AUTHORIZED DOCUMENTATION

Administration Quick Start

Novell®
ZENworks® 10 Configuration Management

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Novell, Inc.
404 Wyman Street, Suite 500
Waltham, MA 02451
U.S.A.
www.novell.com

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About This Guide

This *ZENworks 10 Configuration Management Administration Quick Start* helps you quickly master the basics of administering your ZENworks® 10 Configuration Management system. You should already have installed your ZENworks system. If not, see the *ZENworks 10 Configuration Management Installation Guide*.

The information in this guide is organized as follows:

- Administration Quick List (page 9): Provides a check list of what you need to do to configure and monitor your ZENworks system, deploy the ZENworks Adaptive Agent to devices you want to manage, and then perform management tasks on the devices.
- Management Tools Quick View (page 15): Introduces ZENworks Control Center and the zman command line utility, the two primary ZENworks management tools.
- Zone Configuration (page 21): Provides instructions for configuring your ZENworks system to best support the management tasks you'll perform.
- ZENworks Adaptive Agent Deployment (page 41): Provides instructions for installing the ZENworks Adaptive Agent to devices. The Adaptive Agent is required on any device you want to manage with ZENworks.
- Device Management (page 61): Provides instructions for performing the various tasks for ongoing management of devices.
- System Messages and Reports (page 95): Introduces the ways you can get information about the activity in your ZENworks system.

Audience

This guide is intended for anyone who will configure the ZENworks system, monitor the ZENworks system, or perform any ZENworks tasks related to managing devices or users.

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Administration Quick List

1

You've installed your ZENworks® Server (or maybe a couple of servers) and are eager to start using all of the time-saving functionality in Novell® ZENworks 10 Configuration Management . The following sections are designed to quickly introduce you to the configuration, deployment, management, and status monitoring concepts and tasks that help you effectively manage the devices in your environment.

- Section 1.1, "Zone Configuration," on page 9
- Section 1.2, "ZENworks Adaptive Agent Deployment," on page 10
- Section 1.3, "Device Management," on page 11
- Section 1.4, "System Messages and Reports," on page 13

1.1 Zone Configuration

Before you start distributing software and applying policies to devices, there are a few configuration tasks you need to complete to ensure that your Management Zone is configured to let you take full advantage of ZENworks management capabilities.

Table 1-1 *Zone Configuration Tasks*

Task	Details
Create folders and groups for organizing devices	Organize devices into folders and groups to ease the overhead involved in applying ZENworks configuration settings and performing tasks on similar devices. Rather than making assignments or performing tasks on individual devices, you can manage the folders and groups, with each device in a folder or group inheriting the assignment or task. For instructions, see Section 3.1, "Organizing Devices: Folders and Groups," on page 21.
Create registration keys or rules	The ZENworks Adaptive Agent must be installed on each device that you want to manage. When you deploy the ZENworks Adaptive Agent to a device, the device is registered in your Management Zone. You can use registration keys or rules to automatically assign devices to the appropriate folders and groups, ensuring that they immediately receive the correct configuration settings and software and policy assignments. For instructions, see Section 3.2, "Registering Devices," on page 27.

Task	Details
Add user sources	You can assign software and policies to users as well as devices. Unlike device-assigned software and policies, user-assigned software and policies are available on the device only when the user is logged in to the Management Zone. You do not manually add users to your Management Zone. Instead, you connect to an LDAP directory that you want to use as your authoritative user source in ZENworks. You can then make software and policy assignments to any users defined in the user source. For instructions, see Section 3.3, “Connecting to User Sources,” on page 32.
Create additional administrator accounts	During installation, a default ZENworks administrator account (named Administrator) is created. The default Administrator account provides rights to the entire Management Zone. You can create additional administrator accounts that restrict access to the zone. For example, you could create an account that only provides the ability to assign software to devices or users in specific folders. For instructions, see Section 3.4, “Creating ZENworks Administrator Accounts,” on page 33.
Modify zone configuration settings	Your zone settings are preset to provide the most common configuration. If necessary, you can change the settings. For instructions, see Section 3.5, “Modifying Configuration Settings,” on page 36.

1.2 ZENworks Adaptive Agent Deployment

The ZENworks Adaptive Agent communicates with the ZENworks Server to perform management tasks on a device. You must deploy the Adaptive Agent to all devices you want to manage. Deploying the Adaptive Agent installs the agent files and registers the device in your Management Zone.

Table 1-2 *Deployment Tasks*

Task	Details
Discover devices	If you choose to use ZENworks Control Center to deploy the agent to devices, you must first add the devices to your Management Zone. You can do this by performing a network discovery. For instructions, see Section 4.1, “Discovering Network Devices,” on page 41.

Task	Details
Import devices	You can also import devices into your Management Zone from a comma-separated values (CSV) file. Each device entry must include its IP address or DNS name. For instructions, see Section 4.2, “Importing Devices,” on page 42.
Install the ZENworks Adaptive Agent	You can use a variety of methods to install the ZENworks Adaptive Agent to a device: ◆ Use ZENworks Control Center to deploy the agent from a ZENworks Server to the device. ◆ At the device, use a Web browser to download the agent from a ZENworks Server and install it. ◆ Include the agent in an image and apply the image to the device. For instructions, see Section 4.3, “Installing the ZENworks Adaptive Agent,” on page 43.
Log in and use the ZENworks Adaptive Agent	To receive user-assigned bundles and policies on a device, you must log in to the Management Zone. In addition, you can control the Adaptive Agent functionality by enabling or disabling various Adaptive Agent features. For instructions, see Section 4.4, “Using the ZENworks Adaptive Agent,” on page 49.

1.3 Device Management

ZENworks provides a variety of tasks you can perform to manage your devices. The following tasks can be done as needed and in any order.

Table 1-3 *Device Management*

Task	Details
Distribute software	Distribute software through the use of bundles. Bundles include the software files and instructions required to install, launch, and uninstall (when necessary) the software. You can create bundles to distribute Windows* Installer applications (both MSI and MSP), non-Windows Installer applications, Web links, and thin-client applications. For instructions, see Section 5.1, “Distributing Software,” on page 61.
Apply policies	Control device behavior through the application of policies. ZENworks lets you create and apply Windows Group policies, roaming profile policies, browser bookmark policies, printer policies, and more. For instructions, see Section 5.2, “Applying Policies,” on page 63.

Task	Details
Take images of and apply images to devices	Create images of devices, apply images to devices, and run imaging scripts on devices. ZENworks Configuration Management uses its Preboot Services functionality to perform these imaging tasks on devices at startup. For instructions, see Section 5.3, “Imaging Devices,” on page 64.
Remotely manage devices	Remotely access devices to provide user assistance or perform operations. You can control or view a device. You can also execute and transfer files, as well as perform diagnostics to troubleshoot problems with the device. For instructions, see Section 5.4, “Remotely Managing Devices,” on page 72.
Apply software patches to devices	ZENworks Patch Management, a separately licensed product, is included for evaluation in ZENworks Configuration Management. Patch Management lets you apply software patches automatically and consistently to minimize vulnerabilities and issues. For instructions, see Section 5.5, “Patching Software,” on page 79.
Scan devices to collect software and hardware inventory	Scan devices to collect software and hardware inventories for the devices. The inventory information can help you make decisions about software distribution and hardware upgrades. For instructions, see Section 5.6, “Collecting Software and Hardware Inventory,” on page 82.
Monitor software usage	ZENworks Asset Management, a separately licensed product, is included for evaluation in ZENworks 10 Configuration Management. Asset Management lets you generate reports to analyze how much and how often software products are being used. For instructions, see Section 5.7, “Monitoring Software Usage,” on page 84
Monitor software license compliance	ZENworks Asset Management, a separately licensed product, is included for evaluation in ZENworks 10 Configuration Management. Asset Management lets you compare actual product installations with purchased licenses to determine your organization’s compliance with the product license agreement. For instructions, see Section 5.8, “Monitoring License Compliance,” on page 86.
Retire devices	Retire a server or workstation to remove if from your ZENworks Zone. For instructions, see Section 5.9, “Retiring Devices,” on page 93.

1.4 System Messages and Reports

As you perform management tasks in your zone, information is recorded so that you can view the status of your zone and the activities taking place within it.

Table 1-4 *System Messages and Reports Tasks*

Task	Details
View system messages	The ZENworks system generates informational, warning, and error messages to help you monitor activities such as the distribution of software and application of policies. For instructions, see Section 6.1, “Viewing System Messages,” on page 95.
Create a Watch List	If you have devices, bundles, and policies whose activity you want to closely monitor, you can add them to the Watch List. For instructions, see Section 6.2, “Creating a Watch List,” on page 98.
Generate reports	Generate reports for devices, bundles, policies, and much more. For instructions, see Section 6.3, “Generating Reports,” on page 99.

Management Tools Quick View

2

Novell® ZENworks® 10 Configuration Management provides both a Web-based console (ZENworks Control Center) and a command line utility (zman) that you can use to manage your ZENworks system. The following sections explain how to access and use the management tools:

- Section 2.1, "ZENworks Control Center," on page 15
- Section 2.2, "zman Command Line Utility," on page 17
- Section 2.3, "zac Command Line Utility," on page 18

2.1 ZENworks Control Center

ZENworks Control Center is installed on all ZENworks Servers in the Management Zone. You can perform all management tasks on any ZENworks Server.

- Section 2.1.1, "Accessing ZENworks Control Center," on page 15
- Section 2.1.2, "Navigating ZENworks Control Center," on page 16

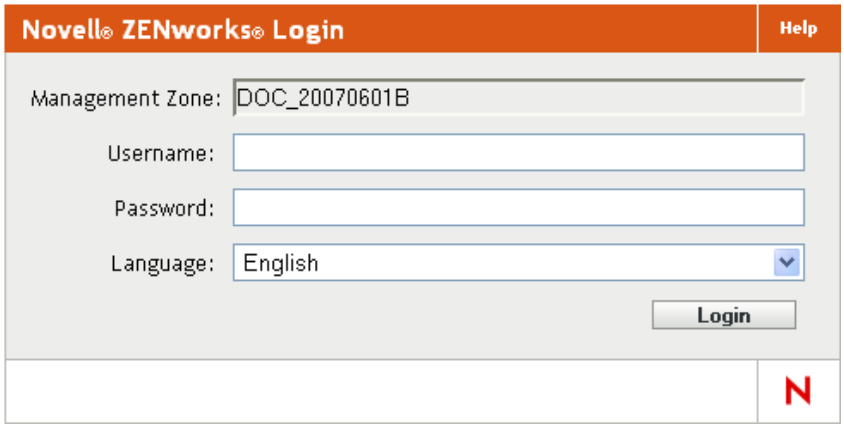
2.1.1 Accessing ZENworks Control Center

1. Using a Web browser that meets the requirements listed in "Administration Browser Requirements" in the *ZENworks 10 Configuration Management Installation Guide*, enter the following URL:

   `https://ZENworks_Server_Address:port`

   Replace *ZENworks_Server_Address* with the IP address or DNS name of the ZENworks Server. You only need to specify the *port* if you are not using one of the default ports (80 or 443). ZENworks Control Center requires an HTTPS connection; HTTP requests are redirected to HTTPS.

   The login dialog box is displayed.



2. In the *Username* field, type `Administrator`.
3. In the *Password* field, type the Administrator password created during installation.

To prevent unauthorized users from gaining access to ZENworks Control Center, the administrator account is disabled after three unsuccessful login attempts, and a 60-second timeout is enforced before you can attempt another login. To change these default values, see "Changing the Default Login Disable Values" in the *ZENworks 10 Configuration Management System Administration Reference*.

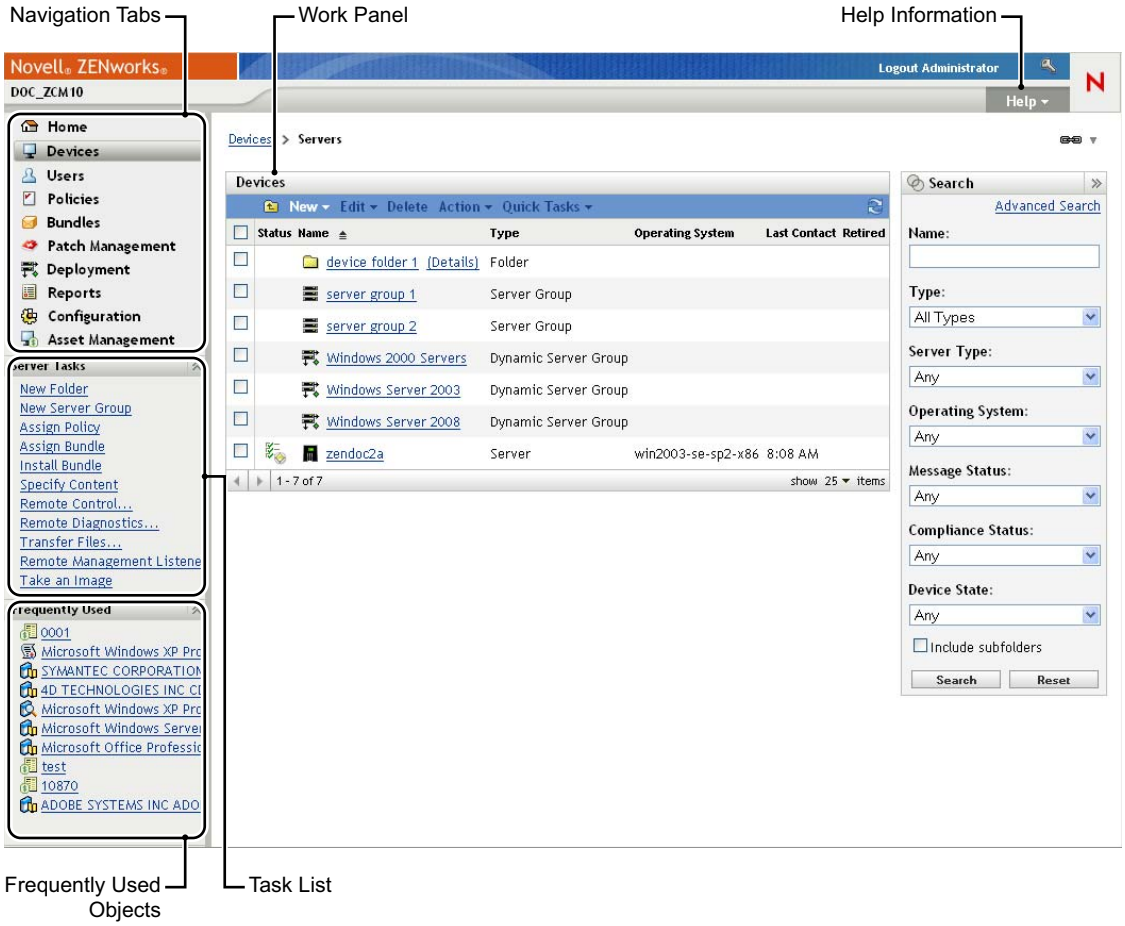
4 Click *Login* to display ZENworks Control Center.

For more detailed information on logging in as a different administrator, see "Accessing ZENworks Control Center" in the *ZENworks 10 Configuration Management System Administration Reference*.

NOTE: If you use Novell iManager as the management tool for other Novell products, you can set up ZENworks Control Center to be available through iManager. For instructions, see "Accessing ZENworks Control Center through Novell iManager" in the *ZENworks 10 Configuration Management System Administration Reference*.

2.1.2 Navigating ZENworks Control Center

The following Servers page represents a standard view in ZENworks Control Center.



Navigation Tabs: The tabs in the left pane let you navigate among the functional areas of ZENworks. For example, the Servers page shown above lets you manage tasks associated with servers.

Task List: The task list in the left pane provides quick access to the most commonly performed tasks for the current page. The task list changes for each page. For example, the task list on the Bundles page displays bundle-related tasks and the task list on the Devices page displays device-related tasks.

Frequently Used Objects: The Frequently Used list in the left pane displays the 10 objects that you have accessed most often, from most used to least used. Clicking an object takes you directly to the details page for the object.

Work Panel: The work panels are where you monitor and manage your ZENworks system. The panels change depending on the current page. In the above example, there are two work panels: *Devices* and *Search*. The *Devices* panel lists the servers, folders, server groups, and dynamic server groups that have been created; you use this panel to manage servers. The *Search* panel lets you filter the Devices panel based on criteria such as a server's name, operating system, or status.

Help Information: The Help button links to Help topics that provide information about the current page. The Help button links change depending on the current page.

2.2 zman Command Line Utility

The zman utility provides a command line management interface that lets you perform most of the tasks available in ZENworks Control Center You cannot perform imaging and preboot tasks, Remote Management tasks, and software patching tasks.

The primary purpose of the zman utility is to enable you to perform operations through a script. However, you can also perform operations manually at a command line.

- Section 2.2.1, "Location," on page 17
- Section 2.2.2, "Syntax," on page 17
- Section 2.2.3, "Help with Commands," on page 18

2.2.1 Location

The utility is installed on all ZENworks Servers in the following location:

```
%ZENWORKS_HOME%\bin
```

where `%ZENWORKS_HOME%` represents the ZENworks installation path. On Windows, the default path is `c:\novell\zenworks\bin`. On Linux*, the default path is `/opt/novell/zenworks/bin`.

2.2.2 Syntax

The zman utility uses the following basic syntax:

```
zman category-action [options]
```

For example, to assign a software bundle to a device, you use the following command:

```
zman bundle-assign workstation bundle1 wks1
```

where `bundle-assign` is the category-action and `workstation bundle1 wks1` are the options. In this example, the options are device type (workstation), bundle name (bundle1), and target device (wks1).

2.2.3 Help with Commands

The best way to understand the commands is to use the online help or see "zman(1)" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

To use the online help:

1 On the ZENworks Server, enter `zman --help` at a command prompt.

   This command displays the basic usage (syntax) and a list of the available command categories. You can also use the following to get help:

Command	Description
`zman --help | more`	Displays a complete list of commands by category.
`zman` *`category`* `--help | more`	Displays a complete list of commands within a category.
`zman` *`command`* `--help | more`	Displays help for a command

2.3 zac Command Line Utility

The zac utility provides a command line management interface that lets you perform tasks available in the ZENworks Adaptive Agent.

- Section 2.3.1, "Location," on page 18
- Section 2.3.2, "Syntax," on page 18
- Section 2.3.3, "Help with Commands," on page 19

2.3.1 Location

The utility is installed on all Windows managed devices in the following location:

```
%ZENWORKS_HOME%\bin
```

where `%ZENWORKS_HOME%` represents the ZENworks installation path. The default path is `c:\program files\novell\zenworks\bin` on a 32-bit Windows device and `c:\program files (x86)\novell\zenworks\bin` on a 64-bit Windows device.

2.3.2 Syntax

The zac utility uses the following basic syntax:

```
zac command options
```

For example, to launch a bundle on a device, you use the following command:

```
zac bundle-launch "bundle 1"
```

where `bundle-launch` is the command and `bundle 1` is the command option. In this example, the option is the display name of the bundle to be launched. Enclosing quotation marks are required only if the bundle display name includes spaces.

2.3.3 Help with Commands

The best way to understand the commands is to use the online help or see "zac(1)" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

To use the online help:

1. On the managed device, enter one of the following commands at a command prompt.

Command	Description
`zac --help`	Displays a complete list of commands.
`zac` *`command`* `--help`	Displays detailed help for a command.

Zone Configuration

3

Novell® ZENworks® 10 Configuration Management is designed to let you efficiently manage a large number of devices and users with as little effort as possible. The first step in easing this management burden is to ensure that you've configured your Management Zone so that you can take full advantage of the ZENworks capabilities.

The following sections introduce the basic concepts you need to set up a Management Zone that best supports the ongoing management tasks you perform. Each section explains a management concept and provides general steps to perform the tasks associated with the concept.

- Section 3.1, "Organizing Devices: Folders and Groups," on page 21
- Section 3.2, "Registering Devices," on page 27
- Section 3.3, "Connecting to User Sources," on page 32
- Section 3.4, "Creating ZENworks Administrator Accounts," on page 33
- Section 3.5, "Modifying Configuration Settings," on page 36

3.1 Organizing Devices: Folders and Groups

Using ZENworks Control Center, you can manage devices by performing tasks directly on individual device objects. However, this approach is not very efficient unless you have only a few devices to manage. To optimize management of a large number of devices, ZENworks lets you organize devices into folders and groups; you can then perform tasks on a folder or group to manage its devices.

You can create folders and groups at any time. However, the best practice is to create folders and groups before you register devices in your zone. This allows you to use registration keys and rules to automatically add devices to the appropriate folders and groups when they register (see "Registering Devices" on page 27).

- Section 3.1.1, "Folders," on page 21
- Section 3.1.2, "Groups," on page 23
- Section 3.1.3, "Assignment Inheritance for Folders and Groups," on page 27

3.1.1 Folders

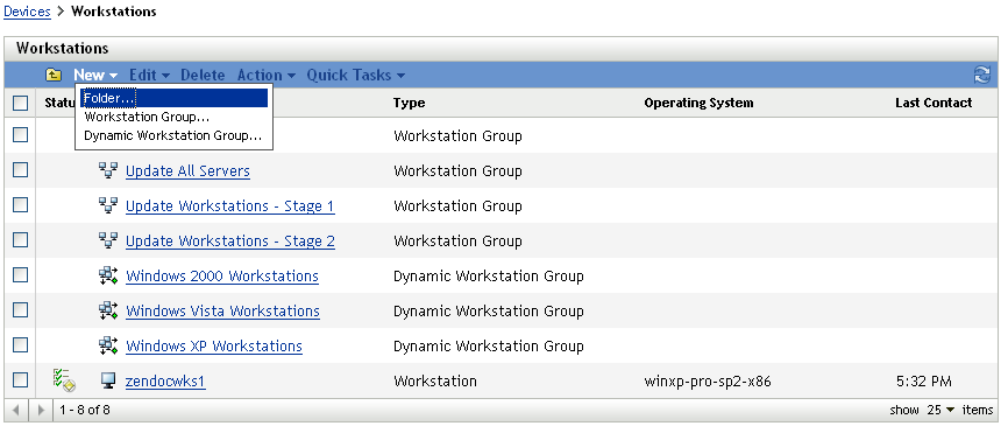
Folders are a great tool to help you organize devices in order to simplify management of those devices. You can apply configuration settings, assign content, and perform tasks on any folder. When you do so, the folder's devices inherit those settings, assignments, and tasks.

For best results, you should place devices with similar configuration setting requirements in the same folder. If all devices in the folder require the same content or tasks, you can also make content or task assignments on the folder. However, all devices in the folder might not have the same content and task requirements. Therefore, you can organize the devices into groups and assign the appropriate content and tasks to each groups (see "Groups" on page 23 below).

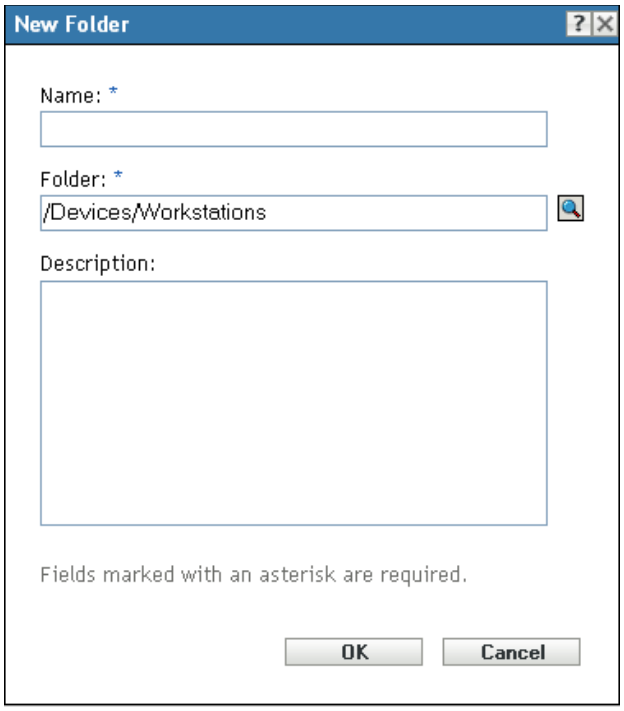
For example, assume that you have workstations at three different sites. You want to apply different configuration settings to the workstations at the three sites, so you create three folders (`/Workstations/Site1`, `/Workstations/Site2`, and `/Workstations/Site3`) and place the appropriate workstations in each folder. You decide that most of the configuration settings apply to all workstations, so you configure those settings at the Management Zone. However, you want to perform a weekly collection of software and hardware inventory at Site1 and Site2 and a monthly inventory collection at Site3. You configure a weekly inventory collection at the Management Zone and then override the setting on the Site3 folder to apply a monthly schedule. Site1 and Site2 collect inventory weekly, and Site3 collects inventory monthly.

Creating a Folder

1. In ZENworks Control Center, click the *Devices* tab.
2. Click the *Workstations* folder.



3. Click *New* > *Folder* to display the New Folder dialog box.



4 In the *Name* field, type a name for the new folder.

When you name an object in the ZENworks Control Center (folders, groups, bundles, policies, and so forth), ensure that the name adheres to the following conventions:

- The name must be unique in the folder.
- Depending on the database software being used for the ZENworks database, uppercase and lowercase letters might not create uniqueness for the same name. The embedded database included with ZENworks Configuration Management is case insensitive, so Folder 1 and FOLDER 1 are the same name and cannot be used in the same folder. If you use an external database that is case-sensitive, Folder 1 and FOLDER 1 are unique.
- If you use spaces, you must enclose the name in quotes when entering it on the command line. For example, you must enclose Folder 1 in quotes (“Folder 1”) when entering it in the zman utility.
- The following characters are invalid and cannot be used: / \ * ? : " ' < > | ` % ~

5 Click *OK* to create the folder.

You can also use the `workstation-folder-create` and `server-folder-create` commands in the zman utility to create device folders. For more information, see “Workstation Commands” and “Server Commands” in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

3.1.2 Groups

As you can with folders, you can also assign content and perform tasks on device groups. When you do so, the group’s devices inherit those assignments and tasks. Unlike with folders, you cannot apply configuration settings to groups.

Groups provide an additional layer of flexibility for content assignments and tasks. In some cases, you might not want to assign the same content to and perform the same task on all devices in a folder. Or, you might want to assign the same content to and perform tasks on one or more devices in different folders. To do so, you can add the devices to a group (regardless of which folders contain the devices) and then assign the content to and perform the tasks on the group.

For example, let's revisit the example of the workstations at three different sites (see Section 3.1.1, "Folders," on page 21). Assume that some of the workstations at each site need the same accounting software. Because groups can be assigned software, you could create an Accounting group, add the target workstations to the group, and then assign the appropriate accounting software to the group.

The advantage to making an assignment to a group is that all devices contained in that group receive the assignment, but you only need to make the assignment one time. In addition, a device can belong to any number of unique groups, and the assignments from multiple groups are additive. For example, if you assign a device to group A and B, it inherits the software assigned to both groups.

ZENworks provides both groups and dynamic groups. From the perspective of content assignments or performing tasks, groups and dynamic groups function exactly the same. The only difference between the two types of groups is the way that devices are added to the group. With a group, you must manually add devices. With a dynamic group, you define criteria that a device must meet to be a member of the group, and then devices that meet the criteria are automatically added.

ZENworks include several predefined dynamic server groups (Windows 2000 Servers and Windows 2003 Servers) and dynamic workstation groups (Windows XP Workstation, Windows 2000 Workstation, and Windows Vista Workstations). Any devices that have these operating systems are automatically added to the appropriate dynamic group.

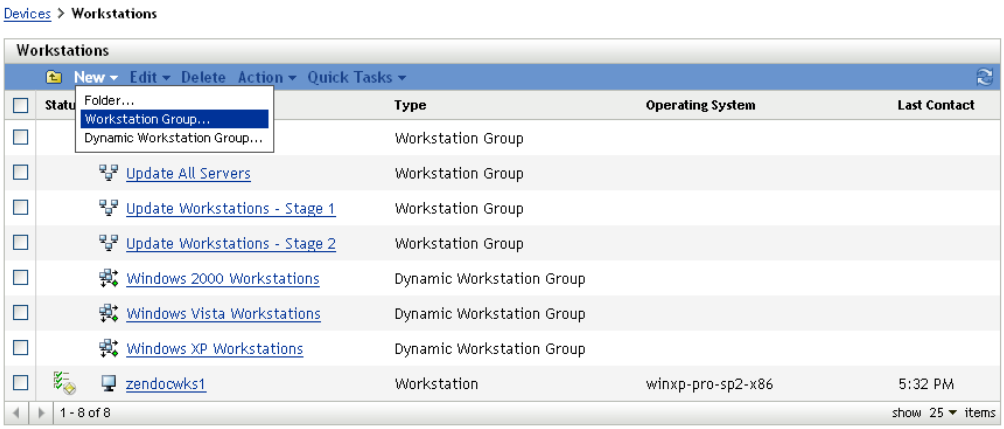
Creating a Group

1 In ZENworks Control Center, click the *Devices* tab.

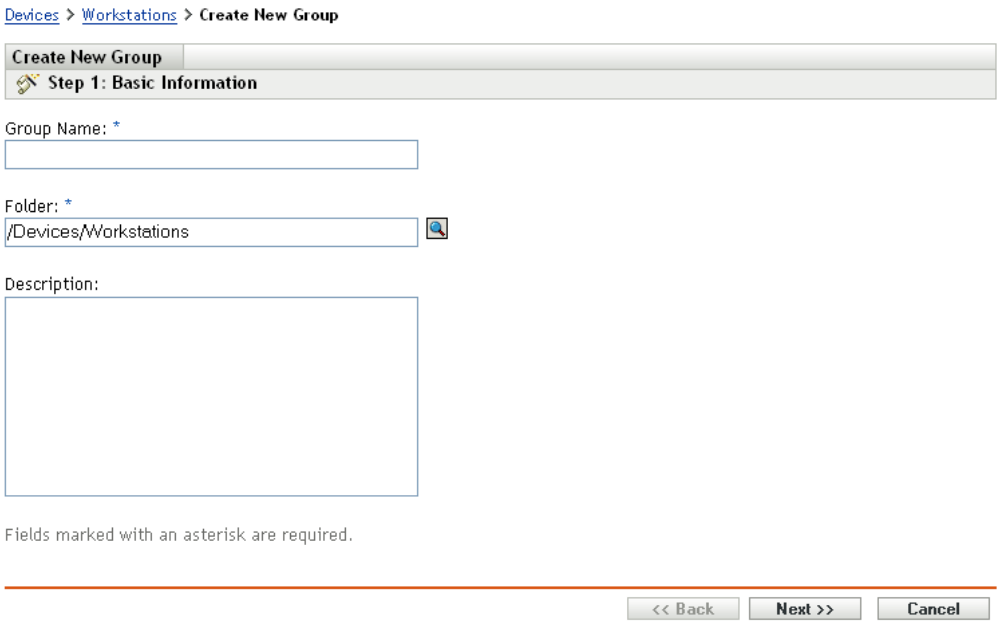
2 If you want to create a group for servers, click the *Servers* folder.

or

If you want to create a group for workstations, click the *Workstations* folder.



3 Click *New* > *Server Group* (or *New* > *Workstation Group* for workstations) to launch the Create New Group Wizard.



4 On the Basic Information page, type a name for the new group in the *Group Name* field, then click *Next*.

   The group name must follow the naming conventions.

5 On the Summary page, click *Finish* to create the group without adding members.

   or

   Click *Next* if you want to add members to the group, then continue with Step 6.

6 On the Add Group Members page, click *Add* to add devices to the group, then click *Next* when finished adding devices.

7 On the Summary page, click *Finish* to create the group.

You can also use the `workstation-group-create` and `server-group-create` commands in the zman utility to create device groups. For more information, see "Workstation Commands" and "Server Commands" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

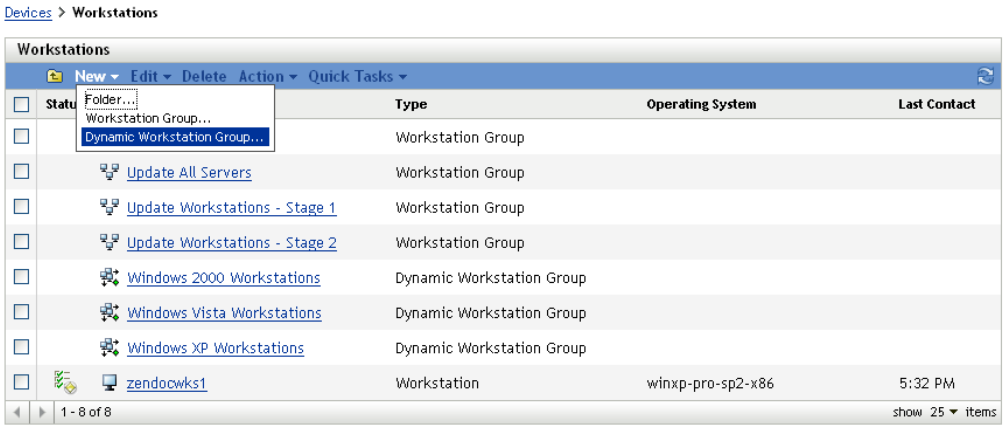
Creating a Dynamic Group

1 In ZENworks Control Center, click the *Devices* tab.

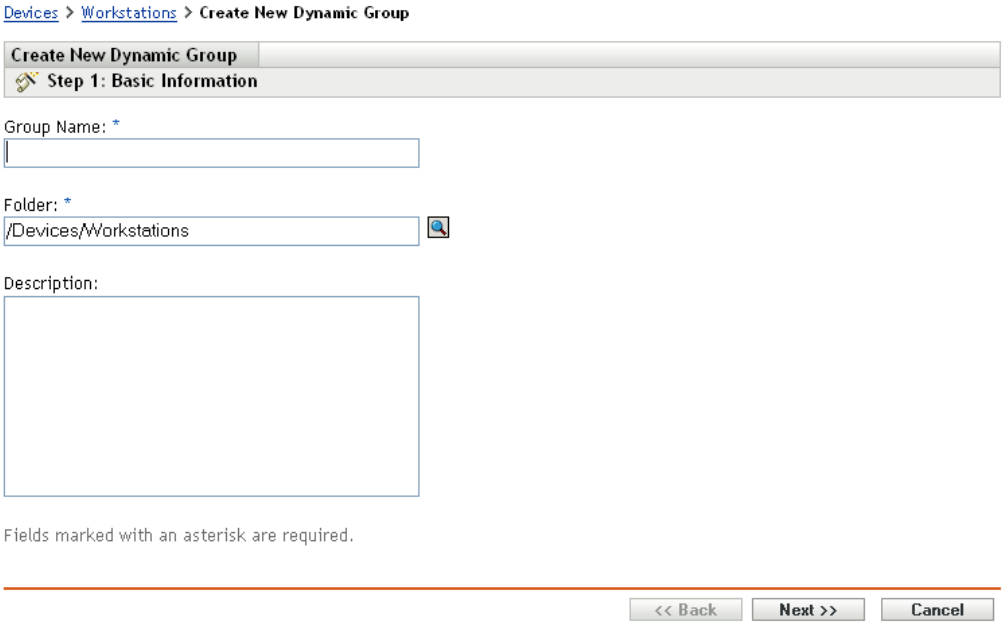
2 If you want to create a group for servers, click the *Servers* folder.

   or

   If you want to create a group for workstations, click the *Workstations* folder.



3 Click *New* > *Dynamic Server Group* (or *New* > *Dynamic Workstation Group* for workstations) to launch the Create New Group Wizard.



4 On the Basic Information page, type a name for the new group in the *Group Name* field, then click *Next*.

The group name must follow the naming conventions.

5 On the Define Filter for Group Members page, define the criteria that a device must meet to become a member of the group, then click *Next*.

Click the *Help* button for details about creating the criteria.

6 On the Summary page, click *Finish* to create the group.

3.1.3 Assignment Inheritance for Folders and Groups

When you assign a content to a folder, all objects (users, devices, subfolders) except groups that are located in the folder inherit the assignment. For example, if you assign a BundleA to DeviceFolder1, all devices within the folder (including all devices in subfolders) inherit the BundleA assignment. However, none of the device groups located in DeviceFolder1 inherit the assignment. Essentially, folder assignments do not flow down to groups located within the folder.

3.2 Registering Devices

When you deploy the ZENworks Adaptive Agent to a device, the device is registered in your Management Zone and becomes a managed device. As part of the registration, you can specify the device's ZENworks name and the folder and groups to which you want the device added.

By default, a device's hostname is used as its ZENworks name, it is added to the `/Servers` or `/Workstations` folder, and it is not given membership in any groups. You can manually move devices to other folders and add them to groups, but this can be a burdensome task if you have a large number of devices or if you are consistently adding new devices. The best way to manage a large number of devices is to have them automatically added to the correct folders and groups during registration.

To add devices to folders and groups during registration, you can use registration keys, registration rules, or both. Both registration keys and registration rules let you assign folder and group memberships to a device. However, there are differences between keys and rules that you should be aware of before choosing whether you want to use one or both methods for registration.

- Section 3.2.1, "Registration Keys," on page 27
- Section 3.2.2, "Registration Rules," on page 29
- Section 3.2.3, "Device Naming Template," on page 30
- Section 3.2.4, "Where to Find More Information," on page 32

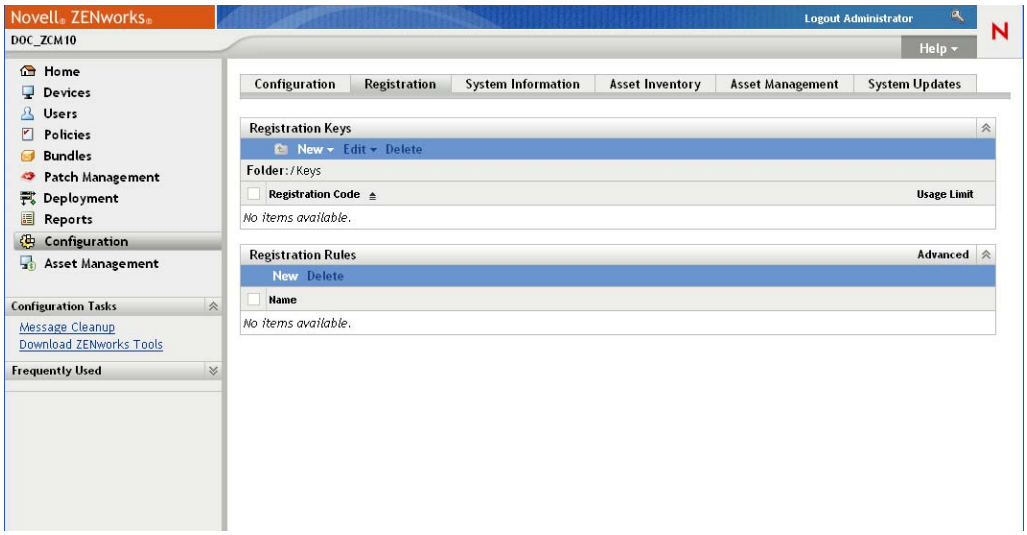
3.2.1 Registration Keys

A registration key is an alphanumeric string that you manually define or randomly generate. During deployment of the ZENworks Adaptive Agent on a device, the registration key must be provided. When the device connects to a ZENworks Server for the first time, the device is added to the folder and groups defined within the key.

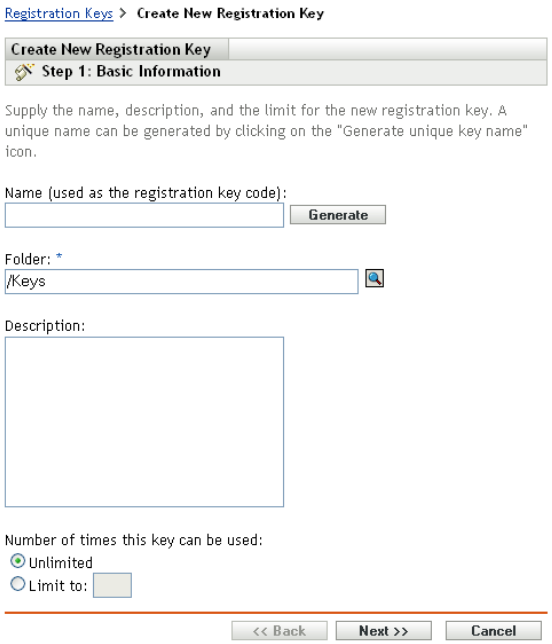
You can create one or more registration keys to ensure that devices are placed in the desired folders and groups. For example, you might want to ensure that all of the Sales department's workstations are added to the `/Workstations/Sales` folder but are divided into three different groups (SalesTeam1, SalesTeam2, SalesTeam3) depending on their team assignments. You could create three different registration keys and configure each one to add the Sales workstations to the `/Workstations/Sales` folder and the appropriate team group. As long as each workstation uses the correct registration key, it is added to the appropriate folder and group.

To create a registration key:

1. In ZENworks Control Center, click the *Configuration* tab, then click the *Registration* tab.



2 In the Registration Keys panel, click *New* > *Registration Key* to launch the Create New Registration Key Wizard.



3 Follow the prompts to create the key.

For information about what you need to supply at each step of the wizard, click the *Help* button.

You can also use the `registration-create-key` command in the zman utility to create a registration key. For more information, see "Registration Commands" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

3.2.2 Registration Rules

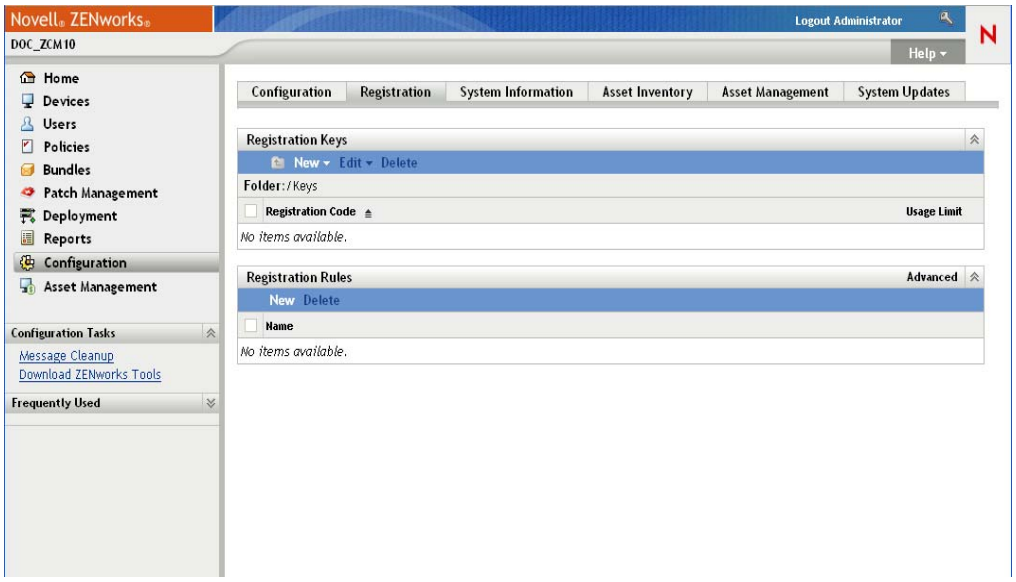
If you don't want to enter a registration key during deployment, or if you want devices to be automatically added to different folders and groups based on predefined criteria (for example, operating system type, CPU, or IP address), you can use registration rules.

ZENworks includes a default registration rule for servers and another one for workstations. If a device registers without a key and you haven't created registration rules, the default registration rules are applied to determine the folder assignments. The two default rules cause all servers to be added to the `/Servers` folder and all workstations to the `/Workstations` folder.

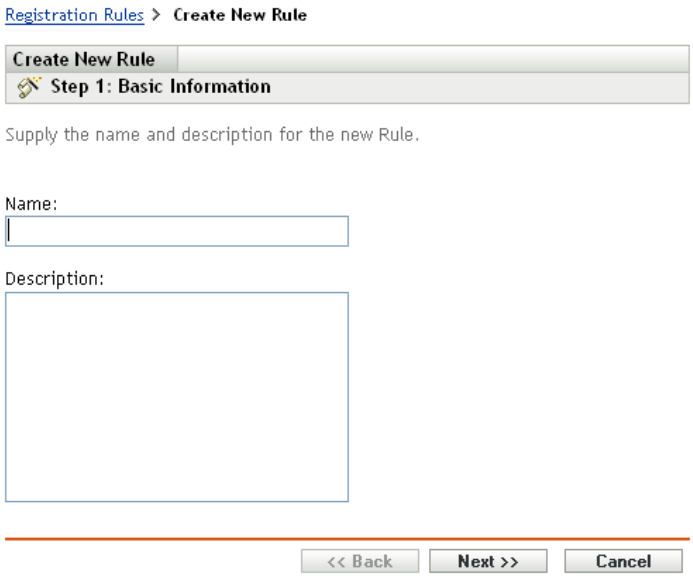
The two default rules are designed to ensure that no server or workstation registration fails. Therefore, you cannot delete or modify these two default rules. You can, however, define additional rules that enable you to filter devices as they register and add them to different folders and groups. If, as recommended in Section 3.1, "Organizing Devices: Folders and Groups," on page 21, you've established folders for devices with similar configuration settings and groups for devices with similar assignments, then newly registered devices automatically receive the appropriate configuration settings and assignments.

To create a registration rule:

1 In ZENworks Control Center, click the *Configuration* tab, then click the *Registration* tab.



2 In the Registration Rules panel, click *New* to launch the Create New Registration Rule Wizard.



3 Follow the prompts to create the rule.

   For information about what you need to supply at each step of the wizard, click the *Help* button.

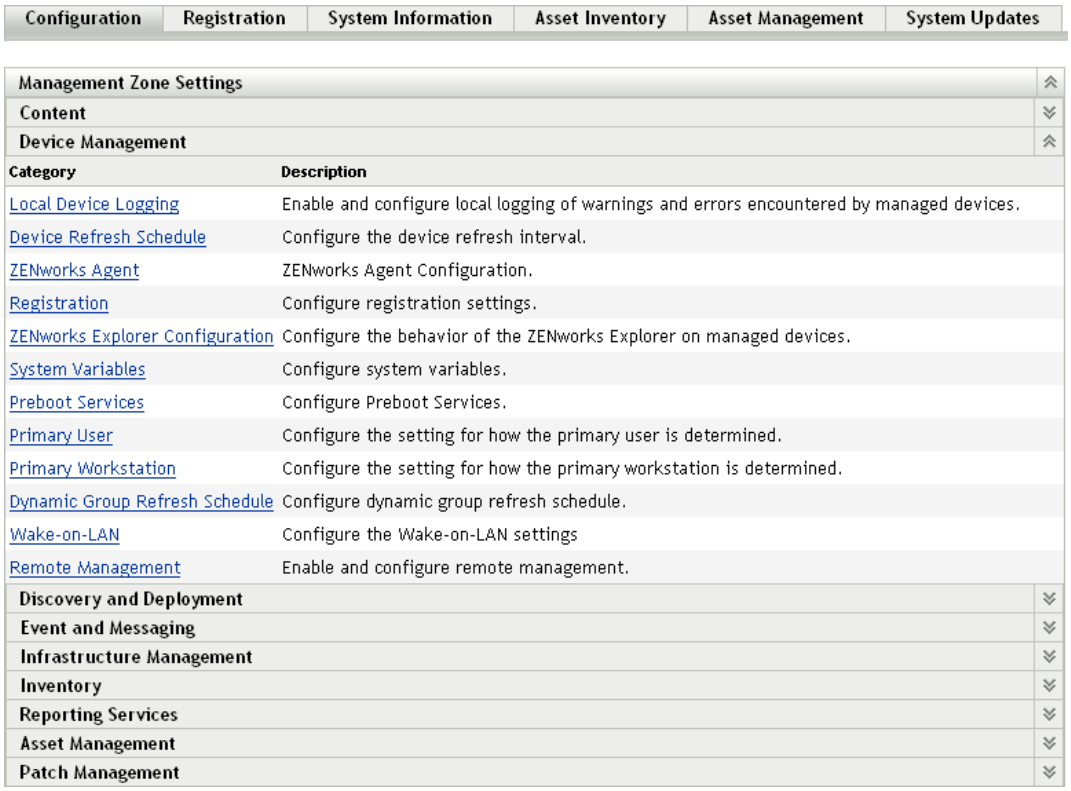
You can also use the `ruleset-create` command in the zman utility to create a registration rule. For more information, see "Ruleset Commands" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

3.2.3 Device Naming Template

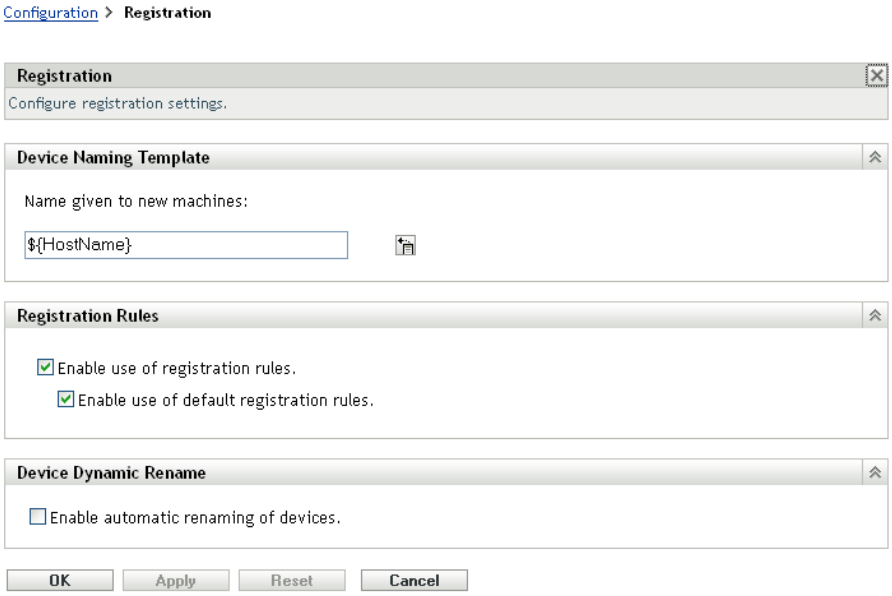
The device naming template determines how devices are named when they register. By default, a device's hostname is used. You can change it to use any combination of the following machine variables: ${HostName}, ${GUID}, ${OS}, ${CPU}, ${DNS}, ${IPAddress}.

1 In ZENworks Control Center, click the *Configuration* tab.

2 In the Management Zone Settings panel, click *Device Management*.



3 Click *Registration* to display the Registration page.



4 In the Device Naming Template panel, click , then select the desired machine variable from the list.

You can use any combination of one or more variables. For example:

```
${HostName}${GUID}
```

5 Click *OK* to save the changes.

3.2.4 Where to Find More Information

For more information about registering devices, see the *ZENworks 10 Configuration Management Discovery, Deployment, and Retirement Reference*.

3.3 Connecting to User Sources

In addition to assigning content to devices, you can assign it to users. Unlike device-assigned content, user-assigned content is available on a device only when the user is logged in to the Management Zone.

To be able to assign content to users, you can create a read-only connection to an LDAP directory that contains the users. This creates user object references in the ZENworks database, which exposes the users in ZENworks Control Center and enables you to make the assignments. Your LDAP directory is not affected; ZENworks requires only read access to the LDAP directory and stores all assignment information in the ZENworks database. For more detailed information about the specific read rights required when connecting to a user source, see the *ZENworks 10 Configuration Management System Administration Reference*.

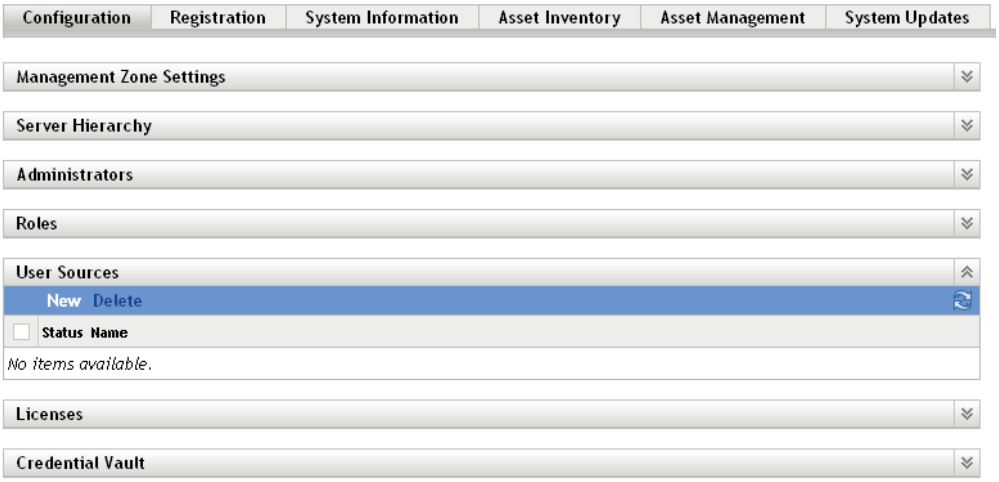
You can connect to Novell eDirectory™ and Microsoft* Active Directory* as user sources. The minimum requirements are Novell eDirectory 8.7.3 and Microsoft Active Directory on Windows 2000 SP4. The minimum LDAP requirement is version 3.

After you connect to an LDAP directory, you define the containers within the directory that you want exposed. For example, assume you have a Microsoft Active Directory domain tree named MyCompany. All users reside in two containers in the MyCompany tree: MyCompany/Users and MyCompany/Temp/Users. You could reference the MyCompany tree as the source and the MyCompany/Users and MyCompany/Temp/Users as separate user containers. This limits access within the directory to only those containers that include users.

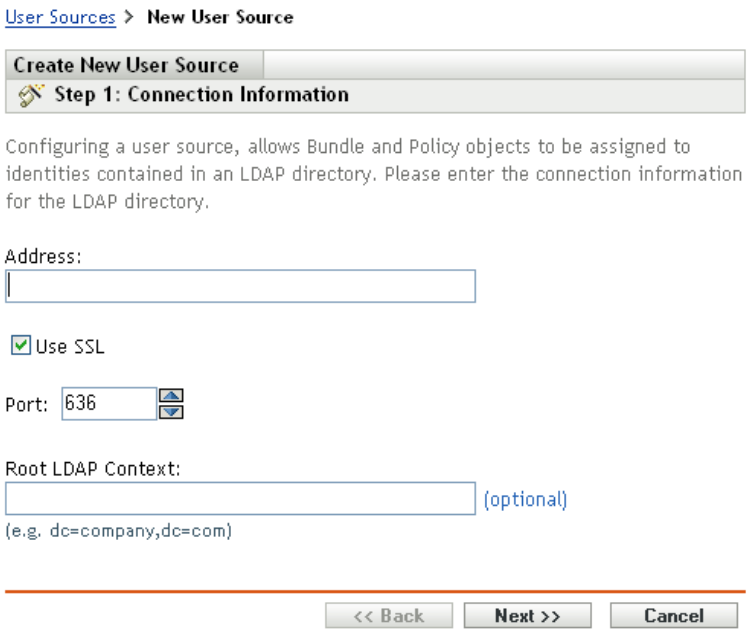
In addition to the users that reside within the containers you add, ZENworks Control Center also displays any user groups located in the containers. This enables management of both individual user and groups of users

To connect to a user source:

1 In ZENworks Control Center, click the *Configuration* tab.



2 In the User Sources panel, click *New* to launch the Create New User Source Wizard.



3 Follow the prompts to create the user source.

For information about what you need to supply at each step of the wizard, click the *Help* button.

You can also use the `user-source-create` command in the zman utility to create a connection to a user source. For more information, see "User Commands" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

3.4 Creating ZENworks Administrator Accounts

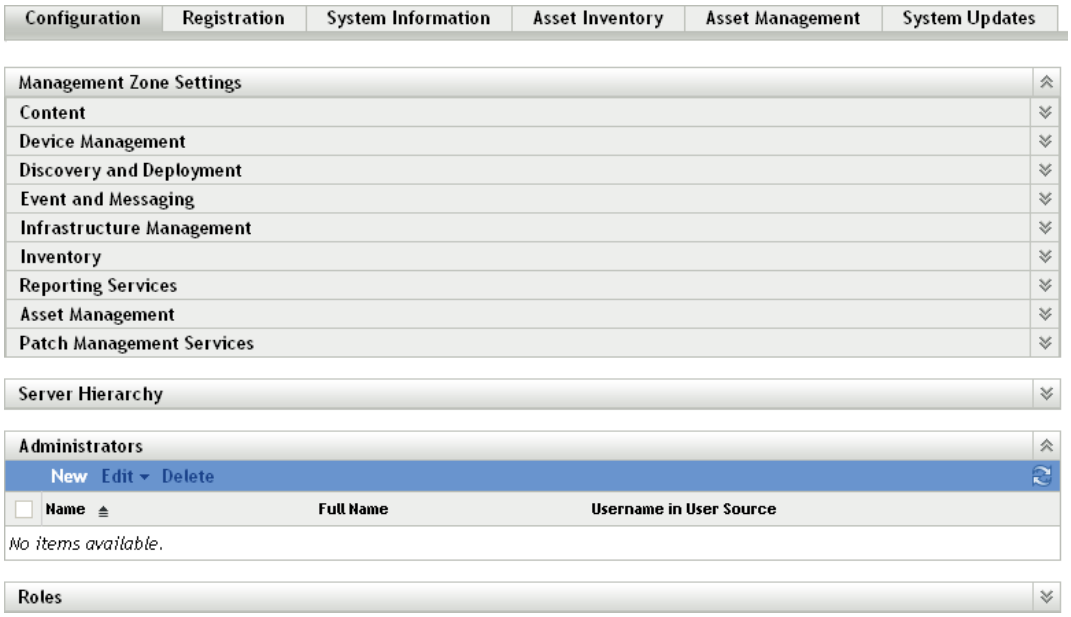
During installation, a default ZENworks administrator account (named Administrator) is created. This account, called a Super Administrator account, provides full administrative rights to the Management Zone.

Typically, you should create administrator accounts for each person who will perform administrative tasks. You can define these accounts as Super Administrator accounts, or you can define them as administrator accounts with restricted rights. For example, you could give a user an administrator account that only enables him or her to discover and register devices in the Management Zone.Or the account could only enable the user to assign bundles to devices. Or, the account might be limited to performing asset management tasks such as contract, license, and document management.

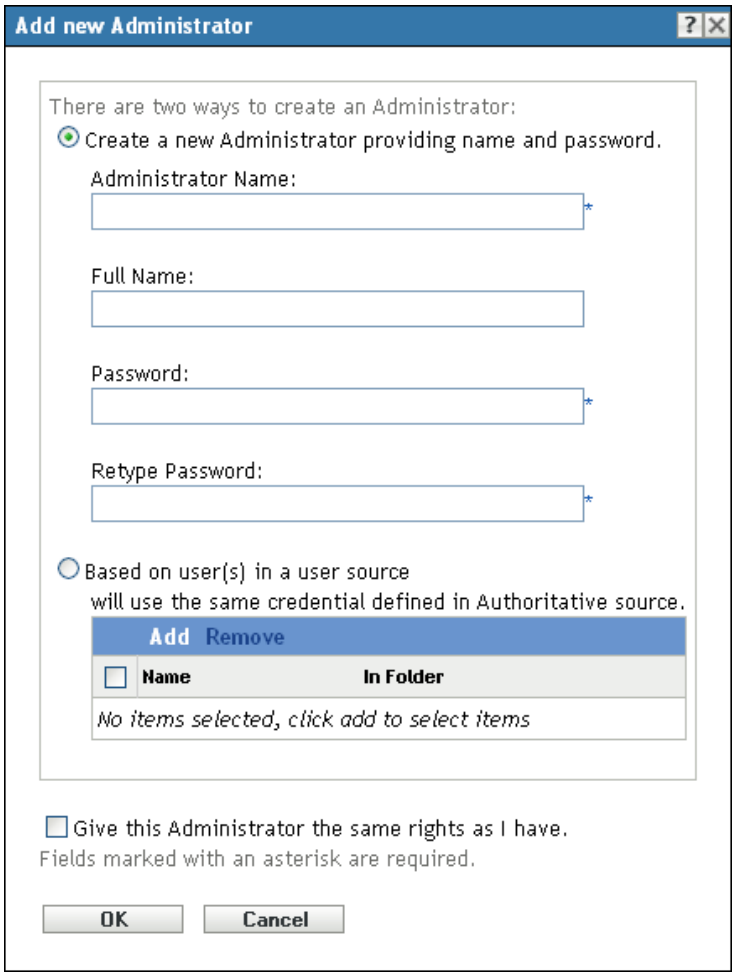
In some cases, you might have multiple administrator accounts that require the same administrative rights. Rather than assign rights to each account individually, you can create an administrator role, assign the administrative rights to the role, and then add the accounts to the role. For example, you might have a Help Desk role that provides administrative rights required by several of your administrators.

To create additional administrator accounts:

1 In ZENworks Control Center, click the *Configuration* tab.



2 In the Administrators panel, click *New* to display the Add New Administrator dialog box.



3 Fill in the fields.

The Add New Administrator dialog box lets you create a new administrator account by providing a name and password, or you can create a new administrator based on an existing user in the user source. Optionally, you can give the new administrator the same rights that the logged-in administrator has.

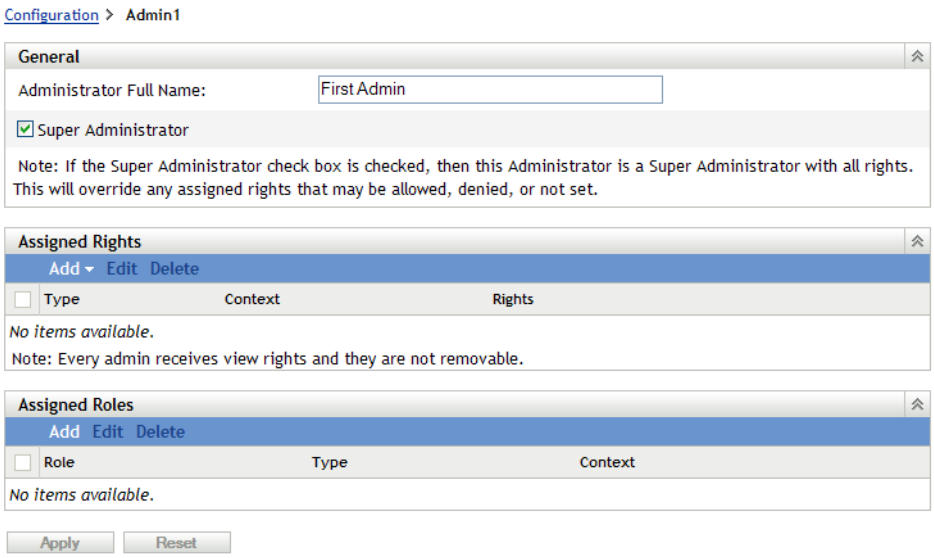
Create a New Administrator by Providing Name, Password: Select this option if you want to create a new administrator account by manually specifying the name and password.

Based on User(s) in a User Source: Select this option if you want to create a new administrator account based on user information from your user source. To do so, click *Add*, then browse for and select the user you want.

Give this Administrator the Same Rights as I Have: Select this option to assign the new administrator the same rights that you have as the currently logged-in administrator.

4 When you have finished filling in the fields, click *OK* to add the new administrator to the Administrators panel.

5 If you need to change the new administrator's rights or roles, click the administrator account to display the account details:



6 Using the Assigned Rights panel, modify the assigned rights.

For information about the options on the page, click the *Help* button, or see "Managing Administrator Rights" in the *ZENworks 10 Configuration Management System Administration Reference*.

7 When you have finished modifying the rights, click *Apply* to save the changes.

For more information about creating ZENworks administrator accounts or administrator roles, see "Administrators" in the *ZENworks 10 Configuration Management System Administration Reference*.

You can also use the `admin-create` command in the zman utility to create a ZENworks administrator account. For more information, see "Administrator Commands" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

3.5 Modifying Configuration Settings

The Management Zone configuration settings enable you to control a wide range of functionality behavior for you zone. There are Content settings that let you control when content can be distributed to devices and how often content is replicated between ZENworks Servers (if you have multiple servers). There are Device Management settings that let you control how often devices access a ZENworks Server for refreshed information, how often dynamic groups are refreshed, and what levels of messages (informational, warning, or error) are logged by the ZENworks Adaptive Agent. There are Event and Messaging settings, Discovery and Deployment settings, and much more.

Management Zone settings that apply to devices are inherited by all devices in the zone. As discussed in Section 3.1, "Organizing Devices: Folders and Groups," on page 21, you can override zone settings by configuring them on device folders or on individual devices. This allows you to establish zone settings that apply to the largest number of devices and then, as necessary, override the settings on folders and devices.

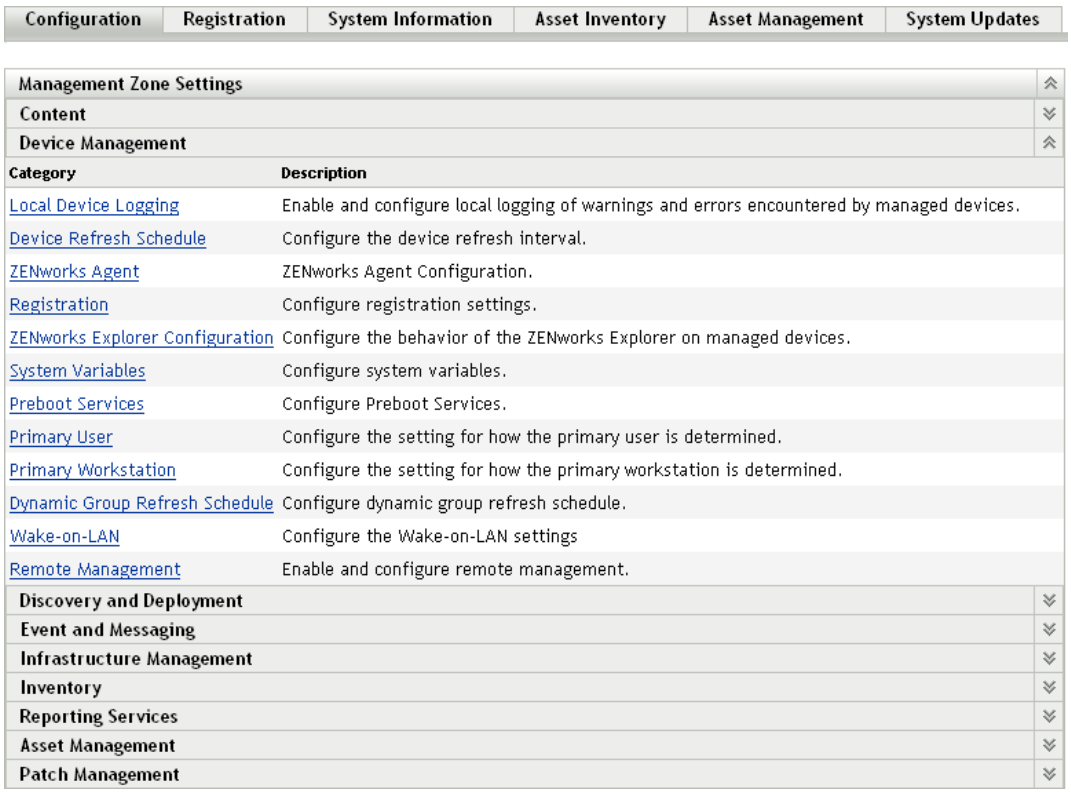
By default, your zone settings are preconfigured with values that provide common functionality. You can, however, change the settings to best adapt them to the behavior you need in your environment.

- Section 3.5.1, “Modifying Configuration Settings at the Zone,” on page 37
- Section 3.5.2, “Modifying Configuration Settings on a Folder,” on page 38
- Section 3.5.3, “Modifying Configuration Settings on a Device,” on page 38

3.5.1 Modifying Configuration Settings at the Zone

1 In ZENworks Control Center, click the *Configuration* tab.

2 In the Management Zone Settings panel, click the settings category (*Content*, *Device Management*, *Discovery and Deployment*, *Event and Messaging*, and so forth) whose settings you want to modify.



3 Click the setting to display its details page.

4 Modify the setting as desired.

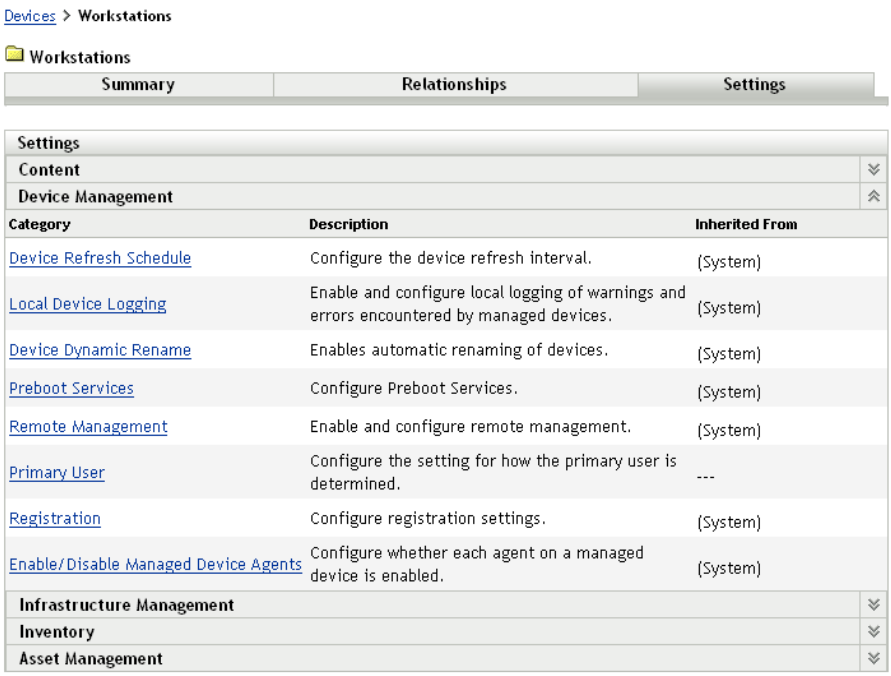
For information about the setting, see “Management Zone Configuration Settings” in the *ZENworks 10 Configuration Management System Administration Reference* or click the *Help* button in ZENworks Control Center.

5 When you have finished modifying the setting, click *OK* (or *Apply*) to save your changes.

If the configuration setting applies to devices, the setting is inherited by all devices in the zone unless the setting is overridden at a folder level or a device level.

3.5.2 Modifying Configuration Settings on a Folder

1. In ZENworks Control Center, click the *Devices* tab.
2. In the Devices panel (on the *Managed* tab), browse for the folder whose settings you want to modify.
3. When you've found the folder, click *Details* next to the folder name to display the folder's details.
4. Click the *Settings* tab.
5. In the Settings panel, click the settings category (*Content*, *Device Management*, *Infrastructure Management*, and so forth) whose settings you want to modify.



6. Click the setting to display its details page.
7. Modify the setting as desired.

   For information about the setting, see "Management Zone Configuration Settings" in the *ZENworks 10 Configuration Management System Administration Reference* or click the *Help* button in ZENworks Control Center.
8. When you have finished modifying the setting, click *OK* (or *Apply*) to save your changes.

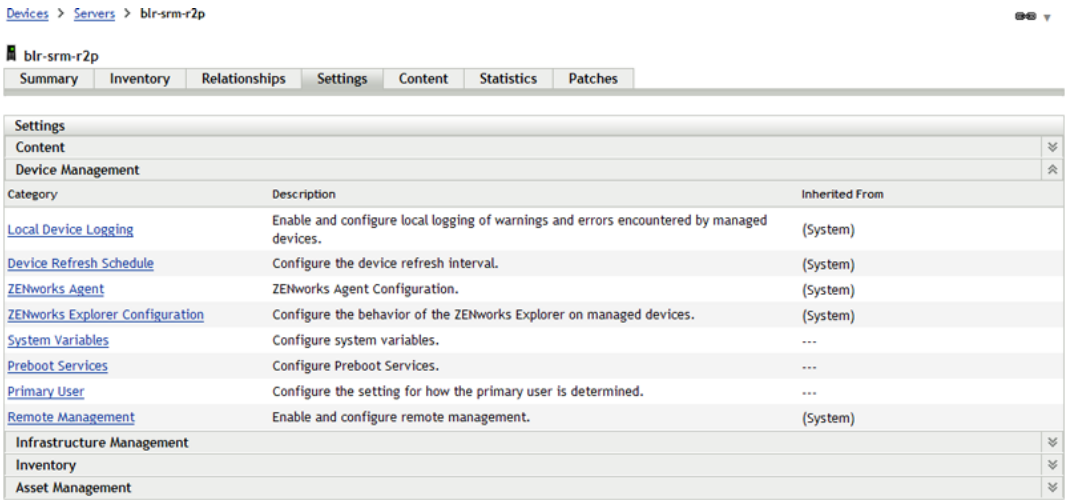
   The configuration setting is inherited by all devices in the folder, including any devices contained in subfolders, unless the setting is overridden on a subfolder or individual device.

3.5.3 Modifying Configuration Settings on a Device

1. In ZENworks Control Center, click the *Devices* tab.
2. In the Devices panel (on the *Managed* tab), browse for the device whose settings you want to modify.
3. When you've found the device, click the device name to display the its details.

4 Click the *Settings* tab.

5 In the Settings panel, click the settings category (*Content*, *Device Management*, *Infrastructure Management*, and so forth) whose settings you want to modify.



6 Click the setting to display its details page.

7 Modify the setting as desired.

For information about the setting, see "Management Zone Configuration Settings" in the *ZENworks 10 Configuration Management System Administration Reference* or click the *Help* button in ZENworks Control Center.

8 When you have finished modifying the setting, click *OK* (or *Apply*) to save your changes.

ZENworks Adaptive Agent Deployment

4

Novell® ZENworks® 10 Configuration Management provides a variety of methods you can use to deploy the ZENworks Adaptive Agent to the devices you want to manage. This section covers two of the most common methods: a Web installation and a ZENworks Control Center deployment task. For information about the other methods, see the *ZENworks 10 Configuration Management Discovery, Deployment, and Retirement Reference*.

If you plan to use a deployment task to install the Adaptive Agent to devices, you must first either use network discovery or file import to add the target devices to your Management Zone. The first two sections listed below explain how to use network discovery and file import. The remaining sections provide installation and usage instructions for the ZENworks Adaptive Agent.

- Section 4.1, "Discovering Network Devices," on page 41
- Section 4.2, "Importing Devices," on page 42
- Section 4.3, "Installing the ZENworks Adaptive Agent," on page 43
- Section 4.4, "Using the ZENworks Adaptive Agent," on page 49

NOTE: If a device does not meet the requirements for installing the ZENworks Adaptive Agent (see "Managed Device Requirements" in the *ZENworks 10 Configuration Management Installation Guide*), you might be able to install the Inventory Only Module on it to support inventorying of the device. For more information, see the *ZENworks 10 Configuration Management Discovery, Deployment, and Retirement Reference*.

4.1 Discovering Network Devices

If you want a ZENworks Server to automatically deploy the ZENworks Adaptive Agent to devices, you must first add the devices to your Management Zone. To do this, you have two options: 1) you can use the ZENworks discovery technology to search for devices on your network and display them in ZENworks Control Center or 2) you can import them from a comma-separated values (CSV) file.

This section explains how to use the discovery technology. If you want to know more about importing devices from a CSV file, see Section 4.2, "Importing Devices," on page 42.

There are two types of discoveries you can perform:

- **IP discovery:** Lets you specify an IP address range. By default, it uses seven discovery technologies (WMI, WinAPI, MAC Address, ZENworks, SNMP, SSH, and NMAP). Each discovery technology returns varying levels of information (OS version, DNS name, and so forth) about the discovered device.
- **LDAP discovery:** Lets you specify an LDAP directory context to search for all device-type objects (workstations, servers, and so forth). Device objects that are found are queried for well-known attributes (dnsHostName, OperatingSystem, wmNameDNS, wmNameOS, and so forth) to attempt to determine the OS version and DNS name of the device.

To perform either of the discoveries, you must create a discovery task. The discovery task lets you identify the source (IP address range or LDAP directory) that you want to search, specify the credentials required to retrieve information from discovered devices, schedule the date and time you want to start the discovery, and select the ZENworks Server you want to perform the discovery. For more information on how to create the discovery tasks, see the *ZENworks 10 Configuration Management Discovery, Deployment, and Retirement Reference*.

4.2 Importing Devices

If you want a ZENworks Server to automatically deploy the ZENworks Adaptive Agent to devices, you must first identify the devices within your Management Zone. To do this, you have two options: 1) you can import them from a comma-separated values (CSV) file, or 2) you can use the ZENworks discovery technology to search for devices on your network and display them in ZENworks Control Center.

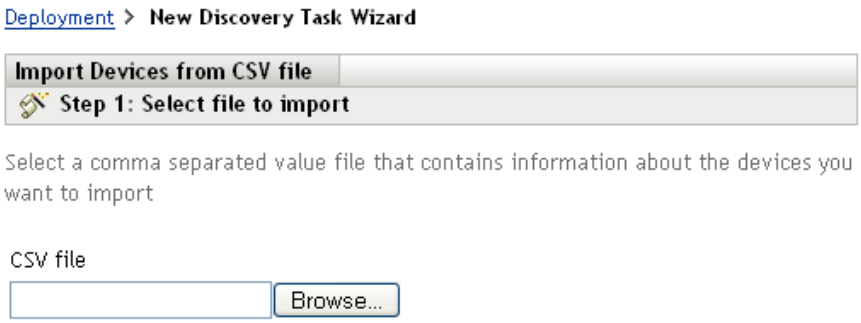
This section explains how to import devices from a CSV file. If you want to know more about using discovery technology, see Section 4.1, "Discovering Network Devices," on page 41.

When you import information from a CSV file, you map the CSV fields to ZENworks database fields. At a minimum, the CSV file must contain the DNS name or IP address for each device you want to import.

To import devices from a CSV file:

1 In ZENworks Control Center, click the *Deployment* tab.

2 In the *Deployment Activities* list in the left navigation panel, click *Import Deployable Devices* to launch the Import Devices from CSV File Wizard.



3 Complete the wizard using information from the following table to fill in the fields.

Wizard Page	Details
Select File to Import page	Browse for and select the CSV file that contains the devices you want to import. At a minimum, the CSV file must contain the DNS name or IP address for each device you want to import.
Configure Import	Map the columns in the CSV file to the device fields in the ZENworks database. At a minimum, you must map the CSV file's DNS name or IP address to the ZENworks database's DNS Name field or IP Address field. To create the information mappings: 1. Click *Add* to display the Specify Import Columns dialog box. 2. Fill in the following fields: **Field:** Select the device field you want to map to a column in the CSV file. **Column:** Specify the number of the column to map to the selected field. 3. Click *OK* to create the information mapping and add it to the list. 4. To verify that the field is mapped to the correct column, click *Show Sample*. 5. Repeat the above steps to create and verify additional information mappings.

When you finish the wizard, the devices are added to the list in the Deployable Devices panel.

4.3 Installing the ZENworks Adaptive Agent

The following sections provide instructions for using the Web installation or a ZENworks Control Center deployment task to install the ZENworks Adaptive Agent on a device.

- Section 4.3.1, "Manual Installation," on page 44
- Section 4.3.2, "ZENworks Control Center Deployment Task," on page 45

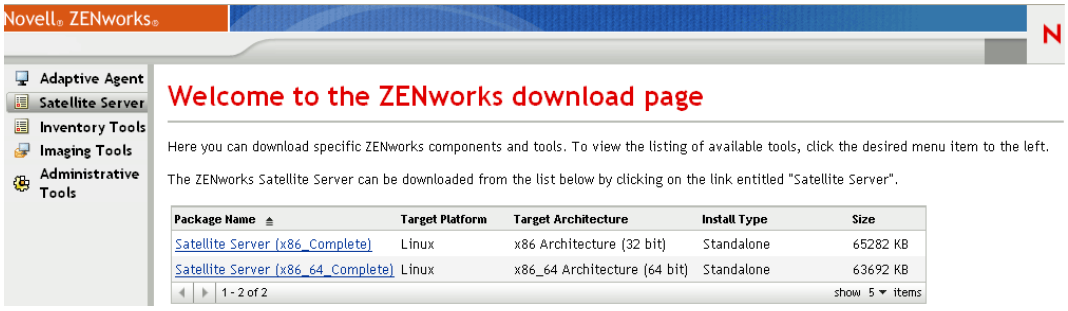
4.3.1 Manual Installation

1 Make sure the device meets the necessary requirements (see "Managed Device Requirements" in the *ZENworks 10 Configuration Management Installation Guide*).

2 On the target device, open a Web browser to the following address:

https://*server*/zenworks-setup

where *server* is the DNS name or IP address of a ZENworks Server.



The Web browser displays a list of deployment packages for the Adaptive Agent. For each architecture (32-bit and 64-bit), there are two types of packages:

Network: The network package downloads and installs only the preagent to the target device; the preagent then downloads and installs the ZENworks Adaptive Agent from the ZENworks Server.

Standalone: The standalone package downloads the preagent and Adaptive Agent to the target device; the preagent then installs the Adaptive Agent from the local device. The standalone package is useful when you need to install the ZENworks Adaptive Agent to a device that is currently disconnected from the network. You can save the package to removable media (CD, USB flash drive, and so forth) and have the standalone device run the package from the media. The Adaptive Agent is installed to the device, but no registration or management occurs until the device connects to the network.

3 Click the name of the deployment package you want to use; save the package to the device's local drive or run it from the ZENworks Server.

4 If you downloaded the package, launch the package on the device.

For information about options you can use with the package when launching it from a command line, see "Manually Deploying the Agent" in the *ZENworks 10 Configuration Management Discovery, Deployment, and Retirement Reference*.

5 Upon completion of the installation, a message is displayed asking whether to reboot. Select one of the following options:

- Do nothing and auto-reboot occurs after 5 minutes.
- Click *Cancel*. You will need to reboot later.
- Click *OK* to reboot immediately.

When the device reboots, it is registered in the Management Zone and the ZENworks icon is placed in the notification area (system tray).

In ZENworks Control Center, the device appears under the `\Servers` folder structure or `\Workstations` folder structure on the Devices page.

6 Skip to Section 4.4, "Using the ZENworks Adaptive Agent," on page 49 for information about logging in and using the Adaptive Agent on a device.

4.3.2 ZENworks Control Center Deployment Task

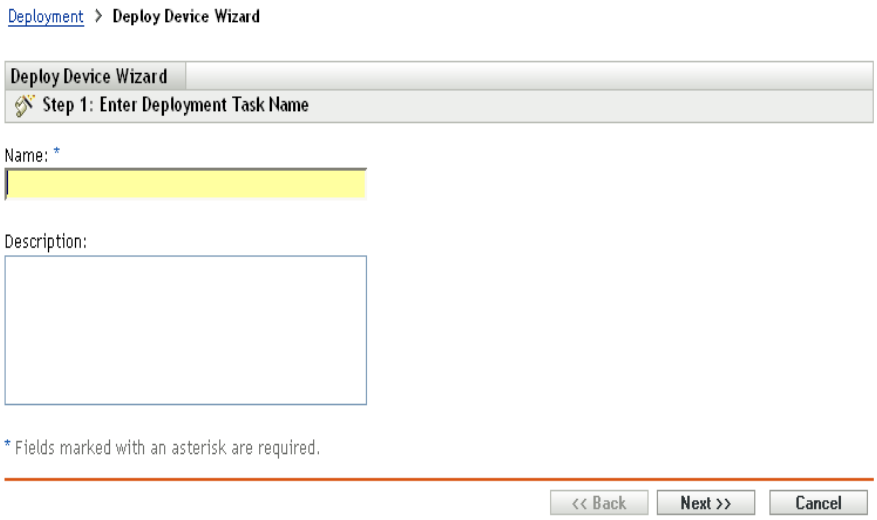
To install the Adaptive Agent by using a deployment task, the target device must be displayed in ZENworks Control Center. This means you must have already completed Section 4.1, "Discovering Network Devices," on page 41 or Section 4.2, "Importing Devices," on page 42.

To create a deployment task:

1 In ZENworks Control Center, click the *Deployment* tab.

The Deployable Device panel lists all the devices (imported or discovered) to which you can deploy the Adaptive Agent.

2 In the Deployment Tasks panel, click *New* to launch the Deploy Device Wizard.



3 Complete the wizard using information from the following table to fill in the fields.

Wizard Page	Details
Enter Deployment Task page	Specify a name for the task. The name cannot include any of the following characters: / \ * ? : " ' < > | ` % ~
Select Devices page	1. Click *Add* to display the Discovered Device Browser dialog box. The default view displays all discovered devices in your Management Zone. 2. Click ➡ to select a device. 3. When you have finished selecting devices, click *OK* to return the Select Devices page. The devices you selected are displayed in the list.
Enter Credentials page > *Save Credentials to DataStore* field	The Enter Credentials page lets you provide the usernames and passwords required to deploy the Adaptive Agent to the devices included in the task. Unless you save the credentials, they are stored only in memory. Saved credentials are encrypted in the database for increased security. Credentials that are not saved are cleared from memory when the ZENworks Server is restarted. If you are creating a scheduled deployment task, you might want to save the credentials to ensure that they are still available when the deployment is performed.
Enter Credentials page > *Credentials* field	To add a credential: 1. Click *Add* to display the Enter Credential Information dialog box. In the *Username* field, specify the appropriate username. To deploy the Adaptive Agent, the ZENworks Server must be able to map a drive to the device's administrative share (ADMIN$). This requires the following credentials: ◆ **If the device is a member of a domain:** You can use a domain or local Administrator group credential. If you use the local credential, you must specify the username as `workstation_name\username` to distinguish it from domain credentials. ◆ **If the device is not a member of a domain:** You must use a local Administrator group credential. 2. Enter the user password in the *Password* and *Reenter Password* fields. 3. Click *OK* to save the credential. Depending on your environment, one credential might not provide access to all of the devices where you want to deploy the Adaptive Agent. In this case, you need to add as many credentials as necessary to cover the devices included in the task. The ZENworks Server uses the first credential that works.

Wizard Page	Details
Select Schedule page	The Select Schedule page lets you choose whether you want the task to run as soon as it is created (the *Now* option) or if you want to schedule the task to run at a future date and time. If you select *Scheduled*, choose one of the following schedules: **No Schedule:** Indicates that no schedule has been set. The task does not run until a schedule is set or it is manually launched. This is useful if you want to create the task and come back to it later to establish the schedule or run it manually. **Date Specific:** Specifies one or more dates on which to run the task. **Recurring:** Identifies specific days each week, month, or a fixed interval on which to run the task. For more information about the schedules, click the *Help* button.
Select Primary Server page > *Primary Server* field	Select the ZENworks Server that you want to perform the deployment task.
Select Windows Proxy page > *Override Zone Windows Proxy Settings* field	Select this option if you want to override the Windows Proxy settings configured at the Management Zone and modify the settings of a task. A Windows Proxy is primarily used for Linux Primary Servers that cannot perform deployment tasks on Windows managed devices. However, you can also use a Windows Proxy for Windows Servers, if you want to deploy devices in a different subnet than the Primary Server. In order to protect information, such as a discovery credential, that is passed between the ZENworks Server and the Windows Proxy, the connection between the ZENworks Server and the Windows Proxy is secured through SSL.
Select Windows Proxy page > *Use Windows Proxy for Windows Primary Server* field	Select this option if you want to use a Windows Proxy instead of the Windows Primary Server to perform the deployment tasks. For deployment, you need to add File and Printer Sharing as an exception in the Windows Firewall configuration settings. By default, the scope of the exception applies only to a local subnet. If the target device is in a different subnet than the Primary Server from which the deployment is run, you also need to add the IP address of the Primary Server as an exception. However, if you use a Windows Proxy in the same subnet as a target device, you do not need to change the scope of the Windows Firewall exception. **Windows Proxy:** Select the managed Windows device (server or workstation) on which you want to perform deployment tasks on behalf of Linux Primary Servers or Windows Servers. **Windows Proxy Timeout:** Specify the number of seconds you want the ZENworks Server to wait for a response from the Windows Proxy. Any responses received after the specified timeout period are discarded.

Wizard Page	Details
General Options page > *Deployment Package* field	Depending upon the processor architecture of the managed device, select the deployment package to be used for installing ZENworks Adaptive Agent on the device. If you are not sure about the device's processor architecture, choose the package with target architecture as All, which applies to 32-bit and 64-bit platforms. If the selected package has been deleted from the Primary Server, then the default deployment package is deployed.
General Options page > *Specify Agent Installation Folder* field	Specify the directory on the managed device where you want to install ZENworks Adaptive Agent. By default, the agent is installed to the directory specified in the *%ZENWORKS_HOME%* system environmental variable or to the `%ProgramFiles%\novell\zenworks` directory if the variable is not set on the managed device. Ensure that the installation path does not contain spaces. **NOTE:** If the directory you specify cannot be created, then the agent is installed in the default location.
General Options page > *Reboot Option*	After installation of the ZENworks Adaptive Agent, a device must reboot to make the Adaptive Agent functional. Do the following: 1. Select the desired reboot option. ◆ **Immediate:** To reboot immediately after installation of the Adaptive Agent, select *Immediate* to force the device ◆ **Manual:** To allow the user to manually reboot the device at his or her convenience, select *Manual*. ◆ **Scheduled:** To reboot the device at a specified time, select *Scheduled*. Fill in the schedule's fields. ◆ **Start Date:** Click to display a calender you can use to select a date for the event. ◆ **Start Time:** Specify the time at which the event must start. ◆ **Use Coordinated Universal Time (UTC):** The Start Time is converted to Universal Coordinated Time (UTC). Select this option to indicate that the Start Time you entered is already in Coordinated Universal Time and should not be converted. For example, suppose you are in the Eastern time zone. If you enter 10:00 a.m. and select this option, the Start Time is scheduled for 10:00 UTC. If you don't select this option, the Start Time is scheduled for 14:00 UTC because Eastern time is UTC - 4 hours. 2. (Optional) Select the *Do Not Prompt for Reboot* option if you do not want the reboot prompt message to be displayed.

Wizard Page	Details
Add Registration Key page	(Optional) Select a registration key to use during the registration portion of the deployment process. A registration key provides information about the folders and groups to which a device is assigned during registration. Selecting a registration key is optional; if you don't select one, registration rules are used to determine the folder and group assignments. To deploy to servers or workstations, choose a server registration key or a workstation registration key respectively. For more information about registration keys and rules, see Section 3.2, "Registering Devices," on page 27.
Pre/Post Deployment page	(Optional) Specify commands that you want run before and after the Adaptive Agent is installed on a device. For example, you can execute operating system commands, run scripts, and launch executables. The commands are passed to the preagent as part of the deployment task package. The preagent executes the commands in the system space, so you must specify commands that do not require user interaction. For more information about pre-deployment and post-deployment commands, click the *Help* button.

4 Continue with the next section, Using the ZENworks Adaptive Agent, for information about logging in and using the Adaptive Agent.

You can also use the `deployment-task-create` command in the zman utility to create a deployment task. For more information, see "Deployment Commands" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

4.4 Using the ZENworks Adaptive Agent

The following sections provide information to help you log in and use the ZENworks Adaptive Agent:

- Section 4.4.1, "Logging In to the Management Zone," on page 49
- Section 4.4.2, "Navigating the Adaptive Agent Views," on page 50
- Section 4.4.3, "Enabling and Disabling Adaptive Agent Features," on page 54

4.4.1 Logging In to the Management Zone

When a managed device boots its operating system, the Adaptive Agent is started and all bundles and policies assigned to the device are available. For bundles and policies assigned to a user to be available, the user must log in to the Management Zone.

The Adaptive Agent integrates with the Windows Login or Novell Login client to provide a single login experience for users. When users enter their eDirectory or Active Directory credentials in the Windows or Novell client, they are logged in to the Management Zone if the credentials match the ones in a ZENworks user source. Otherwise, a separate Adaptive Agent login screen prompts the user for the correct credentials.

For example, assume that a user has accounts in two eDirectory trees: Tree1 and Tree2. Tree1 is defined as a user source in the Management Zone, but Tree2 is not. If the user logs in to Tree1, he or she is automatically logged in to the Management Zone. However, if the user logs in to Tree2, the Adaptive Agent login screen appears and prompts the user for the Tree1 credentials.

4.4.2 Navigating the Adaptive Agent Views

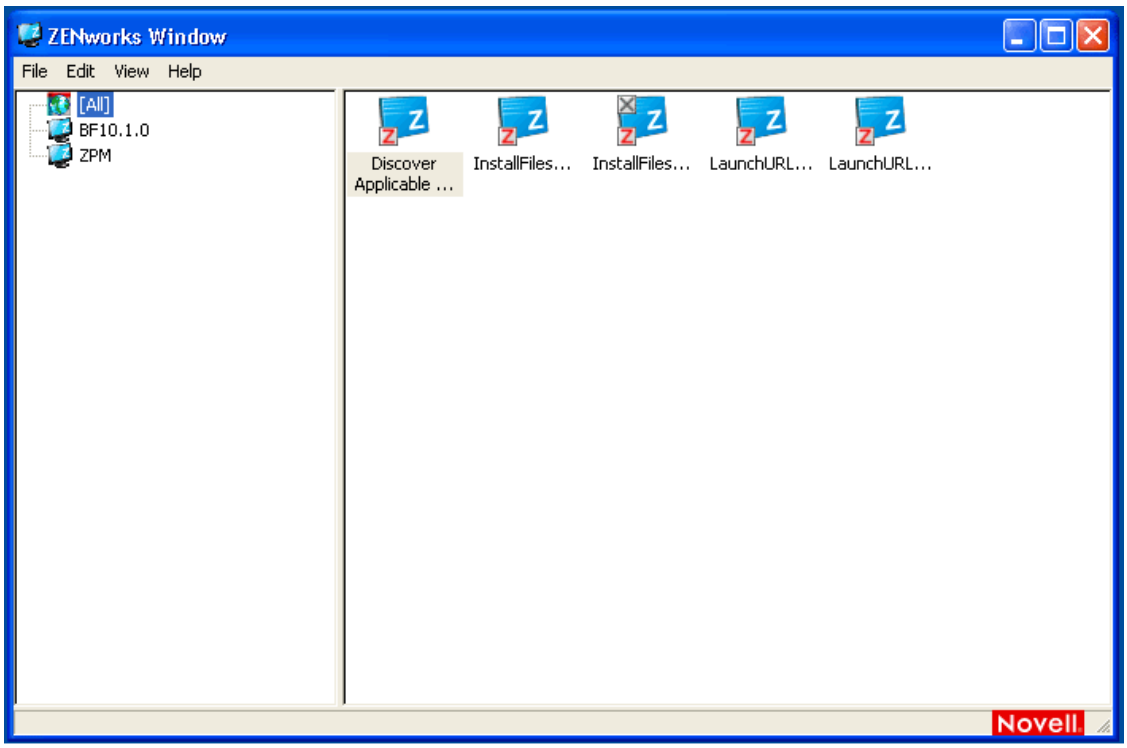
The Adaptive Agent provides the following three views:

- "ZENworks Window" on page 50
- "ZENworks Explorer" on page 51
- "ZENworks Icon" on page 52

ZENworks Window

The ZENworks Window is a standalone window that provides access to bundles. You launch the window from the Start menu (*Start menu > Programs > Novell ZENworks > ZENworks Window*).

Figure 4-1 *ZENworks Window*



The ZENworks Window left pane displays the following:

- **[All] folder:** Contains all bundles that have been distributed to you, regardless of the folder in which they are located.
- **ZENworks folder:** Contains all bundles that have not been assigned to a different folder. The ZENworks folder is the default folder for bundles; however, your administrator can create additional folders in which to organize bundles, and can even rename the ZENworks folder.

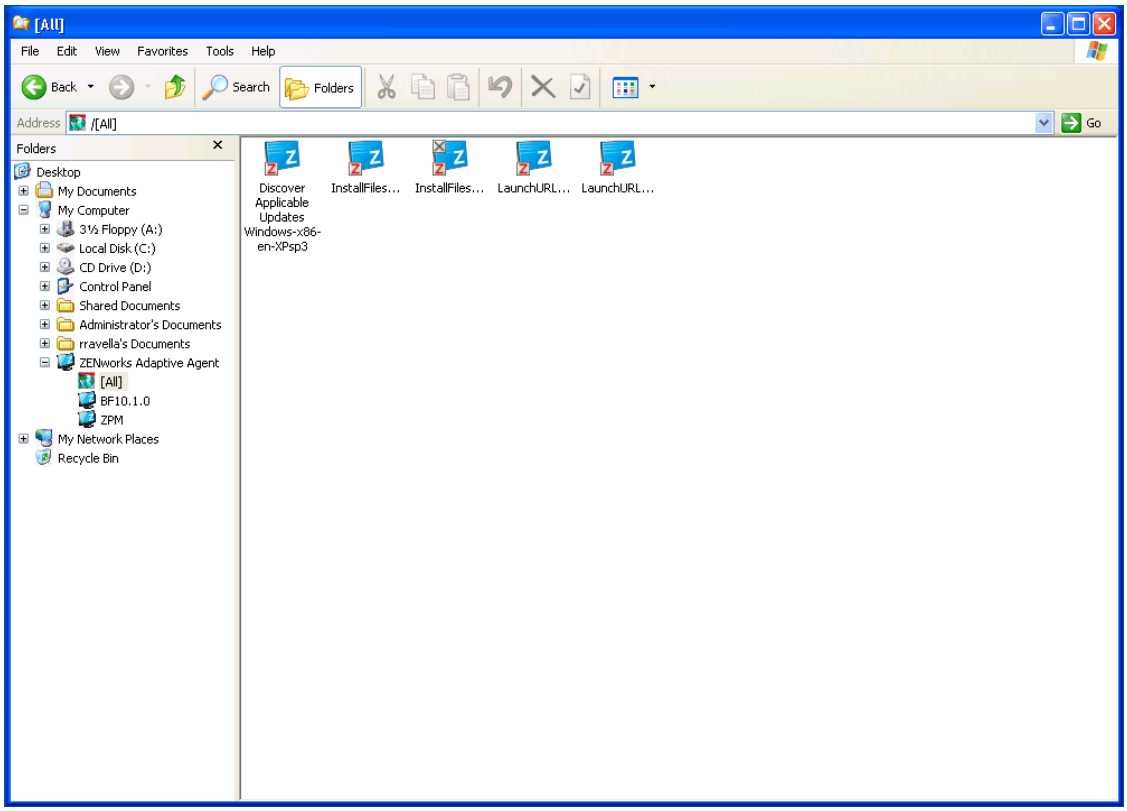
When you select a folder in the left pane, the right pane displays the bundles that are contained within the folder. You can:

- Install a bundle or launch an application that is already installed.
- View the properties of a bundle. The properties include a description of the bundle, information about people to contact for help with the bundle, the times when the bundle is available for use, and the system requirements established for the bundle.
- Repair an installed application.
- Uninstall an application. This is an administrator-controlled feature that might not be enabled.

ZENworks Explorer

ZENworks Explorer is an extension to Windows Explorer that enables bundles to be displayed in Windows Explorer, on the desktop, on the Start menu, on the Quick Launch toolbar, and in the notification area (system tray). The following graphic shows bundles displayed in Windows Explorer.

Figure 4-2 *ZENworks Explorer - Windows Explorer view*



The following graphic shows bundles displayed on the desktop.

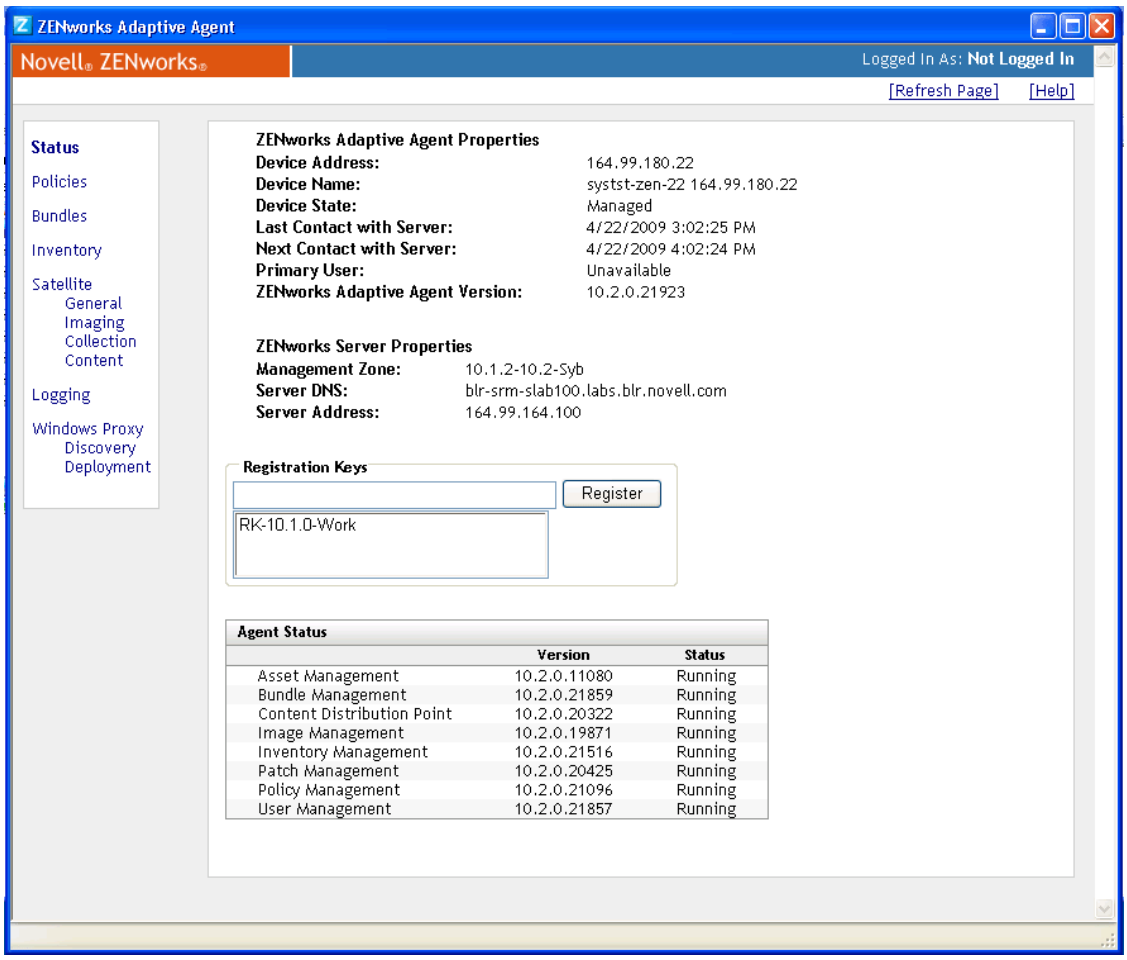
Figure 4-3 *ZENworks Explorer - Windows desktop view*

You can perform the same tasks on the bundles in the ZENworks Explorer as you can in the ZENworks Window.

ZENworks Icon

The ZENworks Icon is located in the Windows notification area (system tray). You can double-click the icon to display the ZENworks Adaptive Agent properties.

Figure 4-4 *ZENworks Adaptive Agent Properties*



The left navigation pane of the properties window contains links for the Adaptive Agent status and each of its features:

- **Status:** Displays information such as the last time the agent contacted a ZENworks Server and whether or not the Agent features are running.
- **Policies:** Displays the policies assigned to the device and the logged-in user. Also displays whether the policy is effective.
- **Bundles:** Displays the bundles assigned to the device and the logged-in user. Also displays the current installation status of each bundle (available, downloading, installing, and so forth) and whether the bundle is effective (the device meets the requirements for distribution).
- **Inventory:** Displays inventory information for the device. You can view hardware details, such as the manufacturer and model of your hard drives, disk drives, and video card. You can also view software details, such as installed Windows hot fixes and patches and the version numbers and locations of installed software products.
- **Remote Management:** Displays information about the currently connected remote operators and the Remote Management policy settings that are in effect for the device. Also lets you initiate a management session and control security settings for the session.
- **Satellite:** Displays the satellite role information of a device that is used as a satellite. The satellite roles include Collection, Content, and Imaging.

This feature is displayed only if your ZENworks administrator has used your device as a satellite.

- **Logging:** Displays information about the Adaptive Agent's log file, such as the location of the log file, the ZENworks Server to which the agent's log file will be uploaded, and the next time the log is scheduled to be uploaded. Also lets you determine the severity level for logged messages.
- **Windows Proxy** Displays the results of the discovery and deployment activities performed on your device when it acts as a Windows Proxy for the ZENworks Primary Server.

4.4.3 Enabling and Disabling Adaptive Agent Features

The ZENworks Adaptive Agent provides the following Configuration Management features:

- Bundle Management (installed by default)
- Image Management (installed by default)
- Patch Management (installed if Patch Management activated)
- Policy Management (installed by default)
- Remote Management (installed by default)
- User Management (not installed by default)

You can choose to install, uninstall, enable, or disable these features at the Management Zone, device folder, and device levels.

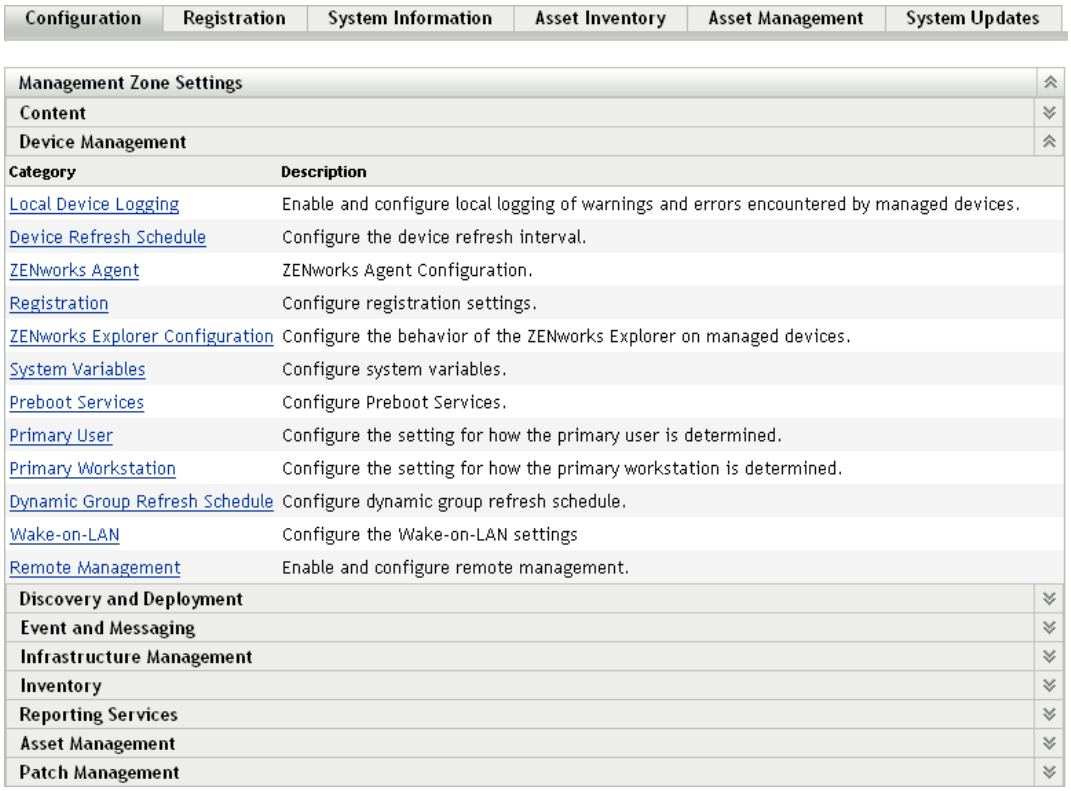
The following sections provide instructions:

- "Customizing the Agent Features" on page 54
- "Enabling the Content Role" on page 56
- "Enabling the Collection Role" on page 57
- "Enabling the Imaging Role" on page 58

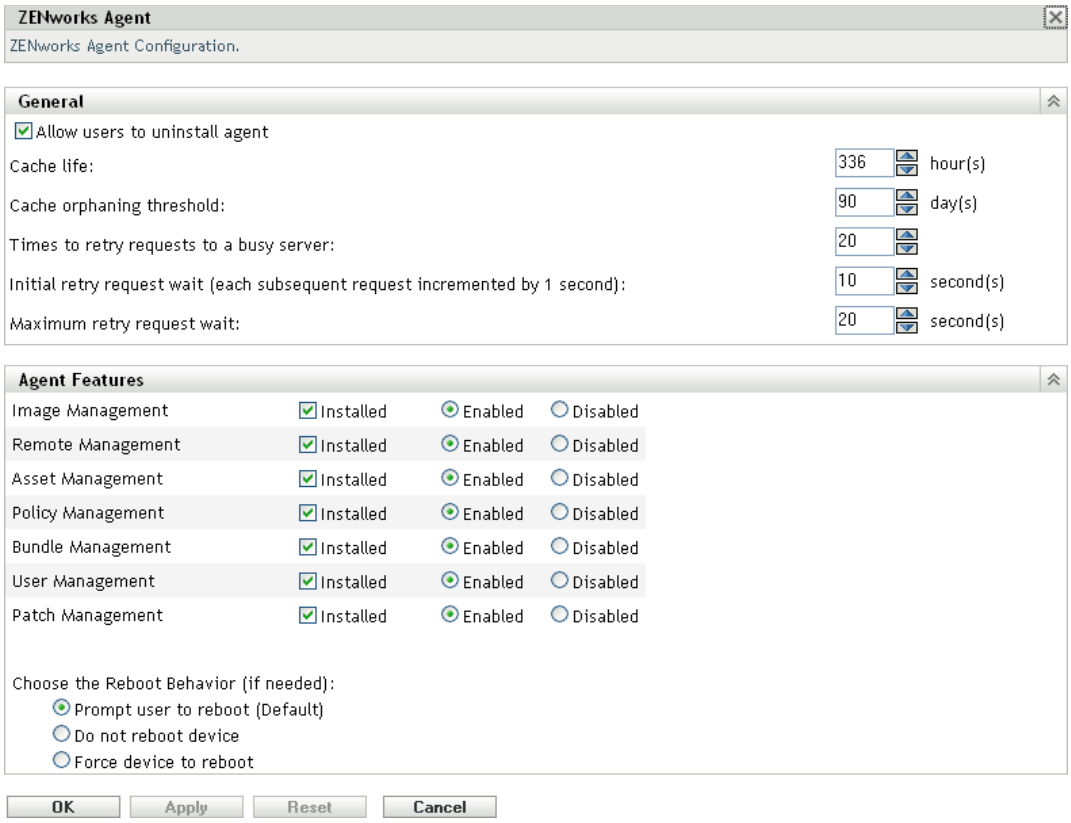
Customizing the Agent Features

The ZENworks Adaptive Agent is deployed with the features selected at the Management Zone level. The feature that is selected at the Management Zone level is not installed only if it belongs to a product for which the license has expired or has been deactivated.

1. In ZENworks Control Center, click the *Configuration* tab.



2 In the Management Zone Settings panel, click *Device Management*, then click *ZENworks Agent*.



3 In the Agent Features panel:

- If you do not want to install a feature, deselect *Installed* next to a feature. The selected feature is not installed on the device. If you choose to deselect all the features, then only the core agent is installed.
- If you want to install but disable a feature, select *Installed* and *Disabled* next to a feature.The disabled feature is not uninstalled from the currently managed devices. The feature is installed on the device, but it is nonfunctional.

The installation of Bundle Management, Remote Management, or User Management features requires a reboot of your device. The installation of Image Management feature requires a reboot only on Windows 2008 and Windows Vista. You are prompted to reboot your device based on the selected reboot option.

You can now proceed to deploy the agent to a device manually or by using a task.

For information on how to deploy the agent by using a task, see "Using a Task to Deploy the Agent". For information on how to deploy the agent manually, see "Manually Deploying the Agent".

4 To save the changes, click *Apply*.

Enabling the Content Role

You can promote any managed device (except a Primary Server) to be a Satellite with the Content role. A Satellite with the Content role provides the same content delivery service as a ZENworks Primary Server, but requires only the feature that is installed with the ZENworks Adaptive Agent. The feature is inactive until you promote the managed device to be a Satellite with the Content role enabled.

For more information on the Content role, see "Understanding the Content Role" in the *ZENworks 10 Configuration Management System Administration Reference*.

To enable the Content role feature:

1. In ZENworks Control Center, click the *Configuration* tab.
2. In the Server Hierarchy panel, select the Primary Server that you want to serve as the parent content server of the new Satellite.

   The Satellite downloads content only from its parent Primary Server. Therefore, any content you want hosted on a Satellite must also be hosted on its parent Primary Server.
3. If desired, change the default port number (80) to the port number you want the device to use for content replication HTTP requests.
4. In the *Device* field, click to browse for and select the desired device.
5. In the Satellite Server Roles section, select the check box for *Content* to enable that role.
6. In the Content Replication Schedule section, select the frequency for how often you want the Satellite to receive content from its parent Primary Server.
7. Click *OK* to promote the selected device to be a Satellite.

   In the Server Hierarchy panel, the new Satellite is added as a child of the Primary Server.

   For information about controlling the content that is replicated to the Satellite, see "Content Replication" in the *ZENworks 10 Configuration Management System Administration Reference*.

Enabling the Collection Role

You can promote any managed device (except a Primary Server) to be a Satellite with the Collection role. A Satellite provides the same collection service as a ZENworks Primary Server, but required only the Collection role feature that is installed with the ZENworks Adaptive Agent.

The feature is inactive until you promote the managed device to be a Satellite with the Collection role enabled.

For more information on the Collection role, see "Understanding the Collection Role" in the *ZENworks 10 Configuration Management System Administration Reference*.

To enable the Collection role feature:

1. In ZENworks Control Center, click the *Configuration* tab.
2. In the Server Hierarchy panel, select the Primary Server that you want to serve as the parent collection server of the new Satellite.

   The Satellite uploads collected information only to its parent Primary Server.
3. Click *Action* > *Add Satellite Server* to display the dialog box where you can add and configure a new Satellite.
4. If desired, change the default port number (80) to the port number you want the device to use for content replication HTTP requests.
5. In the *Device* field, click to browse for and select the desired device.
6. In the Satellite Roles section, select the check box for *Collection* to enable that role.
7. In the Collection Roll-Up Schedule section, select the frequency for how often you want managed devices to roll up collection information.

8 Click *OK* to promote the selected device to be a Satellite.

In the Server Hierarchy panel, the new Satellite is added as a child of the Primary Server.

Enabling the Imaging Role

You can promote any managed device (except a Primary Server) to be a Satellite with the Imaging role. A Satellite provides the same imaging service as a ZENworks Primary Server, but required only the Imaging role feature that is installed with the ZENworks Adaptive Agent.

The feature is inactive until you promote the managed device to be a Satellite with the Imaging role enabled.

For more information on the Imaging role, see "Understanding the Imaging Role" in the *ZENworks 10 Configuration Management System Administration Reference*.

To enable the Imaging role feature:

1 In ZENworks Control Center, click the *Configuration* tab.

2 In the Server Hierarchy panel, select the Primary Server that you want to serve as the parent Imaging server of the new Satellite.

The Satellite uploads collected information only to its parent Primary Server.

3 Click *Action* > *Add Satellite Server* to display the dialog box where you can add and configure a new Satellite.

4 If desired, change the default port number (80) to the port number you want the device to use for content replication HTTP requests.

5 In the *Device* field, click to browse for and select the desired device.

6 In the Satellite Server Roles section, select the check box for *Imaging* to enable that role.

7 In the Imaging section, configure the following settings:

- **Enable PXE Services:** This option automatically starts the Proxy DHCP service on the device to which the Imaging Server role has been assigned.

  Delete Image Files from the Server if Imaging Role is Removed: This option deletes the ZENworks image files stored on the device if its Imaging role is removed.

8 Click *OK* to promote the selected device to be a Satellite.

In the Server Hierarchy panel, the new Satellite is added as a child of the Primary Server.

9 (Conditional) If you configure the Imaging role, then the role is immediately added to the device. If the role is not immediately added, then it is added only during the next device refresh schedule. However, if you want to immediately apply the role to the device, you must manually refresh the device in one of the following ways:

- In the *Configuration* tab > the *Server Hierarchy*, select the check box in front of the devices you want to refresh, click *Action* > *Refresh Device*.
- On the Windows managed device, right-click the icon, then click *Refresh*.
- On the Linux unmanaged device, open a terminal, change your current working directory to `/opt/novell/zenworks/bin/`, and execute `./zac ref`.

To check whether the Proxy DHCP service has been started on the device, review the message log of the device (Devices tab > Workstations folder > click the workstation > Summary > Message Log panel or Devices tab > Servers folder > click the server > Summary > Message Log panel).

The messages are logged in the Message Log panel only if the severity level of the local file and the system log is set to *Information and Above* on the Local Device Logging page. (*Configuration* tab > *Device Management* > *Local Device Logging*).

Device Management

5

After you've configured your Management Zone and deployed the ZENworks® Adaptive Agent to devices, you're ready to start managing the devices.

The following sections provide explanations and instructions for these management tasks. Depending on your environment and the ZENworks Configuration Management functionality you plan to use, you might not need to know how to perform all tasks. For the ones you decide to learn about, you can review them in any order.

- Section 5.1, "Distributing Software," on page 61
- Section 5.2, "Applying Policies," on page 63
- Section 5.3, "Imaging Devices," on page 64
- Section 5.4, "Remotely Managing Devices," on page 72
- Section 5.5, "Patching Software," on page 79
- Section 5.6, "Collecting Software and Hardware Inventory," on page 82
- Section 5.7, "Monitoring Software Usage," on page 84
- Section 5.8, "Monitoring License Compliance," on page 86
- Section 5.9, "Retiring Devices," on page 93

5.1 Distributing Software

ZENworks Configuration Management provides great flexibility in distributing software. You can distribute applications and individual files, or simply make modifications to existing files on a device.

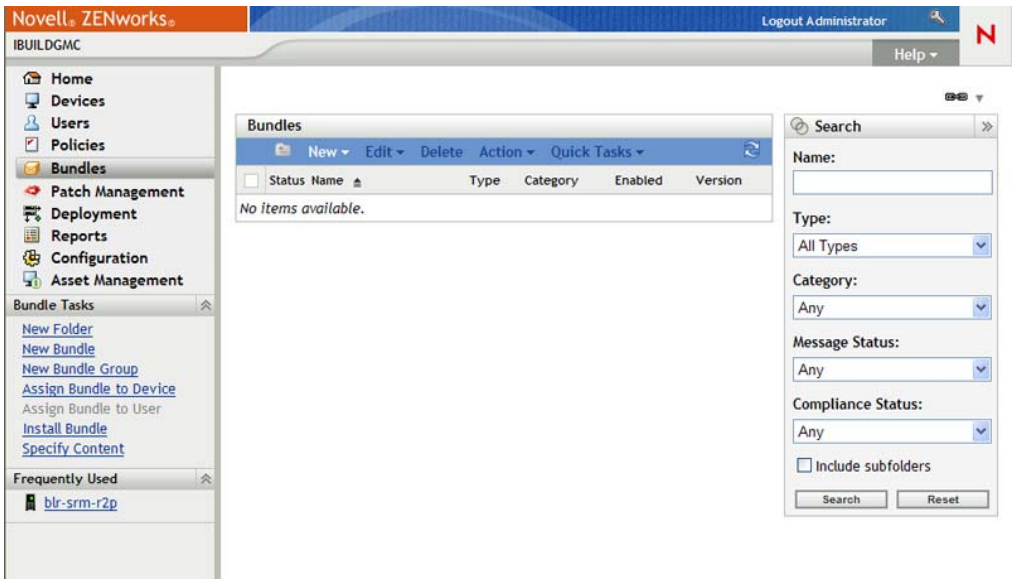
Software is distributed though the use of bundles. A bundle consists of all the files, configuration settings, installation instructions, and so forth required to deploy and manage the application or files on a device. There are four types of bundles you can create:

- **Directive Bundle:** Performs one or more actions on a device. For example, you can use a Directive bundle to edit a Windows INI file or text file. You can run a script, start or stop a service, or delete a file. In addition, the bundle includes creating various other actions and personality actions such as Store Personality and Apply Personality actions. You can migrate personalties such as system settings and application settings using these Personality actions.
- **File Bundle:** Copies or installs files or directories to a device. For example, you can use a File bundle to include configuration files or data files. A File bundle is useful to distribute files that are not part of a Windows bundle.
- **Imaging Bundle:** Performs operations before the operating system boots. The various Imaging bundle types let you install images on one or more devices, or run ZENworks scripts containing any commands that you can issue from the imaging bash prompt.
- **Windows Bundle:** Distributes a Microsoft Windows Installer (MSI) package, Microsoft Windows Software Patch (MSP) package, thin-client application, or other Windows-based applications to a Windows device.

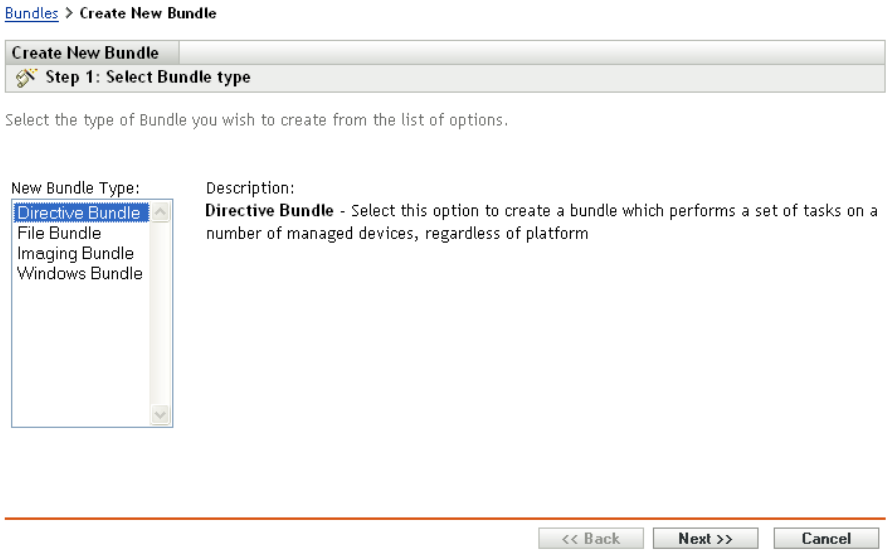
The software included with a bundle is uploaded to the ZENworks Server repository. This enables the ZENworks Server and ZENworks Adaptive Agent to distribute the software without requiring access to any other network locations.

To create a software bundle, you use the Create New Bundle Wizard. In addition to helping you create the bundle, the wizard also lets you assign it to devices and users and create distribution, launch, and availability schedules.

1 In ZENworks Control Center, click the *Bundles* tab.



2 In the Bundles panel, click *New* > *Bundle* to launch the Create New Bundle Wizard.



3 Follow the prompts to create, assign, and schedule the bundle.

Click the *Help* button on each wizard page for detailed information about the page.

When you complete the wizard, the bundle is added to the Bundles panel. You can click the bundle to view the bundle's details and modify assignments, schedules, and so forth.

You can also use the `bundle-create` command in the zman utility to create a software bundle. For more information, see "Bundle Commands" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

For more information about distributing software, see the *ZENworks 10 Configuration Management Software Distribution Reference*.

5.2 Applying Policies

Policies let you control the behavior of devices. There are nine types of policies you can create:

- **Browser Bookmarks Policy:** Configures Internet Explorer favorites for Windows devices and users.
- **Dynamic Local User Policy:** Configures users created on Windows NT*, Windows 2000, and Windows XP workstations, and Windows 2000 and Windows 2003 Terminal Servers after the users have successfully authenticated to Novell® eDirectory™.
- **Local File Rights Policy:** Configures rights for files or folders that exist on the NTFS file systems.

  The policy can be used to configure basic and advanced permissions for both local and domain users and groups. It provides the ability for an administrator to create custom groups on managed devices.
- **Printer Policy:** Configures Local, SMB, HTTP, and iPrint printers for a Windows devices and users.
- **Remote Management Policy:** Configures the behavior or execution of a Remote Management session on a managed device. The policy includes properties such as Remote Management operations, security, and so forth. A Remote Management policy can be assigned to users as well as managed devices.
- **Roaming Profile Policy:** Allows the user to configure the path where his or her user profile should be stored.

  A user profile contains information about a user's desktop settings and personal preferences, which are retained from session to session.

  Any user profile that is stored in a network path is known as a roaming profile. Every time the user logs on to a machine, his or her profile is loaded from the network path. This helps the user to move from machine to machine and still retain consistent personal settings.
- **SNMP Policy:** Configures SNMP parameters on the managed devices.
- **Windows Group Policy:** Configures Group Policy for Windows devices and users.
- **ZENworks Explorer Configuration Policy:** Allows you to administer and centrally manage the behavior and features of ZENworks Explorer.

To create a policy, you use the Create New Policy Wizard. In addition to helping you create the policy, the wizard also lets you assign it to devices and users and decide whether to enforce the policy immediately or wait until the device refreshes its information.

1. In ZENworks Control Center, click the *Policies* tab.

2 In the Policies panel, click *New* > *Policy* to launch the Create New Policy Wizard.

3 Follow the prompts to create, assign, and schedule the policy.

   Click the *Help* button on each wizard page for detailed information about the page.

   When you complete the wizard, the policy is added to the Policies panel. You can click the policy to view the policy's details and modify assignments.

You can also use the `policy-create` command in the zman utility to create a policy. For more information, see "Policy Commands" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

For more information about applying policies, see the *ZENworks 10 Configuration Management Policy Management Reference*.

5.3 Imaging Devices

You can create images of devices, apply images to devices, and run imaging scripts on devices. ZENworks Configuration Management uses its Preboot Services functionality to perform these imaging tasks on devices at startup.

- Section 5.3.1, "Setting Up Preboot Services," on page 64
- Section 5.3.2, "Taking an Image," on page 66
- Section 5.3.3, "Applying an Image," on page 68
- Section 5.3.4, "Where to Find More Information," on page 72

5.3.1 Setting Up Preboot Services

To use Preboot Services, you need to complete the tasks in the following sections:

- "Enabling PXE on a Device" on page 65
- "Setting Up an Imaging Server" on page 65
- "Configuring the Third-Party Imaging Settings" on page 65

Enabling PXE on a Device

Preboot Services requires PXE (Preboot Execution Environment) to be enabled on any managed device where you want to take or apply an image.

To check if PXE is enabled on a device, restart the device and select the boot option (F12 on most devices). PXE is enabled if there is a network boot option.

If PXE is not enabled on a device, edit the device BIOS to enable it. In order to ensure that the PXE environment is available each time the device starts, you can also change the boot order so that the NIC (Network Interface Card) option is listed before the other boot options.

Setting Up an Imaging Server

The Imaging Server is the PXE server that a device's PXE engine connects to. To enable a ZENworks Server to function as an Imaging Server, you simply need to start the Novell Proxy DHCP Service on the ZENworks Server. When you start the service, you should also change the startup type from Manual to Automatic so that it starts whenever the server reboots.

Configuring the Third-Party Imaging Settings

If you want to use the third-party imaging solutions, you must configure the Third-Party Imaging Settings in ZENworks Control Center. ZENworks supports the following third-party imaging tools:

- Microsoft* ImageX that uses the WIM image file format and WINPE as the distro
- Symantec* Ghost that uses the Ghost image file format and WINPE as distro

The ZENworks third-party Imaging supports only PXE as the boot mechanism.

To configure the Third-Party Imaging settings:

1. Ensure that Microsoft Windows Automated Installation Kit 1.0/1.1 (WAIK) is installed on the device running the ZENworks Control Center.

   You can freely downloaded WAIK from the Microsoft Download Center Web site (http://www.microsoft.com/downloads/details.aspx?FamilyID=c7d4bc6d-15f3-4284-9123-679830d629f2&displaylang=en).

2. (Conditional) If you want to run ZENworks Control Center on a 64-bit device, append the `WAIK_installation_path\Windows AIK\Tools\x86` to the `Path` Windows system environment variable.

3. Configure the third-party Imaging settings in ZENworks Control Center.

   3a In ZENworks Control Center, click *Configuration* tab.

   3b In the *Management Zone Settings* panel, click *Device Management* > *Preboot Services* > the *Third-Party Imaging Settings* panel.

   3c In the *Upload WinPE Base Distribution (Requires Windows Automation Installation Kit)* option, click to upload the WIM Imaging file. In the Upload WIM Imaging Files dialog box, do the following

   3c1 Click *Browse* to browse for and select `winpe.wim`.

   By default, `winpe.wim` is installed in `\waik\tools\petools\x86`.

   NOTE: If you have not installed the Novell File Upload extension on this device, you must do so before you can browse to and upload directories to be installed.

3c2 Click *OK*.

This downloads the Imaging files from server to the device running ZENworks Control Center and also uploads files from the device to the server. The progress of download and upload of files is displayed in the *Status* field.

3d In the *Upload ImageX Files to Support WIM Imaging (ImageX.EXE)* option, click to browse for and select the Microsoft Imaging engine (`imagex.exe`) installed on the device running ZENworks Control Center. By default, `imagex.exe` is installed in `\waik\tools\x86`.

3e In the *Upload Ghost 11.5 or higher files to support Ghost imaging(Ghost32.exe)* option, click to browse for and select the Symantec Ghost engine (`ghost32.exe`) installed along with the Ghost solution on any device in your network.

3f After configuring the third-party Imaging settings, click *Apply*.

3g Click *Status* to view the status of content replication across all Primary Servers in the Management Zone. You must start the Imaging operation only when the status is *Available*.

IMPORTANT: You must start the Imaging operation only when the status is *Available*.

---

4 Enable PXE on the device.

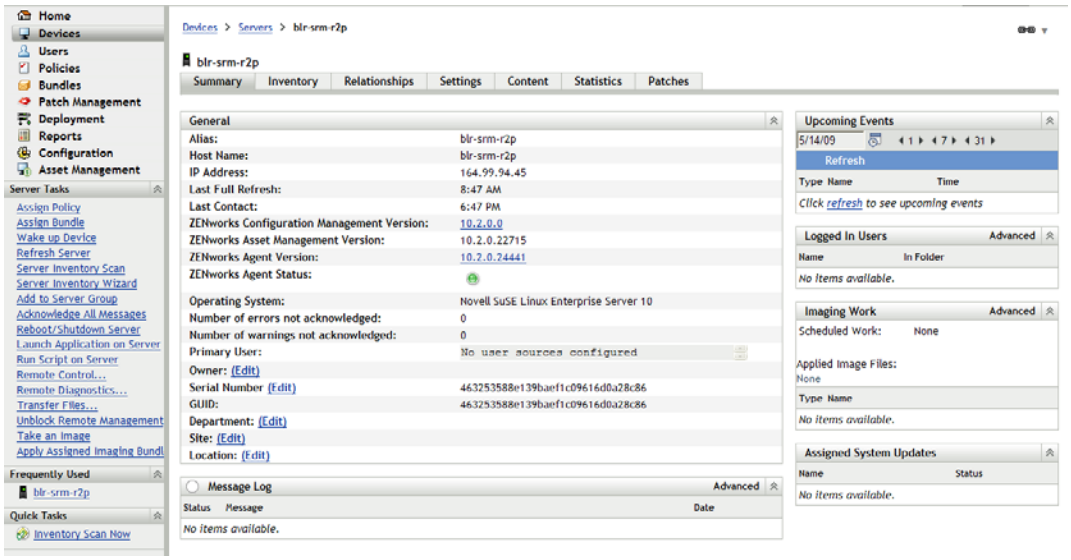
5 Ensure that you have a standard DHCP server, either on your Imaging Server or on another network server.

5.3.2 Taking an Image

1 In ZENworks Control Center, click the *Devices* tab.

2 Navigate the `Servers` or `Workstations` folder until you locate the device whose image you want to take.

3 Click the device to display its details.



4 In the task list located in the left navigation pane, click *Take an Image* to launch the Take an Image Wizard.

5 On the File Information page, fill in the following fields, then click *Next*.

Image Format: Select the format of the image to be taken for the device

Server and File Path: Click the icon to display the Server and Path Information dialog box. Configure the following options.

- **Server Object/IP/DNS:** Click the icon to browse for and select the object, IP address, or DNS name of the Primary Server or the device that is promoted to the Imaging Server role.
- **File Path on Server:** Click the icon to browse for and select an image file. The image file must have the `.zmg` filename extension, meaning it is a valid ZENworks image file.

NOTE: You cannot browse to the specified file system if multiple search domains with DHCP are configured for Linux and if the server is on Windows.

Shared Network Path for Image File: Specify the shared-network path where you want to save the `.wim` or `.gho` files. The directory must be a Windows share or a Linux SMB or CIFS share.

If you have not installed the Novell File Upload extension on this device, you must do so before you can browse to and upload directories to be installed.

Image Filename: Specify the filename to save the `.wim` or the `.gho` file. This option is displayed only for the Windows Imaging Format (`.wim`) and Ghost Imaging Format `(.gho)`.

Network Credential: Click to browse for and select the network credentials to be used for accessing the device having `.wim` files. This option is displayed only for the Windows Image Format (`.wim`) and Ghost Image Format (`.gho`).

Use Compression: Compression is required. Choose one of the following:

- **Balanced:** Automatically balances compression between an average of the reimaging speed and the available disk space for the image file. This option is displayed only for the ZENworks Image format
- **None:** This option is displayed only for the Windows Image format and Ghost Image format.
- **Optimize for Speed:** Optimizes the compression to allow for the fastest reimaging time. Use this option if CPU speed is an issue.
- **Optimize for Space:** Optimizes the compression to minimize the image file's size to conserve disk space. This can cause reimaging to take longer.

Balanced is the default option for the ZENworks Image format and *Optimize for Speed* is the default option for the Windows Image format and Ghost Image format.

Create an Image Bundle: Leave this field deselected.

6 Review the information on the Image File Summary page, click *Finished*, then click *OK*.

Because imaging tasks are completed by Preboot Services, the image of the device is taken the next time the device reboots. The Imaging Work panel, located on the device's Summary page, shows that the work is scheduled. When the work is completed, the task is removed from this panel.

7 To reboot the device immediately and initiate the imaging work, click *Reboot/Shutdown Workstation* (or *Reboot/Shutdown Server*) in the left navigation panel.

The time required to take the image depends on the size of the device's drives.

5.3.3 Applying an Image

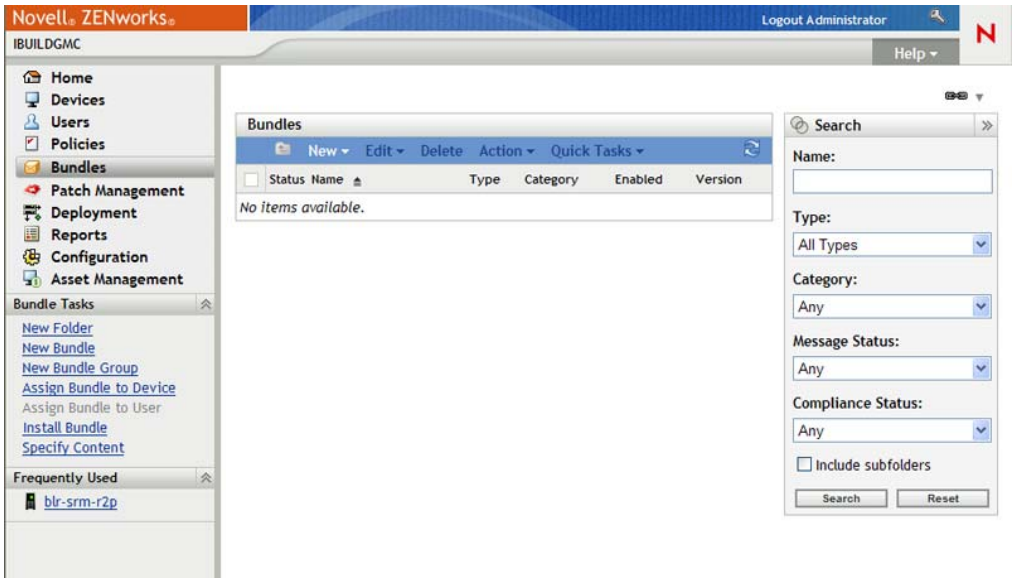
To apply an image to a device, you use the Create New Bundle Wizard to create an Imaging bundle. The bundle contains the image you want to apply. In addition to helping you create the bundle, the wizard also lets you assign it to devices. After creating the Imaging bundle, you then initiate the imaging work.

- "Creating the ZENworks Image Bundle" on page 68
- "Creating the Third-Party Image Bundle" on page 70
- "Initiating the Imaging Work" on page 71

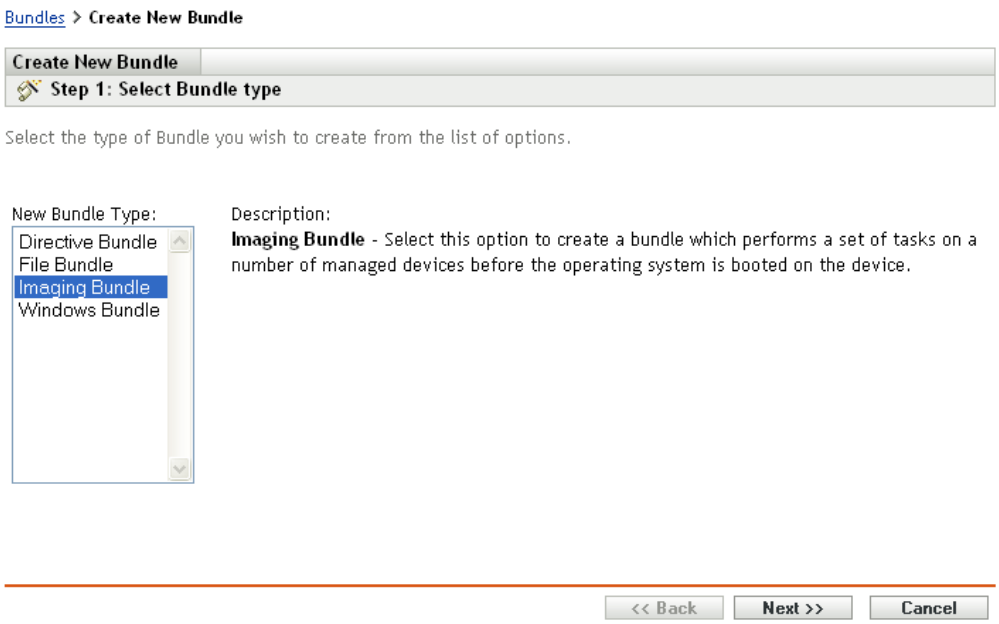
Creating the ZENworks Image Bundle

To restore ZENworks images on a device, you must create the ZENworks Image bundle.

1 In ZENworks Control Center, click the *Bundles* tab.



2 In the Bundles panel, click *New* > *Bundle* to launch the Create New Bundle Wizard.



3 On the Select Bundle Type page, select *Imaging Bundle*, then click *Next*.

4 On the Select Bundle Category page, select *ZENworks Image*, then click *Next*.

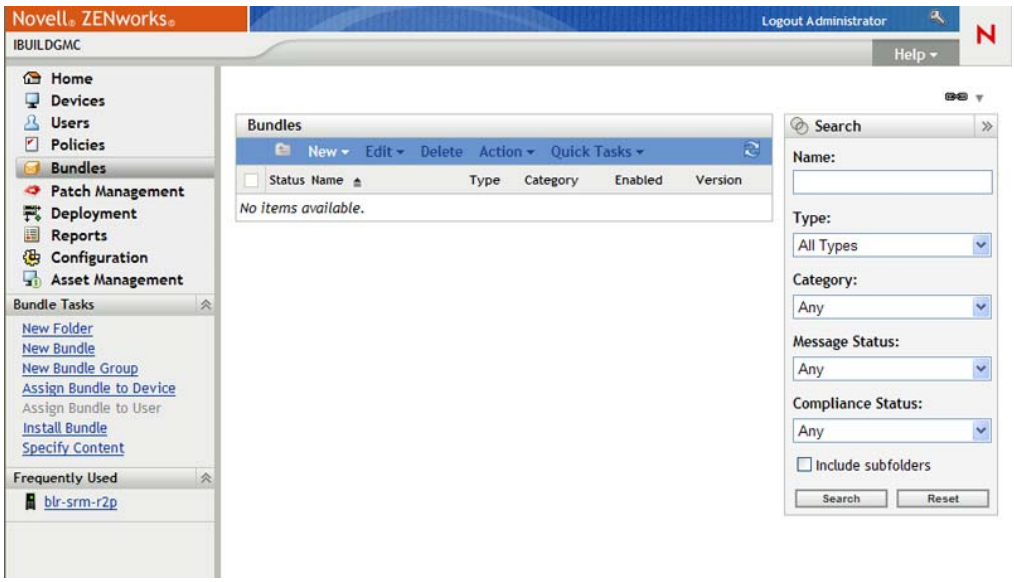
5 Complete the wizard using information from the following table to fill in the fields.

Wizard Page	Details
Define Details page	Specify a name for the task. The name cannot include any of the following invalid characters: / \ * ? : " ' < > | ` % ~
Select ZENworks Image File page	To select the image file: 1. Click to display the Server and Path Information dialog box. 2. Fill in the following fields: **Device Object, IP, or DNS:** Select the ZENworks Server where you stored the image. **File Path on Server:** Browse for and select the image file. The standard storage directory for image files is `\Novell\ZENworks\work\content-repo\images`. 3. Click *OK*.
Summary page	Click *Next* to continue with the wizard and assign the bundle to the target device.
Bundle Groups page	You shouldn't assign the image bundle to any groups. Click *Next* to bypass this page.
Add Assignments page	Select the device where you want to apply the image.
Schedules page	You shouldn't assign a schedule to the image bundle. Click *Next* to bypass this page.
Finish page	Click *Finish* to create the bundle and assign it to the selected device.

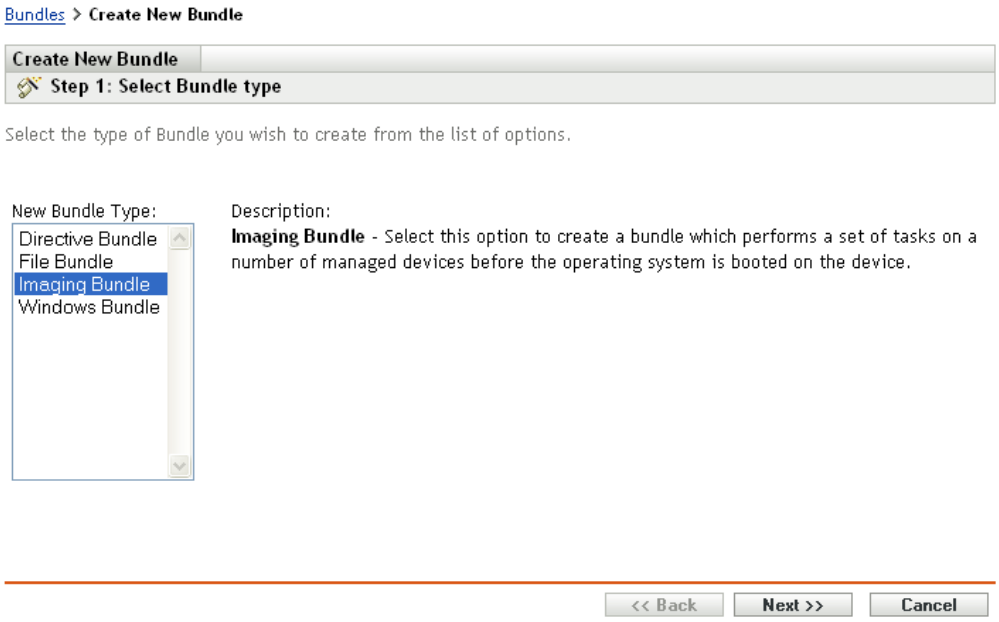
Creating the Third-Party Image Bundle

To restore the third-party images, you must create the Third-Party Image bundle.

1 In ZENworks Control Center, click the *Bundles* tab.



2 In the Bundles panel, click *New* > *Bundle* to launch the Create New Bundle Wizard.



3 On the Select Bundle Type page, select *Imaging Bundle*, then click *Next*.

4 On the Select Bundle Category page, select *Third-Party Image*, then click *Next*.

5 Complete the wizard using information from the following table to fill in the fields.

Wizard Page	Details
Define Details page	Specify a name for the task. The name cannot include any of the following invalid characters: / \ * ? : " ' < > | ` % ~
Select a Third-Party Image File page	To select a third-party image file: 1. Select the type of the image to be used in the bundle. In ZENworks 10 Configuration Management , only the Windows Image Format (`.wim`) and GHOST Image Format (`.gho`) are available. 2. Specify the shared-network directory containing the `.wim` or `.gho` files. The directory must be a Windows share or a Linux SMB or CIFS share. 3. Click to browse for and select the network credentials to be used for accessing the device having `.wim` or `.gho` files. 4. If you want to use the WIM bundle as an Add-on image, select *Restore WIM as Add-on,* and configure the following options: **Image Number (WIM Only):** Select the index number of the image to be restored. **Path to Restore the Add-on Image:** Specify the location on the device where you want to restore the Add-on image. 5. Click *OK*.
Summary page	Click *Next* to continue with the wizard and assign the bundle to the target device.
Bundle Groups page	You should not assign the image bundle to any groups. Click *Next* to bypass this page.
Add Assignments page	Select the device where you want to apply the image.
Schedules page	You should not assign a schedule to the image bundle. Click *Next* to bypass this page.
Finish page	Click *Finish* to create the bundle and assign it to the selected device.

Initiating the Imaging Work

1 In ZENworks Control Center, click the *Devices* tab.

2 Navigate the `Servers` or `Workstations` folder until you locate the device where you want to apply the image.

3 Click the device to display its details.

4 In the task list located in the left navigation pane, click *Apply Assigned Imaging Bundle* to schedule the work.

Because imaging tasks are completed by Preboot Services, the image is applied to the device the next time the device reboots. The Imaging Work panel, located on the device's Summary page, shows that the work is scheduled. When the work is completed, the task is removed from this panel.

5 To reboot the device immediately and initiate the imaging work, click *Reboot/Shutdown Workstation* (or *Reboot/Shutdown Server*) in the left navigation panel.

5.3.4 Where to Find More Information

For more information about imaging and Preboot Services, see the *ZENworks 10 Configuration Management Preboot Services and Imaging Reference*.

5.4 Remotely Managing Devices

ZENworks Configuration Management provides Remote Management functionality that lets you remotely manage devices. Remote Management supports the following operations:

- **Remote Control:** Lets you control a managed device from the management console so you can provide user assistance and help resolve problems. You can perform all the operations that a user can perform on the device.
- **Remote View:** Lets you connect with a managed device so that you can view the managed device instead of controlling it. This helps you troubleshoot problems that the user encountered. For example, you can observe how the user at a managed device performs certain tasks to make sure that the user performs a task correctly
- **Remote Execute:** Lets you run any executable on a managed device from the management console.To remotely execute an application, specify the executable name in the Remote Execute dialog box. If the application is not in the system path on the managed device, then provide the complete path of the application. For example, you can execute the `regedit` command to open the Registry Editor on the managed device. The Remote Execute dialog box displays the status of the command execution.
- **Remote Diagnostics:** Lets you diagnose and analyze the problems on a managed device. This helps you to shorten problem resolution times and assist users without requiring a technician to physically visit the problem device. This increases user productivity by keeping desktops up and running.
- **File Transfer:** Lets you to transfer files between the management console and a managed device.

The following sections explain how to set up Remote Management and perform each of the operations:

- Section 5.4.1, "Creating a Remote Management Policy," on page 73
- Section 5.4.2, "Configuring Remote Management Settings," on page 73
- Section 5.4.3, "Performing Remote Control, Remote View, and Remote Execute Operations," on page 74
- Section 5.4.4, "Performing a Remote Diagnostic Operation," on page 76
- Section 5.4.5, "Performing a File Transfer Operation," on page 78
- Section 5.4.6, "Where to Find More Information," on page 79

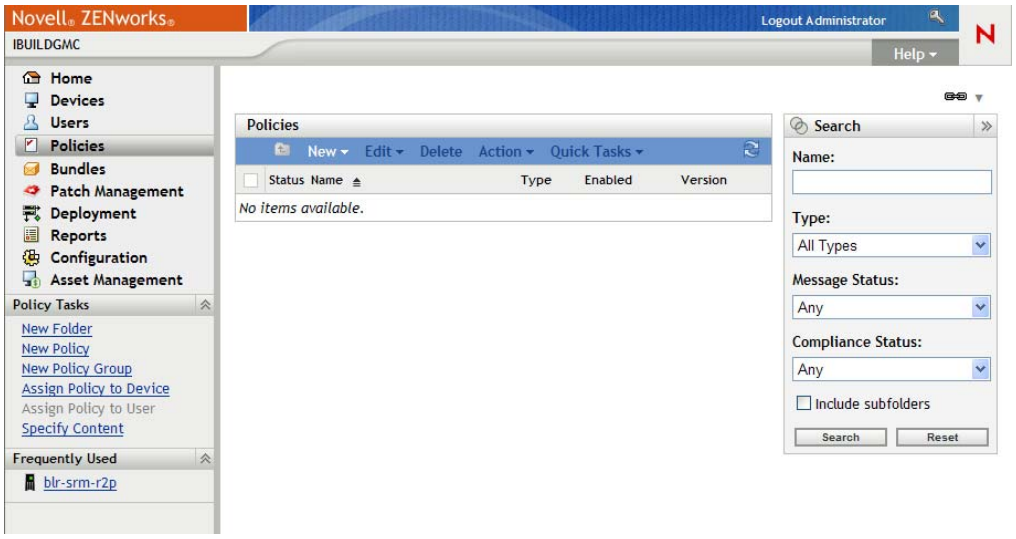
5.4.1 Creating a Remote Management Policy

By default, a secure Remote Management policy is created on the managed device when the ZENworks Adaptive Agent is deployed with the Remote Management component on the device. You can use the default policy to remotely manage a device. The default policy allows you to perform all the Remote Management operations on a device To override the default policy, you can explicitly create a Remote Management policy for the device.

You can assign a Remote Management policy to devices or users.

To create a Remote Management policy:

1 In ZENworks Control Center, click the *Policies* tab.



2 In the Policies panel, click *New* > *Policy* to launch the Create New Policy Wizard.

3 Follow the prompts to create, assign, and schedule the Remote Management policy.

Click the *Help* button on each wizard page for detailed information about the page. When you complete the wizard, the policy is added to the Policies panel. You can click the policy to view the policy's details and modify assignments, schedules, and so forth.

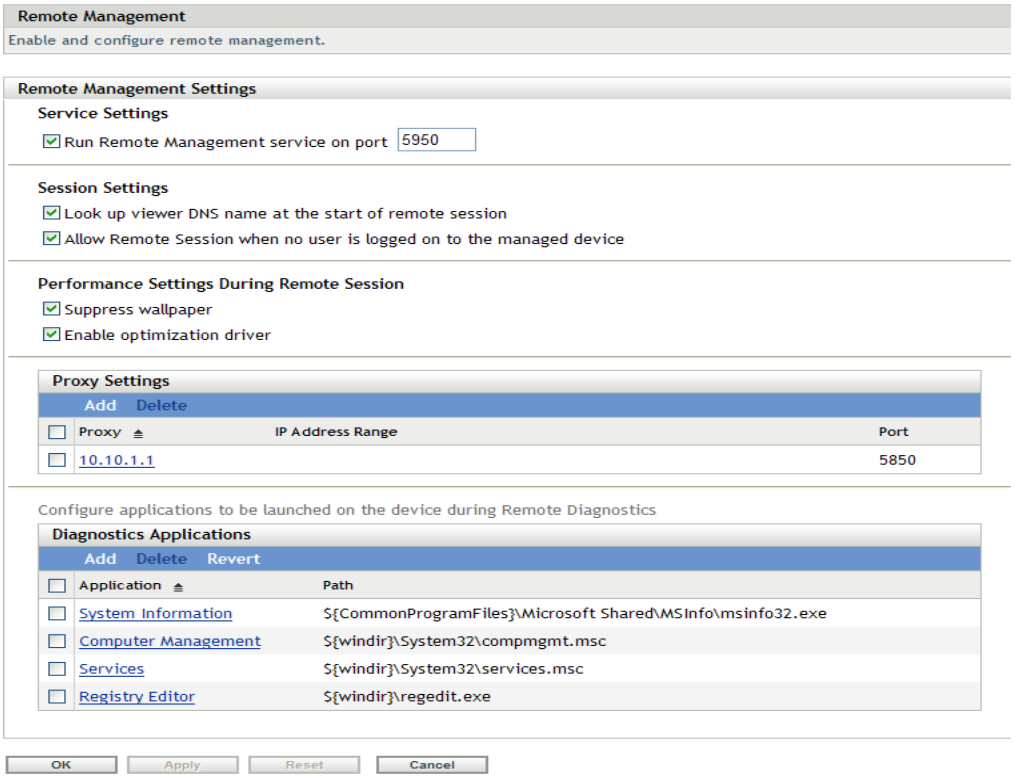
5.4.2 Configuring Remote Management Settings

The Remote Management configuration settings, located on the Configuration page, let you specify settings such as the Remote Management port, session performance, and available diagnostic applications.

The settings are predefined to provide the most common configuration. If you want to change the settings:

1 In ZENworks Control Center, click the *Configuration* tab.

2 In the Management Zone Settings panel, click *Device Management* > *Remote Management*.



3 Modify the settings as desired.

   Click the *Help* button on the page for detailed information about the page.

4 When you are finished modifying the settings, click *Apply* or *OK* to save your changes.

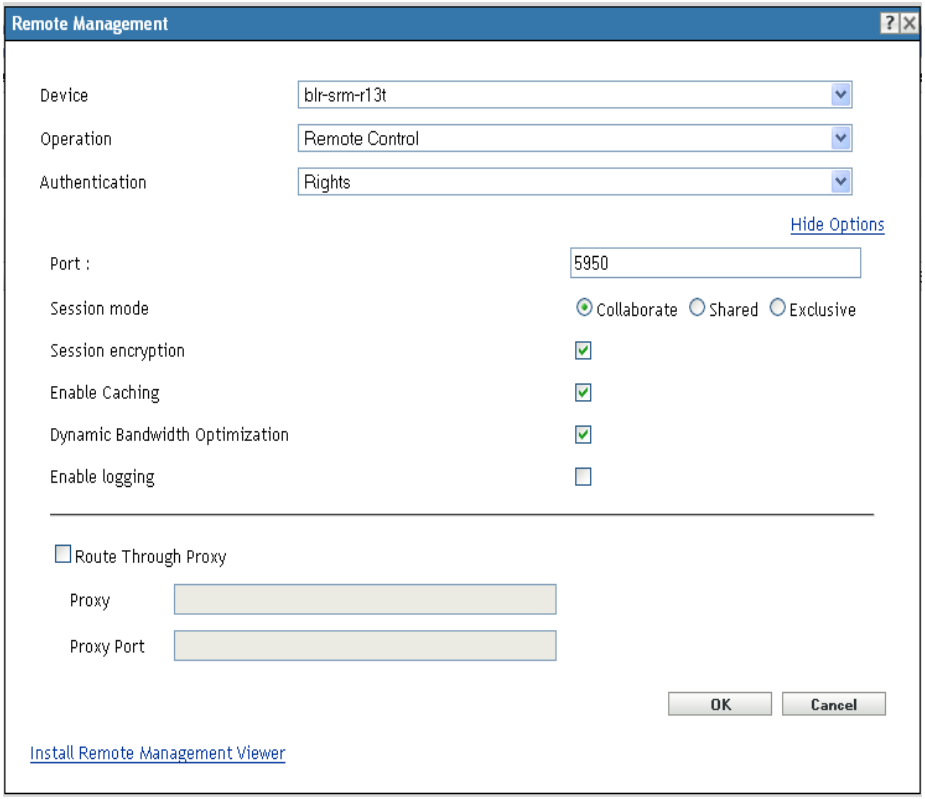
5.4.3 Performing Remote Control, Remote View, and Remote Execute Operations

1 In ZENworks Control Center, click the *Devices* tab.

2 Navigate the `Servers` or `Workstations` folder until you locate the device you want to manage.

3 Select the device by clicking the check box in front of the device.

4 In the task list located in the left navigation pane, click *Remote Control Workstation* or *Remote Control Server* to display the Remote Management dialog box.



5 In the Remote Management dialog box, fill in the following fields:

Device: Specify the name or the IP address of the device you want to remotely manage.

Operation: Select the type of the remote operation (Remote Control, Remote View, or Remote Execute) you want to perform on the managed device:

Authentication: Select the mode you want to use to authenticate to the managed device. The two options are:

- **Password:** Provides password-based authentication to perform a Remote Control operation. You must enter the correct password as set by the user on the managed device or as configured by the administrator in the security settings of the Remote Management policy. The password set by the user takes precedence over the password configured by the administrator.
- **Rights:** This option is available only when you select the managed device on which you want to perform the remote operation. If an administrator has already assigned Remote Management rights to you to perform the desired remote operation on the selected managed device, you automatically gain access when the session initiates.

Port: Specify the port number on which the Remote Management Agent is listening. By default, the port number is 5950.

Session Mode: Select one of the following modes for the session:

- **Collaborate:** Allows you to launch a Remote Control session and a Remote View session in collaboration mode. However, you cannot first launch a Remote View session on the managed device. If you launch the Remote Control session on the managed device, then you get all the privileges of a master Remote Operator, which include:
  - Inviting other Remote Operators to join the remote session.

- Delegating Remote Control rights to a Remote Operator.
- Regaining control from the Remote Operator.
- Terminating a Remote Session.

After the Remote Control session has been established for the managed device in the Collaborate mode, the other remote sessions on the managed device are Remote View sessions.

- **Shared:** Allows more than one Remote Operator to simultaneously control the managed device.
- **Exclusive:** Allows you to have an exclusive remote session on the managed device. No other remote session can be initiated on the managed device after a session has been launched in Exclusive mode.

Session Encryption: Ensures that the remote session is secured by using SSL encryption (TLSv1 protocol).

Enable Caching: Enables caching of the remote management session data to enhance performance. This option is available only for Remote Control operation. This option is currently supported only on Windows.

Enable Dynamic Bandwidth Optimization: Enables detection of the available network bandwidth and accordingly adjusts the session settings to enhance performance. This option is available only for Remote Control operation.

Enable Logging: Logs session and debug information in the `novell-zenworks-vncviewer.txt` file. The file is saved by default on the desktop if you launch ZENworks Control Center through Internet Explorer and in the Mozilla installed directory if you launch ZENworks Control Center through Mozilla FireFox*.

Install Remote Management Viewer: Click on the *Install Remote Management Viewer* link to install the Remote Management Viewer. This link is displayed only if you are performing the Remote Management session on the managed device for the first time or if the Remote Management Viewer is not installed on the managed device.

6 Click *OK* to launch the session.

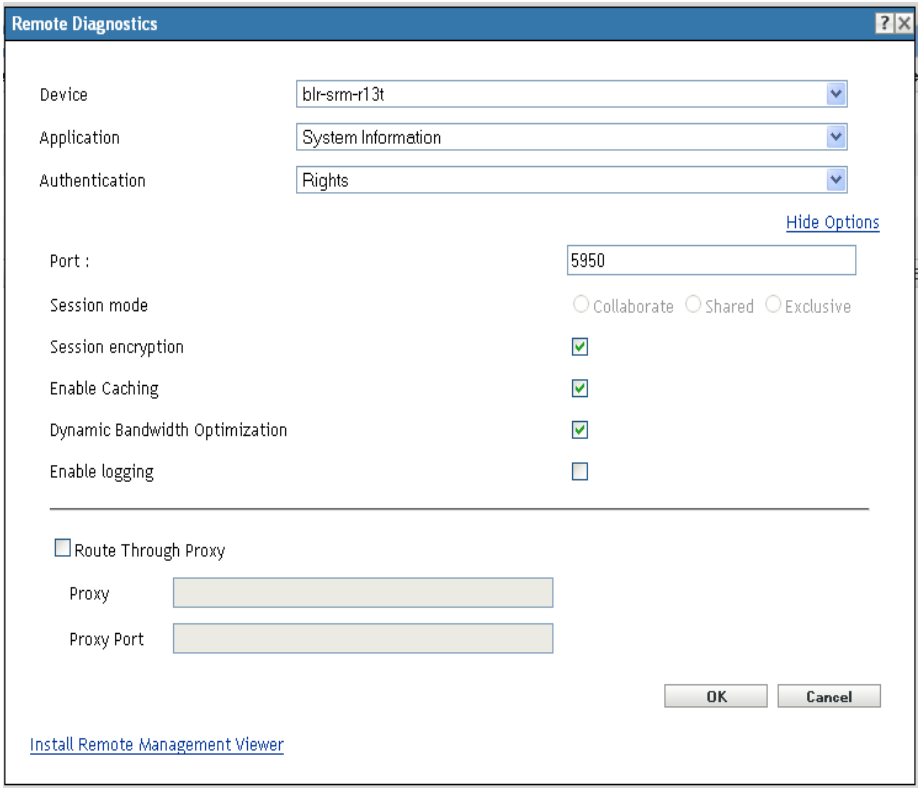
5.4.4 Performing a Remote Diagnostic Operation

1 In ZENworks Control Center, click the *Devices* tab.

2 Navigate the `Servers` or `Workstations` folder until you locate the device you want to manage.

3 Select the device by clicking the check box in front of the device.

4 In the task list located in the left navigation pane, click *Remote Diagnostics* to display the Remote Diagnostics dialog box.



5 In the Remote Diagnostics dialog box, fill in the following fields:

Device: Specify the name or the IP address of the device you want to remotely diagnose.

Application: Select the application you want to launch on the device to remotely diagnose.

Authentication: Select the mode you want to use to authenticate to the managed device. The two options are:

- **Password:** Provides password-based authentication to perform a Remote Diagnostic operation. You must enter the correct password as set by the user on the managed device or as configured by the administrator in the security settings of the Remote Management policy. The password set by the user takes precedence over the password configured by the administrator.
- **Rights:** This option is available only when you select the managed device on which you want to perform the remote operation. If an administrator has already assigned Remote Management rights to you to perform the desired remote operation on the selected managed device, you automatically gain access when the session initiates.

Port: Specify the port number on which the Remote Management Agent is listening. By default, the port number is 5950.

Session Mode: Does not apply to the Remote Diagnostics operation.

Session Encryption: Ensures that the remote session is secured by using SSL encryption (TLSv1 protocol).

Enable Caching: Enables caching of the remote management session data to enhance performance. This option is currently supported only on Windows.

Enable Dynamic Bandwidth Optimization: Enables detection of the available network bandwidth and accordingly adjusts the session settings to enhance performance.

Enable Logging: Logs session and debug information in the `novell-zenworks-vncviewer.txt` file. The file is saved by default on the desktop if you launch ZENworks Control Center through Internet Explorer and in the Mozilla installed directory if you launch ZENworks Control Center through Mozilla FireFox.

6 Click *OK* to launch the session.

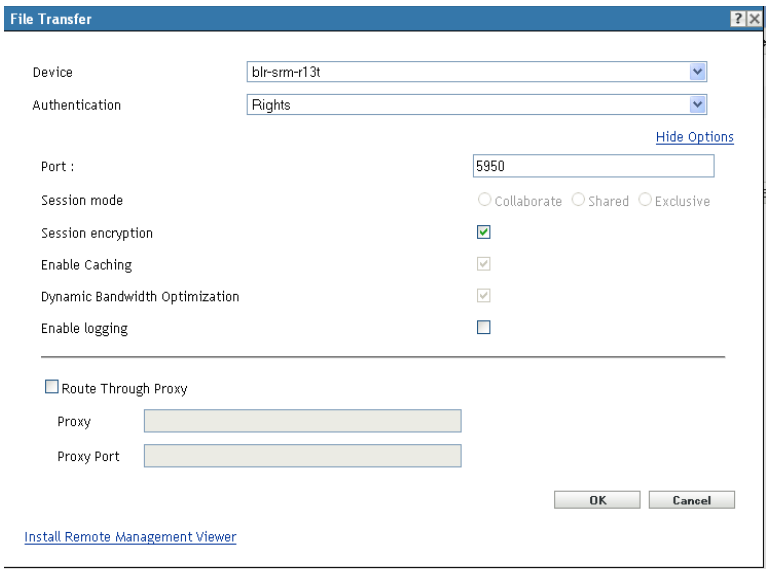
5.4.5 Performing a File Transfer Operation

1 In ZENworks Control Center, click the *Devices* tab.

2 Navigate the `Servers` or `Workstations` folder until you locate the device you want to manage.

3 Select the device by clicking the check box in front of the device.

4 In the task list located in the left navigation pane, click *Transfer Files* to display the File Transfer dialog box.



5 In the File Transfer dialog box, fill in the following fields:

Device: Specify the name or the IP address of the device you want to access.

Authentication: Select the mode you want to use to authenticate to the managed device. The two options are:

- **Password:** Provides password-based authentication to perform an operation. You must enter the correct password as set by the user on the managed device or as configured by the administrator in the security settings of the Remote Management policy. The password set by the user takes precedence over the password configured by the administrator.
- **Rights:** This option is available only when you select the managed device on which you want to perform the remote operation. If an administrator has already assigned Remote Management rights to you to perform the desired remote operation on the selected managed device, you automatically gain access when the session initiates.

Port: Specify the port number on which the Remote Management Agent is listening. By default, the port number is 5950.

Session Mode: Does not apply to the File Transfer operation.

Session Encryption: Ensures that the remote session is secured by using SSL encryption (TLSv1 protocol).

Enable Logging: Logs session and debug information in the `novell-zenworks-vncviewer.txt` file. The file is saved by default on the desktop if you launch ZENworks Control Center through Internet Explorer and in the Mozilla installed directory if you launch ZENworks Control Center through Mozilla FireFox.

6 Click *OK* to launch the session

5.4.6 Where to Find More Information

For more information about remotely managing devices, see the *ZENworks 10 Configuration Management Remote Management Reference*.

5.5 Patching Software

ZENworks Patch Management, a separately licensed product, is included for evaluation in ZENworks Configuration Management. Patch Management lets you apply software patches automatically and consistently to minimize vulnerabilities and issues.

Patch Management stays current with the latest patches and fixes by regular Internet communication with the Patchlink Patch Subscription Service. After the initial 60-day evaluation period, Patch Management requires a paid subscription to continue its daily download of the latest vulnerability and patch information.

When a new patch is available from the subscription service, a ZENworks Server downloads it automatically. The *Patches* tab displays the new patch, along with a description and business impact. You can deploy the patch to devices or disregard the patch.

- Section 5.5.1, “Purchasing and Activating a Subscription License,” on page 79
- Section 5.5.2, “Providing a New Patch Management License,” on page 80
- Section 5.5.3, “Starting the Subscription Service,” on page 80
- Section 5.5.4, “Deploying a Patch,” on page 81
- Section 5.5.5, “Renewing a Patch Management License,” on page 81
- Section 5.5.6, “Where to Find More Information,” on page 82

5.5.1 Purchasing and Activating a Subscription License

After the 60-day evaluation period, Patch Management requires a subscription license to continue receiving patches from the subscription service. To purchase a subscription license, see the Novell ZENworks Patch Management product site (http://www.novell.com/products/zenworks/patchmanagement).

To activate the license, continue with Section 5.5.2, “Providing a New Patch Management License,” on page 80.

5.5.2 Providing a New Patch Management License

If you did not provide a Patch Management subscription license during installation of ZENworks Configuration Management (meaning you are using an evaluation license), you can later provide a purchased subscription license in ZENworks Control Center.

To activate a new subscription license:

1. In ZENworks Control Center, click *Configuration* > *Configuration*.
2. In the Licenses section, click *ZENworks 10 Patch Management*.
3. Fill in the fields:

   Product Subscription Serial Number: The serial number provided to you when you purchased the subscription license.

   Company Name: Your company's name, as used to purchase the subscription license.

   Email Address: An e-mail address where you can be contacted, if necessary.
4. Click *Apply*.

5.5.3 Starting the Subscription Service

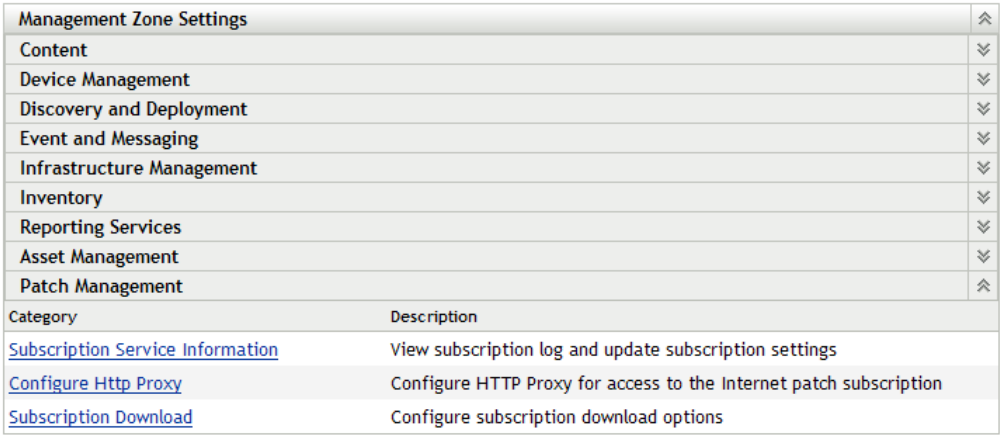
Before you can begin receiving patches, you need to start the subscription service on one of your ZENworks Servers and set the daily schedule for downloading patches.

If there are multiple ZENworks Servers in your management zone, you can select any one of them to be the Patch Management Server. The server that is selected as the Patch Management Server should have the best connectivity to the Internet, because it is downloading new patches and updates on a daily basis.

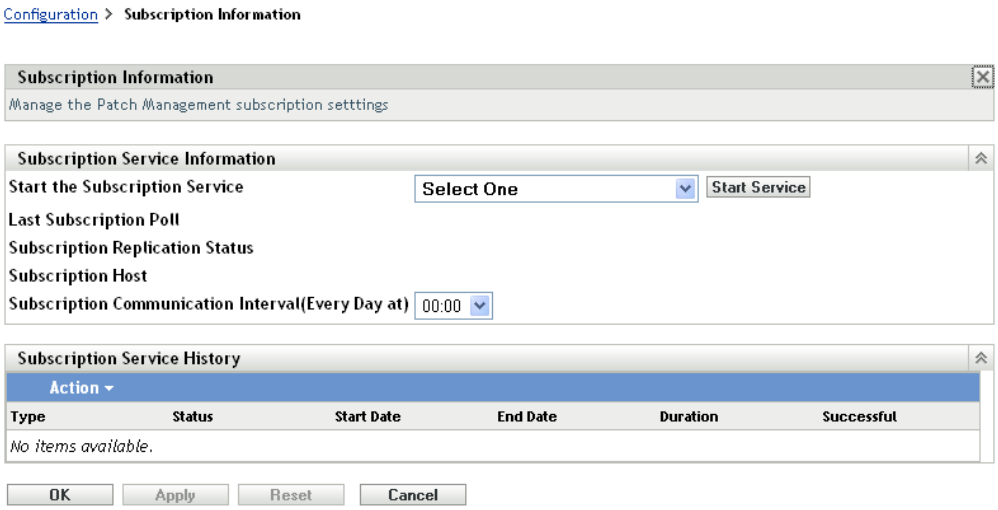
Selecting the Patch Management Server can be done only once per zone in this release.

To start a subscription service:

1. In ZENworks Control Center, click the *Configuration* tab.



2 In the Management Zone Settings panel, click *Patch Management*, then click *Subscription Service Information*.



3 In the *Start the Subscription Service* list, select the ZENworks Server that you want to run the subscription service, then click *Start Service*.

After the subscription service starts running, the *Start Service* button reads *Service Running*.

4 In the *Subscription Communication Interval (Every Day at)* list, select the time each day that you want patches downloaded.

5 Click *OK*.

5.5.4 Deploying a Patch

To deploy a patch, you use the Deploy Remediation Wizard. The wizard lists only those devices to which the patch applies and lets you deselect any devices that you don't want patched. In addition, you can schedule when you want to deploy the patch.

The following steps assume that one or more patches are available from the subscription service.

1 In ZENworks Control Center, click the *Patch Management* tab.

2 In the *Patches* tab, select the patch you want to deploy by clicking the check box in front of the patch, then click *Actions* > *Deploy Remediation* to launch the Deploy Remediation Wizard.

3 Follow the prompts to deploy the patch.

Click the *Help* button on each wizard page for detailed information about the page.

5.5.5 Renewing a Patch Management License

If your license to receive patches expires, you should renew it using the instructions in TID 3077372. See the Novell Support Web site (http://www.novell.com/support/microsites/microsite.do).

5.5.6 Where to Find More Information

For more information about patching software, see the *Novell ZENworks 10 Patch Management Reference*.

5.6 Collecting Software and Hardware Inventory

ZENworks Configuration Management lets you collect software and hardware information from devices. You can view the inventory for an individual device and generate inventory reports based on specific criteria.

For example, you want to distribute a software application that has specific processor, memory, and disk space requirements. You create two reports, one that lists all devices that meet the requirements and one that lists the devices that don't meet the requirements. Based on the reports, you distribute the software to the compliant devices and create an upgrade plan for the noncompliant devices.

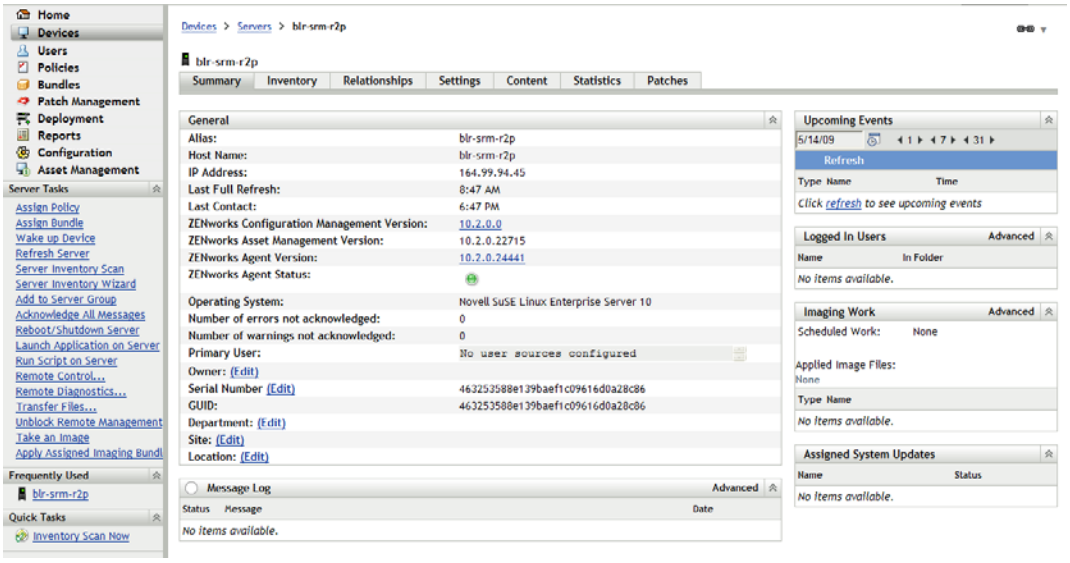
By default, devices are automatically scanned at 1:00 a.m. the first day of each month. You can modify the schedule, as well as many other *Inventory* configuration settings, on the *Configuration* tab in ZENworks Control Center.

- Section 5.6.1, "Initiating a Device Scan," on page 82
- Section 5.6.2, "Viewing a Device Inventory," on page 83
- Section 5.6.3, "Generating an Inventory Report," on page 83
- Section 5.6.4, "Where to Find More Information," on page 84

5.6.1 Initiating a Device Scan

You can initiate a scan of a device at any time.

1. In ZENworks Control Center, click the *Devices* tab.
2. Navigate the `Servers` or `Workstations` folder until you locate the device you want to scan.
3. Click the device to display its details.



4 In the task list located in the left navigation pane, click *Server Inventory Scan* or *Workstation Inventory Scan* to initiate the scan.

   The QuickTask Status dialog box displays the status of the task. When the task is complete, you can click the *Inventory* tab to view the results of the scan.

You can also use the `inventory-scan-now` command in the zman utility to scan a device. For more information, see "Inventory Commands" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

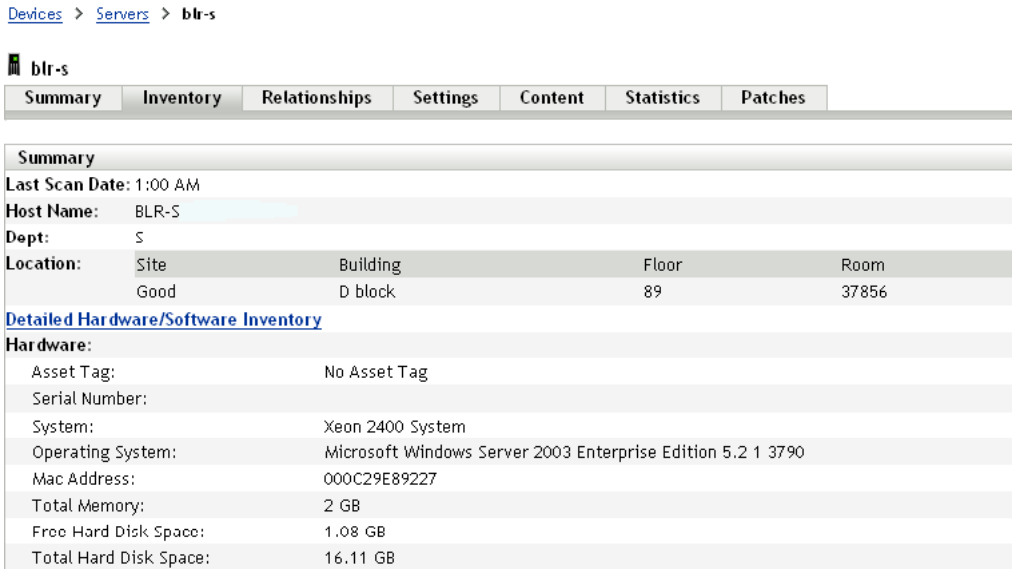
5.6.2 Viewing a Device Inventory

1 In ZENworks Control Center, click the *Devices* tab.

2 Navigate the `Servers` or `Workstations` folder until you locate the device you want to scan.

3 Click the device to display its details.

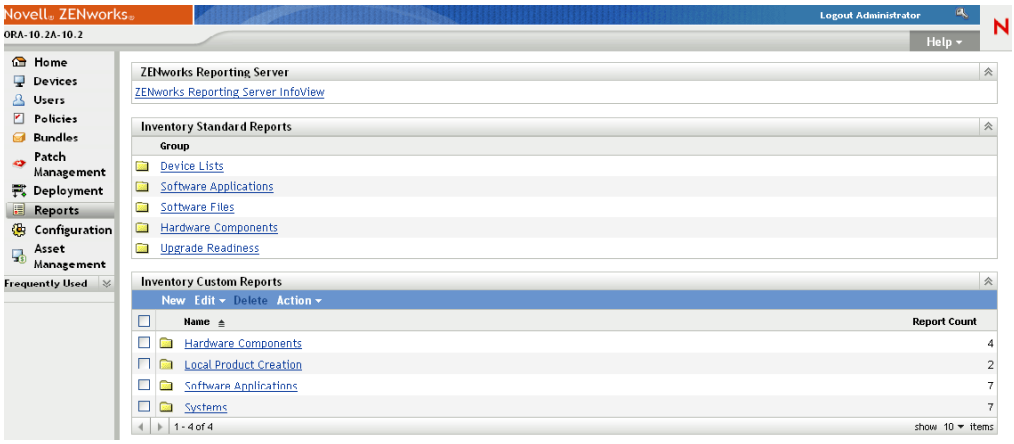
4 Click the *Inventory* tab.



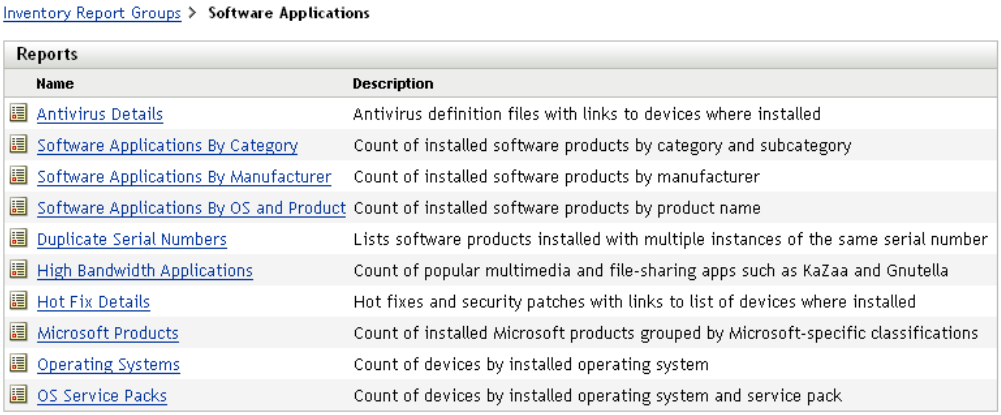
5.6.3 Generating an Inventory Report

ZENworks Configuration Management includes several standard reports. In addition, you can create custom reports to provide different views of the inventory information.

1 In ZENworks Control Center, click the *Reports* tab.



2 In the Inventory Standard Reports panel, click *Software Applications*.



3 Click the *Operating System* report to generate the report.

Using the options at the bottom of the report, you can save the generated report as a Microsoft Excel* spreadsheet, CSV (comma-separated values) file, PDF file, or PDF Graph file.

5.6.4 Where to Find More Information

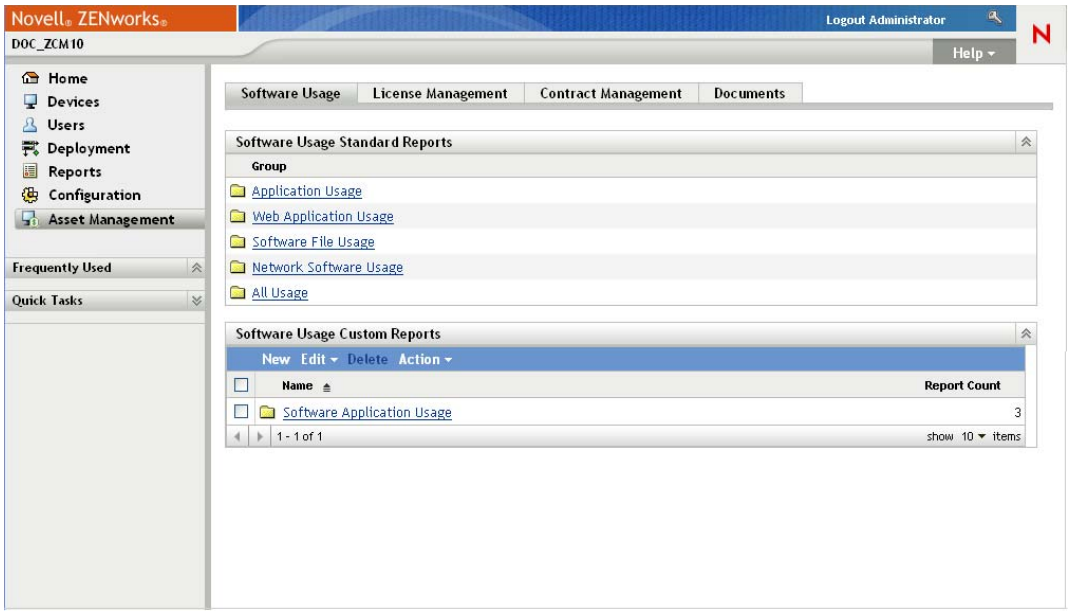
For more information about inventory, see the *ZENworks 10 Configuration Management Asset Inventory Reference*.

5.7 Monitoring Software Usage

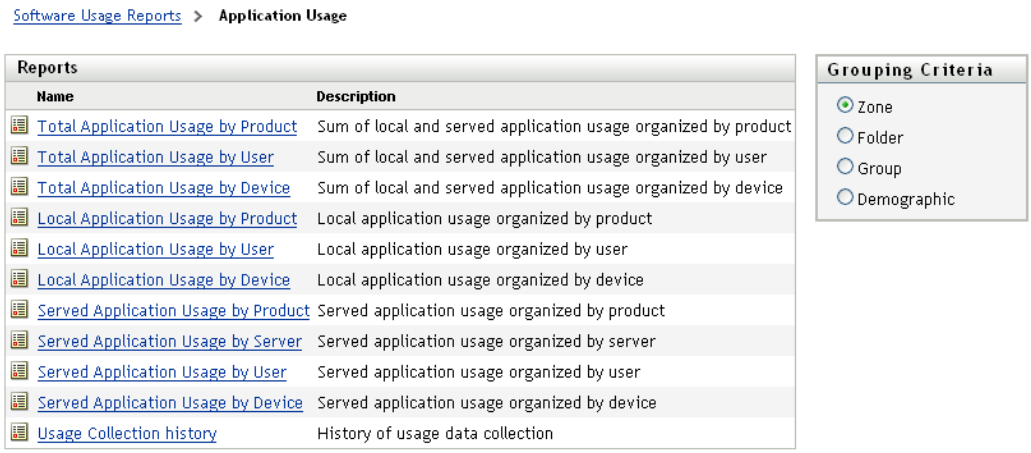
After you've inventoried devices, you can run reports to view how much the devices' applications are used. ZENworks Asset Management includes standard reports for application usage by product, user, and device. You can also customize reports to provide more detailed or focused information. For example, Asset Management includes a predefined custom report that shows application that have not been used in the last 90 days.

To run a report that shows how much a specific application is used:

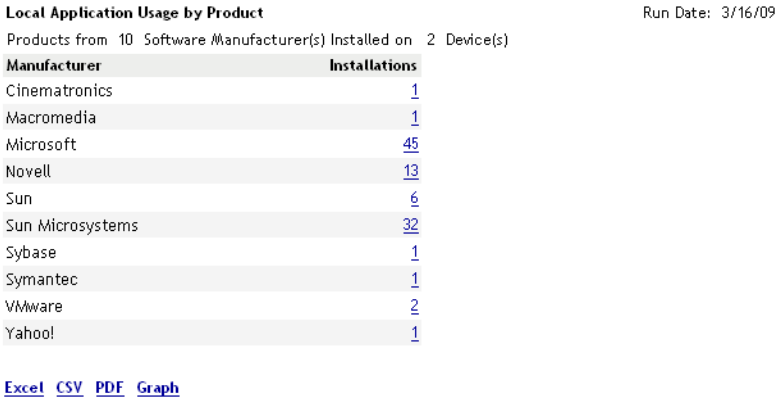
1 In ZENworks Control Center, click the *Asset Management* tab, then click the *Software Usage* tab.



2 In the Software Usage Standard Reports panel, click *Application Usage* to display the list of application usage reports.



3 In the Reports panel, click *Local Application Usage by Product*.



Local Application Usage by Product Run Date: 3/16/09

Products from 10 Software Manufacturer(s) Installed on 2 Device(s)

Manufacturer	Installations
Cinematronics	1
Macromedia	1
Microsoft	45
Novell	13
Sun	6
Sun Microsystems	32
Sybase	1
Symantec	1
VMware	2
Yahoo!	1

Excel CSV PDF Graph

The report shows all the products, grouped by software manufacturer, that are installed on the devices.

4 Find a manufacturer whose products you want to see, then click the number in the Installations column to display the installed products.

   The resulting report shows the current number of installations for each product, how many of the installations have been used, when it was last used, and other usage information.

5 If you want to change the time period for the report, or change the list of products displayed (all products, used products, or unused products), click *Change Time Period/Filters* at the bottom of the report.

There are many other standard and predefined custom reports that you can use. For additional information about application usage reports, see the *ZENworks 10 Asset Management Reference*.

5.8 Monitoring License Compliance

ZENworks Asset Management enables you to monitor your organization's compliance with software license agreements by comparing purchased software licenses with actual software installations discovered during inventory scans.

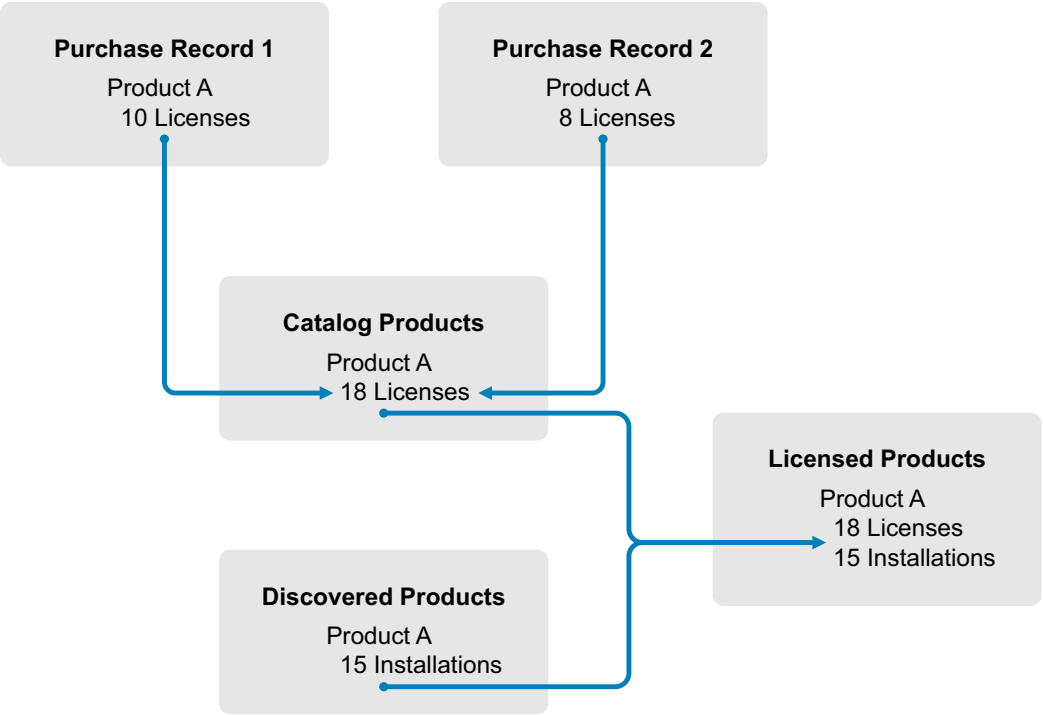
Asset Management license compliance is a powerful and flexible tool. As a result, there are multiple approaches and methods you can use when setting up license compliance. The following sections provide basic instructions with minimal explanation in order to help you quickly set up a single product for license compliance monitoring. After you finish this basic scenario, see the *ZENworks 10 Asset Management Reference* for more detailed information and instructions.

- Section 5.8.1, "License Compliance Components," on page 86
- Section 5.8.2, "Discovering Installed Products," on page 87
- Section 5.8.3, "Creating a Catalog Product and Purchase Record," on page 88
- Section 5.8.4, "Creating a Licensed Product," on page 90
- Section 5.8.5, "Viewing Compliance Data," on page 92

5.8.1 License Compliance Components

Before you begin implementing compliance monitoring, you need to understand the components involved and how they work together, as explained in the following illustration and subsequent text.

Figure 5-1 License Compliance Components



- You scan the devices in your Management Zone to collect the list of installed software products. These are called *discovered products*. In the above illustration, the inventory scan discovered that ProductA is installed on 15 devices.
- You create *catalog products* to represent the software products your organization has purchased. Typically, each catalog product corresponds to a specific manufacturer part number. In the above illustration, ProductA is the only catalog product. However, you might have catalog products for ProductA, ProductA Upgrade, and ProductB.
- You create *purchase records* to represent the purchase orders or invoices for software products. Each line item in the purchase record lists a catalog product along with the license purchase quantity. If a catalog product is listed in multiple purchase records, the catalog product's total licenses equal the purchase quantity for both purchase records. In the above illustration, one purchase record includes 10 licenses of ProductA and another purchase record includes 8 licenses. The total license count for ProductA is 18.
- You create *licensed products* and associate the corresponding discovered products and catalog products to them. This gives you a single licensed product that includes the number of licenses and installations for the product. The result is a quick view of whether or not the product usage complies with the license agreement. In the above illustration, ProductA has 18 licenses and is installed on 15 devices, so ProductA complies with your license agreement.

5.8.2 Discovering Installed Products

If you have not already scanned the devices in your Management Zone to collect information about installed products (referred to as *discovered products*), complete the steps in Section 5.6, "Collecting Software and Hardware Inventory," on page 82.

After you have discovered products, choose one whose compliance you want to monitor.

1 In ZENworks Control Center, click the *Asset Management* tab, then click the *License Management* tab.

2 In the License Management panel, click *Discovered Products* to display the Discovered Products list.

Discovered Products

Action

Name	Excluded	Licensed Product	Installed Quantity	Active Usage Quantity	Standards Category
Microsoft Office Professional 2003 2003 (Windows)		Office Professional 2003	10	10	
Microsoft Windows Server 2003 5.2 (Windows)		Windows Server 2003	5	5	
Microsoft Windows XP Professional 5.1 (Windows)		Windows XP Professional	15	11	
Sun Java2 Runtime Environment 1.5 (Windows)			15	12	
Sybase SQL Anywhere Developer Edition 10.0 (Windows)			1	0	
Symantec Symantec AntiVirus Corporate Edition 8.1 (Windows)			30	25	
VMware VMware Tools - (Windows)			2	2	
Yahoo! Yahoo! Companion Toolbar - (Windows)			1	0	

1 - 8 of 8 show 25 items

3 Browse the list to choose the discovered product you want to use.

The product must have a least one installation listed in the *Installed Quantity* column. If possible, you should choose a product for which you have a purchase order or invoice readily available. This allows you to complete the scenario using real information. Otherwise, you can invent the purchase information as you go. Remember your product choice so that you can use it later.

4 Continue with the next section, "Creating a Catalog Product and Purchase Record" on page 88.

5.8.3 Creating a Catalog Product and Purchase Record

Discovered products provide the installation information for products. To provide information about product purchases, you create catalog products and purchase records.

A catalog product represents a software product. A purchase record populates the catalog product with the number of product licenses you've purchased.

The following steps explain how to create a catalog product and purchase record for the discovered product you chose in Section 5.8.2, "Discovering Installed Products," on page 87.

1 In ZENworks Control Center, click the *Asset Management* tab, then click the *License Management* tab.

2 Create the catalog product:

2a In the License Management panel, click *Catalog Products*.

Catalog Products

New Move... Delete Action

Name	Licenses Per Pkg	Mfr. Part #	Reseller SKU	Excluded	Purchase Quantity	Licensed Product
4D TECHNOLOGIES INC CD DUPE MS OFFICE 2000 STANDARD 32 BIT WIN (CD)(NR) 2000 (FF_Media Duplication) (1)	1	C49567	C49567		1	
ACME Jumble 2 (Full License) (1)	1				2	Jumble
ACME Turbo (Version Upgrade) (1)	1					
ADOBE SYSTEMS INC ADOBE ACROBAT CAPTURE V3.0 PERSONAL ED WNT (CD) 3 (Shrinkwrap Product) (1)	1	22101156	A59587		1	
ADOBE SYSTEMS INC ADOBE ACROBAT V5.0 MP (CD) 5 (Shrinkwrap Product) (1)	1	22001438	A68210		2	
ADOBE SYSTEMS INC ADOBE ACROBAT V5.0 MP UPG (CD) 5 (Shrinkwrap Product) (1)	1	22001440	A68250		3	
ADOBE SYSTEMS INC ADOBE DESIGN COLLECTION V4.0 MP (CD) 4 (Shrinkwrap Product) (1)	1	27590080	A69412		1	
ADOBE SYSTEMS INC ADOBE GOLIVE V6.0 MP (CD) 6 (Shrinkwrap Product) (1)	1	23200324	A84261		2	
ADOBE SYSTEMS INC ADOBE PAGEMAKER V7.0 MP (CD)(EU) 7 (Shrinkwrap Product) (1)	1	27530341	A69856		1	
ADOBE SYSTEMS INC ADOBE PAGEMAKER V7.0.2 MP UPG (CD)(EU) 7 (Shrinkwrap Product) (1)	1	27530402	A104342		1	

2b Click *New* > *Catalog Product* to launch the Create New Catalog Product Wizard.

2c Fill in the following fields:

Manufacturer: Select the software manufacturer from the list. If the correct manufacturer is not listed, type the manufacturer name (for example, Novell, Symantec, or Microsoft).

Product: Type the name of the product. The product should represent the purchased software product package (SKU). For example, the purchased package might be Product A Single License or Product A 10-Pack. If you have an invoice record that includes the product for which you are creating the catalog product, use the product name from the invoice.

Licenses Per Package: Specify the number of licenses included in the product package.

Product Type - Notes: These fields are optional. You can use them to further identify the product.

Excluded: Do not select this check box.

2d Click *Next* to display the Summary page, the click *Finish* to add the product to the Catalog Products list.

2e Click *License Management* (in the breadcrumb path at the top of the page) to return to the License Management page.

3 Create the purchase record:

3a In the License Management panel, click *Purchase Records*.

License Management > Purchase Records

Purchase Records | Import Status

New Move... Delete Action

PO #	Order Date	Reseller
No items available.		

3b Click *New* > *Purchase Record* to launch the Create New Purchase Record Wizard.

3c Fill in the following fields:

PO Number: Specify the purchase order number or invoice number associated with the software product purchase. If you don't have PO or invoice for this product, use any number.

Order Date: Select the date the software was purchased.

Recipient - Reseller: These fields are optional. You can use them to further identify the purchase record.

3d Click Next to display the Summary page.

3e Select the *Define Additional Properties* box, then click *Finish* to create the purchase record and display its Purchase Details page.

3f Click *Add* to display the Add Purchase Detail dialog box, then fill in the following fields:

Product: Click to browse for and select the catalog product you created in Step 2.

Quantity: Specify the quantity of product purchased. For example, if the catalog product you selected is ProductA 10-Pack and the purchase order was for 5 ProductA 10-Packs, specify 5.

Unit MSRP - Extended Price: These fields are required. Specify the manufacturer's suggested retail price (MSRP), the price you paid per unit, and the extended price. If you leave the *Extended Price* field blank, the wizard populates it by multiplying the *Purchase Quantity* and the *Unit Price*.

Invoice # - Comments: These fields are optional. You can use them to further identify the purchase.

3g Click *OK*.

4 Continue with the next section, Creating a Licensed Product.

Asset Management can also import purchase information from electronic files. During the process, the purchase record is created as well as any catalog products for software products included in the purchase record. For more information, see the *ZENworks 10 Asset Management Reference*.

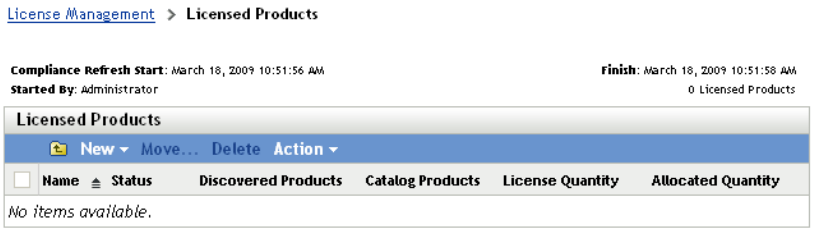
5.8.4 Creating a Licensed Product

The final step in setting up compliance for the software product is to create a licensed product and associate the discovered product and catalog product with it. Doing so populates the license product with the installation and license information needed to determine its license compliance status.

The following steps explain how to use the Auto-Reconcile Wizard to create the licensed product and associate the discovered product and catalog product with it.

1 In ZENworks Control Center, click the *Asset Management* tab, then click the *License Management* tab.

2 In the License Management panel, click *Licensed Products*.



3 In the Licensed Products panel, click *Action* > *Auto-Reconcile: Create Licensed Products* to launch the Auto-reconcile Wizard. Complete the wizard using information from the following table to fill in the fields.

Wizard Page	Details
Discovered Product Filter	The Auto-Reconcile Wizard creates licensed products from existing discovered products.To find your discovered product: 1. Click the *Products Specified Below* option. 2. In the *Select* list, select the manufacturer of your discovered product. 3. In the *Product* field, enter the name of your discovered product.
Select Licensed Products to Create	Based on the information you specified on the Discovered Product Filter page, this page should display your discovered product and the licensed that will be created for it. The wizard attempts to match catalog products to the discovered product by comparing the Manufacturer and Product fields. If the wizard was able to match the catalog product you created to your discovered product, the catalog product is listed as well. Select the catalog product to associate it with the licensed product. If the wizard is unable to match the catalog product to the discovered product, you will need to manually assign the catalog product after completing the wizard.
Destination Folder	Select the folder where you want to place the new licensed product. The field defaults to the current folder (the folder from which you launched the Auto-Reconcile Wizard). To specify another folder, click to browse for and select the folder. The folder must already exist; you cannot use the selection dialog to create a new folder.
License Entitlements	Every licensed product must have at least one entitlement and license model. An entitlement typically represents a license agreement. In many cases, a licensed product might have only one entitlement. However, by allowing multiple entitlements, you can determine compliance for a licensed product that has several license agreements. For example, you might have a full license agreement and an upgrade license agreement for the same product. Rather than creating two separate licensed products for the same product, you create one licensed product with two different entitlements. The license model determines how the licenses are counted. Licenses can be counted per installation, user, or device. For this scenario, specify *Per-Installation* as the description and select *Per-Installation* as the license model. This causes each installation of the product to consume a license.
Auto-reconcile Create Summary	Review your data.

4 If you haven't done so already, click *Finish* to create the licensed product and add it to the Licensed Products list.

5 If the Auto-Reconcile Wizard was unable to associate your catalog product with the licensed product:

5a Click the licensed product.

5b Click the *License Entitlements* tab.

5c In the Entitlements panel, click the entitlement.

5d Click the *Proof of Ownership* tab.

5e In the Catalog Products panel, click *Add*.

5f Select the catalog product, then click *OK* to add it to the Catalog Products panel.

The Catalog Products panel displays the catalog product's Purchase Quantity, which is the number of units of the catalog product that you've purchased (according to the purchase record). It also displays the License Quantity, which is the total number of licenses included in the purchased units.

6 Continue with the next section, Viewing Compliance Data, for information about monitoring compliance.

5.8.5 Viewing Compliance Data

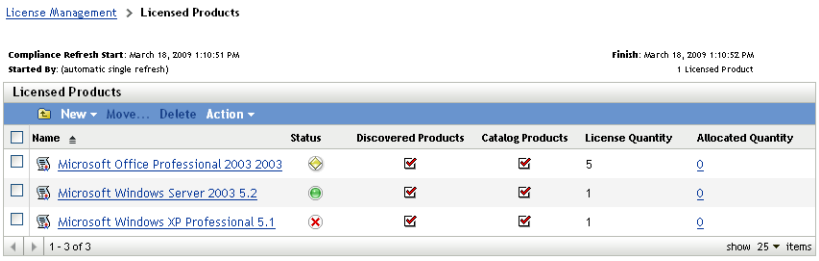
There are two views you can use to see the compliance status of your licensed products. You can view the Licensed Products page to get a compliance status summary for all products, or you can generate the Software Compliance report to see more detailed information.

- "Viewing the Compliance Status Summary" on page 92
- "Generating the Software Compliance Report" on page 93

Viewing the Compliance Status Summary

1 In ZENworks Control Center, click the *Asset Management* tab, then click the *License Management* tab.

2 In the License Management panel, click *Licensed Products* to display the Licensed Products page.



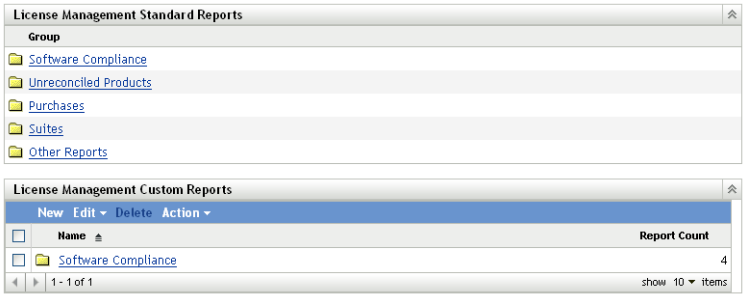
The Licensed Products list displays all licensed products and their current compliance status:

- The software product is properly licensed. The number of purchased licenses equals the number of installations.
- The software product is over licensed. There are more purchased licenses than installations.
- The software product is under licensed. There are fewer purchased licenses than installations.

Generating the Software Compliance Report

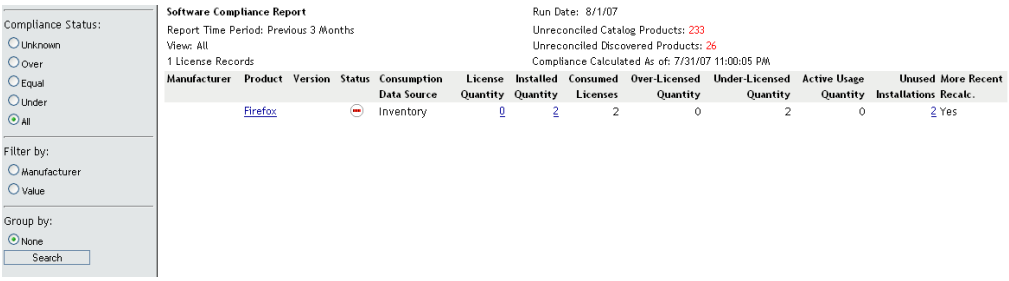
1 In ZENworks Control Center, click the *Asset Management* tab, then click the *License Management* tab.

2 In the License Management panel, click *License Management Reports*.



3 In the License Management Standard Reports panel, click *Software Compliance*.

4 In the Reports panel, click *Compliance Report*.



A report appears showing compliance data by license. You can filter the data by compliance status, manufacturer and value, or demographic criteria. Drill in to *License Quantity* to see compliance details for a particular licensed product. For information on other reports, see the *ZENworks 10 Asset Management Reference*.

5.9 Retiring Devices

If you retire a server or workstation device, the selected device is removed from your ZENworks Zone. Retiring a device is different from deleting a device. When you retire a device, its GUID is retained (as opposed to when you delete a device, which also deletes its GUID). As a result, all inventory information is retained and is assessable but all policy and bundle assignments are removed. If you unretire the device in the future, its assignments are restored. You can retire both managed and inventoried devices.

To retire a device, you must have Device Modify rights. For more information, see "Managing Administrator Rights" in the *ZENworks 10 Configuration Management System Administration Reference*.

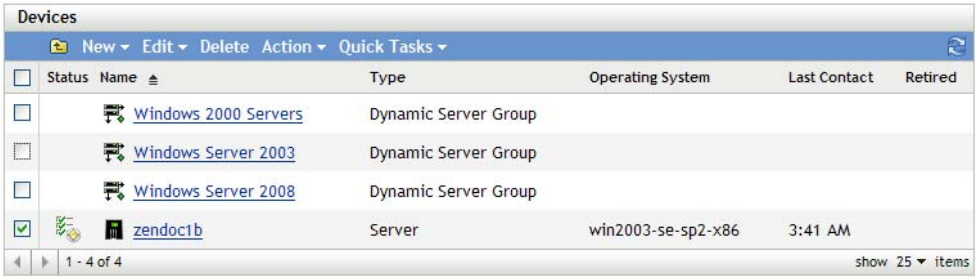
To retire a device:

1 In ZENworks Control Center, click *Devices* > *Managed* if you want to retire a managed device.

or

Click *Devices* > *Inventoried* if you want to retire an inventoried device.

2 Click the underlined link next to the *Servers* or *Workstations* folder to display the list of servers or workstations in your ZENworks system.



3 Select the check box in front of the server or workstation (you can select multiple devices).

Before you can retire a ZENworks Primary Server, you must first demote it. For more information, see "Changing the Parent-Child Relationships of Primary Servers" in the *ZENworks 10 Configuration Management System Administration Reference*.

4 Click *Action* > Retire Device.

or

Click *Action* > *Unretire*.

The icon displays in the *Status* column in the *Servers* or *Workstations* list for retired devices. You can mouse over the time to see the full date and time.

System Messages and Reports

6

Novell® ZENworks® 10 Configuration Management lets you monitor the activity within your Management Zone through system messages and reports.

- Section 6.1, "Viewing System Messages," on page 95
- Section 6.2, "Creating a Watch List," on page 98
- Section 6.3, "Generating Reports," on page 99

6.1 Viewing System Messages

The ZENworks system generates normal (informational), warning, and error messages to help you monitor activities such as the distribution of software and application of policies.

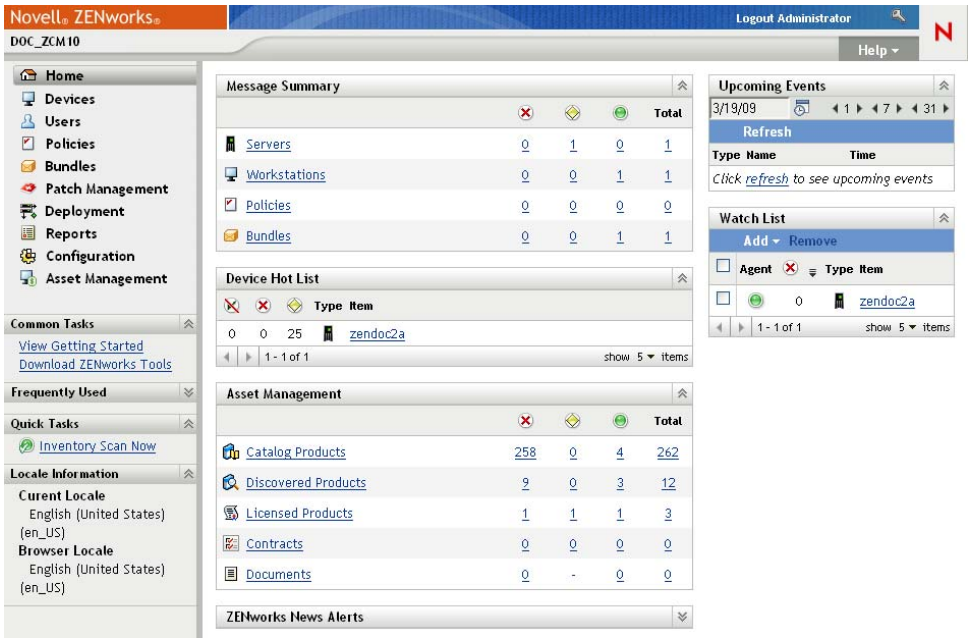
Each ZENworks Server and ZENworks Adaptive Agent creates a log of the activities associated with it. These messages are displayed in ZENworks Control Center in a variety of areas:

- **System Message Log:** The system message log, located on the System Information page (*Configuration* tab), displays messages from all ZENworks Servers and Adaptive Agents within the zone.
- **Device Message Log:** A device message log, located on the Summary page for a server or workstation, displays messages generated by the ZENworks Server or the Adaptive Agent. For example, the message log for Workstation1 includes all messages generated by the Adaptive Agent on Workstation1.
- **Content Message Log:** A content message log, located on the Summary page for a bundle or policy, displays only the ZENworks Server or Adaptive Agent messages associated with the bundle or policy. For example, the message log for Bundle1 might have messages generated by three different ZENworks Servers and 100 different Adaptive Agents.

6.1.1 Viewing a Summary of Messages

You can view a summary that shows the number of messages generated for the servers, workstations, bundles, and policies in your zone.

1. In ZENworks Control Center, click the *Home* tab.



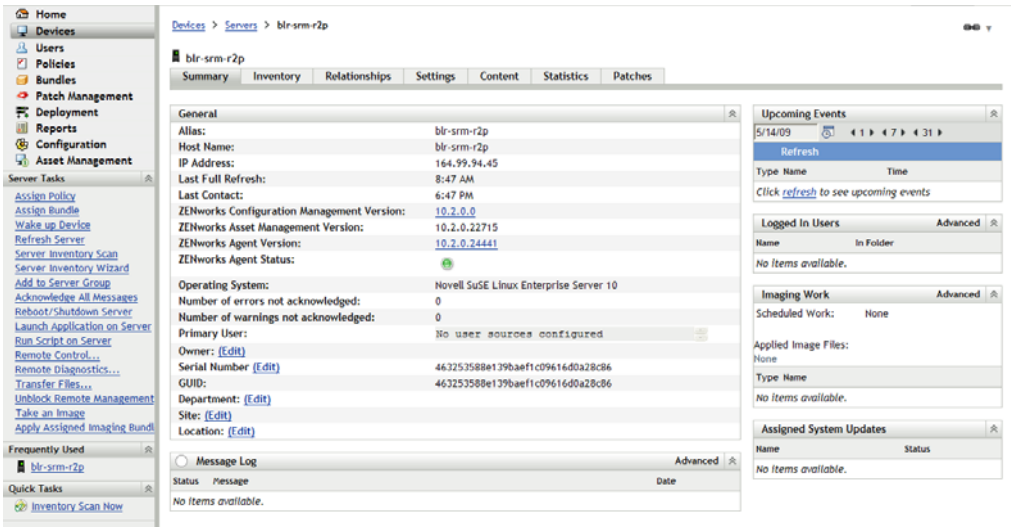
The Message Summary panel displays the status of all servers, workstations, policies, and bundles in your Management Zone. For example, if two servers have unacknowledged critical messages (messages that you or another administrator have not yet acknowledged as having seen), the column displays the number 2. Or, if you have three bundles with warning messages and five bundles with only normal messages, the column displays the number 3 and the column displays the number 5. You can do the following with the summary:

- Click an object type to display its root folder. For example, click *Servers* to display the Servers root folder (`/Servers`).
- For any object type, click the number in one of its status columns ( ) to display a listing of all the objects that currently have that status. For example, to see the list of servers that have a normal status, click the number in the column.
- For any object type, click the number in the *Total* column to display all of the objects that have critical, warning, or normal messages. For example, click the *Total* count for *Servers* to display a list of all servers that have any type of messages.

6.1.2 Acknowledging Messages

A message remains in a message log until you acknowledge it. You can acknowledge individual messages or acknowledge all messages in the message log at one time.

1. In ZENworks Control Center, click the *Devices* tab.
2. Navigate the `Servers` folder until you locate a ZENworks Server.
3. Click the server to display its details.



4 On the *Summary* tab, locate the Message Log panel.

The Message Log panel lists all messages (informational, warning, and error) generated by the ZENworks Server. The following table explains the various ways you can acknowledge and delete messages.

Task	Steps	Additional Details
Acknowledge a message	1. Click the message to display the Message Detail Information dialog box. 2. Click *Acknowledge*.	If you decide that you don't want to acknowledge the message, click *Finished* to dismiss the dialog box. This causes the message to remain in the *Message Log* list.
Acknowledge all messages	1. In the *Tasks* list located in the left navigation pane, click *Acknowledge All Messages*.	
View all acknowledged or unacknowledged messages	1. Click the *Advanced* button to display the Edit Message Log page.	In addition to viewing all acknowledged and unacknowledged messages, you can also view only those messages with a specific status or date, view more details about messages, and acknowledge messages. Click the *Help* button on the Edit Message Log page for specific information about performing tasks on that page.
Delete a message	1. Click the message to display the Message Detail Log dialog box. 2. Click *Delete*.	Deleting a message completely removes the message from your ZENworks system.

You can also use the `messages-acknowledge` command in the zman utility to acknowledge messages associated with devices, bundles, and policies. For more information, see "Message Commands" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

6.1.3 Where to Find More Information

For more information about system messages, see "Message Logging" in the *ZENworks 10 Configuration Management System Administration Reference*.

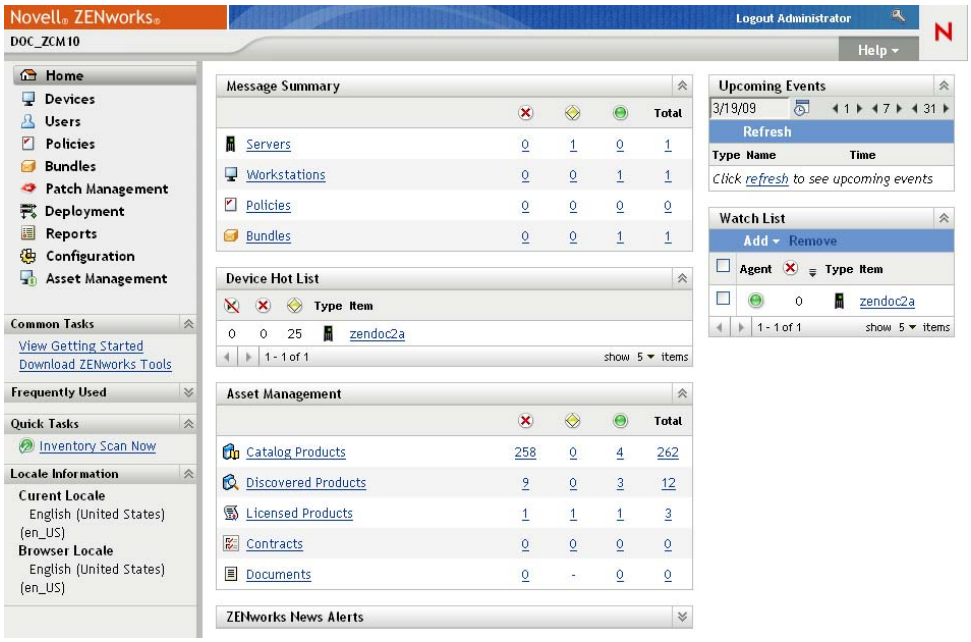
6.2 Creating a Watch List

If you have devices, bundles, or policies whose status you want to closely monitor, you can add them to the Watch List. The Watch List provides the following information:

- **Agent:** For servers and workstations, displays whether the device's ZENworks Adaptive Agent is currently connected ( ) or disconnected ( ).
- : Displays whether or not the object has any critical messages.
- **Type:** Displays an icon representing the object's type. For example, a bundle might have a icon to show that it is a Windows bundle. Or a device might have a icon to show that it is a server. You can mouse over the icon to see a description.
- **Name:** Displays the object's name. You can click the name to go to the object's message log.

To add a device, bundle, or policy to the Watch List:

1 In ZENworks Control Center, click the *Home* tab.



2 In the Watch List panel, click *Add*, then select the type of object (Device, Bundle, or Policy) you want to add to the list.

3 In the selection dialog box, select the desired object, then click *OK* to add it to the Watch List.

For example, if you are adding servers, browse for and select a server.

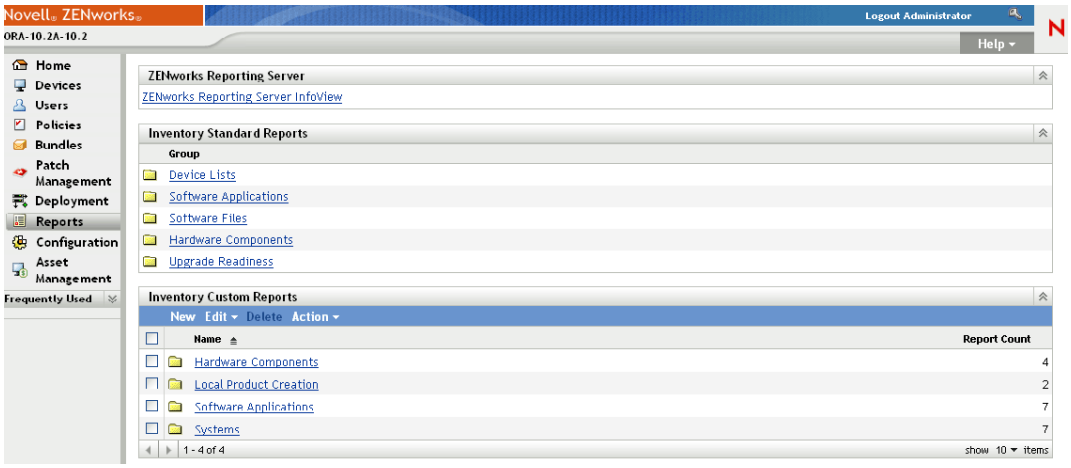
Objects remain in the Watch List until you remove them.

6.3 Generating Reports

ZENworks Configuration Management uses ZENworks Reporting Server to generate reports for your Management Zone. You can use predefined reports or custom reports.

To access the reports:

1 In ZENworks Control Center, click the *Reports* tab.



2 In the ZENworks Reporting Server panel, click *ZENworks Reporting Server InfoView* to launch the ZENworks Reporting Server InfoView. The ZENworks Reporting Server InfoView page is displayed with initial view as *Document List*.

The following table explains the various tasks you can perform in the ZENworks Reporting Server InfoView.

Task	Steps
Generate a predefined report	1. Navigate the `Predefined Reports` folder until you locate the report definition on which you want to generate a report. 2. Click *Actions* > *Schedule*, or right-click the report, then select *Schedule*.
Generate a custom report	1. In the InfoView toolbar, click *New* > *Web Intelligence Document*. The *Universe* pane is displayed. 2. In the *Data* tab, navigate to the universe object for which you want to create a report, and drag the object to the right pane. 3. Click *Run Query*. 4. Save the report in the `Custom Reports` folder.
View the earlier instances of a report	1. Navigate the `Predefined Reports` or the `Custom Reports` folder until you locate the report whose earlier instances you want to view. 2. Click *Actions* > *History,* or right-click the report, and select *History*.
View the latest instance of a report	1. Navigate the `Predefined Reports` or the `Custom Reports` folder until you locate the report whose latest instances you want to view. 2. Click *Actions* > *View Latest Instance*, or right-click the report, and select *View Latest Instance*.
View the properties of a report	1. Navigate the `Predefined Reports` or the `Custom Reports` folder until you locate the report whose properties you want to view. 2. Click *Actions* > *Properties*, or right-click the report and select *Properties*.

You can also use the `report-generate-now` command, as well as other report commands, in the zman utility to manage reports. For more information, see "Report Commands" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

For more information about reporting, see the *ZENworks 10 Configuration Management System Reporting Reference*.

Documentation Updates

A

This section contains information on documentation content changes that were made in this *Administration Quick Start Reference* for Novell® ZENworks® 10 Configuration Management SP2. The information can help you to keep current on updates to the documentation.

The documentation for this product is provided on the Web in two formats: HTML and PDF. The HTML and PDF documentation are both kept up-to-date with the changes listed in this section.

If you need to know whether a copy of the PDF documentation that you are using is the most recent, the PDF document includes a publication date on the title page.

The documentation was updated on the following date:

- Section A.1, "May 27, 2009: SP2 (10.2)," on page 103

A.1 May 27, 2009: SP2 (10.2)

Updates were made to the following sections:

Location	Update
Section 4.3.2, "ZENworks Control Center Deployment Task," on page 45	Updated the section to provide information on how to discover devices for the Windows Primary Server by using Windows Proxy.
Section 4.4.2, "Navigating the Adaptive Agent Views," on page 50	Updated the section to provide information on the Windows Proxy and Satellite features of the Adaptive Agent.
Section 4.4.3, "Enabling and Disabling Adaptive Agent Features," on page 54	Added the section to provide information on how to install, uninstall, enable, or disable the Adaptive Agent features.
Section 5.3, "Imaging Devices," on page 64	Added information about the support for Ghost third-party imaging.
Section 6.3, "Generating Reports," on page 99	Changed BusinessObjects Enterprise Reporting to ZENworks Reporting Server.