

# Get Comfortable

*Migrating GroupWise to Linux*

This article first appeared in the April 2009 issue of *Novell Connection* magazine.

Novell has placed a lot of focus lately on helping its customers take advantage of the benefits of Linux with Novell Open Enterprise Server. In terms of your GroupWise environment, whether it's hosted on NetWare or Windows servers, moving to Linux enables you to leverage the latest 64-bit hardware platforms, improve system stability, enjoy better application fault handling and recovery, and lower negative impacts from agent crashes or hardware failures. To make it even easier for you to take advantage of these benefits, this article steps through some of the key aspects of moving your GroupWise systems to Linux.

## > Getting Comfortable with Linux

According to Dana Palmer, product lead for Novell GroupWise Support, one of the nicest things about migrating GroupWise to Linux is that you can make the move a few pieces at a time. This lets you get comfortable with the Linux environment before you migrate everything. Palmer first suggests installing one or two GroupWise components on Linux that are redundant to components that you have on your NetWare or Windows servers. For example, just installing WebAccess on a Linux server gives you valuable experience with the Linux platform as you set up all the required pieces to access a GroupWise system. This component approach to migrating lets you still keep your post office data on your NetWare or Windows environment until you're ready to move other pieces.

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Palmer also suggests installing a GroupWise Internet Agent (GWIA) that performs a specific function, such as POP and IMAP. This gives you more experience with GroupWise in the Linux environment while allowing your SMTP messages to continue to flow through your existing GWIA without disrupting your current operations.

To help your team get even more comfortable with GroupWise on Linux, you might want to next move your IT

organization to a post office on Linux. This can give your IT team valuable experience in administering the GroupWise system on a local message store on Linux. At this point, you might even consider adding a GWIA that is dedicated to inbound or outbound mail. While you're

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acclimating yourself and your team to the GroupWise on Linux environment, it's also a good time to plan and make a few decisions about the move.

## > What Are My Choices?

One of the first things you must decide is which Linux file system you should use for your GroupWise servers. GroupWise supports ext3, Reiser and Novell Storage Services, or NSS, file systems on Linux. While each file system has its advantages and disadvantages, Alex Evans, product manager for GroupWise at Novell, suggests that for many organizations ext3 is likely the preferred file system for running GroupWise. Still, before settling on this or any other file system choice, you should consider the pros and cons of each.

- NSS provides excellent Novell Cluster Services support and can simplify the migration from NetWare environments that have SAN storage. But the advanced features in NSS, which are not utilized by GroupWise, add unnecessary overhead that can impact performance.
- Reiser has been optimized for small files, making it a good choice for performance in GroupWise. But Reiser has limited recovery tools to assist you if you experience a crash. Perhaps, of even greater concern is that there is significant uncertainty in the industry in regard to the overall future of the Reiser file system.
- The advantages of the ext3 file system are that it demonstrates performance levels very close to that of Reiser while providing better journaling and recovery tools. Also, ext3 is the default file system for SUSE Linux Enterprise Server 11. However, you should be aware that if you want to use the H-Tree indexing capability in ext3, it is not currently supported by GroupWise.

The next choice you'll need to make is when to make the move. As discussed before, you might want to get comfortable with a few components of GroupWise on Linux before moving a complete system or your whole environment. In addition to that, your decision about when to move could be affected by other events, such as the purchase of new server hardware, plans to upgrade to GroupWise 8, server consolidations or virtualization plans. The reality is that many of the decisions and planning considerations you make for your move to Linux should be based on the same best practices or considerations you would make when moving or deploying a new post office in your NetWare or Windows environments.

### > Making Preparations

As with any move, you'll need to do some preparatory work during your planning stage. To help you with this, Novell documentation provides an excellent GroupWise Migration Worksheet to facilitate this effort. (See section 4.8 of the [GroupWise Server Migration Utility Installation and Migration Guide](#).) The worksheet and documentation help you through steps such as gathering needed information about your source server, target server, location of GroupWise software and components, handling SSL certificates and more.

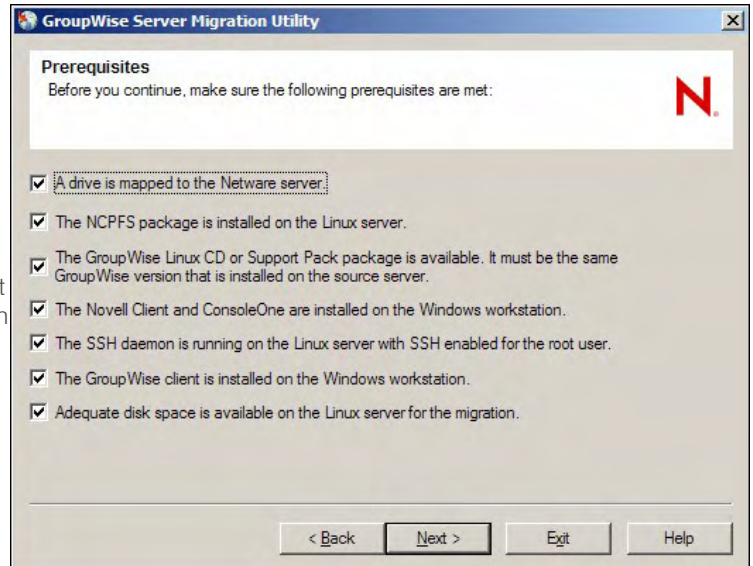
Part of your preparation also needs to include ensuring that you have all the proper prerequisites in place to ensure a successful migration. For example, the migration only supports GroupWise 7 and GroupWise 8. Additionally, whether you're moving from Windows or NetWare to Linux, the GroupWise Server Migration Utility requires that the version of GroupWise on your source server match the version of GroupWise on your target server. If you are planning to update your GroupWise system, you must update your source post offices and domains before you migrate.

Furthermore, your source and target server operating systems must correspond to an OS version supported by the version of GroupWise that you are migrating. For example, for your source operating systems, GroupWise 8 supports NetWare 6.5 and the Novell Open Enterprise Server 2 NetWare, Windows Server 2008, Windows Server 2003 R2 and Windows Server 2003. For the target server, GroupWise 8 supports Novell Open Enterprise Server 2 Linux and SUSE Linux Enterprise Server 10 and later. While there are a few other prerequisites that must be met for the utility to successfully perform the migration, it's best to refer to the documentation for the specific details and helps.

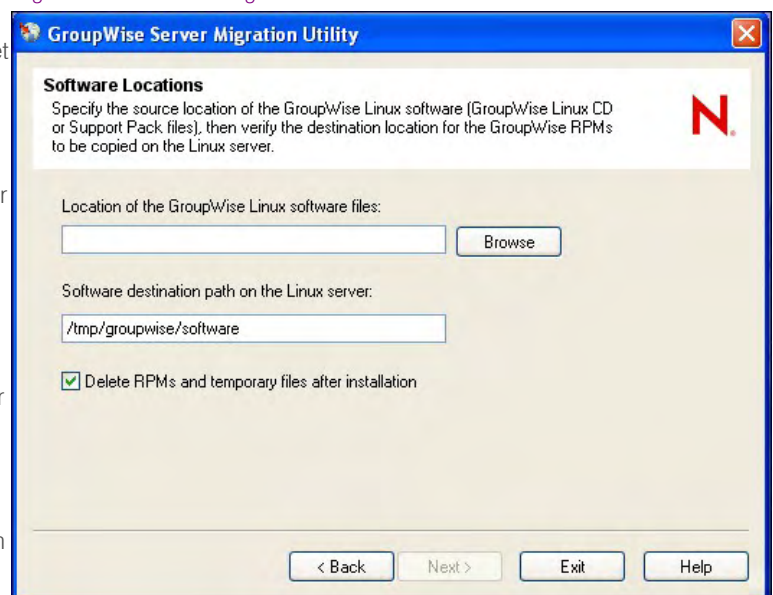
### > Making the Move

While you have the option to manually migrate your GroupWise environment to Linux, the GroupWise Server Migration Utility can definitely simplify your migration efforts. First, the utility prompts you for the information it needs to establish a connection between your source and target servers, and then it correctly transfers your GroupWise data, installs your GroupWise agents and then starts your agents.

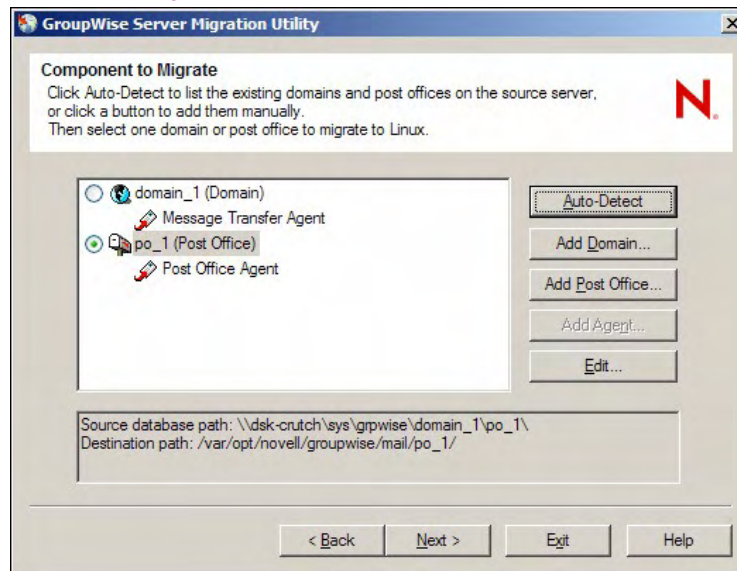
**Figure 1:** *To help ensure a successful migration, the GroupWise migration utility asks you to confirm that you've completed key prerequisites before initiating the move.*



**Figure 2:** *The GroupWise Migration Worksheet steps you through the gathering of information that you'll need during the migration, such as information on the migration's source and target servers.*



**Figure 3:** *The GroupWise migration utility can auto-detect the post offices and domains to be migrated.*



- Removes temporary files
- Dismounts the source server

While the GroupWise Server Migration Utility greatly simplifies your move to Linux, you'll still need to do a few things to complete the move. Here is a list of the basic steps you'll need to take to make the move:

1. **Install and Start the Server Migration Utility.** You can download the utility (*gwsvmig100.exe*) from the Novell Downloads Web site and then run it to extract its components into a directory of the Windows workstation that you will use to manage the migration. When you're ready to begin the migration, run the file *gwsvmig.exe* to start the utility. During the migration you can click Help on any page to get assistance filling in the displayed fields or to find out what the utility is currently doing.

To give you a high-level perspective of some of the tasks that the utility performs during a post office agent (POA) migration, the utility does the following on the first pass of the migration phase:

- Creates the necessary directory structure on the Linux server
- Copies and installs GroupWise RPMs to the Linux server
- Mounts the source server
- Transfers your post office data by running *dbcop*y with the appropriate parameters
- Configures *gwha.conf*
- Starts the POA on the Linux server for testing purposes
- If selected, removes RPM files
- Shuts down the POA

The post office migration is carried out in two stages to minimize downtime for GroupWise users. After you've finished this first phase of migration, you can still continue to run your GroupWise environment from your NetWare or Windows source server. Once you're ready to flip the switch and complete the migration, the utility does the following in the second and final pass of the POA move:

- Mounts the source server
- Runs *dbcop*y again to copy incremental data since the first pass
- Executes *gwcheck* to ensure that the appropriate filenames have been changed to lowercase

2. **Confirm Migration Prerequisites.** To help ensure a successful migration, the utility will ask you to confirm that you've completed key migration prerequisites for the move. (See Figure 1.)
3. **Provide Source and Target Server Information.** The utility will prompt you to provide the source and target server information that you collected when completing the GroupWise Migration Worksheet that was discussed earlier. (See Figure 2.)
4. **Migrate Your Post Offices, Domains and Agents.** Once you provide all the necessary information for your source and target servers, the utility will step you through and automate the processes of moving your post offices, domains and agents. It can auto-detect your post offices and domains and select the ones you want to move (See Figure 3.) You can also manually browse to those you want to move.

While this sums up the main steps for moving GroupWise to Linux, Novell provides excellent detailed documentation that will guide you through this process. If that's not enough, you can also refer to the Novell support forums for additional insights and tips. (For GroupWise 8, click [here](#) and for GroupWise 7, click [here](#).)

The bottom line is that Novell has tried hard to make it as easy as possible for you to make the move that allows your GroupWise environment to take advantage of the stability and performance that Linux delivers. **N**