

# Server Migration Guide

## GroupWise 2014

April 2014

Novell.



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# About This Guide

This Novell *GroupWise Server Migration Utility Installation and Migration Guide* explains how to use the GroupWise Server Migration Utility to migrate a GroupWise 7 or GroupWise 8 system from NetWare or Linux or Windows.

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**IMPORTANT:** GroupWise 2014 does not support NetWare, so earlier GroupWise components must be moved from NetWare to Linux or Windows.

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The guide is divided into the following sections:

- ◆ Part I, “GroupWise Server Migration Utility,” on page 9
  - ◆ Chapter 1, “What Is the Server Migration Utility?,” on page 11
  - ◆ Chapter 2, “System Requirements,” on page 15
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  - ◆ Chapter 12, “Manually Migrating a Domain and Its MTA to Linux,” on page 79
  - ◆ Chapter 13, “Manually Migrating the Internet Agent to Linux,” on page 85
  - ◆ Chapter 14, “Manually Migrating WebAccess to Linux,” on page 89
  - ◆ Chapter 15, “Manually Migrating Monitor to Linux,” on page 95
- ◆ Part III, “In-Place Database Migration,” on page 99
  - ◆ Chapter 16, “Performing an In-Place Database Migration,” on page 101
- ◆ Part IV, “Appendixes,” on page 103
  - ◆ Appendix A, “Troubleshooting Post-Migration Problems,” on page 105

## Audience

This guide is intended for network administrators who want to move their GroupWise systems from NetWare or Linux or Windows.

## Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comment feature at the bottom of each page of the online documentation.

## Additional Documentation

For additional GroupWise documentation, see the [Novell GroupWise 2014 Documentation website \(http://www.novell.com/documentation/groupwise2014/\)](http://www.novell.com/documentation/groupwise2014/).



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# GroupWise Server Migration Utility

- ♦ Chapter 1, “What Is the Server Migration Utility?,” on page 11
- ♦ Chapter 2, “System Requirements,” on page 15
- ♦ Chapter 3, “Installing the Server Migration Utility,” on page 17
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- ♦ Chapter 8, “Migrating a Domain and Its Agents to Linux,” on page 51
- ♦ Chapter 9, “What’s Next,” on page 63

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**IMPORTANT:** For information about converting a domain or post office for use with the GroupWise Linux agents without migrating it to a different physical server, see [Part III, “In-Place Database Migration,”](#) on page 99.

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# 1 What Is the Server Migration Utility?

The GroupWise Server Migration Utility is a tool to help you move GroupWise components (post offices, domains, and agents) from NetWare or Windows servers to Linux servers.

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**IMPORTANT:** If you have a domain or post office that is located on a SAN, and it has been serviced by the GroupWise NetWare or Windows agents in the past, you can convert the domain or post office for use with the GroupWise Linux agents without moving the domain or post office. For instructions, see [Part III, “In-Place Database Migration,” on page 99](#).

---

The Server Migration Utility prompts you for information so that it can set up the connection between the source NetWare or Windows server where a GroupWise component is located and the destination Linux server where you want to migrate that GroupWise component. The utility then creates the connection, transfers the GroupWise data, and installs and starts the Linux GroupWise agent or agents for the component.

If you want to understand what happens “behind the scenes” when you run the Server Migration Utility, continue reading this section. If you just want to install and run the utility, skip this section and continue with [Chapter 2, “System Requirements,” on page 15](#). You can return to this “behind the scenes” information during the server migration process if you want.

- ◆ [Section 1.1, “Mount Commands,” on page 11](#)
- ◆ [Section 1.2, “Software Management,” on page 12](#)
- ◆ [Section 1.3, “Post Office Migration Process,” on page 12](#)
- ◆ [Section 1.4, “Domain Migration Process,” on page 13](#)

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**IMPORTANT:** The Server Migration Utility moves GroupWise components from one platform to another. It does not move GroupWise components to a different GroupWise system, a different eDirectory tree, or a different version of GroupWise software.

The Server Migration Utility is not cluster aware. You can use it to move data to a Linux server that is part of a cluster, but the utility is not aware of the other nodes in the cluster.

---

## 1.1 Mount Commands

When you migrate a post office or a domain, the Server Migration Utility prompts you for some basic system information about the source and destination servers, then sets up the connection between your NetWare or Windows server and your Linux server. From the system information you provide, the utility constructs the appropriate `mount` commands:

```
NetWare:  ncpmount -m -A server_address -S server_name -V volume
           -U full_user_ID -P password /mount_point
```

```
Windows:  smbmount //server_name/share_name /mount_point
           -o username=user_id,password=password
```

```
cifs.mount //server_name/share_name /mount_point
           -o username=user_id,password=password
```

The Server Migration Utility also handles establishing a connection with the `ssh` (secure shell) daemon on Linux. This connection enables the Server Migration Utility to log in to the destination Linux server as `root` and execute programs there.

## 1.2 Software Management

During the server migration, the Server Migration Utility needs access to a GroupWise software image for GroupWise for Linux for your version of GroupWise. You must use the media for the version of GroupWise that is already installed on your system. You cannot upgrade to a new version of GroupWise as you migrate from one platform to another.

---

**IMPORTANT:** If you are planning on upgrading as part of the server migration, you should upgrade your existing system first, if it is on an operating system supported by the newer version, then perform the server migration.

If your GroupWise system is currently on NetWare and you are upgrading to GroupWise 2014, you must migrate to Linux or Windows first, then upgrade to GroupWise 2014, because NetWare is not supported for GroupWise 2014.

---

The Server Migration Utility copies a number of GroupWise agent and utility RPMs (Linux installation programs) to the destination Linux server. The RPMs are stored in a temporary location of your choosing and can be deleted by the utility after the server migration is completed.

The Server Migration Utility uses the `ssh` connection to the Linux server to run the RPMs on the Linux server as if it were the `root` user. All aspects of GroupWise installation and administration require `root` user permissions.

## 1.3 Post Office Migration Process

A post office migration is carried out in two stages to minimize downtime for GroupWise users. During the first stage, the Server Migration Utility performs the following tasks:

- ♦ Mounts the source NetWare or Windows server as a file system to the destination Linux server.
- ♦ Creates a connection to the `ssh` daemon on the destination Linux server.
- ♦ Creates the folder structure necessary for the GroupWise software and the post office.
- ♦ Copies the Server Migration Utility software to the Linux server and installs it.
- ♦ Copies the GroupWise Linux POA software to the Linux server.
- ♦ Copies the post office data to the Linux server by using the GroupWise Database Copy Utility (DBCOPY), which prevents post office files from being modified during the copy operation, using the same locking mechanism used by other GroupWise programs that access databases
- ♦ Copies certificate files and key files if SSL is in use.
- ♦ Identifies remote document storage areas associated with libraries in the post office.
- ♦ Installs, configures, and starts the POA on the Linux server.
- ♦ Cleans up its temporary files, such as the utility software used during the migration process.

After the first stage, you perform some testing of the migrated post office by:

- ♦ Logging in to a mailbox in the migrated post office.
- ♦ Verifying the contents of the migrated mailbox.

The Server Migration Utility then stops the Linux POA in preparation for the second stage of the post office migration. You also have some manual steps to perform in preparation for the second stage:

- ◆ In ConsoleOne, you reconfigure the Post Office object and the POA object for their new locations on the Linux server.
- ◆ If the post office has remote document storage areas, you provide their new locations on Linux.
- ◆ You specify the new IP address for the POA on the Linux server.
- ◆ At the POA console on the source server, you verify that the changes to the GroupWise objects have replicated to the domain.
- ◆ At the source server, you stop the original POA.

During the second stage, the Server Migration Utility performs the following tasks:

- ◆ Copies all post office data that has been modified since the first stage of the migration.
- ◆ Verifies that all files and folders that have been copied to Linux are in lowercase, and if they are not, renames them to lowercase.
- ◆ Performs an operation equivalent to GroupWise Check (GWCheck) with the `storelowercase` option to ensure that all file names and folder names stored in the guardian database (`ngwguard.db`) are also converted to lowercase.
- ◆ Copies the contents of the message queue folders so that no incoming or outgoing messages are lost.
- ◆ Deletes the temporary copy of the GroupWise Linux software that was used to install the Linux POA.
- ◆ Unmounts the source server from the Linux server.

After the post office migration is complete, you have two more manual steps to perform:

- ◆ At the Linux server, you configure the Linux POA to run as a non-`root` user, which is a preferable configuration for security reasons.
- ◆ Finally, you start the Linux POA for the migrated post office.

Step-by-step instructions for each part of this process are found in [Chapter 7, “Migrating a Post Office and Its POA to Linux,”](#) on page 39.

If the Server Migration Utility is unable to migrate a post office, you can perform the steps yourself. See [Chapter 11, “Manually Migrating a Post Office and Its POA to Linux,”](#) on page 71.

## 1.4 Domain Migration Process

A domain migration is carried out in a single stage. Users are not directly affected when the MTA is down, and the volume of data to migrate is typically smaller for a domain than for a post office. Therefore, the migration goes more quickly.

The Server Migration Utility performs the following preparatory tasks:

- ◆ Mounts the source NetWare or Windows server as a file system to the destination Linux server.
- ◆ Creates a connection to the SSH daemon on the destination Linux server.
- ◆ Creates the folder structure necessary for the GroupWise software and the domain.
- ◆ Copies GroupWise utility software to the Linux server and installs it.
- ◆ Copies the GroupWise Linux agent software to the Linux server.

- ◆ Copies the domain data to the Linux server by using the GroupWise Database Copy Utility (DBCOPY).
- ◆ Copies certificate files and key files if SSL is in use.
- ◆ For the GWIA, ensures that no port conflict with Postfix can occur.

Before the domain migration starts, you have some manual steps to perform in preparation for the domain migration:

- ◆ In ConsoleOne, you reconfigure the Domain object and the MTA object for their new locations on the Linux server.
- ◆ If you are migrating additional agents, you do the same for them.
- ◆ You specify the new IP address for the MTA on the Linux server.
- ◆ If you are migrating additional agents, you do the same for them.
- ◆ In the Link Configuration Tool in ConsoleOne, you verify that the changes to the Domain object have replicated to other domains.
- ◆ At the source server, you stop the original MTA and additional agents to migrate as needed.

Then the Server Migration Utility performs the migration tasks:

- ◆ Copies the MTA local working folder (`mslocal`) if it is located within the domain folder structure or if it is specified in the MTA startup file by using the `/work` switch.
- ◆ Copies agent subfolders to the Linux server, such as those used by the GWIA (`\domain\wpgate\gwia`) and WebAccess Agent (`\domain\wpgate\webac80a`).
- ◆ Installs the agent software on the Linux server but does not start any agents.
- ◆ Cleans up its temporary files, such as the utility software used during the migration process.

After the domain migration is complete, you have a few more manual steps to perform:

- ◆ At the Linux server, you configure the Linux agents to run as a `non-root` user, which is a preferable configuration for security reasons.
- ◆ You start the Linux MTA for the migrated domain, and start the GWIA and WebAccess Agent if they were also migrated.

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**NOTE:** The WebAccess Agent is not part of GroupWise 2012 or GroupWise 2014, but is part of GroupWise 8.

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Step-by-step instructions for each part of this process are found in [Chapter 8, "Migrating a Domain and Its Agents to Linux,"](#) on page 51.

If the Server Migration Utility is unable to migrate a domain, you can perform the steps yourself. See [Chapter 12, "Manually Migrating a Domain and Its MTA to Linux,"](#) on page 79.

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# 2 System Requirements

The following system requirements must be met in order to use the GroupWise Service Migration Utility:

- ♦ [Section 2.1, “GroupWise Version Requirements,” on page 15](#)
- ♦ [Section 2.2, “Server Operating System Requirements,” on page 15](#)
- ♦ [Section 2.3, “Windows Workstation Requirements,” on page 16](#)

## 2.1 GroupWise Version Requirements

- GroupWise 2014 for Linux
- or
- GroupWise 2012 for Linux
- or
- GroupWise 8 for Linux

---

**IMPORTANT:** You cannot upgrade the version of your GroupWise software as part of the migration to Linux. You must use the same version of GroupWise that is already in use in source post offices and domains.

If you are planning to upgrade your GroupWise system on an operating system that is supported by the newer version of GroupWise, upgrade source post offices and domains first, then migrate the upgraded GroupWise post offices and domains to Linux. This enables you to test your upgrade in a known environment.

If your GroupWise system is currently on NetWare and you are upgrading to GroupWise 2014, you must migrate to Linux or Windows first, then upgrade to GroupWise 2014, because GroupWise 2014 does not support NetWare.

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## 2.2 Server Operating System Requirements

- ♦ [Section 2.2.1, “Source Server Requirements,” on page 15](#)
- ♦ [Section 2.2.2, “Target Server Requirements,” on page 16](#)

### 2.2.1 Source Server Requirements

The source server operating system requirements for the Server Migration Utility correspond to the supported operating system versions for your version of GroupWise:

- GroupWise 2012: [“GroupWise System Requirements”](#)
- or
- GroupWise 8: [“GroupWise System Requirements”](#)

## 2.2.2 Target Server Requirements

The target server operating system requirements for the Server Migration Utility correspond to the supported operating system versions for your current version of GroupWise or your next version of GroupWise:

---

**IMPORTANT:** If you are planning on upgrading your GroupWise system, do not migrate it onto a version of Linux that is not supported for the version of GroupWise that you are upgrading to.

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- GroupWise 2014: [“GroupWise System Requirements”](#)

or

- GroupWise 2012: [“GroupWise System Requirements”](#)

or

- GroupWise 8: [“GroupWise System Requirements”](#)

In addition, specific software is required on the target Linux server to support the Server Migration Utility:

- NCPFS (if you are migrating to Linux from a NetWare server)

NCPFS is required to create the connection between the NetWare or Windows server and the Linux server in such a way that damage to GroupWise databases is not likely to occur. NCPFS is available on the SUSE Linux Enterprise Server (SLES) SDK disk.

or

- samba-client (if you are migrating to Linux from a Windows server)

At the Linux server, use the following command to determine if the samba-client package is installed:

```
rpm -qa | grep samba-client
```

If it is installed, the samba-client package is listed. If the samba-client package is not installed, use the Install and Remove Software option of YaST to install it from your Linux installation media.

## 2.3 Windows Workstation Requirements

The workstation where you run the Server Migration Utility must meet the following requirements:

- Windows XP/7/8 or Windows Server 2000/2003/2003 R2/2008/2008 R2/2012
- Novell Client
- ConsoleOne 1.3.6 or later with the GroupWise snap-ins installed

If you are migrating from a Windows server, you can run the Server Migration Utility on the Windows server. Just ensure that the requirements for the Novell Client and ConsoleOne are met on the Windows server.



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# 3 Installing the Server Migration Utility

- 1 From the [Novell Downloads website \(http://download.novell.com\)](http://download.novell.com), download the GroupWise Server Migration Utility (`gwsvrmig1.1.0.exe`) into a temporary folder.
- 2 Run `gwsvrmig1.1.0.exe` to extract the software into a convenient folder on a Windows machine that meets the requirements listed in [Section 2.3, "Windows Workstation Requirements," on page 16](#).  
This folder becomes the Server Migration Utility installation folder.
- 3 Run `gwsvrmig.exe` to start the Server Migration Utility.
- 4 Click *Help* on any page where you need assistance filling in the fields or where you want to know what the utility is doing.
- 5 Continue with [Planning Your GroupWise Server Migration](#).



---

# 4 Planning Your GroupWise Server Migration

When you migrate your GroupWise system from NetWare or Windows servers to Linux servers, the Server Migration Utility prompts you for information about your system. The process goes more smoothly if you gather the information before you start. You can use the [GroupWise Server Migration Worksheet](#) to record the information. You should fill out a worksheet for each source/destination pair of servers that you are going to migrate.

- ◆ [Section 4.1, “Gathering Source Server Information,” on page 19](#)
- ◆ [Section 4.2, “Gathering Destination Server Information,” on page 20](#)
- ◆ [Section 4.3, “Gathering Software Information,” on page 21](#)
- ◆ [Section 4.4, “Gathering GroupWise Component Information,” on page 21](#)
- ◆ [Section 4.5, “Handling the Potential Internet Agent Port Conflict,” on page 25](#)
- ◆ [Section 4.6, “Handling SSL Certificate and Key Files,” on page 25](#)
- ◆ [Section 4.7, “Estimating Migration Time,” on page 26](#)
- ◆ [Section 4.8, “GroupWise Server Migration Worksheet,” on page 27](#)

## 4.1 Gathering Source Server Information

Your network might consist of only NetWare servers, only Windows servers, or a combination of both.

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### GROUPWISE SERVER MIGRATION WORKSHEET

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Under *Source Platform*, mark the source platform for the source/destination server pair.

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The Server Migration Utility needs information about the source NetWare or Windows server in order to create a `mount` command for accessing the source server from the destination Linux server. This gives the utility access to the post office or domain folder structure that is copied during the migration process.

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### GROUPWISE SERVER MIGRATION WORKSHEET

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Under *Source Server*, specify the name of the source server and also its IP address or hostname. If the source server has multiple IP addresses, use the IP address that is accessible from the Linux server.

---

The Server Migration Utility needs to log in to the source NetWare or Windows server. It needs to use a user that has read/write access to the source server and to the post office or domain folder and its contents.

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### GROUPWISE SERVER MIGRATION WORKSHEET

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Under *Source Server Credentials*, specify an appropriate user name and password. For NetWare, specify the distinguished user name, which includes the context of the User object in the eDirectory tree (for example, `admin.users.novell`). For Windows, specify a Windows user name.

---

For more information about why the Server Migration Utility needs the source server credentials and what the utility does with them, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ♦ GroupWise 2012: “[GroupWise Server Migration Utility](#)” in “[Security Policies](#)”
- ♦ GroupWise 8: “[GroupWise Server Migration Utility](#)” in “[Security Policies](#)”

## 4.2 Gathering Destination Server Information

The Server Migration Utility needs certain information in order to communicate with the `ssh` (secure shell) daemon on the destination Linux server. The `ssh` daemon allows `root` access for the utility to run the programs required for migration locally on the Linux server.

---

### GROUPWISE SERVER MIGRATION WORKSHEET

---

Under *Destination Server*, specify the IP address or hostname of the destination Linux server.

Under *Destination Server Credential*, specify the `root` password for the server.

---

For more information about why the Server Migration Utility needs the `root` password and what the utility does with it, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ♦ GroupWise 2012: “[GroupWise Server Migration Utility](#)” in “[Security Policies](#)”
- ♦ GroupWise 8: “[GroupWise Server Migration Utility](#)” in “[Security Policies](#)”

The first time you attempt to log in to the Linux server, you are asked to verify the RSA key fingerprint for the server.

SSH does not use certificate files, key files, and certificate authorities as is done for SSL encryption. Instead, SSH generates a string of numbers that is a special checksum of the server host key. You obtain the equivalent string from the server itself by using the following command on the Linux server:

```
ssh-keygen -l -f /etc/ssh/ssh_host_rsa_key.pub
```

Compare the string you receive from the Linux server with the string presented by the Server Migration Utility. If the strings match, you have a secure connection.

In general, it is safe to simply accept the RSA key fingerprint presented by the Server Migration Utility. You might decide not to perform the actual comparison.

---

### GROUPWISE SERVER MIGRATION WORKSHEET

---

Under *RSA Key Fingerprint*, record the string of letters and numbers that you received from the Linux server, if you want to perform the comparison.

---

## 4.3 Gathering Software Information

You can migrate GroupWise 8 and 2012 components. You must use the version of GroupWise software that matches the version of GroupWise that is already installed. You cannot use the Server Migration Utility to upgrade domains and post offices from an earlier version of GroupWise during the server migration process.

The Server Migration Utility needs access to a GroupWise for Linux software image or software distribution directory, such as a Support Pack. The Server Migration Utility then copies the agent and utility RPMs that it needs for the server migration into a temporary location on the Linux server. The default is `/tmp/groupwise/software`. Having the RPMs on the Linux server enables the Server Migration Utility to run the RPMs as `root` through the `ssh` connection. After the server migration is complete, the Server Migration Utility can delete the RPMs to conserve disk space on your Linux server.

---

### GROUPWISE SERVER MIGRATION WORKSHEET

---

Under *Software Locations*, specify the root folder of a GroupWise for Linux software image or software distribution directory, the full path to the location where you want to store RPMs during the server migration, and whether you want to delete the RPMs after server migration.

---

**NOTE:** A GroupWise software distribution directory on a NetWare or Windows server does not contain GroupWise Linux software unless you have placed it there from a GroupWise for Linux software image or software distribution directory.

---

## 4.4 Gathering GroupWise Component Information

- ◆ [Section 4.4.1, “Post Offices and Domains,” on page 21](#)
- ◆ [Section 4.4.2, “Additional Agents for a Domain,” on page 23](#)
- ◆ [Section 4.4.3, “Remote Document Storage Areas for a Post Office,” on page 24](#)

### 4.4.1 Post Offices and Domains

- ◆ [“Auto-Detection” on page 21](#)
- ◆ [“Default Locations” on page 22](#)
- ◆ [“Post Office Information” on page 22](#)
- ◆ [“Domain Information” on page 23](#)

#### Auto-Detection

For NetWare servers, the Server Migration Utility has an Auto-Detect feature that attempts to locate post offices and domains on the NetWare server. The Auto-Detect feature scans NCF files in the `sys:\system` folder and looks for `load` commands for the GroupWise agents (for example, `gwpoa.nlm` and `gwmta.nlm`). Each agent `load` command includes the post office folder or the domain folder as the setting for the `/home` switch. The Auto-Detect feature also identifies startup files for the

POA (*post\_office.poa*) and the MTA (*domain.mta*). If your NetWare server does not have GroupWise NCF files and agent startup files in `sys:\system`, then the Auto-Detect feature does not find any post offices, domains, or agents.

For Windows servers, the Auto-Detect feature is not available. You must manually specify the locations of post offices, domains, and agents. Post offices and domains could be located anywhere on the Windows server. By default, the Windows agents are installed to:

```
c:\Program Files\Novell\GroupWise Server\Agents
```

## Default Locations

By default, post offices and domains are migrated to the `/var/opt/novell/groupwise/mail` folder. This is the typical location for mail folders on Linux. You might prefer a shorter path name (for example, `/gwsystem`). Be sure to include the post office folder or domain folder in the path (for example, `/gwsystem/sales`).

---

**IMPORTANT:** To minimize case sensitivity issues on Linux, ensure that domain and post office folder names consist of all lowercase letters in NetWare or Windows file systems and in ConsoleOne.

---

The Linux POA and MTA software is always installed to subfolders of `/opt/novell/groupwise/agents`. On Linux, you can choose whether or not you want the agents to run as the `root` user, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:

- ♦ GroupWise 2012: [“Running the Linux GroupWise Agents as a Non-root User”](#)
- ♦ GroupWise 8: [“Running the Linux GroupWise Agents As a Non-root User”](#)

Running as a non-`root` user is strongly preferred for security reasons.

## Post Office Information

If you are migrating a post office:

---

### GROUPWISE SERVER MIGRATION WORKSHEET

---

Under *Post Office Information*, specify the folder where the post office database (`wphost.db`) is located, the full path to the POA startup file, the full path to where you want to migrate the post office (the post office folder), and whether you want the POA to run as `root`.

If you have more than one POA for the post office, migrate the main one first. Additional POAs must be installed and configured manually.

---

To find out what changes the Server Migration Utility makes to the POA startup file when it migrates it to Linux, see the following section of the *GroupWise Administration Guide* for your version of GroupWise:

- ♦ GroupWise 2012: [“GroupWise Server Migration Utility”](#) in [“Security Policies”](#)
- ♦ GroupWise 8: [“GroupWise Server Migration Utility”](#) in [“Security Policies”](#)

## Domain Information

If you are migrating a domain, you also need to consider the MTA working folder (`mslocal`). By default, it is located under the domain folder, but it can be placed elsewhere by using the `/work` switch in the MTA startup file. The Server Migration Utility can copy the `mslocal` folder for you if it is under the domain folder, on the same NetWare volume, or on the same Windows server as the domain folder. In all cases, it is placed under the domain folder on the Linux server.

If the `mslocal` folder is located on a different NetWare volume or on a different server, the Server Migration Utility cannot copy it for you. You must manually copy it to the Linux server. For instructions, see [Section 8.9, “Manually Migrating the MTA Working Folder,” on page 61](#). You can do this after you have migrated the domain.

If you are migrating a domain:

---

### GROUPWISE SERVER MIGRATION WORKSHEET

---

Under *Domain Information*, specify the folder where the domain database (`wpdomain.db`) is located, the full path to the MTA startup file, the full path to where you want to migrate the domain (the domain folder), the full path to the MTA working folder, and whether you want the MTA to run as `root`.

---

To find out what changes the Server Migration Utility makes to the POA startup file when it migrates it to Linux, see the following section of the *GroupWise Administration Guide* for your version of GroupWise:

- ◆ GroupWise 2012: [“GroupWise Server Migration Utility”](#) in [“Security Policies”](#)
- ◆ GroupWise 8: [“GroupWise Server Migration Utility”](#) in [“Security Policies”](#)

## 4.4.2 Additional Agents for a Domain

The Internet Agent (GWIA) and the WebAccess Agent startup files must be identified manually if you want the settings in the startup files to be migrated.

- ◆ [“Internet Agent” on page 23](#)
- ◆ [“WebAccess Agent \(GroupWise 8 Only\)” on page 24](#)

---

**NOTE:** The WebAccess Agent is not part of GroupWise 2012 or GroupWise 2014, but is part of GroupWise 8.

---

### Internet Agent

The GWIA startup file is `gwia.cfg`. The default location of the startup file varies by platform:

NetWare: `sys:\system\gwia.cfg`

Windows: `\domain\wpgate\gwia\gwia.cfg`

---

### GROUPWISE SERVER MIGRATION WORKSHEET

---

Under *Internet Agent Information*, specify the full path to the GWIA startup file and whether you want the GWIA to run as `root`.

---

To find out what changes the Server Migration Utility makes to the POA startup file when it migrates it to Linux, see the following section of the *GroupWise Administration Guide* for your version of GroupWise:

- ♦ GroupWise 2012: “[GroupWise Server Migration Utility](#)” in “[Security Policies](#)”
- ♦ GroupWise 8: “[GroupWise Server Migration Utility](#)” in “[Security Policies](#)”

## WebAccess Agent (GroupWise 8 Only)

The WebAccess Agent startup file is `webacnna.waa`. The default location of the startup file varies by platform:

NetWare: `sys:\system\webac80a.waa`

Windows: `c:\Program Files\Novell\GroupWise Server\WebAccess\webac80a.waa`

---

**NOTE:** The WebAccess Agent is not part of GroupWise 2012 or GroupWise 2014, but is part of GroupWise 8.

---

---

### GROUPWISE SERVER MIGRATION WORKSHEET

---

Under *WebAccess Agent Information*, specify the full path to the WebAccess Agent startup file. The WebAccess Agent must run as `root`.

---

The Server Migration Utility migrates the WebAccess Agent but not the WebAccess Application that is installed to your web server. If you want to use a Linux web server with WebAccess, you can follow the instructions in [Section 14.2, “Manually Migrating the WebAccess and WebPublisher Applications to Linux,”](#) on [page 91](#) after you have migrated the WebAccess Agent.

## 4.4.3 Remote Document Storage Areas for a Post Office

The post office that you want to migrate might own libraries with remote document storage areas. A remote document storage area is a storage area that resides outside of the post office folder structure, rather than within it. A remote document storage area might be on the same server with the post office, or it might be on a different server. The Server Migration Utility cannot migrate remote document storage areas for you.

The utility can list all of the remote document storage areas associated with a post office and can provide their current locations. You need to decide where you want the document storage areas to reside after the post office has been migrated.

If it is necessary to keep your documents in a location other than Linux, you should create a new post office just for document storage areas and transfer your current document storage areas to that new post office. This provides a faster, more reliable way of accessing your documents through GroupWise.

---

### GROUPWISE SERVER MIGRATION WORKSHEET

---

Under *Post Office Information*, specify the location where you want to move each remote document storage area for libraries in the post office.

---



You must move the document storage areas before the second post office data migration starts. Instructions for manually copying the document data to the planned destinations are provided at the appropriate point in the migration process. Do not move the document storage areas until you are instructed to do so.

## 4.5 Handling the Potential Internet Agent Port Conflict

By default, Linux servers run the Postfix mail program. It typically uses an IP address of 127.0.0.1 and listens on port 25, which is the default for SMTP communication. By default, the GWIA binds to all IP addresses on the server, and it also uses port 25. As a result, if Postfix is running on the Linux server, the GWIA cannot start because port 25 is already in use.

Occasionally, Postfix might be configured to listen on a different IP address. This would also cause a conflict if the GWIA is configured to use the same IP address. On the Linux server, use the following command to test for conflicts:

```
telnet IP_address 25
```

If you receive a response, then something is already listening on the specified IP address.

To resolve the conflict, you can bind the GWIA to a specific IP address that is not the address used by Postfix. As an alternative, you can disable Postfix. Disabling Postfix is not the preferred solution, because Postfix is responsible for sending system messages to the administrator.

---

### GROUPWISE SERVER MIGRATION WORKSHEET

---

Under *Internet Agent Information*, mark whether you want to bind the GWIA to a specific IP address and specify the IP address.

---

If you decide that you want to disable Postfix, rather than binding the GWIA to a specific IP address, you can do it now, during the planning phase, so that the Linux server is ready for the GWIA to run on it.

- 1 In a terminal window at the Linux server, log in as `root`.
- 2 Enter the following commands:

```
/etc/init.d/postfix stop  
chkconfig postfix off
```

- 3 To ensure that Postfix is not running, enter the following command:

```
ps -eaf | grep postfix
```

You should see no Postfix processes running. The server is now ready for the GWIA to run on it.

## 4.6 Handling SSL Certificate and Key Files

If your GroupWise agents use SSL on the source server, they need a certificate file and a key file on the destination Linux server. Although you can have the Server Migration Utility copy the existing files from the source server to the Linux server, this is not a viable permanent solution, because the

original certificate file and key file have the IP address and hostname of the source server, not the destination Linux server. Unless the Linux server already has its own certificate file and key file, the recommendation is to generate a new certificate file and key file for the Linux server.

If you need to create new certificate and key files, you can do it now, during the planning phase, so that the Linux server is ready for the agents to run with SSL.

- 1 Create a new certificate file and key file for the Linux server as described in the following section of the *GroupWise Administration Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: “[Server Certificates and SSL Encryption](#)”
  - ♦ GroupWise 8: “[Server Certificates and SSL Encryption](#)”
- 2 Save the new files in a convenient location on the Windows machine where you plan to run the Server Migration Utility.
- 3 On each Agent object in ConsoleOne, remove the path information for the files on the source server and, if necessary, update the file names of the certificate file and key file.

For GroupWise 2012 instructions, see the following sections of the *GroupWise 2012 Administration Guide*:

- ♦ “[Securing the Post Office with SSL Connections to the POA](#)”
- ♦ “[Securing the Domain with SSL Connections to the MTA](#)”
- ♦ “[Securing GWIA Connections with SSL](#)”

For GroupWise 8 instructions, see the following sections of the *GroupWise 8 Administration Guide*:

- ♦ “[Securing the Post Office with SSL Connections to the POA](#)”
- ♦ “[Securing the Domain with SSL Connections to the MTA](#)”
- ♦ “[Securing Internet Agent Connections with SSL](#)”
- ♦ “[Securing WebAccess Agent Connections with SSL](#)”

---

#### GROUPWISE SERVER MIGRATION WORKSHEET

---

Under *SSL Information*, specify the full path names of the certificate file and key file if your GroupWise agents use SSL. You can specify either new (preferable) or old files.

---

## 4.7 Estimating Migration Time

There is no precise way to estimate how long it will take to migrate a particular post office or domain to Linux. The major determining factors are:

- ♦ Amount of data to migrate
- ♦ Connection speed between the source and destination servers

Fortunately, the Server Migration Utility makes it easy to perform any number of practice runs. You can safely run the Server Migration Utility on a live post office or domain as long as you *do not* make any of the configuration changes in ConsoleOne that would be made during a real server migration.

You can expect to see the Server Migration Utility move about 6 GB of data per hour. If performance is substantially slower than this, check your network configuration for slow links, and ensure that none of the following processes are running while you are migrating data:

- ♦ GroupWise maintenance activities such as Mailbox/Library Maintenance or Nightly User Upkeep

- ♦ Indexing of messages and documents
- ♦ Backups of GroupWise databases

These activities can hold files open and cause the Server Migration Utility to wait, thus slowing the migration process.

To speed server migration, you might want to move agent log files out of post office folders and domain folders, especially if any of the following situations apply:

- ♦ You have been using the verbose log level.
- ♦ You retain log files for a long period of time.
- ♦ You have been generating MTA message log files.

Agent log files are stored in the following locations:

Agent	Log File Location
POA	<i>post_office\wpcsout\ofs</i>
MTA	<i>domain\mslocal</i>
GWIA	<i>domain\wpgate\gwia\000.prc</i>
WebAccess Agent	GroupWise 2012: N/A GroupWise 8: <i>domain\wpgate\webac80a\000.prc</i>

## 4.8 GroupWise Server Migration Worksheet

Item	Value for Your GroupWise System	Explanation
<b>Source Platform</b>		<a href="#">Section 4.1, "Gathering Source Server Information," on page 19</a>
<ul style="list-style-type: none"> <li>♦ NetWare</li> <li>♦ Windows</li> </ul>		
<b>Source Server</b>		<a href="#">Section 4.1, "Gathering Source Server Information," on page 19</a>
<ul style="list-style-type: none"> <li>♦ Server name</li> <li>♦ IP address / hostname</li> </ul>		
<b>Source Server Credentials</b>		<a href="#">Section 4.1, "Gathering Source Server Information," on page 19</a>
<ul style="list-style-type: none"> <li>♦ User name</li> <li>♦ Password</li> </ul>		
<b>Destination Server</b>		<a href="#">Section 4.2, "Gathering Destination Server Information," on page 20</a>
<ul style="list-style-type: none"> <li>♦ IP address / hostname</li> </ul>		

Item	Value for Your GroupWise System	Explanation
<b>Destination Server Credentials</b>	<ul style="list-style-type: none"> <li>◆ Root user password</li> </ul>	Section 4.2, "Gathering Destination Server Information," on page 20
<b>RSA Key Fingerprint</b>	(optional)	Section 4.2, "Gathering Destination Server Information," on page 20
<b>Software Locations</b>	<ul style="list-style-type: none"> <li>◆ Software source</li> <li>◆ Software destination</li> <li>◆ Delete RPMs and temporary files? Yes   No</li> </ul>	Section 4.3, "Gathering Software Information," on page 21
<b>Post Office Information</b>	<ul style="list-style-type: none"> <li>◆ Post office folder</li> <li>◆ POA startup file</li> <li>◆ Destination folder</li> <li>◆ Run as root? Yes   no</li> <li>◆ Remote document storage areas</li> </ul>	"Post Offices and Domains" on page 21
<b>Domain Information</b>	<ul style="list-style-type: none"> <li>◆ Domain folder</li> <li>◆ MTA startup file</li> <li>◆ Destination folder</li> <li>◆ MTA working folder</li> <li>◆ Run as root? Yes   No</li> </ul>	"Post Offices and Domains" on page 21

Item	Value for Your GroupWise System	Explanation
<b>Internet Agent Information</b>	<ul style="list-style-type: none"> <li>◆ Startup file</li> <li>◆ Run as <code>root</code>? Yes   No</li> <li>◆ Bind to address? Yes   No IP address</li> </ul>	<p>“Additional Agents for a Domain” on page 23</p> <p>Section 4.5, “Handling the Potential Internet Agent Port Conflict,” on page 25</p>
<b>WebAccess Agent Information</b>	<p>If you are migrating the WebAccess Agent along with a domain, list the full path and file name of the WebAccess Agent startup file.</p> <ul style="list-style-type: none"> <li>◆ Startup file See .</li> </ul>	<p>“Additional Agents for a Domain” on page 23</p> <p><b>NOTE:</b> The WebAccess Agent is not part of GroupWise 2012 or GroupWise 2014, but is part of GroupWise 8.</p>
<b>SSL Information</b>	<ul style="list-style-type: none"> <li>◆ Certificate file</li> <li>◆ Key file</li> </ul>	<p>Section 4.6, “Handling SSL Certificate and Key Files,” on page 25</p>



---

# 5 Meeting Server Migration Prerequisites

The GroupWise Server Migration Utility cannot run successfully unless the prerequisites described in this section are met.

- ♦ [Section 5.1, “NetWare Prerequisites,”](#) on page 31
- ♦ [Section 5.2, “Windows Prerequisites,”](#) on page 32

## 5.1 NetWare Prerequisites

In order for the Server Migration Utility to run successfully, the following prerequisites must be met:

**A drive is mapped to the NetWare Server.**

From the Windows workstation where you are running the Server Migration Utility, you need access to the source NetWare server where the folder structure for the post office or domain is located. This enables the Server Migration Utility to copy the GroupWise data from the source server and to identify existing agent startup files on the source server to transfer to Linux.

**The NCPFS package is installed on the Linux server.**

The NCPFS package enables the Server Migration Utility to create a NetWare Core Protocol (NCP) file system mount of the source NetWare server to the destination Linux server.

**The GroupWise Linux software is available. It must be the same GroupWise version that is installed on the source server.**

To prepare for the migration, the Server Migration Utility needs to copy the GroupWise agent and utility RPMs from an existing software location to a temporary location on the destination Linux server. You must use the version of GroupWise software that matches the version of GroupWise that is already installed. You cannot use the GroupWise Server Migration Utility to upgrade post offices and domains from an earlier version of GroupWise during the server migration process.

A GroupWise 8 software distribution directory on a NetWare server does not contain GroupWise Linux software unless you have placed it there from a *GroupWise 8 for Linux* software image or software distribution directory.

**The Novell Client and ConsoleOne are installed on the Windows workstation.**

If you are running the Server Migration Utility at the workstation where you typically administer GroupWise, these programs are already available. If they are not available on your current workstation, you can obtain them from:

- ♦ Your GroupWise Installation software (recommended)
- ♦ [Novell Downloads \(http://download.novell.com\)](http://download.novell.com)

**The ssh daemon is running on the Linux server with ssh enabled for the root user.**

The `ssh` daemon is a secure shell program that allows the Server Migration Utility to log in to the destination Linux server as `root` and execute programs there. At the Linux server, use the following command to verify that the `ssh` daemon is running:

```
ps -eaf | grep sshd
```

If it is not running, use the following command to start it:

```
/etc/init.d/sshd start
```

You must also ensure that processes from outside the server's firewall can communicate with the `ssh` daemon. In YaST, click *Security and Users > Firewall*. Click *Next* until you reach the list of available services on the server. Ensure that *Secure Shell (ssh)* is selected, then click *Next* until you reach the end of the firewall configuration process. Click *Continue* to save your settings and restart the firewall.

**The GroupWise client is installed on the Windows workstation.**

After you have done the initial copy of a post office and started the Linux POA, you use the GroupWise client to ensure that the user in the migrated post office can connect to his or her Online mailbox on the destination Linux server and that the mailbox contents have been transferred.

**Adequate disk space is available on the Linux server for the migration.**

Depending on how you want to set up your backup procedure for the domain or post office on Linux, you might need double the disk space occupied by the domain or post office so that you can maintain a current copy of the domain or post office to run your backup software against. To consider backup alternatives on Linux, see the [Novell Partner Product Guide \(http://www.novell.com/partnerguides/\)](http://www.novell.com/partnerguides/).

## 5.2 Windows Prerequisites

In order for the GroupWise Server Migration Utility to run successfully, the following prerequisites must be met:

**A share on the Windows server provides read/write access to the domain or post office that you are migrating. If you are not on the server where the share resides, a drive is mapped to the share.**

In order to provide access to the domain or post office data on the Windows server, you need to set up a share on that server that includes the domain or post office folder. The share needs to provide read/write access to the domain or post office folder for the user running the Server Migration Utility. This enables the Server Migration Utility to copy the GroupWise data from the Windows server to the destination Linux server and to access existing agent startup files so that existing configuration information can be transferred to Linux.

If you run the Server Migration Utility on a Windows workstation, rather than on the Windows server where the domain or post office is located, you need to map a drive to the Windows server so that the Server Migration Utility can access the domain and post office data.

**The samba-client package is installed on the Linux server.**

The `samba-client` package provides the `mount` command so that the Server Migration Utility can create a Samba file system mount of the source Windows server to the destination Linux server.

**The Samba server is running on the Linux server and you have mapped a drive to the Samba share from Windows.**

The Samba server enables the Server Migration Utility to create a Samba file system mount of the source Windows server to the destination Linux server.

At the Linux server, use the following command to determine if the Samba server is running:

```
ps -eaf | grep samba
```

If you see both the `smbd` and `nmbd` daemons running, the Samba server is running.



Use your typical method of drive mapping to map a drive from the Windows machine where you plan to run the Server Migration Utility to the Linux server. Use the following format to specify the location on Linux:

```
\\Linux_hostname\Samba_sharename\path
```

This provides access between the Windows machine and the destination Linux server.

If the Server Migration Utility is unable to establish a Samba mount, it tries a CIFS mount instead. If the CIFS mount also fails, ensure that the `cifs-mount` package is installed.

- ❑ **The GroupWise Linux downloaded software image is available. It must be the same GroupWise version that is installed on the source server.**

To prepare for the server migration, the Server Migration Utility needs to copy the GroupWise agent and utility RPMs from an existing software location to a temporary location on the destination Linux server. You must use the version of GroupWise software that matches the version of GroupWise that is already installed. You cannot use the GroupWise Server Migration Utility to upgrade post offices and domains from an earlier version of GroupWise during the server migration process.

A GroupWise software distribution directory on a Windows server does not contain GroupWise Linux software unless you have placed it there from a GroupWise for Linux software image or software distribution directory.

- ❑ **The Novell Client and ConsoleOne are installed where you are running the utility.**

If you are running the Server Migration Utility at the workstation where you typically administer GroupWise, these programs are already available. If you are running the utility on the Windows server, they might not be available. You can obtain them from:

- ◆ Your GroupWise Installation software (recommended)
- ◆ [Novell Downloads \(http://download.novell.com\)](http://download.novell.com)

- ❑ **The ssh daemon is running on the Linux server with ssh enabled for the root user.**

The `ssh` daemon is a secure shell program that allows the Server Migration Utility to log in to the destination Linux server as `root` and execute programs there. At the Linux server, use the following command to verify that the `ssh` daemon is running:

```
ps -eaf | grep sshd
```

If it is not running, use the following command to start it:

```
/etc/init.d/sshd start
```

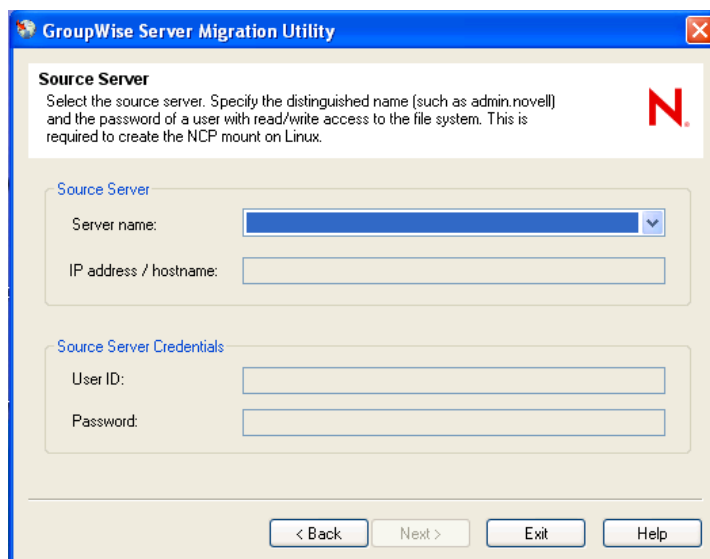
You must also ensure that processes from outside the server's firewall can communicate with the `ssh` daemon. In YaST, click *Security and Users > Firewall*. Click *Next* until you reach the list of available services on the server. Ensure that *Secure Shell (ssh)* is selected, then click *Next* until you reach the end of the firewall configuration process. Click *Continue* to save your settings and restart the firewall.



# 6 Running the Server Migration Utility

After you have met the prerequisites listed in [Chapter 5, “Meeting Server Migration Prerequisites,”](#) on [page 31](#), you are ready to run the GroupWise Server Migration Utility. The first few dialog boxes are the same, regardless of whether you are migrating a post office or a domain. This section describes those common dialog boxes. [Chapter 7, “Migrating a Post Office and Its POA to Linux,”](#) on [page 39](#) and [Chapter 8, “Migrating a Domain and Its Agents to Linux,”](#) on [page 51](#) provide instructions for migrating specific GroupWise components.

- 1 Ensure that the server you are migrating is not running any GroupWise maintenance processing, indexing, backups, or virus scanning.  
Such activities on the server substantially slow down the server migration process.
- 2 Start the Server Migration Utility by running `gwsvrmig.exe` in the folder you set up in [Chapter 3, “Installing the Server Migration Utility,”](#) on [page 17](#).
- 3 Review the Server Migration Utility overview, then click *Next*.
- 4 Accept the license agreement, then click *Next*.
- 5 Select the platform you are migrating from, then click *Next*.
- 6 Ensure that you have met the prerequisites for your source platform.  
See [Chapter 5, “Meeting Server Migration Prerequisites,”](#) on [page 31](#).
- 7 Click *Next* to display the Source Server page.



The screenshot shows the 'GroupWise Server Migration Utility' dialog box, specifically the 'Source Server' page. The title bar reads 'GroupWise Server Migration Utility'. The main content area has a header 'Source Server' with a Novell logo. Below the header, there is a text box containing instructions: 'Select the source server. Specify the distinguished name (such as admin.novell) and the password of a user with read/write access to the file system. This is required to create the NCP mount on Linux.' The form is divided into two sections: 'Source Server' and 'Source Server Credentials'. The 'Source Server' section has a 'Server name:' dropdown menu and an 'IP address / hostname:' text box. The 'Source Server Credentials' section has a 'User ID:' text box and a 'Password:' text box. At the bottom of the dialog, there are four buttons: '< Back', 'Next >', 'Exit', and 'Help'.

For information about why the Server Migration Utility needs the source server credentials and what the utility does with them, see the following section in the *GroupWise Administration Guide* for your version of GroupWise.

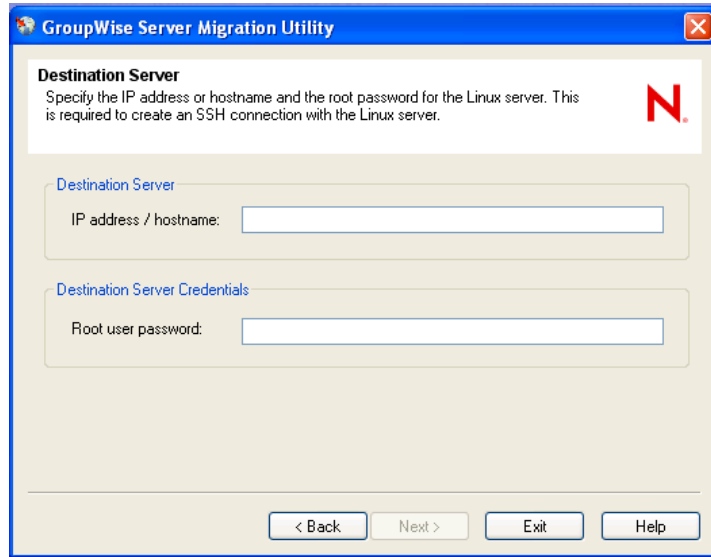
- ◆ GroupWise 2012: “[GroupWise Server Migration Utility](#)” in “[Security Policies](#)”
  - ◆ GroupWise 8: “[GroupWise Server Migration Utility](#)” in “[Security Policies](#)”
- 8 Provide the source server information.

Server Name  
IP Address/Hostname

- 9 Provide the source server login information.

User ID  
Password

- 10 Click *Next* to display the Destination Server page.



The screenshot shows a window titled "GroupWise Server Migration Utility" with a red "N" logo in the top right corner. The main heading is "Destination Server". Below the heading is a text box containing the instruction: "Specify the IP address or hostname and the root password for the Linux server. This is required to create an SSH connection with the Linux server." There are two input fields: "Destination Server" with the label "IP address / hostname:" and "Destination Server Credentials" with the label "Root user password:". At the bottom of the window are four buttons: "< Back", "Next >", "Exit", and "Help".

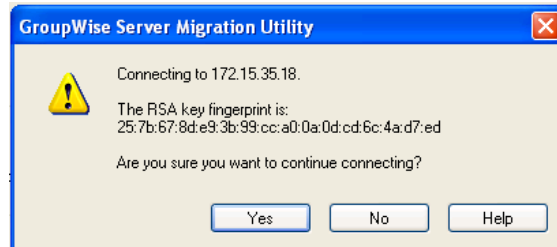
For information about why the Server Migration Utility needs the `root` password and what the utility does with it, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ◆ GroupWise 2012: “GroupWise Server Migration Utility” in “Security Policies”
- ◆ GroupWise 8: “GroupWise Server Migration Utility” in “Security Policies”

- 11 Provide the destination server information and credentials, then click *Next*.

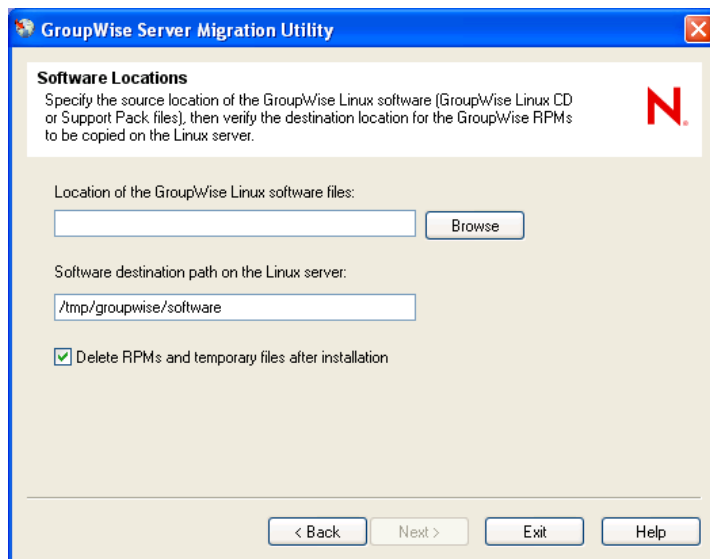
IP Address/Hostname  
Root User Password

If this is the first time you have connected to this Linux server, you are prompted to verify the RSA key fingerprint.



The screenshot shows a warning dialog box titled "GroupWise Server Migration Utility" with a yellow warning triangle icon. The text inside reads: "Connecting to 172.15.35.18. The RSA key fingerprint is: 25:7b:67:8d:e9:3b:99:cc:a0:0a:0d:cd:6c:4a:d7:ed. Are you sure you want to continue connecting?" At the bottom are three buttons: "Yes", "No", and "Help".

- 12 Click *Yes*.



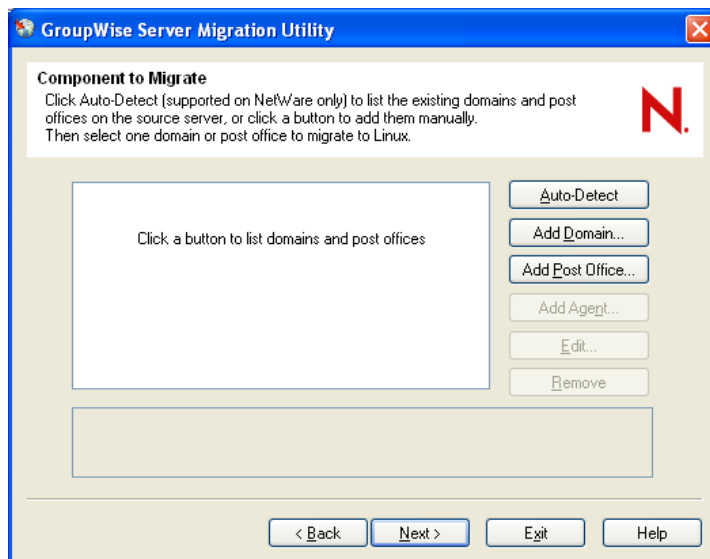
- 13 Browse to and select the folder where the GroupWise Linux software image or software distribution directory is available.

A GroupWise software distribution directory on a NetWare or Windows server does not contain GroupWise Linux software unless you have placed it there from a GroupWise Linux software image or software distribution directory.

- 14 (Conditional) If you want to change the default, specify the full path to the folder on the Linux server where you want the GroupWise RPMs to be copied for use by the Server Migration Utility.

You can retain the default of deleting the RPMs and temporary files after installation. This temporary location is not related to a standard GroupWise software distribution directory.

- 15 Click *Next* to continue to the Component to Migrate page.



- 16 Continue with the task that you want to perform:

- ♦ [Chapter 7, "Migrating a Post Office and Its POA to Linux," on page 39](#)
- ♦ [Chapter 8, "Migrating a Domain and Its Agents to Linux," on page 51](#)

---

**NOTE:** The Server Migration Utility cannot migrate the Monitor Agent. You must migrate it manually. See [Chapter 15, “Manually Migrating Monitor to Linux,”](#) on page 95.

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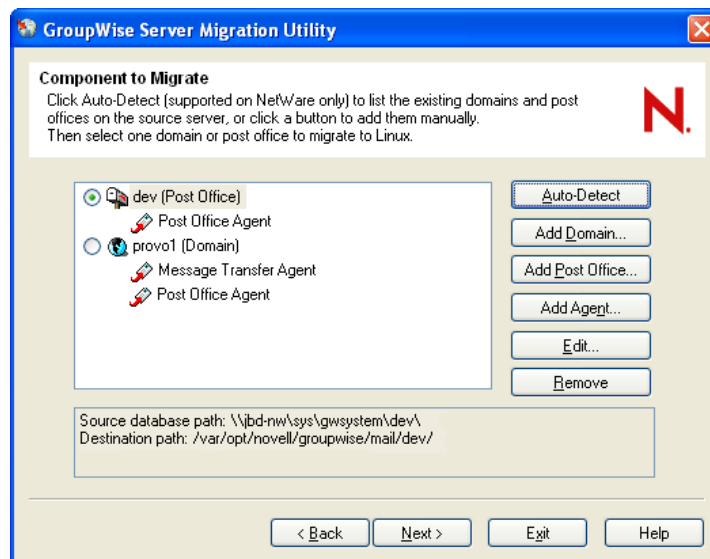
# 7 Migrating a Post Office and Its POA to Linux

The GroupWise Server Migration Utility helps you migrate a post office and its POA to Linux.

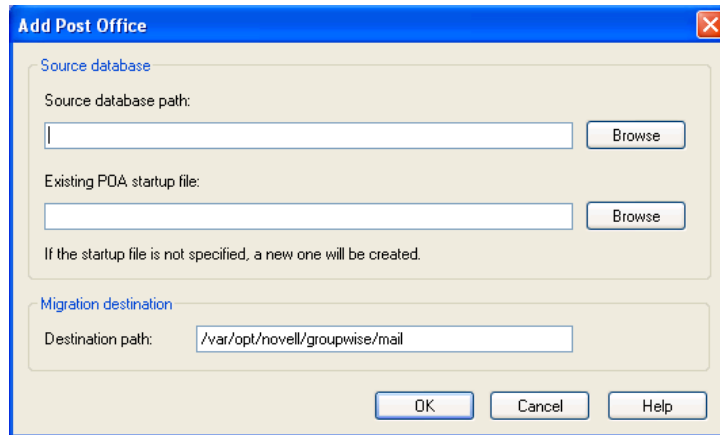
- ♦ Section 7.1, “Selecting a Post Office to Migrate,” on page 39
- ♦ Section 7.2, “Verifying Remote Document Storage Areas,” on page 40
- ♦ Section 7.3, “Transferring SSL Certificate and Key Files,” on page 41
- ♦ Section 7.4, “Performing the First Stage of Post Office Data Migration,” on page 42
- ♦ Section 7.5, “Testing the First Stage of Post Office Data Migration,” on page 43
- ♦ Section 7.6, “Modifying Configuration Information in ConsoleOne,” on page 44
- ♦ Section 7.7, “Stopping the Original POA on the Source Server,” on page 47
- ♦ Section 7.8, “Performing the Second Stage of Post Office Data Migration,” on page 48
- ♦ Section 7.9, “Finishing the Post Office Migration,” on page 49
- ♦ Section 7.10, “Post-Migration Tasks for a Post Office,” on page 49

## 7.1 Selecting a Post Office to Migrate

- 1 Start the Server Migration Utility and provide system information.  
See Chapter 6, “Running the Server Migration Utility,” on page 35.
- 2 (Conditional) If you are migrating a post office on a NetWare server:
  - 2a On the Component to Migrate page, click *Auto-Detect* to list identifiable post offices and domains.



- 2b** (Conditional) If you want to change the post office destination from the default of `/var/opt/novell/groupwise/mail`:
  - 2b1** Select the post office, then click *Edit*.
  - 2b2** In the *Destination Path* field, specify the full path to the post office folder.
  - 2b3** Click *OK* to return to the Component to Migrate page.
- 3** (Conditional) If you are migrating a post office on a Windows server, or if the *Auto-Detect* feature did not identify any post offices on your NetWare server:
  - 3a** Click *Add Post Office*.



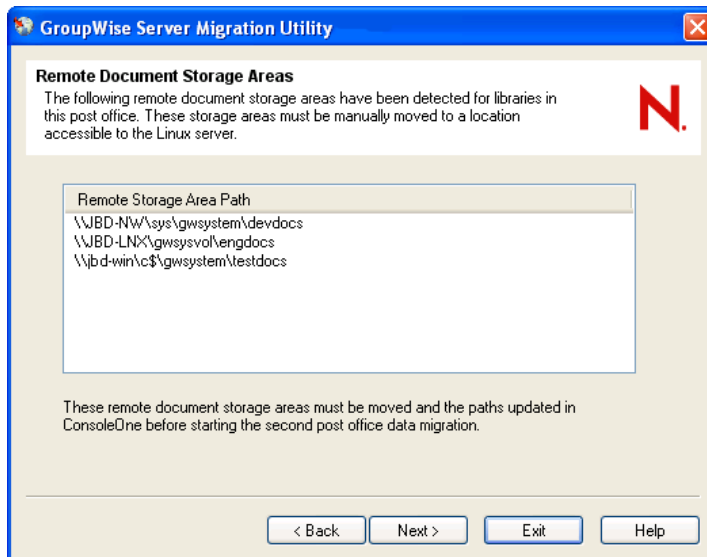
- 3b** Provide the requested information about the post office and its POA.
- 3c** Click *OK* to return to the Component to Migrate page.  
The post office and POA that you identified are now listed.  
If you receive an error indicating that the startup path does not match the database source path, edit the POA startup file (*post\_office.poa*) and modify the `/home` switch to use a UNC path (`\\server\volume\path`) instead of a mapped drive path (`drive:\path`).
- 3d** Select the post office to migrate,
- 4** Click *Next*.
- 5** (Conditional) If the post office has remote document storage areas, continue with [Section 7.2, “Verifying Remote Document Storage Areas,”](#) on page 40.  
or  
(Conditional) If you use SSL to secure the connections between agents, skip to [Section 7.3, “Transferring SSL Certificate and Key Files,”](#) on page 41.  
or  
Skip to [Section 7.4, “Performing the First Stage of Post Office Data Migration,”](#) on page 42.

## 7.2 Verifying Remote Document Storage Areas

For background information about this process, see [Section 4.4.3, “Remote Document Storage Areas for a Post Office,”](#) on page 24.

If the Server Migration Utility detects one or more remote document storage areas belonging to a post office, it provides a list of their locations. This page is informational and you should use it to note the location of your remote storage areas.





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**IMPORTANT:** Do not move your remote storage areas at this time. Do not remove your remote storage areas until after the first stage of post office migration and prior to the second stage of post office migration.

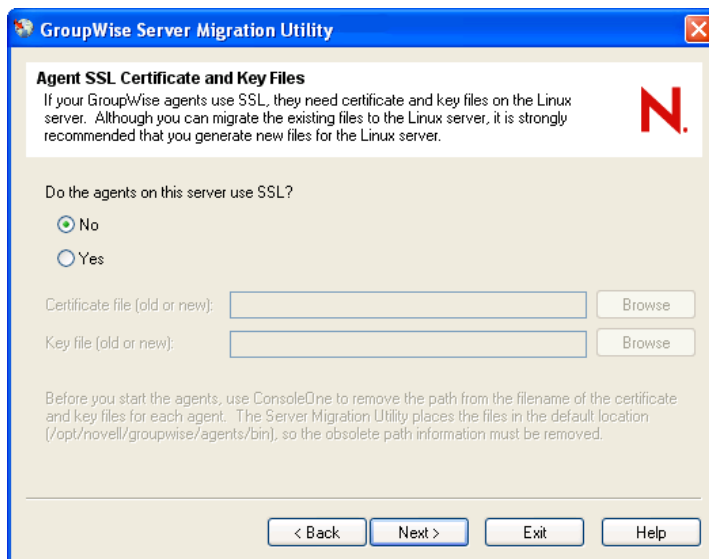
---

- 1 Ensure that the list of remote document storage areas that you made on the [GroupWise Server Migration Worksheet](#) matches the list displayed by the Server Migration Utility.
- 2 Click *Next*.
- 3 Continue with [Transferring SSL Certificate and Key Files](#).

## 7.3 Transferring SSL Certificate and Key Files

For background information about this process, see [Section 4.6, “Handling SSL Certificate and Key Files,”](#) on page 25.

The Server Migration Utility can copy your certificate file and key file from the source server to the Linux server so that they are ready for use after you migrate the POA.



- 1 Select **Yes**.
- 2 Browse to and select the certificate file that you want to copy to Linux.
- 3 Browse to and select the key file that you want to copy to Linux.
- 4 Click *Next*.
- 5 Continue with [Performing the First Stage of Post Office Data Migration](#).

## 7.4 Performing the First Stage of Post Office Data Migration

A summary of the information that the Server Migration Utility has gathered from you displays.

- 1 (Conditional) If the summary information is correct, click *Migrate*.

or

Click *Back*, change information as needed, then click *Migrate*.

When the migration starts, the First Data Migration page keeps you informed about the progress of the post office migration with messages similar to the following:

```

Creating directories on Linux server...
Copying files...
Installing files...
Creating source server mount on Linux server...
Migrating data...
Copying agent configuration to Linux server...
Configuring agents...
Removing mount point...

```

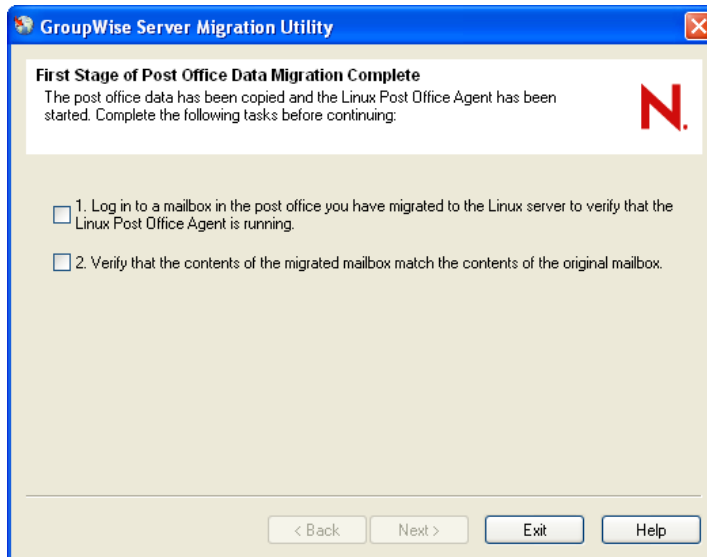
For details about what happens during the first stage, see [Section 1.3, "Post Office Migration Process,"](#) on page 12.

Depending on the size of the post office, the process can take several hours.

- 2 (Conditional) If you need to halt the process, click *Stop*.  
This returns you to the Summary page but does not delete files that have already been copied.
- 3 Continue with [Testing the First Stage of Post Office Data Migration](#).

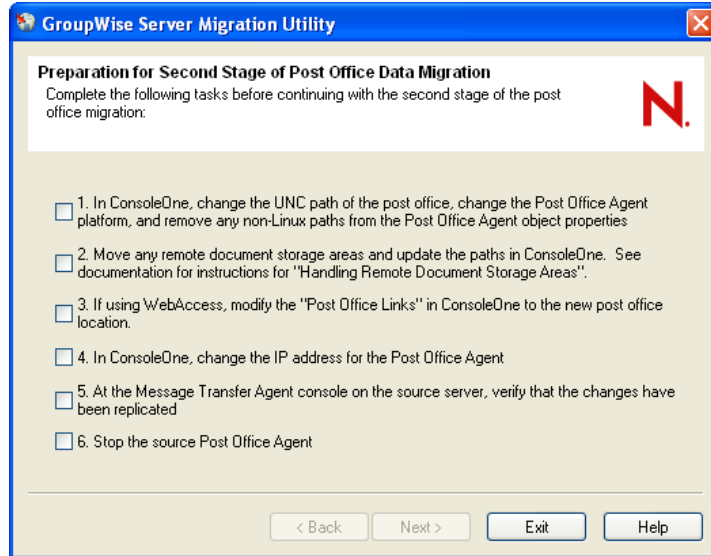
## 7.5 Testing the First Stage of Post Office Data Migration

After the first stage of the post office migration is complete, the Server Migration Utility prompts you to test the migration.



- 1 On the Windows workstation, log in to a migrated GroupWise mailbox.  
Use the IP address of the destination Linux server and specify 1677 as the port number. This is the default POA client/server port number and is used by the Server Migration Utility when it configures the Linux POA. If you can log in and access the mailbox, it shows that the Linux POA is running for the migrated post office.
- 2 Verify that the contents of the migrated mailbox match the contents of the original mailbox.  
If they match, the copy operation was successful.  
If the first stage of the post office migration was not successful, review [Chapter 5, “Meeting Server Migration Prerequisites,”](#) on page 31, then repeat the migration. If the first stage of the migration is still not successful using the Server Migration Utility, you can migrate the post office manually. For instructions, see [Chapter 11, “Manually Migrating a Post Office and Its POA to Linux,”](#) on page 71.
- 3 (Conditional) If the migration test was successful, select both check boxes on the First Stage of Post Office Data Migration Complete page, then click *Next*.

The Server Migration Utility stops the Linux POA in preparation for the second stage of the post office migration and displays a list of manual tasks for you to complete before it can start the second stage of the post office migration.



- 4 Leave the Server Migration Utility running while you perform the list of manual tasks.
- 5 Continue with [Modifying Configuration Information in ConsoleOne](#) to perform the manual tasks.

## 7.6 Modifying Configuration Information in ConsoleOne

---

**IMPORTANT:** Do not proceed with the following steps unless you are ready to stop the original POA on the source server for the last time.

---

- 1 Start ConsoleOne on Windows.
- 2 Connect to the domain that owns the migrated post office.
- 3 Perform the following modifications to GroupWise objects:
  - ♦ [Section 7.6.1, "Reconfiguring the Migrated Post Office,"](#) on page 45
  - ♦ [Section 7.6.2, "Reconfiguring the Migrated POA,"](#) on page 45
  - ♦ [Section 7.6.3, "Handling Remote Document Storage Areas,"](#) on page 45
  - ♦ ["Reconfiguring Remote Document Storage Areas"](#) on page 46
  - ♦ [Section 7.6.4, "Reconfiguring SSL Settings,"](#) on page 46
  - ♦ [Section 7.6.5, "Updating Post Office Links for WebAccess \(GroupWise 8 Only\),"](#) on page 47
  - ♦ [Section 7.6.6, "Updating the POA IP Address,"](#) on page 47
  - ♦ [Section 7.6.7, "Verifying the Post Office Configuration Changes,"](#) on page 47
- 4 When you are finished working in ConsoleOne and have verified your configuration changes, skip to [Section 7.7, "Stopping the Original POA on the Source Server,"](#) on page 47.

## 7.6.1 Reconfiguring the Migrated Post Office

- 1 Browse to and right-click the Post Office object, then click *Properties*.
- 2 Click *GroupWise > Identification*.
- 3 In the *UNC Path* field, change the path to the location on the destination Linux server where you copied the post office. For example:

```
\\linuxsvr3\gwsystem\research
```

For a Linux server, ConsoleOne interprets the UNC path as a Linux path. Do not put a Linux path with front slashes in the *UNC Path* field, because backslashes are expected.

- 4 Click *OK* to save the new Linux path information for the post office.
- 5 Continue with [Reconfiguring the Migrated POA](#).

## 7.6.2 Reconfiguring the Migrated POA

- 1 In ConsoleOne, browse to and right-click the POA object for the post office, then click *Properties*.
- 2 Click *GroupWise > Identification*.
- 3 In the *Platform* field, select *Linux*, then click *Apply*.
- 4 Click *GroupWise > Log Settings*.
- 5 Ensure that the *Log File Path* field is empty so that the Linux POA creates its log files in the default location (`/var/log/novell/groupwise/post_office_name.poa`) on the Linux server.
- 6 Click *OK* to save the configuration information for the Linux POA.
- 7 (Conditional) If you need to copy document storage areas to the Linux server, continue with [Handling Remote Document Storage Areas](#).

or

Skip to [Section 7.6.7, “Verifying the Post Office Configuration Changes,”](#) on page 47.

## 7.6.3 Handling Remote Document Storage Areas

For background information about this process, see [Section 4.4.3, “Remote Document Storage Areas for a Post Office,”](#) on page 24.

If the Server Migration Utility detected one or more remote document storage areas belonging to a post office, it provided a list of their locations. See [Section 7.2, “Verifying Remote Document Storage Areas,”](#) on page 40. At this point, you must physically move the remote document storage areas to their new locations on the Linux server and reconfigure their associated Library objects for the new locations.

- ♦ [“Moving Remote Document Storage Areas”](#) on page 45
- ♦ [“Reconfiguring Remote Document Storage Areas”](#) on page 46

### Moving Remote Document Storage Areas

- 1 Mount each remote document storage area to the Linux server where you want the remote document storage area to reside.

If you need help with a mount command, see [Section 1.1, “Mount Commands,”](#) on page 11 to review the mount commands used by the Server Migration Utility.

- 2 On the Linux server, change to the folder where you had the Server Migration Utility store the Linux RPMs during the migration.  
The default location is `/tmp/groupwise/software/bin`. At this point in the migration process, the GroupWise Database Copy utility (DBCOPY) has been installed, so you can use it to manually copy the remote document storage areas.
- 3 Copy each remote document storage area to its planned destination, using the following `dbcopy` command:  

```
./dbcopy -m -b /storage_area_folder /destination_folder
```

The `-m` switch indicates that DBCOPY is being used for migration to Linux. The `-b` switch indicates that DBCOPY is being used to migrate a documentation storage area containing document BLOB (binary large object) files.
- 4 Continue with [Reconfiguring Remote Document Storage Areas](#).

## Reconfiguring Remote Document Storage Areas

- 1 In ConsoleOne, browse to and right-click a Library object for the post office, then click *Properties*.
- 2 Click *GroupWise > Storage Areas*.
- 3 Select a storage area, then click *Edit*.
- 4 In the *Linux Path* field, specify the full path for the remote document storage area, then click *OK*. Do not edit the UNC path. Editing the UNC path might cause the path format to become invalid.
- 5 Repeat [Step 3](#) and [Step 4](#) for each storage area in the list, then click *OK*.
- 6 Repeat [Step 1](#) through [Step 6](#) for each library in the post office.
- 7 Continue with [Reconfiguring SSL Settings](#).

## 7.6.4 Reconfiguring SSL Settings

If you have not already followed the general instructions in [Section 4.6, "Handling SSL Certificate and Key Files,"](#) on page 25:

- 1 In ConsoleOne, browse to and right-click the POA object for the post office, then click *Properties*.
- 2 Click *GroupWise > SSL Settings*.
- 3 In the *Certificate file* field, change the path to the location of the certificate file on the destination Linux server. For example:  

```
/opt/novell/groupwise/agents/bin/certificate_file_name.crt
```
- 4 In the *SSL key file* field, change the path to the location of the SSL key file on the destination Linux server. For example:  

```
/opt/novell/groupwise/agents/bin/key_file_name.key
```
- 5 Click *OK* to save the changes.
- 6 (Conditional) If you are using WebAccess on GroupWise 8, continue with [Updating Post Office Links for WebAccess \(GroupWise 8 Only\)](#).  
or  
Skip to [Section 7.6.6, "Updating the POA IP Address,"](#) on page 47.

## 7.6.5 Updating Post Office Links for WebAccess (GroupWise 8 Only)

- 1 In ConsoleOne, browse to and right-click the WebAccess object, then click *Properties*.
- 2 Click *Post Office Links*.
- 3 Select the appropriate post office and click *Edit Link*.
- 4 Select an *Access Mode* from the drop-down menu.
- 5 Fill in the required information for your new post office location.
- 6 Click *OK* twice to save your new settings.
- 7 Continue with [Updating the POA IP Address](#).

## 7.6.6 Updating the POA IP Address

Updating the POA IP address must be the last configuration change you make in ConsoleOne. After you change the IP address, the POA can no longer communicate with the MTA because it is no longer using the IP address that the MTA is configured to expect.

- 1 In ConsoleOne, browse to and right-click the POA object for the post office, then click *Properties*.
- 2 Click *GroupWise > Network Address*.
- 3 In the *TCP/IP Address* field, specify the IP address of the destination Linux server.
- 4 Click *OK* to save the new IP address.
- 5 Continue with [Verifying the Post Office Configuration Changes](#).

## 7.6.7 Verifying the Post Office Configuration Changes

You can verify that the configuration changes have been replicated to the domain at the POA console.

- 1 Display the POA console for the original POA.  

```
http://source_server_address:port_number
```
- 2 Click *MTP Status* to check the status of the link between the MTA for the domain and the original POA on the source NetWare or Windows server.  
The *Receive* link should display *Closed* because the POA is now configured to communicate with the MTA on a new IP address.
- 3 Continue with [Stopping the Original POA on the Source Server](#).

## 7.7 Stopping the Original POA on the Source Server

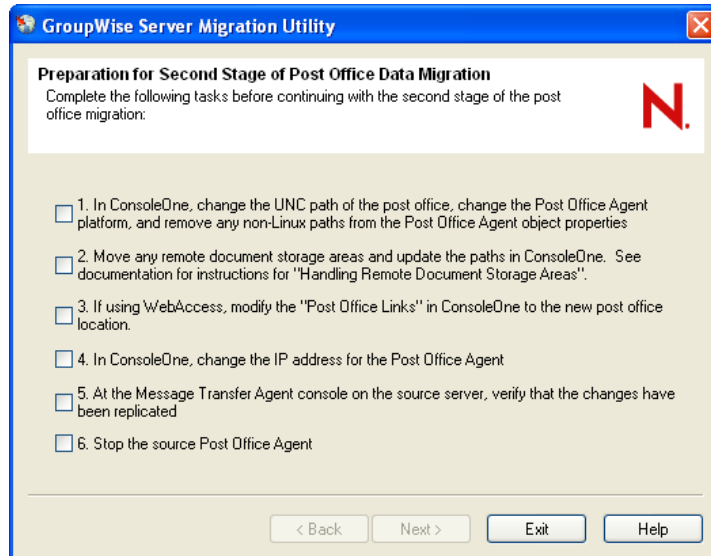
Because you have migrated the post office to Linux, the original POA no longer has an active post office to service and the MTA can no longer communicate with it. Therefore, the original POA on the source server is no longer a necessary part of your GroupWise system.

- 1 Go to the source NetWare or Windows server where the original POA is still running.
- 2 Display the POA server console.
- 3 Stop the original POA on the source server.
- 4 Continue with [Performing the Second Stage of Post Office Data Migration](#).

## 7.8 Performing the Second Stage of Post Office Data Migration

- 1 Return to the location where you are running the Server Migration Utility.

The Preparation for Second Stage of Post Office Data Migration page should still be displayed.



You should already have completed all of these tasks. See [Section 7.6, "Modifying Configuration Information in ConsoleOne,"](#) on page 44.

- 2 Select the check box for each task that you have completed, then click *Next* to continue with the second stage of the post office migration.

When the second stage of the post office migration starts, the Second Stage of Post Office Data Migration page keeps you informed about the progress of the migration with messages similar to the following:

```
Creating source server mount point...
```

```
Migrating data...
```

```
Removing mount point...
```

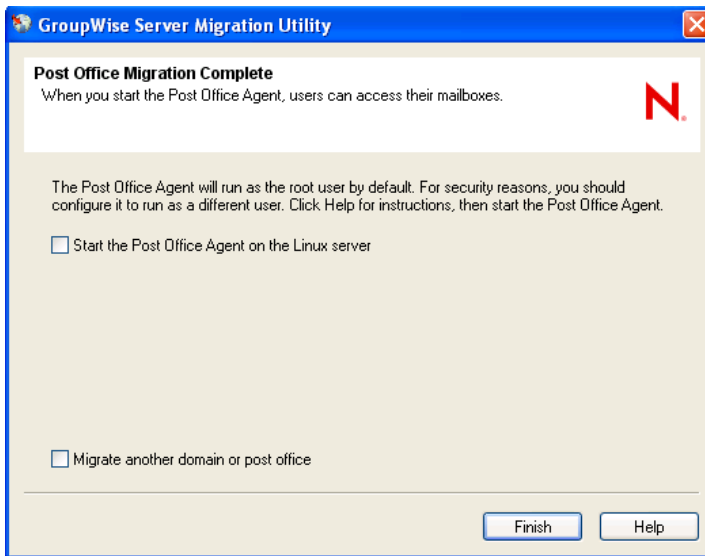
For details about what goes on during the second stage, see [Section 1.3, "Post Office Migration Process,"](#) on page 12.

- 3 Continue with [Finishing the Post Office Migration](#).



## 7.9 Finishing the Post Office Migration

When the second stage is finished, the Server Migration Utility gives you the opportunity to start the Linux POA immediately.



However, it is preferable to configure the Linux POA to run as a non-root user before you start it.

- 1 Access the Linux server, then follow the instructions in the following section of the *GroupWise Installation Guide* for your version of GroupWise.
  - ♦ GroupWise 2012: “[Running the Linux GroupWise Agents as a Non-root User](#)”
  - ♦ GroupWise 8: “[Running the Linux GroupWise Agents As a Non-root User](#)”
- 2 Return to the Server Migration Utility, then select *Start the Post Office Agent on the Linux Server*.
- 3 Click *Finish*.
- 4 Continue with [Post-Migration Tasks for a Post Office](#).

## 7.10 Post-Migration Tasks for a Post Office

- 1 Check the Server Migration Utility log file to verify the success of the migration.

The log file is named `gwsvmig_mmdyyy_nnnn.log` and is found in the utility installation folder if the utility can write to that location. Otherwise, it is found in the `/temp` folder. It provides a migration summary and a listing of all actions taken by the Server Migration Utility.
- 2 (Conditional) If you see problems in the utility log file, check the GroupWise Database Copy utility (DBCOPY) log file to obtain additional detail. The DBCOPY log file is named `mmdgwbk.nnn` and is found in the post office folder on the Linux server.
- 3 (Conditional) If you have problems starting the migrated POA, see [Appendix A, “Troubleshooting Post-Migration Problems,”](#) on page 105.
- 4 (Conditional) If the post office migration is not successful using the Server Migration Utility, migrate the post office manually.

See [Chapter 11, “Manually Migrating a Post Office and Its POA to Linux,”](#) on page 71.

- 5 Check the migrated POA startup file (`post_office.poa` in the `/opt/novell/groupwise/agents/share` folder on the Linux server) to see if any startup switches have been commented out during migration, and adjust them as needed, for the new Linux environment.

The Server Migration Utility comments out any startup switches whose values contain NetWare or Windows paths or the IP address of the source server.

- 6 Set up a GroupWise name server to help GroupWise clients connect to the new IP address, as described in the following section of the *GroupWise Administration Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: “[Simplifying Client/Server Access with a GroupWise Name Server](#)”
  - ♦ GroupWise 8: “[Simplifying Client/Server Access with a GroupWise Name Server](#)”

- 7 (Conditional) If you copied remote document storage areas to the Linux server during the migration process, copy them again with a slightly different `dbcop`y command:

```
./dbcop -m -i mm-dd-yyyy -b /storage_area_folder  
/destination_folder
```

This copies only the files that have been modified since you first copied the document storage area, like an incremental backup.

- 8 Review your scheduled backups to ensure that they are set to run correctly with the new system changes.
- 9 Ensure that your Restore Area is now available from the Linux POA.
- 10 (Conditional) If you want to use the Monitor Agent to monitor the migrated POA on Linux, migrate the Monitor Agent manually.  
See [Chapter 15, “Manually Migrating Monitor to Linux,”](#) on page 95.
- 11 (Conditional) If you want to migrate domains now, see [Chapter 8, “Migrating a Domain and Its Agents to Linux,”](#) on page 51.
- 12 When you are completely finished with your migration to Linux, see [Chapter 9, “What’s Next,”](#) on page 63 for information about cleaning up the servers that you are no longer using for GroupWise.

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# 8 Migrating a Domain and Its Agents to Linux

The GroupWise Server Migration Utility helps you migrate a domain and its MTA to Linux.

- ◆ [Section 8.1, “Selecting a Domain to Migrate,” on page 51](#)
- ◆ [Section 8.2, “Selecting Additional Agents to Migrate,” on page 53](#)
- ◆ [Section 8.3, “Transferring SSL Certificate and Key Files,” on page 53](#)
- ◆ [Section 8.4, “Preventing an Internet Agent Port Conflict,” on page 54](#)
- ◆ [Section 8.5, “Modifying Configuration Information in ConsoleOne,” on page 56](#)
- ◆ [Section 8.6, “Stopping the Original Domain Agents on the Source Server,” on page 59](#)
- ◆ [Section 8.7, “Migrating the Domain Data,” on page 59](#)
- ◆ [Section 8.8, “Finishing the Domain Migration,” on page 61](#)
- ◆ [Section 8.9, “Manually Migrating the MTA Working Folder,” on page 61](#)
- ◆ [Section 8.10, “Post-Migration Tasks for a Domain,” on page 62](#)

## 8.1 Selecting a Domain to Migrate

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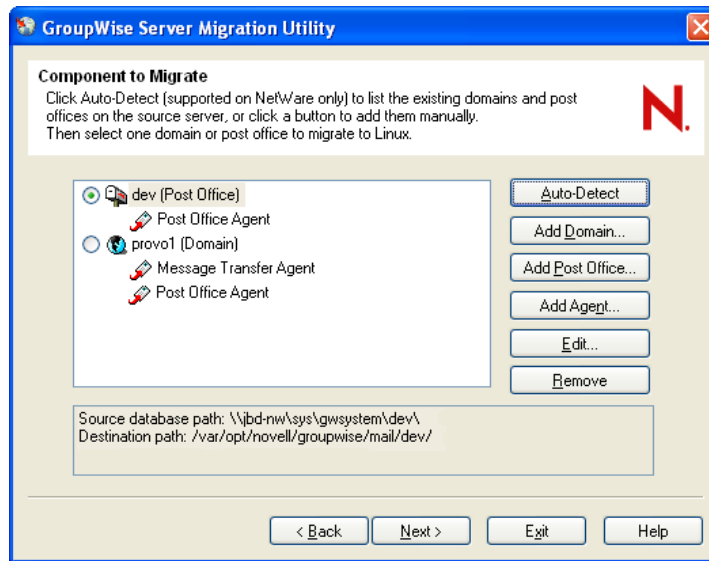
**IMPORTANT:** If the domain has gateways, you should stop them before proceeding with the domain migration.

---

- 1 Start the Server Migration Utility and provide system information.  
See [Chapter 6, “Running the Server Migration Utility,” on page 35](#).

2 (Conditional) If you are migrating a domain on a NetWare server:

2a On the Component to Migrate page, click *Auto-Detect* to list identifiable post offices and domains.



2b (Conditional) If you want to change the domain destination from the default `/var/opt/novell/groupwise/mail`:

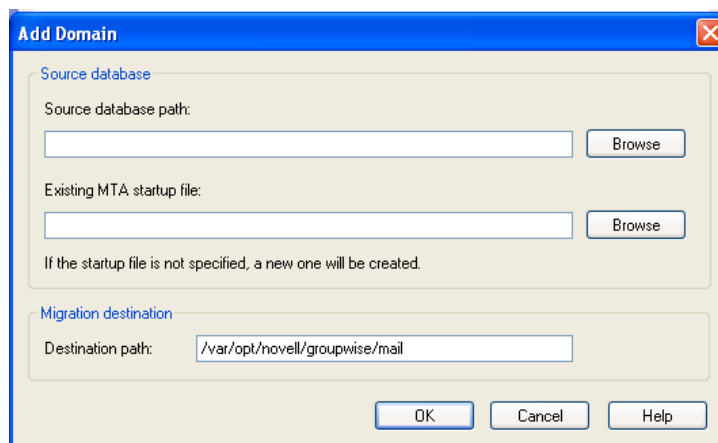
2b1 Select the domain, then click *Edit*.

2b2 In the *Destination Path* field, specify the full path to the domain folder.

2b3 Click *OK* to return to the Component to Migrate page.

3 (Conditional) If you are migrating a domain on a Windows server, or if the *Auto-Detect* feature did not identify any domains on your NetWare server:

3a Click *Add Domain*.



3b Provide the requested information about the domain and its MTA.

3c Click *OK* to return to the Component to Migration page.

The domain and MTA that you identified are now listed.

If you receive an error indicating that the startup path does not match the database source path, edit the MTA startup file (*domain.mta*) and modify the /home switch to use a UNC path (`\\server\volume\path`) instead of a mapped drive path (`drive:\path`).

**3d** Select the domain to migrate.

**4** (Conditional) If the domain has a GWIA or a WebAccess Agent, continue with [Selecting Additional Agents to Migrate](#).

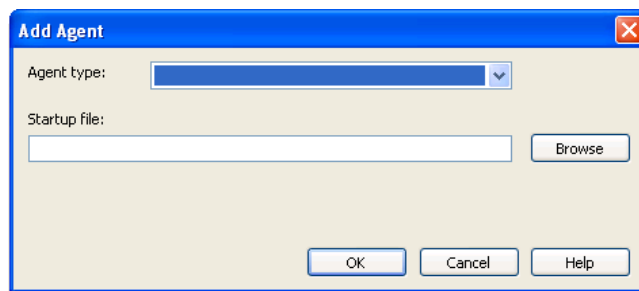
or

Click *Next*, then skip to [Section 8.3, “Transferring SSL Certificate and Key Files,”](#) on page 53.

## 8.2 Selecting Additional Agents to Migrate

If the domain has agents in addition to the MTA:

**1** Click *Add Agent*.



**2** In the *Agent Type* drop-down list, select the type of agent to add (*Internet Agent* or *WebAccess Agent*).

---

**NOTE:** The WebAccess Agent is not part of GroupWise 2012 or GroupWise 2014, but is part of GroupWise 8.

---

**3** In the *Startup File* field, browse to and select the agent startup file ([worksheet item 10](#) or [worksheet item 11](#)).

**4** Click *OK*.

**5** (Conditional) If you need to add another agent for the domain, repeat [Step 1](#) through [Step 4](#).

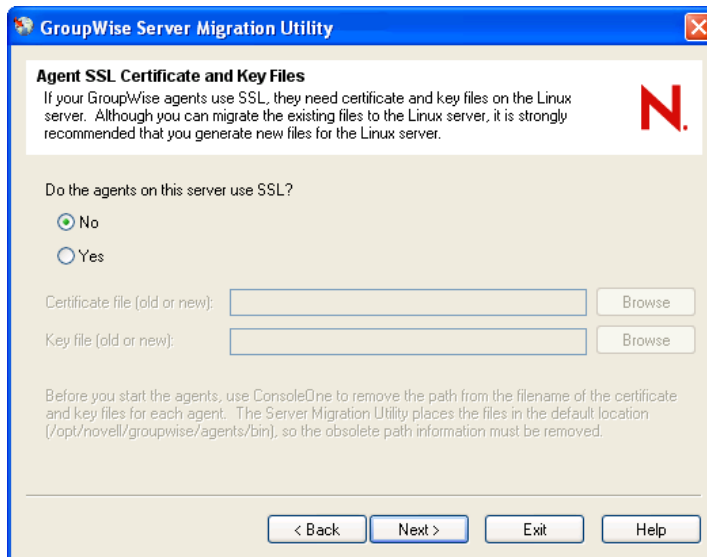
**6** When all domain agents are listed, click *Next*.

**7** Continue with [Transferring SSL Certificate and Key Files](#).

## 8.3 Transferring SSL Certificate and Key Files

For background information about this process, see [Section 4.6, “Handling SSL Certificate and Key Files,”](#) on page 25.

The Server Migration Utility can copy your certificate file and key file from the source server to the Linux server so that they are ready for use after you migrate the agents.

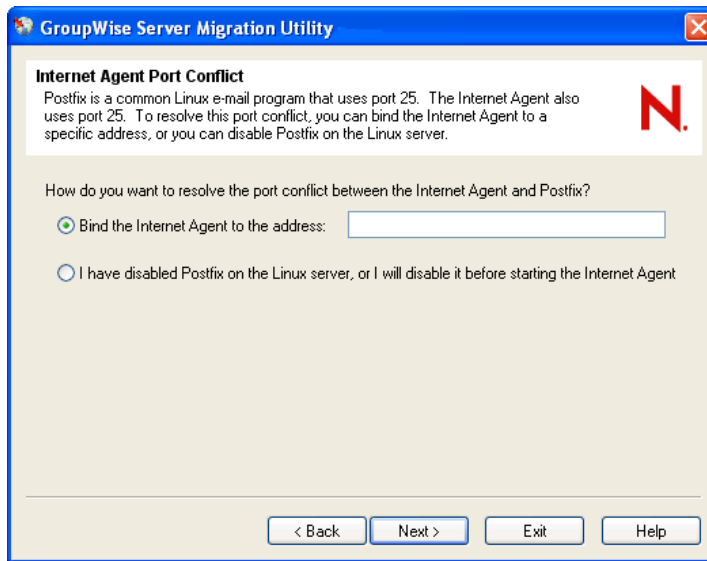


- 1 Select *Yes*.
  - 2 Browse to and select the certificate file that you want to copy to Linux.
  - 3 Browse to and select the key file that you want to copy to Linux.
  - 4 Click *Next*.
  - 5 (Conditional) If you are migrating the GWIA, continue with [Preventing an Internet Agent Port Conflict](#).
- or
- Skip to [Section 8.5, “Modifying Configuration Information in ConsoleOne,”](#) on page 56.

## 8.4 Preventing an Internet Agent Port Conflict

For background information about this issue, see [Section 4.5, “Handling the Potential Internet Agent Port Conflict,”](#) on page 25.

If you are migrating the GWIA, the Server Migration Utility helps you avoid a potential port or IP address conflict between the GWIA and Postfix, a common Linux mail program.



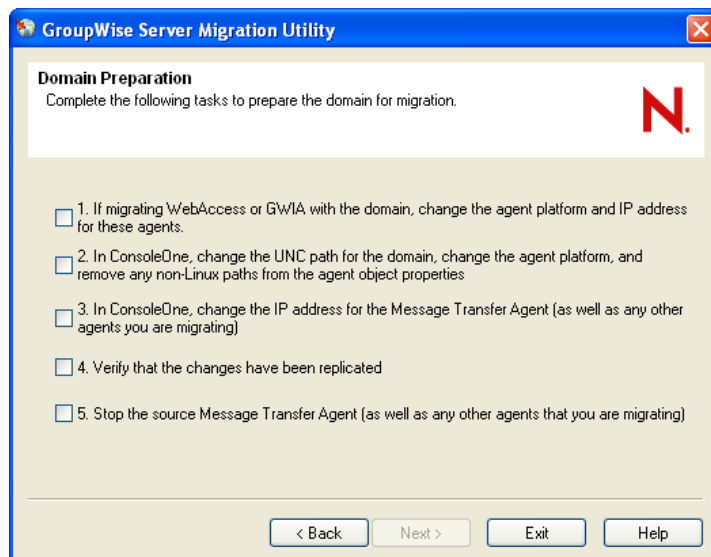
- 1 Specify the IP address of the Linux server.

or

Select *I have disabled Postfix on the Linux server*.

If you select this option, ensure that Postfix is disabled. If it is not, the GWIA cannot start at the end of the migration process. If you did not disable Postfix during the planning stage, see [Section 4.5, "Handling the Potential Internet Agent Port Conflict,"](#) on page 25.

- 2 Click *Next* to display a list of manual tasks for you to complete before the Server Migration Utility can start the domain migration.



- 3 Leave the Server Migration Utility running while you perform the list of tasks.
- 4 Continue with [Modifying Configuration Information in ConsoleOne](#).

## 8.5 Modifying Configuration Information in ConsoleOne

---

**IMPORTANT:** Do not proceed with the following steps unless you are ready to stop the original domain agents on the source server for the last time.

---

- 1 Start ConsoleOne on Windows.
- 2 Connect to the source domain.
- 3 Perform the following modifications: to GroupWise objects:
  - ♦ [Section 8.5.1, “Reconfiguring the Internet Agent,” on page 56](#)
  - ♦ [Section 8.5.2, “Reconfiguring the WebAccess Agent \(GroupWise 8 Only\),” on page 56](#)
  - ♦ [Section 8.5.3, “Reconfiguring SSL Settings,” on page 57](#)
  - ♦ [Section 8.5.4, “Reconfiguring the MTA,” on page 57](#)
  - ♦ [Section 8.5.5, “Reconfiguring the Domain,” on page 58](#)
  - ♦ [Section 8.5.6, “Updating the IP Address of the MTA,” on page 58](#)
  - ♦ [Section 8.5.7, “Verifying the Domain Configuration Changes,” on page 58](#)

### 8.5.1 Reconfiguring the Internet Agent

If the domain has a GWIA:

- 1 In ConsoleOne, browse to and right-click the GWIA object for the domain, then click *Properties*.
  - 2 Click *GroupWise > Identification*.
  - 3 In the *Platform* field, select *Linux*, then click *Apply*.
  - 4 Click *GroupWise > Network Address*.
  - 5 In the *TCP/IP Address* field, specify the IP address of the destination Linux server, then click *Apply*.
  - 6 Click *GroupWise > Log Settings*.
  - 7 Ensure that the *Log File Path* field is empty so that the Linux GWIA creates its log files in the default location (`/var/log/novell/groupwise/domain_name.gwia`) on the Linux server.
  - 8 Click *OK* to save the configuration information for the Linux GWIA.
  - 9 (Conditional) If the domain has a WebAccess Agent (GroupWise 8 only), continue with [Reconfiguring the WebAccess Agent \(GroupWise 8 Only\)](#).
- or
- Skip to [Section 8.5.3, “Reconfiguring SSL Settings,” on page 57](#).

### 8.5.2 Reconfiguring the WebAccess Agent (GroupWise 8 Only)

---

**NOTE:** The WebAccess Agent is not part of GroupWise 2012 or GroupWise 2014, but is part of GroupWise 8.

---

If the domain has a WebAccess Agent:

- 1 In ConsoleOne, browse to and right-click the WebAccess Agent object for the domain, then click *Properties*.



- 2 Click *GroupWise > Identification*.
- 3 In the *Platform* field, select *Linux*, then click *Apply*.
- 4 Click *GroupWise > Network Address*.
- 5 In the *TCP/IP Address* field, specify the IP address of the destination Linux server, then click *Apply*.
- 6 Click *GroupWise > Log Settings*.
- 7 Ensure that the *Log File Path* field is empty so that the Linux WebAccess Agent creates its log files in the default location (`/var/log/novell/groupwise/domain_name.webac70a`) on the Linux server.
- 8 Click *OK* to save the configuration information for the Linux WebAccess Agent.

The Server Migration Utility migrates the WebAccess Agent but not the WebAccess Application that is installed with your web server. If you want to use a Linux web server with WebAccess, you can follow the instructions in [Section 14.2, “Manually Migrating the WebAccess and WebPublisher Applications to Linux,”](#) on page 91 after you have finished migrating the domain.
- 9 Continue with [Reconfiguring SSL Settings](#).

### 8.5.3 Reconfiguring SSL Settings

If you have not already followed the general instructions in [Section 4.6, “Handling SSL Certificate and Key Files,”](#) on page 25:

- 1 In ConsoleOne, browse to and right-click the MTA object for the domain, then click *Properties*.
- 2 Click *GroupWise > SSL Settings*.
- 3 In the *Certificate file* field, change the path to the location of the certificate file on the destination Linux server. For example:  

```
/opt/novell/groupwise/agents/bin/certificate_file_name.crt
```
- 4 In the *SSL key file* field, change the path to the location of the SSL key file on the destination Linux server. For example:  

```
/opt/novell/groupwise/agents/bin/key_file_name.key
```
- 5 Click *OK* to save the changes.
- 6 Continue with [Reconfiguring the MTA](#).

### 8.5.4 Reconfiguring the MTA

- 1 In ConsoleOne, browse to and right-click the MTA object for the domain, then click *Properties*.
- 2 Click *GroupWise > Identification*.
- 3 In the *Platform* field, select *Linux*, then click *Apply*.
- 4 Click *GroupWise > Log Settings*.
- 5 Ensure that the *Log File Path* field is empty so that the Linux MTA creates its log files in the default location (`/var/log/novell/groupwise/domain_name.mta`) on the Linux server.
- 6 Click *OK* to save the configuration information for the Linux MTA.
- 7 Continue with [Section 8.5.5, “Reconfiguring the Domain,”](#) on page 58.

## 8.5.5 Reconfiguring the Domain

- 1 Browse to and right-click the Domain object, then click *Properties*.
- 2 Click *GroupWise > Identification*.
- 3 In the *UNC Path* field, change the path to the location on the destination Linux server where you copied the domain. For example:

```
\\linuxsvr3\gwsystem\prov01
```

For a Linux server, ConsoleOne interprets the UNC path as a Linux path. Do not put a Linux path with front slashes in the *UNC Path* field, because backslashes are expected.

- 4 Click *OK* to save the new Linux path information for the domain.
- 5 Continue with [Updating the IP Address of the MTA](#).

## 8.5.6 Updating the IP Address of the MTA

Updating the MTA IP address information must be the last configuration change you make in ConsoleOne. After you change the MTA IP address, the MTA can no longer communicate with other GroupWise agents because it is no longer using the IP address that the other GroupWise agents are configured to expect.

---

**NOTE:** Unlike the MTA, the IP address for the GWIA and the WebAccess Agent must be updated before you reconfigure the domain, because you cannot access objects properties for the GWIA and the WebAccess Agent after you reconfigure the domain.

---

- 1 In ConsoleOne, browse to and right-click the MTA object for the domain, then click *Properties*.
- 2 Click *GroupWise > Network Address*.
- 3 In the *TCP/IP Address* field, specify the IP address of the destination Linux server.
- 4 Click *OK* to save the new IP address for the MTA.
- 5 Continue with [Verifying the Domain Configuration Changes](#).

## 8.5.7 Verifying the Domain Configuration Changes

When the configuration changes have been replicated, the link from the MTA to other MTAs in your GroupWise system reflects the Linux location. You can see this in ConsoleOne and at the MTA console.

- ♦ [“Using ConsoleOne” on page 58](#)
- ♦ [“Using the MTA Console” on page 59](#)

### Using ConsoleOne

- 1 In ConsoleOne, browse to and select the Domain object for the domain you are migrating, then click *Tools > GroupWise Utilities > Link Configuration*.
- 2 In the *Inbound Links* box, double-click a domain that links to the domain you are migrating.  
The *IP Address* field should display the new Linux IP address for the domain you are migrating.
- 3 Click *Cancel*, then click *File > Exit* to exit the Link Configuration utility.
- 4 Skip to [Stopping the Original Domain Agents on the Source Server](#).

## Using the MTA Console

- 1 Display the MTA console for the original MTA.

`http://source_server_address:port_number`

For more information about the MTA console, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ♦ GroupWise 2012: “[Using the MTA Web Console](#)”
  - ♦ GroupWise 8: “[Using the MTA Web Console](#)”
- 2 Click *Links* to check the status of the links between the original MTA on the source server and other domains and post offices in your GroupWise system.  
The links should display *Closed* because the MTA is now configured to communicate on a new IP address.
  - 3 Continue with [Stopping the Original Domain Agents on the Source Server](#).

## 8.6 Stopping the Original Domain Agents on the Source Server

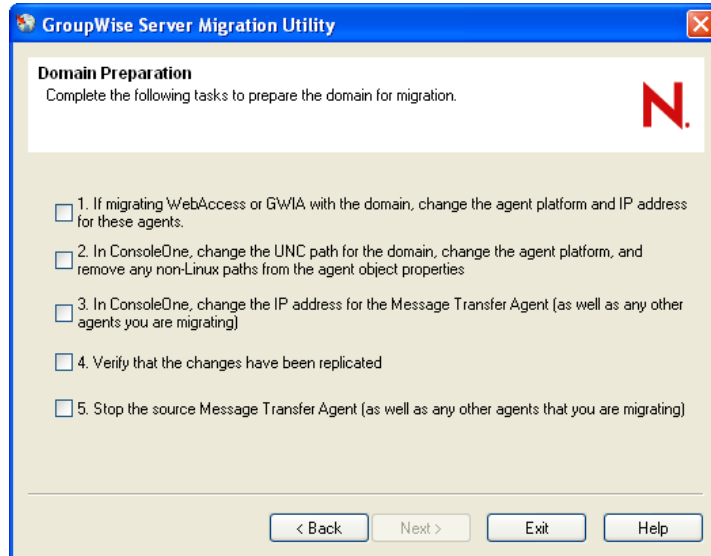
Because you have reconfigured the domain to for its Linux location, the original MTA, GWIA, and optionally WebAccess Agent on the source server no longer have an active domain to service, and other agents in the GroupWise system can no longer communicate with them. Therefore, the domain agents on the source server are no longer a necessary part of your GroupWise system.

- 1 Go to the source NetWare or Windows server where the original MTA and other domain agents are still running.
- 2 Display the MTA server console for the original MTA.
- 3 Stop the original MTA on the source server.
- 4 (Conditional) If applicable, stop the original GWIA on the source server.
- 5 (Conditional) If applicable, stop the original WebAccess Agent on the source server.
- 6 Continue with [Migrating the Domain Data](#).

## 8.7 Migrating the Domain Data

- 1 Return to where you are running the Server Migration Utility.

The Domain Preparation page should still be displayed.



- 2 Select the check box for each task you have completed, then click *Next* to display a summary of the information that the Server Migration Utility has gathered from you.
- 3 If the information is correct, click *Migrate*.

or

Click *Back* to change information as needed.

When the domain migration starts, the Domain Data Migration page keeps you informed about the progress of the domain migration with messages similar to the following:

```
Creating directories on Linux server...
Copying files...
Installing files...
Creating source server mount on Linux server...
Migrating data...
Copying agent configuration to Linux server...
Configuring agents...
Removing mount point...
```

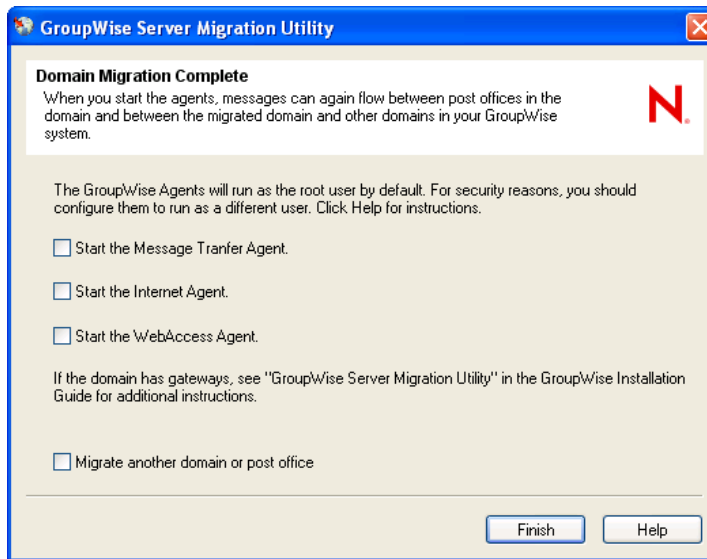
For details about what happens, see [Section 1.4, "Domain Migration Process,"](#) on page 13.

If you need to halt the process, click *Stop*. This returns you to the Summary page but does not delete files that have already been copied.

- 4 Continue with [Finishing the Domain Migration](#).

## 8.8 Finishing the Domain Migration

When the domain migration is completed, the Server Migration Utility gives you the opportunity to start the Linux MTA and other agents immediately.



However, it is preferable to configure the Linux agents to run as a non-`root` user before you start them.

- 1 Access the Linux server, then follow the instructions in the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: [“Running the Linux GroupWise Agents as a Non-root User”](#)
  - ♦ GroupWise 8: [“Running the Linux GroupWise Agents As a Non-root User”](#)
- 2 Return to the Server Migration Utility, then select the check box for each agent that you want to start.
- 3 (Conditional) If you have more GroupWise domains or post offices to migrate, select *Migrate Another Domain or Post Office* to return to the Component to Migrate page and select another GroupWise component to migrate from the same source server to the same destination server.
- 4 Click *Finish*.
- 5 (Conditional) If necessary, continue with [Manually Migrating the MTA Working Folder](#).  
or  
Skip to [Section 8.10, “Post-Migration Tasks for a Domain,”](#) on page 62.

## 8.9 Manually Migrating the MTA Working Folder

If the MTA’s working folder (`mslocal`) was located where the Server Migration Utility could not copy it, such as on a different volume of a NetWare server from where the domain folder was located:

- 1 Copy the `mslocal` folder and its contents to the desired location on the Linux server.
- 2 Edit the MTA startup file (`domain.mta` in the `/opt/novell/groupwise/agents/share` folder).
- 3 Set the `--work` switch to the new location of the `mslocal` folder.

- 4 Start or restart the Linux MTA, so that it reads its modified startup file, as described in the following section in the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: “[Starting the Linux Agents as Daemons](#)”
  - ♦ GroupWise 8: “[Starting the Linux GroupWise Agents as Daemons](#)”
- 5 Continue with [Post-Migration Tasks for a Domain](#).

## 8.10 Post-Migration Tasks for a Domain

- 1 Check the Server Migration Utility log file to verify the success of the migration.

The log file is named `gwsvrmig_mmdyyy_nnnn.log` and is found in the utility installation folder if the utility can write to that location. Otherwise, it is found in the `/temp` folder. It provides a migration summary and a listing of all actions taking by the Server Migration Utility.
- 2 If you see problems in the utility log file, check the GroupWise Database Copy utility (DBCOPY) log file to obtain additional detail. The DBCOPY log file is named `mmdgwbk.nnn` and is found in the domain folder on the Linux server.
- 3 If the domain migration is not successful using the Server Migration Utility, migrate the domain manually.

See [Chapter 12, “Manually Migrating a Domain and Its MTA to Linux,”](#) on page 79.
- 4 Check the migrated agent startup files (`domain.mta`, `gwia.cfg`, and `webac80a.waa` in the `/opt/novell/groupwise/agents/share` folder on the Linux server) to see if any startup switches have been commented out during migration, and as needed, adjust them for the new Linux environment.

The Server Migration Utility comments out any startup switches whose values contain NetWare or Windows paths or the IP address of the source server.
- 5 If the domain has gateways, leave them where they are on the source server or consolidate them onto a single NetWare or Linux server.

GroupWise gateways cannot be migrated to Linux because there are no versions that run on Linux. You must keep them on the platform where they are currently running. If you set up a domain solely for gateways on your source platform and set up all gateways in that domain, it simplifies gateway administration after the rest of your GroupWise system has been migrated to Linux.
- 6 If you want to use the Monitor Agent to monitor the migrated agents on Linux, migrate the Monitor Agent manually.

See [Chapter 15, “Manually Migrating Monitor to Linux,”](#) on page 95.
- 7 When you are completely finished with your migration to Linux, see [Chapter 9, “What’s Next,”](#) on page 63 for information about cleaning up the servers that you are no longer using for GroupWise.

---

# 9 What's Next

After you have migrated all your GroupWise post offices and domains to Linux, you have NetWare or Windows servers that are no longer being used for GroupWise. If you plan to use those servers for other purposes in the future, you need to remove the GroupWise data and software from them.

- ♦ [Section 9.1, “Folders,” on page 63](#)
- ♦ [Section 9.2, “NetWare Software,” on page 63](#)
- ♦ [Section 9.3, “Windows Software,” on page 63](#)

## 9.1 Folders

Remove the following folders from NetWare and Windows servers:

GroupWise 2012 Folders	GroupWise 8 Folders
♦ <a href="#">Domain directory</a>	♦ <a href="#">Domain folder</a>
♦ <a href="#">Post office directory</a>	♦ <a href="#">Post office folder</a>
♦ <a href="#">MTA working directory</a> (if it is not under the domain)	♦ <a href="#">MTA working folder</a> (if it is not under the domain)
♦ <a href="#">Software distribution directory</a>	♦ <a href="#">Software distribution directory</a>

The links provide information about the folders so that you can identify them on the source server.

## 9.2 NetWare Software

For a NetWare server, follow the instructions in the *GroupWise Installation Guide* for your version of GroupWise:

- ♦ GroupWise 2012: N/A.
- ♦ GroupWise 8: [“Uninstalling the NetWare GroupWise Agents”](#)

Be sure to remove the migrated agents from the NetWare `autoexec.ncf` file so that the server does not try to start the migrated agents automatically when it is restarted.

## 9.3 Windows Software

For a Windows server, follow the instructions in the *GroupWise Installation Guide* for your version of GroupWise:

- ♦ GroupWise 2012: [“Uninstalling the Windows GroupWise Agents”](#)
- ♦ GroupWise 8: [“Uninstalling the Windows GroupWise Agents”](#)





---

# Manual Server Migration

This section describes the manual steps for moving existing GroupWise 8 or GroupWise 2012 users, post offices, and domains from NetWare or Windows to Linux. It can also be used for moving existing GroupWise 2012 users, post offices, and domains from Windows to Linux. GroupWise 2012 is not available on NetWare.

This section is designed to help those who might have a domain or post office where the Server Migration Utility is not fully successful in migrating the GroupWise data.

---

**IMPORTANT:** If your GroupWise system is currently on NetWare and you are upgrading to GroupWise 2014, you must migrate to Linux or Windows first, then upgrade to GroupWise 2014.

---

- ◆ [Chapter 10, “Transitioning GroupWise Administration to Linux,” on page 67](#)
- ◆ [Chapter 11, “Manually Migrating a Post Office and Its POA to Linux,” on page 71](#)
- ◆ [Chapter 12, “Manually Migrating a Domain and Its MTA to Linux,” on page 79](#)
- ◆ [Chapter 13, “Manually Migrating the Internet Agent to Linux,” on page 85](#)
- ◆ [Chapter 14, “Manually Migrating WebAccess to Linux,” on page 89](#)
- ◆ [Chapter 15, “Manually Migrating Monitor to Linux,” on page 95](#)



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# 10 Transitioning GroupWise Administration to Linux

You migrate your GroupWise system from NetWare or Windows to Linux one post office and domain at a time. During the migration process, your system has domains and post offices on various platforms. You might use ConsoleOne on both Windows and Linux to administer domains and post offices located on any platform.

This section helps you set up the cross-platform connections that enable ConsoleOne to successfully access GroupWise databases on any platform.

- ♦ [Section 10.1, “Using Windows ConsoleOne to Access Domains and Post Offices on Linux,” on page 67](#)
- ♦ [Section 10.2, “Using Linux ConsoleOne to Access Domains and Post Offices on NetWare or Windows,” on page 68](#)
- ♦ [Section 10.3, “Migrating eDirectory to Linux,” on page 69](#)

## 10.1 Using Windows ConsoleOne to Access Domains and Post Offices on Linux

In order for you to be able to use ConsoleOne on Windows to administer GroupWise domains, post offices, and agents that are located on Linux, the Linux servers where the domains, post offices, and agents are located must be accessible from Windows.

- ♦ [Section 10.1.1, “Making a Linux Server Visible from Windows,” on page 67](#)
- ♦ [Section 10.1.2, “Accessing a Domain or Post Office on Linux from Windows ConsoleOne,” on page 68](#)

### 10.1.1 Making a Linux Server Visible from Windows

To make a Linux server visible from Windows, you need to configure it so that you can map a drive to it as if it were a Windows server.

---

Operating System	Connection Method
Open Enterprise Server (OES) Linux	<p>Use the NetWare Core Protocol (NCP) Server to create an NCP volume on the Linux server that will be visible from Windows just as a NetWare volume would be.</p> <p>On the Linux server, become <code>root</code>, then enter the following commands:</p> <pre>ncpcon create volume volume_name folder ncpcon set cross_protocol_locks=1</pre> <p>From a Windows workstation or server where the Novell client is installed, you can now use the Novell Map Network Drive feature to map a drive to the volume on your Linux server, and Windows-type file locking is respected by Linux.</p> <p>For more information, see <a href="#">“Using NetWare Core Protocol to Connect from Windows to an OES Linux Server”</a> in the <i>GroupWise 2012 Administration Guide</i>.</p>

---

Operating System	Connection Method
SUSE Linux Enterprise Server (SLES)	<p>Use Samba to create a Windows share on the Linux server that will be visible from Windows just as a folder on another Windows server would be. For instructions on setting up a Samba share, see <a href="#">“Using Samba to Connect from Windows to a SLES Server”</a> in the <i>GroupWise 2012 Administration Guide</i>.</p> <p>From a Windows workstation or server, you can now use the Windows Map Network Drive feature to map a drive to the folder on your Linux server.</p>

## 10.1.2 Accessing a Domain or Post Office on Linux from Windows ConsoleOne

After you have made the Linux server visible from Windows:

- 1 Map a drive to the domain folder on the Linux server.
- 2 In Windows ConsoleOne, click *Tools > GroupWise System Operations > Select Domain*.
- 3 Browse to and select the domain folder, then click *OK*.

You can now use Windows ConsoleOne to administer all GroupWise objects that belong to the domain that is located on Linux.

## 10.2 Using Linux ConsoleOne to Access Domains and Post Offices on NetWare or Windows

In order for you to be able to use ConsoleOne on Linux to administer GroupWise domains, post offices, and agents that are located on NetWare or Windows, the NetWare or Windows servers where the domains, post offices, and agents are located must be accessible from Linux.

- [Section 10.2.1, “Making a NetWare or Windows Server Visible from Linux,”](#) on page 68
- [Section 10.2.2, “Accessing a Domain or Post Office on NetWare or Windows from Linux ConsoleOne,”](#) on page 69

### 10.2.1 Making a NetWare or Windows Server Visible from Linux

To make a NetWare or Windows server visible from Linux, you mount the folder you need to access as a Linux file system.

Operating System	Connection Method
------------------	-------------------

NetWare:	<pre>mount -t ncpfs NetWare_server_full_DNS_name_or_IP_address /Linux_mount_location/mount_point_folder -o user=fully_qualified_user_name -o ipserver=NetWare_server_full_DNS_name</pre>
----------	--

A NetWare server full DNS name should have the format of `mail2.provo.corporate.com`. A fully qualified user name should have the format of `Admin.Users.Corporate`. A typical Linux mount location would be `/mnt`.

You can also use Novell Remote Manager (NRM) to create the NCP mount.

---

Operating System	Connection Method
------------------	-------------------

---

```
Windows: mount -t smbfs //Windows_server_name_or_IP_address/sharename
          /Linux_mount_location/mount_point_folder
          -o username=Windows_user_name
```

To use this command, the WINS protocol must be functioning properly on your network. The specified Windows user must have sufficient rights to access the post office folder.

---

## 10.2.2 Accessing a Domain or Post Office on NetWare or Windows from Linux ConsoleOne

After you have made the NetWare or Windows server visible from Linux:

- 1 Mount the domain folder to the Linux server.
- 2 In Linux ConsoleOne, authenticate to the eDirectory tree where the Domain object is located.
- 3 Click *Tools > GroupWise System Operations > Select Domain*.
- 4 Browse to and select the domain folder, then click *OK*.

You can now use Linux ConsoleOne to administer all GroupWise objects that belong to the domain that is located on NetWare or Windows.

## 10.3 Migrating eDirectory to Linux

ConsoleOne modifies information stored in eDirectory. Novell eDirectory is available on NetWare, Linux, and Windows. eDirectory can be in use on any of these platforms when you are migrating your GroupWise system to Linux.

As part of the migration process, you might want to migrate eDirectory to Linux. Step-by-step instructions for migrating eDirectory to Linux are beyond the scope of the *GroupWise Installation Guide*, but the following documentation can provide assistance:

- ♦ If you are migrating to OES Linux, review *Consolidating Data to OES Linux* and *Migrating Data from NetWare Servers* in the *Novell Server Consolidation and Migration Toolkit Administration Guide* on the [Open Enterprise Server 11 website](http://www.novell.com/documentation/oes11/). (<http://www.novell.com/documentation/oes11/>).
- ♦ For situations not covered in the above guide, the eDirectory migration process includes installing eDirectory on Linux, creating an eDirectory replica on one or more Linux servers, and ultimately making one of the Linux replicas the master replica so that you can phase out the replicas on other platforms. For guidance, see the documentation for your version of eDirectory:
  - ♦ eDirectory 8.8 (<https://www.netiq.com/documentation/edir88/>)
  - ♦ eDirectory 8.7.3 (<http://www.novell.com/documentation/edir873/>)



---

# 11 Manually Migrating a Post Office and Its POA to Linux

Manually migrating a post office and its POA to Linux includes copying folder structures to Linux, installing the POA software on Linux, and updating configuration information in ConsoleOne.

- ♦ [Section 11.1, “Preparing for the Post Office Migration,” on page 71](#)
- ♦ [Section 11.2, “Performing the Post Office Migration,” on page 72](#)
- ♦ [Section 11.3, “Reconfiguring the Post Office in ConsoleOne,” on page 75](#)
- ♦ [Section 11.4, “Finalizing the Post Office Migration,” on page 76](#)

## 11.1 Preparing for the Post Office Migration

- 1 On the Linux server, become `root` in a terminal window.
- 2 Check the Linux server for adequate disk space for your backup solution of choice.

If you want to use the GroupWise Database Copy utility (DBCOPY), you create a copy of the post office and then back up the copy, which requires double the post office size in disk space. For instructions, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ♦ GroupWise 2012: [“GroupWise Database Copy Utility”](#)
- ♦ GroupWise 8: [“GroupWise Database Copy Utility”](#)

If you want to use the GroupWise Target Service Agent (TSAFSGW), this extra disk space is not required. However, having a recent complete online backup available can be helpful in a variety of circumstances. For instructions, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ♦ GroupWise 2012: The GroupWise Target Service Agent is no longer available.
- ♦ GroupWise 8: [“GroupWise Target Service Agent”](#)

- 3 Make the Linux server visible from Windows.

This is necessary in order to perform administration tasks from Windows ConsoleOne during the post office migration process. For Linux server configurations to accomplish this, see [Section 10.1.1, “Making a Linux Server Visible from Windows,” on page 67](#).

- 4 Make the NetWare or Windows server visible from Linux.

This is necessary in order to use the Linux version of the GroupWise Database Copy utility (DBCOPY) to copy the post office folder and its contents to the Linux server. The Linux version of DBCOPY includes switches specialized for the post office migration process. For `mount` commands, see [Section 10.2.1, “Making a NetWare or Windows Server Visible from Linux,” on page 68](#).

- 5 In a location on the Linux server that is accessible from Windows, create a new folder for your GroupWise system into which you plan to copy the post office folder. For example:

```
mkdir gwsystem
```

- 6 Install the GroupWise Database Copy utility (DBCOPY) as described in the *GroupWise Administration Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: “[GroupWise Database Copy Utility](#)”
  - ♦ GroupWise 8: “[GroupWise Database Copy Utility](#)”
- 7 Install GroupWise Check (GWCheck) as described in the *GroupWise Administration Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: “[GroupWise Check](#)”
  - ♦ GroupWise 8: “[GroupWise Check](#)”
- 8 Continue with [Performing the Post Office Migration](#).

## 11.2 Performing the Post Office Migration

In order to reduce the amount of time during which users cannot access their GroupWise mailboxes during the post office migration process, the post office data is copied twice. During the first copy, the POA is allowed to continue running and users can continue working. Because users are still accessing their mailboxes, some files are modified after being copied, thus necessitating the second copy of the files. For the second copy, the POA is stopped and users cannot access their Online mailboxes. However, only the modified files are copied, so the second copy procedure finishes much more quickly.

- 1 In the `/opt/novell/groupwise/agents/bin` folder, use DBCopy to copy the post office folder from the NetWare or Windows server to the new folder on the Linux server.

```
./dbcopy -m -f -p /post_office_folder /destination_folder
```

The `-m` switch indicates that DBCopy is being used for migration to Linux. This ensures that all folder names and file names are in lower case.

The `-f` switch indicates that this is the first pass of the migration process, during which the post office queue folders (`wpcsin` and `wpcout`) are not copied.

---

**NOTE:** If you are migrating a large and active post office, you can run DBCopy with the `-f` switch multiple times as you work towards the final copy.

---

The `-p` switch indicates that you are migrating a post office.

The `post_office_folder` variable includes the Linux mount location (for example, `/mnt`), the mount point folder, and the full path to the post office folder on the NetWare or Windows server.

The `destination_folder` variable is the folder you created on the Linux server in [Step 5](#) in the previous section.

DBCOPY creates a log file named `mmddgwbk.nnn`. The first four characters represent the date. A three-digit extension allows for multiple log files created on the same day. The log file is created at the root of the destination post office folder. Include the `-v` switch in the `dbcopy` command to enable verbose logging for the post office migration.

DBCOPY is typically used for backing up your GroupWise system, but when you use the `-m` switch to migrate a post office to Linux, it changes folder names to lowercase as required on Linux and copies the message queue folders as well as the GroupWise databases in the post office.

This initial copy operation might require a substantial amount of time, but users are still able to access their mailboxes. Use the fastest network connection available for this copy operation.



- 2 (Conditional) If your Linux environment includes the X Window System, run the GroupWise Installation program to install the Linux POA for the post office, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: [“Installing the Linux GroupWise Agents”](#)
  - ♦ GroupWise 8: [“Installing the GroupWise Agents on Linux”](#)
- 3 (Conditional) If the X Window System is not available, run the text-based GroupWise Installation program, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: [“Installing GroupWise Components Using the Text-Based Installation Program”](#)
  - ♦ GroupWise 8: [“Installing the GroupWise Agents Using the Text-Based Installation Program”](#)

If you need to perform the installation from a remote location, you can use `ssh` to access the remote Linux server. Copy the GroupWise software image or software distribution directory to the server where you have migrated the domain, then run the text-based Installation program to install the POA on the Linux server.

- 4 Change to the `/opt/novell/groupwise/agents/bin` folder.
- 5 (Conditional) If the X Window System is available, enter the following command to start the Linux POA to verify that it runs for the post office in the new location:

```
./gwpoa --show --home /post_office_folder --noconfig
```

The `--show` switch starts the POA with a user interface. The `--home` switch provides the location of the post office. The `--noconfig` switch prevents the POA from reading configuration information from eDirectory; the current eDirectory information is obsolete because the post office has been migrated. For purposes of this initial test, the POA starts with default configuration settings, including using any available IP address.

You should see the POA server console described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:

- ♦ GroupWise 2012: [“Installing GroupWise Components Using the Text-Based Installation Program”](#)
- ♦ GroupWise 8: [“Starting the Linux Agents with a User Interface”](#)

If the POA server console does not appear, review the preceding steps to verify that all steps have been followed. For additional assistance, see the following section in *GroupWise Troubleshooting 2: Solutions to Common Problems* for your version of GroupWise:

- ♦ GroupWise 2012: [“Post Office Agent Problems”](#)
- ♦ GroupWise 8: [“Post Office Agent Problems”](#)

- 6 (Conditional) If the X Window system is not available:
  - 6a If LDAP authentication is not in use, enter the following command to start the Linux POA to verify that it runs for the post office in the new location:

```
./gwpoa --home /post_office_folder --noconfig
        --ip POA_server_IP_address --httpport 7181
```

The `--home` switch provides the location of the post office. The `--noconfig` switch prevents the POA from reading configuration information from eDirectory; the current eDirectory information is obsolete because the post office has been migrated. The `--ip` switch provides the IP address of the server where the POA is running. The `-httpport` switch enables the POA console and provides the port number.

or

If LDAP authentication is enabled for the post office, enter the following command:

```
./gwpoa --home /post_office_folder --noconfig
        --ip POA_server_IP_address --httpport 7181
        --ldapipaddr LDAP_server_IP_address
        --ldapport LDAP_port (if not the default of 389)
```

The `--ldapipaddr` switch provides the location of the LDAP server. The `--ldapport` switch is required only if the LDAP server communicates on a port other than the default of 389.

---

**IMPORTANT:** To simplify this test, do not use an SSL connection to the LDAP server.

---

**6b** Open a web browser and display the following URL:

```
http://POA_server_IP_address:7181
```

You should see the POA console described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:

- ♦ GroupWise 2012: [“Monitoring the Linux GroupWise Agents from Your Web Browser”](#)
- ♦ GroupWise 8: [“Monitoring the Linux GroupWise Agents from Your Web Browser”](#)

If the POA console does not appear, review the preceding steps to verify that all steps have been followed. For additional assistance, see the following section in *GroupWise Troubleshooting 2: Solutions to Common Problems* for your version of GroupWise:

- ♦ GroupWise 2012: [“Post Office Agent Problems”](#)
- ♦ GroupWise 8: [“Post Office Agent Problems”](#)

**7** (Conditional) If you have access to a GroupWise mailbox on the post office you have migrated, start the GroupWise client to further verify the functioning of the POA.

**8** After verifying that the Linux POA runs successfully for the post office in the new location on Linux, stop the Linux POA, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:

- ♦ GroupWise 2012: [“Stopping the Linux GroupWise Agents”](#)
- ♦ GroupWise 8: [“Stopping the Linux GroupWise Agents”](#)

**9** (Conditional) If you are using SSL, create a new certificate file (*file\_name.crt*) and a new key file (*file\_name.key*) for the Linux server and place them in the `/opt/novell/groupwise/agents/bin` folder, which is the default location where the POA looks for certificate files.

For instructions on creating certificate and key files, see the following section of the *GroupWise Administration Guide* for your version of GroupWise:

- ♦ GroupWise 2012: [“Server Certificates and SSL Encryption”](#)
- ♦ GroupWise 8: [“Server Certificates and SSL Encryption”](#)

**10** (Conditional) If you are using LDAP authentication, copy the public root certificate file (*file\_name.der*) from the LDAP server to the `/opt/novell/groupwise/agents/bin` folder.

**11** (Conditional) If you are migrating a post office that has a library with a document storage area located outside the post office folder structure, decide how to handle the document storage area:

- ♦ **Mount the document storage area:** You can leave the document storage area on the NetWare or Windows server. To provide access, permanently mount the storage area folder to the Linux server where the post office is located, using the `mount` command that is provided in [Section 10.2.1, “Making a NetWare or Windows Server Visible from Linux,”](#) on [page 68](#).
- ♦ **Migrate the document storage area:** If you want to eliminate the NetWare or Windows server, you can migrate the document storage area to a convenient location on the Linux server. This also eliminates the need for the permanently mounted file system.

- 12 (Conditional) If you decide to migrate the document storage area, use the following DBCopy command to migrate the document storage area to the Linux server:

```
./dbcopy -m -b /storage_area_folder /destination_folder
```

The `-m` switch indicates that DBCopy is being used for migration to Linux. This ensures that all folder names and file names are in lower case.

The `-b` switch indicates that DBCopy is being used to migrate a documentation storage area containing document BLOB (binary large object) files.

The `storage_area_folder` variable includes the Linux mount location (for example, `/mnt`), the mount point folder, and the full path to the document storage area.

The `destination_folder` variable is the location on the Linux server where you want to migrate the document storage area.

DBCopy creates a log file named `mmd dgwbk.nnn`. The first four characters represent the date. A three-digit extension allows for multiple log files created on the same day. The log file is created at the root of the destination document storage area folder. Include the `-v` switch in the `dbcopy` command to enable verbose logging for the storage area migration.

- 13 Notify users that they must exit the GroupWise client unless they are running in Caching mode. Users in Caching mode do not need access to the post office in order to continue using GroupWise. However, they cannot send and receive new messages while the POA is not running.
- 14 Continue with [Reconfiguring the Post Office in ConsoleOne](#).

## 11.3 Reconfiguring the Post Office in ConsoleOne

If the connection between Linux and Windows is set up correctly, as described in [Step 3 in Section 11.1, "Preparing for the Post Office Migration," on page 71](#), you can use Windows ConsoleOne to perform the reconfiguration of the post office. You can also use Linux ConsoleOne if desired.

- 1 In ConsoleOne, disable logins to the post office:
  - 1a Browse to and right-click the Post Office object, then click *Properties*.
  - 1b Click *GroupWise > Client Access Settings*.
  - 1c Select *Disable Logins*, then click *Apply* to save the setting.
- 2 Update the configuration information for the POA:
  - 2a Browse to and right-click the POA object for the post office, then click *Properties*.
  - 2b Click *GroupWise > Identification*.
  - 2c In the *Platform* field, ensure that *Linux* is selected.
  - 2d Display the Network Address property page of the POA object.
  - 2e In the *TCP/IP Address* field, specify the IP address of the Linux server.
  - 2f Display the Log Settings property page of the POA object.
  - 2g Ensure that the *Log File Path* field is empty so that the POA on Linux creates its log files in the default location (`/var/log/novell/groupwise/post_office_name.poa`) on the Linux server.
  - 2h Click *OK* to save the new configuration information for the POA.

- 3 (Conditional) If you are using SSL, update the location for the certificate and key files:
  - 3a Display the *SSL Settings* property page of the POA object.
  - 3b Browse to and select the certificate file and the key file that you created for the Linux server in [Step 9 in Section 11.2, “Performing the Post Office Migration,” on page 72.](#)
  - 3c Click *OK* to save the SSL information for the POA.
- 4 (Conditional) If you migrated a document storage area to the Linux server in [Step 11 in Section 11.2, “Performing the Post Office Migration,” on page 72,](#) update the location of the document storage area:
  - 4a Browse to and right-click the Library object, then click *Properties*.
  - 4b Click *GroupWise > Storage Areas*.
  - 4c Select the storage area that you have migrated, then click *Edit*.
  - 4d In the *Linux Path* field, provide the full path to the storage area from the point of view of the POA running on the Linux server.
  - 4e Click *OK* twice to save the storage area information.
- 5 Update the location information for the post office:
  - 5a Display the *Identification* property page of the Post Office object.
  - 5b In the *UNC Path* field, change the path to the location on the Linux server where you copied the post office. For example:
 

```
\\linuxsvr3\gwsystem\research
```

For a Linux server, ConsoleOne interprets the UNC path as a Linux path. Do not put a Linux path with front slashes in the UNC Path field, because backslashes are expected.
  - 5c Click *OK* to save the new path information for the post office.
- 6 Check the status of the link between the POA still running on NetWare or Windows and the MTA it communicates with:
  - 6a At the MTA server console, use *Options > Configuration Status*.

or

At the MTA console, look on the Links page.

After the ConsoleOne updates that you have just made are processed by the MTA, including the post office location change, the link changes to *Closed*. The status must show as *Closed* before you finalize the migration.
- 7 Continue with [Finalizing the Post Office Migration](#).

## 11.4 Finalizing the Post Office Migration

- 1 On the NetWare or Windows server, stop the POA for the post office. If multiple POAs are currently running for the post office, stop all POAs.  
GroupWise users can no longer access their Online mailboxes.
- 2 On the Linux server, run DBCopy again to copy the post office:

```
./dbcoppy -m -s -p /post_office_folder /destination_folder
```

The *-s* switch indicates that this is the second pass of the migration process, during which the post office queue folders (*wpcsin* and *wpcout*) are copied. The second DBCopy process should be substantially shorter than the first one.

- 3 (Conditional) If you migrated a document storage area to the Linux server in [Step 11 in Section 11.2, “Performing the Post Office Migration,” on page 72](#), run DBCopy again to copy the document storage area and include files modified since the first copy:

```
./dbcopy -m -i mm-dd-yyyy -b /storage_area_folder /destination_folder
```

This copies only the files that have been modified since you first copied the document storage area, like an incremental backup

- 4 (Conditional) If your GroupWise system includes a GWIA that is used for POP and IMAP email clients, check the link between the GWIA and the post office:
- 4a In ConsoleOne, right-click the GWIA object, then click *Properties*.
  - 4b Click *Post Office Links*.
  - 4c Ensure that the link shows the correct IP address where the Linux POA for the migrated post office is now running.
- 5 (Conditional) If your GroupWise system includes the WebAccess Agent, check the link between the WebAccess Agent and the migrated post office:
- 5a In ConsoleOne, right-click the WebAccess Agent object, then click *Properties*.
  - 5b Click *Post Office Links*.
  - 5c Ensure that the link shows the correct IP address where the Linux POA for the migrated post office is now running.
- 6 Start the Linux POA with or without a user interface, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
- ♦ [“Installing GroupWise Components Using the Text-Based Installation Program”](#) GroupWise 2012:
  - ♦ GroupWise 8: [“Starting the Linux Agents with a User Interface”](#) or [“Starting the Linux GroupWise Agents as Daemons”](#)
- 7 Enable user logins for the post office, as described in the following section of the *GroupWise Administration Guide* for your version of GroupWise.
- ♦ GroupWise 2012: [“Disabling and Enabling GroupWise Accounts”](#)
  - ♦ GroupWise 8: [“Disabling and Enabling GroupWise Accounts”](#)
- 8 (Conditional) If necessary, provide GroupWise users with the new IP address where the Linux POA is now running, so that they can start GroupWise again and access their Online mailboxes on the Linux server.
- If you are running a GroupWise name server, users are automatically redirected to the new IP address when they start GroupWise, as described in the following section of the *GroupWise Administration Guide* for your version of GroupWise.
- ♦ GroupWise 2012: [“Simplifying Client/Server Access with a GroupWise Name Server”](#)
  - ♦ GroupWise 8: [“Simplifying Client/Server Access with a GroupWise Name Server”](#)
- 9 When the Linux POA is running smoothly for the new post office location, delete the old post office folder structure from the NetWare or Windows server.
- 10 (Conditional) If you migrated a document storage area to the Linux server in [Step 11 in Section 11.2, “Performing the Post Office Migration,” on page 72](#), delete the old document storage area on the NetWare or Windows server.
- 11 Set up a backup procedure for the post office in its new location on Linux.

If you want to use the GroupWise Database Copy utility (DBCOPY), you create a copy of the post office and then back up the copy, which requires double the post office size in disk space. For instructions, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ◆ GroupWise 2012: “[GroupWise Database Copy Utility](#)”
- ◆ GroupWise 8: “[GroupWise Database Copy Utility](#)”

If you want to use the GroupWise Target Service Agent (TSAFSGW), this extra disk space is not required. However, having a recent complete online backup available can be helpful in a variety of circumstances. For instructions, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ◆ GroupWise 2012: The GroupWise Target Service Agent is no longer available.
- ◆ GroupWise 8: “[GroupWise Target Service Agent](#)”

- 12 (Optional) Uninstall the old POA software to reclaim disk space on the NetWare or Windows server.

See [Chapter 9, “What’s Next,”](#) on page 63.

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# 12 Manually Migrating a Domain and Its MTA to Linux

Manually migrating a domain and its MTA to Linux includes copying folder structures to Linux, installing the MTA software on Linux, and updating configuration information in ConsoleOne. This section describes the manual steps involved in the process.

- ♦ [Section 12.1, “Preparing for the Domain Migration,” on page 79](#)
- ♦ [Section 12.2, “Performing the Domain Migration,” on page 80](#)
- ♦ [Section 12.3, “Reconfiguring the Domain in ConsoleOne,” on page 82](#)
- ♦ [Section 12.4, “Finalizing the Domain Migration,” on page 83](#)

## 12.1 Preparing for the Domain Migration

- 1 On the Linux server, become `root` in a terminal window.
- 2 Check the Linux server for adequate disk space for your backup solution of choice.

If you want to use the GroupWise Database Copy utility (DBCOPY), you create a copy of the post office and then back up the copy, which requires double the post office size in disk space. For instructions, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ♦ GroupWise 2012: [“GroupWise Database Copy Utility”](#)
- ♦ GroupWise 8: [“GroupWise Database Copy Utility”](#)

If you want to use the GroupWise Target Service Agent (TSAFSGW), this extra disk space is not required. However, having a recent complete online backup available can be helpful in a variety of circumstances. For instructions, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ♦ GroupWise 2012: The GroupWise Target Service Agent is no longer available.
- ♦ GroupWise 8: [“GroupWise Target Service Agent”](#)

- 3 Make the Linux server visible from Windows.

This is necessary in order to perform administration tasks from Windows ConsoleOne during the domain migration process. For Linux server configurations to accomplish this, see [Section 10.1.1, “Making a Linux Server Visible from Windows,” on page 67](#).

- 4 Make the NetWare or Windows server visible from Linux.

This is necessary in order to use the Linux version of the GroupWise Database Copy utility (DBCOPY) to copy the domain folder and its contents to the Linux server. The Linux version of DBCOPY includes switches specialized for the domain migration process. For `mount` commands, see [Section 10.2.1, “Making a NetWare or Windows Server Visible from Linux,” on page 68](#).

- 5 In a location on the Linux server that is accessible from Windows, create a new folder for your GroupWise system into which you plan to copy the domain folder. For example:

```
mkdir gwsystem
```



- 6 Install the GroupWise Database Copy utility (DBCOPY) as described in the following section in the *GroupWise Administration Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: “[Using DBCopy on Linux](#)”
  - ♦ GroupWise 8: “[Using DBCopy on Linux](#)”
- 7 Continue with [Performing the Domain Migration](#).

## 12.2 Performing the Domain Migration

- 1 On the NetWare or Windows server, stop the MTA for the domain.
- 2 (Conditional) If the domain has gateways, stop the gateways.
- 3 In the `/opt/novell/groupwise/agents/bin` folder, use DBCOPY to copy the domain folder from the NetWare or Windows server to the new folder on the Linux server.

```
./dbcopy -m -d /domain_folder /destination_folder
```

The `-m` switch indicates that DBCOPY is being used for migration to Linux. This ensures that all folder names and file names are in lower case.

The `-d` switch indicates that you are migrating a domain.

The `domain_folder` variable includes the Linux mount location (for example, `/mnt`), the mount point folder, and the full path to the domain folder on the NetWare or Windows server.

The `destination_folder` variable is the folder you created on the Linux server in [Step 5 in Section 12.1, “Preparing for the Domain Migration,” on page 79](#).

DBCOPY creates a log file named `mmddgwbk.nnn`. The first four characters represent the date. A three-digit extension allows for multiple log files created on the same day. The log file is created at the root of the destination domain folder. Include the `-v` switch in the `dbcopy` command to enable verbose logging for the domain migration.

DBCOPY is typically used for backing up your GroupWise system, but when you use the `-m` switch to migrate a domain, it changes folder names to lowercase as required on Linux and copies the message queue folders as well as the GroupWise databases in the domain.

- 4 (Conditional) If you are using the `/work` startup switch to place the MTA working folder (`mslocal`) outside the domain folder structure, relocate the folder and rename files:
  - 4a Copy the `mslocal` folder to the Linux server so that no messages en route between users are lost.
  - 4b In the `mslocal` folder structure, rename files and folders that contain uppercase letters to all lowercase.
- 5 (Conditional) If your Linux environment includes the X Window System, run the GroupWise Installation program to install the Linux MTA for the domain, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: “[Installing the Linux GroupWise Agents](#)”
  - ♦ GroupWise 8: “[Installing the GroupWise Agents on Linux](#)”
- 6 (Conditional) If the X Window System is not available, run the text-based GroupWise Installation program, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: “[Installing GroupWise Components Using the Text-Based Installation Program](#)”
  - ♦ GroupWise 8: “[Installing the GroupWise Agents Using the Text-Based Installation Program](#)”



If you need to perform the installation from a remote location, you can use `ssh` to access the remote Linux server. Copy the GroupWise software image or software distribution directory to the server where you have migrated the domain, then run the text-based Installation program to install the MTA on the Linux server.

**7** Change to the `/opt/novell/groupwise/agents/bin` folder.

**8** (Conditional) If the X Window System is available, enter the following command to start the Linux MTA to verify that it runs for the domain in the new location:

```
./gwmta --show --home /domain_folder
```

The `--show` switch starts the MTA with a user interface. The `--home` switch provides the location of the domain.

You should see the MTA server console described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:

- ◆ GroupWise 2012: [“Installing GroupWise Components Using the Text-Based Installation Program”](#)
- ◆ GroupWise 8: [“Starting the Linux Agents with a User Interface”](#)

If the MTA server console does not appear, review the preceding steps to verify that all steps have been followed. For additional assistance, see the following section of *GroupWise Troubleshooting 2: Solutions to Common Problems* for your version of GroupWise:

- ◆ GroupWise 2012: [“Message Transfer Agent Problems”](#)
- ◆ GroupWise 8: [“Message Transfer Agent Problems”](#)

**9** (Conditional) If the X Window system is not available:

**9a** Enter the following command to start the Linux MTA to verify that it runs for the domain in the new location:

```
./gwmta --home /domain_folder --ip mta_server_ip_address  
--httpport 7180
```

The `--home` switch provides the location of the domain. The `--ip` switch provides the IP address of the server where the MTA is running. The `-httpport` switch enables the MTA console and provides the port number.

To simplify this test, do not use an SSL connection.

**9b** In an appropriate environment, open a web browser and display the following URL:

```
http://mta_server_ip_address:7180
```

You should see the MTA console described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:

- ◆ GroupWise 2012: [“Monitoring the Linux GroupWise Agents from Your Web Browser”](#)
- ◆ GroupWise 8: [“Monitoring the Linux GroupWise Agents from Your Web Browser”](#)

If the MTA console does not appear, review the preceding steps to verify that all steps have been followed. For additional assistance, see the following section of *GroupWise Troubleshooting 2: Solutions to Common Problems* for your version of GroupWise:

- ◆ GroupWise 2012: [“Message Transfer Agent Problems”](#)
- ◆ GroupWise 8: [“Message Transfer Agent Problems”](#)

- 10 After verifying that the MTA starts successfully for the domain in the new location on Linux, stop the MTA, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: “[Stopping the Linux GroupWise Agents](#)”
  - ♦ GroupWise 8: “[Stopping the Linux GroupWise Agents](#)”
- 11 (Conditional) If you plan to use SSL on Linux, create new certificate and key files for the Linux server and place them in the `/opt/novell/groupwise/agents/bin` folder, the default location where the MTA looks for certificate and key files.
 

For instructions on creating certificate and key files, see the following section of the *GroupWise Administration Guide* for your version of GroupWise:

  - ♦ GroupWise 2012: “[Server Certificates and SSL Encryption](#)”
  - ♦ GroupWise 8: “[Server Certificates and SSL Encryption](#)”
- 12 Continue with [Reconfiguring the Domain in ConsoleOne](#).

## 12.3 Reconfiguring the Domain in ConsoleOne

If the connection between Linux and Windows is set up correctly, as described in [Step 3](#) in [Section 12.1, “Preparing for the Domain Migration,”](#) on page 79, you can use Windows ConsoleOne to perform the reconfiguration of the post office. You can also use Linux ConsoleOne if desired.

- 1 In ConsoleOne, update the location information for the domain:
  - 1a Browse to and right-click the Domain object, then click *Properties*.
  - 1b Click *GroupWise > Identification*.
  - 1c In the *UNC Path* field, change the path to the location on the Linux server where you migrated the domain. For example:
 

```
\\linuxsvr3\gwsystem\provo3
```

For a Linux server, ConsoleOne interprets the UNC path as a Linux path. Do not put a Linux path in the *UNC Path* field.
  - 1d Click *OK* to save the new location information for the domain.
- 2 Update the configuration information for the MTA:
  - 2a Browse to and right-click the MTA object for the domain, then click *Properties*.
  - 2b Click *GroupWise > Identification*.
  - 2c In the *Platform* field, ensure that *Linux* is selected.
  - 2d Display the Network Address property page of the MTA object for the domain.
  - 2e In the *Network Address* field, specify the IP address of the Linux server.
  - 2f Click *OK* to save the new configuration information for the MTA.
- 3 (Conditional) If the domain that you migrated to Linux has gateways associated with it, reselect each gateway folder:
  - 3a Browse to and select the Domain object.
  - 3b Right-click a Gateway object, then click *Properties*.
  - 3c Click *GroupWise > Identification*.
  - 3d In the *Subdirectory* field, reselect the gateway folder.
 

If you do not have any gateway subfolders to choose from, you have not successfully completed [Step 1](#).

- 3e Click *OK* to save the gateway folder information.
  - 3f Repeat [Step 3a](#) through [Step 3e](#) for each gateway that belongs to the domain.
- 4 Continue with [Finalizing the Domain Migration](#).

## 12.4 Finalizing the Domain Migration

- 1 Start the Linux MTA with or without a user interface, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ [GroupWise 2012: “Installing GroupWise Components Using the Text-Based Installation Program”](#)
  - ♦ [GroupWise 8: “Starting the Linux Agents with a User Interface”](#) or [“Starting the Linux GroupWise Agents as Daemons”](#)
- 2 At the MTA server console or console, check to ensure that all links between the new Linux MTA and other domains and post offices are open.

If you have closed links, see the following section of *GroupWise Troubleshooting 2: Solutions to Common Problems* for your version of GroupWise:

  - ♦ [GroupWise 2012: “MTA Status Box Shows a Closed Location”](#)
  - ♦ [GroupWise 8: “MTA Status Box Shows a Closed Location”](#)
- 3 (Conditional) If the domain has gateways, start each gateway.
- 4 Set up a backup procedure for the domain in its new location on Linux, as described in the following sections in the *GroupWise Administration Guide* for your version of GroupWise:
  - ♦ [GroupWise 2012: “GroupWise Database Copy Utility”](#)
  - ♦ [GroupWise 8: “GroupWise Target Service Agent”](#) and [“GroupWise Database Copy Utility”](#)
- 5 (Conditional) If the domain has a GWIA that is running on the same NetWare or Windows server where the domain folder was previously located, migrate the GWIA to the Linux server where the domain folder is now located. See [Chapter 13, “Manually Migrating the Internet Agent to Linux,” on page 85](#).

After the domain has been migrated to Linux, the NetWare or Windows GWIA can continue receiving and queuing Internet messages, but it cannot pass them into the GroupWise system until the GWIA has been migrated to Linux along with its domain and MTA.
- 6 (Conditional) If the domain has a WebAccess Agent that is running on the same NetWare or Windows server where the domain folder was previously located, consider migrating the WebAccess Agent to the Linux server where the domain folder is now located. See [Chapter 14, “Manually Migrating WebAccess to Linux,” on page 89](#).

Because it is common for the WebAccess Agent to run on a different server from where its domain is located, there is no urgency about migrating it to Linux.
- 7 When the Linux MTA is running smoothly for the new domain location, and other GroupWise agents belonging to the domain have been migrated to Linux as needed, delete the old domain folder structure (and if applicable, the `mslocal` folder structure) from the NetWare or Windows server.
- 8 (Optional) Uninstall the old MTA software to reclaim disk space on the NetWare or Windows server.

See [Chapter 9, “What’s Next,” on page 63](#).



---

# 13 Manually Migrating the Internet Agent to Linux

Manually migrating the Internet Agent (GWIA) to Linux includes migrating its domain to Linux, then installing the GWIA software on Linux, updating GWIA configuration information in ConsoleOne, and copying queued Internet messages from the NetWare or Windows server to the Linux server.

- 1 Migrate the GWIA's domain to Linux. See [Chapter 12, "Manually Migrating a Domain and Its MTA to Linux,"](#) on page 79.

If you are using SSL, migrating the domain and its MTA includes creating a new certificate file (*file\_name.crt*) and a new key file (*file\_name.key*) for the Linux server and placing them in the `/opt/novell/groupwise/agents/bin` folder, as described in [Step 11](#) in [Section 12.2, "Performing the Domain Migration,"](#) on page 80.

- 2 On the Linux server, become `root` in a terminal window.
- 3 Make the Linux server visible from Windows.

This is necessary in order to perform administration tasks from Windows ConsoleOne during the GWIA configuration process. For Linux server configurations to accomplish this, see [Section 10.1.1, "Making a Linux Server Visible from Windows,"](#) on page 67.

- 4 Install and configure the Linux GWIA, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:

- ♦ GroupWise 2012: "[Installing the GroupWise Internet Agent](#)"
- ♦ GroupWise 8: "[Installing the GroupWise Internet Agent](#)"

- 5 In ConsoleOne, update the GWIA property pages for the new location of the GWIA:

**5a** On the Identification property page of the *GroupWise* tab, set *Platform* to *Linux*, then click *Apply*.

**5b** On the Network Address property page of the *GroupWise* tab, specify the IP address or DNS hostname of the Linux server, then click *Apply*.

**5c** On the Log Settings property page of the *GroupWise* tab, if you have specified a folder path in the *Log File Path* field, delete the NetWare or Windows path, then click *Apply*.

On Linux, GWIA log files are stored in the `/var/log/novell/groupwise/domain.gwia`.

**5d** On the SSL Settings property page of the *GroupWise* tab, if you have specified full paths in the *Certificate File* and *SSL Key File* fields, delete the NetWare or Windows path, then click *Apply*.

On Linux, the GWIA looks in the `/opt/novell/groupwise/agents/bin` folder for certificate and key files by default.

**5e** On the *Server Directories* tab, update the *Conversion Directory* and *SMTP Queues Directory* fields with corresponding Linux locations.

- 6 On the NetWare or Windows server, stop the GWIA.

Internet messages cannot be received into your GroupWise system while the GWIA is stopped.

- 7 From Windows, copy the queued Internet messages in the GWIA SMTP queues folder on the NetWare or Windows server to the Linux server.

---

**NOTE:** Because of [Step 3](#) above, the Linux server is already visible from Windows. If you prefer to perform the copy operation from Linux, you must first make the NetWare or Windows server visible from Linux. See [Section 10.2.1, “Making a NetWare or Windows Server Visible from Linux,”](#) on page 68.

---

The default GWIA SMTP queues folder is `domain/wpgate/gwia`. In this folder, four queue subfolders are used for SMTP processing: `send`, `receive`, `result`, and `defer`. When you migrated the domain to Linux, DBCopy copied these queue folders and their contents to the Linux server along with the rest of the domain folder structure, but additional Internet messages might have arrived since that time. Therefore, you need to copy these queue folders again now that the GWIA has been stopped.

If you used the *SMTP Queues Directory* field on the Server Directories property page of the GWIA object in ConsoleOne or the `/dhome` switch in the `gwia.cfg` file to place the queue folders outside the domain folder structure, then DBCopy did not copy the queue folders. Copy the queue folders from the NetWare or Windows server to their default location in the domain folder structure or to another location of your choice on the Linux server. If you do not copy them to their default location, update the *SMTP Queues Directory* setting with the full path to the SMTP queues folder.

- 8 (Conditional) If Sendmail, Postfix, or any other SMTP daemon is enabled on your Linux server, disable it before starting the GWIA.

For example, use the following commands to stop and disable Postfix:

```
/etc/init.d/postfix stop
chkconfig postfix off
```

As an alternative, you can configure the GWIA to bind exclusively to the server IP address, so that the GWIA IP address does not conflict with the default Postfix IP address of `127.0.0.1` (the loopback address).

For instructions, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ◆ GroupWise 2012: [“Binding the GWIA to a Specific IP Address”](#)
  - ◆ GroupWise 8: [“Binding the Internet Agent to a Specific IP Address”](#)
- 9 (Conditional) If you want to use the GWIA for POP3 and IMAP4 mail, ensure no POP3 or IMAP4 daemons are running on your Linux server.
  - 10 Ensure that the MTA for the domain is running.
  - 11 Start the Linux GWIA with or without a user interface, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
    - ◆ GroupWise 2012: [“Linux: Starting the GWIA”](#)
    - ◆ GroupWise 8: [“Linux: Starting the Internet Agent”](#)

If the GWIA server console does not appear, or the GWIA console is not available in your web browser, review the preceding steps to verify that all steps have been followed. For additional assistance, see the following section of *GroupWise Troubleshooting 2: Solutions to Common Problems* for your version of GroupWise:

- ◆ GroupWise 2012: [“Internet Agent Problems”](#)
  - ◆ GroupWise 8: [“Internet Agent Problems”](#)
- 12 When the Linux GWIA is running smoothly for the new domain location, and other GroupWise agents belonging to the domain have been migrated to Linux as needed, delete the old domain folder structure from the NetWare or Windows server.
  - 13 (Conditional) If the SMTP queue folder was located outside the domain folder structure, delete this folder and its contents from the NetWare or Windows server.

- 14 (Optional) Uninstall the old GWIA software to reclaim disk space on the NetWare or Windows server.

See [Chapter 9, "What's Next,"](#) on page 63.





---

# 14 Manually Migrating WebAccess to Linux

You can migrate just the WebAccess Agent, just the WebAccess Application, or both from NetWare or Windows to Linux. The process includes installing the WebAccess software on Linux, then transferring configuration information from old eDirectory objects to new eDirectory objects and from old startup files and configuration files on NetWare or Windows to new startup files and configuration files on Linux.

- ♦ [Section 14.1, “Manually Migrating the WebAccess Agent to Linux \(GroupWise 8 Only\),” on page 89](#)
- ♦ [Section 14.2, “Manually Migrating the WebAccess and WebPublisher Applications to Linux,” on page 91](#)

---

**IMPORTANT:** If you are upgrading to GroupWise 2014 as well as migrating to a different platform, you do not need to migrate the WebAccess Agent, because the WebAccess Agent is not part of GroupWise 2014.

---

## 14.1 Manually Migrating the WebAccess Agent to Linux (GroupWise 8 Only)

---

**NOTE:** This section does not apply to GroupWise 2012 or GroupWise 2014. These GroupWise versions do not have the WebAccess Agent.

---

- 1 On the Linux server, become `root` in a terminal window.
- 2 (Conditional) If you are installing the WebAccess Agent on a server other than the one where its domain is located, provide access to the domain folder on the server where you are installing the Linux WebAccess Agent.  
  
If the domain folder is located on another Linux server, use your mount command of choice. If the domain is located on a NetWare or Windows server, see [Section 10.2.1, “Making a NetWare or Windows Server Visible from Linux,” on page 68](#) for suggested mount commands.  
  
As an alternative to a permanent mount, and to provide better performance and stability, you can create a secondary domain and run a Linux MTA on the Linux server local to the WebAccess installation. For instructions, see “[Creating a New Domain](#)” in the *GroupWise 8 Administration Guide*.
- 3 (Conditional) If your Linux environment includes the X Window System, run the GUI GroupWise Installation program to install the Linux WebAccess Agent software. See “[Installing the Linux WebAccess Agent](#)” in the *GroupWise 8 Administration Guide*.
- 4 (Conditional) If the X Window System is not available, run the text-based GroupWise Installation program instead. See “[Installing the GroupWise Agents Using the Text-Based Installation Program](#)” in the *GroupWise 8 Installation Guide*.

If you need to perform the installation from a remote location, you can use `ssh` to access the remote Linux server. Copy the GroupWise software image or software distribution directory to the server where you have migrated the domain, then run the text-based Installation program to install the WebAccess Agent on the Linux server.

- 5 Configure the WebAccess Agent. See [“Configuring the Linux WebAccess Agent”](#) in the *GroupWise 8 Installation Guide*.
  - 5a On the Gateway Directory page, specify a new name for the WebAccess gateway folder under `wpgate` in the domain folder, so that the old gateway folder and its contents are retained.
  - 5b On the Gateway Object page, specify a new object name, so that the old WebAccess Agent object is retained.
- 6 In ConsoleOne, review the property pages for the old WebAccess Agent object and transfer any settings that you have customized on the old WebAccess Agent object to the new WebAccess Agent object.

---

**IMPORTANT:** The encryption key on the WebAccess Settings page is especially important. Check and transfer it if necessary.

---

- 7 Copy the `commgr.cfg` file from its location under the new WebAccess gateway folder:

`domain_folder/wpgate/new_webaccess_agent_gateway_folder`

to the WebAccess, and optionally WebPublisher, software folders:

`/opt/novell/groupwise/webaccess`  
`/opt/novell/groupwise/webpublisher`

If you plan to run multiple WebAccess Agents for the domain, this step needs to be done only for the primary WebAccess Agent, as listed on the Environment property page of the GroupWise Provider object.

- 8 Review the existing WebAccess Agent startup file:

`old_webaccess_agent_object_name.waa`

located on the NetWare or Windows server in:

NetWare: `sys:\system\webac80a.waa`

Windows: `c:\Program Files\Novell\GroupWise Server\WebAccess\webac80a.waa`

and transfer any customized settings to the new WebAccess Agent startup file:

`new_webaccess_agent_object_name.waa`

located on the following folder on the Linux server:

`/opt/novell/groupwise/agents/share`

- 9 Review the old Document Viewer Agent startup file (`gwdva.dva`) located on the NetWare or Windows server in the same folder with the WebAccess Agent startup file, and transfer any customized settings to the new Document Viewer Agent startup file on the Linux server.
- 10 Start the Linux WebAccess Agent with or without a user interface. See [“Starting the Linux WebAccess Agent”](#) in the *GroupWise 8 Installation Guide*.
 

If the WebAccess Agent server console does not appear, or if the WebAccess Agent console is not available in your web browser, review the preceding steps to verify that all steps have been followed. For additional assistance, see [“WebAccess Agent Problems”](#) in *GroupWise 8 Troubleshooting 2: Solutions to Common Problems*.
- 11 After the new WebAccess Agent is running successfully, replace the old WebAccess Agent with the new WebAccess Agent in the WebAccess Application’s provider list:
  - 11a In ConsoleOne, right-click the GroupWise Provider object, then click *Properties*.
  - 11b In the GroupWise WebAccess Agent Information box, click *Add*.

- 11c Browse to and select the new WebAccess Agent object, then click *OK* to add it to the list of WebAccess Agents.
  - 11d Select the old WebAccess Agent, then click *Delete*.
  - 11e Click *OK* to save the updated WebAccess Agent list.
  - 12 Stop the old WebAccess Agent on the NetWare or Windows server.
  - 13 Delete the old WebAccess Agent object from eDirectory.
  - 14 Delete the old WebAccess Agent gateway folder under `wpgate` in the domain folder.
  - 15 (Optional) Uninstall the old WebAccess Agent software to reclaim disk space on the NetWare or Windows server.
- See [Chapter 9, "What's Next,"](#) on page 63.

## 14.2 Manually Migrating the WebAccess and WebPublisher Applications to Linux

---

**NOTE:** GroupWise 2012 and GroupWise 2014 do not include WebPublisher.

---

- 1 On the Linux server, become `root` in a terminal window.
- 2 Ensure that the Linux server already has Apache and Tomcat configured and running successfully and that you know the full path to the Apache and Tomcat root folders.
- 3 (Conditional) If your Linux environment includes the X Window System, run the GUI GroupWise Installation program to install and configure the Linux WebAccess Application, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: "[Linux: Setting Up GroupWise WebAccess](#)"
  - ♦ GroupWise 8: "[Installing and Configuring the WebAccess Application and WebPublisher Application](#)"
- 4 (Conditional) If the X Window System is not available, run the text-based GroupWise Installation program instead, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: "[Installing GroupWise Components Using the Text-Based Installation Program](#)"
  - ♦ GroupWise 8: "[Installing the GroupWise Agents Using the Text-Based Installation Program](#)"

---

**IMPORTANT:** On the WebAccess Objects page, specify a new context for the WebAccess Application objects, so that the old objects are retained.

---

If you need to perform the installation from a remote location, you can use `ssh` to access the remote Linux server. Copy the GroupWise software image or software distribution directory to the server where you have migrated the domain, then run the text-based Installation program to install the WebAccess Application on the Linux server.

- 5 (Conditional) If you want to use WebPublisher on Linux, perform the manual configuration described in "[Configuring WebPublisher](#)" in the *GroupWise 8 Installation Guide*.
- 6 In ConsoleOne, review the property pages for the old WebAccess Application objects:
  - ♦ GroupWise WebAccess
  - ♦ Novell Speller
  - ♦ LDAP Provider

- ♦ GroupWise Provider
  - ♦ GroupWise Document Provider
- 7 Transfer any settings that you have customized on the old WebAccess Application objects to the new WebAccess Application objects.
  - 8 (Conditional) If you installed WebPublisher, review the property pages of the old GroupWise WebPublisher object, then transfer any settings that you have customized on the old GroupWise WebPublisher object to the new GroupWise WebPublisher object.
  - 9 (Conditional) If you have customized any WebAccess or WebPublisher template files, copy the customized template files from the old web server to the following folders on the Linux web server:

```
/var/opt/novell/gw/WEB-INF/classes/com/novell/webaccess/templates
/var/opt/novell/gw/WEB-INF/classes/com/novell/webpublisher/templates
```

- 10 Stop and then start Apache and Tomcat, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: “[Installing the Linux WebAccess Software](#)”
  - ♦ GroupWise 8: “[Restarting the Web Server](#)”
- 11 Verify that the new WebAccess Application is communicating successfully with the existing WebAccess Agent by accessing your GroupWise mailbox through the WebAccess client:

```
http://new_web_server_address/gw/webacc
```

- 12 To keep users’ existing browser bookmarks from being broken, redirect the old WebAccess and WebPublisher URLs to the new WebAccess and WebPublisher URLs:

- 12a (Conditional) If your old web server was Apache on NetWare:

- 12a1 Change to the `conf` subfolder of the Apache root folder (for example, `\apache2\conf`).

- 12a2 Edit the Apache configuration file for GroupWise.

On NetWare 6, the Apache configuration file is `gwapache.conf`. On NetWare 6.5, the Apache configuration file is `gwapache2.conf`.

- 12a3 Add the following line:

```
redirect permanent /servlet/webacc
                        http://web_server_address/gw/webacc
```

- 12a4 If you use WebPublisher, add the following additional line:

```
redirect permanent /servlet/webpub
                        http://web_server_address/gw/webpub
```

- 12a5 Save the file, then exit the editor.

- 12a6 Restart Apache to put the redirections into effect.

- 12b (Conditional) If your old web server was Internet Information Server (IIS) on Windows:

- 12b1 Change to the `netpub\wwwroot` subfolder of the IIS root folder (for example, `c:\inetpub\wwwroot`).

- 12b2 Create a subfolder named `servlet`.

- 12b3 Under the `servlet` subfolder, create a subfolder named `webacc`.

- 12b4 If you use WebPublisher, create a second subfolder named `webpub`.

- 12b5 In IIS Manager, expand the tree in the left pane to display *Default Web Site* under *Web Sites*.

Under *Default Web Sites*, you should see the `servlet` subfolder you created in [Step 12b2](#)

- 12b6** Expand the `servlet` subfolder to display the `webacc` subfolder (and optionally, the `webpub` subfolder) that you created in [Step 12b3](#).
  - 12b7** Right-click the `webacc` subfolder, then click *Properties*.
  - 12b8** Click *Directory*, select *A Redirection to a URL*, then type `/gw/webacc` in the associated field.
  - 12b9** Select *A Permanent Redirection for This Resource*, then click *OK* to save your changes.
  - 12b10** If you use WebPublisher, repeat [Step 12b7](#) through [Step 12b9](#), using `webpub` in place of `webacc`.
  - 12b11** Restart the IIS web server to put the redirections into effect.
- 13** Notify users of the new WebAccess and WebPublisher URLs so that users can update their browser bookmarks if they want to.
- 14** (Optional) Uninstall the old WebAccess Application software to reclaim disk space on the NetWare or Windows server.

See [Chapter 9, "What's Next,"](#) on page 63.



---

# 15 Manually Migrating Monitor to Linux

As with WebAccess, you can migrate just the Monitor Agent, just the Monitor Application, or both from NetWare or Windows to Linux. The process includes accessing a domain (either local or remote), installing the Monitor software on Linux, copying the Monitor Agent configuration file (`monitor.xml`) from NetWare or Windows to Linux, and modifying the configuration file. For convenience, you can keep the Monitor Application on the same web server as the WebAccess Application.

- ♦ [Section 15.1, “Manually Migrating the Monitor Agent to Linux,” on page 95](#)
- ♦ [Section 15.2, “Manually Migrating the Monitor Application to Linux,” on page 97](#)

---

**NOTE:** Monitor migration is not provided in the Server Migration Utility. It must be done manually.

---

## 15.1 Manually Migrating the Monitor Agent to Linux

- 1 On the Linux server, become `root` in a terminal window.
- 2 Ensure that the web server where the Monitor Application is installed is up and running.
- 3 Provide access to a domain folder and its associated domain database (`wpdomain.db`).  
If the domain folder is located on another Linux server, use your `mount` command of choice. If the domain folder is located on a NetWare or Windows server, see [Section 10.2.1, “Making a NetWare or Windows Server Visible from Linux,” on page 68](#) for suggested mount commands.
- 4 (Conditional) If your Linux environment includes the X Window System, run the GUI GroupWise Installation program to install the Linux WebAccess Agent software, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: [“Installing and Configuring the Linux Monitor Agent”](#)
  - ♦ GroupWise 8: [“Installing the Linux Monitor Agent”](#)
- 5 (Conditional) If the X Window System is not available, run the text-based GroupWise Installation program instead, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: [“Installing GroupWise Components Using the Text-Based Installation Program”](#)
  - ♦ GroupWise 8: [“Installing the GroupWise Agents Using the Text-Based Installation Program”](#)If you need to perform the installation from a remote location, you can use `ssh` to access the remote Linux server. Copy the GroupWise software image or software distribution directory to the server where you have migrated the domain, then run the text-based Installation program to install the Monitor Agent on the Linux server.
- 6 Configure the Linux Monitor Agent, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: [“Installing and Configuring the Linux Monitor Agent”](#)
  - ♦ GroupWise 8: [“Configuring the Linux Monitor Agent”](#)

- 7 Restart the web server, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: [“Installing and Configuring the Linux Monitor Agent”](#)
  - ♦ GroupWise 8: [“Restarting the Web Server”](#)
- 8 Start the Linux Monitor Agent, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: [“Starting the Linux Monitor Agent as a Daemon”](#)
  - ♦ GroupWise 8: [“Starting the Linux Monitor Agent as a Daemon”](#)
- 9 Ensure that the Linux Monitor Agent can communicate with the Monitor Application by viewing the following URL:

`http://web_server_network_address/gwmon/gwmonitor`

If the Monitor console does not appear, review the preceding steps to verify that all steps have been followed. For additional assistance, see the following section of *GroupWise Troubleshooting 2: Solutions to Common Problems* for your version of GroupWise:

- ♦ GroupWise 2012: [“Monitor Agent Problems”](#)
  - ♦ GroupWise 8: [“Monitor Agent Problems”](#)
- 10 Stop the Linux Monitor Agent, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
    - ♦ GroupWise 2012: [“Stopping the Linux GroupWise Agents”](#)
    - ♦ GroupWise 8: [“Stopping the Linux GroupWise Agents”](#)
  - 11 Copy the Monitor Agent configuration file (`monitor.xml`) from its Windows location:
    - ♦ GroupWise 2012: `c:\Program Files\Novell\GroupWise Server\ Monitor`
    - ♦ GroupWise 8: `c:\Program Files\Novell\GroupWise Server\Monitor`
 to its location on Linux:

`/opt/novell/groupwise/agents/share`

- 12 Edit the `monitor.xml` file for its new location:
  - 12a Change the `HOME_PATH` setting to the full path to the domain folder that you made accessible in [Step 3](#).
  - 12b Change the `LOG_PATH` setting to the typical location for Monitor Agent log files on Linux (`/var/log/novell/groupwise/gwmon`).
  - 12c Change the `LOG_ACCOUNTING_PATH` setting to the typical location for Monitor Agent accounting file on Linux (`/var/log/novell/groupwise/gwmon/acct`).
  - 12d Change the `LOG_EDITOR` setting to `" "` (an empty setting).
- 13 Start the Linux Monitor Agent with its new configuration file.
- 14 Ensure that the Linux Monitor Agent can still communicate with the Monitor Application by viewing the Monitor URL for the platform of your web server:
 

`http://web_server_network_address/gwmon/gwmonitor`
- 15 Stop the old Windows Monitor Agent.
- 16 (Optional) Uninstall the old Monitor Agent software to reclaim disk space on the NetWare or Windows server.
 

See [Chapter 9, “What’s Next,”](#) on page 63.



## 15.2 Manually Migrating the Monitor Application to Linux

- 1 On the Linux server, become `root` in a terminal window.
- 2 Ensure that the Linux server already has Apache and Tomcat configured and running successfully and that you know the full path to the Apache and Tomcat root folders.
- 3 (Conditional) If your Linux environment includes the X Window System, run the GUI GroupWise Installation program to install and configure the Linux Monitor Application, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: [“Installing and Configuring the Linux Monitor Application”](#)
  - ♦ GroupWise 8: [“Installing and Configuring the Monitor Application”](#)
- 4 (Conditional) If the X Window System is not available, run the text-based GroupWise Installation program instead, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: [“Installing GroupWise Components Using the Text-Based Installation Program”](#)
  - ♦ GroupWise 8: [“Installing the GroupWise Agents Using the Text-Based Installation Program”](#)

If you need to perform the installation from a remote location, you can use `ssh` to access the remote Linux server. Copy the GroupWise software image or software distribution directory to the server where you have migrated the domain, then run the text-based Installation program to install the Monitor Application on the Linux server.

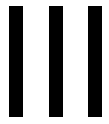
- 5 Stop and then start Apache and Tomcat, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:
  - ♦ GroupWise 2012: [“Installing and Configuring the Linux Monitor Application”](#)
  - ♦ GroupWise 8: [“Restarting the Web Server”](#)
- 6 Verify that the new Monitor Application is communicating successfully with the existing Monitor Agent by viewing the Monitor URL for the platform of your web server:

```
http://web_server_network_address/gwmon/gwmonitor
```

- 7 (Optional) Uninstall the old Monitor Application software to reclaim disk space on the NetWare or Windows server.

See [Chapter 9, “What’s Next,”](#) on page 63.





# In-Place Database Migration

The GroupWise Server Migration Utility helps you migrate your GroupWise system from NetWare or Windows to Linux by copying domains and post offices from one server to another. If your domains and post offices are located on a SAN, you do not need to copy the domains and post office from one location to another. You can convert the domain and post office folder structures to the format used on Linux, so that the same physical location can be mounted for use on a different operating system.

The folder structure format used on NetWare and Windows uses mixed-case file names and folder names. Because Linux is a case-sensitive operating system, folder structures originally created on Linux use only lowercase file names and folder names. Therefore, folder structures originally created on NetWare or Windows need to be converted to lowercase file names and folder names in order to be usable by the GroupWise Linux agents. DBCopy can perform this conversion.

- ♦ [Chapter 16, “Performing an In-Place Database Migration,” on page 101](#)



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# 16 Performing an In-Place Database Migration

- 1 Install DBCopy on the Linux server where you want to mount the domain or post office.

For instructions, see the following section in the *GroupWise Administration Guide* for your version of GroupWise:

- ◆ GroupWise 2012: “[Using DBCopy on Linux](#)”
- ◆ GroupWise 8: “[Using DBCopy on Linux](#)”

- 2 (Conditional) For an NSS volume on an OES Linux server, set the name space on the volume to Unix.

The default OES Linux name space setting is `Long`, which is case insensitive. The `Unix` name space setting is case sensitive, which allows all file names and folder names in the domain or post office folder structure to be converted to lower case. For instructions, see “Configuring the Name Space for an NSS Volume” in the *NSS File System Administration Guide for Linux* for [your version of OES Linux](#). (<http://www.novell.com/documentation/oes.html>)

- 3 Mount the domain or post office folder to the Linux server.

- 4 Change to the following folder:

```
/opt/novell/groupwise/agents/bin
```

- 5 Use the following command to convert the domain or post office folder structure to lowercase:

```
./dbcoppy -l domain_or_post_office_folder
```

- 6 Install and start the GroupWise Linux agents on the Linux server where the domain or post office is mounted, as described in the following section of the *GroupWise Installation Guide* for your version of GroupWise:

- ◆ GroupWise 2012: “[Installing the Linux GroupWise Agents](#)”
- ◆ GroupWise 8: “[Installing the GroupWise Agents on Linux](#)”



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# IV Appendixes

- ◆ [Appendix A, “Troubleshooting Post-Migration Problems,” on page 105](#)





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# A Troubleshooting Post-Migration Problems

- ♦ [“Messages are not flowing between the migrated POA and the MTA for the domain” on page 105](#)
- ♦ [“The POA cannot start” on page 105](#)
- ♦ [“The POA cannot start because of incorrect permissions” on page 106](#)
- ♦ [“The POA cannot start because of a C06B error” on page 106](#)
- ♦ [“The POA starts with SSL errors” on page 106](#)
- ♦ [“The POA starts with TCP/IP errors” on page 107](#)

## Messages are not flowing between the migrated POA and the MTA for the domain

**Problem:** The migrated POA and the MTA for the domain are not able to communicate with each other.

**Possible Cause:** The source POA was stopped before the configuration changes described in [Section 7.6, “Modifying Configuration Information in ConsoleOne,” on page 44](#) replicated to the POA.

**Action:** Manually configure the MTP link between the source POA and the MTA for the domain.

- 1 Display the POA console.

```
http://source_server_address:port_number
```

- 2 Click *MTP Status*.

The status in the *Receive* column shows *Closed*.

- 3 Click the *Closed* link,

- 4 In the *Address* field, specify the new IP address of the POA, then select *Start MTP Receive*.

- 5 Click *Submit* to execute the actions.

## The POA cannot start

**Problem:** The POA tries to start, but exits.

**Possible Cause:** The POA log file path information has not yet been reconfigured. See [Section 7.6.2, “Reconfiguring the Migrated POA,” on page 45](#).

**Action:** Properly configure the log file path.

- 1 Start the POA with the `/noconfig` switch so that the POA ignores the troublesome configuration settings and starts successfully.
- 2 Because of the `/noconfig` switch, manually configure the link between the POA and the MTA for the domain. See [“Messages are not flowing between the migrated POA and the MTA for the domain” on page 105](#)

- 3 Follow the instructions in [Section 7.6.2, “Reconfiguring the Migrated POA,” on page 45](#) to configure the log file path correctly.
- 4 Allow time for the configuration information to replicate from ConsoleOne to the post office database (wphost.db) so that the POA has the correct configuration settings.
- 5 Start the POA again.  
It should start successfully this time.

## The POA cannot start because of incorrect permissions

Problem: The POA cannot start and displays the following message:

```
Error: Running the agent with conflicting effective users
```

Possible Cause: You are trying to set the POA up to run as a non-root user, but you have already run the POA as root.

Action: Remove the file that is preventing the POA from running as a non-root user.

- 1 On the Linux server, change to the post office folder.
- 2 Delete the `uid.run` file.
- 3 Start the POA again.

It should start successfully this time.

## The POA cannot start because of a C06B error

Problem: The POA tries to start, but displays a C06B error and exits.

Possible Cause: The post office owns a library that has one or more remote document storage areas and they have not been configured with Linux paths. See [“Reconfiguring Remote Document Storage Areas” on page 46](#).

Action: Properly configure the remote document storage area.

- 1 Start the POA with the `/noconfig` switch so that the POA ignores the troublesome configuration settings and starts successfully.
- 2 Because of the `/noconfig` switch, manually configure the link between the POA and the MTA for the domain. See [“Messages are not flowing between the migrated POA and the MTA for the domain” on page 105](#)
- 3 Follow the instructions in [“Reconfiguring Remote Document Storage Areas” on page 46](#) to configure the remote document storage areas correctly.
- 4 Allow time for the configuration information to replicate from ConsoleOne to the post office database (wphost.db) so that the POA has the correct configuration settings.
- 5 Start the POA again.

It should start successfully this time.

## The POA starts with SSL errors

Problem: The POA starts, but messages indicate that SSL is not available.

Possible Cause: The POA SSL certificate and key file paths have not yet been reconfigured. See [Section 4.6, "Handling SSL Certificate and Key Files,"](#) on page 25 and [Section 7.3, "Transferring SSL Certificate and Key Files,"](#) on page 41.

Action: Properly configure the SSL certificate and key files for the POA

- 1 In ConsoleOne, browse to and right-click the POA object, then click *Properties*.
- 2 Click *GroupWise > SSL Settings*.
- 3 Remove the path information from the *Certificate File* and *Key File* fields.  
The information pertains to the source NetWare or Windows server, not the Linux server, and is therefore not needed.  
The Server Migration Utility places certificate files and key files in their default location on Linux (`/opt/novell/groupwise/agents/bin`).
- 4 Click *OK* to save the settings.
- 5 Allow time for the configuration information to replicate from ConsoleOne to the post office database (wphost.db).  
When the POA has the correct configuration settings, SSL is enabled as usual.

## The POA starts with TCP/IP errors

Problem: The POA starts with the error:

```
TCP/IP services on your system may not be configured or installed
```

Possible Cause: The `/ip` startup switch in the POA startup file (`/opt/novell/agents/share/post_office.poa`) still has the IP address of the source NetWare or Windows server.

This would happen only if you manually copied the startup file to the Linux server, because the Server Migration Utility comments out the `/ip` switch in order to avoid this problem.

Action: Edit the POA startup file and update the IP address to match the Linux server.

