transient state(NotReady, CreateAndGo, or CreateAndWait, Destroy) as reported by PIMInterfaceStatus MIB. NotPolled - The interface is not polled based on the configuration settings. No Polling Policy - No policy is set up to poll the interfaces.

Accessing Forms

The iSPi for IP Multicast provides the details of the devices such as nodes, and interfaces for the Multicast nodes. You can access the details from the IP Multicast forms.

The following forms are available from the Multicast workspace:

Form Name	Description
IP Multicast Interface Form	Provides the details of the selected interface. See IP Multicast Interface Form for details.

The forms have Status, Conclusions, and Incidents tabs that specify the details of the of the devices.

Launching Forms

To launch the Multicast forms

1. From the Left navigation panel, select the IP Multicast Workspace and click <Multicast> view (for example, Multicast- > Multicast Node view).
2. Click the Open icon to view the detailed information about a specific object. The form displays the information specific to the Multicast object.

Multicast Interface Form

The Multicast Interface form provides the details about the selected interface. The Interface form contains the interface attributes.

This form contains General Information, Multicast Neighbors, and Conclusions tabs associated with the selected node.

Basic

Attribute	Description
Name	The name of the interface available for the Multicast node.
Status	The overall status of the current interface of the Multicast node. The Interface and Neighbor state contribute to the Interface status. Possible values are: No Status - If the interface state is not polled, the status of the interface is No status. Norma l- If the Interface state is Active and the Neighbor state is Normal, the status of the interface is Normal. Unknown - The node is Unknown when the MIB stops reporting and no SNMP

Attribute	Description
	response received from the node. This is only possible when the node is not managed or is not reachable at the time of polling. Warning - The status is Warning in the following conditions: • Interface state is Active and Neighbor state is invalid. • Interface state is in transient state (either NotReady, or CreateAndGo, or CreateAndWait, or Destroy). Critical - The status is Critical in the following conditions: • Interface state is NotInService. • Interface state is inconsistent.
Hosted on Node	Node on which the Multicast interface resides. You can click the node to get more details.

PIM Interface State

Attributes	Description
State	The state of the PIM on the selected interface. The State Poller does the polling and updates in the view. Possible values are: Active - The interface is normal and in operational condition. NotInService - The interface is down or critical. Transient state- The interface is in transient state (NotReady, CreateAndGo, or CreateAndWait, Destroy) as reported by the pimInterfaceStatus MIB. NotPolled- The interface is not polled based on the configuration settings. No Polling Policy- No policy is set up to poll the interfaces.

Interface Form: General Tab

The Interface form contains the details about the selected Multicast interface.

This tab provide the details about the selected interface. These attributes are the values taken from NNMi. For further details, see *NNMi Interface Forms*.

General SNMP Values

Attribute	Description
IfName	The name of the interface available for the Multicast node.
IP Address	The IP Address of the interface for the Multicast enabled node.

Attribute	Description
IfIndex	The index of the interface.
PIM DR	The IP Address of the PIM designated router.

Interface Form: Neighbors Tab

The Interface Form contains details about the selected Multicast interface.

The Neighbors tab provides the details about all the PIM (Protocol Independent Multicast) neighbors of the selected Multicast interface.

Attributes	Description
PIMNeighbor	The IP Address of the PIM neighbor of the Multicast interface.
Hosted On Node	Node on which the Multicast PIM neighbor resides.
State	The neighbor state of the Multicast interface. Neighbor state is derived if Neighbor and interfaces are mutually recognizing each other as PIM neighbors. For example, If the interface A is recognizing B as its PIM neighbor, then B also is recognizing A as its PIM neighbor. { A->B, B->A}. Possible values are: ● Invalid- The state is Invalid as the designated Multicast interface is not able to locate its PIM neighbor. The state is Invalid as the Multicast Neighbor is recognizing its PIM neighbor but not visa versa. ● Normal- The state is Normal as the Multicast Neighbor is recognizing its PIM neighbor and visa versa. ● Inconsistent- The state is Inconsistent as the Multicast Neighbor is not recognizing its PIM neighbor.

Interface Form: Conclusion Tab

The Interface form contains details about the selected Multicast interface.

This tab is useful for obtaining a quick summary of the status and conclusions for the interface.

Attribute	Description
Status	The overall status of the current interface of the Multicast node. The Interface and Neighbor state contribute to the Interface status. Possible values are: No Status - If the interface state is not polled, the status of the interface is No status. Normal - If the Interface state is Active and Neighbor state is Normal, the status of the interface is Normal.

Attribute	Description
	Unknown - The node is Unknown when the MIB stops reporting and no SNMP response from the node. This is only possible when the node is not managed or is not reachable at the time of polling. Warning - The status is Warning in the following conditions: • Interface state is Active and Neighbor state is invalid. • Interface state is in transient state (either NotReady, or CreateAndGo, or CreateAndWait, or Destroy). Critical - The status is Critical in the following conditions: • Interface state is NotInService. • Interface state is inconsistent.
Time Stamp	Current status is set by Causal Engine. The Time Stamp data is the time when the status of the interface is last updated.
Conclusion	Conclusions are set by the Causal Engine after the status calculation. Possible conclusions are the following: • PIMInterfaceNormal - Set when the PIM Interface is in Active state and neighbor is in Valid state or neighbor is not present. • PIMInterfaceUnknown - Set if an error occurs during SNMP response from the node. • PIMInterfaceNotPolled - Set when PIM interface is not polled. • PIMInterfaceTransient - Set when the Multicast state poller detects that the PIM interface is in transient state (NotReady or CreateAndGo or CreateAndWait or Destroy state) • PIMNeighborInvalid - Set when neighbor is in Invalid state • PIMInterfaceNotInService - Set when the Multicast state poller detects that the PIM interface is in NotInService state. • PIMNeighborInconsistent - Set when neighbor is in Inconsistent state.

Multicast Process

iSPI for IP Multicast Processes

Process Name	Description
mcastjboss	The process that controls the jboss Application Server that contains all of the Multicast Services.
nmsdbmgr	Multicast Database

The iSPI for IP Multicast does not show the status of the Oracle database. There is no check done whether the Oracle database is running. If the Oracle database is configured, Database Administrator must start the database.

Verify that Multicast Processes are Running

After you install the iSPI for IP Multicast, processes start running on the server.

To verify that all NNMi and Multicast processes are running, do the following at the command line:

For basic status, type: **ovstatus –c mcastjboss**

For detailed status, type: **ovstatus -v mcastjboss**

Review the list of processes to ensure that all are running. For more information about each process, see About Multicast Process.

Start or Stop a Multicast Process

You can stop and start Multicast processes from the command line.

- To start the Multicast processes, type: **ovstart –c mcastjboss.**

This command starts the Multicast processes and also checks whether the NNMi processes (ovjboss, nmsdbmgr) are running or not. If the NNMi processes are not running, manually start the NNMi and Multicast processes.

- To stop the Multicast processes, type: **ovstop - c mcastjboss.**

This command stops the Multicast processes and not the NNMi processes (ovjboss, nmsdbmgr).

To generate the list of processes, Verify that Multicast Processes Are Running.

Verify that Multicast Services are Running

After you install Multicast, services start running on the server.

To verify that all Multicast services are running, do one of the following:

- For basic information, at the command line, type **ovstatus -c mcastjboss**
- For detailed information, at the command line, type **ovstatus -v mcastjboss**

Log files for the Multicast Services

For Windows: `%NnmDataDir%\log\multicast`

Start and Stop Multicast Services

You can stop or start all NNMi services at the same time. You cannot start and stop individual services.

To start or stop Multicast services:

At the command line, type the command:

ovstart -c mcastjboss

ovstop -c mcastjboss

Help for iSPI for IP Multicast Administrator

As an iSPI administrator, you can perform some administrator tasks.

Manage and Unmanage Nodes

You can manage and unmanage nodes by performing specific tasks from the NNMi inventory views. For more information on how to perform the actions, see *Actions provided by NNMi*.

You cannot specifically manage or unmanage the IP Multicast objects because the management mode attribute for any IP Multicast node is inherited from NNMi.

The iSPI for Multicast discovery process does not discover any unmanaged nodes. However, if a unmanaged node is changed into a managed mode, the scheduled discovery process starts and updates the management mode of the SPI objects. A notification is sent to the State Poller about the updated management mode so the state of the iSPI object is set to *Not Polled* and the status is set to *No Status*.

Backup and Restore Actions

You can perform Backup and Restore Actions for iSPI for IP Multicast from NNMi. The backup and restore command for NNMi does the backup and restore for iSPI for IP Multicast. This is supported only with the embedded database and the iSPI for Multicast and NNMi are located in same management station.

You can check the multicast file in the location provided for backup and with the extension .pgd file.

Example: C*:/tmp/nnm-bak-20080924095922-multicastdb.pgd.*

To perform the Back up and Restore operation, see *Back Up and Restore NNMi.*

Configuration Poll

After changing the community string, perform the Configuration poll command. For more information , refer the NNMi Help, *Actions: Configuration Poll command.*

Sign- In to Multicast Workspace

After installing NNMi, use the URL to sign-in to the NNMi console. For details how to sign-in to NNMi, see the topic *Configure Sign-In Access*.

After the NNMi installation,the iSPI for IP Multicast installation process prompts you to set up the logon and password for the Web Service client. To change the password, run the following command:

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 iSPI for IP Multicast should be updated with the new system password.

Run the following command to copy the NNMi password:

```
encryptmulticastpasswd.ovpl -c <domain>
```

where:

c - NNMi jboss to iSPI jboss communication

domain - multicast (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 iSPI (NNMi WebService Password)

The iSPI should be configured with Webservice Username / Password to communicate with NNMi. The user should be added in NNMi with the role of WebService Admin or System and then use the script to update the password.

Note: Avoid System role for NNMi - iSPI communication. Only user having root permission can run this script.

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

```
encryptmulticastpasswd.ovpl -e <domain> <password>
```

where: -e - encrypt supplied string

domain - multicast (case insensitive)

password - string to be encrypted

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

Discovering your Multicast Network

The iSPI for IP Multicastdiscovery is scheduled in conjunction with the NNMi discovery process. You can start the discovery process for iSPI for Multicast as required. By default, the process starts after the installation of the iSPI with NNMi. The scheduled discovery time is every 24 hours.

The iSPI for Multicast discovery process determines the routers which are Multicast enabled. The discovery starts for all the Multicast enabled nodes and interfaces. Whenever there are changes in the topology, the discovery process for Multicast fetches the details of the changed topology and populates in the respective views. The discovery process collects the data and you can view the updated information in Multicast Views. Also, discovers the interface to interface neighbor relationship.

The discovery process starts after you add, or delete a node in the network.

When a node is added in the topology, the NNMi discovery process detects the change in the network and also invokes Multicast discovery for the new nodes. When a node is deleted, the NNMi discovery process detects the interfaces and deletes the corresponding dependencies for the deleted node in all the views.

You can start the discovery process by starting the configuration poll. For more information, see *Help for NNMi.*

Monitoring Multicast Network Health

The real time monitoring of the Multicast network helps you to check and detect the faults in the network.

You can monitor the health of your Multicast network by using the iSPI for Multicast.

Before you start monitoring the network, ensure that NNMi and Multicast are running and the discovery process is working. You can the monitor and manage the Multicast network by using services such as State Poller and Causal Engine.

About State Poller

The Multicast State Poller service monitors each discovered Multicast node, interface, the multicast neighbor that is designated to be actively monitored in the management station.

The Multicast State Poller gathers information from the discovered objects such as node, interfaces, the multicast neighbors and reports the results of the state of the devices in the database. The State Poller is configured to do periodic polling of devices.

Polling is dynamic as the State Poller gets notifications for the topology changes and initiates polling for the newly discovered devices, interfaces. The poller starts polling the devices and determines the *State* of the devices. The value of the *State* helps in the calculation of the status of the node, interfaces.

The default value of the State Poller is 5 minutes.

About Causal Engine

Causal Engine gathers information from the State Poller, scheduled discovery, SNMP traps, and incidents. Causal Engine collects the information from the Interface state, Neighbor state, and interface status to calculate the *Status* of the devices, interfaces, PIM neighbors in the Multicast topology. Thus, Causal Engine helps in monitoring the health of the Multicast network.

Causal Engine updates the Status attributes in the respective views and forms. Causal Engine calculates Status for the following objects:

- Node Status
- Interface Status

Learn more about how the network is monitored, see the Help for NNMi *State Poller* and *Causal Engine.*

Multicast Incidents

The iSPI for IP Multicast generatesincidents if any fault or change is detected in the Multicast network.When an incident is generated, this is your notice that something important has occurred on the Multicast network that requires your attention.

The iSPI for IP Multicast generates the Multicast incidents whenever the state poller detects behavioral changes in the Multicast network. After the incidents are generated, check the inventory views for the updated status.

Multicast Incidents are of the following types:

Multicast Incident Configuration Name	Description
PIMNeighborInvalid	Generated when the neighbor is in Invalid state.
PIMNeighborInconsistent	Generated when the neighbor is in Inconsistent state.
PIMInterfaceNotInService	Generated when the Multicast state poller detects that the PIM interface is in NotInService state.
PIMInterfaceTransient	Generated when the Multicast state poller detects that the PIM interface is in transient state (NotReady or CreateAndGo or CreateAndWait or Destroy state)
MulticastNodeDisable	Generated when the Multicast enabled node is in disabled state.
PIMInterfaceNotNormalInMCNode	Generated when one of the interface has a non normal state in the node.
PIMNeighborNotNormalInMCNode	Generated when one of the neighbors is in a non normal state in the node.
AllPIMInterfaceNotNormalInMCNode	Generated when all of the interfaces are in not normal state in the node.

Launching the incident view

You can launch the Multicast incidents in the following ways:

To access the incidents from the NNMi Incident Browsing workspace

1. From the incidents<category> view, click the open icon in the iSPI specific row to view the details of the selected incident.
2. From the left pane, source object attribute, click the open icon to open the specific iSPI form to view the occurrence of the incidents.

To access the incident from the Multicast workspace

1. From the Multicast views, click the open icon to open the specific iSPI form.
2. Click the Incidents tab to view all the incidents related to the Multicast object.

Troubleshooting Guidelines

The following information can help resolve common problems and workarounds to perform various tasks such as discovery, monitoring and managing the Multicast network.

SPI jboss (mcastjboss) is not working

- Verify that the NNMi is running.
- Verify the installation log file.(HPOvMcastiSPI_08.10_HPOvInstaller.txt).
- Verify system configuration as specified in the Release Notes.
- Verify NNMi port and NNMi JNDI port are the same as specified at the time of NNMi installation in nnm.extended.properties file and nms-multicast.ports.properties file.
- Verify NNMi username and password are the same as specified at the time of NNMi installation.

SPI jboss (mcastjboss) is not able to connect to Oracle DB

- Verify Oracle database instance name, username and password in nms-ds.xml, and multicast-oracle-ds.xml.

SPI jboss (mcastjboss) is not running and log error message is Out of Memory.

- Verify System Virtual Memory is sufficiently configured with memory. Increase `Xmx`parameter for jboss as documented in Release Notes.

iSPI for IP Multicast is not discovering Multicast devices.

- Verify that the device is responding .
- Verify SNMP configuration for NNMi such as community string , SNMP interval based on your network latency. Run `nnmsnmpwalk` command to verify that the device responds to SNMP. For further details on how to configure SNMP parameters on NNMi, see NNMi Help.

Multicast nodes are missing/deleted/unmanaged

- Check if the nodes are deleted/unmanaged on NNMi. Also, verify if nodes are not responding to ICMP/SNMP.

Rediscover a set of nodes

- From the NNMi inventory view, select the nodes and click from the toolbar, *Actions-> Configuration poll.*

Incidents are not appearing in the GUI

- Verify Management Event configuration for corresponding incident. For more information, see *Help for*

NNMi.

- Verify whether the SNMP trap service is stopped and restart NNMi.

Discover all the iSPI devices (only for embedded database)

The following command removes all the nodes and configurations. Avoid using the command unless required urgently.

Only for an embedded database

- Use `OV_BIN/nnmresetembdb.ovpl` to clear the Multicast SPI and NNMi topology.
- Re-seed all the nodes. This action triggers the discovery process. The discovery process takes significant time.

Index