

# **ZENworks Virtual Appliance Deployment and Administration Reference**

## **ZENworks® 11 Support Pack 2**

March 20, 2012

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# Contents

<b>About This Guide</b>	<b>5</b>
<b>1 Overview</b>	<b>7</b>
<b>2 System Requirements</b>	<b>9</b>
<b>3 Deploying ZENworks Appliance</b>	<b>11</b>
3.1 Predeployment Tasks	11
3.2 Configuring ZENworks Appliance	12
3.2.1 Configuring the Preinstalled SLES 11 SP1	12
3.2.2 Configuring the Preinstalled ZENworks Server	14
3.2.3 Configuration Information for ZENworks 11 SP2 on ZENworks Appliance	15
3.2.4 Installing the VMware tools on a ZENworks 11 SP2 Virtual Appliance	21
3.2.5 Configuring the Preinstalled ZENworks Reporting Server	21
3.3 Post-Deployment Tasks	24
3.3.1 Creating a New Hard Disk	24
3.3.2 Partitioning and Configuring a New Hard Disk	24
<b>4 Managing and Monitoring ZENworks Appliance</b>	<b>27</b>
<b>A Troubleshooting ZENworks Appliance</b>	<b>29</b>
<b>B Documentation Updates</b>	<b>33</b>
B.1 March 20, 2012: 11 SP2	33



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# About This Guide

This *Novell ZENworks 11 SP2 Virtual Appliance Deployment and Administration Reference* helps you successfully deploy ZENworks Virtual Appliance 11 (ZENworks Appliance) to the ZENworks supported virtual infrastructure. ZENworks Appliance is built on the customized SUSE Linux Enterprise Server 11 JeOS (SLES 11 SP1), and is preinstalled with the ZENworks 11 Server and ZENworks 11 Reporting Server.

The information in this guide is organized as follows:

- ♦ [Chapter 1, “Overview,” on page 7](#)
- ♦ [Chapter 2, “System Requirements,” on page 9](#)
- ♦ [Chapter 3, “Deploying ZENworks Appliance,” on page 11](#)
- ♦ [Chapter 4, “Managing and Monitoring ZENworks Appliance,” on page 27](#)
- ♦ [Appendix A, “Troubleshooting ZENworks Appliance,” on page 29](#)
- ♦ [Appendix B, “Documentation Updates,” on page 33](#)

## Audience

This guide is intended for ZENworks 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.

## Additional Documentation

ZENworks 11 SP2 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 .



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# 1 Overview

ZENworks 11 SP2 is available as a virtual appliance that can be deployed to a supported virtual infrastructure. ZENworks Virtual Appliance 11 (ZENworks Appliance) is built on the customized SUSE Linux Enterprise Server 11 JeOS (SLES 11 SP1), and is preinstalled with the ZENworks 11 Server and ZENworks 11 Reporting Server.

ZENworks Appliance includes a customized version of SLES 11 SP1 that has only the features and capabilities required to deploy and manage ZENworks Appliance. Following are some of the features that have been customized for ZENworks Appliance:

- ♦ The Software Management and SLES update options have been removed from YaST.
- ♦ The ZENworks System Update feature has been enhanced to allow you to update ZENworks Appliance.

For more information on System Updates, see in the [ZENworks 11 SP2 System Administration Reference](#).

With ZENworks Appliance, you can have the following benefits:

- ♦ Quickly and simply deploy the ZENworks Server and ZENworks Reporting Server to a Management Zone without going through the regular installation process. You can do this because ZENworks Appliance is a virtual image packaged together with the customized SLES 11 SP1 and ZENworks Server, and ZENworks Reporting Server.

For more information on ZENworks 11, see the [ZENworks 11 SP2 Administration Quick Start ZENworks 11 SP2 Administration Quick Start](#)

For more information on ZENworks Reporting, see the [ZENworks 11 SP2 System Reporting Reference](#).

- ♦ Run ZENworks in a virtualized and isolated environment.





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# 2 System Requirements

**Table 2-1** ZENworks Appliance Requirements

Item	Requirements
Hypervisor	VMware ESX / ESXi Server version 4.1 Update 1
Virtual Machine Configuration	<p>ZENworks Appliance requires the following minimum configuration that have been preconfigured by default:</p> <ul style="list-style-type: none"><li>♦ <b>RAM:</b> 4 GB minimum</li><li>♦ <b>Disk Space:</b> 60 GB minimum</li></ul> <p>You can increase the disk space after deploying ZENworks Appliance. For more information, see <a href="#">Section 3.3, "Post-Deployment Tasks,"</a> on page 24.</p> <ul style="list-style-type: none"><li>♦ <b>Display resolution:</b> 1024 x 768 with 256 colors minimum.</li></ul>
Hostname Resolution	<p>The server must resolve device hostnames, or some features in ZENworks do not work properly.</p> <p>Server names must support the DNS requirements, or the ZENworks login fails. Acceptable characters are the letters a-z (uppercase and lowercase), numbers, and the hyphen (-).</p>
IP Address	<p>The server must have a static IP address or a permanently leased DHCP address.</p> <p>The installation hangs if it is trying to use a NIC that does not have an IP address bound to it.</p>
Database	<p>ZENworks Appliance is available with the embedded Sybase SQL Anywhere database. However, if you choose to use a database other than the embedded Sybase SQL Anywhere database, the other database must meet the database requirements.</p> <p><b>NOTE:</b> Windows Authentication mode is not supported on a Linux platform if the database is MS SQL Server.</p> <p>For more information, see "<a href="#">Database Requirements</a>" in the <a href="#">ZENworks 11 SP2 Server Installation Guide</a>.</p>
LDAP Directory	<p>The LDAP directory requirements for ZENworks Appliance are same as those of a ZENworks 11.</p> <p>For more information, see "<a href="#">LDAP Directory Requirements</a>" in the <a href="#">ZENworks 11 SP2 Server Installation Guide</a>.</p>
Administration Browser	<p>The administration browser requirements for ZENworks Appliance are same as those of a ZENworks 11 system.</p> <p>For more information, see "<a href="#">Administration Browser Requirements</a>" in the <a href="#">ZENworks 11 SP2 Server Installation Guide</a>.</p>

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**NOTE:** If a Primary Server is behind a NAT firewall, the devices on the Internet or public network cannot communicate with it.

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# 3 Deploying ZENworks Appliance

A Management Zone consists of one or more Primary Servers and one or more managed devices. The Primary Servers can be set up on both physical and virtual machines in a zone by installing and configuring the ZENworks software. You can also set up the Primary Server on the supported virtual infrastructure by deploying [ZENworks Appliance](#) to it.

To deploy ZENworks Appliance, perform the tasks in the following sections:

- ♦ [Section 3.1, “Predeployment Tasks,”](#) on page 11
- ♦ [Section 3.2, “Configuring ZENworks Appliance,”](#) on page 12
- ♦ [Section 3.3, “Post-Deployment Tasks,”](#) on page 24

## 3.1 Predeployment Tasks

Before you begin to deploy ZENworks Appliance, perform the following tasks:

- 1 Make sure that the virtual machine to which you want to deploy ZENworks Appliance fulfills the basic requirements listed in [Chapter 2, “System Requirements,”](#) on page 9.

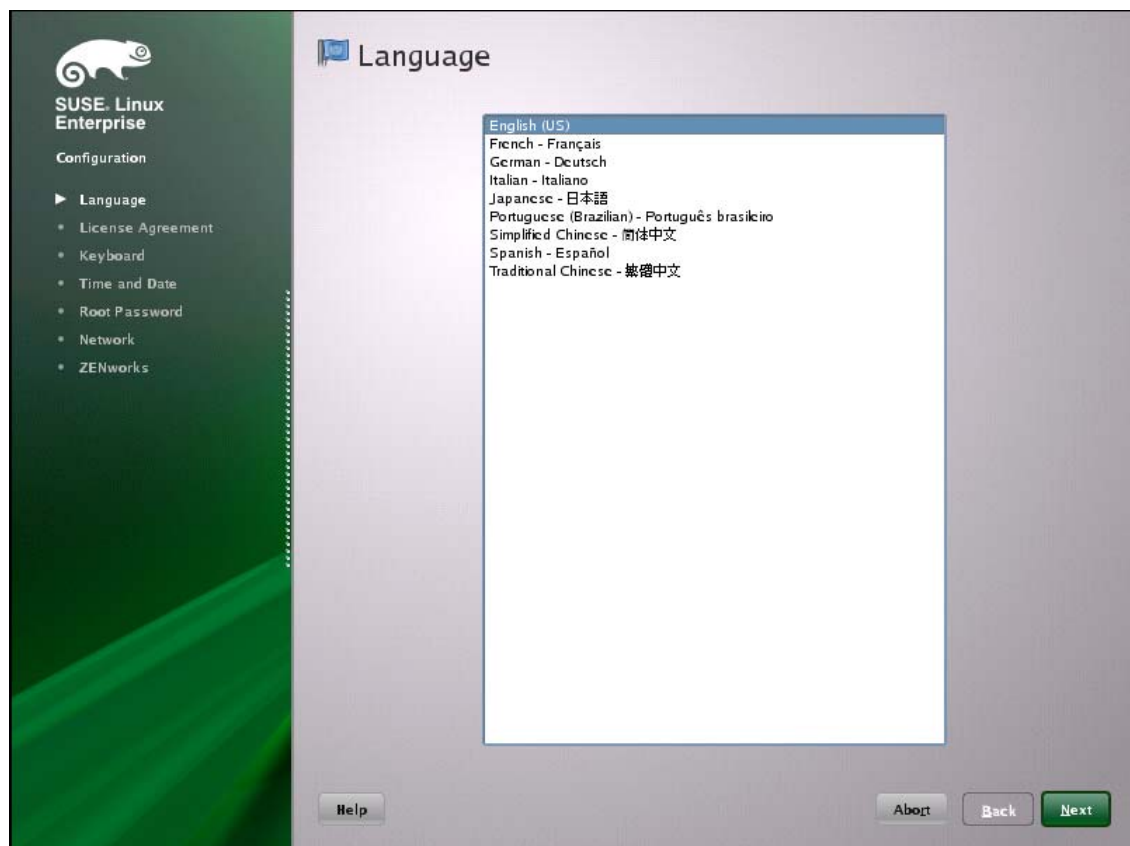
- 2 Create a new virtual machine with the preinstalled ZENworks Appliance by importing the ZENworks Appliance image.

The ZENworks Appliance image is stored in an open virtualization archive format and you can import it to the VMware infrastructure by using the VMware vSphere Client application.

The ZENworks Appliance image is bundled with all the three editions (Standard, Advanced, and Enterprise) of ZENworks 11. From the [ZENworks 11 Download Web site \(http://download.novell.com/index.jsp\)](http://download.novell.com/index.jsp), you can directly download the OVA file, or download the multi-part ZENworks Appliance ZIP files and create the OVA file.

To import the ZENworks Appliance image to a virtual infrastructure:

- 2a Start the VMware vSphere Client application.
  - 2b Click *File > Deploy OVF Template* to launch the Deploy OVF Template Wizard.
  - 2c On the Source page, select one of the following options, then click *Next*.
    - ♦ *Select from file* to browse for and select the `.ova` file that contains the ZENworks Appliance image.
    - ♦ *Deploy from URL* to download the `.ova` file from the Web server.
  - 2d Follow the prompts to complete the deployment of the `.ova` file.
  - 2e After the deployment is complete, click *Done*.
- 3 (Optional) Take a snapshot of the virtual machine that you created in [Step 2](#).
- 4 Power on the virtual machine on which you imported the ZENworks Appliance image. The Configuration Wizard is launched automatically.



5 Continue with [Section 3.2, “Configuring ZENworks Appliance,”](#) on page 12.

## 3.2 Configuring ZENworks Appliance

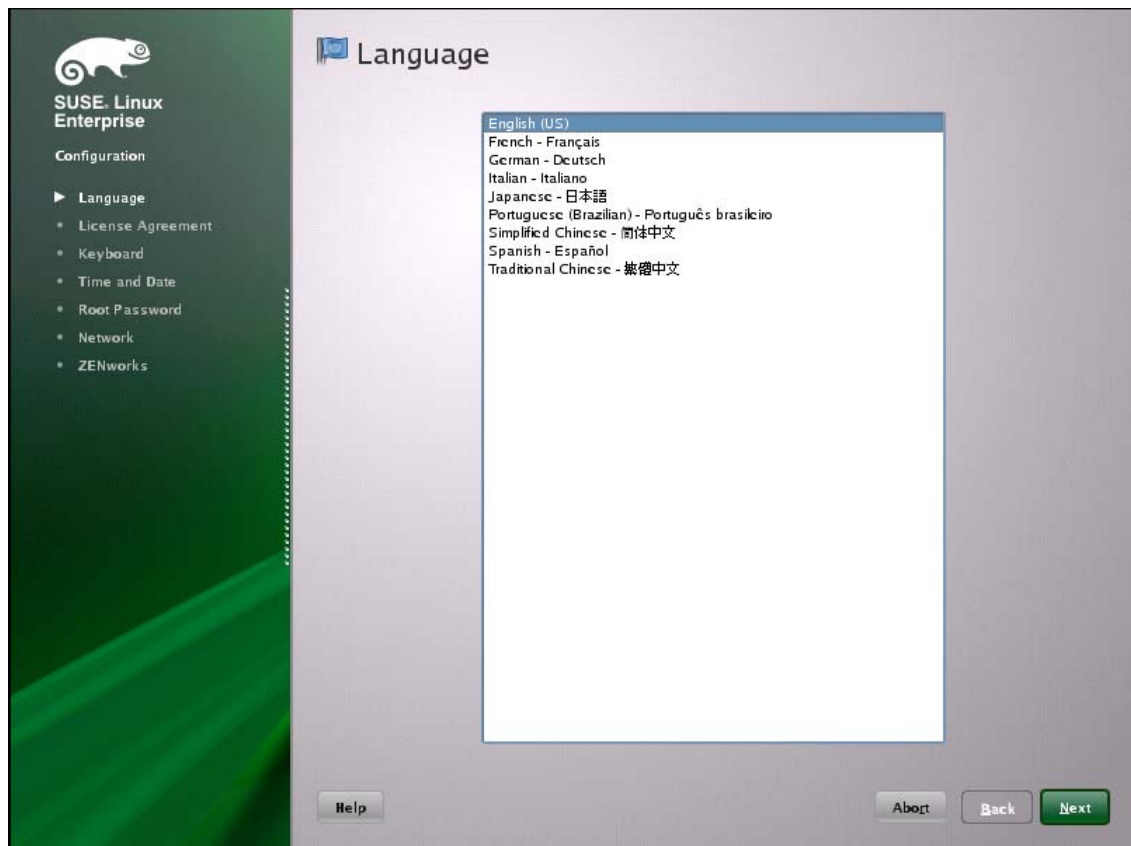
After importing the ZENworks Appliance image to your virtual machine, review the following sections to configure ZENworks Appliance:

- [Section 3.2.1, “Configuring the Preinstalled SLES 11 SP1,”](#) on page 12
- [Section 3.2.2, “Configuring the Preinstalled ZENworks Server,”](#) on page 14
- [Section 3.2.3, “Configuration Information for ZENworks 11 SP2 on ZENworks Appliance,”](#) on page 15
- [Section 3.2.4, “Installing the VMware tools on a ZENworks 11 SP2 Virtual Appliance,”](#) on page 21
- [Section 3.2.5, “Configuring the Preinstalled ZENworks Reporting Server,”](#) on page 21

After ZENworks Appliance is configured, you can log in to ZENworks Appliance and use the ZENworks Control Center management console to access the ZENworks 11 Configuration Management capabilities. For more information, see the *ZENworks 11 Administration Quick Start* guide.

### 3.2.1 Configuring the Preinstalled SLES 11 SP1

- 1 On the Language page of the Configuration Wizard, select the language in which you want the wizard to continue, then click *Next*.



- 2 On the License Agreement page, accept the *End User License Agreement*, then click *Next*.
- 3 On the Keyboard page, configure the keyboard layout, then click *Next*.
- 4 On the Network Configuration page, select *Network Interfaces > Ethernet Network Card > Edit*, then configure the following network information for ZENworks Appliance:
  - ◆ Host name and server name  
The server must have a static IP address or a permanently leased DHCP address.
  - ◆ IP address for your machine (for a static IP address)
  - ◆ Subnet mask (for a static IP address)
  - ◆ Default gateway (for a static IP address)
- 5 On the Timezone page, configure the time zone and clock settings to be used in your system, then click *Next*.

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**NOTE:** If you are configuring the ZENworks Appliance for the first time, you can configure a primary time source. Later, if required, you can add additional time sources using the NTP mechanism. For more information on synchronizing the system time over a network, see [Time Synchronization with NTP \(http://www.novell.com/documentation/sles11/book\\_sle\\_admin/?page=/documentation/sles11/book\\_sle\\_admin/data/cha\\_netz\\_xntp.html\)](http://www.novell.com/documentation/sles11/book_sle_admin/?page=/documentation/sles11/book_sle_admin/data/cha_netz_xntp.html).

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- 6 On the Root Password page, specify the root password.
- 7 Click *Finish*.  
The ZENworks 11 is displayed. This wizard might take a few seconds to launch.
- 8 Continue with [Section 3.2.2, “Configuring the Preinstalled ZENworks Server,”](#) on page 14.

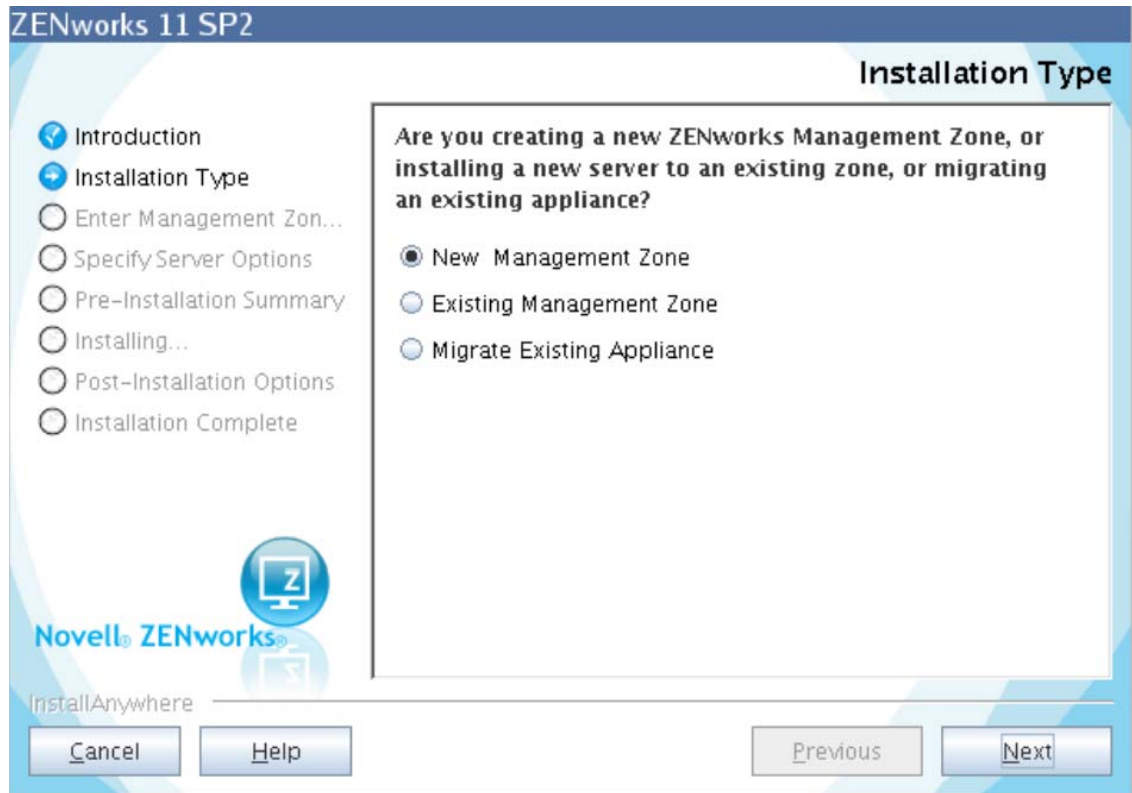
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**NOTE:** If you are configuring the ZENworks Appliance and want to open a virtual terminal during the first boot, press Ctrl+Alt+Space+F2. If you exit from this terminal, you will not be able to open another virtual terminal.

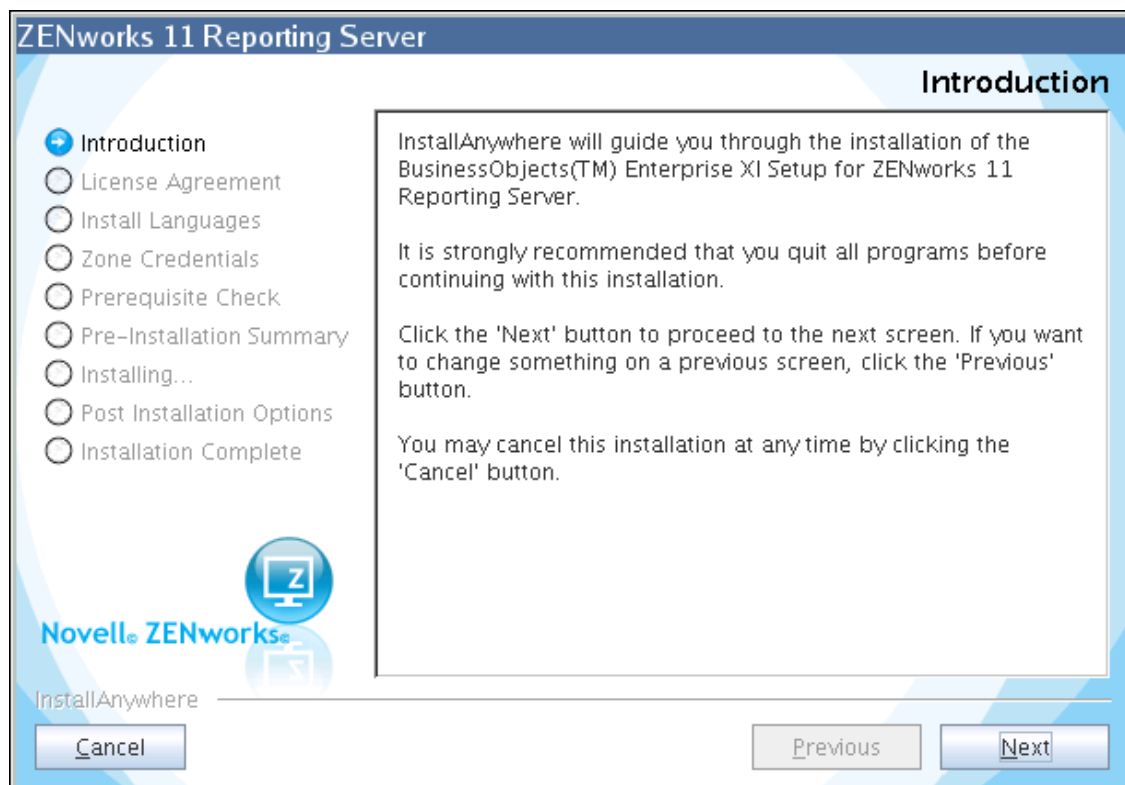
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## 3.2.2 Configuring the Preinstalled ZENworks Server

- 1 (Conditional) If you have configured ZENworks Appliance with a static IP address, ping that IP address from another machine to test the connectivity.
- 2 Complete the ZENworks 11 Wizard by using information from [Table 3-1, “Configuration Information,”](#) on page 16 to fill in the fields:



When the configuration finishes, the ZENworks Reporting Server Wizard is automatically displayed. This wizard might take a few seconds to launch.



3 Do one of the following:

- ◆ If you want to create ZENworks reports, and if you have a database other than the external Oracle\* database installed, click *Next* to configure the ZENworks Reporting Server.  
For more information on how to configure the ZENworks Reporting Server, see [“Configuring the ZENworks Reporting Server” on page 23](#).
- ◆ If you do not want to create ZENworks reports, click *Cancel*.

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**TIP:** You can configure the ZENworks Reporting Server at a later time. For more information on how to configure the ZENworks Reporting Server at a later time, see [“Manually Launching the ZENworks Reporting Server Wizard” on page 22](#).

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### 3.2.3 Configuration Information for ZENworks 11 SP2 on ZENworks Appliance

The information you need is listed in the order of the configuration flow of the ZENworks 11 Wizard.

**Table 3-1** Configuration Information

Wizard Page	Details
Management Zone	<p><b>New Zone:</b> If you are deploying to the first server in the zone, you need to know what name you want for the Management Zone and what you want to use for the zone's password, which is used for logging in to ZENworks Control Center.</p> <p>The zone name has a 20-character limit and should be a unique name. We recommend the zone name to contain minimum six characters.</p> <p>The zone name can contain only the following special characters: - (dash) _ (underscore) . (period).</p> <p>The zone administrator password must contain at least six characters and is limited to a maximum of 255 characters. The password can contain only one instance of the \$ character.</p> <p>By default, the login username is <code>Administrator</code>. After completing the deployment, you can use ZENworks Control Center to add other administrator names that can be used to log in to the Management Zone.</p> <p>During the deployment of the second (or subsequent) Primary Server, the server by default uses the ports used by the first Primary Server. If the ports are in use on the second Primary Server, you are asked to specify another port. Note which port you specify because you need to use it in the URL for accessing ZENworks Control Center.</p> <p><b>Existing Zone:</b> If you are deploying to an existing Management Zone, you need to know the following information:</p> <ul style="list-style-type: none"><li>◆ Server identification (either the DNS name or IP address). This is any existing Primary Server in the zone. We recommend using the DNS name to provide ongoing synchronization with certificates that are signed with DNS names.</li><li>◆ The username for logging in to ZENworks Control Center. The default is <code>Administrator</code>. After completing the deployment, you can use ZENworks Control Center to add other administrator names that can be used to log in to the Management Zone.</li><li>◆ The administrator's password. Specify the current password for the ZENworks administrative user specified in the <code>Username</code> field.</li></ul>



Wizard Page	Details
Database Information	<p>For ZENworks 11 , a database must be installed. The database options are displayed only during the first server installation in the zone. However, you can run the installation program specifically to install or repair a database (see <a href="#">“Installing an External ZENworks Database”</a> in the <i>ZENworks 11 SP2 Server Installation Guide</i>).</p> <p>You have the following database options:</p> <ul style="list-style-type: none"> <li>◆ <b>Embedded Sybase SQL Anywhere:</b> Automatically installs the embedded database on the current server. <p>If you select the embedded database option, no further database installation pages are shown.</p> </li> <li>◆ <b>Remote Sybase SQL Anywhere:</b> This database must already exist on a server in your network. <p>To select this option, you should already have followed the steps in <a href="#">“Prerequisites for Remote Sybase SQL Anywhere”</a> in the <i>ZENworks 11 SP2 Server Installation Guide</i>.</p> <p>You also use this option for installing to an existing remote OEM Sybase database.</p> </li> <li>◆ <b>Microsoft SQL Server:</b> You can create a new SQL database or specify an existing database that resides on a server in your network. <p>Creating a new SQL database at this time provides the same results as the steps in <a href="#">“Prerequisites for Microsoft SQL Server”</a> in the <i>ZENworks 11 SP2 Server Installation Guide</i>.</p> </li> <li>◆ <b>Oracle:</b> Specifies a user schema that you can use to set up an external Oracle 10g database schema for use with ZENworks. <p>You can either create a new user schema or specify an existing one that resides on a server in your network.</p> <p>To select this option, you should already have followed the steps in <a href="#">“Prerequisites for Oracle”</a> in the <i>ZENworks 11 SP2 Server Installation Guide</i>.</p> </li> </ul> <p><b>IMPORTANT:</b> For external databases, the server hosting the database must have time synchronization with each of the Primary Servers in the Management Zone.</p>

Wizard Page	Details
Database information	<p data-bbox="469 218 1320 302">For the external database options (<i>Remote Sybase SQL Anywhere</i>, <i>Microsoft SQL Server</i>, and <i>Oracle</i>), you need to know the information listed below. Defaults are provided for some of this information, which can be changed as necessary.</p> <ul style="list-style-type: none"> <li data-bbox="496 329 1320 386">◆ <b>All Databases:</b> The database server must have a Sybase SQL Anywhere, Microsoft SQL, or Oracle database installed. <ul style="list-style-type: none"> <li data-bbox="550 405 1320 489">◆ Server's name. We recommend that you identify the server by its DNS name rather than its IP address, to be in sync with certificates that are signed with DNS names.</li> </ul> </li> </ul> <p data-bbox="469 514 1320 598">Set up the Host name/Domain name and the DNS server name. If you do not set this up, the certificates may be minted incorrectly with the Host name as <code>zenworks.site</code>.</p> <p data-bbox="581 615 1320 699"><b>IMPORTANT:</b> If you later change your database server's IP address or DNS name, make sure that your corporate DNS server is updated with this change to keep DNS for the database server in sync.</p> <ul style="list-style-type: none"> <li data-bbox="496 716 1320 831">◆ <b>(Optional) SQL Server Only:</b> Name of the SQL server instance that is hosting the existing ZENworks database. You must specify the named instance if you want it to be something other than the default of <code>mssqlserver</code>.</li> <li data-bbox="496 848 1320 905">◆ <b>Oracle Only:</b> The name of the tablespace where you want the database to be created. By default, it is <code>USERS</code>.</li> <li data-bbox="496 921 1320 1094">◆ <b>New Database:</b> <ul style="list-style-type: none"> <li data-bbox="550 963 1320 1047">◆ The database administrator (<i>Username</i> field) must have read/write permissions in order to successfully perform the required operations on the database.</li> <li data-bbox="550 1064 1003 1094">◆ The administrator's database password.</li> </ul> </li> <li data-bbox="496 1110 1320 1367">◆ <b>SQL Server or New Database:</b> <ul style="list-style-type: none"> <li data-bbox="550 1152 1320 1236">◆ If you are using Windows authentication, specify the Windows domain where the user you specified in the <i>Username</i> field exists. If you are not using a Windows domain, specify the server's short name.</li> <li data-bbox="550 1253 1320 1367">◆ Whether to use Windows or SQL Server authentication. For Windows authentication, provide the credentials for a user on the current device or in the domain. For SQL authentication, provide credentials that match those of a valid SQL user.</li> </ul> </li> </ul> <p data-bbox="524 1383 1320 1495">It is important to know whether you installed the SQL Server by using SQL authentication, Windows authentication, or mixed. Be sure to select the option that coincides with your SQL Server options or the authentication will fail.</p>

Wizard Page	Details
Database access	<p>For the external database options (<i>Remote Sybase SQL Anywhere</i>, <i>Microsoft SQL Server</i>, and <i>Oracle</i>), you need to know the information listed below. Defaults are provided for some of this information, which can be changed as necessary.</p> <ul style="list-style-type: none"> <li>◆ <b>All Databases:</b> This server must have a Sybase SQL Anywhere, Microsoft SQL, or Oracle database installed. <ul style="list-style-type: none"> <li>◆ Database name. Replace <i>zenworks_MY_ZONE</i> with either the desired database name, or an existing database name.</li> <li>◆ Database username. This user must have read/write permissions to modify the database. <p>If Windows authentication is also selected, the specified user must already exist when you create a new SQL database. The user is granted login access to SQL Server and read/write access to the ZENworks database that is created.</p> <p>For an existing database, specify a user with sufficient permissions to the database.</p> </li> <li>◆ Database password. For a new database, this password is automatically generated if SQL authentication is selected. For an existing database, specify the password of an existing user with read/write permissions to the database.</li> </ul> </li> <li>◆ <b>Sybase Databases Only:</b> The name of your Sybase SQL Anywhere database server.</li> <li>◆ <b>Oracle Databases Only:</b> The name of the tablespace where you want the database to be created. By default, it is USERS.</li> <li>◆ <b>SQL Databases Only:</b> <ul style="list-style-type: none"> <li>◆ If you are using Windows authentication, specify the Windows domain where the user you specified in the <i>Username</i> field exists. If you are not using a Windows domain, specify the server's short name.</li> <li>◆ Whether to use Windows or SQL Server authentication. For Windows authentication, provide the credentials for a user on the current device or in the domain. For SQL authentication, provide credentials that match those of a valid SQL user.</li> </ul> <p>It is important to know whether you installed the SQL Server by using SQL authentication, Windows authentication, or mixed. Be sure to select the option that coincides with your SQL Server options or the authentication will fail.</p> </li> </ul>
SSL configuration (shown only for the first server installed in the Management Zone)	<p>In order to enable SSL communications, an SSL certificate must be added to the ZENworks server. Select whether to use an internal or external certificate authority (CA).</p> <p>For subsequent deployments of Primary Servers to the Management Zone, the CA established by the first server's deployment is used for the zone.</p> <p>The <i>Restore Default</i> buttons restore the paths to those that were displayed when you first accessed this page.</p>

Wizard Page	Details
Signed SSL certificate and private key	<p>To enter a trusted CA-signed certificate and private key, click <i>Choose</i> to browse for and select the certificate and key files, or specify paths to the signed certificate to be used for this server (<i>Signed SSL Certificate</i>), and the private key associated with the signed certificate (<i>Private Key</i>).</p> <p>For subsequent deployments of Primary Servers to the zone, the CA established for the zone by the first server's deployment is used.</p> <p>For information on creating external certificates to select, see "<a href="#">Creating an External Certificate</a>" in the <i>ZENworks 11 SP2 Server Installation Guide</i>.</p> <p>For information on creating external certificates for deploying to a server using a silent installation, see "<a href="#">Creating Your Response File</a>" in the <i>ZENworks 11 SP2 Server Installation Guide</i>.</p>
Root certificate (optional)	To enter a trusted CA root certificate, click <i>Choose</i> to browse for and select it, or specify the path to the CA's public X.509 certificate ( <i>CA Root Certificate</i> ).
License key for ZENworks Configuration Management, ZENworks Asset Management, and ZENworks Asset Inventory	<p>By default, the <i>Evaluate</i> check box is selected for all the ZENworks 11 products listed on the page. The products include:</p> <ul style="list-style-type: none"> <li>◆ ZENworks 11 Configuration Management</li> <li>◆ ZENworks 11 Asset Management</li> <li>◆ ZENworks 11 Asset Inventory for UNIX/Linux</li> <li>◆ ZENworks 11 Endpoint Security Management</li> </ul> <p>If you choose to retain the default settings, all the products are installed with a 60-day trial license.</p> <p>Additionally, you can choose to do any of the following:</p> <ul style="list-style-type: none"> <li>◆ <b>Install the licensed version of the product:</b> Specify the license key that you obtained when you purchased the product. The <i>Evaluate</i> check box is automatically deselected when you specify the license key.</li> <li>◆ <b>Choose the products to be installed:</b> If you do not want to install either the licensed version or the evaluation version of a product, manually deselect the <i>Evaluate</i> check box and do not specify the license key for the product. However, you must install the licensed version or the evaluation version of one of the following products: <ul style="list-style-type: none"> <li>◆ ZENworks 11 Configuration Management</li> <li>◆ ZENworks 11 Asset Management</li> </ul> </li> </ul> <p>Additionally, you can install the licensed version or the evaluation version of ZENworks 11 Asset Inventory for UNIX/Linux.</p> <p>If you choose to install only one of the ZENworks products (ZENworks 11 Configuration Management or ZENworks 11 Asset Management), the other ZENworks products are also automatically installed; however, they are deactivated. You can activate them later through ZENworks Control Center. For more information on how to activate the product, see "ZENworks 11 Product Licensing" in the <i>ZENworks 11 SP2 System Administration Reference</i>.</p>

Wizard Page	Details
License key for ZENworks Patch Management	<p>The ZENworks 11 Patch Management software is automatically installed. However, the product is activated for patch downloads only if the following conditions are met:</p> <ul style="list-style-type: none"> <li>◆ A patch subscription license key is specified, which you must purchase independently. For more information, see <a href="#">“Activating Patch Management”</a> in the <i>ZENworks 11 SP2 Administration Quick Start</i>.</li> </ul> <p>You can activate the subscription service later through ZENworks Control Center. For more information, see “ZENworks 11 Product Licensing” in the <i>ZENworks 11 SP2 System Administration Reference</i>.</p> <p>If you specify the license key, you must additionally specify the company name and the e-mail address.</p> <p>If you do not want to install ZENworks 11 Patch Management, manually deselect the <i>Activate</i> check box and do not specify the license key for the product. The product is automatically installed; however, it is deactivated.</p>
Pre-installation summary	To make changes to any information entered up to this point, click <i>Previous</i> . After you click <i>Install</i> , the configuration begins.
ZENworks System Status Utility	Allows you to launch a ZENworks services heartbeat check prior to closing the configuration program. Results are posted in the installation log.

### 3.2.4 Installing the VMware tools on a ZENworks 11 SP2 Virtual Appliance

By default, the VMware tools are installed at the first boot of ZENworks SP2 Virtual Appliance, based on the virtual environment of the host.

### 3.2.5 Configuring the Preinstalled ZENworks Reporting Server

Configuring the ZENworks Reporting Server enables you to create ZENworks reports that contain details from a large volume of inventory, packaging, and other device or bundle information. You can create new reports, edit existing reports, delete reports, or schedule reports. You can create folders to organize and store reports based on your own criteria. For more information on ZENworks reports, see *ZENworks 11 SP2 System Reporting Reference*.

You can configure only one ZENworks Reporting Server in a Management Zone. If a Management Zone already has a Primary Server that has the ZENworks Reporting Server, you can use that server for ZENworks Appliance or you can configure the ZENworks Reporting Server on ZENworks Appliance.

To configure the ZENworks Reporting Server on ZENworks Appliance, review the following sections:

- ◆ [“Manually Launching the ZENworks Reporting Server Wizard”](#) on page 22
- ◆ [“Configuring the ZENworks Reporting Server”](#) on page 23

## Manually Launching the ZENworks Reporting Server Wizard

If you canceled the ZENworks Reporting Server configuration while configuring ZENworks Appliance (in [Step 3 on page 15](#)), you must manually launch the ZENworks Reporting Server Wizard.

- 1 (Optional) Make sure that port 5005 is free by running the following command:

```
netstat -ant | grep LISTEN | grep 5005
```

If port 5005 is not included in the list of busy ports, continue with [Step 2](#).

- 2 On ZENworks Appliance, open a terminal and run the following commands in the order listed:

```
. /etc/profile
```

```
/var/adm/zenworks/zrs-config.sh
```

The ZENworks Reporting Server services begin.

- 3 For installing ZENworks Appliance, run the following command:

```
/usr/share/ZRSConfiguration/setup.sh --zrs-config-only
```

The ZENworks Reporting Server Wizard is launched.

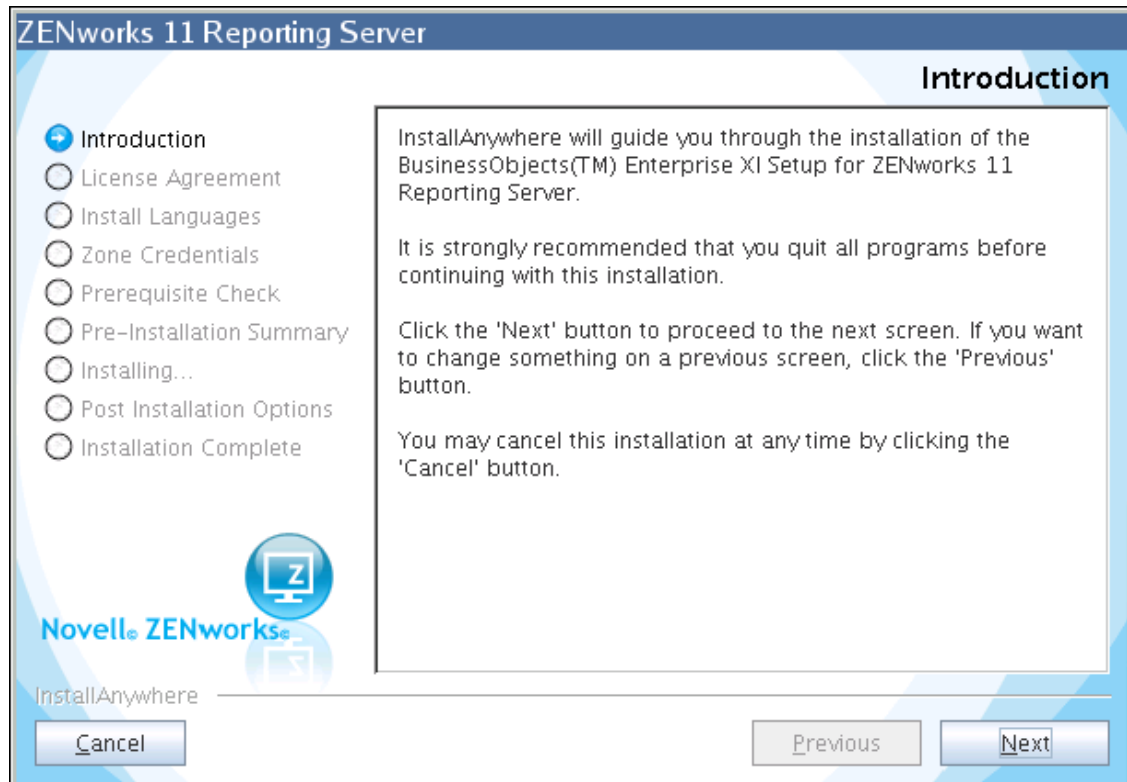
For more information on how to configure the ZENworks Reporting Server, see [“Configuring the ZENworks Reporting Server” on page 23](#) in the *ZENworks 11 SP2 Reporting Server Installation Guide*.

- 4 For ZENworks Appliance upgrade, run the following command to upload the reports from ZENworks 10 Configuration Management SP3 ZENworks Reporting Server to ZENworks 11 Reporting Server:

```
/usr/share/ZRSConfiguration/setup.sh --zrs-config-only --zrs-load-reports
```

## Configuring the ZENworks Reporting Server

- 1 In the ZENworks Reporting Server Wizard, read the introductory text, then click *Next*.



- 2 (Conditional) If the ZENworks Reporting Server has already been configured in your zone, you are prompted to decommission the existing ZENworks Reporting Server.

To use the existing ZENworks Reporting Server, click *Cancel* to cancel the ZENworks Reporting Server configuration.

To configure the ZENworks Reporting Server on ZENworks Appliance, click *OK*.

The existing ZENworks Reporting Server is decommissioned and the ZENworks Reporting Server configuration begins on ZENworks Appliance. The ZENworks Reporting Server configuration requires no user interaction.

For more information on how to decommission the existing ZENworks Reporting Server, see [“Performing a Backup of Reports before Decommissioning an Existing Instance of ZENworks Reporting Server”](#) in the *ZENworks 11 SP2 Reporting Server Installation Guide*.

- 3 After the configuration is complete, click *Done*.

Restart the ZENworks Reporting Server machine after you configure ZENworks Reporting Server.

## 3.3 Post-Deployment Tasks

The minimum disk space required for a virtual machine to deploy ZENworks Appliance is 50 GB. Depending on your requirement, you can increase the disk space after deploying ZENworks Appliance by performing the tasks in the following sections:

- ♦ [Section 3.3.1, “Creating a New Hard Disk,” on page 24](#)
- ♦ [Section 3.3.2, “Partitioning and Configuring a New Hard Disk,” on page 24](#)

### 3.3.1 Creating a New Hard Disk

- 1 Start the VMware VSphere Client application.
- 2 Right-click the virtual machine on which you have deployed ZENworks Appliance, then click *Edit Settings*.
- 3 In the Virtual Machine Properties dialog box, click *Add* to launch the Add Hardware Wizard.
- 4 On the Select a Device page, select *Hard Disk*, then click *Next*.
- 5 On the Select a Disk page, click *Create a new virtual disk*, then click *Next*.
- 6 On the Create a Disk page, do the following:
  - 6a Specify the disk capacity.
  - 6b Specify whether you want to use the thin provisioning or clustering support feature.
  - 6c Select the location as either *Store with the virtual machine* or *Specify a datastore*.
  - 6d (Conditional) If you select the *Specify a datastore* option, browse for and select the datastore location.

The new hard disk is stored in the same folder along with the other virtual machine files on that datastore.
  - 6e Click *Next*.
- 7 (Optional) On the Advanced Options page, specify the advanced options for the new virtual disk, then click *Next*.
- 8 On the Ready to Complete page, review the summary, then click *Finish*.
- 9 Continue with [“Partitioning and Configuring a New Hard Disk” on page 24](#).

### 3.3.2 Partitioning and Configuring a New Hard Disk

- 1 Use the YaST Partitioner to partition the new hard disk that you created in [“Creating a New Hard Disk” on page 24](#).

For more information on how to partition a new hard disk by using the YaST Partitioner, see [“Using the YaST Partitioner”](#) ([http://www.novell.com/documentation/sles11/book\\_sle\\_deployment/data/sec\\_yast2\\_i\\_y2\\_part\\_expert.html](http://www.novell.com/documentation/sles11/book_sle_deployment/data/sec_yast2_i_y2_part_expert.html)) in the *SLES 11 Deployment Guide* ([http://www.novell.com/documentation/sles11/book\\_sle\\_deployment/?page=/documentation/sles11/book\\_sle\\_deployment/data/book\\_sle\\_deployment\\_pre.html](http://www.novell.com/documentation/sles11/book_sle_deployment/?page=/documentation/sles11/book_sle_deployment/data/book_sle_deployment_pre.html)).
- 2 On the machine to which you have deployed ZENworks Appliance, open a terminal and run the following command to stop the service:

```
novell-zenworks-configure -c Start
```

  - 2a Select *Stop* to stop the service
- 3 Take a backup of the `/var/opt/novell/zenworks` directory that contains the ZENworks data into the `/var/opt/novell/zenworks.bak` directory by running the following command:



```
mv /var/opt/novell/zenworks /var/opt/novell/zenworks.bak
```

- 4 Mount the new hard disk partition at the `/var/opt/novell/zenworks` directory.

For more information on how to mount a hard disk partition, see “Using the YaST Partitioner” ([http://www.novell.com/documentation/sles11/book\\_sle\\_deployment/data/sec\\_yast2\\_i\\_y2\\_part\\_expert.html](http://www.novell.com/documentation/sles11/book_sle_deployment/data/sec_yast2_i_y2_part_expert.html)) in the *SLES 11 Deployment Guide* ([http://www.novell.com/documentation/sles11/book\\_sle\\_deployment/?page=/documentation/sles11/book\\_sle\\_deployment/data/book\\_sle\\_deployment\\_pre.html](http://www.novell.com/documentation/sles11/book_sle_deployment/?page=/documentation/sles11/book_sle_deployment/data/book_sle_deployment_pre.html)).

- 5 Move the files from the `/var/opt/novell/zenworks.bak` directory to the `/var/opt/novell/zenworks` directory by running the following command:

```
mv /var/opt/novell/zenworks.bak/* /var/opt/novell/zenworks
```

- 6 Change the ownership of the `/var/opt/novell/zenworks` directory to `zenworks` by running the following command:

```
chown -R zenworks:zenworks /var/opt/novell/zenworks
```

- 7 Provide Read and Execute permissions to others, and full permission to the group and owner of the `/var/opt/novell/zenworks` directory by running the following command:

```
chmod -R 775 /var/opt/novell/zenworks
```

- 8 Restart the services by running the following command:

```
novell-zenworks-configure -c Start
```



---

# 4 Managing and Monitoring ZENworks Appliance

After deploying ZENworks Virtual Appliance 11 SP2 (ZENworks Appliance), you can manage and monitor it by using the pre-installed applications such as YaST and GNOME System Monitor. The YaST Control Center allows you to administer and maintain the preinstalled customized SUSE Linux Enterprise Server 11 JeOS (SLES 11 SP1) by configuring hardware, setting up networks and services, and so on. The GNOME System Monitor allows you to monitor the programs and processes running on your computer, assess the activity of running processes, view the disk space usage, and so on.

---

**NOTE:** VMware tools are installed automatically with ZENworks Virtual Appliance.

---

To manage and monitor ZENworks Appliance through the YaST Control Center and GNOME System Monitor:

- 1 Log in to ZENworks Appliance as a root user.
- 2 (Conditional) If you want to manage ZENworks Appliance, from the desktop *Computer* menu, click *Applications > System > YaST*.

The YaST Control Center is displayed.

For more information on how to work with the YaST Control Center, see “[System Configuration](http://www.novell.com/documentation/sles11/book_sle_deployment/data/sec_i_yast2_conf.html)” ([http://www.novell.com/documentation/sles11/book\\_sle\\_deployment/data/sec\\_i\\_yast2\\_conf.html](http://www.novell.com/documentation/sles11/book_sle_deployment/data/sec_i_yast2_conf.html)) in the *SLES 11 Deployment Guide* ([http://www.novell.com/documentation/sles11/book\\_sle\\_deployment/?page=/documentation/sles11/book\\_sle\\_deployment/data/sec\\_i\\_yast2\\_conf.html](http://www.novell.com/documentation/sles11/book_sle_deployment/?page=/documentation/sles11/book_sle_deployment/data/sec_i_yast2_conf.html)).

- 3 (Conditional) If you want to monitor ZENworks Appliance, double-click the  desktop shortcut.

or

From the desktop *Computer* menu, click *Applications > System > Monitor > GNOME System Monitor*.

The System Monitor window is displayed.



---

# A Troubleshooting ZENworks Appliance

The following sections provides solutions to the problems you might encounter while deploying ZENworks Virtual Appliance 11 (ZENworks Appliance):

- ♦ [“An error occurs while downloading the ZENworks Appliance image” on page 29](#)
- ♦ [“Unable to configure ZENworks Reporting Server after upgrading ZENworks 10 Configuration Management SP3 Appliance to ZENworks 11 SP2 Appliance” on page 29](#)
- ♦ [“ZENworks Reporting Server Wizard fails to launch on a ZENworks Appliance” on page 29](#)
- ♦ [“Unable to configure ZENworks Reporting Server after upgrading ZENworks 10 Configuration Management SP3 Appliance to ZENworks 11 SP2 Appliance” on page 30](#)
- ♦ [“VMware tools package installed on ZENworks 11 SP2 Appliance is corrupted.” on page 30](#)
- ♦ [“Deployment fails with the error message ‘Unable to load zlib1.dll’” on page 31](#)
- ♦ [“Appliance migration from 10.3.x to 11.x fails due to temporary network outage” on page 31](#)

## **An error occurs while downloading the ZENworks Appliance image**

Source: ZENworks 11; ZENworks Appliance.

Possible Cause: The image of ZENworks Appliance has been downloaded by using the FAT file system, which does not support files greater than 4 GB.

Action: Use file systems that support files greater than 4 GB, such as NTFS on Windows and ext3 or ReiserFS on Linux.

## **Unable to configure ZENworks Reporting Server after upgrading ZENworks 10 Configuration Management SP3 Appliance to ZENworks 11 SP2 Appliance**

Source: ZENworks 11; ZENworks Reporting Server.

Action: Reboot the device, which is upgraded to ZENworks 11 .

## **ZENworks Reporting Server Wizard fails to launch on a ZENworks Appliance**

Source: ZENworks 11; ZENworks Reporting Server.

Explanation: ZENworks Reporting Server Wizard is not automatically launched on a ZENworks Appliance after you configure ZENworks 11 SP2.

Action: Do the following:

- 1 Reboot the device after installing ZENworks 11 SP2.
- 2 Login to ZENworks Appliance.

3 Open a terminal and run the following command:

```
/usr/share/ZRSConfiguration/setup.sh --zrs-config-only
```

## Unable to configure ZENworks Reporting Server after upgrading ZENworks 10 Configuration Management SP3 Appliance to ZENworks 11 SP2 Appliance

Source: ZENworks 11; ZENworks Reporting Server.

Explanation: You cannot configure ZENworks Reporting Server after upgrading ZENworks 10 Configuration Management SP3 Appliance to ZENworks 11 SP2 Appliance.

## VMware tools package installed on ZENworks 11 SP2 Appliance is corrupted.

Source: ZENworks 11; ZENworks Appliance.

Action: If the VMware tools package that is installed on the ZENworks 11 SP2 Appliance is corrupted, perform the following actions:

1 Uninstall the VMware tools package by running the following commands appropriately:

◆ On ESX 4.5 Update 1, run the following command:

```
rpm -e vmware-open-am-tools vmware-open-vm-tools-common  
vmware-open-vm-tools-kmod vmware-open-vm-tools-nox vmware-  
open-vm-tools-xorg-drv-display vmware-open-vm-tools-xorg-  
drv-mouse vmware-open-vm-tools-xorg-utilities vmware-tools  
vmware-tools-common vmware-tools-nox
```

◆ On ESX 5, run the following command:

```
rpm -e vmware-tools-core vmware-tools-esx vmware-tools-  
esx-kmods-default vmware-tools-esx-nox vmware-tools-  
foundation vmware-tools-guestlib vmware-tools-guestsdk  
vmware-tools-help vmware-tools-hgfs vmware-tools-  
libraries-nox vmware-tools-libraries-x vmware-tools-  
plugins-autoUpgrade vmware-tools-plugins-deployPkg vmware-  
tools-plugins-desktopEvents vmware-tools-plugins-dndcp  
vmware-tools-plugins-guestInfo vmware-tools-plugins-  
hgfsServer vmware-tools-plugins-powerOps vmware-tools-  
plugins-resolutionSet vmware-tools-plugins-timeSync  
vmware-tools-plugins-unity vmware-tools-plugins-vix  
vmware-tools-plugins-vmbackup vmware-tools-pvscsi-common  
vmware-tools-pvscsi-kmp-default vmware-tools-services  
vmware-tools-user vmware-tools-vmblock-common vmware-  
tools-vmblock-kmp-default vmware-tools-vmci-common vmware-  
tools-vmci-kmp-default vmware-tools-vmhgfs-common vmware-  
tools-vmhgfs-kmp-default vmware-tools-vmmemctl-common  
vmware-tools-vmmemctl-kmp-default vmware-tools-vmsync-  
common vmware-tools-vmsync-kmp-default vmware-tools-  
vmxnet3-common vmware-tools-vmxnet3-kmp-default vmware-  
tools-vmxnet-common vmware-tools-vmxnet-kmp-default  
vmware-tools-vsock-common vmware-tools-vsock-kmp-default  
vmware-tools-xorg-drv-display vmware-tools-xorg-drv-mouse
```

2 Re-install the VMware tools package by running the `/var/adm/zenworks/installVMTools.sh` command.

## Deployment fails with the error message 'Unable to load zlib1.dll'

Source: ZENworks 11; ZENworks Appliance.

Explanation: When you deploy the Appliance server on the ESX 5.0 client, the deployment fails with the *Unable to load zlib1.dll* error.

Action: To deploy the Appliance successfully, copy the `zlib1.dll` file from the previous installation location to the `<VMware Client install directory>\Infrastructure\Virtual Infrastructure Client\5.0` and then start ZENworks Appliance deployment.

## Appliance migration from 10.3.x to 11.x fails due to temporary network outage

Source: ZENworks 11; ZENworks Appliance.

Explanation: If you retry Appliance migration after it fails because of a temporary network outage, the following message is displayed:

```
device is already upgraded.
```

Action: To complete the migration process, perform the following steps on the 11.x machine:

1 Run the following command:

```
/var/zenworks/migrate.sh <APP_IP> <ZONE_NAME>
```

Replace `APP_IP` with the IP address of 10.3.x server and `ZONE_NAME` with the zone name.

2 Run the command:

```
/var/adm/zenworks/copyNetwork.sh <APP_IP>
```

Replace `APP_IP` with the IP address of 10.3.x server.

3 Create a new file called `servicehandler` and add the following text to it:

```
#!/bin/bash

if [ $# != 4 ] ; then
    echo "Usage: servicehandler <servicename> <Operation (1 for
install, 2 for uninstall)> <Start ID> <Kill ID>"
    exit 1
fi

if [ `id -u` -ne 0 ] ; then
    echo "Run this file as root."
    exit 1
fi

INSTALL=1
UNINSTALL=2

SERVICE_NAME=$1
OPERATION=$2
START_ID=$3
KILL_ID=$4

if [ $OPERATION -eq $INSTALL ] ; then
    #Install service

    if [ -x /usr/lib/lsb/install_initd ] ; then
        /usr/lib/lsb/install_initd /etc/init.d/$SERVICE_NAME
    elif [ -x /sbin/chkconfig ] ; then
```

```

        /sbin/chkconfig --add $SERVICE_NAME
    else
        for i in 2 3 4 5; do
            ln -s /etc/init.d/$SERVICE_NAME /etc/rc.d/rc$i.d/
S$START_ID$SERVICE_NAME
        done
        for i in 1 6; do
            ln -s /etc/init.d/$SERVICE_NAME /etc/rc.d/rc$i.d/
K$KILL_ID$SERVICE_NAME
        done
    fi
elif [ $OPERATION -eq $UNINSTALL ] ; then
    #Uninstall service

    if [ -x /usr/lib/lsb/remove_initd ]; then
        /usr/lib/lsb/remove_initd /etc/init.d/$SERVICE_NAME
    elif [ -x /sbin/chkconfig ]; then
        /sbin/chkconfig --del $SERVICE_NAME
    else
        for i in 2 3 4 5; do
            rm /etc/rc.d/rc$i.d/S$START_ID$SERVICE_NAME
        done
        for i in 1 6; do
            rm /etc/rc.d/rc$i.d/K$KILL_ID$SERVICE_NAME
        done
    fi
else
    echo "Invalid operation specified";
fi

```

**4** To give executable permissions to the servicehandler file, run the `chmod +x servicehandler command`.

**5** Place the service handler file in your root directory and run the following commands:

```

./servicehandler novell-zenmntr 1 90 10
./servicehandler novell-zenworks-xplatzmd 1 90 10
./servicehandler novell-xplat-RunLevelChange3 1 90 10
./servicehandler novell-zenloader 1 90 10
./servicehandler novell-zenserver 1 90 10
./servicehandler novell-pbserv 1 90 10
./servicehandler novell-proxydhcp 1 90 10
./servicehandler novell-tftp 1 90 10
./servicehandler novell-zmgprebootpolicy 1 90 10

```

**6** If you are using an embedded Sybase database, run the following commands:

```

./servicehandler novell sybase-asa 1 90 10
./servicehandler novell casa_atd 1 90 10

```

**7** To complete the process, run the `/opt/novell/zenworks/bin/permissions.sh` command.



---

# B Documentation Updates

This section contains information on documentation content changes that were made in this *Novell ZENworks 11 Configuration Management Appliance Deployment and Administration Reference* after the initial release of Novell ZENworks 11 Configuration Management. The information can help you to keep current on updates to the documentation.

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

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

The following updates were made to the document:

- ◆ [Section B.1, “March 20, 2012: 11 SP2,” on page 33](#)

## B.1 March 20, 2012: 11 SP2

Updates were made to the following sections:

Location	Update
<a href="#">Appendix A, “Troubleshooting ZENworks Appliance,” on page 29</a>	Added the following troubleshooting scenarios: <ul style="list-style-type: none"><li>◆ <a href="#">“VMware tools package installed on ZENworks 11 SP2 Appliance is corrupted.” on page 30</a></li><li>◆ <a href="#">“Deployment fails with the error message ‘Unable to load zlib1.dll’” on page 31</a></li><li>◆ <a href="#">“Appliance migration from 10.3.x to 11.x fails due to temporary network outage” on page 31</a></li></ul>

