Installing Network Performance Insight
Note

Before you use this information and the product it supports, read the information in "Notices" on page 39.

This edition applies to version _1_, release _1_, modification _1_ of IBM Network Performance Insight and to all subsequent releases and modifications until otherwise indicated in new editions.

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Installing

How to install IBM® Network Performance Insight.

Provides a simple and fast installation process that improves your time to value. IBM Network Performance Insight collects data from monitored flow-enabled devices. It can be deployed with minimal system requirements for the large data that it can manage.

**Important:** Before you install Network Performance Insight, read the *Release Summary* that might have information specific to your installation. Failure to consult the *Release Summary* might result in a corrupted, incomplete, or failed installation.

Network Performance Insight, v1.1.1 integrates with the following components of IBM Netcool Operations Insight 1.4:

- IBM Tivoli® Network Manager for SNMP data collection and discovery
- IBM Tivoli Netcool/OMNIbus component of IBM Netcool® Operations Insight for fault management of network traffic.

Network Performance Insight together with Tivoli Network Manager provides performance capability to address modern network management challenges around application-oriented, on-demand, software-defined-networks in the enterprise data centers and intranet.

**Intended audience**

The audience who are network administrators or operations specialist responsible for installing the Network Performance Insight product suite on an enterprise network.

To install Network Performance Insight successfully, you must have a thorough understanding of the following subjects:

- Network Performance Insight 1.1.1 system
- Basic principles of network protocols and network management
- NetFlow concepts
- Administration of the Linux
- Jazz™ for Service Management
- IBM Tivoli Network Manager
- IBM Tivoli Netcool/OMNIbus
Network Performance Insight overview

IBM Network Performance Insight is a flow-based network traffic performance monitoring system.

Network Performance Insight provides comprehensive, flexible, and scalable traffic data management with visualization and reporting to support complex, multi-vendor, multi-technology networks. It offers a range of dashboard views with robust security features that are designed to meet the needs of executive management and converging network and IT operations teams.

Network Performance Insight offers near real-time and interactive view on the traffic data that helps in reduced network repair times and optimized network performance.

Network Performance Insight provides IBM Netcool Operations Insight with network performance monitoring capabilities to address modern network management challenges around application-oriented, software-defined-networks in the enterprise data centers and intranet.

The following diagram shows how data is flowing through the various components in Network Performance Insight:
The flow records that are sent by the configured flow exporters are collected by Collector, and sent to Inventory or Analytics component based on the information that they contain.

Analytics component performs flow data aggregation. These results are then stored in Network Performance Insight database.

Additionally, you can enable or disable the processing of flow records on each flow interface on Dashboard Application Services Hub portal. The dashboards provide up-to-date actionable information to provide an insight into network problems and streamline root cause analysis.

The data from the Storage component can be queried to display the results on Network Health Dashboard or OMNIbus Web GUI from Active Event List or Event Viewer.

You must integrate Network Performance Insight with IBM Tivoli Network Manager and Tivoli Netcool/OMNIbus components of IBM Netcool Operations Insight to take advantage of its network topology views and fault management capabilities.

Network Performance Insight includes the following documents:
- Release summary
- Quick Start Guide
- Installing Network Performance Insight
- Configuring Network Performance Insight
- Integrating with Netcool Operations Insight
- Getting Started with Network Performance Insight
- Troubleshooting Network Performance Insight
- References
Service Management Connect

Connect, learn, and share with Service Management professionals: product support technical experts who provide their perspectives and expertise.


- Become involved with transparent development, an ongoing, open engagement between other users and IBM developers of Tivoli products. You can access early designs, sprint demonstrations, product roadmaps, and prerelease code.
- Connect one-on-one with the experts to collaborate and network about Tivoli and the Network and Service Assurance community.
- Read blogs to benefit from the expertise and experience of others.
- Use wikis and forums to collaborate with the broader user community.

Related information:

- [IBM Network Performance Insight community on developerWorks](https://www.ibm.com/developerworks/servicemanagement/)

Network Performance Insight technical training

For Tivoli technical training information, see the following Network Performance Insight Training website at [https://tnpmsupport.persistentsys.com/updated_trainings](https://tnpmsupport.persistentsys.com/updated_trainings)

Support information

If you have a problem with your IBM Software, you want to resolve it quickly. IBM provides the following ways for you to obtain the support you need:

**Online**


**IBM Support Assistant**

The IBM Support Assistant is a free local software serviceability workbench that helps you resolve questions and problems with IBM Software products. The Support Assistant provides quick access to support-related information and serviceability tools for problem determination. To install the Support Assistant software, go to [http://www.ibm.com/software/support/isa](http://www.ibm.com/software/support/isa)

**Troubleshooting Guide**

For more information about resolving problems, see the problem determination information for this product.

Conventions used in this publication

Several conventions are used in this publication for special terms, actions, commands, and paths that are dependent on your operating system.
**Typeface conventions**

This publication uses the following typeface conventions:

**Bold**
- Lowercase commands and mixed case commands that are otherwise difficult to distinguish from surrounding text
- Interface controls (check boxes, push buttons, radio buttons, spin buttons, fields, folders, icons, list boxes, items inside list boxes, multicolumn lists, containers, menu choices, menu names, tabs, property sheets), labels (such as **Tip**, and Operating system considerations)
- Keywords and parameters in text

**Italic**
- Citations (examples: titles of publications, diskettes, and CDs)
- Words defined in text (example: a nonswitched line is called a point-to-point line)
- Emphasis of words and letters (words as words example: "Use the word that to introduce a restrictive clause."); letters as letters example: "The LUN address must start with the letter L."
- New terms in text (except in a definition list): a **view** is a frame in a workspace that contains data.
- Variables and values you must provide: ... where **myname** represents....

**Monospace**
- Examples and code examples
- File names, programming keywords, and other elements that are difficult to distinguish from surrounding text
- Message text and prompts addressed to the user
- Text that the user must type
- Values for arguments or command options

**Bold monospace**
- Command names, and names of macros and utilities that you can type as commands
- Environment variable names in text
- Keywords
- Parameter names in text: API structure parameters, command parameters and arguments, and configuration parameters
- Process names
- Registry variable names in text
- Script names
Installing Network Performance Insight
Chapter 1. Introduction

Provides an overview of the Network Performance Insight product suite and important pre-installation setup information.

Installation and configuration of Network Performance Insight is rather simple thus increasing your time to value. It is installed by using IBM Installation Manager.

Network Performance Insight 1.1.1 uses an in-built database for efficient storage and memory.

Note: This information does not cover the installation of the components that are integrated with Network Performance Insight such as Tivoli Network Manager and Tivoli Netcool/OMNibus.

Important: Currently, installation of Network Performance Insight 1.1.1 is supported on Linux operating system only.

Installation decision maps

You can use different decision maps to help you plan and decide your options for a Network Performance Insight installation or upgrade.

Installation options that are available to an existing customer to perform an upgrade or installation of all or any component of Network Performance Insight is as shown.

A preferred distributed installation configuration for integrating Network Performance Insight with Tivoli Network Manager components of Netcool Operations Insight Tivoli Netcool/OMNibus is as follows:
Note: If your deployment contains other products from Netcool Operations Insight 1.4, see the installation architecture in Performing a fresh installation.

Host 1 Hosts all the components of Network Performance Insight in a stand-alone installation.

Host 2
- Hosts the Tivoli Network Manager core component
- Hosts the Tivoli Netcool/OMNibus Object Server.

Note: Tivoli Netcool/OMNibus Object Server is recommended to be installed on a separate server than Network Performance Insight and Tivoli Netcool/OMNibus Web GUI.

You can also install the backup Network Manager core components for failover.

Host 3 Hosts Network Manager GUI framework that includes the following software:
- Dashboard Application Services Hub
- WebSphere Application Server
- Tivoli Network Manager GUI components
- Tivoli Netcool/OMNibus Web GUI
- Reporting Services
Platform support

All components of Network Performance Insight can be installed on RHEL 6.x.

Co-location rules

Currently, a single instance of all the Network Performance Insight components is allowed in a stand-alone installation.
Installing Network Performance Insight
Chapter 2. Requirements

A complete set of requirements for IBM Network Performance Insight.

Lists the configurations and the supported platforms and components of Network Performance Insight.

For requirements of other integrated products, see the related product documentation for them.

Hardware requirements

Hardware specifications for Network Performance Insight.

Network Performance Insight has the following minimum requirements that are based on the specific default functionality on Linux environment in a stand-alone mode of deployment:

Table 1. Hardware requirements of Network Performance Insight in a stand-alone environment.

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Value</th>
<th>Hardware specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flows per second</td>
<td>40000</td>
<td>CPU 16 Core CPU (Intel Xeon E5-2640@2.2 GHz</td>
</tr>
<tr>
<td>Supported flow formats</td>
<td>- Cisco NetFlow (V1, V5, and V9)</td>
<td>Memory 64 GB RAM</td>
</tr>
<tr>
<td></td>
<td>- Juniper J-Flow (V5 and V9)</td>
<td>Hard disk 7 TB</td>
</tr>
<tr>
<td></td>
<td>- Huawei NetStream (V5 and V9)</td>
<td>Note: In Network Performance Insight environment RAID level 5 must be used.</td>
</tr>
<tr>
<td></td>
<td>- Alcatel CFlow (V9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- IPFIX</td>
<td></td>
</tr>
<tr>
<td>Supported traffic types</td>
<td>- IPv4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- IPv6</td>
<td></td>
</tr>
<tr>
<td>Supported number of Interfaces</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Supported protocols</td>
<td>- UDP</td>
<td></td>
</tr>
<tr>
<td>Flow retention time</td>
<td>- RAW data = 10 Days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 1 min aggregated data = 1 Month</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 30 min aggregated data = 12 Months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 1-day aggregated data = 12 Months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- DNS data = 3 Months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Events data = 6 Weeks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Logs = 10 Days</td>
<td></td>
</tr>
</tbody>
</table>

Related information:

[Hardware requirements for Tivoli Network Manager 4.2]
Software requirements

The supported operating systems, modules, and third-party applications for
Network Performance Insight.

Software requirements for Network Performance Insight.

<table>
<thead>
<tr>
<th>Operating system</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux</td>
<td>6.x</td>
</tr>
<tr>
<td><strong>Note:</strong> Network Performance Insight and its related subsystems are supported on Linux operating system only.</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Supported web browsers

<table>
<thead>
<tr>
<th>Web browsers</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Explorer</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Mozilla Firefox ESR</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>38</td>
</tr>
<tr>
<td><strong>Note:</strong> Enable JavaScript and cookies.</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Other supported software

<table>
<thead>
<tr>
<th>Software</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jazz for Service Management</td>
<td>1.1.2.1</td>
</tr>
<tr>
<td>IBM Tivoli Network Manager</td>
<td>4.2.0</td>
</tr>
<tr>
<td>IBM Tivoli Netcool/OMNibus v8.1 for Network Performance Insight v1.4</td>
<td>8.1.0</td>
</tr>
<tr>
<td><strong>Note:</strong> Required only if you want to integrate Network Performance Insight with Tivoli Netcool/OMNibus.</td>
<td></td>
</tr>
<tr>
<td>IBM Tivoli Netcool/OMNibus Web GUI v8.1 for Network Performance Insight v1.4</td>
<td>8.1.0</td>
</tr>
<tr>
<td><strong>Note:</strong> Required only if you want to integrate Network Performance Insight with Tivoli Netcool/OMNibus.</td>
<td></td>
</tr>
<tr>
<td>IBM Tivoli Netcool/OMNibus Web GUI v8.1 for Network Performance Insight v1.4</td>
<td>8.1.0</td>
</tr>
<tr>
<td><strong>Note:</strong> Required only if you want to integrate Network Performance Insight with Tivoli Netcool/OMNibus.</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Bundled software

<table>
<thead>
<tr>
<th>Product</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Front End Toolkit</td>
<td>1.5.x</td>
</tr>
<tr>
<td>IBM SDK, Java Technology Edition 64-bit</td>
<td>Version 8, Service Refresh 8 fix pack 10</td>
</tr>
</tbody>
</table>

Table 5. Supported hypervisors

<table>
<thead>
<tr>
<th>Hypervisors</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Hat KVM</td>
<td>6</td>
</tr>
<tr>
<td>VMware</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>5.1</td>
</tr>
</tbody>
</table>
Related information:

- IBM Netcool Operations Insight: Supported products and components
- Software requirements for Tivoli Network Manager 4.2
- Planning for installation or upgrade of Tivoli Netcool/OMNibus version 8.1
Chapter 3. Preparing your environment

Before you run the installation, you must prepare your target environments.

**Before you begin**

Before you begin the Network Performance Insight installation, install Jazz for Service Management.

**Installing Jazz for Service Management**

You can use either a launchpad or IBM Installation Manager to install and configure Jazz for Service Management. You can install and configure one or more integration services on one or more servers. You can optionally install IBM DB2® and IBM WebSphere® Application Server. The installation configures Jazz for Service Management for basic authentication and SSL communications by default.

**About this task**

To plan the Jazz for Service Management installation, you must choose your installation scenario. This choice depends on different factors, for example, number of integration services to install, by using existing database and application server middleware, installation mode, server topologies, or user type.

These factors determine your installation scenario that you use to install Jazz for Service Management. You can also use the decision maps. See [Installation decision maps](#).

**Important:**

- Do not install Jazz for Service Management 1.1.2.1 on a Solaris machine in a distributed or a stand-alone environment.
- For minimal installation of Tivoli Netcool Performance Manager, use only `smadmin` as the administration user name and `smadmin1` as the administration password for Jazz for Service Management. The default administration user name is `smadmin`.

**Related information:**

- [Installing Jazz for Service Management](#)
- [Common directory locations](#)

**Hardware and software requirements for installing Jazz for Service Management**

Jazz for Service Management and its integration services have hardware and software requirements, including supported middleware and installation technologies.

**Important:** Jazz for Service Management installation is not supported on Solaris platform.

For more information about system requirements of Jazz for Service Management 1.1.2.1, see [Hardware and software requirements](#).
**Related information:**

[Jazz for Service Management Detailed System Requirements](#)

### Getting started with Jazz for Service Management

Consult these summaries of tasks for installation, configuration, and other user tasks to meet your goals.

### Procedure

1. Plan and install Jazz for Service Management

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan your installation</td>
<td>You can perform a full or custom installation of Jazz for Service Management based on the integration services to install, business and security policies, your target environments, and user types.</td>
<td><a href="#">Planning your deployment</a></td>
</tr>
<tr>
<td>Prepare your environment</td>
<td>Prepare your environment whether you perform a full or custom installation. Some tasks are common to both installation scenarios, while some tasks are exclusive to a single installation scenario or integration service.</td>
<td><a href="#">Preparing your environment</a></td>
</tr>
<tr>
<td>Perform a full installation</td>
<td>Use this installation scenario to install and configure IBM® DB2®, IBM WebSphere® Application Server, and Jazz for Service Management on a single server. Full installation scenario silently installs DB2, WebSphere Application Server, Installation Manager, and the following integration services: Administration Services, Dashboard Application Services Hub, Registry Services, Reporting Services, and Security Services. The launchpad can run Prerequisite Scanner to scan for full installation prerequisites.</td>
<td><a href="#">Full installations</a></td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Perform a custom installation</td>
<td>Use this installation scenario to install and configure one or more integration services on different servers. If you do have existing installations of these products, you can choose to install WebSphere Application Server and Installation Manager. You can use Installation Manager to interactively install and configure the following integration services: Administration Services, Dashboard Application Services Hub, Registry Services, and Security Services on one, two, or three servers. <strong>See Custom installations by using Installation Manager</strong>. <strong>See Custom installations by using silent mode</strong>.</td>
<td></td>
</tr>
<tr>
<td>Perform postinstallation tasks</td>
<td>Verify the installation. <strong>See Post-installation tasks</strong>.</td>
<td></td>
</tr>
</tbody>
</table>

2. Configure Jazz for Service Management

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-service</td>
<td>You can configure a central user registry, such as a Lightweight Directory Access Protocol (LDAP) registry, for Jazz for Service Management user management and authentication. Configure WebSphere Application Server to use a central federated repository with an LDAP user registry. After configuration, you can add users to the federated repository. You can configure the integration services for single sign-on, so that users can access Jazz for Service Management applications by logging in only once. During installation, the global security configuration is enabled that applies to the security policy for all administrative functions in each Jazz for Service Management application server. The configuration is also used as a default security policy for user applications. <strong>See Configuring Jazz for Service Management</strong>.</td>
</tr>
</tbody>
</table>
### Task

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dashboard Application Services Hub</td>
<td>For installations of Dashboard Application Services Hub with large user populations, you can set up a load balancing cluster of console nodes with identical configurations to evenly distribute user sessions. You can choose to configure Dashboard Application Services Hub to use Tivoli Access Manager WebSEAL Version to manage authentication. You can also configure the Context Menu Service (CMS) to use a remote database, which can be used by products to share information outside of the Dashboard Application Services Hub environment. You can modify the Apache ActiveMQ polling intervals properties to change the frequency of polls that handle data provider events, which are sent to the web clients. See <a href="#">Configuring Dashboard Application Services Hub</a>.</td>
</tr>
<tr>
<td>Security Services</td>
<td>Security Services is configured during installation except for single sign-on with LDAP, which is done by configuring Jazz for Service Management for SSO. You can update the configuration, for example, applying new versions of tokens. See <a href="#">Configuring Security Services</a>.</td>
</tr>
</tbody>
</table>

**Related information:**

> [Getting started with Jazz for Service Management](#)

### Preparing your environment for a full installation of Jazz for Service Management

Perform these tasks to ensure that your environment is ready for the full installation of Jazz for Service Management, such as checking prerequisites.

#### Before you begin

Before you install Jazz for Service Management, refer to the technical notes for Jazz for Service Management. The technical notes provide information about late-breaking issues, limitations, and workarounds.

- [Technotes documenting issues in Jazz for Service Management Version 1.1.2.1](#)
- [Technotes documenting issues in Jazz for Service Management Version 1.1.2.0](#)

**Note:** Some antivirus software can interfere with the Jazz for Service Management installation process. Before you install Jazz for Service Management, ensure that you disable the antivirus software and restart the target machine.
About this task

If your target system does not have a browser that is installed to support installation by using the launchpad, use the Installation Manager GUI.

Procedure

1. Ensure that your target environment meets the hardware and software requirements for Jazz for Service Management and its integration services. See [Hardware and software requirements](#).

2. Set up a local file system. See [Setting up a local file system for a full installation](#).

3. If you want to use an alternative temporary directory for installing the integrations services, see [Specifying an alternative temporary directory for installation](#).

4. If you do not intend to install Jazz for Service Management to the default installation directory or use the default temporary directory, you must modify the Prerequisite Scanner configuration files to check whether these non-default directories have the available disk space. See [Editing default configuration files for non-default installation locations](#).

5. Perform the full installation. See "Performing a fresh installation" on page 17.

Related information:

- Jazz for Service Management on IBM Knowledge Center
- IBM DB2 on IBM Knowledge Center
- IBM Installation Manager on IBM Knowledge Center
- IBM Prerequisite Scanner on IBM Knowledge Center
- IBM WebSphere Application Server on IBM Knowledge Center

Preparing your environment for a custom installation

Perform these tasks to ensure that your environment is ready for the custom installation of Jazz for Service Management, such as checking prerequisites.

Before you begin

Before you install Jazz for Service Management, refer to the technical notes for Jazz for Service Management. The technical notes provide information about late-breaking issues, limitations, and workarounds.

- [Technotes documenting issues in Jazz for Service Management Version 1.1.2.1](#)
- [Technotes documenting issues in Jazz for Service Management Version 1.1.2.0](#)

Note: Some antivirus software can interfere with the Jazz for Service Management installation process. Before you install Jazz for Service Management, ensure that you disable the antivirus software and restart the target machine.

About this task

If your target system does not have a browser that is installed to support installation by using the launchpad, use the Installation Manager GUI.
Procedure

1. Choose your preferred topology.
   See [Custom installation scenario](#).

2. Ensure that your target environment meets the hardware and software requirements for Jazz for Service Management and its integration services.
   See [Hardware and software requirements](#).

3. Set up a local file system.
   See [Setting up a local file system for a custom installation](#).

4. If you want to use an alternative temporary directory for installing the integration services, see [Specifying an alternative temporary directory for installation](#).

5. If you do not want to install Jazz for Service Management and its supporting middleware to the default installation locations, you must modify the Prerequisite Scanner configuration files to check whether these non-default locations have the available disk space.
   See [Editing default configuration files for non-default installation locations](#).

6. On each target Jazz for Service Management server, run Prerequisite Scanner to scan and verify that your target environment meets the hardware and software requirements for Jazz for Service Management.
   See [Running Prerequisite Scanner by using convenience scripts](#).

7. Set up DB2 on the target database server. It is needed by Registry Services or Tivoli Common Reporting only.
   - If you want to install Jazz for Service Management as a root user, see [Setting up DB2 as a root user](#).
   - If you want to install Jazz for Service Management as a non-root user, see [Setting up DB2 as a non-root user](#).

**Related information:**

- [Custom installations by using launchpad custom workflow](#)
- [Custom installations by using Installation Manager](#)
- [Custom installations by using silent mode](#)

**Location of Jazz for Service Management software**

Describes the location of the Jazz for Service Management 1.1.2.1 software.

You require the following software components from `1.1.2-TIV-JazzSM-multi-FP001.zip` - 64 bit, multiplatform software package repository of Jazz for Service Management integration services:

- Administration Services Version 1.1.2.1
- Administration Services UI Version 1.1.2.1
- IBM Dashboard Application Services Hub 3.1.2.1
- Jazz for Service Management extension for IBM WebSphere Version 1.1.2.1
- Registry Services 1.1.2.1
- Security Services 1.1.2.1

**Note:** Jazz for Service Management Version 1.1.2.1 is a full refresh of Jazz for Service Management Version 1.1 Base with Modification 2, Fix Pack 1.

You can download Jazz for Service Management, Version 1.1.2.1 from [IBM Fix Central](#).
Overview of Jazz for Service Management installation

Jazz for Service Management, Version 1.1.2.1 can be installed or updated, when you install it along with earlier Jazz for Service Management versions. For example, 1.1.1.0.

Before you begin

Attention: Ensure that the package that you have downloaded is the latest refresh of Jazz for Service Management, Version 1.1.2.1.

1. Check that your environment meets the current requirements by running IBM Prerequisite Scanner. Specify the update parameter when you run the relevant Prerequisite Scanner convenience script.
   See Running Prerequisite Scanner by running the convenience scripts
   See Running Prerequisite Scanner manually


3. Update your existing Installation Manager to Version 1.8.1 or later, before you update Jazz for Service Management.

4. Tivoli Common Reporting 3.1.2.1 supports rolling back and upgrading, but if a rollback fails in its early stages, then you need to manually roll it back.
   See Restoring Cognos if Tivoli Common Reporting update fails on multiple platforms
   Back up your jazzSM_Home/reporting/cognos directory before you begin the update.

About this task

Typically, there are two scenarios for installing Jazz for Service Management:

• Upgrade installation, if you have an earlier version of Jazz for Service Management on your system.
  See “Performing an upgrade installation.”

• Fresh installation.
  See “Performing a fresh installation” on page 17.

Performing an upgrade installation

Use this installation procedure if you already have an earlier version of Jazz for Service Management on your system.

About this task

Use IBM Installation Manager in GUI or silent modes to first update the Jazz for Service Management extension for IBM WebSphere. Then install Jazz for Service Management Version 1.1.2.1 for the following installed integration services:

• Administration Services
• Administration Services UI
• IBM Dashboard Application Services Hub
• Registry Services
• Security Services

You must update the installed integration services in the same application server profile to the same fix pack level.

Procedure

1. Download and extract 1.1.2-TIV-JazzSM-multi-FP001.zip file to a local directory from Fix Central page. For example, <JazzSM_FP_Home>.

2. On each machine that has an Jazz for Service Management application server, update the Jazz for Service Management extension for IBM WebSphere.
   - Updating the WebSphere security extension by using Installation Manager GUI mode
   - Updating the WebSphere security extension by using Installation Manager silent mode

3. In a command window, open the /opt/IBM/InstallationManager/eclipse/IBM/InstallationManager/eclipse directory and run the following command:
   ```
   ./IBMIM
   ```

4. Set up the fix pack repository preference.
   a. Select File > Preferences.
   b. In the Preferences > Repositories pane, click Add Repository.
   c. Click Browse and browse to the following location of the file:
      ```
      JazzSM_111_HOME/1.1.1-TIV-JazzSM-multi/JazzSMFPRepository/disk1/diskTag.inf
      ```
   d. Click Apply.
   e. Click OK.
   f. Click OK to close the Repositories pane.

5. On the Installation Manager home page, click Update. The Update Packages window opens.

6. Select the Jazz for Service Management software package group in which the integration services are installed, and then click Next.

7. Select each check box that is associated with each installed component that you want to update, and click Next. The Licenses pane opens.

8. Review the license agreement for the software packages, and accept the terms, and click Next.
   The Features pane opens.

9. Select the features that you want to update, and click Next.

10. In the Common Configurations tab, enter password for smadmin user.

11. Click Validate.

12. After the validation completes successfully, click Next.

13. Continue with the installation and specify the configuration details for the integration service that you want to update.
    For more information, see Integration services installation overview

14. In the Summary pane, review the software packages that you want to install and click Update. After Installation Manager updates the fix pack, it displays a message.
15. Click Finish.

What to do next

- Apply the Dashboard Application Services Hub 3.1.2.1 Cumulative Patch.
- Verify the installation of the integration services.

Related information:

- Applying fix pack by using Installation Manager GUI mode
- Applying fix pack by using Installation Manager silent mode
- Jazz for Service Management Version 1.1.2.1 Readme
- Restarting Jazz for Service Management application servers
- Download Cumulative Patches - UI Services (DASH)

Performing a fresh installation

20 GB of free disk space is required for a fresh installation.

Procedure

1. Download and extract 1.1.2-TIV-JazzSM-multi-FP001.zip file to a different local directory from Fix Central.
   For example, <JazzSM_FP_Home>
   
   **Note:** 6 GB of free disk space is needed for a fresh installation.

2. Add the <JazzSM_FP_Home>/1.1.2-TIV-JazzSM-multi-FP001/
   JazzSMFPRepository/disk1/diskTag.inf file along with the repository locations for any other earlier Jazz for Service Management versions to Installation Manager > File > Preferences > Add Repository.

3. Start the launchpad by using the following command:
   <<JazzSM_FP_Home>>/launchpad.sh
   
   **Restriction:** Ensure that the path to the <JazzSM_FP_Home> directory does not contain any spaces or special characters, otherwise the launchpad does not start.

**Important:**

- It is recommended that you have only one instance of the launchpad open at a time.
- If DB2 or WebSphere Application Server repository is available on a shared network drive, ensure that you run the launchpad from the local file system to access the repository on the shared drive, and install Jazz for Service Management.

4. Click Full.
   The Full Installation window opens.

5. Review the instructions in the Full Installation window, and click Next. The Full Installation > Software License Agreement window opens.
   
   **Important:** If your environment already contains DB2, WebSphere Application Server, or any of the Jazz for Service Management services that are installed, you cannot proceed with Full Installation. To proceed with Full Installation, you must uninstall them or you must use Custom workflow instead.

6. Review the license agreements and accept the terms, and click Next.
The Installation Images Location window opens.

7. Click Scan to run Prerequisite Scanner and scan your environment for the Jazz for Service Management requirements.

The launchpad runs the convenience script for a full installation and displays the overall result in the Prerequisite Scan window. To view the details, click Detailed Scan Results. The results can be as follows:

**Fail**

If the target environment does not meet any of the prerequisite checks, Prerequisite Scanner returns an overall FAIL result for the environment. The tool displays the scan results for the individual prerequisite properties in the command window.

If Prerequisite Scanner returns this result, take the appropriate actions; for example, install the missing operating system packages, increase disk space for the file systems, or modify the configuration settings of the target environment to match the expected values in the scan results.

**CAUTION:**
You can continue with the full installation without taking appropriate action, but it might fail or install with issues.

**Pass**

If the target environment meets all prerequisite checks, Prerequisite Scanner returns an overall PASS result for the environment.

If Prerequisite Scanner returns this result, you can install Jazz for Service Management.

8. Click Next.

The Basic Settings window opens.

9. Verify, use, or enter the default values as needed:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>User name</td>
<td>The administration user ID for the database, application servers, and Jazz for Service Management integration services. The default value is <code>smadmin</code>. <strong>Restriction:</strong> On Linux systems only: The length of the user ID must be a maximum of 8 characters; otherwise, the installation program cannot create the DB2 instance.</td>
</tr>
<tr>
<td>Password and Confirm password</td>
<td>The password that is associated with any users created by the full installation. The password must have a minimum of 8 alphanumeric characters and must not contain special characters or space.</td>
</tr>
<tr>
<td>Local host name</td>
<td>The fully qualified name or IP address of the local server on which you install the software. The default value is the fully qualified host name that the launchpad retrieves from the local server. If it is not a valid value, you can change the value.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>WebSphere Home</td>
<td>The installation location for IBM WebSphere Application Server (\text{WAS}_\text{HOME}). The default location if not specified is /opt/IBM/WebSphere/AppServer on Linux and AIX° systems.</td>
</tr>
<tr>
<td>DB2 Home</td>
<td>The installation location for IBM DB2 (\text{DB2}_\text{HOME}). The default location if not specified is /opt/ibm/db2 on Linux and AIX systems. **Important**: If you are installing Network Performance Insight with DB2 database, make sure that you set the DB2 HOME directory to /opt/db2/product/10.1.0 during Jazz for Service Management installation.</td>
</tr>
<tr>
<td>Jazz for Service Management Home</td>
<td>The installation location for Jazz for Service Management (\text{JazzSM}_\text{HOME}). The default location if not specified is /opt/IBM/JazzSM on Linux and AIX systems.</td>
</tr>
</tbody>
</table>

10. Click **Next**.
    The Installation Summary window opens.

11. Click **Install**.
    After the installation is complete, the launchpad displays the overall result of the installation in the Installation Results window.

**Results**

The generic and offering specific log files that are generated during the full installation are saved in the following locations:

On UNIX systems: \$HOME/jazzsm\_launchpad/logs/.

**What to do next**

- Apply the Dashboard Application Services Hub 3.1.2.1 Cumulative Patch.
- Verify the installation of the integration services.

**Related tasks**

“Performing an upgrade installation” on page 15

Use this installation procedure if you already have an earlier version of Jazz for Service Management on your system.

**Related information**:

- ![Verifying the installation](image)
- ![Restarting Jazz for Service Management application servers](image)
- ![Download Cumulative Patches - UI Services (DASH)](image)
**Uninstalling Jazz for Service Management**

You can uninstall most integration services and the application server by using Installation Manager GUI mode or silent mode. You might need to clean up your environment after either a successful uninstallation or a failed installation.

**Procedure**

Use IBM Installation Manager in GUI or silent modes to uninstall Jazz for Service Management Version 1.1.2.1.

See [Uninstalling fix packs by using Installation Manager GUI mode](#).

See [Uninstalling fix packs by using Installation Manager silent mode](#).

**Important:** When you revert to the previous version of Jazz for Service Management, Installation Manager does not automatically account for interim fixes. You must manually install interim fixes after you roll back.

**Related information:**

- [Uninstalling fix packs](#)
- [Uninstalling Jazz for Service Management and related software](#)
Chapter 4. Planning for installation and upgrade

Before you install or upgrade the product, read the system requirements, review compatibility with previous versions. Learn about the installation modes and the common installation directory structure for Network Performance Insight and other integrated products.

Related information:

Network Performance Insight installation media

How to get the product distribution.

The installation media can be obtained from two routes:

- Electronic installation images that licensed customers can download from the IBM Passport Advantage website.
- Offering DVDs

If you do not have the DVDs, you can download the electronic images for Network Performance Insight 1.1.1 from IBM Passport Advantage.

IBM Installation Manager overview

IBM Installation Manager is a tool for installing, modifying, updating, and uninstalling IBM products. The program locates and shows available packages, checks prerequisites and interdependencies, and installs or modifies the selected packages. You also use Installation Manager to uninstall the packages that you installed using Installation Manager.

Before installation, you must determine which user mode you require. You can install Installation Manager in one of three user modes:

- Administrator mode
- Nonadministrator mode
- Group mode

The user modes determine who can run Installation Manager, where product data is stored, and how different products are managed.

The default installation, data, and shared directories are different depending on which user mode you use. The data directory is used to store information about products that are installed with IBM Installation Manager. The shared directory is used to store installation artifacts that can be used or reused by one or more products.

<table>
<thead>
<tr>
<th>User mode</th>
<th>Default installation directory</th>
<th>Default shared directory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator</td>
<td>/opt/ibm/InstallationManager/eclipse</td>
<td>/opt/ibm/IBMIMShared</td>
</tr>
<tr>
<td>User mode</td>
<td>Default installation directory</td>
<td>Default shared directory</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Nonadministrator</td>
<td>$HOME/IBM/InstallationManager/eclipse</td>
<td>$HOME/IBM/IBMIMShared</td>
</tr>
<tr>
<td>Group</td>
<td>$HOME/IBM/InstallationManager_Group/eclipse</td>
<td>$HOME/IBM/IBMIMShared</td>
</tr>
</tbody>
</table>

Related information:

**Installing IBM Installation Manager**

IBM Network Performance Insight, Version 1.1.1 requires IBM Installation Manager V1.8.2 or later.

**About this task**

Use IBM Installation Manager to install, update, and uninstall Network Performance Insight 1.1.1 packages.

**Note:** You must always use the same user to install, start, or stop all products that are installed by using IBM Installation Manager. You cannot use a different user, even if the products are installed in group mode.

Installation Manager can determine and perform the following tasks:

- Shows available software packages
- Shows products that are associated with the packages
- Shows related fix packs and interim fixes
- Shows prerequisites and interdependencies check
- Install the selected packages

**Procedure**

1. Download the latest version of IBM Installation Manager.
   
   If you already have an older version IBM Installation Manager, upgrade to the latest version. See Installing or updating Installation Manager.

2. Install the Installation Manager by following these instructions:
   
   a. Start IBM Installation Manager by changing to the installation directory.
      
      By default, the installation directory for the three installation modes is:
      
      **Administrator mode**
      
      /opt/IBM/InstallationManager/eclipse
      
      **Nonadministrator mode**
      
      /user_home_directory/IBM/InstallationManager/eclipse
      
      **Group mode**
      
      /user_home_directory/IBM/InstallationManager_Group/eclipse
   
   b. Run the following command:
      
      ./IBMIM

Related information:

- **Download Installation Manager 1.8.3**
Required user names

There are two user names that are needed during the installation.

- root
- smadmin

- Users and groups that are required for Tivoli Netcool/OMNIbus integration on Jazz for Service Management.
Chapter 5. Installing Network Performance Insight

Describes how to install Network Performance Insight for the first time in a fresh, stand-alone environment.

Before you begin

- Ensure that Jazz for Service Management is installed.
- Ensure that single sign-on (SSO) is configured on the Jazz for Service Management server.
- Ensure that required users and groups are created in a repository on Jazz for Service Management.
- Ensure that Security Socket Layer (SSL) communication is configured.

For more information about these tasks, see Configuring Network Performance Insight.

Setting up Installation Manager repositories

Set up the Installation Manager repositories to use for the installation of Network Performance Insight v1.1.1.

Before you begin

Ensure that you have downloaded the Network Performance Insight software package to the server where you want to install.

Procedure

1. Start Installation Manager in GUI mode by using the following command:
   
   As root user:
   ```
   cd /opt/IBM/InstallationManager/eclipse
   ./IBMIM
   ```
   
   As non-root user:
   ```
   cd /<user_home_directory>/IBM/InstallationManager/eclipse
   ./IBMIM
   ```

2. Click File > Preferences > Repositories.

3. Click Add Repository.

   For more information on setting up the repositories by using IBM Packaging Utility, see Overview of IBM Packaging Utility.

4. Browse to the location where Network Performance Insight 1.1.1 package is available.

5. Click OK.

6. Click OK to close the Repositories window.
Installing Network Performance Insight

Install by using the Installation Manager in GUI mode.

Before you begin

Change the Linux kernel parameters as root user by following these steps:

- Edit the /etc/sysctl.conf file to add or modify kernel parameters as follows:
  - net.core.rmem_default = 33554432
  - net.core.rmem_max  = 33554432
  - net.core.netdev_max_backlog = 10000

  Change the /etc/sysctl.conf to ensure that the values are set on a system start.
  Run sysctl -p as root user to refresh with the new configuration in the current environment.

- Edit the /etc/security/limits.conf file to add or modify the hard and soft limit to at least 20000 for the number of open files as follows:
  * hard nofile 20000
  * soft nofile 20000

  Replace the "*" with any specific user name to restrict the change to a single user. For example, npiuser.

- Log out the npiuser and log in again for the changes to take effect.

Procedure

1. Start the Installation Manager in GUI mode by using the following commands:
   - As root user:
     cd /opt/IBM/InstallationManager/eclipse
     ./IBMIM
   - As non-root user:
     cd /<user_home_directory>/IBM/InstallationManager/eclipse
     ./IBMIM

2. Click Install.
   Installation Packages window displays the package that is added to the repository.

3. Select the repository and click Next.
   The shared resources directory location where the package is copied. By default, it is: /opt/IBM/IBMIMShared.

4. Click Next.
   The installation directory where the package is extracted is displayed. By default, it is: /opt/IBM/NPI.

   Note: You can specify a different installation location here. For example,
   /<user_home_directory>/IBM/NPI.

5. Click Next.
   You can see the product files and the disk space information in the Features tab.

6. Click Next.
   You can see the installation files, installation location, and disk space usage in the Summary tab.

7. Click Install to start the installation.
   After the installation completes, the installed packages are displayed in the Install Packages window.
8. Click **Finish** to close the Installation Manager.

**Results**

The following notable directories are created inside the \(<NPI_Home>\) directory:

**bin**  
Contains executable files, the most important being the \(npi\), and \(npid\) scripts. It also contains the database backup scripts.

**conf**  
You can manually create a configuration settings file \(npi.conf\). For more information about \(npi.conf\) file settings, see *Configuring Network Performance Insight*. The \(/conf/security\) directory has certificates, keys, and keystore that are needed for communication with Dashboard Application Services Hub.

This folder also contains the template files that are used in configuring the communications with Jazz for Service Management and Tivoli Netcool/OMNibus.

**lib**  
Contains the needed libraries.

**license**  
Contains the needed licenses.

**probe**  
Contains the Standard Input probe that is needed for event management.

**Note:** When you install Network Performance Insight, Tivoli Netcool/OMNibus Standard Input probe that is bundled with the media is installed.

**resources**  
Contains these sub directories:

- **blaze**
- **jre**
  
  Bundled IBM JRE is extracted in this folder.
- **sigar**
- **ui**
- **webgui**
  
  webgui directory contains the \(npiFlowTvLiC.js\) file that is needed for Tivoli Netcool/OMNibus integration.

**service**  
Contains the \(installnpiservice.root.sh\) script that starts the \(npi\) process on system startup.

**work**  
Contains all the data files and other files for running the application. A UNIX administrator can create a bigger mount point with higher disk capacity in this folder.

**What to do next**

If you used the default installation directory, verify that the \(NPI\) directory is created in \(/opt/IBM\)

You can see the package \(zip\) file that is created by the Installation Manager in \(/opt/IBM/IBMIMShared/native\) directory.

**Related tasks:**
Chapter 6, “Uninstalling Network Performance Insight,” on page 33

Uninstall Network Performance Insight and the related software from the system.

Starting the npi process on system startup

Network Performance Insight can be started as a Linux service that automatically starts the npid process on system startup.

About this task

Manually, run the installnpiservice.root.sh script as root user for the first time. It updates the service to the installed build version and sets the npi service to run on system startup.

Procedure

If you are running the installnpiservice.root.sh script as root user:

1. Log in to the server where you have installed Network Performance Insight as root user.
2. Run the installnpiservice.root.sh script that is available in /opt/IBM/NPI/service directory:
   Specify the user that npi service must run.
   
   ```
   # cd <NPI_Home>/service
   # ./installnpiservice.root.sh <user_name>
   ```
   
   For example,
   
   ```
   # ./installnpiservice.root.sh root
   npi service installed successfully!
   ```
   
   You can see the npi service in /etc/rc.d/init.d directory.
3. Optional:

   **Note:** This step is needed if you receive an error that npid is not owned by root user.
   Give root user permissions to npid process by using the following command:
   
   ```
   chown -R <non-root-user-name> /home/<non_root_user>/IBM/NPI/bin/npid
   ```
4. Verify the startup configuration by using the following command:
   
   ```
   chkconfig --list npi
   ```
   
   You can see the following output:
   
   ```
   npi 0:off 1:off 2:on 3:on 4:on 5:on 6:off
   ```
5. Start the npi service by using the following command:
   
   ```
   service npi start
   ```
   
   You can see the following output:
   
   ```
   Starting service npi...
   Executing bin/npid start as the npid user: root
   [INFO] [2016-01-28 16:51:49.934] [npid] GYPB0109I: Application npi Version 1.1.1.0.00XX started (PID: 18820)
   ```
6. Verify the startup configuration by using the following command:
   
   ```
   chkconfig --list npi
   ```
You can see the following output:

<table>
<thead>
<tr>
<th></th>
<th>0:off</th>
<th>1:off</th>
<th>2:on</th>
<th>3:on</th>
<th>4:on</th>
<th>5:on</th>
<th>6:off</th>
</tr>
</thead>
<tbody>
<tr>
<td>npi</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Results**

After the npi process starts, the following directories are created in `<NPI_Home>`:

**log**

Contains the npid.log and npi.log files for troubleshooting.

**Note:** The log directory also contains the backup and restore logs.

For more information about the log files, see Log files in Network Performance Insight in Troubleshooting Network Performance Insight.

**Related concepts:**

“The chkconfig utility”

chkconfig utility is used to set up, view, or change services that are configured to start automatically during the system startup. You must have superuser privileges to use this command with most of the options.

**Related reference:**

“service npi command reference” on page 30

Usage for the `service npi` command. Run the `service npi` command to start, stop, and restart Network Performance Insight.

**The chkconfig utility**

chkconfig utility is used to set up, view, or change services that are configured to start automatically during the system startup. You must have superuser privileges to use this command with most of the options.

To display all the services with the current startup configuration status, use the following command:

```
chkconfig --list
```

**Note:** All the services that are available in the `/etc/rc.d/init.d` directory and the services that are controlled by xinetd are displayed.

To display the current settings for a selected service only, use the following command:

```
chkconfig --list <service_name>
```

To enable a service in runlevels 2, 3, and 5, use the following command as root user:

```
chkconfig <service_name> on
```

To disable a service in runlevels 2, 3, and 5, use the following command as root user:

```
chkconfig <service_name> off
```

To enable a service in certain runlevels only, use the following command as root user:

```
chkconfig <service_name> on --level runlevels
```

For example,
chkconfig npi on --level 35

To add a specific service to the list of services that can be started during system restart, use the following command as root user:

```bash
# chkconfig --add <service_name>
```

Related information:
- [Using the chkconfig Utility](#)

**service npi command reference**

Usage for the `service npi` command. Run the `service npi` command to start, stop, and restart Network Performance Insight.

**Location**

**Note:** `service npi` command is intended to be run as root user to start Network Performance Insight at system startup. It can be run by a non-root user, but it requires the password of the user it is configured to run the system.

`<NPI_Home>/service`

`NPI_Home` is the location where Network Performance Insight is installed. For example, `/opt/IBM/NPI`.

**Syntax**

```
service npi {start | stop | restart | kill | status | version | help}
```

**Parameters**

- **start**
  - Starts Network Performance Insight application.

- **stop**
  - Stops Network Performance Insight application.

- **restart**
  - Stops and starts Network Performance Insight application.

- **kill**
  - Kills the Network Performance Insight application process by using the command `kill -9`.

- **status**
  - Checks if Network Performance Insight application process ID (PID) is running when you use the command `ps -eaf`.

- **version**
  - Shows the version of Network Performance Insight that is installed.

- **help**
  - Displays the usage for `npi` service command.
npid command reference

Usage for the npid command. Run the npid command to start, stop, and restart Network Performance Insight.

Location

<NPI_Home>/bin

NPI_Home is the location where Network Performance Insight is installed. For example, /opt/IBM/NPI.

Syntax

npid {start | stop | restart | kill | status | version | help}

Parameters

start
   Starts Network Performance Insight application.

stop
   Stops Network Performance Insight application.

restart
   Stops and starts Network Performance Insight application.

kill
   Kills the Network Performance Insight application process by using the command kill -9.

status
   Checks if Network Performance Insight process is running when you use the command ps -eaf.

version
   Shows the version of Network Performance Insight that is installed.

help
   Displays the usage for npid command.

Controlling Network Performance Insight system

Commands to control the Network Performance Insight application processes.

About this task

You can control the system that is running Network Performance Insight in the following ways:

- Use the service npi command options
- Use the npid command options
- Use the chkconfig utility to disable the npi service.

Procedure

- Run the service npi command to start, stop, and restart Network Performance Insight by using the following commands:

  . / service npi
  Usage: {start|stop|restart|kill|status|version|help}

  For more information, see service npi command reference in Command Line Interface.
- Run the `npid` command to start, stop, and restart Network Performance Insight by using the following commands:
  
  ```
  cd <NPI_Home>/bin
  ./npid
  ```
  
  Usage: `{start|stop|restart|kill|status|version|help}`
  
  For more information, see `npid command reference in Command Line Interface`.

- Disable the `npi` service in runlevels 2, 3, 4, and 5 by using the `chkconfig` command with the following option:
  
  ```
  chkconfig service npi off
  ```
Chapter 6. Uninstalling Network Performance Insight

Uninstall Network Performance Insight and the related software from the system.

**Before you begin**

Back up your `<NPI_Home>/work` directory. Ensure that the npid process is stopped.

**Procedure**

1. Start the Installation Manager in GUI mode by using the following commands:
   
   As root user:
   
   ```
   cd /opt/IBM/InstallationManager/eclipse
   ./IBMIM
   ```

   As non-root user:
   
   ```
   cd /<user_home_directory>/IBM/InstallationManager/eclipse
   ./IBMIM
   ```

2. Click **Uninstall**.

   Uninstall Packages window displays the package that is added to the repository.

3. Select the package to uninstall and click **Next**.

4. Click **Uninstall** and click **Finish** to complete the uninstallation.

**Results**

The following directories are removed:

- `/opt/IBM/NPI`
- `/opt/IBM/IBMIMShared`

**Related tasks:**

- "Controlling Network Performance Insight system" on page 31

**Related information:**

- [Removing Tivoli Netcool/OMNIbus](#)
- [Uninstalling Jazz for Service Management and related software](#)
Chapter 7. Postinstallation tasks

Perform these postinstallation tasks after the installation of Network Performance Insight is complete.

For integrating with IBM Tivoli Network Manager and IBM Tivoli Netcool/OMNIbus, see Integrating with IBM Netcool Operations Insight Components.

Verifying the installation

You can verify the Network Performance Insight 1.1.1 installation status.

**Before you begin**

Make sure that the flow exporter is configured and running and sending the flow data to the Collector subsystem.

For more information, see Configuring Flow devices.

**Procedure**

Run the following service npi command to check the status of Network Performance Insight:

```
# ./service npi status
```

You see the following message:

Application npi is running on pid <28431>

**Related reference:**

[“service npi command reference” on page 30](#)

Usage for the service npi command. Run the service npi command to start, stop, and restart Network Performance Insight.

[“npid command reference” on page 31](#)

Usage for the npid command. Run the npid command to start, stop, and restart Network Performance Insight.

Verifying the installation of Standard Input probe

You can verify the installation status of Tivoli Netcool/OMNIbus Standard Input probe that is packaged with Network Performance Insight 1.1.1.

**Before you begin**

Ensure that you have installed Network Performance Insight and verified the status as running.

**Procedure**

Run the following command to check the status of Standard Input probe

```
ps -ef | grep nco_p_stdin
```

Check the process ID of the probe that is displayed.

For more information, see Configuring the OMNibus Standard Input probe to work with Network Performance Insight in Configuring Network Performance Insight.

**Related tasks:**

- “Verifying the installation” on page 35
- You can verify the Network Performance Insight 1.1.1 installation status.
Chapter 8. Troubleshooting installation

Problems that might occur during an installation and how to resolve them.

About this task

For all troubleshooting issues in installation and upgrade of Network Performance Insight, see Troubleshooting Network Performance Insight.
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