



GROUPWISE CLIENT AUTOMATIC UPDATE

PROVEN METHOD FOR DEPLOYING CLIENT UPDATES

OVERVIEW

Novell has developed several different methods for installing or updating GroupWise client versions. Some methods are completely automated while others may require some manual intervention. Regardless of the method used, they generally are valid for service pack updates as well as major version changes. The challenge is knowing how to choose the optimal deployment strategy. This document outlines our preferred methods for the Automatic update of the GroupWise Client.

PREFACE

Many companies go through a major upgrade project on the back end, but do little to ease the pain for end users. Furthermore, some people take several days and do a 'sweep' of their entire company and manually install the GroupWise client on every single workstation. This results in more man hours to complete a project, and can add significant cost to the bottom line. On the flip side, Network Administrators could easily configure GroupWise to automatically deploy, and do so in a very short amount of time.

GOALS AND OBJECTIVES

Marvin Huffaker Consulting strongly advocates solutions that are fully automated. This is true for the GroupWise client update as well. In other words, the solution should not require a help desk technician or network administrator to visit every workstation to complete the update. It should require very little (or no) interaction from the end user, and it should work from anywhere. In summary, the solution as outlined meets the following goals:

- Very little end user interaction (User accepts or rejects the update)
- Automatic delivery to workstations inside firewall
- Automatic delivery to workstations outside firewall
- No need to visit each workstation or perform a manual installation

ABOUT MARVIN HUFFAKER CONSULTING, INC.

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PREREQUISITES

This document assumes you already have GroupWise in your organization and desire to deploy a new version of the GroupWise client to your workstations. In many ways, the specific version should not matter. This document specifically refers to GroupWise 7 and the Windows based client.

OVERALL DELIVERY CONCEPT

This solution incorporates two GroupWise client installation methods. Together, these methods are all that are needed for most companies to fully automate their GroupWise Client deployments. The methods used are:

- GroupWise Auto Update Process
- GroupWise SETUPIP Process

The premise of this solution is to create a customized configuration to deploy an unattended installation of the GroupWise client. The end user will login to GroupWise and be prompted to update their client. The installation will then launch and process to completion. For users outside of the firewall that are unable to map a drive to the Software Distribution Directory, SETUPIP.EXE will be launched automatically and download and install the GroupWise client from a web server.

AUTOMATIC CLIENT UPDATE OVERVIEW (INTERNAL NETWORK)

To be successful with an automatic update process, the GroupWise system MUST be configured with a working Software Distribution Directory (SDD). Furthermore, the Post Office(s) must have access to the SDD and acknowledge this when the Post Office agents starts. Users must also be able to access the SDD via UNC path. Additionally, the default SDD configuration is not sufficient and requires some slight modification to work correctly. This section outlines the correct way to configure the SDD, and identifies all configurations required for internal network users to automatically update the GroupWise client.



SOFTWARE DISTRIBUTION DIRECTORY STRUCTURE

The first thing to do is make sure that you have a fully installed Software Distribution Directory. This is typically installed for you when you first run the GroupWise installation. The component of the SDD that is needed for the client updates is the “Client” folder and associated sub-folders. The following diagram shows a typical SDD. Our preference is to put the SDD within the other GroupWise structure, although it can certainly be placed in other locations.

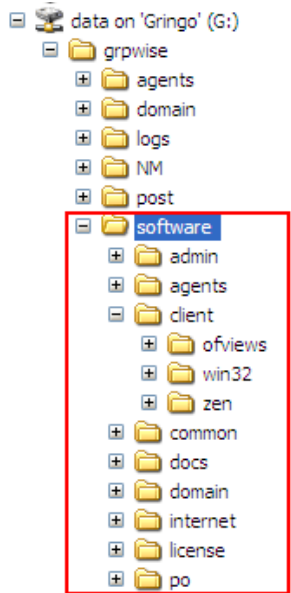
	<p>The Software Distribution Directory may vary depending on the options selected during the installation. However, a typical installation with all components selected will install the following folders:</p> <pre> \software \admin \agents \client \ofviews \win32 \zen \common \docs \domain \internet \license \po </pre> <p>The “CLIENT” folder is the critical folder required for automatic GroupWise client updates. As you can see, there are a few sub folders as well. The structure that is created by the installation is usually sufficient for our objectives.</p>
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Illustration 1: Depiction of a typical Software Distribution Directory

Note the following when determining a location for the Software Distribution Directory:

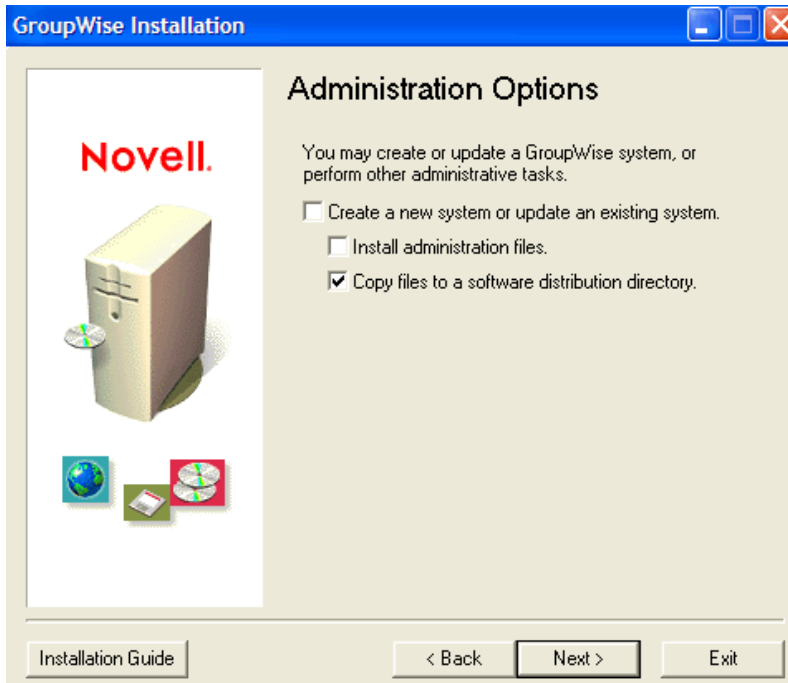
- Users need to have UNC access to the folder, along with the appropriate permissions
- The Post Office(s) must be able to access the the SDD to function properly in the automatic GroupWise update process
- In many cases, it's completely normal to put the SDD on the same server as the GroupWise post office or other system components. The diagram above depicts this strategy.



INSTALLING THE SOFTWARE DISTRIBUTION DIRECTORY

If the Software Distribution Directory does not already exist, it can be installed by doing the following:

- 1) Run the SETUP.EXE file from (Windows and NetWare) GroupWise distribution. This should preferably be at least GroupWise 7 SP1.
- 2) Select "Create or Update a GroupWise System"
- 3) Agree to the license agreement
- 4) Browse to and select the location of the GroupWise 7 CD, if prompted to do so
- 5) Select "Next" on the "Welcome to GroupWise Install" dialog
- 6) Select "Next" on the "Plan your system" dialog
- 7) On the "Administrative Options" dialog, uncheck all boxes except "Copy files to a software distribution directory"



- 8) Select the languages that need to be installed. The scope of this document includes English only.
- 9) Choose the location for the Software Distribution Directory.
- 10) Select all options from the available Software components to install. As a minimum, install the "GroupWise Client for Windows" components.
- 11) Select "Next" on the "Ready to Install" dialog.
- 12) The Installation should proceed to copy the files to the location specified.
- 13) Select "Finish" when done.
- 14) Verify the Software Distribution Structure as depicted in the previous section.

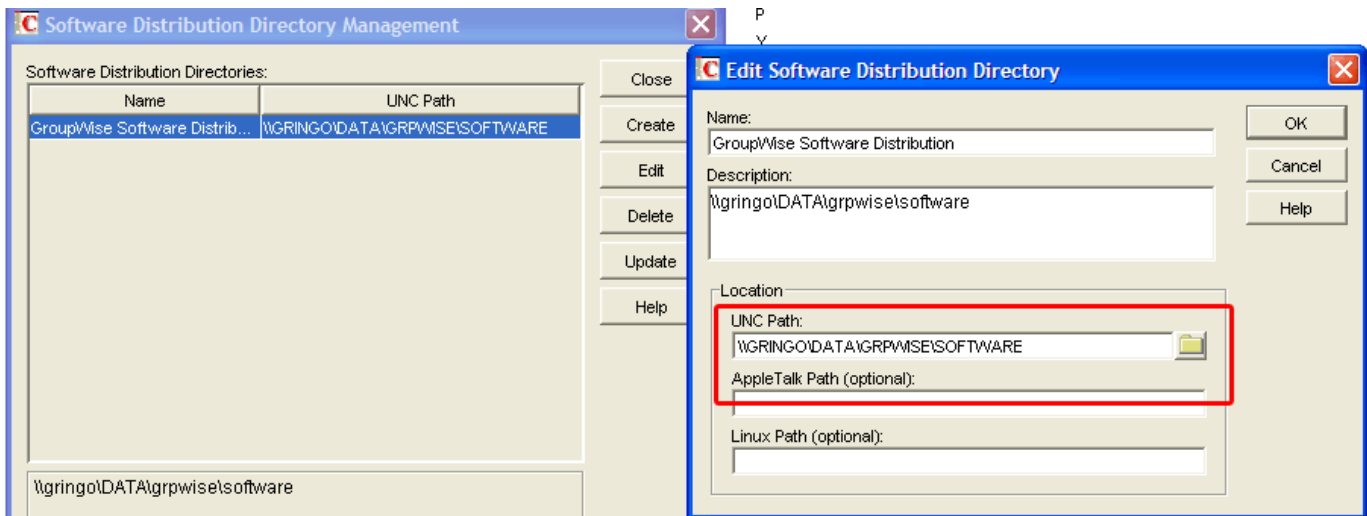
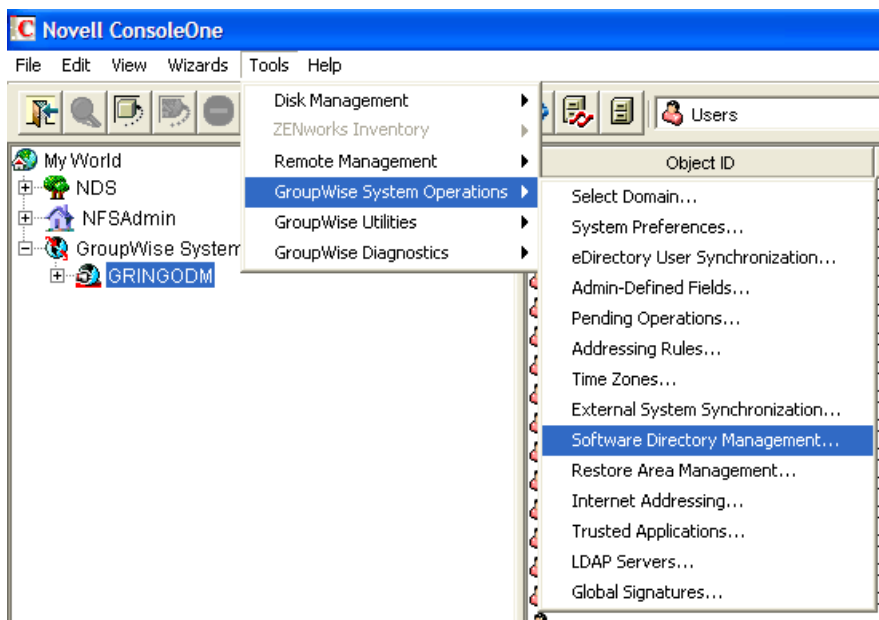
Again, it's important to make sure the following conditions apply:

- Users need to have UNC access to the folder, along with the appropriate permissions
- The Post Office(s) must be able to access the the SDD
- It's completely normal to put the SDD on the same server as the GroupWise post office

GROUPWISE SYSTEM SOFTWARE DISTRIBUTION DIRECTORY ADMINISTRATION

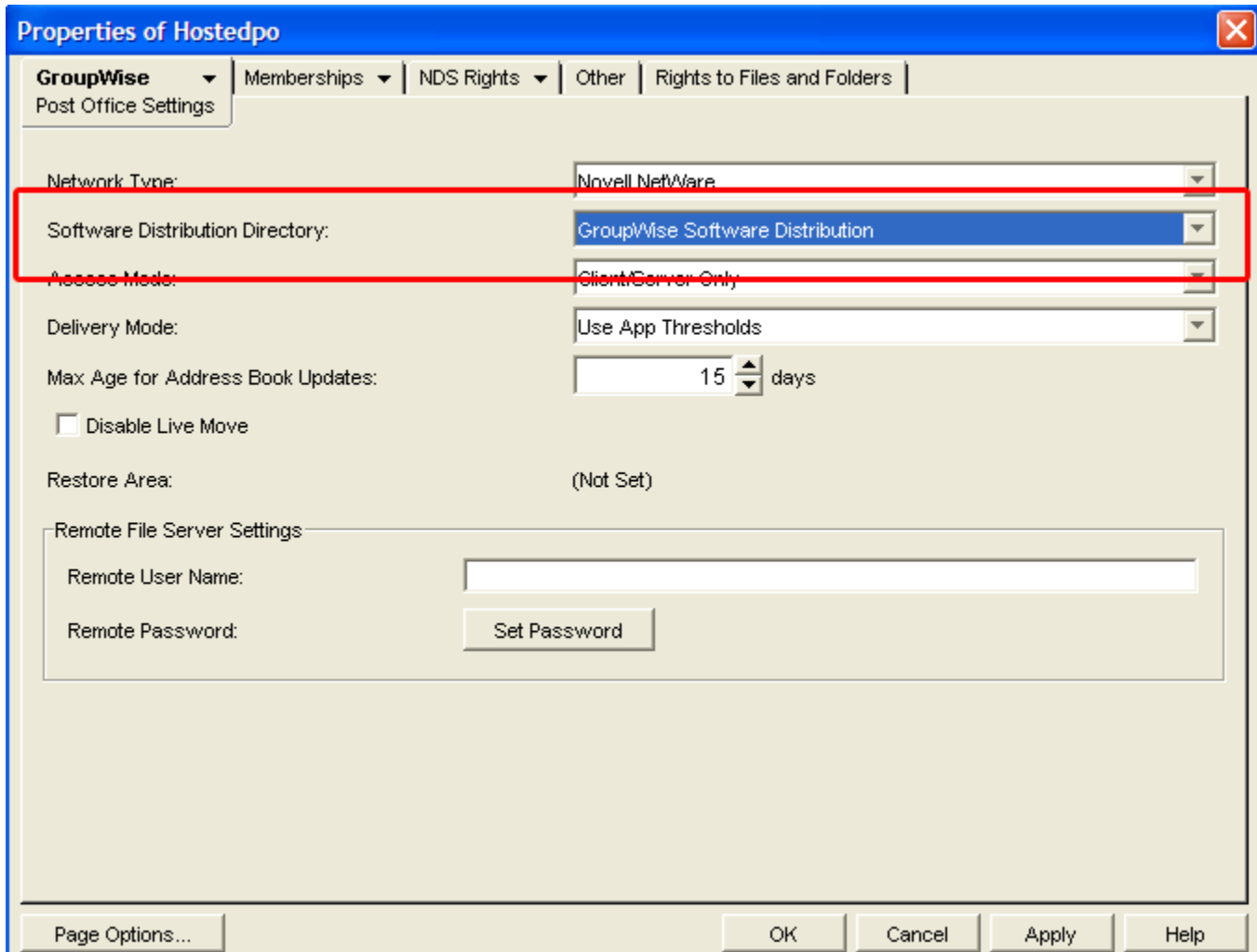
The Software Distribution Directory MUST be defined in the GroupWise system. This is configured in ConsoleOne. Ensure that the UNC naming convention is used for the path name. Other methods could prevent clients from accessing the directory. The illustrations below demonstrate how to access and modify the SDD. Rules of thumb:

- You need at least one (1) Software Distribution Directory.
- One SDD is usually sufficient for single location environments, or multiple locations with one central post office.
- Companies with numerous WAN locations may utilize multiple SDD's for more efficient usage of WAN bandwidth.
- If no SDD is defined, create one in this dialog. Give it a name and UNC path. The name doesn't matter and should be something meaningful to you.
- If the SDD is wrong or otherwise invalid, correct it.



POST OFFICE SOFTWARE DISTRIBUTION DIRECTORY CONFIGURATION

After the SDD has been defined and/or verified, you must tell the Post Office(s) which SDD to use. It's possible for a post office to NOT be configured with an SDD, so it's important to check this configuration. Just open the properties of the Post Office in ConsoleOne, click on "Post Office Settings" on the GroupWise drop down tab, and make sure that the SDD is defined on the post office. It should show the same name for the SDD as what you defined in the previous step.



NOTE: You should restart the post office after the SDD configuration change to ensure the post office recognizes and accesses it correctly. You may need to wait a few minutes before restarting to allow the admin processes to complete.



POST OFFICE ACCESS TO SOFTWARE DISTRIBUTION DIRECTORY

The Post Office must be able to access the SDD, and must acknowledge that it has found and attached to it successfully. This happens when the Post Office agent loads. To verify this critical event has happened, watch the agent screen on startup or check the log files. Examples of possible results:

Success

00:00:02 01A Error Mail to Administrator: Yes
00:00:02 01A Successfully accessed Software Distribution Directory: gringo/DATA:\grpwise\software
00:00:02 01A IPV6 Protocol: Disabled

Failure – SDD Not Defined

21:44:23 018 No Software Distribution Directory configured
21:44:26 018

Failure – SDD Misconfigured

21:55:59 018 [8209] Unable to access Software Distribution Directory-
GRINGO/SYS:\PUBLIC\SOFTWARE
21:56:02 018

NOTE: The log files show the SDD in SERVER\VOLUME: name format. However, the actual SDD is configured with UNC path names. This is normal and no cause for alarm.

PERMISSIONS TO SOFTWARE DISTRIBUTION DIRECTORY

Users need Read Only access to the \CLIENT folder of the SDD. Granting permissions is a general administrative task and is out of the scope of this document.

To ensure that permissions are setup correctly, login as a non-administrative user and connect to the UNC path as defined. You should see the 'CLIENT' folder as well as files and sub folders.

Note: For a Windows based system, a 'share' must be created with the appropriate permissions. For best results, the root of the SDD should be shared. ie: Share the folder at the 'SOFTWARE' folder level.



GROUPWISE CLIENT CONFIGURATION FILES LOCATION

There are two configuration files that control the GroupWise Client installation process. It is important to understand that the configuration files in their default location do not provide Auto Update functionality. The files should both be moved into the SDD\CLIENTWIN32 folder. This is depicted in the table below.

<u>DEFAULT FILE LOCATIONS</u>	<u>REQUIRED FILE LOCATIONS</u>
\SDD\client\win32\setup.ini	\SDD\client\win32\setup.ini
\SDD\client\setup.cfg	\SDD\client\win32\setup.cfg

Below is an example of the location of the SETUP.INI and SETUP.CFG files:

```
\\GRINGO\DATA\GRPWISE\SOFTWARE\CLIENT\WIN32\SETUP.INI
\\GRINGO\DATA\GRPWISE\SOFTWARE\CLIENT\WIN32\SETUP.CFG
```

GROUPWISE CLIENT CONFIGURATION FILES MODIFICATION

The two configuration files mentioned above need to be modified to facilitate an installation that requires minimal user intervention. Make sure that you modify the files in the \SDD\CLIENTWIN32 directory:

SETUP.INI

SETUP.INI controls the initial launch of the GroupWise Client setup. Change the EnableLangDlg parameter from Y to N. The specific line should read:

```
EnableLangDlg=N
```

The 'EnableLangDlg' is the only modification that is needed for this file. Note that this option only controls the language used for the installation. It does not change the language options actually installed for the GroupWise client. Therefore, setting this option to “N” should never be a problem.

SETUP.CFG

SETUP.CFG controls the behavior of the GroupWise Client installation as well as the components and configurations that are installed. There are several items that need to be modified. Our recommended settings, as well as required modifications, are listed below:

<u>DEFAULT SETTINGS</u>	<u>REQUIRED OR RECOMMENDED SETTINGS</u>
<pre>[GroupWiseSetup] Version=7.0 Path=C:\Novell\GroupWise Folder=Novell GroupWise LaunchMessenger=No LaunchNotify=No OutlookFirewallException=Yes</pre>	<p>These settings typically do not need to be modified. However, You could configure the GroupWise Client to install with instructions to launch GroupWise Messenger and/or GroupWise Notify when the GroupWise client loads. The other settings listed are typically adequate for most installations.</p>



DEFAULT SETTINGS	REQUIRED OR RECOMMENDED SETTINGS
<pre>; IPAddress=x.x.x.x ; IPPort=xxxx ; DefaultIPAddress=x.x.x.x ; DefaultIPPort=xxxx</pre>	
<pre>[ShowSetup] ShowDialogs=Yes ShowProgress=Yes ShowFinish=Yes</pre>	<pre>[ShowSetup] ShowDialogs=No ShowProgress=Yes ShowFinish=Yes</pre> <p>These settings allow for the user to view the progress of the Client installation, but they will not be prompted with any dialog boxes along the way.</p>
<pre>[AutoUpdate] Enabled=Yes SetupIPEnabled=No ForceUpdate=No GraceLoginCount=0 PromptUntilUpdated=No</pre>	<pre>[AutoUpdate] Enabled=Yes SetupIPEnabled=Yes ForceUpdate=No GraceLoginCount=0 PromptUntilUpdated=Yes</pre> <p>The “SetupIPEnabled” command enables the automatic usage of SETUPIP in conjunction with the Autoupdate feature. This is discussed in greater detail in the SETUPIP section of this document.</p> <p>Leaving “ForceUpdate” set to know allows users the flexibility of updating when it is most convenient.</p> <p>The “PromptUntilUpdated” command means that users will continue to be prompted that an update is available until they go through the upgrade process.</p>
<pre>[IntegrationApps] Microsoft Excel=Yes Microsoft Word=Yes Microsoft PowerPoint=Yes Corel Presentations=Yes Corel Quattro Pro=Yes Corel WordPerfect=Yes</pre>	<pre>[IntegrationApps] Microsoft Excel=No Microsoft Word=No Microsoft PowerPoint=No Corel Presentations=No Corel Quattro Pro=No Corel WordPerfect=No</pre> <p>Most companies do not prefer to use the integrated document management functions. This disables this feature.</p>
<pre>[Languages] Default=English Arabic=No ChineseSimplified=No ChineseTraditional=No</pre>	<p>If your company needs to have GroupWise installed with multiple language support, change the corresponding language to “Yes”. You can also modify the default if necessary – just change “English” to whatever language it is you need</p>



DEFAULT SETTINGS	REQUIRED OR RECOMMENDED SETTINGS
Czech=No BrazilianPortuguese=No Danish=No Dutch=No English=Yes Finnish=No French=No German=No Hebrew=No Hungarian=No Italian=No Japanese=No Korean=No Norwegian=No Polish=No Russian=No Spanish=No Swedish=No	(Assuming it is on the list and you utilize the same spelling)
NOTE: Other options exist within the SETUP.CFG file. The default settings for those should generally suffice.	



AUTOMATIC CLIENT UPDATE OVERVIEW (EXTERNAL NETWORK USERS)

Updating the GroupWise Client for users outside of your firewall requires some additional configuration. This is because most users outside of your network, whether at home or other locations, do not have access to the Software Distribution Directory. In other words, the firewall blocks any attempts by the GroupWise Client to connect to the internal network structure. This is normal and to be expected.

To get around this, Novell has a utility process called SETUPIP.EXE. This process utilizes a web server to provide the updated client installation files.

NOTE: Configuration in this section assumes that configurations in the previous section have already been completed and verified

CREATE WEB DIRECTORY STRUCTURE

On a web server, create the following folders at the root of the web structure:

```
\gwclient  
\gwclient\win32
```

TIP: Because you probably already have a GroupWise WebAccess server in place, it's easy to utilize web server for this purpose. The web server should already be functional, and people should already have access to it from outside of your network. On a NetWare server, with a default configuration, the folder structure would be as follows:

```
SYS:apache2\htdocs\gwclient  
SYS:apache2\htdocs\gwclient\win32
```

Note the URL for the web server, including the gwclient folder:

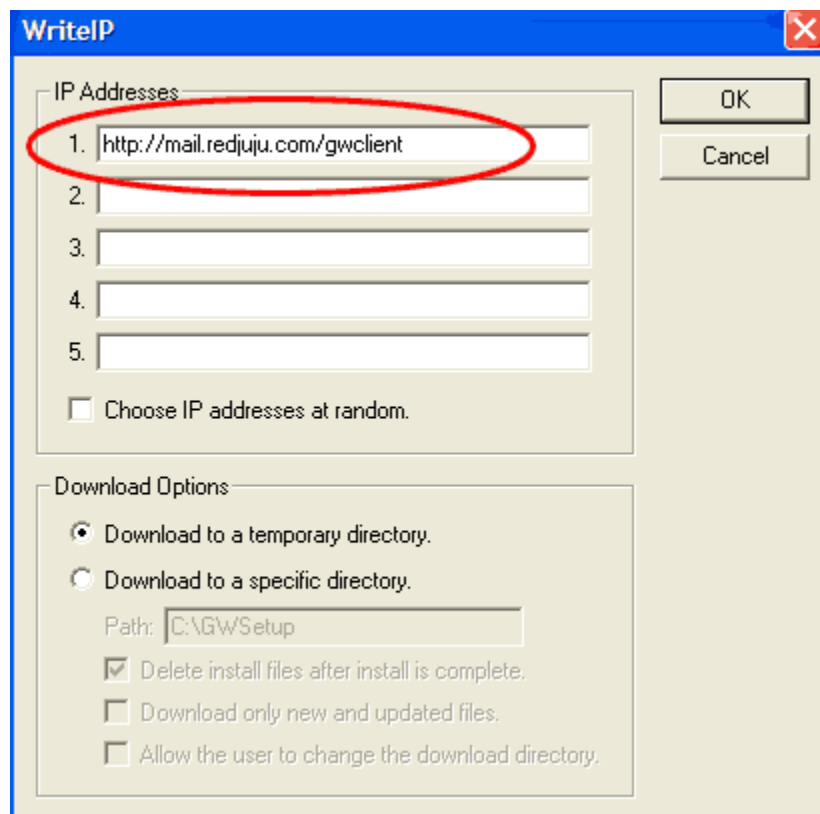
```
http://mail.redjuju.com/gwclient (example)
```



GENERATE SETUPIP.EXE

SETUPIP.EXE is a custom generated file. It must be created based on your web server configuration. To generate this file, you use a utility called WRITEIP.EXE.

1. Locate and run WRITEIP.EXE in the SDD\ADMIN\UTILITY\SETUPIP directory.
2. Fill in the IP address field as depicted. The URL should match the web address of the folder created in the previous step.
3. It's possible to use multiple IP addresses for load balancing and fault tolerance. However, this is not usually necessary.



4. When completed, click OK. This will generate the SETUPIP.EXE file for you.
5. Note that the “Download Options” in the WRITEIP.EXE utility provide additional control of the deployment process, and can be modified per your preference.



POPULATE WEB DIRECTORY

The web directory that was created now needs to be populated with the GroupWise files. For web deployment, the files are compressed into a single file called SETUPIP.FIL. This file is downloaded to the workstation, extracted, and then the installation is launched.

Locate the folder SDD\ADMIN\UTILITY\SETUPIP from the previous step.

1. Copy SETUPIP.FIL into the \gwclient folder on your web server.
2. Copy SETUPIP.US into the \gwclient folder on your web server. (US is the English version. Substitute any other language file, if necessary)
3. Copy SETUPIP.EXE into the Software Distribution Directory at SDD\CLIENT\WIN32\SETUPIP.EXE

Locate the folder SDD\Client\Win32.

4. Copy the GroupWise Client configuration files SETUP.CFG and SETUP.INI into the \gwclient\win32 folder.

For a live example of how the web directory \gwclient should be configured, go to <http://mail.redjuju.com/gwclient>

FORCING THE UPGRADE PROCESS

GROUPWISE CLIENT BUILD NUMBER

The GroupWise Software Distribution Directory contains a file that indicates the GroupWise Client build that is contained within the SDD. This file is located at:

```
SDD\CLIENT\SOFTWARE.INF
```

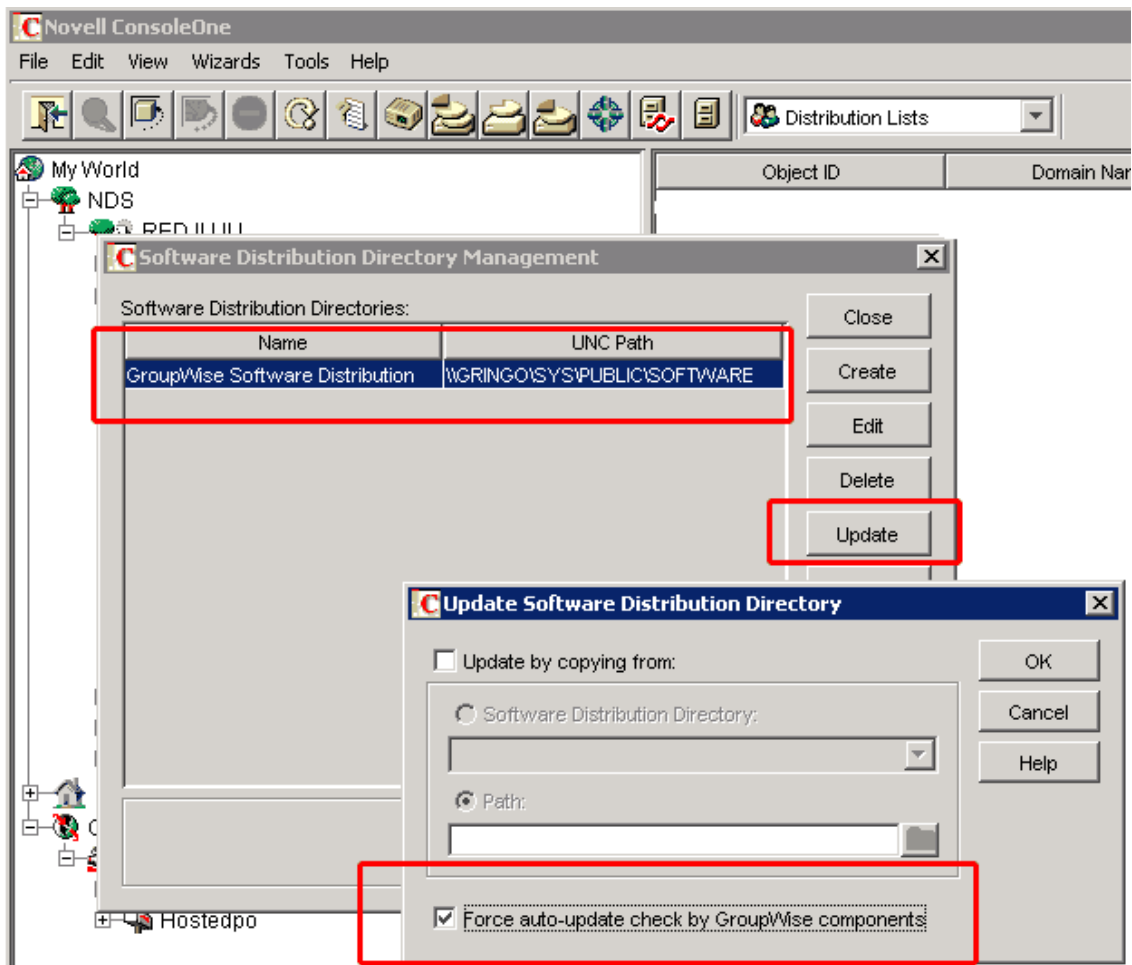
This file typically does not need to be modified, but the existence of this file should be verified. When checking for an auto update, the GroupWise client will compare the value stored in the workstation registry to the value provided by the Post Office. If the value in the SOFTWARE.INF is higher than the registry value, the AutoUpdate process will be initiated. The registry value is stored at this location:

```
HKEY_LOCAL_MACHINE\SOFTWARE\NOVELL\GROUPWISE\Build Number
```

GROUPWISE 'BUMP' NUMBER

Without going into a long detailed dissertation on the GroupWise bump number, suffice it to say the following: If you increment the Bump number, the GroupWise Client will be forced to check the GroupWise build number and compare it to the build number in the SOFTWARE.INF file. If the build number in the SOFTWARE.INF file is newer than the GroupWise build number in the registry, the GroupWise update process will start.

To increment the bump number, use ConsoleOne to select “force an auto-update check” on the Software Distribution Directory. This will force the GroupWise client to check for a newer version and the update process should start. This is also the final step in the configuration process.





SYSTEM FUNCTIONALITY TEST

The system should now be configured to automatically update GroupWise Clients regardless of where they are located. To test, login with the GroupWise client. The following behavior will occur depending on the location of the user:

INTERNAL USERS

The users will be prompted to update their GroupWise client. If they select 'Yes', the process should complete automatically with no intervention. They will receive a notification when complete. At that point, they can launch the GroupWise client again and it should be fully upgraded.

EXTERNAL USERS (OUTSIDE OF FIREWALL)

The users will login to the GroupWise client. They will be prompted to update the GroupWise client. If they select 'Yes', the client will attempt to map to the Software Distribution Directory. Since it will fail, the client will request SETUPIP.EXE from the Post Office. SETUPIP.EXE will be delivered and launched on the workstation. The SETUPIP.EXE utility will download the GroupWise client files from the web server and decompress them into a temporary folder. The installation will then launch automatically and proceed with the unattended installation. When the installation is complete, the users should launch the GroupWise client and will be fully upgraded.

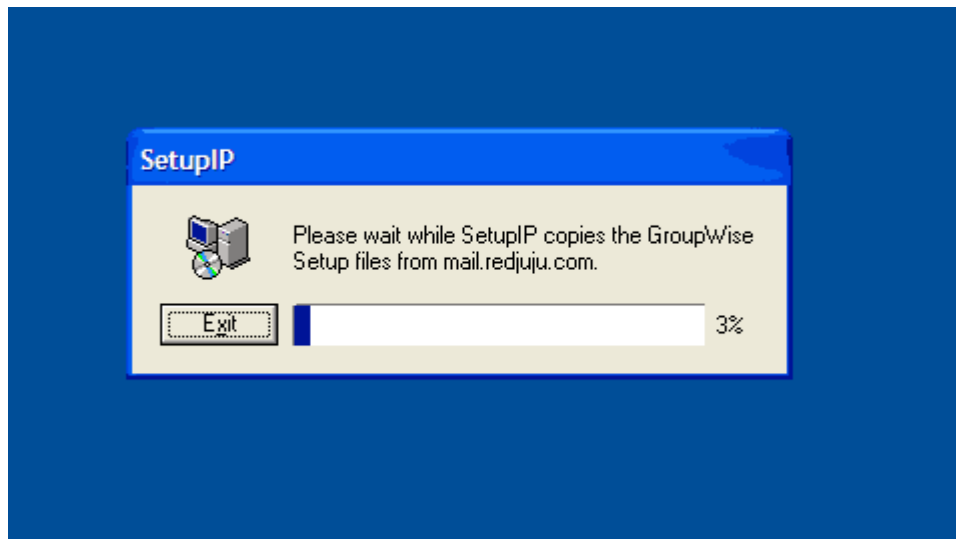


Illustration 2: SetupIP Process

ERRORS, OMISSIONS, AND CLARIFICATIONS

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