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# ZENworks

Subscribe and Share Reference

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# About This Guide

This *ZENworks Subscribe and Share Guide* includes information to help you successfully use the Subscribe and Share feature for sharing content across multiple zones in a ZENworks system.

## **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 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 web site](#).



# 1 ZENworks Subscribing and Sharing Workflow Tasklist

To enable sharing of content (bundles and policies) between two Management Zones, complete the following workflow in the order of the listed tasks:

Task	Details
<input type="checkbox"/> Review concepts important to the successful sharing of content between zones.	For information, see <a href="#">Chapter 2, “Overview,” on page 9.</a>
<input type="checkbox"/> In the Sharing zone, configure Primary Servers as Sharing Servers.	You need to configure at least one Primary Server in the Sharing zone as a Sharing Server to share content.  For instructions, see <a href="#">Section 3.1, “Configuring a Zone to Share Content,” on page 11</a>
<input type="checkbox"/> In the Sharing zone, create a subscriber group and assign a subscriber key and content to the group.	For instructions, see <a href="#">Section 3.2, “Sharing Content with Subscribers,” on page 12.</a>
<input type="checkbox"/> Register the zone with the Sharing zone.	The Subscriber zone must register with the Sharing zone in order to receive content.  For instructions, see <a href="#">Section 3.3, “Registering to a Zone,” on page 13.</a>
<input type="checkbox"/> In the Subscriber zone, replicate the desired content from the Sharing zone.	For instructions, see <a href="#">Section 3.4, “Replicating the Assignable Content Objects,” on page 14.</a>
<input type="checkbox"/> In the Subscriber zone, resolve any replication issues caused by undefined references or system variables.	For instructions, see <a href="#">Section 3.5, “Addressing Replication Issues,” on page 14.</a>
<input type="checkbox"/> Different options can be used to replicate objects.	For instructions see <a href="#">Section 3.6, “Using different options for replicating objects,” on page 16.</a>
<input type="checkbox"/> You may encounter other scenarios while replicating objects.	For these additional scenarios, see <a href="#">Section 3.7, “Additional Scenarios,” on page 17</a>

**NOTE:** Ensure that the Subscriber zone should either be at the same version or at a higher version when compared to the Sharing zone.





# 2 Overview

The Share and Subscribe feature allows you to share content across different ZENworks Management zones. The zone that shares content is known as the Sharing zone and the zone that can subscribe to the Sharing zone and replicate the shared content in its own zone is known as the Subscriber zone. The two zones can communicate through the standard HTTP or HTTPS protocols. Some of the tasks that you can now perform include:

- ◆ Publishing bundles and policies from test zone to production zone.
- ◆ Setting up a test zone that includes your production bundles by sharing the production bundles and subscribing from the test zone.
- ◆ Sharing content between different departments or geographically separated zones.
- ◆ Being a service provider that offers a set of pre-canned bundles and policies to your customers.
- ◆ Being able to quickly populate your new zone by subscribing to a service provider's zone.
- ◆ Having a backup zone where your production bundle are duplicated.

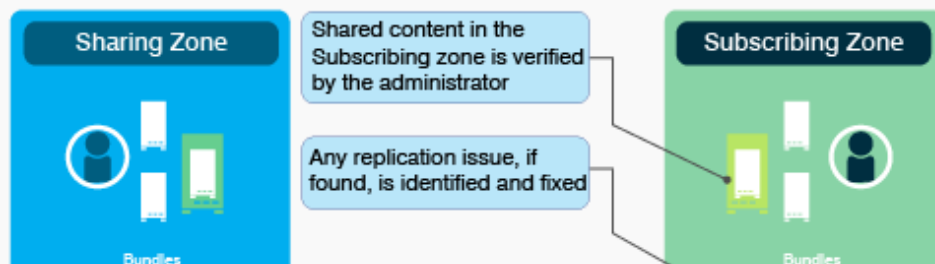
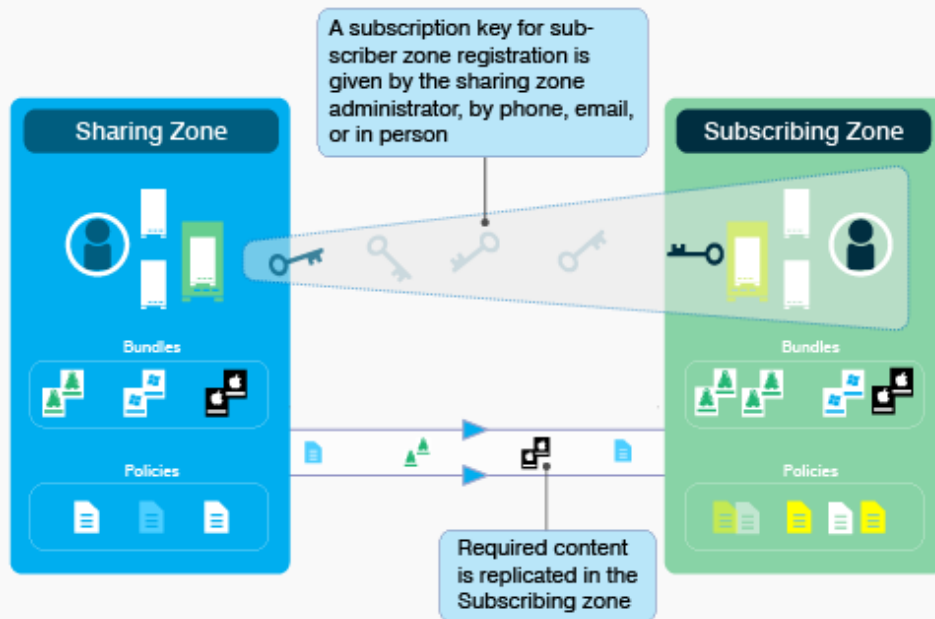
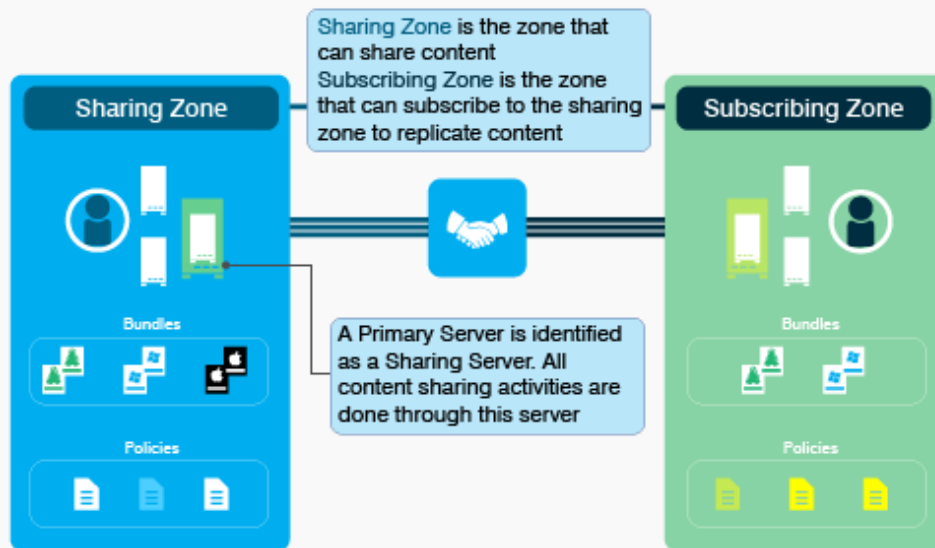
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**NOTE:** Ensure that the Subscriber zone should either be at the same version or at a higher version when compared to the Sharing zone.

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The following graphic depicts the overall process of sharing bundles and policies across two zones by using the ZENworks Subscribe and Share feature:

## ZENworks Subscribe and Share



# 3 ZENworks Subscribing and Sharing

- ◆ Section 3.1, “Configuring a Zone to Share Content,” on page 11
- ◆ Section 3.2, “Sharing Content with Subscribers,” on page 12
- ◆ Section 3.3, “Registering to a Zone,” on page 13
- ◆ Section 3.4, “Replicating the Assignable Content Objects,” on page 14
- ◆ Section 3.5, “Addressing Replication Issues,” on page 14
- ◆ Section 3.6, “Using different options for replicating objects,” on page 16
- ◆ Section 3.7, “Additional Scenarios,” on page 17

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**NOTE:** Ensure that the Subscriber zone should either be at the same version or at a higher version when compared to the Sharing zone.

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## 3.1 Configuring a Zone to Share Content

In order for a zone to share content objects like bundles and policies with other ZENworks zones, you need to enable one or more Primary Servers as Sharing Servers.

To enable a Primary Server as a Sharing Server:

- 1 Log in to ZENworks Control Center.
- 2 Click **Configuration > Infrastructure Management > Zone Sharing settings**.
- 3 In the **Sharing Servers** list, click **Add**.
- 4 In the **Sharing Server** field, click , select the server, then click **Ok**.
- 5 In the **Add Sharing Server** dialog box, click **Ok**.
- 6 In the **Maximum Replication Sessions** box, select the maximum number of subscription sessions for replication. You can select any value between 1 and 100. The default value is 10.
- 7 In the **Throttle Rate** box, set the throttle rate to regulate the content transfer.
- 8 Click **Ok**.

Having multiple Sharing Servers provide the following advantages:

- ◆ If the status of one server is busy, a subscriber’s request can be handled by another server.
- ◆ On a server failure, a subscriber’s request is switched to another server.

If you want to disable your zone from sharing content, select the **Suspend Zone Sharing** box.

## 3.2 Sharing Content with Subscribers

You can share assignable content objects like bundles and policies with subscribers, the Sharing Server needs to assign them to the required subscriber, subscriber group, or, subscriber folder. In this section, you can see how to perform the following tasks:

- ♦ [Section 3.2.1, “Creating a Subscriber Folder,” on page 12](#)
- ♦ [Section 3.2.2, “Creating a Subscriber Group,” on page 12](#)
- ♦ [Section 3.2.3, “Creating a Subscriber Key,” on page 12](#)
- ♦ [Section 3.2.4, “Assigning Bundles and Policies to a Subscriber Group,” on page 13](#)

### 3.2.1 Creating a Subscriber Folder

To create a subscriber folder:

- 1 In ZENworks Control Center, click **Subscribe and Share > Zone Sharing**.
- 2 Click **Subscribers > New > Folder**.
- 3 Enter the name, folder, and description details and click **Ok**.

### 3.2.2 Creating a Subscriber Group

To create a subscriber group:

- 1 In ZENworks Control Center, click **Subscribe and Share > Zone Sharing**.
- 2 Click **Subscribers > New > Subscriber Group**.
- 3 In the General tab, enter the name of the subscriber group in the **Group Name** box, folder name for the group in the **Folder** box, and description in the **Description** box.
- 4 (Optional) In the Members tab, click **Add** to select the members for the subscriber group.
- 5 Click **Create Group**.

### 3.2.3 Creating a Subscriber Key

Creating a subscriber key facilitates subscriber registration. Having a subscriber key does not entitle a subscriber to receive any content from the Sharing zone. Content is received only when a Sharing zone administrator assigns content to the subscriber. To create a subscriber key:

- 1 In ZENworks Control Center, click **Subscribe and Share > Zone Sharing > Subscriber Key**.
- 2 Create a subscriber key by clicking **Generate**, or provide a custom name as a subscriber key.
- 3 Click **Group Membership > Add** and select the subscriber group that is created.
- 4 Click **Ok**, then click **Create Key**.

## 3.2.4 Assigning Bundles and Policies to a Subscriber Group

You can also assign content to subscribers, groups, and, subscriber folders. This section shows you how to assign bundles and policies to a subscriber group.

- 1 In ZENworks Control Center.
- 2 Click Bundles and select any bundle.
- 3 Click the Share tab.
- 4 In the Assigned Subscribers panel, click **Add** and select the Subscriber Group that is created.

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**NOTE:** You can also share Bundle Groups or Folders by using the above procedure.

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- 5 Click **Policies** and select any policy.
- 6 Click the Share tab.
- 7 In the Assigned Subscriptions panel, click **Add** and select the Subscriber Group that is created.

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**NOTE:** You can also share Policy Groups and Folders by using the above procedure.

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## 3.3 Registering to a Zone

In order for a Subscriber zone to receive content from the Sharing zone, you need to first register the Subscriber zone to the Sharing zone by using the Sharing zone server address and Subscriber keys shared by the Sharing zone administrator.

Before you register a subscriber to a zone, ensure that you have the server address of the Sharing zone and the subscriber keys shared by the Sharing zone administrator.

To register to a Sharing zone:

- 1 Log in to ZENworks Control Center.
- 2 Click **Subscribe and Share**.
- 3 In the Subscriptions tab, click **New > Subscription**.
- 4 Select **ZENworks Subscription** and click **Next**.
- 5 Click **Register with a Zone**.
- 6 Provide server address of the Publisher zone.
- 7 Provide the Subscriber key shared by the Publisher zone administrator and click **Connect**. You can view the certificate by clicking the **View** link.
- 8 Click **Register**.
- 9 Click **Next** to complete the wizard with default settings.

## 3.4 Replicating the Assignable Content Objects

Once the content is assigned to a Subscriber, it needs to be replicated in the Subscriber zone. To replicate content;

- 1 In ZENworks Control Center.
- 2 Click **Subscribe and Share**.
- 3 In the Subscriptions tab, click **New > Subscription**.
- 4 Select ZENworks Subscription and click **Next**.
- 5 Provide a name for the ZENworks Subscription and click **Next**.
- 6 Select a zone by clicking the **Registered Zones** drop-down list.
- 7 Click **Next**.
- 8 If you have selected Bundles for download, then select Bundles or Bundle group listed under the Bundle Selection section.  
or  
If you have selected Policies for download, then select Policies or Policy group listed under the Policy Selection section.
- 9 Click **Next** and complete the instructions on the wizard.
- 10 Click the ZENworks Subscription that is created.
- 11 In the Summary page, click the **Run Now** link.

## 3.5 Addressing Replication Issues

When there are undefined references and system variables configured in the Sharing zone, you will be notified about replication issues in the Subscriber zone.

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**NOTE:** Novell recommends that you ignore any replication issues related to [Windows Special System Variables](#).

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To reproduce this scenario, ensure that the Sharing zone has bundles and policies which are associated with undefined references and system variables.

- ♦ [Section 3.5.1, “Prerequisites,” on page 14](#)
- ♦ [Section 3.5.2, “Resolving notified replication issues,” on page 15](#)
- ♦ [Section 3.5.3, “Modifying reported issues,” on page 15](#)
- ♦ [Section 3.5.4, “Re-replicating objects after resolving replication issues,” on page 15](#)

### 3.5.1 Prerequisites

Define a bundle or policy with system variables:

- 1 In the ZENworks Control Center, click **Bundles**.
- 2 Select any bundle and click **Settings > System Variables**.

- 3 Define a system variable and use this system variable in **Bundle > Actions**.
- 4 Apply and publish the bundle.

Define a bundle or policy with undefined references such as Bundle Installed and Specified Devices:

- 1 In the ZENworks Control Center, click **Bundles**.
- 2 Select any bundles and click **Requirements**.
- 3 Click **Add Filter** and select **Bundle Installed** and **Specified Devices**.
- 4 Apply and publish the bundle.

## 3.5.2 Resolving notified replication issues

- 1 In ZENworks Control Center, click **Subscribe and Share**.
- 2 Click **New > Subscription**.
- 3 Select ZENworks Subscription and click **Next**.
- 4 Provide a name for ZENworks subscription and click **Next**.
- 5 Select a zone by clicking the **Registered Zones** drop-down list.
- 6 Click **Next**.
- 7 Select the shared bundles which have undefined references and variables.
- 8 Select the shared policies which have undefined references and variables.
- 9 Click **Next**.
- 10 Click ZENworks Subscription created and click the **Run Now** link.
- 11 After the ZENworks Subscription is executed, click the **Replication Issues** tab.

## 3.5.3 Modifying reported issues

To modify reported issues:

- 1 Resolve the issue by modifying the reported issues.
- 2 Set the available bundles for Bundle Install issue.
- 3 Set the available device for Specified Device issue.
- 4 Set the correct value for the Variable issue.

## 3.5.4 Re-replicating objects after resolving replication issues

You can update the replicated objects with modified values after re-replication:

- 1 Log in to ZENworks Control Center.
- 2 Click **Subscribe and Share**.
- 3 Click the ZENworks Subscription created, then click the **Run Now** link.
- 4 After the ZENworks Subscription is executed, click the **Replication Issues** tab.
- 5 Click the **Show Resolved Issues** link to see all resolved issues.

## 3.6 Using different options for replicating objects

- ♦ [Section 3.6.1, “Replicating objects by using the Replicating as a Sandbox Version option,” on page 16](#)
- ♦ [Section 3.6.2, “Replicating objects by using the Force Content Replication option,” on page 16](#)
- ♦ [Section 3.6.3, “Replicating objects by using the Overwrite Local Modifications option,” on page 17](#)

### 3.6.1 Replicating objects by using the Replicating as a Sandbox Version option

Using a sandbox version enables testing the replication on your system before you assign the shared bundle or policy.

- 1 Log in to ZENworks Control Center.
- 2 Click **Subscribe and Share**.
- 3 Create a new ZENworks Subscription.
- 4 Select the shared bundles for download.
- 5 Select the shared policies for download.
- 6 Click **Bundles** and check the version.
- 7 Click **Policies** and check the version.

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**NOTE:** In case of chained bundles, if there is any update made to a chained bundle without making any changes to the parent bundle in the Sharing zone, then these changes cannot be replicated in the Subscriber zone. For more information on bundles, see [ZENworks Software Distribution Reference](#).

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### 3.6.2 Replicating objects by using the Force Content Replication option

By using this replication option, you can re-download the objects from the repository if they are corrupted on the Subscriber zone and replicate them.

- 1 Log in to ZENworks Control Center.
- 2 Click **Subscribe and Share**.
- 3 Click the ZENworks Subscription that is created.
- 4 Select the **Force Content Replication** box.
- 5 Click the **Run Now** link.



### 3.6.3 Replicating objects by using the Overwrite Local Modifications option

You can overwrite the locally modified objects so that they resemble objects in the Sharing zone.

- 1 Log in to ZENworks Control Center.
- 2 Click **Subscribe and Share**.
- 3 Click the ZENworks Subscription that is created.
- 4 Run the ZENworks Subscription.
- 5 Modify the locally replicated bundles and policies and publish the same.
- 6 In the Summary tab, set the option to **Overwrite Local Modifications**.
- 7 Run the ZENworks Subscription.

## 3.7 Additional Scenarios

- ♦ [Section 3.7.1, “Replicating Chained Bundles,” on page 17](#)
- ♦ [Section 3.7.2, “Replicating Add-On Image Files,” on page 17](#)
- ♦ [Section 3.7.3, “Replicating objects after changing the download location,” on page 17](#)

### 3.7.1 Replicating Chained Bundles

In case of chained bundles, if you have selected only the parent bundle for replication, then both the parent and the child bundle get replicated in the Subscriber zone in the first instance. Subsequently, if there are any modifications made to the child bundle without making any changes in the parent bundle in the Sharing zone, then these changes do not get replicated in the Subscriber zone. For the replication to work correctly, you need to either modify the parent bundle in the Sharing zone, or select both parent and child bundles in the subscription.

### 3.7.2 Replicating Add-On Image Files

Add-On Image files are not a part of the ZENworks repository because of which are not available for download from the ZENworks server. Hence, you cannot replicate add-on image files to a Subscriber zone.

### 3.7.3 Replicating objects after changing the download location

After an object like a bundle or a policy is replicated for the first time in a Subscriber zone, changing the download location for the object does not create a new object in the original location during subsequent replications. Instead, the original replicated object is updated.

For any object in the Sharing zone, there can be a maximum of two copies in the Subscriber zone. One object can have the same GUID and another with a different GUID. If you want the object to have the same GUID, select the **Retain GUID** option during replication. This options is applicable only for ZENworks subscriptions.

When the **Retain GUID** option is selected for a ZENworks subscription, the GUID and the version is retained while replicating objects. Once the object is replicated with the **Retain GUID** option, if it is modified locally in the subscriber zone, one or more objects with a higher version will be present. The next replication of the object from the Sharing zone does not work as higher versions of the object are already present in the Subscriber zone, and it is not useful to update any non-published version of the object while retaining the version of the replicating object. Hence, if the objects are replicated by using the **Retain GUID** option, ideally they should not be modified locally in the Subscriber zone.

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**NOTE:** ♦When the **Retain GUID** option is selected, the same GUID is retained in the subscriber zone only when replicated for the first time. During the next replication, this option will be skipped and the GUID will not be updated.

- ♦ If a bundle has child bundles or if the bundle includes chains, then the **Retain GUID** option cannot be used for replication.
  - ♦ If there are bundles with child references or if the bundles include chains, this option cannot be used to replicate bundles between publisher and subscriber zones.
  - ♦ For a ZENworks subscription, you cannot select the **Retain GUID** and **Create Sandbox** options together because they have conflicting behaviors. When the **Retain GUID** option is selected, the version number for the object is retained. However, when the **Create Sandbox** option is selected, the version is -1.
-

# A Troubleshooting

This appendix provides solutions to problems that you may encounter when using the Subscribe and Share feature.

- ♦ [Section A.1, “Troubleshooting Subscribe and Share,” on page 19](#)

## A.1 Troubleshooting Subscribe and Share

- ♦ [“Unable to share Preboot and Patch bundles with Subscribers” on page 19](#)
- ♦ [“Error occurs while creating Subscriber keys that have long names on MS SQL database” on page 19](#)

### Unable to share Preboot and Patch bundles with Subscribers

Source: ZENworks; Subscribe and Share.

Explanation: The following types of bundles cannot be shared with subscribers:

- ♦ **Preboot bundles:** ZENworks servers host content files that are a part of the content repository. Preboot bundles might contain .zmg files that are not a part of the ZENworks content repository. The Subscribers cannot download the .zmg files and replicate the Imaging bundle. As a result, you cannot share a Preboot bundle or assign it to Subscribers, Subscriber groups, or Subscriber folders.
- ♦ **Patch bundles:** Sharing of Windows, Linux, or Macintosh Patch bundles is not supported. A ZENworks subscription does not ensure that the modules and services related to Patch Management are enabled and running in a Subscriber zone. Hence, the replication of Patch bundles is prevented. You cannot share a Patch bundle, or assign it to Subscribers, Subscriber groups, or Subscriber folders. The content in the /Bundles/ZPM folder for Patch bundles cannot be replicated even if it contains other bundles because they are automatically filtered.

### Error occurs while creating Subscriber keys that have long names on MS SQL database

Source: ZENworks; Subscribe and Share.

Explanation: If you provide a long Subscriber key name, when the MS SQL database converts the name into bytes, the index created from this name might exceed the database limitation for the index length (900 characters). In this case, the Subscriber key creation fails.

