

# **NetIQ® AppManager® Connector for HP OpenView Network Node Manager (NNM)**

**Management Guide**

March 2007



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# About this Book and the Library

The NetIQ AppManager product (AppManager) is a comprehensive solution for managing, diagnosing, and analyzing performance, availability, and health for a broad spectrum of operating environments, applications, services, and server hardware.

AppManager provides system administrators with a central, easy-to-use console to view critical server and application resources across the enterprise. With AppManager, administrative staff can monitor computer and application resources, check for potential problems, initiate responsive actions, automate routine tasks, and gather performance data for real-time and historical reporting and analysis.

## Intended Audience

This guide provides information for individuals responsible for installing an AppManager module and monitoring specific applications with AppManager.

## Other Information in the Library

The library provides the following information resources:

### Installation Guide for AppManager

Provides complete information about AppManager pre-installation requirements and step-by-step installation procedures for all AppManager components.

### User Guide for AppManager Control Center

Provides complete information about managing groups of computers, including running jobs, responding to events, creating reports, and working with Control Center. A separate guide is available for the AppManager Operator Console.

### Administrator Guide for AppManager

Provides information about maintaining an AppManager management site, managing security, using scripts to handle AppManager tasks, and leveraging advanced configuration options.

### Upgrade and Migration Guide for AppManager

Provides complete information about how to upgrade from a previous version of AppManager.

### Management guides

Provide information about installing and monitoring specific applications with AppManager.

### Help

Provides context-sensitive information and step-by-step guidance for common tasks, as well as definitions for each field on each window.

The AppManager library is available in Adobe Acrobat (PDF) format from the NetIQ Web site: [www.netiq.com/support/am/extended/documentation/default.asp?version=AMDocumentation](http://www.netiq.com/support/am/extended/documentation/default.asp?version=AMDocumentation).

## Conventions

The library uses consistent conventions to help you identify items throughout the documentation. The following table summarizes these conventions.

Convention	Use
<b>Bold</b>	<ul style="list-style-type: none"><li>• Window and menu items</li><li>• Technical terms, when introduced</li></ul>
<i>Italics</i>	<ul style="list-style-type: none"><li>• Book and CD-ROM titles</li><li>• Variable names and values</li><li>• Emphasized words</li></ul>
Fixed Font	<ul style="list-style-type: none"><li>• File and folder names</li><li>• Commands and code examples</li><li>• Text you must type</li><li>• Text (output) displayed in the command-line interface</li></ul>
Brackets, such as <i>[value]</i>	<ul style="list-style-type: none"><li>• Optional parameters of a command</li></ul>
Braces, such as <i>{value}</i>	<ul style="list-style-type: none"><li>• Required parameters of a command</li></ul>
Logical OR, such as <i>value1 value2</i>	<ul style="list-style-type: none"><li>• Exclusive parameters. Choose one parameter.</li></ul>

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# About NetIQ Corporation

NetIQ, an Attachmate business, is a global leader in systems and security management. With more than 12,000 customers in over 60 countries, NetIQ solutions maximize technology investments and enable IT process improvements to achieve measureable cost savings. The company's portfolio includes award-winning management products for IT Process Automation, Systems Management, Security Management, Configuration Audit and Control, Enterprise Administration, and Unified Communications Management. For more information, please visit [www.netiq.com](http://www.netiq.com).

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**Europe, Middle East, and Africa:** +353 (0) 91-782 677  
**Email:** [support@netiq.com](mailto:support@netiq.com)  
**Web Site:** [www.netiq.com/support](http://www.netiq.com/support)

## Contacting the Online User Community

Qmunity, the NetIQ online community, is a collaborative network connecting you to your peers and NetIQ experts. By providing more immediate information, useful links to helpful resources, and access to NetIQ experts, Qmunity helps ensure you are mastering the knowledge you need to realize the full potential of IT investments upon which you rely. For more information, please visit <http://community.netiq.com>.





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## Chapter 1

# AppManager Connector for HP OpenView NNM

The NetIQ AppManager Connector for HP OpenView NNM provides tight integration between the NetIQ AppManager Suite and the HP OpenView Network Node Manager framework. With the AppManager Connector in place, AppManager events are automatically formatted and forwarded to HP OpenView NNM for display in the HP OpenView NNM Alarms Browser. This integrated solution allows existing AppManager customers to consolidate management information, bringing AppManager's Windows management functionality into HP OpenView NNM.

## Integration Highlights

Highlights of AppManager's integration with HP Openview Network Node Manager include:

- The AppManager SmartAdapter, which is a plug-in to the AppManager management server, translates AppManager event information into HP OpenView NNM format and forwards it through an SNMP trap to the HP OpenView server.
- The AppManager SmartAdapter can intelligently filter AppManager events based on application type. For example, you might configure the SmartAdapter to forward AppManager events that were triggered on Microsoft Exchange and Microsoft SQL servers but not forward events triggered on Citrix WinFrame systems.
- Once you configure the SmartAdapter, AppManager events are automatically forwarded to the HP OpenView server without additional operator intervention.
- You can customize the SmartAdapter by assigning different ranges of AppManager event severity levels to the appropriate HP OpenView NNM alarm conditions.

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### Note

For debug purposes, the Connector writes log information to a file named `msadapt_hpnnm.log`, which is located in the NetIQ directory `\temp\NetIQ_Debug\ (for example, c:\Program Files\NetIQ\temp\NetIQ_Debug\Shasta). The logging capability can be turned on or off by setting the Debug registry key to 1 or 0 respectively.`

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# About the Connector

The AppManager Connector for HP OpenView NNM formats and forwards AppManager events to the HP OpenView server. The event information is then displayed in the HP OpenView NNM Alarms Browser. The events are stored in the NetIQ Alarms group.

An event is an alert that a condition or activity you are monitoring with AppManager has occurred on a managed client. Events are generated by AppManager Knowledge Script jobs. For more information about jobs and events, see the *NetIQ AppManager User's Guide*.

The Connector consists of an AppManager SmartAdapter and a framework integration component.

The SmartAdapter, a plug-in to the AppManager management server, monitors events received by the management server, and then translates AppManager event information into HP Openview NNM format and automatically forwards it to the HP OpenView server. (For more information, see [“How an Event is Forwarded”](#) on page 2.)

The framework integration component configures HP OpenView NNM so that the HP OpenView server can receive the AppManager event information and the HP OpenView NNM Alarms Browser can display it.

The SmartAdapter is functional only when attached to the management server and, therefore, must reside on the same host as the management server.

The framework integration component supports HP OpenView NNM running on either a Windows server or UNIX.

For system requirements, see [“System Requirements”](#) on page 5.

## How an Event is Forwarded

When a Knowledge Script job that is running on a managed client produces an event, the AppManager agent sends the event information to the AppManager management server. If the management server detects that the AppManager SmartAdapter is installed, the event information is forwarded to the SmartAdapter. If the SmartAdapter determines the event falls within the event categories that the SmartAdapter was configured to process, it then translates the event information into HP OpenView NNM-readable format and forwards it the HP OpenView server. The event information is then displayed in the HP OpenView NNM Alarms Browser. Other events are not forwarded. (For example, if the SmartAdapter is configured for Microsoft SQL Server and Exchange Server events, and an event is generated by Lotus Domino, then the SmartAdapter ignores it.)

The length of the AppManager long (detail) event message that is forwarded to the HP OpenView server is controlled by the `MSG_SIZE` registry key. The length of the message is restricted to 128 bytes multiplied by the key value (from 1 to 24). For carriage return/linefeed, the `CRLF` key must be set to 0. If this key is 1, the carriage return/linefeed will be replaced by a space.

## Long Messages in XML

Many AppManager 6.0 Knowledge Scripts write the long (detail) event message in an AppManager-specific XML format. If you are using such a script with an AppManager 6.0 management server, the detail message will be converted to plain text before the event message is forwarded to the HP OpenView server. If, on the other hand, you are using such a script with an AppManager 5.0.1 or earlier management server, the detail message will remain in raw, unconverted XML format.

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**Note**

If you write your own long message in XML format, but it is not in AppManager-specific XML, an empty string will be forwarded instead of the message.

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## Chapter 2

# Planning the Connector Installation

This chapter describes system and account requirements, and gives an overview of the procedures for installing the AppManager Connector for HP OpenView NNM.

## System Requirements

Be sure your AppManager and framework environments meet the following software requirements before you install the AppManager Connector for HP OpenView NNM 7.0.

- AppManager management server version 7.0 running on a Windows 2003 server
- HP OpenView NNM version 7.5.1

## Accounts Needed to Install the Connector

The AppManager Connector installation program requires access to various administrator and user accounts. The following table lists the accounts required.

<b>For the computer where this component resides</b>	<b>Running on</b>	<b>Requires</b>
AppManager management server	Windows NT, Windows 2000, or Windows 2003	A valid Windows login account with Administrator privileges. The privileges can be for the local computer (required) or the Domain (optional).
HP OpenView NNM server	Windows server or UNIX	A valid account in order to log into HP OpenView NNM server.

### Note

To ensure that all events are forwarded, you must install a copy of the Connector on each and every management server.

# Installation Checklist

Complete this checklist to ensure a successful installation of the AppManager Connector.

	<b>Procedure:</b>	<b>See page:</b>
1	Install the Connector on the Windows servers where the AppManager management server and HP OpenView NNM reside. <b>Note:</b> You can install the AppManager management server and HP OpenView NNM on different servers.	<Jump X-ref>10
2	Update the Connector configuration.	<Jump X-ref>13

## Establishing a Distribution Computer

Because you typically need to run the setup program on more than one computer, you may want to establish a distribution computer somewhere on your network. The distribution computer is the location where you save the AppManager Connector setup program, **Setup.exe**. You can then update various computers by running the setup program from a central location.

When deciding where to save the setup program, keep in mind you will need a user account and password with permission to access the directory and its files after copying the AppManager programs there. You also need to consider the domain and trust relationships. For example, the distribution computer and the computer being updated must be in the same domain or in domains that have a trust relationship.

In most case, you'll want to establish on your network a distribution computer where you will save the AppManager Connector source files.

## Windows

On a Windows server, the distribution folder must:

- Be shared and accessible to the computer where the AppManager management server resides.
- Be readable to the Windows login account on the computer where the AppManager management server resides.
- Conform to UNC (Universal Naming Convention) format as a shared folder or network drive. For example, `\mis\appmgr\` or `\\mis\D$\`.

The AppManager source files (`appmgr.mib` and `nqtrap.conf`) are in the `.tar` file `hpov-nnm.tar` which is in the `unix_tar` folder. Copy the tar file to the distribution folder and decompress it with WinZip.

## UNIX

On a UNIX computer, the distribution folder must be readable to the person performing the installation. (The person performing the installation must be superuser (root) and have privileges to create, read, write, execute, and establish root ownership of files within the installation folder.)

The AppManager source files are contained in a `.tar` file that can be transferred by FTP to a UNIX computer and extracted.

1. On your UNIX computer, start OpenWindows or Common Desktop Environment.
2. Open an `xterm` window.
3. Copy or FTP the file named `hpov-nnm.tar` to the distribution folder on the UNIX computer.
4. Navigate to the distribution folder where you just copied the `.tar` file.
5. At the command line, type: `tar -xvf hpov-nnm.tar`

The AppManager Connector source files are extracted and placed in the distribution folder.





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## Chapter 3

# Installing the Connector

This chapter describes the procedures for installing the AppManager Connector for HP OpenView NNM.

Before installing the AppManager Connector, be sure that you have installed AppManager 7.0 in your HP OpenView NNM framework environment.

# Installing the Connector on Windows

Run the AppManager Connector for HP OpenView NNM setup program on the Windows server where the AppManager management server is installed.

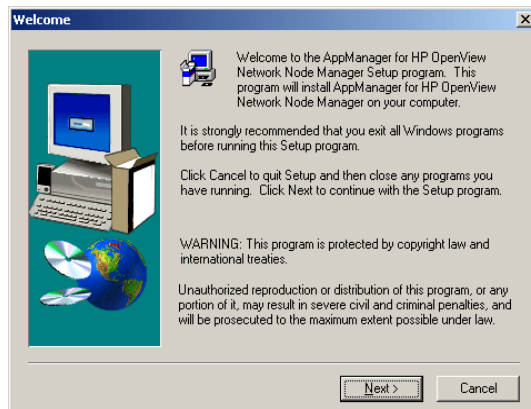
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## Notes

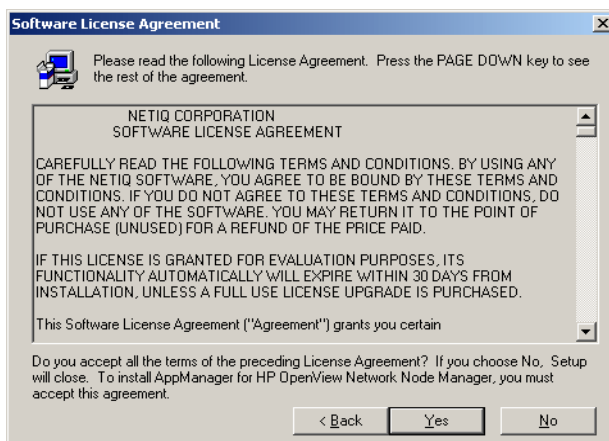
- You can install the AppManager management server and HP OpenView NNM on different computers.
  - Refer to [“Setting up the NetIQ Alarms group for HP OpenView NNM running on Windows or UNIX”](#) on page 13.
  - You need a valid Windows login account with Administrator privileges. The privileges can be for the local computer (required) or the Domain (optional).
  - Installation of the SmartAdapter requires that the NetIQ\bin folder be in the system path. If necessary, add the folder to the Path variable and then reboot the system.
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## To install the Connector on Windows:

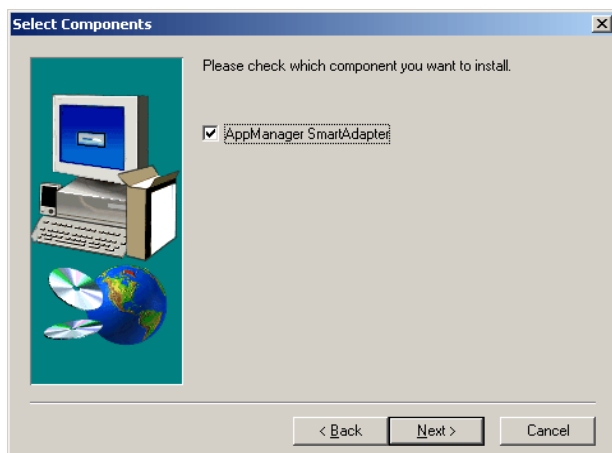
1. Launch **SETUP.EXE** in the distribution folder you created.
2. At the Welcome screen, click **Next**.



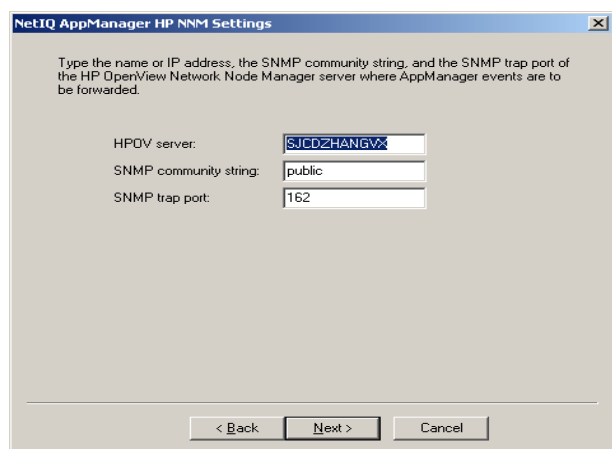
3. Read the License Agreement notice and, if you agree to the terms, click **Yes**.



4. Select the Connector component to install on this computer and click **Next**.

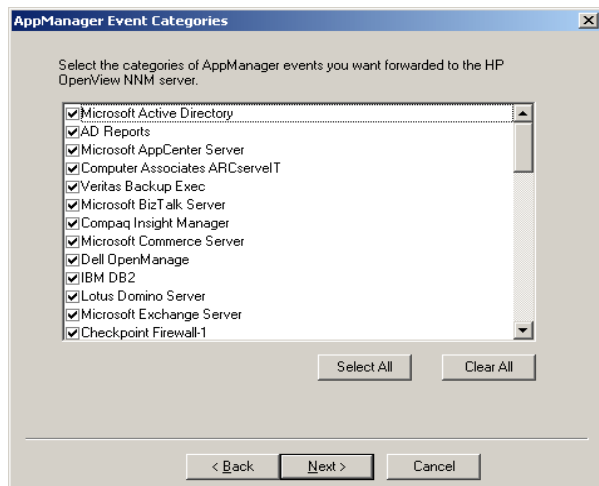


5. Set the options for SNMP and click **Next**.

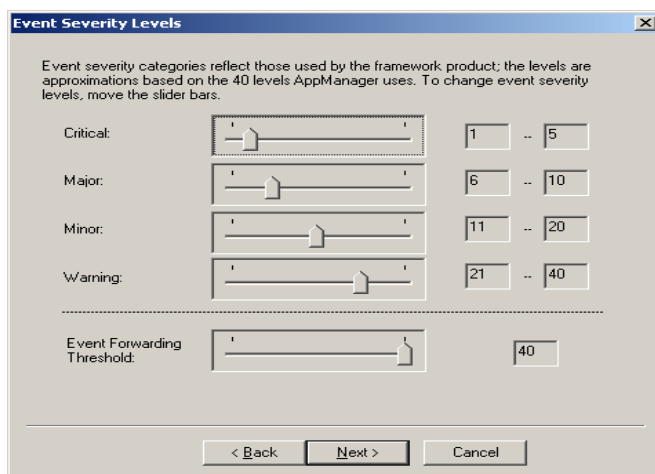


<b>For:</b>	<b>Type:</b>
HPOV server	The hostname or IP address of the HP OpenView NNM server where SNMP traps are to be forwarded. Generally, this is the server where HPOV NNM is installed. <b>Note:</b> SNMP traps are forwarded to the NetIQ Alarm category in the HP OpenView list of alarms.
SNMP community string	The SNMP community string of the HP OpenView NNM server.
SNMP trap port	The SNMP trap port of the HP OpenView NNM server.

6. Select the AppManager events you want forwarded to the HP OpenView NNM server. Then click **Next**.



7. To change event severity levels, move the slider bars. Then click **Next**.



The five event severity categories used by HP OpenView NNM (such as Critical and Warning) are mapped to the four levels that AppManager uses.

8. If prompted, select **Yes** to have Setup stop the AppManager management server service (**NetIQms**) and continue the setup procedure.

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**Note**

The installation log is found at %WINDIR%\appmgrNNM.log.

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# Setting up the NetIQ Alarms group for HP OpenView NNM running on Windows or UNIX

To configure and load the NetIQ Alarms group and AppManager MIB, locate the `nqtraps.conf` and `appmgr.mib` files in the distribution folder you created.

1. On the HP OpenView NNM computer that receives SNMP traps from the AppManager management server, close NNM if it is running.
2. On the HP OpenView NNM computer, open a Command Prompt (Windows server) or a command line (UNIX).
3. To add NetIQ event definitions to HP OpenView NNM, type:  
`xnmevents -replace nqtraps.conf`
4. To cause HP OpenView NNM to reload its event definitions, type:  
`xnmevents -event`
5. To cause HP OpenView NNM to reload the MIB database, type:  
`xnmloadmib -event -load appmgr.mib -replace`
6. Start HP OpenView NNM.

## Updating the Connector Configuration

After installing the Connector, you can change the Connector configuration. Updating the Connector configuration only applies to the Connector SmartAdapter, which is installed on the computer where the AppManager management server resides.

On the Windows computer where the AppManager management server resides, go to **Programs > NetIQ AppManager > Tools & Utilities > AppManager Connector for HP OpenView NNM**.

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### Note

There are two dword registry keys that the configuration utility does not set. You must set these yourself. They are both under `HKEY_LOCAL_MACHINE\SOFTWARE\NetIQ\AppManager\4.0\NetIQms\Integration\HPNNM\Config`:

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## Chapter 4

# Updating AppManager License Information

When you purchase an AppManager Connector, you need to update the AppManager License Manager with the Connector license key.

## Adding the Connector License Key

To add the Connector license key:

1. On a Windows computer where any AppManager console programs are installed, start the License Manager.
  - From the AppManager Operator Console, Distributed Event Console, Security Manager, or Report Manager, click **Help > License Manager**.
  - From the Windows Desktop, go to **Programs > NetIQ AppManager > Tools & Utilities > License Manager**.
2. Type the 15-digit AppManager Connector license key you were given. Use the format: `nnnnn-nnnnnnnn-nnn`.
3. For **Quantity**, enter the number of copies you purchased (or select **Unlimited**, if appropriate).
4. Click **Add**. The component and expiration date appear in the list.
5. To add additional keys, repeat step 2 through 4.
6. When you're finished adding license keys, click **Close**.

For more information about how to view and update license information, see the appendix titled, "Updating license information," in the *Installation Guide for AppManager*.

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### Note

After you install the AppManager Connector and update the license information, you must stop and then restart the NetIQms service in order for the Connector to work in the framework environment.

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## Appendix A

# Uninstalling the Connector

The Connector uninstall program removes the AppManager SmartAdapter component from the Windows computer where the AppManager management server resides.

**To uninstall the Connector:**

1. Stop the NetIQ AppManager Management Service (**NetIQms**) on the computer where you installed the Connector.
2. On the Windows computer where the AppManager management server resides, go to **Start > Settings > Control Panel**.
3. Double-click **Add/Remove Programs**, and select **NetIQ AppManager Connector for HP OpenView NNM**.
4. Restart the NetIQ AppManager Management Service (**NetIQms**).

