Upgrading and Migrating Network Performance Insight
Note

Before you use this information and the product it supports, read the information in "Notices" on page 11.

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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Upgrading

How to upgrade your existing IBM® Network Performance Insight to the new version.

Typically, your upgrade involves installing the latest version with the help of IBM Installation Manager, and then migrating your existing customizations.

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 or upgrade 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

Organization

Read this summary to help you find the information that you need.

- Chapter 1, “Introduction,” on page 1
- Chapter 2, “Preparing to update,” on page 3
- Chapter 3, “Updating Network Performance Insight,” on page 5
- Chapter 4, “Performing post-upgrade tasks,” on page 7
- Chapter 5, “Data migration,” on page 9

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.

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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
Service Management Connect

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


Use Service Management Connect in the following ways:

- 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:


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
Chapter 1. Introduction

Upgrade your IBM Network Performance Insight system to the latest version, and then migrate your existing configuration settings to take advantage of the new functions. This information does not cover the upgrade steps required for other supported components of Netcool Operations Insight.

About this task

A diagrammatic representation of the tasks involved in Network Performance Management upgrade.
Chapter 2. Preparing to update

Prepare the system for upgrade. Before you update your Network Performance Insight installation, shut down all the running processes.

Procedure
1. Stop the Network Performance Insight system.
   See Controlling Network Performance Insight system in Installing Network Performance Insight.
2. As a best practice, back up your data.
   See Backing up data in Database administration.
Chapter 3. Updating Network Performance Insight

You can use the Installation Manager GUI to update your Network Performance Insight installation.

Before you begin

- Download software from IBM Passport Advantage.
- Determine which Installation Manager user mode you want to use.
  
  For more information about user modes, see IBM(r) Installation Manager overview in Installing Network Performance Insight.

Procedure

1. Change to the Installation Manager installation directory.
2. Use the following command to start Installation Manager:
   ```bash
   ./IBMIM
   ```
3. Set up Installation Manager repositories.
   
   **Important:** Ensure that in the new version of Network Performance Insight is installed in to the same directory as the previous version.
   
   See Setting up Installation Manager repositories in Installing Network Performance Manager.

4. In the main Installation Manager window, click **Install**.
5. Follow the instructions in the wizard to complete the update.
   
   For more information, see Installing Network Performance Insight.

6. Click **Finish**.

Results

- Some of the files and directories are not overwritten, such as `<NPI_Home>/conf/npi.conf` and `<NPI_Home>/work/storage`.
- Other existing files and directories are overwritten with new files and directories.
- You can observe the following changes in the installation directory:
  - probe
    
    Directory that contains STDIN probe. This probe is installed when the Network Performance Insight is updated to the new version.
  - service
    
    Directory that contains the `installnpiservice.root.sh` script that is used for auto-starting the `npi` process on system startup.
Chapter 4. Performing post-upgrade tasks

After the upgrade, perform these tasks for completing the initial setup of your product environment.

Procedure

1. Configure the NCIM database connectivity for integrating with Tivoli Network Manager.
   See Configuring NCIM database connectivity in Configuring Network Performance Insight.

2. Configure the STDIN probe settings.
   a. Remove, or comment out the npi.conf file entries for the existing REST API.
   b. Configure the new STDIN probe settings.
      See Configuring the OMNIbus Standard Input probe to work with Network Performance Insight in Configuring Network Performance Insight.
Chapter 5. Data migration

Most of the files from the previous installation are migrated. You might have to modify some configuration settings to use the new functions that are available in Network Performance Insight 1.1.1.

Configuration changes

An Administrator can edit the configuration settings to use the new functions.

- Configure the usage of Standard Input (STDIN) probe for event management.
  Migrate from the existing OMNibus REST API

**Note:** You can continue to use the REST API for event management. But it is recommended to use the STDIN probe.

Network Performance Insight system prioritizes the OMNibus event delivery by using the following logic:

- If OMNibus REST API settings are configured in the npi.conf file, REST API is used.
- If STDIN probe settings are configured, it auto-starts after the installation of Network Performance Insight. The probe is used for event management.

For more information, see Verifying the installation of Standard Input probe in Installing Network Performance Insight.

Configuring the OMNibus REST APIs in Network Performance Insight

Modify the Network Performance Insight configuration file in `<NPI_Home>/conf/npi.conf`.

**About this task**

You can use the template file `npi-noi.template` that is available in `<NPI_Home>/conf` folder.

**Procedure**

1. Open the npi.conf file from `<NPI_Home>/conf` folder.
2. Add the following settings for OMNibus REST APIs:

   ```
   event.netcool.omnibus.rest-api.host="<myserver.ibm.com>"
   event.netcool.omnibus.rest-api.port="8080"
   event.netcool.omnibus.rest-api.path="/objectserver/restapi/alerts/status"
   event.netcool.omnibus.rest-api.username="root"
   event.netcool.omnibus.rest-api.password="eTh66o0sJZrf1Ek1h/Xm+g=="
   event.netcool.omnibus.rest-api.realm="omnibus"
   ```

   Where:
Table 1. Configurations for OMNIbus REST APIs

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>event.netcool.omnibus.rest-api.host</td>
<td>Actual nodename where OMNIbus ObjectServer is running (not NCOMS or omnihost).</td>
<td><code>&lt;myserver.ibm.com&gt;</code></td>
</tr>
<tr>
<td>event.netcool.omnibus.rest-api.port</td>
<td>OMNIbus ObjectServer HTTP port number, as specified in NHttpd.ListeningPort.</td>
<td>8080</td>
</tr>
<tr>
<td>event.netcool.omnibus.rest-api.path</td>
<td>The URI that must be specified to get all the active alerts.</td>
<td><code>/objectserver/restapi/alerts/status</code></td>
</tr>
<tr>
<td>event.netcool.omnibus.rest-api.username</td>
<td>A privileged OMNIbus user name (not the same as Jazz for Service Management user). For example, root.</td>
<td>root</td>
</tr>
<tr>
<td>event.netcool.omnibus.rest-api.password</td>
<td>OMNIbus user's encrypted password</td>
<td><code>fe/KSX5GZ+/gJcKwGbIHlQ==</code></td>
</tr>
<tr>
<td>Note:</td>
<td>To encrypt the password, follow the steps in Encrypting Object Server password in Integrating with Tivoli/Netcool OMNIbus.</td>
<td></td>
</tr>
<tr>
<td>event.netcool.omnibus.rest-api.realm</td>
<td>A realm is a group of users from one or more user registries that form a coherent group within OMNIbus.</td>
<td><code>omnibus</code></td>
</tr>
</tbody>
</table>

As a good security practice, passwords must not be left blank. If your OMNIbus ObjectServer does not have a password, set a password in an encrypted form and add the encrypted password to the configuration settings.

Example entries:

```
event.netcool.omnibus.rest-api.host="<myserver.ibm.com>
event.netcool.omnibus.rest-api.port="8080"
event.netcool.omnibus.rest-api.path="/objectserver/restapi/alerts/status"
event.netcool.omnibus.rest-api.username="root"
event.netcool.omnibus.rest-api.password="fe/KSX5GZ+/gJcKwGbIHlQ=="
event.netcool.omnibus.rest-api.realm="omnibus"
```
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