Novell
ZENworks® 10 Configuration Management

10.0.3

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ENTERPRISE EDITION GETTING
STARTED GUIDE

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Contents

About This Guide

This *Novell ZENworks Configuration Management Enterprise Edition Getting Started Guide* includes information to help you successfully install, set up, and use a Novell® ZENworks® 10 Configuration Management system. The information in this guide is organized as follows:

Audience

This guide is intended for ZENworks Configuration Management administrators.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation, or go to the Novell Documentation Feedback site (http://www.novell.com/documentation/feedback.html) and enter your comments there.

Additional Documentation

ZENworks 10 Configuration Management is supported by other documentation (in both PDF and HTML formats) that you can use to learn about and implement the product. For additional documentation, see the ZENworks 10 Configuration Management documentation (http://www.novell.com/documentation/zcm10/index.html).

Documentation Conventions

In Novell documentation, a greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path.

A trademark symbol (®, ™, etc.) denotes a Novell trademark. An asterisk (*) denotes a third-party trademark.

When a single pathname can be written with a backslash for some platforms or a forward slash for other platforms, the pathname is presented with a backslash. Users of platforms that require a forward slash, such as Linux*, should use forward slashes as required by your software.

Product Overview

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Novell® ZENworks® 10 Configuration Management Enterprise Edition provides comprehensive management of Windows* servers and workstations, collectively referred to as devices. Both Windows and Linux* devices can act as servers in Configuration Management.

Using the ZENworks Control Center management console, you can:

- Discover deployable devices in your network and create deployment tasks to deploy ZENworks software to them
- Manage and deploy software on your devices
- Manage your device configuration and application settings through the use of policies
- Automate the application of images and scripts
- Remotely manage devices by using a secure and fast interface
- Collect hardware and software inventory
- Generate reports for policies, inventory, bundles, and messages
- Convert and customize legacy software installations to industry standard MSIs for easy deployment
- Manage delivery of software patches automatically and consistently to minimize vulnerabilities and issues
- Manage your software assets
- Using Linux Management, provide full life cycle management for Linux devices
- Inventory and manage handheld devices
- Implement endpoint security by combining security policy enforcement for data, devices, and connectivity under a single management console

The following sections further introduce you to the capabilities of ZENworks Configuration Management and provide a high-level overview of the ZENworks system architecture and administration.

1.1 Management Capabilities

The ZENworks Configuration Management capabilities are as follows:

1.1.1 Discovery and Deployment

Discovery means to find devices through an IP-based discovery process, migration from Novell eDirectory™, or importing from Active Directory*.

Discovery also provides inventory of non-managed devices via protocols such as WMI, SNMP, and NMAP.

Deployment means to distribute and install ZENworks management software to the discovered devices. These devices then become managed devices.

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

1.1.2 Software Management

ZENworks Configuration Management lets you install, remove, and roll back content on your devices. This is done through the use of software bundles.

When you assign a bundle to a device, you can install and launch it on the device according to the schedules (distribution, launch, and availability) that you define.

For more information, seethe *ZENworks 10 Configuration Management Software Distribution Reference*.

1.1.3 Policy-Based Device Management

ZENworks Configuration Management provides a number of policies to create configurations that you can deploy to managed devices, so the devices have a uniform configuration and so you don't need to configure each device separately. You can also create policies with other settings in order to give a different configuration to a specific set of devices.

ZENworks Configuration Management policies help you manage the Internet Explorer Favorites, Windows Group policies, how devices can be remotely managed, local file rights, printers, SNMP service settings, roaming profiles, and the control and launching of applications.

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

1.1.4 Automated Imaging

ZENworks Configuration Management includes a preboot service that enables you to perform tasks on devices before their operating systems boot up. Using Preboot Services, you can automatically or manually do the following to a device when it boots up:

- Run ZENworks imaging scripts containing any commands that you can issue at the bash prompt
- Take an image of the device's hard drives and other storage devices
- Restore an image to the device
- Take part in a session where an existing image is applied to multiple devices

To accomplish some of these tasks automatically, you simply need to have PXE (Preboot Execution Environment) enabled on your devices, then configure prebootable tasks in ZENworks Control Center and assign them to the devices. Then, the devices can automatically implement these tasks when they boot.

To manually implement the tasks, you can configure devices to require user intervention during bootup.

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

1.1.5 Remote Management

ZENworks Configuration Management provides the ability to remotely and securely manage devices through operations such as Remote Control, Remote View, Remote Execute, Remote Diagnostics, and File Transfer.

For more information, see the *ZENworks 10 Configuration Management Remote Management Reference*.

1.1.6 Inventory Collection

ZENworks Configuration Management can gather extensive software and hardware inventory for all managed devices and inventoried devices, and it also enables you to create and export standard and custom reports.

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

1.1.7 System Updates

You can update your ZENworks Configuration Management software on all devices in the Management Zone where the software is installed. Update downloads can be scheduled. Software updates are provided at the Interim Release level and you can choose whether to apply each update after viewing its content (interim releases are cumulative). You can also download the latest Product Recognition Update (PRU) to update your knowledgebase so that ZENworks Inventory can recognize newer software.

For more information, see the *ZENworks 10 Configuration Management System Administration Reference*.

1.1.8 Asset Management

ZENworks Asset Management provides various tools to help you manage your software assets. These tools encompass three areas:

- **Software Usage:** You can track usage of software applications (including run time, active time, logged in user, machine, and application used) in your existing inventory. You can also track and report on software run via Terminal Server and Citrix, as well as Web applications run through the browser. You can run a full range of predefined software usage reports, as well as create, save, and run custom reports.

- **Contract Management:** You can define and track IT contract details, including key dates and vendor, financial, SLA, lease, and renewal information; attach related documents; associate contracts with assets, licenses, and demographic data; and create automated e-mail notifications for specified dates. You can also run a full range of predefined contract management reports, as well as create, save, and run custom reports.

- **License Management:** You can import and enter software purchase records, define license entitlements, attach supporting documentation, reconcile discovered software products to entitlements, and track ongoing compliance status. You can also run a full range of predefined license management reports, as well as create, save, and run custom reports.

For more information, see the *ZENworks 10 Configuration Management Asset Management Services Reference*.

1.1.9 Patch 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. The Enterprise Edition requires a maintenance agreement or upgrade protection with Novell.

When a new patch is available from the subscription service, a ZENworks Server automatically downloads it. You can deploy the patch to devices or disregard the patch.

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

1.1.10 Linux Management

Linux Management makes it easy to embrace and extend Linux within your existing environment. It is the only solution that uses policy-driven automation to deploy, manage, and maintain Linux resources. These automated and intelligent policies allow you to provide centralized control across the life cycle of Linux systems for desktop lockdown, imaging, remote management, inventory management and software management. The result is a comprehensive Linux management solution that eliminates IT effort by dramatically reducing the required overhead needed to manage Linux systems.

For more information, see the Novell ZENworks 7.2 Linux Management documentation Web site (http://www.novell.com/documentation/zlm72/index.html).

1.1.11 Handheld Management

Handheld Management lets you manage Palm*, Windows CE, Pocket PC, and BlackBerry* handheld devices, including the ability to distribute applications and content to devices; secure information by using password enforcement, integration, self-destruct, and lockout capabilities; optimize low-bandwidth connectivity through the use of compression, checkpoint restart, delta technology, and configurable bandwidth technology; inventory hardware and software and use detailed queries to generate reports; automate device setup and standardize settings and programming; and retrieve files from devices to protect data and integrate it with corporate data.

For more information, see the Novell ZENworks 7 Handheld Management documentation Web site (http://www.novell.com/documentation/zenworks7/zen7_zhm7.html).

1.1.12 Endpoint Security Management

Endpoint Security Management simplifies endpoint security by combining security policy enforcement for data, devices, and connectivity under a single management console. This allows organizations to manage, control and enforce security policies for removable storage, wireless communications including MESH and WiMAX, application control, machine posture/integrity, data encryption, and advanced personal firewall. Its lightweight footprint in both size and traffic, its ease of management, and its comprehensive functionality earned it the Secure Computing Magazine's "Reader's Trust Award for Best Endpoint Security Solution" in 2007.

Endpoint Security Management simplifies endpoint security by putting administrators in control, combining "point" security solutions under a single, easy-to-use management console.

For more information, see the Novell ZENworks Endpoint Security Management 3.5 documentation Web site (http://www.novell.com/documentation/zesm35/index.html).

1.2 System Architecture

The ZENworks system architecture consists of two main components, Primary Servers and managed devices. These components are organized into management domains, referred to as Management Zones.
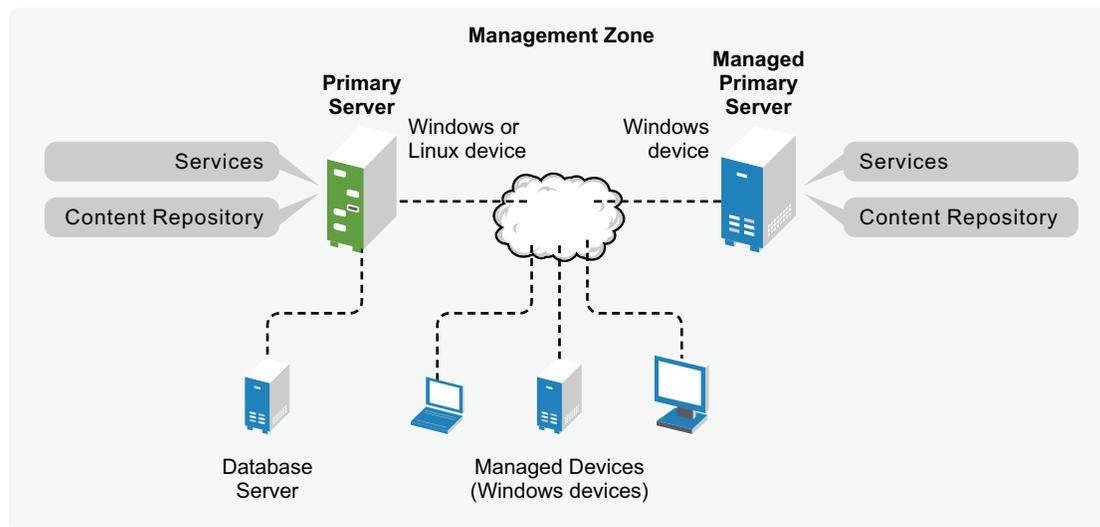
1.2.1 Primary Server

The Primary Server is the focal point of the ZENworks system. Depending on the number and location of the devices that you want to manage with ZENworks, you might need additional Primary Servers. The ZENworks services are added to each Primary Server during installation and configuration of the ZENworks software.

The Primary Server contains the following ZENworks components:

*   **ZENworks services:** The ZENworks software that provides software management, policy enforcement, inventory collection, imaging, and so forth. The main services are ZENworks Server, ZENworks Loader, ZENworks Imaging Service, ZENworks Preboot Policy Service, ZENworks Server Service, and ZENworks Management Service.

*   **Content repository:** Contains the software, policies, and configuration metadata (stored in the database). The policies and software are available for delivery to managed devices within the system. The content is compressed and encrypted. By default, content is automatically replicated among all Primary Servers in the Management Zone, based on a schedule that you control. However, you can configure this to exclude certain servers.

*   **ZENworks Configuration Management database:** Contains information about the software bundles for delivery, the hardware and software inventory lists collected from devices, information about the ZENworks Control Center objects (devices, users, bundles, policies, and so on), centralized system messages, license tracking, usage data and other transactional data, and the actions scheduled to take place within the system.

    You can install the embedded Sybase* SQL Anywhere* database that is included with Configuration Management, or you can use an external Sybase SQL database or a Microsoft* SQL database.

    The embedded database can reside on one Primary Server per Management Zone. Optionally, you can install an external database on a server that is not a Primary Server. By default, all Primary Servers require access to the ZENworks database, wherever it resides, to write their data.

    You can also specify that certain servers roll up their information to other servers.

For accessibility and reliability purposes, you might want to consider locating a Microsoft SQL database in a Microsoft server cluster.

1.2.2 Managed Device

A managed device is a Windows server or workstation that you can use ZENworks to manage. The ZENworks Adaptive Agent must be installed on each device in order for it to be managed. The Adaptive Agent communicates with a Primary Server to enable delivery of software, enforcement of configuration policies, inventorying of hardware and software, and remote management of the device.

Each managed device attempts to contact its initial Primary Server. However, if content is unavailable on that Primary Server, the managed device requests it from another Primary Server in the Management Zone, and continues until it finds a Primary Server that can provide the content.

A managed device can be registered in only one Management Zone and is therefore managed only in that zone.

1.2.3 Inventoried-Only Device

You might have devices where the Adaptive Agent cannot be installed, or devices where you do not want to install the Adaptive Agent. For these devices, you can either install Inventory agent files on the device so that you can inventory it by using Asset Inventory, or you can run the Portable Collector to inventory it. For more information, see the *ZENworks 10 Configuration Management Discovery and Deployment Reference Discovery, Deployment, and Retirement Reference*.

1.2.4 Management Zone

A Management Zone consists of one or more Primary Servers and one or more managed devices. The Primary Servers in the zone work together to manage the devices. The zone's information is stored in a database that resides on one of the Primary Servers or externally on another server that does not have ZENworks installed on it.

1.3 System Administration

You administer the ZENworks system at the Management Zone level through ZENworks Control Center (ZCC), a task-based Web browser console. The following graphic shows the ZCC portion of the Web browser display:

Figure 1-2 *ZENworks Control Center*
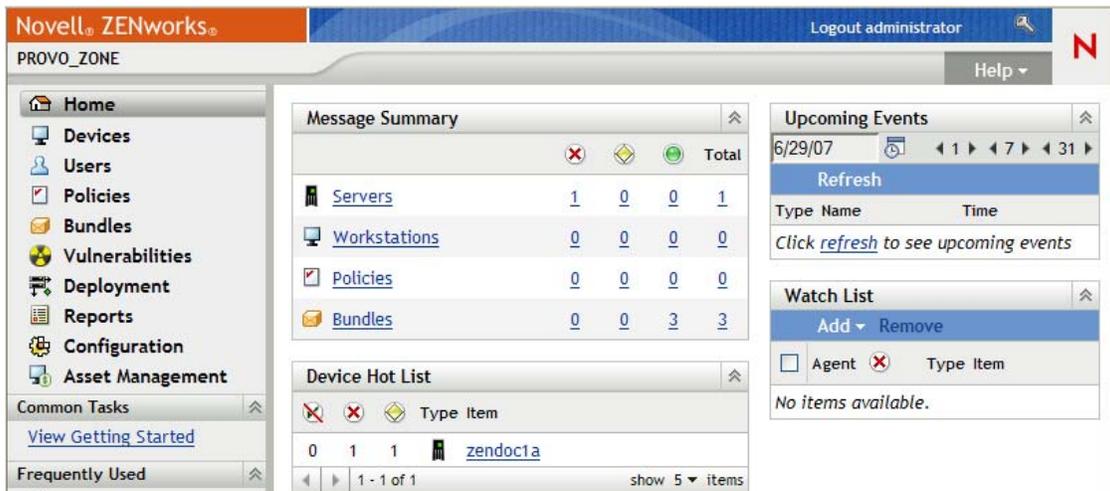
ZCC is installed on all Primary Servers in the Management Zone. You can perform all management tasks on any Primary Server. Because it is a Web-based management console, ZCC can run from any supported workstation.

If you use Novell iManager to administer other Novell products in your network environment, you can enable ZCC to be launched from iManager. For more information, see the *ZENworks 10 Configuration Management System Administration Reference*.

In addition to ZCC, you can use the zman command line utility to manage the objects in your ZENworks system. For example, you can add content to bundles, assign policies to devices, and register devices. The main advantage to using the command line utility is the ability to create scripts for handling repetitive or mass operations.

Like ZCC, the zman utility is installed on all Primary Servers, but it can only run from the command line on the server.

1.4 ZENworks Terminology

Table 1-1 *ZENworks Configuration Management Terminology*

| Term	Description
bundle	ZENworks Configuration Management has four types of bundles: ◆ **Directive:** Performs a set of tasks on managed devices, regardless of platform. In ZENworks Configuration Management, tasks are referred to as actions. ◆ **File:** Provides file and folder copying and installation capability to managed devices. ◆ **Imaging:** A collection of scripts or images that are applied to a device at bootup. A Multicast Image Set bundle can also be defined for sending an image to multiple devices. For more information, see the *ZENworks 10 Configuration Management Preboot Services and Imaging Reference*. ◆ **Windows:** Provides MSIs, MSPs, simple applications, thin clients, and Web applications. For more information, see the *ZENworks 10 Configuration Management Software Distribution Reference*.
content repository	Contains the files, policies, and other items that are available for delivery to managed devices within the system. The content is compressed and encrypted. For more information, see "Content Repository" in the *ZENworks 10 Configuration Management System Administration Reference*.
inventoried-only device	Device where the ZENworks Adaptive Agent is not or cannot be installed. Instead, you install the Inventory Only Module on these devices so that you can use Asset Inventory to inventory them. Optionally, you can run the Portable Collector to inventory them. For more information, see "Adaptive Agent Versus Inventory-Only Module" and "Deploying the Inventory-Only Module" in the *ZENworks 10 Configuration Management Discovery and Deployment Reference Discovery, Deployment, and Retirement Reference*.
Inventory Only Module	Software installed on a device that enables it to be inventoried. This is normally installed on devices running the Mac OS* X, NetWare® 5.1/6/6.5, OES (NetWare), or Windows 95/98/Me/NT 4 operating systems, which are not supported as managed devices.
managed device	A Windows server or workstation that has the Adaptive Agent installed and is registered in the Management Zone.
management console or administration workstation	The device where you run ZENworks Control Center in your Web browser.
Management Zone	Consists of at least one Primary Server. It can contain other Primary Servers and one or more workstations as managed devices. It can also contain inventoried-only devices. For more information, see Section 1.2.4, "Management Zone," on page 15.
policy	A set of rules and information that can define both operating system and application configuration settings for a managed device. For more information, see the *ZENworks 10 Configuration Management Policy Management Reference*.

Term	Description
Primary Server	A machine that contains the ZENworks services and content repository. Optionally, it might also contain the ZENworks database, but on only one of the Primary Servers per zone. A Management Zone can have multiple Primary Servers.
Portable Collector	A software utility that can inventory any device and create a file that is accessible in ZENworks Control Center as if it were a device. This file is then used for obtaining inventory data about the device. For more information, see "Using the Portable Collector" in the *ZENworks 10 Configuration Management Asset Inventory Reference*.
Remote Management Service	A managed device component that enables remote operators to perform remote sessions on the device. For more information, see the *ZENworks 10 Configuration Management Remote Management Reference*.
ZENworks Adaptive Agent	Software installed on a Windows server or workstation that enables it to be managed by a Primary Server. The Adaptive Agent consists of modules that support software delivery, policy enforcement, imaging, remote management, inventory, and so forth. For more information, see "ZENworks Adaptive Agent Deployment" in the *ZENworks 10 Configuration Management System Administration Reference*.
ZENworks Control Center	The Web-based administrative console used to manage the ZENworks Configuration Management system. For more information, see "ZENworks Control Center" in the *ZENworks 10 Configuration Management Administration Quick Start*.
ZENworks Configuration Management database	The database that contains information about the software available for delivery, the hardware and software inventory lists collected from devices, and the actions scheduled to take place within the system. The database can reside on a Primary Server, or it can reside on a remote server as an external database. By default, all Primary Servers require access to the database. For information on supported databases, see "Database Requirements" in the *ZENworks 10 Configuration Management Installation Guide*. For more information on the ZENworks database, see "Database Maintenance" in the *ZENworks 10 Configuration Management System Administration Reference*.
zman	A command line interface for managing your ZENworks system. The zman utility is useful for automating tasks (through scripts) and performing mass management tasks that might be tedious to perform in ZENworks Control Center. For example, configuring settings for a large number of devices, or adding an action to a large number of bundles. Zman is available on all Primary Servers. For more information, see "ZENworks Command Line Utilities" in the *ZENworks 10 Configuration Management Command Line Utilities Reference*.

Installation and Setup Documentation

<div align="right">2</div>

To install, migrate to, and set up Novell® ZENworks® 10 Configuration Management, follow the applicable instructions:

- *ZENworks 10 Configuration Management Installation Guide*

  Provides instructions on establishing the ZENworks Management Zone with one or more ZENworks Primary Servers. Includes instructions for GUI, command line, or silent installations. You also have the option to install BusinessObjects* Enterprise XI for ZENworks infrastructure reporting.

- *ZENworks 10 Configuration Management ZENworks Migration Guide*

  Provides instructions on how to migrate your traditional ZENworks Novell eDirectory™ data into the ZENworks Configuration Management database. This includes migrating information from Application, Imaging, Policy, and Workstation objects, including associations and zone settings. It does not include migrating User objects. Instead, Configuration Management reads from existing user sources. It also does not migrate inventory data; that is done with the ZENworks Asset Management Migration Utility.

- *ZENworks 10 Configuration Management Asset Management Migration Utility Migration Guide*

  Provides instructions on how to migrate your Asset Inventory data to Configuration Management.

- *ZENworks 10 Personality Migration Reference*

  Provides instructions on the setup and installation of Personality Migration, and the use of Desktop DNA* for migrating, upgrading, and backing up devices.

- ZENworks 7.2 Linux Management Installation Guide (http://www.novell.com/documentation/zlm72/lm7install/data/front.html)

  Provides instructions on how to install Linux Management.

- ZENworks 7 Handheld Management Installation Guide (http://www.novell.com/documentation/zenworks7/hm7install/data/a20gkue.html)

  Provides instructions on how to install Handheld Management.

- ZENworks Endpoint Security Management Installation Guide (http://www.novell.com/documentation/zesm35/pdfdoc/ESM-3-5-InstallGuide.pdf)

  Provides instructions on how to install and set up ZENworks Endpoint Security.

- *Macrovision AdminStudio 8.0 ZENworks Edition Installation Guide (http://www.novell.com/documentation/zcm10/pdfdoc/adminstudio/AS8ZENworksInstallGuide.pdf)*

  Provides instructions on how to install and activate AdminStudio to standardize the way that you package, test, distribute, and manage your applications and patches.

- *ZENworks 10 Configuration Management Administration Quick Start*

ZENworks Configuration Management is ready to use out of the box, but you probably want to configure it to suit your environment. The *Administration Quick Start* includes basic instructions for:

- Zone configuration
- ZENworks Adaptive Agent deployment
- Device management
- System messaging and reporting

Administration Documentation 3

The following references for Novell® ZENworks® 10 provide overviews, setup instructions, usage instructions, ongoing management instructions, and other information:

◆ *ZENworks 10 Configuration Management Administration Quick Start*

Provides instructions on how to set up Configuration Management for your network, including short tasks to familiarize you with the features of the product.

◆ *ZENworks 10 Configuration Management System Administration Reference*

Provides instructions on folder and group organization in ZCC, user sources, ZENworks administrator accounts, Management Zone configuration settings, alternate content repository configuration, database maintenance, and so on.

◆ *ZENworks 10 Configuration Management Command Line Utilities Reference*

Provides instructions on the zman, zac, and zeninfocollect command line utilities.

◆ *ZENworks 10 Configuration Management Discovery and Deployment Reference Discovery, Deployment, and Retirement Reference*

Provides instructions on device registration, the ZENworks Adaptive Agent, network device discovery, device importing, inventoried-only device setup, and deployment tasks.

◆ *ZENworks 10 Configuration Management Software Distribution Reference*

Provides instructions on software distribution through bundle creation and management, bundle assignments, bundle scheduling, and actions that can be added to bundles.

◆ *ZENworks 10 Configuration Management Policy Management Reference*

Provides instructions on policy creation and application for configuring operating system and application settings.

◆ *ZENworks 10 Configuration Management Preboot Services and Imaging Reference*

Provides instructions on Preboot Services setup, device imaging, Imaging bundles, and manual imaging operations.

◆ *ZENworks 10 Configuration Management Remote Management Reference*

Provides instructions on how to remotely manage and control devices.

◆ *ZENworks 10 Configuration Management Asset Inventory Reference*

Provides instructions on software and hardware inventory collection, including how to scan, view individual device inventory information, and generate inventory reports.

◆ *ZENworks 10 Configuration Management Asset Management Services Reference*

Provides instructions on how to manage your software assets.

◆ *ZENworks 10 Configuration Management System Reporting Reference*

Provides instructions on how to perform BusinessObjects* Enterprise XI reporting on your ZENworks infrastructure.

◆ *ZENworks 10 Configuration Management Message Logging Reference*

Provides instructions on system messages, logs, watch lists, and report generation.

◆ *Novell ZENworks 10 Patch Management Reference*

Provides instructions on automated patch application to minimize vulnerabilities and compliance issues.

- ZENworks 7.2 Linux Management Administration Guide (http://www.novell.com/documentation/zlm72/lm7admin/data/front.html)

Provides instructions on how to manage Linux devices.

- ZENworks 7 Handheld Management Administration Guide (http://www.novell.com/documentation/zenworks7/hm7admin/data/a20gkue.html)

Provides instructions on how to set up and manage handheld devices.

- ZENworks Endpoint Security Management Reference (http://www.novell.com/documentation/zesm35/pdfdoc/ESM-3-5-AdminManual.pdf)

Provides instructions on how to use ZENworks Endpoint Security.