ZENworks® 11 Support Pack 4
Disaster Recovery Reference

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About This Guide

This *ZENworks 11 SP4 Disaster Recovery Reference* explains the disaster recovery mechanisms available to help you protect the first Primary Server of a Management Zone if an organizational risk assessment identifies a need for such steps:

- Chapter 1, "Backing Up and Restoring the ZENworks Server and Certificate Authority," on page 7
- Chapter 2, "Replacing Primary Servers," on page 15
- Chapter 3, "Changing the IP Address or DNS Name of Primary Servers," on page 23
- Chapter 4, "Managing SSL Zone certificates," on page 29

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 SP4 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 11 SP4 documentation Web site (http://www.novell.com/documentation/zenworks114).

Contents

1 Backing Up and Restoring the ZENworks Server and Certificate Authority

The following sections provide more information about backing up and restoring a ZENworks Server and certificate authority:

- "Backing Up a ZENworks Server" on page 7
- "Restoring a ZENworks Server" on page 11
- "Backing Up the Certificate Authority" on page 12
- "Restoring the Certificate Authority" on page 12
- "Migrating the Internal Certificate Authority Role between Primary Servers" on page 13

Backing Up a ZENworks Server

Novell ZENworks allows you to back up and restore the configuration files for a ZENworks Primary Server. This enables you to maintain a ZENworks Server's identity and configuration if a server fails or if you need to upgrade to new server hardware.

Server backup operation is version specific. When a server is updated to a higher version, the backup data needs to be collected for the specific version.The backup saves only the configuration files. The database and content repository must be backed up separately and they need to be in sync:

- The content repository (bundle, policy, and image files). You should do a separate backup for the content repository if you only have one Primary Server in the Management Zone. If you have two or more Primary Servers and you've replicated all content to both servers, they serve as backup copies to each other.

- The ZENworks database (if it resides on the ZENworks server). Backing up the ZENworks Server and backing up the ZENworks database are two separate processes. If your ZENworks database resides on the same server as one of your ZENworks Servers, first back up the database and then back up the ZENworks Server. Because the ZENworks database changes frequently, you should back up the database on a regular schedule. For information about backing up the database, see the *ZENworks 11 SP4 Database Management Reference*.

When you back up a ZENworks Server using a zman command, all files in the `Novell\ZENworks\conf` directory on a Windows server or the `etc/opt/novell/zenworks/` directory on a Linux server are stored in an encrypted backup file in a location that you specify. For more information on the files that are stored as backup, see "List of files and folders stored as backup after running the zman zenserver-backup command" on page 8.

1 (Conditional) If the server you are backing up hosts the ZENworks database, manually back up the database file to a safe location.

   For information about backing up the database, see the *ZENworks 11 SP4 Database Management Reference*.

2 At a command prompt on the ZENworks Server, enter the following command:

   `zman zenserver-backup` *path_to_backup_file_to_create*

   For example:

```
zman zenserver-backup c:\zcm_backups\zone_backup.bak
```

or

```
zman zenserver-backup /root/zcm_backups/zone_backup.bak
```

3 When prompted, enter a ZENworks administrator name and password.

4 When prompted, enter a passphrase (at least 10 characters) to be used for encrypting the backup file.

Make sure you remember this passphrase. You must enter it if you ever need to restore the server.

5 (Conditional) If this is the only Primary Server, or if this Primary Server contains all the content defined in your Management Zone, you must manually back up the content repository to a safe location, unless the content repository is hosted externally. In case of two or more Primary Servers in the zone, it is recommended to perform the file system backup of the local content-repo folder on the Primary Server to ensure that the replicated content is preserved.

For information on the content repository, see "Content" in the *ZENworks 11 SP4 Primary Server and Satellite Reference*.

IMPORTANT: If this is the only Primary Server that contains all of your defined content for the Management Zone and you do not back up the content repository, you are not prepared for a full disaster recovery.

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6 Repeat Step 1 and Step 5 on a regular basis.

The `zman` command documented in Step 2 through Step 4 only needs to be run once.

List of files and folders stored as backup after running the zman zenserver-backup command

Following files and folders are stored as backup for Windows:

- ◆ ActionHandlersRegistration.xml
- ◆ ActionUndoHandlersRegistration.xml
- ◆ components.properties
- ◆ database-migration.properties
- ◆ DeviceData
- ◆ DeviceGuid
- ◆ DLUPolicyHandlerRegistration.xml
- ◆ guid.txt
- ◆ initial-web-service
- ◆ ippman.conf
- ◆ LCPRegistration.xml
- ◆ logger-server-conf.xml

   logger-zman-conf.xml

- ◆ logger-zmd-conf.xml

   logger.xsl

   lpm-server.properties

   monitor.conf

   novell-rm-audit.xml

novell-rm-setting.ini

novell-zenworks-configure.properties

PolicyHandlersRegistration.xml/

zman/properties/

primary_server_version.dll

RMHandlerRegistration.xml

WGPRegistration.xml

ZenMemoryCache.config

ZenServerVersion.xml

zenworks.uninstall.logger.config

zenworks_database.conf

security/

datamodel/

casa/

fde/

loader/

loader-logging/

pmconfig/

preboot/

quicktask/

RMPolicy/

Satellite/

services

zman/properties/

server.xml

casa/server.xml

extcasa/WEB-INF/classes/casa_crypto.properties

casa/WEB-INF/classes/casa_crypto.properties

Following files and folders are not stored as backup on Windows:

- agentcomponents/

  datamodel/authsources

  datamodel/cache

  datamodel/default

  zman/resources/

  pru/

  resources/

  trusted-certs/

  LoggerConfiguration-windows.xml

Following files and folders are stored as a backup for Linux:

- components.properties

  zenworks.properties

  monitor.conf

  version.txt

  database-migration.properties

  initial-web-service

  ZenServerVersion.xml

  primary_server_version.txt

  DeviceData

  DeviceGuid

  ippman.conf

  zenworks_database.conf

  guid.txt

  lpm-server.properties

  logger-server-conf.xml

  novell-zenworks-configure.properties

  logger-zman-conf.xml

  zenworks.uninstall.logger.config

  security/

  datamodel/

  casa/

  fde/

  loader/

  loader-logging/

  preboot/

  puppet/

  quicktask/

  services/

  zman/properties/

  server.xml

  casa/server.xml

extcasa/WEB-INF/classes/casa_crypto.properties

casa/WEB-INF/classes/casa_crypto.properties

zentruststore/

Following files and folders are not stored as backup on Linux:

- agentcomponents/

    datamode/lauthsources

    datamodel/cache

    datamodel/default

    conf/

    pru/

    resources/

    trusted-certs/

    zman/resources

Restoring a ZENworks Server

This procedure assumes the following:

- You have a backup of the ZENworks server's configuration information. See "Backing Up a ZENworks Server" on page 7.

- If the ZENworks database resides on the ZENworks server, you have a backup of the database. See "Backing Up the Embedded Sybase SQL Anywhere Database" in the *ZENworks 11 SP4 Database Management Reference*.

- The bundles and policies should be replicated to and stored on the ZENworks server. If not, distribution of a policy or bundle from the restored ZENworks server fails. This can be achieved by restoring the content-repo folder that was backed up earlier for the specific Primary Server. To do this, stop the ZENworks server services and then copy the backed up content files to the content repository of the server that is to be restored. The default locations of the content repository are:

    - On a Windows Server: `installation_path\zenworks\work\content-repo`

    - On a Linux Server: `/var/opt/novell/zenworks/content-repo/`

    For more information on content repository, see "Content" in *ZENworks 11 SP4 Primary Server and Satellite Reference*.

- The image files that are stored on the ZENworks Server are available on another ZENworks Server. If not, distribution of the image files from the restored ZENworks Server will fail.

IMPORTANT: When you restore the ZENworks Server and the database, you must first restore the ZENworks Server, then continue with restoring the latest backed-up ZENworks database.

To restore a ZENworks server:

1 Reinstall the ZENworks server, using the same IP address and DNS name.

If you do not use the same IP address and DNS name, devices that connect to the server need to reregister.

If you have only one Primary Server connected to an external database in a zone, reinstall the Primary Server and create a dummy database during the installation. You do not need to create an internal database.

If you have more than one Primary Server connected to an external database in a zone, reinstall the failed Primary Server as a second Primary Server. You are not prompted to configure the database during the installation.

2 Ensure that you have read/write rights to the `Novell\ZENworks\conf` directory on a Windows server or the `etc/opt/novell/zenworks` directory on a Linux server.

3 At a command prompt on the ZENworks Server, enter the following command:

`zman zenserver-restore path_to_backup_file_to_restore`

For example:

`zman zenserver-restore c:\zcm_backups\zone_backup.bak`

or

`zman zenserver-restore /root/zcm_backups/zone_backup.bak`

4 When prompted, enter a ZENworks administrator name and password.

5 When prompted, enter the pass phrase (at least 10 characters) to be used for decrypting the backup file.

This is the same passphrase that was entered to encrypt the file when backing up the server.

6 (Conditional) If the database is located on the server, restore the database after the ZENworks Server information has been restored. For instructions, see "Restoring the Embedded Sybase SQL Anywhere Database" in the *ZENworks 11 SP4 Database Management Reference*.

7 (Conditional) If you have created a backup of the local content-repo folder, restore the backed-up content-repo folder to the `ZENworks_installation_directory\work\` folder on Windows or to the `/var/opt/novell/zenworks/` directory on Linux. You must run the `permissions.sh` command on the Linux Primary Server to set the correct permissions.

8 (Conditional) If you have backups of the image files, restore the files to the `Novell\Zenworks\work\content-repo\images` directory on a Windows server or the `/var/opt/novell/zenworks/content-repo/images` directory on a Linux server.

9 Restart the ZENworks Server.

Backing Up the Certificate Authority

To back up the certificate authority files using ZENworks Control Center on the Primary Server that is configured to be the ZENworks internal certificate authority. For information, see "*Taking a Backup of the Certificate Authority*" in the *ZENworks 11 SP4 SSL Management Reference*.

Restoring the Certificate Authority

To restore the certificate authority files using ZENworks Control Center on the Primary Server that is configured to be the ZENworks internal certificate authority. For information, see "*Restoring the Certificate Authority*" in the *ZENworks 11 SP4 SSL Management Reference*.

Migrating the Internal Certificate Authority Role between Primary Servers

To migrate the internal Certificate Authority (CA) role from one ZENworks Primary Server to another.

For information, see "*Moving the CA Role*" in the *ZENworks 11 SP4 SSL Management Reference*.

2 Replacing Primary Servers

- ◆ "Replacing the First Primary Server with the Second Primary Server" on page 15
- ◆ "Replacing an Existing Primary Server with a New Primary Server" on page 20

Replacing the First Primary Server with the Second Primary Server

You can replace the first Primary Server in your Management Zone with an existing second Primary Server or with a new server. If you choose to replace the first Primary Server with a new server that has a different hostname and IP address, you must install ZENworks 11 SP4 on the new server in the same Management Zone. Consequently, the new server becomes the first Primary Server.

The first Primary Server and the second Primary Server must have the same version of the ZENworks 11 SP4 installed.

NOTE: This scenario is not supported on Windows to Linux and vice-versa platform combinations.

To replace the first Primary Server with the second Primary Server:

1 Before replacing the First Primary Server with the Second Primary Server, take a reliable backup of the following on all Primary Servers in the Management Zone:

- ◆ **Content-Repo Directory:** The `content-repo` directory is located by default in the `ZENworks_installation_directory\work` directory on Windows and in the `/var/opt/novell/zenworks/` on Linux.

  Ensure that the `images` directory located within the `content-repo` directory has been successfully backed up.

- ◆ **Certificate Authority:** For detailed information on how to back up the certificate authority, see Backing Up the Certificate Authority.

- ◆ **Embedded Database:** For detailed information on how to back up the embedded database, see in "Backing Up the Embedded Sybase SQL Anywhere Database" in the *ZENworks 11 SP4 Database Management Reference*.

- ◆ **ZENworks Server:** For detailed information on how to back up the ZENworks Server, see "Backing Up a ZENworks Server" on page 7.

2 Ensure that all the contents of the `content-repo` directory of the first Primary Server are replicated to the second Primary Server.

The `content-repo` directory is located in the `ZENworks_installation_directory\work\` directory on Windows and in the `/var/opt/novell/zenworks/` directory on Linux.

3 (Conditional) If the first Primary Server has add-on images:

3a In ZENworks Control Center for the second Primary Server, click the **Bundles** tab, then click the Imaging bundle.

The **Summary** tab is displayed.

3b Click **Edit** next to **Add-on Image File**.

The Bundle Add-on Image wizard is displayed.

3c On the **Add Image Server Address** page, select the first Primary Server that is associated with the bundle, then click **Remove**.

3d Click **Add**.

3e Click ☞ next to the **Servers** folder to navigate through the folders until you find the second Primary Server.

3f Select the second Primary Server to display its name in the **Selected** list, then click **OK**.

3g Click **Finish**.

The add-on image is associated with the second Primary Server, and the add-on image content is created on the second Primary Server.

3h In the **Summary** tab of the bundle, click the **Increment Version** underlined link for **Version**, then click **Yes** in the Confirm Version Increment dialog box.

4 (Conditional) If the first Primary Server has a ZENworks Imaging bundle, copy the bundle to the second Primary Server:

4a Manually copy all the files with the `.zmg` extension from the `/content-repo/images` directory of the first Primary Server to the `/content-repo/images` directory on the second Primary Server.

4b In ZENworks Control Center of the second Primary Server, click the **Bundles** tab, then click the Imaging bundle.

4c Click the **Actions** tab.

4d Click the ZENworks Image action.

The Edit Action dialog box is displayed.

4e In the **ZENworks Image** field, click 🔍.

The Server and Path Information dialog box is displayed.

4f In the **Server Object, IP or DNS** field, click 🔍 to browse for and select the second Primary Server.

4g In the **File Path on Server** field, click 🔍 to browse for and select the `image.zmg` file.

5 (Conditional) If the first Primary Server is a ZENworks Patch Management (ZPM) Server, then select another ZPM sever:

5a In ZENworks Control Center, click the **Configuration** tab in the left panel.

5b Click **Patch Management**.

5c Click the **Subscription Service Settings** Link. The Subscription Service Settings page appears.

5d In the **Subscription Service Settings** panel, click **Reset Subscription Service**. A dialog box appears requesting you to confirm your action. Click **Yes** to proceed further.

5e In the **Start the Subscription Service** field, you can select another server from multiple servers in your management zone.

5f Click **Start Service**.

6 (Conditional) If the first Primary Server is a ZENworks Subscription Server, select another subscription server.

6a In ZENworks Control Center, click the **Subscribe and Share** tab in the left panel.

6b In the **Subscription** page, click the subscription name in the **Name** column.

6c In the **Summary** page, navigate to the **Schedules** Panel, then click 🔍 in the **Subscription Server** field to select any other server.

7 (Conditional) If the first Primary Server has ZENworks Reporting installed, take a reliable back-up of the reports.

For more information about backup of ZENworks reports, see "Managing the ZENworks Reporting Settings" in the *ZENworks Reporting System Reference*.

8 Export the certificate authority role.

    8a Take a reliable backup of the certificate authority of the first Primary Server.

    For detailed information on how to take a backup of the certificate authority, see Backing Up the Certificate Authority.

    8b Restore the backed-up certificate authority on the second Primary Server.

    For detailed information on how to restore a backed-up certificate authority, see Restoring the Certificate Authority.

9 In the default closest server rule at the Management Zone level, move the first Primary Server as the last entry in the servers list.

    9a In ZENworks Control Center, click the **Configuration** tab.

    9b In the Management Zone Settings panel, click **Infrastructure Management** > **Closest Server Default Rule**.

    9c In the **Collection Servers** list, select the check box next to the first Primary Server, then click **Move Down** until the server is the last entry in the list.

    9d In the **Content Servers** list, select the check box next to the first Primary Server, then click **Move Down** until the server is the last entry in the list.

    9e In the **Configuration Servers** list, select the check box next to the first Primary Server, then click **Move Down** until the server is the last entry in the list.

    9f Click **OK**.

10 (Conditional) If you have any additional closest server rules configured, remove the first Primary Server from the rules.

    10a In ZENworks Control Center, click the **Configuration** tab.

    10b In the Management Zone Settings panel, click **Infrastructure Management** > **Closest Server Rules**.

    10c Select a closest server rule, then click **Edit**.

    The Rule Construction dialog box is displayed.

    10d In the **Collection Servers** list, select the check box next to the first Primary Server, then click **Remove.**

    10e In the **Content Servers** list, select the check box next to the first Primary Server, then click **Remove**.

    10f In the **Configuration Servers** list, select the check box next to the first Primary Server, then click **Remove**.

    10g Click **OK** twice.

11 Refresh all the devices (Primary Serves, Satellites, and managed devices) in the Management Zone so that they get the new closest server rules.

12 (Optional) Reregister all the managed devices and Satellites to the new Primary Server.

NOTE: You can choose not to perform this step because there is no loss in the functionality. However, the ZENworks icon and the `zac zone-config` command continue to display the IP address and the host name of the retired Primary Server.

To reregister the devices, perform the following tasks on all the devices:

12a Unregister the device from the Management Zone by running the following command:

```
zac unr -f
```

12b Register the device in the Management Zone by running the following command:

```
zac reg https://ZENworks_Server_DNS_name:port_number
```

For more information about zac, view the zac man page (`man zac`) on the device or see the *ZENworks 11 SP4 Command Line Utilities Reference*.

13 (Optional) Move the database to another device in any of the following scenarios:

- You are using an internal ZENworks database (embedded Sybase SQL Anywhere).
- You are using an external database installed on the device hosting the first Primary Server and you do not plan to use the device after uninstalling the Primary Server.

To move the database to another device:

13a (Conditional) If you are using an external database, ensure that you have a reliable backup of the database.

13b Obtain the credentials of the database.

To procure the credentials of the internal database, use one of the following commands:

```
zman dgc -U administrator_name -P administrator_password
```

or

```
zman database-get-credentials -U administrator_name -P administrator_password
```

To obtain the credentials of the external database, contact the database administrator.

13c Remove the database role from the first Primary Server (applicable for Embedded Sybase):

13c1 Log into the database.

13c2 In the SQL editor, execute the following SQL queries to remove the corresponding role entries for the first Primary Server from the zZENServerRoles table:

```
delete from zZENServerRoles where Roles='Database';
delete from zZENServerRoles where Roles='MasterPrimary';
delete from zZENServerRoles where Roles='CertAuth';
commit;
```

13d To add the database role to the Second Primary Server (applicable for Embedded Sybase):

13d1 Log into the database.

13d2 In the SQL editor, execute the following SQL commands to assign the database role for the Second Primary Server:

```
Insert into zZENServerRoles (id, Roles, position) values (0x<second PS GUID>, 'Database', (select max(position) from zZENServerRoles where id=0x<second PS GUID>)+1);
```

```
Insert into zZENServerRoles (id, Roles, position) values (0x<second PS GUID>, 'MasterPrimary', (select max(position) from zZENServerRoles where id=0x<second PS GUID>)+1);
```

```
Insert into zZENServerRoles (id, Roles, position) values (0x<second PS GUID>, 'CertAuth', (select max(position) from zZENServerRoles where id=0x<second PS GUID>)+1);
```

commit;

NOTE: To obtain the second primary server GUID, in ZENworks Control Center navigate to **Devices** and select the server. The summary page displays the GUID number. Alternatively, log into the database and execute the following command: select `* from zZENObject where name like '<<Primary Server Name>>'`.

13e If the database is installed on the same device as that of the first Primary Server, move the database.

Internal Sybase: For detailed information on how to move the data from an internal Sybase database to an internal Sybase database, see "Moving the Internal Sybase Database from One Primary Server to Another Primary Server" in the *ZENworks 11 SP4 Database Management Reference*.

External Sybase: For detailed information on how to move the data from one external Sybase database to another external Sybase database, see "Moving the Data from One External Sybase Database to another External Sybase Database" in the *ZENworks 11 SP4 Database Management Reference*.

MS SQL: For detailed information on how to move the data to a new MS SQL database, see the MS SQL documentation. Later on, perform the steps described in "Configuring the ZENworks Server to Point to the New MS SQL Database Containing Data Moved from Another MS SQL Database" in the *ZENworks 11 SP4 Database Management Reference*.

Oracle: For detailed information on how to move the data from one Oracle database to another Oracle database, see the Oracle documentation. Later on, perform the steps described in "Configuring the ZENworks Server to Point to the New Oracle Database Containing Data Moved from Another Oracle Database" in the *ZENworks 11 SP4 Database Management Reference*.

14 Remove all Satellites under the first Primary Server from the Server Hierarchy.

For more information on how to remove the Satellites from the Server Hierarchy listing in ZENworks Control Center, see "Removing Satellites from the Server Hierarchy" in the *ZENworks 11 SP4 Primary Server and Satellite Reference*.

15 After ensuring that all the operations in the Management Zone are working as expected, uninstall ZENworks 11 SP4 on the first Primary Server.

For detailed information on how to uninstall ZENworks 11 SP4, see "ZENworks 11 SP4 Uninstall Guide".

NOTE: If Multizone is configured for this server (which has got replaced with a new Primary Server) as Publisher, then all its subscribers must be updated with the new IP address and certificate of this server.

1. Log in to ZENworks Control Center (ZCC) of subscribers.

2. Navigate to **Subscribe And Share > Subscriptions > <subscription_name> > Remote Server > Base URL > Edit**.

3. Update the IP address with the new IP address of the Primary Server (Publisher).

To update the new certificate:

1. Navigate to **Subscribe And Share > Subscriptions > <subscription_name> > Remote Server > Update Certificate**.

2. Update the certificate.

Replacing an Existing Primary Server with a New Primary Server

If you have only one Primary Server in the Management Zone and if you want to replace the device hosting the Primary Server with a new device that has the same host name and IP address as the old device, you must move the Primary Server to the new device.

The existing Primary Server and the new Primary Server must have the same version of the ZENworks 11 SP4 installed.

NOTE: This scenario is not supported on Windows to Linux and vice-versa. It applies to platforms having the same network identity.

1 Take a reliable backup of the existing ZENworks Server.

   For detailed information on how to take a backup of the ZENworks Server, see "Backing Up a ZENworks Server" on page 7.

2 (Conditional) Take a reliable backup of the certificate authority of the Primary Server.

   For detailed information on how to take a backup of the certificate authority, see "Backing Up the Certificate Authority" on page 12.

   During the ZENworks Server backup, certificates are backed up for Primary Servers having an internal Certificate Authority and the same network identity (IP, FQDN, and Cert). Also, during the ZENworks Server restore, the Certificate Authority is restored.

3 (Conditional) Take a reliable backup of database in any of the following scenarios:

   ◆ You are using an internal ZENworks database (embedded Sybase SQL Anywhere).

   ◆ You are using an external database installed on the device hosting the Primary Server and you do not plan to use the device after uninstalling the Primary Server.

   For detailed information on how to take a backup of an internal database, see in "Backing Up the Embedded Sybase SQL Anywhere Database" in the *ZENworks 11 SP4 Database Management Reference*.

   To take a backup of an external database, see the documentation for the database.

4 (Conditional) If the first Primary Server has ZENworks Reporting installed, take a reliable back-up of the reports.

   For more information about backup of ZENworks reports, see "Managing the Export Settings" in the *ZENworks Reporting System Reference*.

5 Stop all the ZENworks services on the Primary Server.

   For detailed information on how to stop the ZENworks services on Windows, see "Stopping the ZENworks Services" in the *ZENworks 11 SP4 Primary Server and Satellite Reference*. For detailed information on how to stop the ZENworks services on Linux, see "Stopping the ZENworks Services" in the *ZENworks 11 SP4 Primary Server and Satellite Reference*.

6 Take a reliable backup of the `content-repo` directory of the Primary Server.

   The `content-repo` directory is located in the `ZENworks_installation_directory\work\` directory on Windows and in the `/var/opt/novell/zenworks/` directory on Linux.

7 Disconnect the device from the network.

8 Install ZENworks 11 SP4 on the new server with the following settings that are same as that of the old Primary Server:

   ◆ Installation drive and path. For Windows, ensure that the installation path points to `C:\Program Files (x86)`.

   ◆ ZENworks Ports

    ◆ Management Zone name

For detailed information on how to install ZENworks 11 SP4, see "Installing a ZENworks Primary Server on Windows" in the *ZENworks 11 SP4 Server Installation Guide*.

9 Do the following on the new Primary Server:

  9a Restore the backed-up ZENworks Server.

    For detailed information on how to restore the ZENworks Server, see "Restoring a ZENworks Server" on page 11.

  9b (Conditional) Restore the backed-up database.

    For detailed information on how to restore the internal ZENworks database, see in "Restoring the Embedded Sybase SQL Anywhere Database" in the *ZENworks 11 SP4 Database Management Reference*.

  9c (Conditional) Restore the backed-up Certificate Authority.

    For detailed information on how to restore the certificate authority, see Restoring the Certificate Authority.

  9d Re-create all the default and custom deployment packages.

    Default Deployment Packages: At the server's command prompt, enter the following command:

    ```
novell-zenworks-configure -c CreateExtractorPacks -Z
```

    Custom Deployment Packages: At the server's command prompt, enter the following command:

    ```
novell-zenworks-configure -c RebuildCustomPacks -Z
```

  9e Copy the backed-up `content-repo` directory to the `ZENworks_installation_directory\work\` directory on Windows or to the `/var/opt/novell/zenworks/` directory on Linux. If you have any issues in copying `content-repo` directory in Linux, then run `permissions.sh` command.

  9f (Conditional) Run the following scripts:

    ◆ delete from zzenserverroles where Roles = 'ReportCMSServer' or Roles = 'ReportApplicationServer'

    ◆ delete from zopaquedata where name = 'boe.mysql.database.pwd'

    ◆ delete from zopaquedata where name like '%zone.configuration.reports%'

  9g (Conditional) On the new Primary Server, install ZENworks Reporting.

    For detailed information on how to install ZENworks Reporting, see *ZENworks Reporting 5 Installation Guide*.

  9h (Conditional) If you install ZENworks Reporting on the new Primary Server, restore the reports that you backed-up in Step 4 by using the following zman command:

    ```
zman rpld (source folder)
```

    For detailed information about the zman Report Commands, view the zman man page (`man zman`) on the server or see "zman(1)" in *ZENworks 11 SP4 Command Line Utilities Reference*.

10 Ensure that the new server is running correctly. Subsequently, uninstall ZENworks 11 SP4 from the old device. For detailed information on how to uninstall ZENworks 11 SP4, see *ZENworks 11 SP4 Uninstall Guide*.

WARNING

After the new Primary Server starts running, you must disconnect the old Primary Server from the network and uninstall ZENworks, or disable ZENworks services so that it cannot register back to the zone.

3 Changing the IP Address or DNS Name of Primary Servers

If you want to change the IP address or DNS Name of a Primary Server after installing ZENworks 11 SP4, review the following sections:

- "Changing the IP Address of a Primary Server after Installing ZENworks 11 SP4" on page 23
- "Changing the DNS Name or DNS Name and the IP Address of a Primary Server after Installing ZENworks 11 SP4" on page 24
- "Updating IOA devices if the IP address or DNS name of the Primary Server changes" on page 27

Changing the IP Address of a Primary Server after Installing ZENworks 11 SP4

If you want to change the IP address of the Primary Server after installing ZENworks 11 SP4, and if the CN of the certificate does not have the IP address configured, use the following steps to change the IP address of the Primary Server:

1 Before changing the IP address of the Primary Server, take a reliable backup of the following on all Primary Servers in the Management Zone:

- **Content-Repo Directory:** The `content-repo` directory is located by default in the `ZENworks_installation_directory\work` directory on Windows and in the `/var/opt/novell/zenworks/` on Linux.

  Ensure that the `images` directory located within the `content-repo` directory has been successfully backed up.

- **Certificate Authority:** For detailed information on how to back up the certificate authority, see "Backing Up the Certificate Authority" on page 12.

- **Embedded Database:** For detailed information on how to back up the embedded database, see in "Backing Up the Embedded Sybase SQL Anywhere Database" in the *ZENworks 11 SP4 Database Management Reference*.

- **ZENworks Server Back up:** For detailed information on how to back up the ZENworks Server, see "Backing Up a ZENworks Server" on page 7.

2 Change the IP address of the Primary Server.

IMPORTANT: Do not change the DNS name of the server.

---

3 Ensure that the new IP address of the server is correctly mapped to its existing DNS name on the DNS server.

4 Restart all the ZENworks services by running the following command at the server's command prompt:

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

By default, all the services are selected. You must select **Restart** as the **Action**.

5 Re-create all the default and custom deployment packages:

- ◆ **Default Deployment Packages:** At the server's command prompt, enter the following command:

  `novell-zenworks-configure -c CreateExtractorPacks -Z`

- ◆ **Custom Deployment Packages:** At the server's command prompt, enter the following command:

  `novell-zenworks-configure -c RebuildCustomPacks -Z`

6 If the database is located on the Primary Server whose IP address you changed in .

1. Change the database server address on all the second Primary Servers. On all the second Primary Servers, change the value of database server address in the *ZENworks_Installation_Directory*\Novell\ZENworks\conf\datamodel\zdm.xml to point to the new IP address of the first Primary Server.

2. Change the audit database server address on all the second Primary Servers. On all the second Primary Servers, change the value of audit database server address in the *ZENworks_Installation_Directory*\Novell\ZENworks\conf\datamodel\zenaudit.xml to point to the new IP address of the first Primary Server.

7 Restart the ZENworks Adaptive Agent and the ZENworks Updater Service (if present) on the primary server.

8 Restart the Proxy DHCP services on all the Satellites.

9 (Conditional) If multizone is configured with this server (whose IP address is changed) as Publisher, then after replacing the First Primary Server with the Second Primary Server, update the new IP address of this server for all its Subscribers. Perform the following to update the new IP address:

1. Log in to ZENworks Control Center (ZCC) of subscribers.

2. Navigate to **Subscribe And Share > Subscriptions > <subscription_name> > Remote Server > Base URL>Edit**.

3. Update the IP address with new IP address of the Primary Server (Publisher).

Changing the DNS Name or DNS Name and the IP Address of a Primary Server after Installing ZENworks 11 SP4

If you want to change only the DNS name or if you want to change both the IP address and DNS name of the Primary Server after installing ZENworks 11 SP4, and if the certificate's CN has fully qualified DNS configured, use the following steps to change only the DNS name or to change both the IP address and DNS name of the Primary Server.

The following two scenarios are supported:

- ◆ "Zone configured with external certificate" on page 25
- ◆ "Zone configured with internal certificate" on page 26

Zone configured with external certificate

1 Take a reliable backup of the following on all the Primary Servers in the Management Zone:

- ◆ **Content-Repo Directory:** The `content-repo` directory is located by default in the `ZENworks_installation_directory`\work directory on Windows and in the `/var/opt/novell/zenworks/` on Linux.

   Ensure that the `images` directory located within the `content-repo` directory has been successfully backed up.

- ◆ **Certificate Authority:** For detailed information on how to back up the certificate authority, see Backing Up the Certificate Authority.

- ◆ **Embedded Database:** For detailed information on how to back up the embedded database, see in "Backing Up the Embedded Sybase SQL Anywhere Database" in the *ZENworks 11 SP4 Database Management Reference*.

- ◆ **ZENworks Server:** For detailed information on how to back up the ZENworks Server, see "Backing Up a ZENworks Server" on page 7.

2 Change the DNS name or the DNS name and IP address.

3 If the database is located on the Primary Server whose IP address you changed in *Step 2*.

1. Change the database server address on all the second Primary Servers. On all the second Primary Servers, change the value of database server address in the `ZENworks_Installation_Directory`\Novell\ZENworks\conf\datamodel\zdm.xml to point to the new IP address of the first Primary Server.

2. Change the audit database server address on all the second Primary Servers. On all the second Primary Servers, change the value of audit database server address in the `ZENworks_Installation_Directory`\Novell\ZENworks\conf\datamodel\zenaudit.xml to point to the new IP address of the first Primary Server.

4 Remint the server certificate. For information, see "*Reminting Server Certificates*" in the *ZENworks 11 SP4 SSL Management Reference*.

5 (Conditional) If Multizone is configured with this server (whose IP address and DNS name is changed) as Publisher, then after replacing the First Primary Server with the Second Primary Server, update the new IP address and DNS name of this server for all its Subscribers. Perform the following to update the new IP address and DNS name:

1. Log in to ZENworks Control Center (ZCC) of subscribers.

2. Navigate to **Subscribe And Share > Subscriptions > <subscription_name> > Remote Server > Base URL>Edit**.

3. Update the IP address or Hostname with new IP address or Hostname of the Primary Server (Publisher).

To update the new certificate:

1. Navigate to **Subscribe And Share > Subscriptions > <subscription_name> > Remote Server > Update Certificate**.

2. Update the certificate.

Zone configured with internal certificate

If you want to change only the DNS name or if you want to change both the IP address and the DNS name of the Primary Server after installing ZENworks 11 SP4, and if the certificates CN has fully qualified DNS configured, perform the following steps to change only the DNS name or to change both the IP address and the DNS name of the Primary Server.

1 Take a reliable backup of the following on all the Primary Servers in the Management Zone:

   ◆ **Content-Repo Directory:** The `content-repo` directory is located by default in the `ZENworks_installation_directory\work` directory on Windows and in the `/var/opt/novell/zenworks/` on Linux.

      Ensure that the `images` directory located within the `content-repo` directory has been successfully backed up.

   ◆ **Certificate Authority:** For detailed information on how to backup certificate authority, see Backing Up the Certificate Authority.

   ◆ **Embedded Database:** For detailed information on how to back up the embedded database, see in "Backing Up the Embedded Sybase SQL Anywhere Database" in the *ZENworks 11 SP4 Database Management Reference*.

   ◆ **ZENworks Server:** For detailed information on how to back up the ZENworks Server, see "Backing Up a ZENworks Server" on page 7.

2 If the database is located on the Primary Server whose IP address you changed.

   2a Change the database server address on all the second Primary Servers. On all the second Primary Servers, change the value of database server address in the `ZENworks_Installation_Directory\Novell\ZENworks\conf\datamodel\zdm.xml` to point to the new IP address of the first Primary Server.

   2b Change the audit database server address on all the second Primary Servers. On all the second Primary Servers, change the value of audit database server address in the `ZENworks_Installation_Directory\Novell\ZENworks\conf\datamodel\zenaudit.xml` to point to the new IP address of the first Primary Server.

3 Remint the server certificate. For information, see "*Reminting Server Certificates*" in the *ZENworks 11 SP4 SSL Management Reference*.

4 (Conditional) If your zone includes Intel AMT devices, unprovision and provision the devices.

   For more information about unprovisioning and provisioning Intel AMT devices, see "Configuring Intel AMT Devices in Enterprise Mode" in the *ZENworks 11 SP4 Out-of-Band Management Reference*.

5 (Conditional) If Multizone is configured with this server (whose IP address and DNS name is changed) as Publisher, then after replacing the First Primary Server with the Second Primary Server, update the new IP address and DNS name of this server for all its Subscribers. Perform the following to update the new IP address and DNS name:

   1. Log in to ZENworks Control Center (ZCC) of subscribers.

   2. Navigate to **Subscribe And Share > Subscriptions > <subscription_name> > Remote Server > Base URL>Edit**.

   3. Update the IP address or Hostname with new IP address or Hostname of the Primary Server (Publisher).

   To update the new certificate:

   1. Navigate to **Subscribe And Share > Subscriptions > <subscription_name> > Remote Server > Update Certificate**.

   2. Update the certificate.

Updating IOA devices if the IP address or DNS name of the Primary Server changes

Perform the following steps to update Inventory Only Agent (IOA) device details on the Primary Server if the IP address or the DNS name of the Primary Server has changed.

1 Verify whether the following files present in the Primary Server are automatically updated with the new IP address of the Primary Server. If the old IP address is no longer a part of the zone, then it should be automatically removed from these files.

   On a Linux Server:

   - `/var/opt/novell/zenworks/zmd/cache/settings/umiCS.xml`

   - `/var/opt/novell/zenworks/cache/loader/settings/umiCS.xml`

   - `/var/opt/novell/zenworks/unmanaged/umfilestore/settings/common/uiaconfig.xml`

   On a Windows Server:

   - `%ZENWORKS_HoME%\work\cache\loader\settings\umiCS.xml`

   - `%ZENWORKS_HoME%\work\unmanaged\umfilestore\settings\common\uiaconfig.xml`

2 Verify whether the following file in the Inventory Only Agent (IOA) devices is automatically updated with the new IP address of the Primary Server. If the old IP address is no longer a part of the zone, then it should be automatically removed from these files.

   On Windows IOA devices:

   - `C:\Program Files\Novell\ZENworks\bin\uiaconfig.xml`(in the 32-bit version)

   - `C:\Program Files (x86)\Novell\ZENworks\bin\uiaconfig.xml` (in the 64-bit version)

   On Linux or Macintosh IOA devices:

   - `/var/opt/novell/zenworks/uiaconfig.xml`

   NOTE: The default refresh time for IOA devices is set at 12 hours. Therefore, it is recommended that you verify the file 12 hours after the Primary Server is updated.

   ---

3 Run a command to generate and upload a WIF file to the new Primary Server to update the details of IOA devices on the new Primary Server.

   On Windows IOA devices: Run the command `zenumia scannow` in the command prompt. This will create a WIF file. To upload this file in the new Primary Server, you need to specify the registry key of this Primary Server by navigating to the path `HKLM\Software\Novell\ZCM\UMIA\Server` on the device. On updating the registry key, the file will be uploaded to the new Primary Server.

   On Linux or Macintosh IOA devices: Run the command `zac inv scannow`. The WIF file is automatically generated and uploaded to the new Primary Server.

4 Managing SSL Zone certificates

To manage the SSL zone certificates, review the following scenarios:

- "Reminting Single or Multiple Server Certificates" on page 29
- "Reconfiguring the Certificate Authority before and after it Expires" on page 29

Reminting Single or Multiple Server Certificates

If you want to renew or remint the server certificates on single or multiple Primary Servers, see *Reminting Server Certificates* in the *ZENworks 11 SP4 SSL Management Reference*.

Reconfiguring the Certificate Authority before and after it Expires

ZENworks prompts you to change your ZENworks Certificate Authority (CA) 90 days before the expiration of the certificate. The following warning message is displayed for each administrator once every 24 hours after the administrator logs in to ZENworks Control Center:

```
The Zone CA will expire in number_of_days days.
```

The above warning message is displayed for each administrator for every login when the expiry is below five days.

To re-create the zone certificate before it expires, review the following scenarios:

- "Changing the CA to Internal" on page 29
- "Changing the CA to External" on page 30

IMPORTANT: If you do not change your zone certificate before it expires, the communication between Primary Servers and managed devices breaks down, and the managed devices fail to receive new assignments and policies. To reestablish the communication, you must re-create the certificate.

Changing the CA to Internal

If you want to replace the internal or external server certificate of your Windows or Linux Primary Server, then you can choose to replace the certificate with a new internal server certificate.

1 If the current CA is internal, see *Reminting the Certificate Authority* or "*Changing the CA to Internal*" in the *ZENworks 11 SP4 SSL Management Reference*.

   If the current CA is external, see "*Changing the CA to Internal*" in the *ZENworks 11 SP4 SSL Management Reference*.

2 (Conditional) If your zone includes Intel AMT devices, unprovision and provision the devices.

For more information about unprovisioning and provisioning Intel AMT devices, see "Configuring Intel AMT Devices in Enterprise Mode" in the *ZENworks 11 SP4 Out-of-Band Management Reference*.

3 (Conditional) If multizone is configured, and the Publisher's certificate is changed, then update the new certificate of this server for all its Subscribers. Perform the following to update the new certificate:

    1. Log in to ZENworks Control Center (ZCC) of subscribers.

    2. Navigate to **Subscribe And Share > Subscriptions > <subscription_name> > Remote Server > Update Certificate**.

    3. Update the certificate.

Changing the CA to External

If you want to replace the internal or external server certificate of your Windows or Linux Primary Server, then you can choose to replace the certificate with a new external server certificate.

1 To change the CA to external, see in "*Changing the CA to External*" in the *ZENworks 11 SP4 SSL Management Reference*.

2 (Conditional) If your zone includes Intel AMT devices, unprovision and provision the devices.

    For more information about unprovisioning and provisioning Intel AMT devices, see "Configuring Intel AMT Devices in Enterprise Mode" in the *ZENworks 11 SP4 Out-of-Band Management Reference*.

3 (Conditional) If multizone is configured, and the Publisher's certificate is changed, then update the new certificate of this server for all its Subscribers. Perform the following to update the new certificate:

    1. Log in to ZENworks Control Center (ZCC) of subscribers.

    2. Navigate to **Subscribe And Share > Subscriptions > <subscription_name> > Remote Server > Update Certificate**.

    3. Update the certificate.