

GroupWise Disaster Recovery Version 5.1.1

November 2017

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Preface

GroupWise Disaster Recovery powered by Reload.

About This Guide

This GroupWise Disaster Recovery Installation and User Guide helps you integrate this software into your existing GroupWise system.

Audience

This manual is intended for IT administrators in their use of GroupWise Disaster Recovery or anyone wanting to learn more about GroupWise Disaster Recovery. It includes installation instructions and feature descriptions.

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

Online documentation can be found on the GWAVA (http://support.gwava.com/documentation/ Reveal/index.html) website and the Micro Focus (https://www.microfocus.com/products/) website.

Knowledge Base articles can be found on the GWAVA Support (http://support.gwava.com/) website and the Micro Focus Knowledge Base (https://www.microfocus.com/support-and-services/knowledge-base/) website.

Chapter Title GroupWise Disaster Recovery version 5.1 / Title

Sect1 Title Overview / Title

Para GroupWise Disaster Recovery is a disaster recovery, hot backup, and quick restore system for Novell GroupWise. GroupWise Disaster Recovery integrates with GroupWise post offices and domains on NetWare, Linux and Windows to provide reliable backups. All the mail in those backups can then be examined using any Novell GroupWise client. GroupWise Disaster Recovery backs up post offices and domains from GroupWise 8 or greater. / Para

Para GroupWise Disaster Recovery is a Disaster and Recovery solution for GroupWise mail systems that provides live backups and recovery for GroupWise post offices and domains. In the event of a disaster where the post office or domain is unusable or lost, GroupWise Disaster Recovery can provide a temporary post office and domain for the GroupWise system to run off of, making messages flow seamlessly, even in a crisis. **/ Para**

Para GroupWise Disaster Recovery performs this function by creating backup copies of the post office and domain databases, which it then can load with GroupWise agents. GroupWise Disaster Recovery also can load post office agents against any post office backup, allowing users to transparently restore deleted or lost mail to the live post office, directly from the user's GroupWise client. With GroupWise Disaster Recovery, losing mail in a system is no longer a crisis, and in most cases, not even an inconvenience. **/ Para**

Para Multiple GroupWise Disaster Recovery servers can also be tied together to add multiple redundant layers of protection for complete offsite backups of the GroupWise message system. / Para

Para GroupWise Disaster Recovery only runs on the Linux platform and requires that one setting in GroupWise Administration be enabled, as well as on the host machine for both the GroupWise system and the GroupWise Disaster Recovery Server. GroupWise Disaster Recovery does not require eDirectory, Active Directory or any TSA components. / Para

Para Setting-up GroupWise Disaster Recovery can seem to be an intimidating process, but this guide will walk you through the process. There also is online documentation, an extensive knowledgebase, full support, and consulting services available to aid you in customizing and perfecting your GroupWise Disaster Recovery system. / Para

Sect2 Title Micro Focus GWAVA Family of Message Handling Products / Title

- ItemizedList ListItem Para Emphasis Secure Messaging
 Gateway / Emphasis is a message scanning product that protects your system from malware and spam. / Para / ListItem
- ListItem Para Para Retain Unified Archiving / Emphasis is an archive storage product that is designed to keep messages from GroupWise, Exchange/O365, GMail, BlackBerry, Bloomberg, Notes, mobile, social and other messaging platforms for the long term to meet data retention legal requirements and has powerful search capabilities for eDiscovery. / Para / ListItem
- ListItem Para Emphasis GroupWise Disaster Recovery powered by Reload for GroupWise / Emphasis is a hot-backup and disaster recovery product for GroupWise. It keeps a few weeks of data and can easily restore messages, calendar items, address books, and even whole users. It can also act as a fully functional Post Office in times when the GroupWise POA is down. / Para / ListItem
- ListItem Para Emphasis GroupWise Reporting & Monitoring powered by Redline / Emphasis is a comprehensive, customizable, monitoring and reporting tool for GroupWise. / Para / ListItem
- ElistItem Para Emphasis GroupWise Forensics powered by
 Reveal / Emphasis provides essential auditing and oversight capabilities that legal, human
 resources, and auditing personnel need within GroupWise. / Para / ListItem
- ListItem Para Emphasis GroupWise Mailbox Management powered by Vertigo / Emphasis is the Enterprise Mailbox Management tool for GroupWise. / Para / ListItem / ItemizedList



GroupWise Disaster Recovery is a backup system and will use significant amounts of disk space.

GroupWise Versions

- GroupWise 2014 R2
- GroupWise 2014
- GroupWise 2012
- GroupWise 8.0.3

Supported OS versions

The GroupWise Disaster Recovery server must be run on the Linux platform, but it backs up GroupWise post offices on NetWare, Linux or Windows platforms.

- SUSE Linux Enterprise Server 12 (SLES12) 64-Bit.
- SUSE Linux Enterprise Server 11 (SLES11) 32-Bit or 64-Bit.

Memory

2 gigabytes of available RAM should be sufficient for most environments. More memory is helpful.

CPU

Туре

The GroupWise Disaster Recovery server only supports the Intel Platform x-86 Platform

Speed

The faster the better; SMP is not to be considered a requirement, however, testing of GroupWise Disaster Recovery on SMP has shown that GroupWise Disaster Recovery is benefited by SMP.

Disk

Disk space must be carefully considered for each GroupWise Disaster Recovery Server. When the GroupWise Disaster Recovery server reaches the error threshold for disk space, it will no longer create backups. Make sure the target system has plenty of space to accommodate the needs of your GroupWise Disaster Recovery backups.

GroupWise Disaster Recovery backs up GroupWise post offices and domains according to profiles that the administrator specifies, which tells GroupWise Disaster Recovery what to backup, where it is located, and where to store the data. The Profile can also keep track of disk space and when to expire the backups it creates. After the initial backup, each successive backup takes an average of 12% the full size of the live post office, also saving network and disk resources.

Disk speed directly impacts GroupWise Disaster Recovery performance. A disk that is tuned for fast writes to disk is highly recommended and will improve performance. When considering disk space requirements, also take into account future growth of GroupWise post offices, and the space that will be required to sustain that growth.

If GroupWise Disaster Recovery runs out of hard disk space, backups will no longer be created. A GroupWise Disaster Recovery profile has a threshold of days to keep in hot backups. This can help prevent systems from running out of disk space.

Server Only Backup Method

This backup method in with the GroupWise Disaster Recovery Server gets a client connection via a Linux mount point to the post office or domain to be backed up. GroupWise Disaster Recovery would then copy data from the live server to the GroupWise Disaster Recovery server via the mount point it had established to the live server housing GroupWise. Prior to GroupWise Disaster Recovery 5, this was the only method of performing backups. In this scenario, the GroupWise Disaster Recovery Server should be in close network proximity to the GroupWise servers that are being backed up with GroupWise Disaster Recovery. If a GroupWise Disaster Recovery Server and some GroupWise post offices are on a Gigabit switch, it would be best to have a network card in the GroupWise Disaster Recovery server that supports a Gigabit speed.

Paired Collector/Server Model

This backup method is new to GroupWise Disaster Recovery 5. A "Collector" runs on the server that houses a GroupWise post office or domain. The Collector then uses Rsync as the transport to get data from the GroupWise server to the GroupWise Disaster Recovery Server. This model requires the following disk space on the GroupWise server:

Post Office

2 times the size of the post office OFUSER, OFMSG and GWDMS directories. But not including the OFUSER/INDEX directory.

So for example, if the OFUSER directory contents was 1.5 GB and the OFMSG directory was 2.5 GB and the GWDMS directory was 1 GB the total space needed to service the Collector would be $1.5+2.5+1 = 5 \times 2 = 10 \text{ GB}$ needed somewhere on the GroupWise server to sustain the GroupWise Disaster Recovery Collector.

Disk Space on The GroupWise Disaster Recovery Server

The disk space may reside on the GroupWise Disaster Recovery server or on a SAN. The requirements of the disk solution are as follows:

- The disk solution should always be mounted for use with GroupWise Disaster Recovery.
- The disk solution should be formatted with a Linux based file system, specifically a file system that supports symbolic links.
- If the disk is not a SAN, but a NAS solution for example, the mount should be an NFS mount. No other protocol other than NFS.

Calculating Disk Space

The rule of thumb is 2.5 times the post office size per profile.

The GroupWise Disaster Recovery server requires the following disk space per profile:

- Initial backup: 100% of the size of the post office.
- Then 14 days of backups (on average) will be retained: 150% of the size of the post office.
- Remember to take Post Office growth and the host Operating system into account while calculating disk space needs.

For example: A 100 gigabyte post office, for example, would require approximately 250 GB of disk space to retain 14 days worth of backups.

System Design

How you implement your GroupWise Disaster Recovery system depends on what your GroupWise is hosted on.

GroupWise Disaster Recovery is a backup system and recovery system. It is built around the idea that 2 is 1 and 1 is none, in other words. if you have two copies of your data then if something happens you still have one copy available.

GroupWise Disaster Recovery can be configured save a backup of your production system, send a copy to an off-site server and to a cloud host to maximize data safety.

GroupWise Disaster Recovery

GroupWise Disaster Recovery backs up your domain and post offices so you can restore items and users. There is also a disaster recovery mode that allows you to use the GroupWise Disaster Recovery server as a POA if a POA goes down.

On the GroupWise Disaster Recovery server you need to create a profile for each domain and post office.

On the GroupWise server you need to set up a restore area.

You should expect to allocate 150% of the space your current GroupWise Post Office is taking up on the GroupWise Disaster Recovery server to accommodate 14 days worth of backups.

The databases and other files are copied to the GroupWise Disaster Recovery server into ~/<profile>/ backup/weeknow/<day>

The BLOB (Binary Large OBject) files are copied to the GroupWise Disaster Recovery server into ~/ <profile>/blobs

GroupWise on Linux

If GroupWise is on Linux, there are two models for backing up the data:

- Collector/Server
- Server Only

Collector/Server Model

The collector model is built for speed. Backups that take too long to create are not very useful.

The collector agent sits on the GroupWise server, uses DBCopy to make a local copy of the post office databases, then sends the databases, BLOBs and other files to one or more GroupWise Disaster Recovery servers with rsync. This is fast and has minimal impact on the server.

Server Only

The server model uses DBCopy across NFS to copy the production POA across the network to the GroupWise Disaster Recovery server. This is slow and requires a lock on the database for the duration of the transfer.

Restore Options

Restore Mode Restore

With GroupWise on Linux, you have the option to restore emails using the GroupWise Restore Area, which allows users to restore items themselves just by going to File | Open Backup, if the item is in the latest backup. This sets up the links in ~/profile/connect/restore for GroupWise to use.

Access Mode Restore

When a backup is loaded a POA is activated. The client can connect to the GroupWise Disaster Recovery Access Mode POA. Items can be saved to a local archive and unarchived to the production GroupWise server.

Restore all items for a user from GroupWise Disaster Recovery via GroupWise Administration

With a Restore Area in place, you can restore all items for a user from GroupWise Administration.

Restore all items for all users from GroupWise Disaster Recovery, via a bash script

With Disaster Recovery setup, you can use a bash script to restore all items back to the production GroupWise Post Office.

GroupWise on Windows

Server Only Model

If GroupWise is on Windows, you may only use the Server model for backing up the data.

Restore Options

Restore Mode Restore

With GroupWise on Linux, you have the option to restore emails using the GroupWise Restore Area, which allows users to restore items themselves just by going to File | Open Backup, if the item is in the latest backup.

Access Mode Restore

When a backup is loaded a POA is activated. The client can connect to the GroupWise Disaster Recovery Access Mode POA. Items can be saved to a local archive and unarchived to the production GroupWise server.



Installation performs the following tasks:

- 1. Installs the GroupWise Disaster Recovery System software to the path: /opt/beginfinite/reload.
- 2. Creates initialization scripts to start the GroupWise Disaster Recovery Daemon on server bootup.
- 3. Creates various GroupWise Disaster Recovery initialization scripts such as "reload, reloadd, reloadm, and reloadj" in the /usr/sbin directory, so that they are available to the Linux administrator "root".
- 4. Sets up a default GroupWise Disaster Recovery System configuration.
- 5. Starts the GroupWise Disaster Recovery Daemon.
- 6. If needed, the installation also installs the GroupWise DBCOPY and GroupWise Agent packages, unless these packages have been installed before, or if the installation determines that other GroupWise agent software is already installed.
- 7. If the GroupWise Disaster Recovery server has a connection to the Internet and can browse the web, then the GroupWise Disaster Recovery server will attempt to install a piece of software called Xdialog. The Xdialog is used to view GroupWise Disaster Recovery log files in a graphical user interface. It cannot be bundled with GroupWise Disaster Recovery, because of licensing issues, so GroupWise Disaster Recovery downloads it to the GroupWise Disaster Recovery server if the server has a connection to the Internet. Xdialog is not required.
- 8. Installs a GroupWise Disaster Recovery Administration icon to the root user's Xwindows desktop. If you are in an XWindows type session, you should see an icon on the root user's desktop. This icon is compatible with a basic GNOME or KDE installation. The icon is for convenience, and may not work in all Linux desktop environments.

Prerequisites

GroupWise 2014 or 2014 R2: To successfully integrate with GroupWise 2014 or 2014 R2, GroupWise server needs to be installed on the GroupWise Disaster Recovery server for necessary utilities to be installed. It is necessary to install openmotif for GroupWise.

- 1. Open YaST, then Software Management and install motif.
- 2. Install GroupWise 2014 server RPM.

Install GroupWise Disaster Recovery

Download GroupWise Disaster Recovery http://download.gwava.com/ download.php?product=Reload&version=rpm or

wget "http://download.gwava.com/download.php?product=Reload&version=current"

Unzip the archive

unzip reload5.zip

If installing under SLES 12, install rpm-32bit from YaST.

Install GroupWise Disaster Recovery by running the following command in the same directory the download is in:

rpm -ivh reload5.rpm

reload172:~ # rpm -ivh reloa	ad5.rpm	
Preparing	***************************************	[100%]
1:beginfinite-reload	<mark>#</mark> ###	(10%)

License GroupWise Disaster Recovery

License GroupWise Disaster Recovery by browsing to the https://licenses.gwava.com/ Licensing Website, entering your validation keys and downloading the PEM file.

Browse to the GroupWise Disaster Recovery Web Administration console

http://<GroupWise Disaster Recovery_Server_Address>:5555

X	Relo	ad	T	ools (Choos	e) Click -	GO Υ	GO	Help	DR Plan	What's New!	Blueprint	Home	n L	ogout 🕌
	Monitor		Overview	Co	onfigure	500	Event Log	2	Agent Log					
	😑 Syste	m Heal	th: License	e Error: Lo	ook at th	e Ove	rview Tab!				ę.,	Reload Jobs	Runnin	g: 0
	Post Off	fice Pro	files	Statu	s			Actions	;		Descripti	ion		
	Domai	in Profi	les	Statu	5			Actions	i.		Descripti	ion		

On the Toolbar, select Tools | License



Browse to the license PEM file

	R Click Here to License Blueprint for Reload
submit the Reload	license file do the following:
1. Select the "Bro	wse" button, to select the license file called: *.pem
2. Select the "Sul	omit License File" button
Delead Deemen w	vill then implement the new licence and restart the browner service.

Submit the license file by clicking the Submit License File button.



Upgrading GroupWise Disaster Recovery

Web Console

To upgrade GroupWise Disaster Recovery from the Web Console, choose upgrade from the Tools dropdown menu, press Go.

Upgrade	~	G0
---------	---	----

Select Upgrade Now

Automated Software Download and Automated Upgrade
NOTE: This automated upgrade feature does require that the Reload server have HTTP (Port 80) access to the Internet. If the Reload server does not have HTTP access to the Internet because of a proxy or some other reason, then open the "Manual Software Download and Automated Upgrade" panel below.
By selecting the "Upgrade Now" link, a request is made for the Reload Daemon to check to see if there is a newer version of Reload. If there is a newer version, the Reload Daemon will upgrade the Reload software package automatically.
To determine if Reload should be upgraded to a newer release, follow these steps:
The currently installed version of Reload is: Reload 5.1 Build (510125)
I. Check the <u>GWAVA Reload Support Forum Patches Section</u> to see if a newer version is available
2. To upgrade Reload select: QUpgrade Now which will install the latest version of Reload
Manual Software Download and Automated Upgrade
Advanced Upgrade Options

GroupWise Disaster Recovery Administration

To upgrade GroupWise Disaster Recovery from the Retain Administration, run:

reload



Choose System | Tools | Upgrade | Upgrade

Choose Using [UP] [DOWN], [Enter] to Select Upgrade Upgrade Reload Software Package View View Rolling Upgrade Log Static View Static Upgrade Log Advanced Advanced Upgrade Options				
Upgrade Upgrade Reload Software Package View View Rolling Upgrade Log Static View Static Upgrade Log Advanced Advanced Upgrade Options	Choose Using [UP	Upgrade Ment] [DOWN], [Enter] to Select	
Z CZ Z Rock X ZMain Manux	<mark>Upgrade</mark> View Static Advanced	Upgrade Reload View Rolling Upg View Static Upg Advanced Upgrad	Software Package grade Log rade Log e Options	
C ON S C BACK S CMAIN MENUS	< <mark>o</mark> k	< Back >	<main menu=""></main>	

Progress will be shown onscreen.

Command Line

To upgrade GroupWise Disaster Recovery from the command line, run:

reloadu

reloadu -r will force a download of the available version even if you previously downloaded it.

reloadu -h shows a help page

If the GroupWise Disaster Recovery server does not have access to the internet then the update can be downloaded from http://download.gwava.com/download.php?product=Reload&version=current

Copy the file to the GroupWise Disaster Recovery Server and place in

/opt/beginfinite/reload/upgrade

At a command prompt, type:

reloadu

Automatic Upgrades

To have GroupWise Disaster Recovery automatically upgrade itself, create a cron job:

crontab -e

and enter

00 1 * * 3 root /usr/sbin/reloadu

Upgrading the Collector

If you are using the Collector/Server Model, the collector will upgrade itself from the server when the next job begins:

When the GroupWise Disaster Recovery server is upgraded it dumps the upgrade rpm in:

```
/reload/[POprofile]/gre_data/sync/gre_data/proc/upgrade
```

When a backup job runs the collector uses rsync to check for an rpm upgrade file. If it does it transfers the rpm to:

/opt/beginfinite/reload/upgrade

If successful the collector upgrades itself, then corrupts of the rpm on the GroupWise Disaster Recovery server so it can't upgrade again. The GroupWise Disaster Recovery server will check the rpm for corruption and if it is, deletes the corrupt rpm since the upgrade has been completed.

Uninstall GroupWise Disaster Recovery

This only removes the GroupWise Disaster Recovery Software Package. The configuration data, profiles and profile backups are left in their storage directories. The data can be removed manually.

To uninstall the GroupWise Disaster Recovery Software Package, run:

```
/opt/beginfinite/reload/uninstall
```

Reinstall GroupWise Disaster Recovery

To reinstall GroupWise Disaster Recovery Software Package, run:

reloadu

5 Configuration

Post-Install Tasks

There are a few post-install tasks that need to be taken care of once GroupWise Disaster Recovery has been installed.

- 1. Setting the GroupWise version in GroupWise Disaster Recovery so GroupWise Disaster Recovery uses the correct GroupWise software
- 2. Enable Maintenance Purge in GroupWise so messages are not deleted from disk before GroupWise Disaster Recovery is able to backup all messages
- 3. Configure Notifications of system status
- 4. Configure GroupWise Disaster Recovery Backup Profiles for each GroupWise Domain and Post Office
- 5. Configure the Restore Area between GroupWise Disaster Recovery and GroupWise so items can be easily restored
- 6. Configure Auto-GroupWise Disaster Recovery so the most recent backup is always available
- 7. Configure Tape Backup for long term storage

Set the GroupWise version in GroupWise Disaster Recovery Administration

To run most effectively GroupWise Disaster Recovery should use the version of GroupWise software that the GroupWise server is using

Select GroupWise Version

Go to GroupWise Disaster Recovery Administration by running:

reload

The first time it is run you will be shown the readme page.

Then go to *System | GroupWise | Version* and press Space to select the appropriate version of GroupWise.

Select System: Administer System

Reload Administration - Server: RELOAD172 - Date: Mon Mar 13				
GWAVA Reload Main Menu				
Daemon Status: Running - Profiles Status: Good				
Choose using [UP] [DOWN], [Enter] to Select				
AccessAccess BackupsRecoveryDisaster RecoveryWARNINGRead WarningProfilesAdminister ProfilesJobsStart/Stop Backup JobsLogsView System LogsCreateCreate New ProfilesSystemAdminister SystemMonitorProfile MonitorOverviewProgram InformationDOCSDocumentation				
< <mark>OK ></mark> < Exit > < Help >				

Select GroupWise: GroupWise Software Integration

	-System Main Menu
Choose Using [UP]	[DOWN], [Enter] to Select
Control Tools Web Bookmarks Mailer Job Logs Integrations GroupWise Editor Readme Advanced	Control Daemon Process System Tools Web Administration Preferences Web Page "Bookmarks" Configuration Mailer Configuration Job Handling Configuration Log Expiration GWAVA Product Integration GroupWise Software Integration Graphical Editor Integration View GWAVA Reload Readme Advanced Configuration
<	O <mark>K ></mark> <main menu=""></main>

Select Version: GroupWise Version to Use

	Integration Configuration Menu
Choose Using [UP] [DOWN], [Enter] to Select
Version	GroupWise Version to Use [GroupWise 8]
Auto-Upgrade	Enable GroupWise Software Upgrade [Enabled]
DBCOPY-Port	Allow DBCOPY to Use a TCP/IP Port [Enabled]
POA-Graphical	Show GWPOA Interface if Possible [Disabled]
MTA-Graphical	Show GWMTA Interface if Possible [Disabled]
< <mark>0</mark> K	> < Back > <main menu=""></main>

Press Space to select your GroupWise version

Choose GroupWise Vers to Select	sion to Use - Use the Spacebar
() 8 () 7 () 12 (*) 14	GroupWise 8 GroupWise 7 GroupWise 2012 GroupWise 2014
< <mark>o</mark> k >	<cancel></cancel>

Manually installing the GroupWise software

Should that fail the GroupWise software can be added manually:

Determine what, if any, GroupWise software is already loaded. Get a list of installed GroupWise software by running:

```
rpm -qa | grep groupwise
```

This will return a list of GroupWise components already installed or just return to the command line if nothing is installed. For example, novell-groupwise-dbcopy and novell-groupwise-agents

Uninstall existing software by running:

rpm -e <software>

To uninstall GroupWise 8 and 2012:

rpm -e novell-groupwise-dbcopy

rpm -e novell-groupwise-agents

To uninstall GroupWise 2014:

rpm -e novell-groupwise-server

Install the GroupWise software:

For GroupWise 8 and 2012, DBCopy and the agent software must be installed from the GroupWise installation software package. DBCopy is found in the "admin" directory and the agent software is found in the "agents" directory.

For example, GroupWise 2012:

rpm -ivh novell-groupwise-agents-12.0.2-108211.i586

rpm -ivh novell-groupwise-dbcopy-12.0.2-108211.i586

For GroupWise 2014 and 2014R2, install the server software found in the "server" directory.

./install_server.sh

NOTE: Once the GroupWise software is installed, GroupWise Disaster Recovery and Blueprint can immediately use the version of software that you install. The version of GroupWise will eventually be reported correctly in the GroupWise Disaster Recovery Web Administration and GroupWise Disaster Recovery Console menu. It can take up to an hour because GroupWise Disaster Recovery only checks the version of the GroupWise software that is installed every hour.

Configure Maintenance Purge

This is optional but without it, you will only get a snapshot and not a complete backup.

To prevent items from being deleted from GroupWise before they are backed up, it is recommended to enable Message Retention Services across the Domain.

- 1. Go into GroupWise Administration | Domain | <specific system> | Client Options | Environment | Cleanup | Maintenance
- 2. Enable "Do not purge items until they are backed up"

Configure Notifications

GroupWise Disaster Recovery will send notifications about Daily Status, Errors, Warnings, Job Completion and Audit events.

Configure Reports & Notifications

- 1. Browse to the GroupWise Disaster Recovery Web Administration Console
- 2. Select the Configure tab
- 3. Open the "Reports & Notifications" section

Reload Tools (Choose) Click - GO GO Help DR Plan V
P Monitor 🛞 Overview 📝 Configure 👼 Event Log 🔍 Agent Log
Reports & Notifications
DAILY STATUS REPORT
Reload Can Send a Daily Consolidated Status Report of All Reload Profiles
Send the Status Report Message Now Send
😑 Send a Daily Consolidated Status Report E-mail: Enabled 🛩 Save
Send a Backup of All Configuration Files Daily: Enabled V Save
Include Reload System Event Log: Disabled Edit
Daily Status Report FROM Address: reload@gwava.net Save
Daily Status Report TO Recipient: aiden@doc.gwava.net Save
Send Status Report to a CC Recipient: Disabled Edit
Oaily Status Report CC Recipient: joe@example.com Edit
JOB COMPLETION

- 4. Configure each section:
 - a. Enable each type of notification you wish to receive
 - b. Enable each section with a Notification TO Recipient

Confirmation

2

To see if this worked, press the Send button for each section and check your mailbox.

TIP: You can change the From address for each section. You may want to consider using different From addresses and filtering the status messages to go to a folder while errors and warnings go to your inbox to make managing your inbox easier.

Troubleshooting Notifications

If you are unable to receive messages from GroupWise Disaster Recovery you can check the Agent log for errors. GroupWise Disaster Recovery uses postfix to send mail. Searching for postfix in the log may help you find out what is happening.

A common issue is that the GroupWise Disaster Recovery server cannot find the SMTP relay host. You can set this manually.

- 1. Browse to the GroupWise Disaster Recovery Web Administration Console
- 2. Select the Configure tab
- 3. Open the "GroupWise Disaster Recovery Mailer Preferences, Help & Troubleshooting" section
- 4. Set the "SMTP Relay Host" to your mail server, and save

X	Reload	Help	DR Plan	What's
	Monitor 👸 Overview 📝 Configure 👼 Event Log	Ā	Agent Log	I
	Market Science Reports & Notifications			
	Web Administration & System Preference	es		
	Job Handling Preferences			
	Reload Mailer Preferences, Help & Trout	lesho	oting	
	Reload Can Send E-mailed Reports and Notifcations			
	SMTP Relay Host: smtp.gwava.net Save			
	Help Understanding What the Reload Mailer Settings Do Reload and Postfix Mailer Troubleshooting and Custom	Rea	Read Help	р
	Reload Can Embed the Reload Server URL in All Mail Me	essages	s Sent by R	eload
	Embed Reload Server URL in All Mail Messages Disab	led Ed	lit	
	Reload Server URL: http://10.1.4.172:5555 Edit			

5. Send another test message.

GroupWise on Linux

Collector/Paired Server Profiles

The Collector model creates a software agent called a collector that handles transferring the data to the GroupWise Disaster Recovery server.



It is faster than the Server Only model and can send the data to up to three different GroupWise Disaster Recovery server.

The BLOB files are copied to the GroupWise Disaster Recovery server via rsync.

Because database files need to be locked during copy operations the GroupWise Disaster Recovery agent will use DBCopy to make a copy of the databases locally on the GroupWise server to minimize the impact of the copy, then transfer the databases to a temporary directory on the GroupWise Disaster Recovery server. Once successfully transferred to the GroupWise Disaster Recovery server the databases are moved to the appropriate backup directory.

You first set up a receiving server profile (marked with a <~>) on the *GroupWise Disaster Recovery* server.

X	Reload	Tools (Choose) Click - GC) V GO Help DR Plan V	What's New! Blueprint	Home 🏠 Logout 将
	Monitor 👸 Overvi	ew 📝 Configure	👼 Event Log 🙇 Agent Log		
	Oursease 1 a a labor A	Dusfiles Ass Frankisnin		۵. م	Need John Burning: 0
	System Health: All	Profiles Are Functionin	g correctly		load Jobs Running: U
_	Post Office Profiles	Status	Actions	Description	
	<u>● 1. P01 <~></u>	🔵 🐑 📑 NONE		Post Office 1	
	Domain Profiles	Status	Actions	Description	
	● <u>1. DOMAIN <~></u>	🔵 🎭 📑 NONE	!	Primary domain	

Then setup a sending collector profile (marked with a ~) on the GroupWise server.

🚝 Reload 🗾	Tools (Choose) Click - GO 💙	GO Help DR Plan	What's New! Blueprint Home 🏠 Log	gout 🕂
P Monitor 👸 Overvi	iew 📝 Configure 👼	Event Log 🔍 Agent Log		
System Health: All	Profiles Are Functioning Co	orrectly	🏀 Reload Jobs Running:	0
Post Office Profiles	Status	Actions	Description	
<u> 1. P01 ~</u>	🔵 🐁 📑 NONE		Post Office 1 Collector	
Domain Profiles	Status	Actions	Description	
<u> </u>	🔵 🏀 🔳 TUEMAR14	!	Primary Domain	

Prerequisites

You will need to create a directory on the GroupWise Disaster Recovery and the GroupWise server for the backup data. The name of the profile will be used to create sub-directories for each profile. For example:

/reload/

You will need to know the directories on the GroupWise server for the live data. For example:

/groupwise/domain

/groupwise/pol

Configure Profiles

There are two kinds of Collector/Server Model profiles: Domain (Collector_Model_Domain_Profiles.htm) and Post Office (Collector_Model_Post_Office_Profiles.htm).

Troubleshooting Collector Connectivity Issues

That are occasionally issues with the Collector connecting properly to the GroupWise Disaster Recovery server during profile testing and an error like this appears:

The authenticity of host <ip address> can't be established. ECDSA key fingerprint is <numeric value> [MD5]

Are you sure you want to continue connecting (yes/no)?

On the server with the GroupWise Disaster Recovery Collector:

1. Go to the directory:

/root/.ssh

- 2. Delete all files in the directory
- 3. In the terminal, enter the command

ssh-keygen -t rsa

4. Take the default values or enter your own, if desired

5. Exchange the ssh keys with the GroupWise Disaster Recovery server by entering the command:

ssh-copy-id -i /root/.ssh/id_rsa.pub <address of Paired GroupWise Disaster Recovery Server>

For example, ssh-copy-id -i /root/.ssh/id_rsa.pub 10.1.1.123

6. Return to the GroupWise Disaster Recovery Console and retest the Profile

Collector Model Domain Profiles

Paired Collector/Paired Server Model

The Collector model creates a software agent called a collector that handles transferring the data to the GroupWise Disaster Recovery server.

You first set up a receiving server profile (marked with a $<\sim>$) on the GroupWise Disaster Recovery server, then a sending collector profile (marked with a \sim) on the GroupWise server.

It is faster than the Server Only model and can send the data to up to three different GroupWise Disaster Recovery server, but requires copying parts of the domain or post office to another directory before sending the data so it has a snapshot of the data.

Prerequisites

You will need to create a directory on the GroupWise Disaster Recovery and the GroupWise server for the backup data. The name of the profile will be used to create sub-directories for each profile. For example:

/reload/

You will need to know the directories on the GroupWise server for the live data. For example:

/groupwise/domain

/groupwise/pol

Configure Profiles

Domain Profile: Collector/Paired Server Model

Create a Paired Server to receive the data sent by the Collector:

On the GroupWise Disaster Recovery Server, create the Paired Server:

1. Create a directory for the backup data. For example:

mkdir /reload

- 2. Start the GroupWise Disaster Recovery Administration Console by typing on the command line: reload
- 3. Select "Create (Create Profile)"

GWAVA	Reload Main Menu
Daemon Status: Run Choose using [UP]	ning - Profiles Status: Good [DOWN], [Enter] to Select
Access Recovery WARNING Profiles Jobs Logs Create System Monitor Overview DOCS	Access Backups Disaster Recovery Read Warning Administer Profiles Start/Stop Backup Jobs View System Logs Create New Profiles Administer System Profile Monitor Program Information Documentation
< <mark>O</mark> K >	< Exit > < Help >

4. Select "Domain (Create a New GroupWise Domain Profile)"

	Create Profile Main Menu
Choose using [U	IP] [DOWN], [Enter] to Select
Post Domain Modify Test View Delete	Create a New GroupWise Post Office Profile Create a New GroupWise Domain Profile Modify a Profile's Connectivity Settings Test a Profile's Connectivity Settings View the Last Test Log for a Profile Delete a Profile
	< <mark>OK ></mark> <main menu=""></main>

5. Give the Profile a Name. The profile name should not exceed eight characters. Use letters and numbers only, no spaces or other characters. For example: Domain Be aware, that a profile cannot be renamed, once it has been created. Choose the name wisely. Perhaps you will want to name the profile so that its name is the same as the GroupWise post office or domain that the profile represents. Select the Next button.
| Profile Name |
|--|
| Choose < Next > to Accept |
| Use letters and numbers only, no spaces or other characters! |
| The profile name SHOULD NOT EXCEED 8 characters. |
| Enter the name of the profile in the field below: |
| Domain |
| |
| <pre>< Next > < Cancel ></pre> |

6. Give the Profile a Description. The profile description should not exceed 60 characters and should not have comma(,), nor dollar sign(\$) characters. For example: Primary Domain. The description of the profile will be added to the Agent Log when backup jobs are run for the profile. Select the Next button.



7. Backup Path: Enter the path or browse to the local destination directory to store the backup data. For example: /reload. This path can be a location on the Linux server, or an NFS mount to another Linux/Unix server, or to a SAN. Do not use a NAS as it doesn't allow the right kind of access. The path should always be available; GroupWise Disaster Recovery is not configured to mount paths in order to access stored data. Also, the path should be to a location that has a lot of disk space available. Select the Next button.

Profile [DOMAIN] - LOCAL DESTINATION TO S:	TORE BACKUP DATA
Directories	Files
/reload/	
< Next > < Bat	ck > < Cancel >

8. Confirm the path to the local destination directory

Confirm	LOCAL	DESTINA	TION TO	STORE	BACKUP	DATA
Choose < Next > to	Accept	;				
Please Confirm the						
/reload/						
-						
< Next	>	< 1	Back 3	×	< Cance	el >

9. Choose the server type: "Paired (A Profile on This Server that has a Paired Collector)". Select the Next button.



10. The profile creation wizard tests and initializes the newly created profile and prepares it to accept a pairing request from a Paired Collector, and initializes the newly created profile and prepares it to accept a pairing request from a Paired Collector.

Testing and initializing a profile does not backup the post office or domain in any way.

GWAVA Reload Test and Initialize Utility
Checking for a Disaster Recovery MTA startup file.
A Disaster Recovery MTA startup file does exist.
A Standard Backup Job Schedule does exist.
Mon Mar 13 12:44:22 MDT 2017
SUCCESS, THE PAIRED SERVER PROFILE: DOMAIN IS NOW ENABLED.
< Exit >

Once a profile is tested and initialized successfully, the profile is available to be configured further. The default configuration of a profile is sufficient for making quickly accessible backups with GroupWise Disaster Recovery. Further configuration of the profile should be done in GroupWise Disaster Recovery Web Administration. To be able to backup the data, a collector needs to be created on the GroupWise server.

On the GroupWise Server, create the Collector:

• On the GroupWise server, the collector will need to be downloaded, installed and configured to connect to the GroupWise Disaster Recovery server.

If this is an *existing GroupWise Disaster Recovery installation* with an existing Server model connection for the profile:

On the GroupWise Disaster Recovery server, browse to the GroupWise Disaster Recovery Web Administration Console: http://<GroupWise Disaster Recovery_Server_IP_or_Hostname>:5555

1. Select the profile

Reload Tools	(Choose) Click - GO V GO Help	DR Plan What's New! Blueprint	Home 🦿	Logout
P Monitor 💮 Overview 🛐	Configure 555 Event Log	🙇 Agent Log		
System Health: All Profiles	Are Functioning Correctly		🇞 Reload Jobs Run	ning: O
Post Office Profiles	Status	Actions	Description	
Domain Profiles	Status	Actions	Description	
<u>● 1. DOMAIN <~></u>	🔵 🎭 📑 NONE	i 😥	Primary domain	

- 2. Click on the Configure tab
- 3. Open the Domain and MTA Settings panel
- 4. Enable "Allow Paired Collector", press Save, and click on "Setup Paired Collector" to have GroupWise Disaster Recovery copy the Collector Agent software to the GroupWise server.

Tools (Choose) Click - GO GO Help DR Plan What's New! Blueprint
1. DOC1DOM 🕘 Health 🔵 Backup Loaded 🏪 Job Status 🏢 Disk Space Latest Backup : MONMAR13
👸 Overview 🙀 Backups 🚓 Disaster Recovery 📝 Configure 👼 Event Log 🔍 Agent Log
Preferences
Backup Job Settings
Domain and MTA Settings
Configure All Profiles
• Configure Connectivity to the Live Domain
Allow Paired Collector: Enabled Save Setup Paired Collector
Live Domain Connection Type: Linux Server Edit

On the GroupWise server, in the Domain directory a new directory (/collect) will be created and the file "reload_collector.rpm" will be created.

• Open a terminal window, go to where the file is and run:

```
rpm -i reload_collector.rpm
```

If this is a new installation with no preexisting connection:

On the GroupWise server, browse to the GroupWise Disaster Recovery Web Administration Console. http://<GroupWise Disaster Recovery_Server_IP_or_Hostname>:5555

1. From the Tool dropdown menu select Domain Collector

Relad	Domain Collector	✓ G0
Reloud		

2. Click on 2. Installing the GroupWise Disaster Recovery Collector Software to open the section

Tools (Choose) Click - GO V GO Help DR Plan What's New! Blueprint
ONLINE COLLECTOR DOCUMENTATION
<u>1. Creating The Reload Server Profile</u>
2. Installing The Reload Collector Software
Here are the steps for installing the Reload Collector Software:
● Get a terminal session to the live Linux based server that houses the GroupWise domain.
Obtain and install the GroupWise DBCOPY Utility to the GroupWise server.
NOTE: With GroupWise 2014, DBCOPY is already installed. Don't worry about this step!
Go to the domain directory and look for a directory named: collect
In the collect directory look for the file: reload_collector.rpm
Install the reload_collector.rpm with the following command:
rpm -i reload_collector.rpm
NOTE: If the Reload Collector software is not on the live GroupWise server, you can download the collector here: reload_collector.rpm or find the collector RPM file on the Reload Server at this path:
/opt/beginfinite/reload/setup/collect
Copy the the reload_collector.rpm file to the live GroupWise server, and install the software as explained above.

- 3. Click on reload_collector.rpm to download
- 4. Open a terminal window, go to where the file is and run:

rpm -i reload_collector.rpm

Configure Collector Agent

Once the collector is installed, on the GroupWise server, start the GroupWise Disaster Recovery Administration Console by typing on the command line:

reload

1. Select "Create (Create Profile)"

Daemon Status: Running - Profiles Status: Good Choose using [UP] [DOWN], [Enter] to Select					
AccessAccessBackupsRecoveryDisaster RecoveryWARNINGRead WarningProfilesAdminister ProfilesJobsStart/Stop Backup JobsLogsView System LogsCreateCreate New ProfilesSystemAdminister SystemMonitorProfile MonitorOverviewProgram InformationDOCSDocumentation					
Z OZ Z Zwit X Z Halp X					

2. Select "Domain (Create a New GroupWise Domain Profile)"



3. Give the Profile a Name. The profile name should not exceed eight characters. Use letters and numbers only, no spaces or other characters. For example: domain. Be aware, that a profile cannot be renamed, once it has been created. Choose the name wisely. Perhaps you will want to name the profile so that its name is the same as the GroupWise post office or domain that the profile represents. Select the Next button.



4. Give the Profile a Description. The profile description should not exceed 60 characters and should not have comma(,), nor dollar sign(\$) characters. For example: Domain Collector. The description of the profile will be added to the Agent Log when backup jobs are run for the profile. Select the Next button.

Profile Description						
Choose < OK > to Accept						
The profile description should not exceed 60 characters.						
NOTE: Do not use a comma or dollar sign (, \$) character.						
Enter the profile description in the field below:						
Primary domain						
< OK > < Cancel >						

5. Backup Path: Enter the path or browse to the local destination directory to store the backup data. For example: /reload. The profile directory will be added to this path. This path can be a location on the Linux server, or an NFS mount to another Linux/Unix server, or to a SAN. The path should always be available; GroupWise Disaster Recovery is not configured to mount paths in order to access stored data. Also, the path should be to a location that has a lot of disk space available. Select the Next button.

Profile [DOMAIN] - LOCAL DESTINATION TO STORE BACKUP DATA					
Use [TAB] [UP] [DOWN],[Space Bar Directories	c] to Select a LOCAL DESTINATION				
	L				
< Next > < Bac	ck > < Cancel >				

6. Confirm the path to the local destination directory

Confirm	LOCAL	DESTIN	ATION	TO	STORE	BACKUP	DATA
Choose < Next > to	Accept						
Please Confirm the							
/reload/							
-							
< Nex	t >	<	Back	>		< Cance	el >

7. Choose the server type: "Collector (A Local Post Office/Domain Paired to a GroupWise Disaster Recovery Server)". Select the Next button.

Select the Server Platform					
Choose Using [UP] [DOWN], < Next > to Select					
Select the Server Platform of the server housing the GroupWise domain database that this profile represents.					
Linux	NFS/Linux Server or Linux Cluster Resource				
Collector	A Local Domain Database Paired to a Reload Server				
Paired	A Profile on This Server that has a Paired Collector				
Local	A Domain Database on this Linux Server				
NetWare	NCP/NetWare Server or NetWare Cluster Resource				
Windows	SAMBA/Windows Server				
Reload	A Profile on a Remote GWAVA Reload Server				
-					
<	N <mark>ext > < Back > < Cancel ></mark>				

8. Enter the TCP/IP Address or DNS hostname for the GroupWise Disaster Recovery server this collector will be paired with. (Do not use the number pad.) Select the Next button.

DESTINATION Paired Reload Server TCP/IP or DNS Address				
Choose < Next > to Accept				
In the field below type in the TCP/IP or DNS Address of the DESTINATION Paired Reload Server that backup data will be sent to. Example: 10.1.1.1 or reload.example.com				
10.1.4.172				
< Next > < Back > < Cancel >				

9. A terminal session will appear to prompt you to accept an SSH key and enter the password for the GroupWise Disaster Recovery server. If another profile was created to the same server it will only update.



10. Enter the SSH port used by the GroupWise Disaster Recovery server (default port: 22)

DESTINATION Paired NOTE: Use digits, not	Reload Server SSH Port
22	
<mark>< 0K ></mark>	<cancel></cancel>

11. Backup Path: Enter the destination path the data will be stored in on the GroupWise Disaster Recovery server. This is the destination directory you entered when creating the Paired Server on the GroupWise Disaster Recovery server.

DESTINATION Paired Reload Profile Path				
Choose < Next > to Accept				
In the field below type in the DESTINATION Reload Profile Path of the Paired Reload profile on the DESTINATION Reload Server that this collector will send backup data to.				
NOTE: The DESTINATION Paired Reload Profile must already exist on the DESTINATION Reload Server!				
/reload/domain				
< Next > < Back > < Cancel >				

12. Source Path of the GroupWise files: Enter the source path to the local destination directory entered earlier on the GroupWise server. For example: /groupwise/domain

-Use [TAB] [UP] [DOWN],[Space Bar] to Directories	Select the Local SOURCE Domain Path
·	
docdom docpo	
/groupwise/docdom	
< Next > < Bac	k > < Cancel >

13. Confirm the path to the local source directory

Confirm Gr	oupWise Local	SOURCE Domai	n Path	J
Choose < Next > to Acce	pt			
Local SOURCE Domain Pat represents.	n for the Grou	ıpWise domair	database this	profile
/groupwise/docdom				
< Next >	< Back	> < 0	ancel >	

14. A summary of the profile settings will appear. Select the OK button.



15. Test and Initialization:



- 16. If the profile is correct, select the Test button.
- 17. If the profile is not correct, select the Skip button.
- 18. The profile creation wizard tests and initializes the newly created profile and prepares it to accept a pairing request from a Paired Collector and initializes the newly created profile and prepares it to accept a pairing request from a Paired Collector.

```
GWAVA Reload Test and Initialize Utility

Command Executed: ./gre_dom_sync -p domain -f F3 -i /opt/beginfinite/reloa

Profile Specified: domain

LATEST_BACKUP_LOCATION = /reload/domain/backups/

Running Specified Function: F3

[I] DATE: Mon_Mar_13 TIME: 13:34:40 PROFILE: DOMAIN - [GRE_DOM_SYNC]- Now

RSYNC Options: -v -e ssh -p 22 -o ConnectTimeout=30 --progress

[I] DATE: Mon_Mar_13 TIME: 13:34:40 PROFILE: DOMAIN - [GRE_DOM_SYNC]- Runn

[I] DATE: Mon_Mar_13 TIME: 13:34:41 PROFILE: DOMAIN - [GRE_DOM_SYNC]- Sent

[I] DATE: Mon_Mar_13 TIME: 13:34:41 PROFILE: DOMAIN - [GRE_DOM_SYNC]- Sent

[I] DATE: Mon_Mar_13 TIME: 13:34:41 PROFILE: DOMAIN - [GRE_DOM_SYNC]- NOTE

[I] DATE: Mon_Mar_13 TIME: 13:34:41 PROFILE: DOMAIN - [GRE_DOM_SYNC]- Succ

SUCCESS, THIS RELOAD COLLECTOR PROFILE: DOMAIN IS NOW PAIRED

WITH THE RELOAD SERVER PROFILE: DOMAIN ON SERVER: 10.1.4.172
```

19. The Collector should find the license from the Server. If it fails, then backups will not occur. The license file can be loaded to the Collector in the Web Console as during the install procedure.

Switching from Server model to Collector Model

If you have been running GroupWise Disaster Recovery using the server model and the GroupWise Domain and/or Post Office is on Linux, then you can easily switch to the collector model.

 On the GroupWise server, create a directory for the GroupWise Disaster Recovery Agent to copy the databases to before sending to the GroupWise Disaster Recovery server. For example,

mkdir /reload

If switching the Domain profile:

- 1. Browse to the GroupWise Disaster Recovery Web Administration console http://<GroupWise Disaster Recovery_Server_Address>:5555
- 2. Select the Domain Profile
- 3. Select the Configure tab and open "Domain and MTA Settings"
- 4. Enable "Allow Paired Collector" and press Save

Reload Tools (Choose) Click - GO V GO Help DR Plan What's New! Blueprint
1. DOC1DOM 😑 Health 🔵 Backup Loaded 🎡 Job Status 🏢 Disk Space Latest Backup : MONMAR13
🛞 Overview 🚯 Backups 🚓 Disaster Recovery 📝 Configure 👼 Event Log 🕵 Agent Log
Preferences
Backup Job Settings
Domain and MTA Settings
Configure All Profiles
• Configure Connectivity to the Live Domain
Allow Paired Collector: Enabled Save Setup Paired Collector
Live Domain Connection Type: Linux Server Edit

- 5. Click on "Setup Paired Collector". This will create the directory /collect in the domain directory on the GroupWise server and copy the file "reload_collector.rpm" to it.
- 6. Connect to the GroupWise server and run

rpm -ivh reload_collector.rpm

- 7. Setup up the collector by running reload
- 8. See Domain Profile: Collector/Server Model to complete the setup process
- 9. Start a backup job on the collector and the profile on the GroupWise Disaster Recovery will change to a Collector/Server with a <~> after the name

Collector Model Post Office Profiles

Paired Collector/Server Model

The Collector model creates a software agent called a collector that handles transferring the data to the GroupWise Disaster Recovery server.

You first set up a receiving server profile (marked with a $\langle \rangle$) on the GroupWise Disaster Recovery server, then a sending collector profile (marked with a \rangle) on the GroupWise server.

It is faster than the Server Only model and can send the data to up to three different GroupWise Disaster Recovery server, but requires copying parts of the domain or post office to another directory before sending the data so it has a snapshot of the data.

Prerequisites

You will need to create a directory on the GroupWise Disaster Recovery and the GroupWise server for the backup data. The name of the profile will be used to create sub-directories for each profile. For example:

/reload/

You will need to know the directories on the GroupWise server for the live data. For example:

/groupwise/domain

/groupwise/po1

Configure Profiles

Post Office Profile: Collector/Server Model

On the GroupWise Disaster Recovery Server, create the Server:

1. Create a directory for the backup data. For example:

mkdir /reload

- 2. Start the GroupWise Disaster Recovery Administration Console by typing on the command line: reload
- 3. Select "Create (Create Profile)"

GWAVA Reload Main Menu					
Daemon Status: Runn Choose using [UP] []	ing - Profiles Status: Good DOWN], [Enter] to Select				
AccessAccessBackupsRecoveryDisaster RecoveryWARNINGRead WarningProfilesAdminister ProfilesJobsStart/Stop Backup JobsLogsView System LogsCreateCreate New ProfilesSystemAdminister SystemMonitorProfile MonitorOverviewProgram InformationDOCSDocumentation					
< <mark>o</mark> k > <	< Exit > < Help >				

4. Select "Post Office (Create a New GroupWise Post Office Profile)"



5. Give the Profile a Name. The profile name should not exceed eight characters. Use letters and numbers only, no spaces or other characters. For example: Post Office. Be aware, that a profile cannot be renamed, once it has been created. Choose the name wisely. Perhaps you will want to name the profile so that its name is the same as the GroupWise post office or domain that the profile represents. Select the Next button.

Profile Name
Choose < Next > to Accept
Use letters and numbers only, no spaces or other characters!
The profile name SHOULD NOT EXCEED 8 characters.
Enter the name of the profile in the field below:
POI
< Next > < Cancel >

6. Give the Profile a Description. The profile description should not exceed 60 characters and should not have comma(,), nor dollar sign(\$) characters. For example: Primary Post Office. The description of the profile will be added to the Agent Log when backup jobs are run for the profile. Select the Next button.

Profile Description				
Choose < OK > to Accept The profile description should not exceed 60 characters.				
NOIL. DO NOU USE a COMMA OF GOITAF SIGN (, \$) Character.				
Enter the profile description in the field below:				
Post Office 1				
< OK > < Cancel >				

7. Enter the path or browse to the local destination directory to store the backup data. For example: /reload. The profile directory will be added to this path. This path can be a location on the Linux server, or an NFS mount to another Linux/Unix server, or to a SAN. The path should always be available; GroupWise Disaster Recovery is not configured to mount paths in order to access stored data. Also, the path should be to a location that has a lot of disk space available. Select the Next button.

Directories	Files
bin	
boot	
dev	
etc	
home	
lib	
lib64	
lost+found	
media	
mnt	
opt	
proc	
reload	
root	
sbin	
/reload	
L	
< Next 1	< Back > < Cancel >

8. Confirm the path to the local destination directory

LOCAL	DESTINATI	ION TO	STORE	BACKUP	DATA
Accept					
>	< Ba	ick >		< Cance	el >
	LOCAL Accept Path	LOCAL DESTINATI Accept Path	LOCAL DESTINATION TO Accept Path	Accept Path > < Back >	Accept Path > < Back > < Cance

9. Choose the server type: "Paired (A Profile on This Server that has a Paired Collector)". Select the Next button.



10. The profile creation wizard tests and initializes the newly created profile and prepares it to accept a pairing request from a Paired Collector and initializes the newly created profile and prepares it to accept a pairing request from a Paired Collector.



Testing and initializing a profile does not backup the post office or domain in any way.

Once a profile is tested and initialized successfully, the profile is available to be configured further. The default configuration of a profile is sufficient for making quickly accessible backups with GroupWise Disaster Recovery. Further configuration of the profile should be done in GroupWise Disaster Recovery Web Administration.

To be able to backup the data, a collector needs to be created on the GroupWise server.

On the GroupWise Server, the collector will need to be downloaded, installed and configured to connect to the GroupWise Disaster Recovery server.

If this is a new installation with no preexisting connection:

- 1. On the GroupWise server, browse to the GroupWise Disaster Recovery Web Administration Console. http://<GroupWise Disaster Recovery_Server_IP_or_Hostname>:5555
- 2. From the Tool dropdown menu select Post Office Collector



- 3. Click on 2. Installing the GroupWise Disaster Recovery Collector Software to open the section
- 4. Click on reload_collector.rpm to download



5. Open a terminal window, go to where the file is and run:

rpm -i reload_collector.rpm

Configure Collector Agent

Once the collector agent is installed, on the GroupWise server, start the GroupWise Disaster Recovery Administration Console by typing on the command line:

reload

1. Select "Create (Create Profile)"

GWAVA	Reload Main Menu
Daemon Status: Runn Choose using [UP] [DOWN], [Enter] to Select
Access Recovery WARNING Profiles Jobs Logs Create System Monitor Overview DOCS	Access Backups Disaster Recovery Read Warning Administer Profiles Start/Stop Backup Jobs View System Logs Create New Profiles Administer System Profile Monitor Program Information Documentation
	< Exit > < Help >
<mark>≺ o</mark> k ≻	< Exit > < Help >

2. Select "Post Office (Create a New GroupWise Post Office Profile)"

Г	Create Profile Main Menu	1
	Choose using [UP] [DOWN], [Enter] to Select	
	PostCreate a New GroupWise Post Office ProfileDomainCreate a New GroupWise Domain ProfileModifyModify a Profile's Connectivity SettingsTestTest a Profile's Connectivity SettingsViewView the Last Test Log for a ProfileDeleteDelete a Profile	
	< <mark>0 K > <main menu=""></main></mark>	

3. Give the Profile a Name. The profile name should not exceed eight characters. Use letters and numbers only, no spaces or other characters. For example: po. Be aware, that a profile cannot be renamed, once it has been created. Choose the name wisely. Perhaps you will want to name the profile so that its name is the same as the GroupWise post office or domain that the profile represents, but it does not have to match. Select the Next button.

Profile Name
Choose < Next > to Accept
Use letters and numbers only, no spaces or other characters!
The profile name SHOULD NOT EXCEED 8 characters.
Enter the name of the profile in the field below:
POI
< Next > < Cancel >

4. Give the Profile a Description. The profile description should not exceed 60 characters and should not have comma(,), nor dollar sign(\$) characters. For example: Domain Collector. The description of the profile will be added to the Agent Log when backup jobs are run for the profile. Select the Next button.



5. Enter the path or browse to the local destination directory to store the backup data. For example: /reload. This path can be a location on the Linux server, or an NFS mount to another Linux/Unix server, or to a SAN. The path should always be available; GroupWise Disaster Recovery is not configured to mount paths in order to access stored data. Also, the path should be to a location that has a lot of disk space available. Select the Next button.

Use (TAB) (UP) Directories	[DOWN],[Space Bar] to Select a LOCAL DESTINATION- Files
home lib lib64	
lost+found media mnt opt	
proc reload	
/reload	
< Nex	<pre>> < Back > < Cancel ></pre>

6. Confirm the path to the local destination directory

Confirm	LOCAL	DESTIN	ATION	TO	STORE	BACKUP	DATA	1
Choose < Next > to	Accept	;						
Please Confirm the								
/reload								
L								
< Next	5 >	<	Back	>		< Cance	el >	

7. Choose the server type: "Collector (A Local Post Office/Domain Paired to a GroupWise Disaster Recovery Server)". Select the Next button.

Select the	Server Platform
Choose Using [UP] [DOWN], < Nex	t > to Select
Select the Server Platform of the	he server housing the GroupWise post
office that this profile represent	ents.
Linux NFS/Linux Server	or Linux Cluster Resource
Collector	ice Paired to a Reload Server
Paired A Profile on Thi:	s Server that has a Paired Collector
Local A Post Office on	this Linux Server
NetWare NCP/NetWare Server	er or NetWare Cluster Resource
Windows SAMBA/Windows Set	rver
Reload A Profile on a Reload	emote GWAVA Reload Server
< Next > <	Back > < Cancel >

8. Enter the TCP/IP Address or DNS hostname for the GroupWise Disaster Recovery server this collector will be paired with. Select the Next button.

DESTINATION Paired Reload Server TCP/IP or DNS Address
Choose < Next > to Accept
In the field below type in the TCP/IP or DNS Address of the DESTINATION Paired Reload Server that backup data will be sent to. Example: 10.1.1.1 or reload.example.com
10.1.4.172
< Next > < Back > < Cancel >

9. A terminal session will appear to prompt you to accept an SSH key and enter the password for the GroupWise Disaster Recovery server. If another profile was created to the same server it will only update.



10. Enter the SSH port used by the GroupWise Disaster Recovery server (default port: 22)

DESTINATION Paired Re	load Server SSH Port
22	
< 0K >	<cancel></cancel>

11. Enter the destination path the data will be stored in on the GroupWise Disaster Recovery server. This is the destination directory you entered when creating the Paired Server on the GroupWise Disaster Recovery server.



12. Source Path to the GroupWise files: Enter the source path to the local destination directory entered earlier on the GroupWise server. For example: /groupwise/po

Use [TAB] [UP] [DOWN],[Space Bar] to Directories	Select the Local SOURCE Post Office Path Files
·	
docdom docpo	
/groupwise/docpo	
<mark>< Next ></mark> < Bac	k > < Cancel >

13. Confirm the path to the local source directory

Confirm GroupWise	e Local SOURCE Post Office Path	٦
Choose < Next > to Accept		
Local SOURCE Post Office Par profile represents.	ath for the GroupWise post office this	
/groupwise/docpo		
< Next >	< Back > < Cancel >	

14. A summary of the profile settings will appear. Select the OK button.



15. Test and Initialization:



- 16. If the profile is correct, select the Test button.
- 17. If the profile is not correct, select the Skip button.
- 18. The profile creation wizard tests and initializes the newly created profile and prepares it to accept a pairing request from a Paired Collector and initializes the newly created profile and prepares it to accept a pairing request from a Paired Collector.

If this is an *existing* GroupWise Disaster Recovery installation with an existing Server model connection for the profile:

- 1. On the GroupWise Disaster Recovery server, browse to the GroupWise Disaster Recovery Web Administration Console. http://<GroupWise Disaster Recovery_Server_IP_or_Hostname>:5555
- 2. Select the profile
- 3. Click on the Configure tab
- 4. Open the Post Office and POA Settings section
- 5. Enable "Allow Paired Collector"

Tools (Choose) Click - GO V GO Help DR Plan What's New! Blueprint
1. DOC1PO \ominus Health 📀 Backup Loaded 🎭 Job Status 🏢 Disk Space Latest Backup : SUNMAR12
🔅 Overview 🚱 Backups 🚓 Disaster Recovery 📝 Configure 👼 Event Log Agent Log
Preferences
User Access to Backups
Backup Job Settings
Post Office and POA Settings
Configure All Profiles
Allow Paired Collector: Enabled Save Setup Paired Collector NOTE: Disk Space Required For Collector: 49 MB

Click on "Setup Paired Collector" to have GroupWise Disaster Recovery copy the collector agent to the GroupWise server.

- 1. On the GroupWise server, in the Post Office directory a new directory (/collect) will be created and the file "reload_collector.rpm" will be created.
- 2. Open a terminal window, go to where the file is and run:

```
rpm -i reload_collector.rpm
```

Switching from Server model to Collector Model

If you have been running GroupWise Disaster Recovery using the server model and the GroupWise Domain and/or Post Office is on Linux, then you can easily switch to the collector model.

• On the GroupWise server, create a directory for the GroupWise Disaster Recovery Agent to copy the databases to before sending to the GroupWise Disaster Recovery server. For example,

mkdir /reload

If switching the Post Office profile:

- 1. Browse to the GroupWise Disaster Recovery Web Administration console http://<GroupWise Disaster Recovery_Server_Address>:5555
- 2. Select the Post Office Profile

- 3. Select the Configure tab and open "Post Office and POA Settings"
- 4. Enable "Allow Paired Collector" and press Save

Tools (Choose) Click - GO GO Help DR Plan What's New! Blueprint
1. DOC1PO \ominus Health 🌍 Backup Loaded 🆏 Job Status 🏢 Disk Space Latest Backup : MONMAR13
📸 Overview 🙀 Backups 🚓 Disaster Recovery 📝 Configure 👼 Event Log 🗐 Agent Log
Preferences
User Access to Backups
Backup Job Settings
Post Office and POA Settings
Configure All Profiles
Configure Connectivity to the Live Post Office
Allow Paired Collector: Enabled Save Setup Paired Collector
NOTE: Disk Space Required For Collector: 49 MB

- 5. Click on "Setup Paired Collector". This will create the directory /collect in the post office directory on the GroupWise server and copy the file "reload_collector.rpm" to it.
- 6. Confirm there is sufficient space on the GroupWise server for the GroupWise Disaster Recovery agent to copy the post office databases to. For example, 49MB.
- 7. Connect to the GroupWise server and run

rpm -ivh reload_collector.rpm

8. Setup up the collector by running

reload

- 9. See Post Office Profile: Collector/Server Model to complete the setup process
- 10. Start a backup job on the collector and the profile on the GroupWise Disaster Recovery will change to a Collector/Server with a <~> after the name

Server Only Profiles

Server Only Model

The Server model requires an NFS connection from the GroupWise server to the GroupWise Disaster Recovery server and uses DBCopy to copy the databases and BLOB files between servers. This is slower than the rsync connection that the collector uses, but does not require any extra disk space on the GroupWise server.



Creating Profiles On Linux GroupWise Systems

There are two kinds of profiles: Domain and Post Office.

You will need to create a directory on the GroupWise Disaster Recovery server for the backup data. The name of the profile will be used to create sub-directories for each profile. For example:

/reload/

You will need to know the directories on the GroupWise server for the live data. For example:

/groupwise/domain

/groupwise/po1

Configure Profiles

There are two kinds of Server Only Model Profiles: Domain (Creating_Server_Only_Model_Domain_Profiles.htm) and Post Office (Creating_Server_Only_Post_Office_Profiles.htm).

Xe	Reload	hoose) Click - GO 🔻 GO	Help DR Plan What's New!	Home	🟠 Logout 👘
	Monitor 🙋 Overview 📝	Configure 50 Event Log	🔁 Agent Log 📃 Blueprin	nt Log	
	System Health: All Profiles A	Are Functioning Correctly		蝂 Reload Job	s Running: 0
	Post Office Profiles	Status	Actions	Description	
	<u> • 1. PO</u>	🔋 🔳 TUEMAR14	I	Post Office	
	Domain Profiles	Status	Actions	Description	
	🥚 <u>1. DOMAIN</u>	🦻 🏢 TUEMAR14	I	Primary Domain	

Creating Server Only Model Domain Profiles

Domain Profile: Server Only Model

On the GroupWise server, create an NFS mount. Each domain and post office must receive their own mount points.

- 1. Start YaST2
- 2. Install NFS Server

~		YaST Control Center
Filter	Network Services	
	DHCP Server	DNS Server
Groups	Hostnames	
Hardware		
Miscellaneous	iSCSI Target	iSNS Server
Network Devices		u _{ma}
Network Services	Kerberos Server	
Security and Users		
Software	LDAP Server	Mail Server
System		
Virtualization	NES Client	NES Server
Other		

- 3. Configure NFS Server:
 - a. Set NFS Server to start

b. Open the port in the firewall, if applicable.

	YaST2				_ = X
🗄 NFS Server Configur	ration				
11-12 AK					
	NFS Server				
	Start				
	O Do Not Start				
	Firewall				
	Open Port in <u>Firewall</u>	Firewall <u>D</u> etails			
	Firewall is disabled				
	Enable NFSv4				
	Enable NFS <u>v</u> 4				
	Enter NFSv4 domain name:				
	localdomain				
	Enable <u>G</u> SS Security				
Help		Ca	ancel	Back	Next

- 4. Add Directory:
 - a. Browse to the domain directory. For example /groupwise/domain

b. Set options to: *rw,no_root_squash,sync*

	YaST2	_ 🗆 X
🖶 Directories to Export		
Directories Pindmount Targets /groupwise/docdom /groupwise/docpo		
/groupwise/docdom	Add Directory	
Host Wild Card 🛛 🖌 Options		
* fsid=0, crossmnt, i	w,no_root_squash,sync,no_subtree_check	
	Add Host Edit Delete	
		Finish
нер	<u>Cance</u> <u>Back</u>	Finish

5. Press Finish to complete setup.

On the GroupWise Disaster Recovery server, create a data directory and a profile

6. Create a directory for the backup data. For example:

mkdir /reload

- 7. Start the GroupWise Disaster Recovery Administration Console by typing on the command line: reload
- 8. Select "Create (Create Profile)"

hoose	using [UP]	[DOWN], [Enter] to Select
	Access	Access Backups
	Receipery	Disaster Recovery
	Pretites	Administer Profiles
	J	Start/Stop Backup Jobs
	Lege	View System Logs
	reate	Create New Profiles
	S	Administer System
	M	Profile Monitor
	0	Program Information
	Dist	Documentation

9. Select "Domain (Create a New GroupWise Domain Profile)"

P	Create a New GroupWise Post Office Profile
omain	Create a New GroupWise Domain Profile
Medala	Modify a Profile's Connectivity Settings
Test	Test a Profile's Connectivity Settings
V	View the Last Test Log for a Profile
D	Delete a Profile

10. Give the Profile a Name. The profile name should not exceed eight characters. Use letters and numbers only, no spaces or other characters. For example: Domain Be aware, that a profile cannot be renamed, once it has been created. Choose the name wisely. Perhaps you will want to name the profile so that its name is the same as the GroupWise post office or domain that the profile represents, but it does not have to match. Select the Next button.

Profile Name
Choose < Next > to Accept
Use letters and numbers only, no spaces or other characters!
The profile name SHOULD NOT EXCEED 8 characters.
DOMAIN
< Novt > < Cancel >

11. Give the Profile a Description. The profile description should not exceed 60 characters and should not have comma(,), nor dollar sign(\$) characters. For example: Primary Domain. The description of the profile will be added to the Agent Log when backup jobs are run for the profile. Select the Next button.



12. Enter the path or browse to the local destination directory to store the backup data. For example: /reload. This path can be a location on the Linux server, or an NFS mount to another Linux/Unix server, or to a SAN. The path should always be available; GroupWise Disaster Recovery is not configured to mount paths in order to access stored data. Also, the path should be to a location that has a lot of disk space available. Select the Next button.
| irectories | Files | |
|------------|---------------------|--|
| -^(-) | | |
| bin | | |
| boot | | |
| dev | | |
| etc | | |
| grb_data | | |
| home | | |
| lib | | |
| 11064 | | |
| Lost+Tound | | |
| media | | |
| ant. | | |
| ppoc | | |
| reload | | |
| v(+) | | |
| | | |
| /reload | | |
| | | |
| | | |
| < Next > | < Back > < Cancel > | |

13. Confirm the path to the local destination directory

	ath		
/reload		 	

14. Select the Server Platform: "Linux (NFS/Linux Server or Linux Cluster Resource)"

inux	NFS/Linux Server or Linux Cluster Resource
P	A Profile on This Server that has a Paired Collector
Lacal	A Domain Database on this Linux Server
Nelson	NCP/NetWare Server or NetWare Cluster Resource
Window	SAMBA/Windows Server
R	A Profile on a Remote GWAVA Reload Server

15. Select Linux Server Type: "Standard (Standard NFS/Linux Server)"

	Select	the Linux Server Type	
hoose	using [UP] [C)OWN], < Next > to Select	
Select	the Linux Ser		
		inter serve	
	tandard St	andard NFS/Linux Server	2
	Citing Ci	uster Resource Linux Server	
	< Next >	< Back > < Cancel	>

16. Select NFS/Linux Server Address Type: "1 (TCP/IP Address)" or "2 (DNS Address)"

NFS/Linux Server Address Type
Choose Using [UP] [DOWN], [Enter] to Select
How should Reload try and connect to the NFS/Linux Server?
TCP/IP Address 2 DNS Address
< O <mark>K ></mark> < Back > <main menu=""></main>

17. Enter the NFS/Linux Server IP Address or DNS hostname Address

	NFS/Linux	Server	IP	Address
Choose < Next > to	Accept			
In the field below	type in the			
Example: 100.10.1.1	0			
10.1.4.160				
		Deels	22	. control .
< Next	> <	Back	>	< Cancel >

18. Enter the NFS Export Path on the GroupWise server from above. For example: /groupwise/ domain

NFS Export Path				
Choose < Next > to Accept				
In the field below type in the NFS Export Path from the NFS/Linux server for the GroupWise domain database that this profile represents.				
Example: /data/grpwise/doml				
NOTE: Please remember that NFS/Linux paths are case sensitive!				
ALSO: MAKE SURE THE NFS EXPORT PATH HAS BEEN EXPORTED WITH THE "rw" and "no_root_squash" settings enabled per the documentation.				
/groupwise/domain				
<pre>< Next > < Back > < Cancel ></pre>				

19. A warning page appears that asks if the IP Address and Export path are correct.

Domain Database Path
Domain Database Path
IMPORTANT QUESTION
On the NFS/Linux Server at this IP Address:
10.1.4.160
is the GroupWise domain database located right at the NFS Export path:
/groupwise/docdom ?
If not, the path can be indicated in the next dialog.
< Yes > < No >

20. A Profile Summary page appears

Profile Summary
GWAVA Reload Profile Created - However it is Untested
Profile Name: DOMAIN
Profile Description: Primary Domain
Profile Backup Data Path Specified Below:
/reload/domain
Server Type: NFS/Linux
Server IP Address: 10.1.4.160
NFS Export Path Housing the GroupWise Domain Database Specified Below:
/groupwise/docdom
Path to GroupWise Domain Database Specified Below:
< Domain Database Located Right Off NFS Export Path >
< 0K >

21. The Test and Initialize page allows you to finalize the profile by selecting Test.



- 22. If the configuration is incorrect, select Skip and makes your changes.
- 23. Run the test and it will indicate success or failure.



Creating Server Only Post Office Profiles

Post Office Profile: Server Only Model

On the GroupWise server, create an NFS mount. Each domain and post office must receive their own mount points.

- 1. Start YaST2
- 2. Install NFS Server

4		YaST Control Center
Filter	Network Services	
	DHCP Server	DNS Server
Groups Hardware	Hostnames	
Miscellaneous Network Devices	iSCSI Target	- iSNS Server
Network Services Security and Users	Kerberos Server	LDAP Browser
Software System	- LDAP Server	Mail Server
Virtualization Other	NFS Client	- NFS Server

- 3. Configure NFS Server:
 - a. Set NFS Server to start
 - b. Open the port in the firewall, if applicable.

	YaST2	_ = ×
🖶 NFS Server Configurat	ion	
	NES Sanvar	
	Start	
	O Do Not Start	
	Firewall	
1	Open Port in Firewall	
	Firewall is disabled	
	Enable NFSv4	
	☑ Enable NFS <u>v</u> 4	
	Enter NFSv4 do <u>m</u> ain name:	
	localdomain	
	Enable GSS Security	
	,	
Help	Cancel Back	Next

- 4. Add Directory:
 - a. Browse to the Post Office directory. For example /groupwise/po

b. Set options to: *rw,no_root_squash,sync*

	YaST2	_ = ×
📄 Directories to Export		
Directories Y Directories		
Directories Bindmount Targets		
/groupwise/docpo		
	Add Directory Edit Delete	
/groupwise/docpo		
Host Wild Card Y Options		1
* rw,no root squa	sh,sync,no subtree check	
	Add Host Edit Delete	
Holp	Canaal	Finish
нер		Finish

5. Press Finish to complete setup.

On the GroupWise Disaster Recovery server, create a data directory and a profile

6. Create a directory for the backup data, if necessary. For example:

mkdir /reload

- 7. Start the GroupWise Disaster Recovery Administration Console by typing on the command line: reload
- 8. Select "Create (Create Profile)"

hoose	using [UP]	[DOWN], [Enter] to Select
	Access	Access Backups
	Record	Disaster Recovery
	Prefiles	Administer Profiles
	J	Start/Stop Backup Jobs
	Laga	View System Logs
	reate	Create New Profiles
	S	Administer System
	Mond terr	Profile Monitor
	Oriestor	Program Information
	D	Documentation

9. Select "Post (Create a New GroupWise Post Office Profile)"

lost	Create a New GroupWise Post Office Profile
D	Create a New GroupWise Domain Profile
Modiade	Modify a Profile's Connectivity Settings
Treet	Test a Profile's Connectivity Settings
V	View the Last Test Log for a Profile
D	Delete a Profile

10. Give the Profile a Name. The profile name should not exceed eight characters. Use letters and numbers only, no spaces or other characters. For example: Post Office. Be aware, that a profile cannot be renamed, once it has been created. Choose the name wisely. Perhaps you will want to name the profile so that its name is the same as the GroupWise post office or domain that the profile represents, but it does not have to match. Select the Next button.

Profile Name
Choose < Next > to Accept
Use letters and numbers only, no spaces or other characters!
The profile name SHOULD NOT EXCEED 8 characters.
Enter the name of the profile in the field below:
PO
< Next > < Cancel >

11. Give the Profile a Description. The profile description should not exceed 60 characters and should not have comma(,), nor dollar sign(\$) characters. For example: Primary Post Office. The description of the profile will be added to the Agent Log when backup jobs are run for the profile. Select the Next button.



12. Enter the path or browse to the local destination directory to store the backup data. For example: /reload. This path can be a location on the Linux server, or an NFS mount to another Linux/Unix server, or to a SAN. The path should always be available; GroupWise Disaster Recovery is not configured to mount paths in order to access stored data. Also, the path should be to a location that has a lot of disk space available. Select the Next button.

Directories	Files
bin boot dev etc grb_data home lib lib64 lost+found media mnt opt proc reload	
/reload	
< Next :	< Back > < Cancel >

13. Confirm the path to the local destination directory

/reload			

14. Select the Server Platform: "Linux (NFS/Linux Server or Linux Cluster Resource)"

inux	NFS/Linux Server or Linux Cluster Resource
	A Docal Post Unice Paired to a Reload Server
	A Post Office on this Linux Server
de transmo	NCP/NetWare Server or NetWare Cluster Resource
1 Incheses	SAMBA/Windows Server
2	A Profile on a Remote GWAVA Reload Server

15. Select Linux Server Type: "Standard (Standard NFS/Linux Server)"

Select the Linux Server Type
Choose using [UP] [DOWN], < Next > to Select
Select the Linux Server Type
Standard NFS/Linux Server Ciuster Resource Linux Server
<pre></pre>

16. Select NFS/Linux Server Address Type: "1 TCP/IP Address" or "2 DNS Address"

NFS/Linux Server Address Type
Choose Using [UP] [DOWN], [Enter] to Select
How should Reload try and connect to the NFS/Linux Server?
2 DNS Address
<mark>< O</mark> K > < Back > <main menu=""></main>

17. Enter the NFS/Linux Server IP Address or DNS Hostname

	NFS/Linux S	Server IP	Address	1
Choose < Next > to Ac	cept			
In the field below ty	pe in the			
Example: 100.10.1.10				
10.1.4.160				
< Next	<	Back >	< <mark>C</mark> ancel >	

18. Enter the NFS Export Path on the GroupWise server from above. For example: /groupwise/po

NFS Export Path
Choose < Next > to Accept
In the field below type in the NFS Export Path from the NFS/Linux server for the GroupWise post office that this profile represents.
Example: /data/grpwise/pol
NOTE: Please remember that NFS/Linux paths are case sensitive!
ALSO: MAKE SURE THE NFS EXPORT PATH HAS BEEN EXPORTED WITH THE "rw" and "no_root_squash" settings enabled per the documentation.
/groupwise/po
<pre>< Next > < Back > < Cancel ></pre>

19. A warning page appears that asks if the IP Address and Export path are correct.

Post Office Path
Post Office Path
IMPORTANT QUESTION
On the NFS/Linux Server at this IP Address:
10.1.4.160
is the GroupWise post office located right at the NFS Export path:
/groupwise/dompo ?
If not, the path can be indicated in the next dialog.
< Yes > < No >

20. A Profile Summary page appears

Profile Summary
GWAVA Reload Profile Created - However it is Untested
Profile Name: PO
Profile Description: po
Profile Backup Data Path Specified Below:
/reload/po
Server Type: NFS/Linux
Server IP Address: 10.1.4.160
NFS Export Path Housing the GroupWise Post Office Specified Below:
/groupwise/dompo
Path to GroupWise Post Office Specified Below:
< Domain Database Located Right Off NFS Export Path >
< 0K >

21. The Test and Initialize page allows you to finalize the profile by selecting Test.



- 22. If the configuration is incorrect, select Skip and makes your changes.
- 23. Run the test and it will indicate success or failure.



GroupWise Cluster

Installing GroupWise Disaster Recovery in a GroupWise Cluster

GroupWise Disaster Recovery can be implemented where GroupWise is in a cluster.

When GroupWise is implemented in a cluster there are a few extra steps needed to configure GroupWise Disaster Recovery to operate successfully.

In this example there are three servers:

- GroupWise Disaster Recovery Server
- GroupWise Cluster Node 1 (NODE1)
- GroupWise Cluster Node 2 (NODE2)

Installation Collector/Server Model

On the GroupWise Disaster Recovery Server

Install GroupWise Disaster Recovery on the GroupWise Disaster Recovery server

Create a Post Office Profile for the Post Office on the GroupWise Cluster

If upgrading a standard server model profile to a Collector/Server model profile:

In GroupWise Disaster Recovery Web Administration, choose the profile and go to the Configure tab for the profile.

Select the Post Office and POA Settings panel

Find the line Note: Disk Space Required for Collector

Check on each node that there is sufficient space for the collector and data on each node. Note: This calculation does not take Document Management Libraries into account. If you wish to add DMS, multiple the size of the GWDMS directory structure by 2.

Set "Allow Paired Collector" to Enabled

On GroupWise Cluster Node 1 (NODE1)

Install the GroupWise Disaster Recovery Collector Software on NODE1

Browse to the GroupWise Disaster Recovery Server and select the appropriate collector software from the Tools dropdown menu and select go, or copy the software from the GroupWise Disaster Recovery server found in the directory:

/opt/beginfinite/reload/setup/collector/reload_collector.rpm

Run the following command from the terminal:

rpm -ivh reload_collector.rpm

Exchange SSH keys with the GroupWise Disaster Recovery Server

Run the following command from the terminal:

ssh-copy-id -i /root/.ssh/id_rsa.pub <address of the GroupWise Disaster Recovery Server>

This is to setup the ssh connection so NODE1 can rsync with GroupWise Disaster Recovery without being prompted for a password. This must be successful before proceeding.

Create a GroupWise Disaster Recovery Collector Profile

1. Run the following command from the terminal:

reload

- 2. Choose Create Profile
- 3. Select "Create (Create Profile)"
- 4. Select "Post Office (Create a New GroupWise Post Office Profile)"
- 5. Give the Profile a Name. The profile name should not exceed eight characters. Use letters and numbers only, no spaces or other characters. For example: po. Be aware, that a profile cannot be renamed, once it has been created. Choose the name wisely. Perhaps you will want to name the profile so that its name is the same as the GroupWise post office or domain that the profile represents, but does not have to match. Select the Next button.
- 6. Give the Profile a Description. The profile description should not exceed 60 characters and should not have comma(,), nor dollar sign(\$) characters. For example: Domain Collector. The description of the profile will be added to the Agent Log when backup jobs are run for the profile. Select the Next button.

- 7. Enter the path or browse to the local destination directory to store the backup data. For example: /reload. This path can be a location on the Linux server, or an NFS mount to another Linux/Unix server, or to a SAN. The path should always be available; GroupWise Disaster Recovery is not configured to mount paths in order to access stored data. Also, the path should be to a location that has a lot of disk space available. Select the Next button.
- 8. Confirm the path to the local destination directory
- 9. Choose the server type: "Collector (A Local Post Office/Domain Paired to a GroupWise Disaster Recovery Server)". Select the Next button.
- 10. Enter the TCP/IP Address or DNS hostname for the GroupWise Disaster Recovery server this collector will be paired with. Select the Next button.
- 11. A terminal session will appear to prompt you to accept an SSH key and enter the password for the GroupWise Disaster Recovery server.
- 12. Enter the SSH port used by the GroupWise Disaster Recovery server (default port: 22)
- 13. Enter the destination path the data will be stored in on the GroupWise Disaster Recovery server. This is the destination directory you entered when creating the Paired Server on the GroupWise Disaster Recovery server.
- 14. Source Path to the GroupWise files: Enter the source path to the local destination directory entered earlier on the GroupWise server. For example: /groupwise/po
- 15. Confirm the path to the local source directory
- 16. A summary of the profile settings will appear. Select the OK button.
- 17. Test and Initialization:

If the profile is correct, select the Test button.

If the profile is not correct, select the Skip button.

18. The profile creation wizard tests and initializes the newly created profile and prepares it to accept a pairing request from a Paired Collector and initializes the newly created profile and prepares it to accept a pairing request from a Paired Collector.

Browse to the GroupWise Disaster Recovery Web Administration page on NODE1. For example, http://NODE1:5555.

- 1. Choose the profile being configured
- 2. Select the Configure tab and open the GroupWise Disaster Recovery Collector Settings panel
- 3. Set "This Collector is on a Cluster Node" to Enabled
- 4. Select the Backups tabs, open the Reload Job Control panel and click on "Start a Standard Backup Job [SmartPurge Disabled]" to run a backup job, allow the backup to complete normally.

On GroupWise Cluster Node 2 (NODE2)

Profile settings are not shared across the cluster automatically, this needs to be done manually when setting up or when settings are changed.

- 1. Install the GroupWise Disaster Recovery Collector Software on NODE1
 - a. Browse to the GroupWise Disaster Recovery Server and select the appropriate collector software from the Tools dropdown menu and select go, or copy the software from the GroupWise Disaster Recovery server found in the directory: /opt/beginfinite/reload/setup/ collector/reload_collector.rpm
 - b. Run the following command from the terminal: rpm -ivh reload_collector.rpm

- 2. Exchange SSH keys with the GroupWise Disaster Recovery Server
 - Run the following command from the terminal: ssh-copy-id -i /root/.ssh/id_rsa.pub <address
 of the GroupWise Disaster Recovery Server>
 - b. This is to setup the ssh connection so NODE1 can rsync with GroupWise Disaster Recovery without being prompted for a password. This must be successful before proceeding.
- 3. Obtain the following files from NODE1 and copy them to the same directories on NODE2
 - a. The contents of the /opt/beginfinite/reload/conf directory (including the ../conf/cron directory)
 - b. The license file /opt/beginfinite/reload/license/reload.pem
- Restart the GroupWise Disaster Recovery daemon on NODE2 with the following command: reloadd restart
- Browse to the GroupWise Disaster Recovery Web Administration page on NODE2. For example, http://NODE2:5555.
 - a. Select the Backups tabs, open the Reload Job Control panel and click on "Start a Standard Backup Job [SmartPurge Disabled]" to run a backup job.
 - b. This backup should "'fail'"

In the Event Log the failure will look like:

DATE: Fri_Dec_11 TIME: 14:57:25 PROFILE: COLLECT1 - STARTING JOB FOR PROFILE: COLLECT1

DATE: Fri_Dec_11 TIME: 14:57:25 PROFILE: COLLECT1 - DISK SPACE IN USE AT JOB BEGINNING: 46%

DATE: Fri_Dec_11 TIME: 14:57:25 PROFILE: COLLECT1 - JOB TYPE: COLLECTOR (INCREMENTAL) BACKUP

DATE: Fri_Dec_11 TIME: 14:57:25 PROFILE: COLLECT1 - [GRE_DBS_AGENTS] Start Database Backup

DATE: Fri_Dec_11 TIME: 14:57:34 PROFILE: COLLECT1 - [GRE_DBS_OFUSER] Start OFUSER Backup

DATE: Fri_Dec_11 TIME: 14:57:38 PROFILE: COLLECT1 - [GRE_DBS] Terminating Processing, Post Office Volume for Profile Not Mounted.

DATE: Fri_Dec_11 TIME: 14:57:38 PROFILE: COLLECT1 - [GRE_DBS] This must not be the active node for the Post Office

On NODE1 & NODE2

Only the GroupWise Disaster Recovery server requires Backup Age monitoring

- 1. Disable Backup Age Monitoring
 - a. Browse to the GroupWise Disaster Recovery Web Administration page on each node
 - b. Go to the Collector Profile, under the Configure tab, open the Preferences panel
 - i. Under Backup Age Monitoring, set "Monitor How Old the Most Current Backup Is" to Disabled

Upgrading Collectors in a Cluster

Clusters are a bit of a challenge to work with as an inactive node does not do anything since it is inactive, therefore you will have to upgrade each node manually.

- 1. Browse to the GroupWise Disaster Recovery Server and select the appropriate collector software from the Tools dropdown menu and select Go, or copy the software from the GroupWise Disaster Recovery server found in the directory: /opt/beginfinite/reload/setup/ collector/reload_collector.rpm
- 2. Place the file on each "inactive" node in: /opt/beginfinite/reload/upgrade
- 3. Upgrade the GroupWise Disaster Recovery Collector software from the terminal by running the command: reloadu

Configure Restore Area on Linux

Once a backup has been created the link to the Restore Area can be made.

On the GroupWise Disaster Recovery Server, enable NFS Server

1. Open YaST2 and select Network Services | NFS Server

4		YaST Control Center
Filter	Network Services	
	DHCP Server	DNS Server
Groups	Hostnames	
Hardware	America	
Miscellaneous	iSCSI Target	ISNS Server
Network Devices		
Network Services	Kerberos Server	LDAP Browser
Security and Users		
Software	LDAP Server	Mail Server
System		
Virtualization	NES Client	NES Server
Other		

- 2. Configure NFS Server:
 - a. Set NFS Server to start

b. Open the port in the firewall, if applicable.

	YaST2				= 0 ×
🗄 NFS Server Configur	ration				
11-12 AK					
	NFS Server				
	Start				
	O Do Not Start				
	Firewall				
	Open Port in <u>Firewall</u>	Firewall <u>D</u> etails.			
	Firewall is disabled				
	Enable NFSv4				
	Enable NFS <u>v</u> 4				
	Enter NFSv4 domain name:				
	localdomain				
	Enable <u>G</u> SS Security				
Help			ancel	Back	Next

- 3. Select Add Directory button:
 - a. Set options: rw,no_root_squash,sync
 - b. Browse to the post office backup directory. For example: /reload/po

	YaST2	_ 🗆 ×
🖶 Directories to Export		
Directories Y Bindmount Targets /reload/docpo		
/reload/docpo	Add Directory	
Host Wild Card 🛛 💙 Options		
* fsid=0, crossmnt, rw	Add Host	
Halp	Van Enir Delaře	Finish
		Emai

On the Linux GroupWise Server

Create a mount point:

- 1. Open a terminal window
- 2. Create a local directory for the mount point. Generally, this is placed in the /mnt directory. For example:

mkdir /mnt/restore

Enable NFS Client:

- 1. Open YaST2 and select Network Services | NFS Client
- 2. Click on Add
 - Set the NFS Server Hostname to the GroupWise Disaster Recovery server IP address or hostname
 - Set the Remote Directory to the backup directory on the GroupWise Disaster Recovery server. For example: /reload/po
 - Set the Mount Point to the one created on the GroupWise server

D	YaST2	×
NFS Server Hostname 10.1.4.161 ✓ Choo <u>s</u> e NFSv4 Share □ pNFS (v4.1)	Remote Directory /reload/docpo Select	
Mount Point (local) /mnt/docpo O <u>p</u> tions	Browse	
defaults <u>H</u> elp	<u>C</u> ancel <u>O</u> K	

In GroupWise Administration

The Restore Area needs to be defined and the users given access to it.

Create Post Office Restore Area, this will need to be done for each Post Office:

- 1. Browse to GroupWise Administration https://<GroupWise_Server_Address>:9710
- 2. Open System | Restore Area Management

Micro Focus GroupWise			Global Search admin Lu
Connected Domain: docdom 🔹	Recent 🛨 Favorites 🗸		
Administration	System		
Overview	addressing Rules	🐖 Global Signatures	🔁 Restore Area Management
Domains	Admin Defined Fields	(i) Information	System Preferences

- 3. Select New
- 4. Enter a Name and Description:
- 5. Set the Path and Linux Path to the mount point adding /connect/restore. For example: /mnt/ backup/connect/restore.

System	
Restore Areas	Close
Reload	Close 🗙
General Membership Name: Reload Description:	
Path: //mnt/docpo/con Linux Path (conditional): //mnt/docpo/con	nect/restore

- 6. Under the Membership tab, click Add:
- 7. Select Post Offices
- 8. Add Post Office

lect GroupWise	Object		Close
		Search Post Office Name	0
Name	Domain	Description	Rost Offices
docpo	docdom		O Users
			O Resources
	1-1	of 1	
			OK Cance

- 9. Click Ok
- 10. Click Ok
- 11. Click Close

Confirmation

To confirm that this worked:

On the GroupWise Disaster Recovery server, load a backup for the profile

- 1. From the GroupWise Disaster Recovery Web Console, select a Post Office profile
- 2. Select the Backups tab
- 3. From the Actions of Existing Backups, select "Turn On Access to the Most Current Backup" or "Turn on Access to Prior Backups"



On a workstation with a GroupWise client

- 1. Move a few items that exist in the backup to the Trash
- 2. Select File | Open Backup.



This view will show the items in the GroupWise Disaster Recovery backup, and NOT on the production GW server for the user.

0	(Backup) - Novell GroupWise - Mailbox	- 🗆 🗙
File Edit View Actions To	ools Window Help	
- Home Mailbox	Calendar Sent Items Contacts Welcome	
Address Book	1 🔍 🧟 🖂 New Mail 🔻 🕐 New Appt 👻 New Task 👻 🖽 🐯 🕶 📅	
📄 💼 💌 🦘 Reply 🦛 Reply	y All 🕐 Forward 🔻 💽 👻	
Sackup →	⊂ Mailbox	Q.
 ★ Favorites ☆ Cabinet ☆ aiden Home ☆ Mailbox & Sent Items ☆ Calendar ▲ Frequent Contacts ☆ Documents ☆ Tasklist ※ Work In Progress ☆ Cabinet ŵ Trash 	From Subject Date ▲ retain 162@doc.gwava.a Retain Status Information 2/3/2017 1:05 root <root@gopostal16< li=""> The wall phone rang loud and often. 2/3/2017 1:57 root <root@gopostal16< li=""> Twist the valve and release hot stea 2/3/2017 2:57 root <root@gopostal16< li=""> A toad and a frog are hard to tell ap: 2/3/2017 2:57 root <root@gopostal16< li=""> Hemp is a weed found in parts of th 2/3/2017 6:57 root <root@gopostal16< li=""> The seles of smell is better than thz 2/3/2017 6:77 root <root@gopostal16< li=""> The sense of smell is better than thz 2/3/2017 6:77 root <root@gopostal16< li=""> Five years he lived with a shaggy do 2/3/2017 8:57 root <root@gopostal16< li=""> Fish evade the net and swim off. 32: 2/3/2017 9:57 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo<th></th></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<>	
	Selected: 1	Total: 12

GroupWise on Windows

Server Only Profiles on Windows

When GroupWise is on Windows, the Server Only model must be used.

Prerequisites

- Create backup data directory on the GroupWise Disaster Recovery server
- Install Server for NFS on the Windows Server

On the GroupWise Disaster Recovery Server: Create backup data directory

You will need to create a directory on the GroupWise Disaster Recovery server for the backup data. The name of the profile will be used to create sub-directories for each profile. For example:

mkdir /reload/

On the Windows GroupWise server: Install and Configure Server for NFS

1. Open Server Manager and select Add roles and features



2. Install the Server Role File and Storage Services | Server for NFS. A restart will be required.



And add the Features

b		Add Roles and Features Wizard				
	Ad You or f	Id features that are required for Server for NFS? cannot install Server for NFS unless the following role services eatures are also installed.				
	⊿	File and Storage Services				
		▲ File and iSCSI Services				
		File Server				
	⊿	Remote Server Administration Tools				
		▲ Role Administration Tools				
		▲ File Services Tools				
		[Tools] Services for Network File System Management				
	<	III >				
	~	Include management tools (if applicable)				
		Add Features Cancel				

The server will restart once the installation is complete.

Create the share point for the *domain* and *post office* folders:

- 1. In File Explorer browse to the GroupWise folder
- 2. Right-click the folder to be shared and select Properties
- 3. Select the NFS Sharing tab

	po Properties	×					
General	Sharing	Security					
Previous Versions	Customize	NFS Sharing					
Services for NFS Sharing po Shared Network Path: GW165:/po							
NFS Share Manage Enable or disable N share name, and ot	NFS Share Management Enable or disable NFS sharing of this folder, set permissions, share name, and other advanced sharing options.						
	OK Ca	Apply					

- 4. Click Manage NFS Sharing
- 5. Enable Share this folder

NFS Advanced Sharing				
Share this folder				
Settings				
Share name: P ⁰				
Network name: GW 165				
Encoding:				
Kerberos v5 privacy and authentication [Krb5p]				
Kerberos v5 integrity and authentication [Krb5i]				
Kerberos v5 authentication [Krb5]				
✓ No server authentication [Auth_SYS]				
Enable unmapped user access				
 Allow unmapped user Unix access (by UID/GID) 				
C Allow anonymous access				
Anonymous UID; -2				
Anonymous GID: -2				
To set permissions for how users access this folder over the network, click Permissions				
OK Cancel Apply				

6. Select Permissions and set *Type of Access* to *Read-Write* and click OK

	NFS Share I	Permi	ssions	ļ	? X
NFS Share Path: Name:	C:\GroupWise\po				
ALL MACHINES	Read-Write	ANS	Ro	ot Access	Disallowed
			Add.		Remove
Type of access:	Read-Write	•	Allow roo	ot access	5
Encoding:	ANSI	•			
			ОК		Cancel

- 7. Click OK
- 8. Click Close

Do this for the domain as well.

On the GroupWise Disaster Recovery server:

1. Create a mount point. For example,

mkdir /mnt/po

2. Mount the NFS point from the Windows server

mount -t nfs <address of GW Windows server>:/<shared folder> <local mount
point>

For example: mount -t nfs 10.1.1.123:/po /mnt/po

Configure Profiles

There are two kinds of profiles: Domain (Create_Domain_Profiles_on_Windows.htm) and Post Office (Create_Post_Office_Profiles_on_Windows.htm).

Creating Domain Profiles with GroupWise on Windows

When GroupWise is on Windows the Server Only model must be used to backup the data to GroupWise Disaster Recovery.

Domain Profile: Server Only Model

On the GroupWise Disaster Recovery server, create a data directory and a profile

1. Create a directory for the backup data. For example:

mkdir /reload

- 2. Start the GroupWise Disaster Recovery Administration Console by typing on the command line: reload
- 3. Select "Create (Create Profile)"

 using [0r]	[Down], [Enter] to select
Access	Access Backups
Receptor	Disaster Recovery
Pretites	Administer Profiles
J	Start/Stop Backup Jobs
Lege	View System Logs
Create	Create New Profiles
S	Administer System
Monster	Profile Monitor
0	Program Information
_	De sum su de déserve

4. Select "Domain (Create a New GroupWise Domain Profile)"

P	Create a New GroupWise Post Office Profile
Domain	Create a New GroupWise Domain Profile
Madely	Modify a Profile's Connectivity Settings
Test	Test a Profile's Connectivity Settings
V	View the Last Test Log for a Profile
D	Delete a Profile

5. Give the Profile a Name. The profile name should not exceed eight characters. Use letters and numbers only, no spaces or other characters. For example: Domain Be aware, that a profile cannot be renamed, once it has been created. Choose the name wisely. Perhaps you will want to name the profile so that its name is the same as the GroupWise post office or domain that the profile represents. Select the Next button.



6. Give the Profile a Description. The profile description should not exceed 60 characters and should not have comma(,), nor dollar sign(\$) characters. For example: Primary Domain. The description of the profile will be added to the Agent Log when backup jobs are run for the profile. Select the Next button.



7. Enter the path or browse to the local destination directory to store the backup data. For example: /reload. This path can be a location on the Linux server, or an NFS mount to another Linux/Unix server, or to a SAN. The path should always be available; GroupWise Disaster Recovery is not configured to mount paths in order to access stored data. Also, the path should be to a location that has a lot of disk space available. Select the Next button.

Directories	Files
_^(-)	
boot	
dev	
letc	
home	
lib	
lib64	
media	
mnt	
lopt broc	
reload	
L _V (+)	L
/reload	
< Next >	< Back > < Cancel >

8. Confirm the path to the local destination directory

	ř.		
/reload		 	

9. Select the Server Platform: "Linux (NFS/Linux Server or Linux Cluster Resource)" [Yes, the GroupWise server is Windows, but the share is NFS, which is the important part]

inux	NFS/Linux Server or Linux Cluster Resource
P	A Profile on This Server that has a Paired Collector
Local	A Domain Database on this Linux Server
Netware	NCP/NetWare Server or NetWare Cluster Resource
Winders	SAMBA/Windows Server
Related	A Profile on a Remote GWAVA Reload Server

10. Select Linux Server Type: "Standard (Standard NFS/Linux Server)"

s	elect the Linux Server Type
Choose using [UP] [DOWN], < Next > to Select
Select the Lin	
	d Standard NES/Linux Server
Class to	Cluster Resource Linux Server
L	
< Nex	t > < Back > < Cancel >

11. Select NFS/Linux Server Address Type: "1 (TCP/IP Address)" or "2 (DNS Address)"
| NFS/Linux Server Address Type |
|--|
| Choose Using [UP] [DOWN], [Enter] to Select |
| How should Reload try and connect to the
NFS/Linux Server? |
| TCP/IP Address
2 DNS Address |
| |
| |
| Source Sack > Seck > Se |

12. Enter the NFS/Linux Server IP Address or DNS hostname Address

	NFS/Linux	Server	IP	Address
Choose < Next > to	Accept			
In the field below	type in the			
Example: 100.10.1.1	0			
10.1.4.160				
		Deels	22	. control .
< Next	> <	Back	>	< Cancel >

13. Enter the NFS Export Path on the GroupWise server from above. For example: /groupwise/ domain

NFS Export Path
Choose < Next > to Accept
In the field below type in the NFS Export Path from the NFS/Linux server for the GroupWise domain database that this profile represents.
Example: /data/grpwise/doml
NOTE: Please remember that NFS/Linux paths are case sensitive!
ALSO: MAKE SURE THE NFS EXPORT PATH HAS BEEN EXPORTED WITH THE "rw" and "no_root_squash" settings enabled per the documentation.
/groupwise/domain
<pre>< Next > < Back > < Cancel ></pre>

14. A warning page appears that asks if the IP Address and Export path are correct.

Domain Database Path
Domain Database Path
IMPORTANT QUESTION
On the NFS/Linux Server at this IP Address:
10.1.4.160
is the GroupWise domain database located right at the NFS Export path:
/groupwise/docdom ?
If not, the path can be indicated in the next dialog.
< Yes > < No >

15. A Profile Summary page appears

Profile Summary
GWAVA Reload Profile Created - However it is Untested
Profile Name: DOMAIN
Profile Description: Primary Domain
Profile Backup Data Path Specified Below:
/reload/domain
Server Type: NFS/Linux
Server IP Address: 10.1.4.160
NFS Export Path Housing the GroupWise Domain Database Specified Below:
/groupwise/docdom
Path to GroupWise Domain Database Specified Below:
< Domain Database Located Right Off NFS Export Path >
< 0K >

16. The Test and Initialize page allows you to finalize the profile by selecting Test.



- 17. If the configuration is incorrect, select Skip and makes your changes.
- 18. Run the test and it will indicate success or failure.



Creating Post Office Profiles with GroupWise on Windows

When GroupWise is on Windows the Server Only model must be used to backup the data to GroupWise Disaster Recovery.

Post Office Profile: Server Only Model

On the GroupWise Disaster Recovery server, create a data directory and a profile

1. Create a directory for the backup data, if necessary. For example:

mkdir /reload

- 2. Start the GroupWise Disaster Recovery Administration Console by typing on the command line: reload
- 3. Select "Create (Create Profile)"

hoose	using [UP]	[DOWN], [Enter] to Select
	Access	Access Backups
	Receivery	Disaster Recovery
	Pretites	Administer Profiles
	J	Start/Stop Backup Jobs
	Laga	View System Logs
	reate	Create New Profiles
	S	Administer System
	Moniter	Profile Monitor
	Oversien	Program Information
	D	Documentation

4. Select "Post (Create a New GroupWise Post Office Profile)"

ost	Create a New GroupWise Post Office Profile
D	Create a New GroupWise Domain Profile
Modiality	Modify a Profile's Connectivity Settings
Tref	Test a Profile's Connectivity Settings
V	View the Last Test Log for a Profile
D	Delete a Profile

5. Give the Profile a Name. The profile name should not exceed eight characters. Use letters and numbers only, no spaces or other characters. For example: Post Office. Be aware, that a profile cannot be renamed, once it has been created. Choose the name wisely. Perhaps you will want to name the profile so that its name is the same as the GroupWise post office or domain that the profile represents. Select the Next button.

Profile Name
Choose < Next > to Accept
Use letters and numbers only, no spaces or other characters!
The profile name SHOULD NOT EXCEED 8 characters.
Enter the name of the profile in the field below:
PO
< Next > < Cancel >

6. Give the Profile a Description. The profile description should not exceed 60 characters and should not have comma(,), nor dollar sign(\$) characters. For example: Primary Post Office. The description of the profile will be added to the Agent Log when backup jobs are run for the profile. Select the Next button.



7. Enter the path or browse to the local destination directory to store the backup data. For example: /reload. This path can be a location on the Linux server, or an NFS mount to another Linux/Unix server, or to a SAN. The path should always be available; GroupWise Disaster Recovery is not configured to mount paths in order to access stored data. Also, the path should be to a location that has a lot of disk space available. Select the Next button.

Directories	Files
bin boot dev etc grb_data home lib lib64 lost+found media mnt opt proc reload	
/reload	
< Next :	< Back > < Cancel >

8. Confirm the path to the local destination directory

Confi	rm LOCAL DES	STINATION TO STOP	RE BACKUP DATA	1
Choose < Next >	to Accept			
Please Confirm t	he Path			
/reload				
< N	ext >	< <mark>B</mark> ack >	< <mark>C</mark> ancel >	-

9. Select the Server Platform: "Linux (NFS/Linux Server or Linux Cluster Resource)" [Yes, the GroupWise server is Windows, but the share is NFS, which is the important part]

inux	NFS/Linux Server or Linux Cluster Resource
	A Docal Post Unice Paired to a Reload Server
	A Post Office on this Linux Server
de transmo	NCP/NetWare Server or NetWare Cluster Resource
1 Incheses	SAMBA/Windows Server
2	A Profile on a Remote GWAVA Reload Server

10. Select Linux Server Type: "Standard (Standard NFS/Linux Server)"

Select the Linux Server Type
Choose using [UP] [DOWN], < Next > to Select
Select the Linux Server Type
tandard Standard NFS/Linux Server Cluster Resource Linux Server
< Next > < Back > < Cancel >

11. Select NFS/Linux Server Address Type: "1 TCP/IP Address" or "2 DNS Address"

NFS/Linux Server Address Type
Choose Using [UP] [DOWN], [Enter] to Select
How should Reload try and connect to the NFS/Linux Server?
2 DNS Address
<mark>< 0</mark> K > < Back > <main menu=""></main>

12. Enter the NFS/Linux Server IP Address or DNS Hostname

NFS/L	Linux Server IP Address	1
Choose < Next > to Accept		
In the field below type in	n the NFS/Linux Server IP Address:	
Example: 100.10.1.10		-
10.1.4.160		
< Next >	< Back > < Cancel >	

13. Enter the NFS Export Path on the GroupWise server from above. For example: /groupwise/po

NFS Export Path
Choose < Next > to Accept
In the field below type in the NFS Export Path from the NFS/Linux server for the GroupWise post office that this profile represents.
Example: /data/grpwise/pol
NOTE: Please remember that NFS/Linux paths are case sensitive!
ALSO: MAKE SURE THE NFS EXPORT PATH HAS BEEN EXPORTED WITH THE "rw" and "no_root_squash" settings enabled per the documentation.
/groupwise/po
<pre>< Next > < Back > < Cancel ></pre>

14. A warning page appears that asks if the IP Address and Export path are correct.

Post Office Path
Post Office Path
IMPORTANT QUESTION
On the NFS/Linux Server at this IP Address:
10.1.4.160
is the GroupWise post office located right at the NFS Export path:
/groupwise/dompo ?
If not, the path can be indicated in the next dialog.
< Yes > < No >

15. A Profile Summary page appears

Profile Summary
GWAVA Reload Profile Created - However it is Untested
Profile Name: PO
Profile Description: po
Profile Backup Data Path Specified Below:
/reload/po
Server Type: NFS/Linux
Server IP Address: 10.1.4.160
NFS Export Path Housing the GroupWise Post Office Specified Below:
/groupwise/dompo
Path to GroupWise Post Office Specified Below:
< Domain Database Located Right Off NFS Export Path >
< 0K >

16. The Test and Initialize page allows you to finalize the profile by selecting Test.



- 17. If the configuration is incorrect, select Skip and makes your changes.
- 18. Run the test and it will indicate success or failure.



Configure Restore Area on Windows

Once a backup has been created the link to the Restore Area can be made.

On the GroupWise Disaster Recovery Server

Install Samba Server on the GroupWise Disaster Recovery server

Open YaST | Samba Server

4	YaST Control Center		
Filter	- NIS Server	NTP Configuration	
Groups	Remote Administration (VNC)	Samba Server	

Provide a Workgroup or Domain Name (default WORKGROUP), Press Next

	/aST2			_ 🗆 ×
📳 Samba Installation: Step 1 of 2				
Workgroup or Domain Name				
WORKGROUP				
Help		Abort	Back	Next

Choose Samba Server Type (default Primary Domain Controller), Press Next

	YaST2			-	□ ×
📳 Samba Installation: Step 2 of 2					
Current Domain Name: WORKGROUP					
Samba Server Type					
Primary Domain Controller (PDC)					
O B <u>a</u> ckup Domain Controller (BDC)					
O Not a Domain <u>C</u> ontroller					
Help		Abo <u>r</u> t	Back	<u>N</u> e×	t

Set Service Start to During Boot, Press OK

2	YaST2			– = ×	
🗄 Samba Conf	figuration				
Start- <u>U</u> p	<u>S</u> hares	I <u>d</u> entity	Trusted Domains	LDAP Settings	
Service Start During Boot Manually 					
Firewall Settings	rewall Firewall C	Details			
Help				Cano	el <u>O</u> K

Provide an admin password

🔮 YaST2	×
For a proper function, Samba administrative account (root). It will be created now.	server needs an
Samba root <u>P</u> assword	

Verify Password	

	ancel

Setup Share

- 1. Using the "Nautilus File Browser" Browse to the parent directory of the profiles. For example, / reload, with /reload/po under it
- 2. Right-click on the parent directory of your profiles and select "Properties"

	/ - File Browser
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>G</u> o <u>B</u> ookma	arks <u>T</u> abs <u>H</u> elp
< Back 🗸 🍦 Forward 🗸	• 🛧 💿 🔁 🔚 📃 🗖
reload	
Places 🗸 🛛 💥	
📷 root	
🖾 Desktop	bin boot
🔜 File System	
Detwork	
Floppy Drive	home lib
SLES-11-SP3… A	
irasn	
	media mht
	relo 🖻 Open
	Open in New <u>T</u> ab
	Open in New <u>W</u> indow
	sr Open with Other <u>Application</u>
	🦰 🔏 Cu <u>t</u>
	va Copy
	Paste Into Folder
	Ma <u>k</u> e Link
	<u>R</u> ename
	🛅 Mo <u>v</u> e to Trash
	🖨 Sharing Options
	Open in Terminal
	🚍 Compress
	Properties

- 3. Select the Share tab
 - a. Enable "Share this folder" and give it a share name
 - b. Enable "Allow other people to writing in this folder"
 - c. Click "Create Share"

📄 Nautilus _ 🗆 🗙
Folder Sharing
✓ Share this <u>f</u> older
Share <u>n</u> ame: po1
☑ Allow other people to write in this folder
Co <u>m</u> ment:
☐ <u>G</u> uest access (for people without a user account)
Create Share

4. Click on "Add the permissions automatically" when prompted

-	×			
?	Nautilus needs to add some permissions to your folder "po1" in order to share it			
	The folder "po1" needs the following extra permissions for sharing to work: - write permission by others Do you want Nautilus to add these permissions to the folder automatically?			
	Add the permissions automatically			

In GroupWise Administration

The Restore Area needs to be defined and the users given access to it.

Create Post Office Restore Area, this will need to be done for each Post Office:

- 1. Browse to GroupWise Administration
- 2. Open System | Restore Area Management

Micro Focus' GroupWise	Global Search admin		
Connected Domain: 🛛 🗃 🔽	tecent 👻 Favorites 👻		
Administration	System		
Overview	Addressing Rules	🚝 Global Signatures	Restore Area Management
System			

- 3. Select New
- 4. Enter a Name and Description
- 5. Set the Path to the Samba share, adding \connect\restore

\\<GroupWise Disaster Recovery Server Address><<Post Office
Directory>\connect\restore

For example, \\10.1.1.123\po1\connect\restore

6. Do not complete the Linux path field

New Restore Area	Close 🗙
General Membership	
Name: PO_Reload	
Description:	
Location	
Path: (\\10.1.4.166\doc1po\connect\restore	
Linux Path (conditional):	
0	OK Cancel

- 7. Under the Membership tab, Click Add
 - Select Post Offices

Add Post Office

elect GroupWise	Object		Close 🗙
		Search Post Office Name	0
Name docpo	Domain docdom	Description	 Post Offices Users Resources
	1-1	of 1	
			OK Cancel

Confirmation

To confirm that this worked:

On the GroupWise Disaster Recovery server, load a backup for the profile

- 1. From the GroupWise Disaster Recovery Web Console, select a Post Office profile
- 2. Select the Backups tab
- 3. From the Actions of Existing Backups, select "Turn On Access to the Most Current Backup"



On a workstation with a GroupWise client

- 1. Move a few items that exist in the backup to the Trash
- 2. Select File | Open Backup.



This view will show the items in the GroupWise Disaster Recovery backup, and NOT on the production GW server for the user.

0	(Backup) - Novell GroupWise - Mailbox	- 🗆 🗙
File Edit View Actions To	ools Window Help	
- Home Mailbox	Calendar Sent Items Contacts Welcome	
Address Book	1 🔍 🧟 🖂 New Mail 🔻 🕐 New Appt 👻 New Task 👻 🖽 🐯 🕶 📅	
📄 💼 💌 🦘 Reply 🦛 Reply	y All 🕐 Forward 🔻 💽 👻	
Sackup - ▼	⊂ Mailbox	Q.
 ★ Favorites ☆ Cabinet ☆ aiden Home ☆ Mailbox ☆ Sent Items ☆ Calendar ▲ Frequent Contacts ☆ Documents ☆ Tasklist ※ Work In Progress ☆ Cabinet ŵ Trash 	From Subject Date ▲ retain 162@doc.gwava.a Retain Status Information 2/3/2017 1:05 root <root@gopostal16< li=""> The wall phone rang loud and often. 2/3/2017 1:57 root <root@gopostal16< li=""> Twist the valve and release hot stea 2/3/2017 2:57 root <root@gopostal16< li=""> A toad and a frog are hard to tell ap: 2/3/2017 2:57 root <root@gopostal16< li=""> Hemp is a weed found in parts of th 2/3/2017 6:57 root <root@gopostal16< li=""> The seles of smell is better than thz 2/3/2017 6:77 root <root@gopostal16< li=""> The sense of smell is better than thz 2/3/2017 6:77 root <root@gopostal16< li=""> Five years he lived with a shaggy do 2/3/2017 8:57 root <root@gopostal16< li=""> Fish evade the net and swim off. 32: 2/3/2017 9:57 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo 2/3/2017 11:5 root <root@gopostal16< li=""> See the cat glaring at the scared mo<th></th></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<></root@gopostal16<>	
	Selected: 1	Total: 12

Troubleshooting

Sometimes the Samba connection fails due to insufficient rights on the GroupWise Disaster Recovery serve side. Providing full rights to the backup directory can help temporarily. The permissions will hold until the mount is unmounted.

On the command line chmod -R 777 <directory>. For example,

chmod -R 777 /reload/

Backup Jobs

There are two kinds of backup jobs: "Domain Backup Jobs" on page 132 and "Post Office Backup Jobs" on page 136

Domain Backup Jobs

1. Browse to the GroupWise Disaster Recovery Web Administration Console http://<GroupWise Disaster Recovery_Server_Address>:5555



2. Select the Profile

Reload Tools (Choose) Click - GO 🗸 GO Help DR Plan What's New! Home 🎧 Logout
1. DOMAIN 😑 Health 🔵 Backup Loaded 🎭 Job Status 🏢 Disk Space Latest Backup : TUEMAR14
Overview Backups Disaster Recovery Configure S Event Log Agent Log
View All Profiles
Profile Status: This profile is functioning correctly.
Backup Access Status: Normal - Disaster Recovery is not enabled
Job Status: No job is running for this profile
Disk Space in Use: 12%
Name of Latest Backup: TUEMAR14
Profile Description: Primary Domain
Disaster Recovery Testing: [Untested]
Profile Path: /reload/domain
Domain Information
Latest Backup Status Information
Reload Profile Configuration Summary
Disaster Recovery Configuration Summary
Backup Configuration Summary

- 3. Enable Intra-Day backups, because you are only as secure as your last backup: Select the *Configure* tab. Open the *Backup Job Settings* panel. Press the *Intra-Day Backup Schedule* button to reveal and enable Intra-Day Backups. The time is the number of hours after the last full backup it will run.
- 4. Configure Backup Schedule: Press the *Configure All Schedules* button to reveal when the backups will occur, by default:1:00 AM.

Overview	Backups	433	Disaster Recovery	Configure	Ev	e
Back	up Job Setti	ngs				
🤣 Conf	igure All Profiles					
🕘 Use This	Section to Conf	igure B	ackups			
😑 Number	of Backups to Ke	eep: 2	20 Edit			
S Adv	vanced Settings					
🕅 Intra-Da	ıy Backup Schedu	le				
😑 1st Intra	-Day Backup: E	nabled	Edit Hour: 4	Edit Minute: 0	Edit	
😑 2nd Intra	a-Day Backup:	Enabled	Edit Hour: 12	Edit Minute:	0 Edit	
🔵 Remove	All Reload Job F	Referen	ces from CRON:	Do It Edit		
Standa	Standard Backup Schedule					
Config	jure All Schedules	;				
😑 Use Star	Ouse Standard Backup Schedule: Enabled Edit					
Sunday	OFF Edit					
Monday	01:00 Edit					
Tuesday	01:00 Edit					
Wednesday	01:00 Edit					
Thursday	01:00 Edit					
Friday	01:00 Edit					
Saturday	01:00 Edit					

6. Select the *Backups* tab and open the *GroupWise Disaster Recovery Job Control* panel. Select "Start a Backup Job" to run a job manually.

5.

Reload Tools (Choose) Click - GO v GO Help DR Plan What's New!	Hon						
1. DOMAIN 🕘 Health 🔵 Backup Loaded 🏪 Job Status 🏢 Disk Space Latest Backup	: TUEMAR14						
🛞 Overview 🙀 Backups 🚓 Disaster Recovery 📝 Configure 👼 Event Log 🕵	Agent Log						
Access Backups for Download							
Download Most Current Domain Backup [TUEMAR14]							
Select Another Domain Backup For Download							
Download the Most Recently Selected Backup							
Reload Job Control							
Start a Backup Job							
Clear Queued Jobs for This Profile 🥑							
Stop the Currently Running Job for This Profile 2							

7. On the Home page, the gears will turn green and spin as the job runs.

Domain Profiles	Status	Actions	Description
O 1. DOMAIN) 🔵 🎭 🏢 TUEMAR14	!	Primary Domain

8. Job progress can be observed in the Agent Log. This screen is static and will need to be refreshed.

🔉 Overview 👔 Backups 🚙 Disaster Recovery 📝 Configure 👼 Event Log 📃 Agent Log
Rofile Agent Log
[I] DATE: Fri_Oct_20 TIME: 10:54:16 - Raw Disk Space Check Output
Filesystem 1K-blocks Used Available Use% Mounted on /dev/sda2 163068396 98145164 63929228 61% /
<pre>[5] DATE: Fri_Oct_20 TIME: 10:54:16 - Disk space check can be skipped by setting Disk Space Threshold to 0 (zero). [5] DATE: Fri_Oct_20 TIME: 10:54:16 - If the last line of the Log File is this one, then set Disk Space Threshold to 0 (zero) DATE: Fri_Oct_20 TIME: 10:54:16 - STARTING JOB FOR PROFILE: P01 DATE: Fri_Oct_20 TIME: 10:54:16 - DISK SPACE IN USE AT JOB BEGINNING: 61%</pre>
<pre>[I] DATE: Fri_Oct_20 IIME: 10:54:16 - Disk space used = 61 % [I] DATE: Fri_Oct_20 IIME: 10:54:16 - Disk space required = 90 % [I] DATE: Fri_Oct_20 IIME: 10:54:17 - Sufficient Disk Space is Available [I] DATE: Fri_Oct_20 IIME: 10:54:17 - Remaining Disk Space Percentage 29 % [I] DATE: Fri_Oct_20 IIME: 10:54:17 - Start Database Backup</pre>
<pre>[1] DATE: Fri_Oct_20 TIME: 10:54:17 - Profile Description = [1] DATE: Fri_Oct_20 TIME: 10:54:17 - Process Retry Attempts = [1] DATE: Fri_Oct_20 TIME: 10:54:17 - Process Retry Attempts = [1] DATE: Fri_Oct_20 TIME: 10:54:17 - JOB TYPE: STANDARD (INCREMENTAL) BACKUP [1] DATE: Fri_Oct_20 TIME: 10:54:17 - SmartPurge: Disabled DATE: Fri_Oct_20 TIME: 10:54:17 - SmartPurge: Disabled DATE: Fri_Oct_20 TIME: 10:54:17 - DED ADDENDED ADDENDED DATE: FRI_OCT_20 TIME: 10:54:17 - SmartPurge: Disabled</pre>
DATE: Fri_Oct_20 IIME: 10:54:17 - [GRE_DBS_GACENTS] Start Database Backup [I] DATE: Fri_Oct_20 IIME: 10:54:19 - Number of Days in /reload/pol/backups/weeknow: 5
[] DATE: Fri_Oct_20 TIME: 10:54:23 - [GRE_DBS] Creating Backup Structure

Post Office Backup Jobs

9.

1. Browse to the GroupWise Disaster Recovery Web Administration Console http://<GroupWise Disaster Recovery_Server_Address>:5555



2. Select the Profile

Reload Tools (Choose) Click - GO 🗸 GO Help DR Plan What's New! Home 🍙 Logout	5
1. PO 😑 Health 🔵 Backup Loaded 🎭 Job Status 🏢 Disk Space Latest Backup : NONE	^
Overview Backups Disaster Recovery Configure Event Log Agent Log Image: Second	
 Profile Status: This profile is functioning correctly. Backup Access Status: Normal - No backup is loaded Job Status: No job is running for this profile Disk Space in Use: 12% Name of Most Current Backup: NONE Profile Description: Post Office Profile Path: /reload/po 	
Latest Backup Summary	
Reload Profile Configuration Summary	
Disaster Recovery Configuration Summary	
Backup Configuration Summary	

- 3. Enable Intra-Day backups, because you are only as secure as your last backup: Select the *Configure* tab. Open the *Backup Job Settings* panel. Press the *Intra-Day Backup Schedule* button to reveal and enable Intra-Day Backups. The time is the number of hours after the last full backup it will run.
- 4. Configure Backup Schedule: Press the *Configure All Schedules* button to reveal when the backups will occur, by default:1:00 AM.

Overview	Backups	433	Disaster Recovery	Configure	Ev	e
Back	up Job Setti	ngs				
🤣 Conf	igure All Profiles					
🕘 Use This	Section to Conf	igure B	ackups			
😑 Number	of Backups to Ke	eep: 2	20 Edit			
S Adv	vanced Settings					
🕅 Intra-Da	ıy Backup Schedu	le				
😑 1st Intra	-Day Backup: E	nabled	Edit Hour: 4	Edit Minute: 0	Edit	
😑 2nd Intra	a-Day Backup:	Enabled	Edit Hour: 12	Edit Minute:	0 Edit	
🔵 Remove	All Reload Job F	Referen	ces from CRON:	Do It Edit		
Standa	Standard Backup Schedule					
Config	jure All Schedules	;				
😑 Use Star	Ouse Standard Backup Schedule: Enabled Edit					
Sunday	OFF Edit					
Monday	01:00 Edit					
Tuesday	01:00 Edit					
Wednesday	01:00 Edit					
Thursday	01:00 Edit					
Friday	01:00 Edit					
Saturday	01:00 Edit					

6. Select the *Backups* tab and open the *GroupWise Disaster Recovery Job Control* panel. Select "Start a Standard Backup Job [SmartPurge Disabled]" to run a job manually.

5.

Reload Tools (Choose) Click - GO GO Help DR Plan What's New! Home
1. PO 😑 Health 🔵 Backup Loaded 🎭 Job Status 🏢 Disk Space Latest Backup : NONE
🛞 Overview 🚱 Backups 📣 Disaster Recovery 📝 Configure 👼 Event Log 🔍 Agent Log
Actions on Existing Backups
Turn On Access to the Most Current Backup [NONE]
Turn On Access to Prior Backups
Turn Off Access to Backups
Freeze a Backup From Deletion
Un-Freeze a Backup (Backups With "_F" Are Frozen)
Reload Job Control
Start a Standard Backup Job [SmartPurge Disabled] 🥑
Start a Standard Backup Job [SmartPurge Enabled] Start ing a Standard Backup Job manually is fine to do. However Reload is designed to start Standard Backup Jobs
Clear Queued Reload Jobs for This Profile (2) according to a schedule. At that point, Reload will use the SmartPurge API to advance the Backup Time Stamp in each user's database.

7. On the Home page, the gears will turn green and spin as the job runs.

Post Office Profiles	Status	Actions	Description
<u> 1. PO</u>	🔵 🍓 🔳 NONE		Post Office

8. Job progress can be observed in the Agent Log. This screen is static and will need to be refreshed. It will start with a database backup and creating the backup structure, then list users.

👌 Overview	Backup	os 🚙 Disa	ster Recovery	Configure	Even	t Log 📃	Agent Log	
								💐 Profile Agent Log
[I] DATE: F	Fri_Oct_20 TIME:	10:54:16 - R	aw Disk Space C	heck Output				
Filesystem /dev/sda2 1	1K-blocks Used 163068396 981451	Available Use .64 63929228 6	Mounted on					
[S] DATE: F [S] DATE: F DATE: Fri_O DATE: Fri_O	Fri_Oct_20 TIME: Fri_Oct_20 TIME: Oct_20 TIME: 10: Oct_20 TIME: 10:	10:54:16 - D 10:54:16 - I 54:16 - START 54:16 - DISK	isk space check E the last line ING JOB FOR PRO SPACE IN USE AT	can be skipped b of the Log File FILE: PO1 JOB BEGINNING: 6	y setting D: is this one, 1%	isk Space Th , then set D	reshold to 0 isk Space Th	(zero). reshold to 0 (zero)
[I] DATE: F [I] DATE: F [I] DATE: F [I] DATE: F [I] DATE: F	Fri_Oct_20 TIME: Fri_Oct_20 TIME: Fri_Oct_20 TIME: Fri_Oct_20 TIME:	10:54:16 - D 10:54:16 - D 10:54:17 - S 10:54:17 - R	isk space used isk space requi ifficient Disk emaining Disk S	= 61 % red = 90 % Space is Availabl pace Percentage 2	e 9 %			
<pre>[I] DATE: Fri_Oct_20 TIME: 10:54:17 - Start Database Backup [I] DATE: Fri_Oct_20 TIME: 10:54:17 - Profile = PO1 [I] DATE: Fri_Oct_20 TIME: 10:54:17 - Profile Description =</pre>								
[I] DATE: Fri_Oct_20 TIME: 10:54:17 - Process Retry Attempts = [1] DATE: Fri_Oct_20 TIME: 10:54:17 - JOB TYPE: STANDARD (INCREMENTAL) BACKUP [I] DATE: Fri_Oct_20 TIME: 10:54:17 - SmartPurce: Disabled								
DATE: Fri_C [I] DATE: F	Oct_20 TIME: 10: Fri_Oct_20 TIME:	54:17 - [GRE_] 10:54:19 - N	DBS_AGENTS] Sta amber of Days i	rt Database Backu n /reload/pol/bac	p kups/weeknov	n: 5		
[I] DATE: F	Fri_Oct_20 TIME:	10:54:23 - [GRE_DBS] Creati	ng Backup Structu	re			
View Entire I	00							

```
9.
```

Post-Backup Tasks

Once GroupWise Disaster Recovery has been installed, profiles created, backups saved and Restore Areas setup, additional configuration tasks may be completed.

These tasks include:

Auto-GroupWise Disaster Recovery for always on backup access

Tape backups for long term storage

The number of backups to keep

Configure Auto-GroupWise Disaster Recovery

GroupWise Disaster Recovery can be set to always have the latest backup available so users can just use the Restore area without having to make a call to the helpdesk. This won't help if they deleted something a week ago, an older backup will need to be activated but it does reduce calls to the helpdesk.

Prerequisites

- 1. Profile created
- 2. Backup stored
- 3. Restore Area setup

Configure Auto-GroupWise Disaster Recovery

- 1. Browse to the GroupWise Disaster Recovery Server Web Administration Console
- 2. Select the Profile for the Post Office
- 3. Under the *Configure* tab, under the section "*User Access to Backups*", enable "[*Auto-Reload*] Load the Most Recent Backup:"

Reload Tools (Choose) Click - GO v GO Help DR Plan What's New!
1. PO 🕘 Health 🌍 Backup Loaded 🎭 Job Status 📑 Disk Space Latest Backup : TUEMAR14
🔅 Overview 😵 Backups 🚓 Disaster Recovery 📝 Configure 👼 Event Log 🕵 Agent Log
Preferences
User Access to Backups
Configure All Profiles
Use This Section to Configure What Happens When Access to a Backup is Turned On
Load the Access Mode GroupWise POA: Enabled Edit
Access Mode POA TCP/IP Address: 10.1.4.161 Edit Client/Server Port: 1677 Edit
POA HTTP Configuration
POA SOAP Configuration
Link Backup to Restore Area: Enabled Edit
● [Auto-Reload] 🛶 Load the Most Recent Backup: Enabled 🗸 Save
● [Auto-Restore]

Configure Tape Backups

GroupWise Disaster Recovery can create TAR files for long term backup storage. GroupWise Disaster Recovery creates a single file from the previous week's worth of backups, but can be set to split it into smaller chunks that will fit the backup media. Advanced settings can be used to run bash scripts before and/or after the tape backup runs.

Prerequisite

 Create a directory for the tape backup TAR files. This can be a mount to another server. For example,

mkdir /reload/tape

Configure Tape Backups

- 1. Browse to the GroupWise Disaster Recovery Web Console
- 2. Select the Profile
- 3. Select the Configure tab
- 4. Open the Tape Backup panel
- 5. Set Create Tape Archive Files to Enabled, and save.
- 6. Set the Tape Archive File Storage Path, and save.

By default, the schedule is Saturday at 2:00AM. This can be changed under Tape Backup Schedule.

Reload Tools (Choose) Click - GO v GO Help DR Plan What's New!
1. PO 🕘 Health 🌍 Backup Loaded 🐁 Job Status 🏢 Disk Space Latest Backup : TUEMAR14
Overview Seckups Disaster Recovery Configure Event Log Agent Log Post Office and POA Settings
Disaster Recovery [FAILOVER]
Migration
Disaster Recovery [FAILBACK]
QuickFinder Resolution Agent
Tape Backups Configure All Profiles
● Create Tape Archive Files: Enabled V Save
Save
Iape Archive File Storage Path: //reload/tape Save
TAR Split/ZIP Settings
Advanced Settings
Tape Backup Schedule

Configure Number of Backups to Keep

By default, GroupWise Disaster Recovery keeps 14 days of backups. You can increase or decrease the amount as needed.

This setting is found in the GroupWise Disaster Recovery Web Administration under the *Profile* configuration | <select desired profile> | Configure | Backup Job Settings | Number of Backups To Keep

Tools (Choose) Click - GO v GO Help DR Plan What's New!
1. PO 🔴 Health 🌍 Backup Loaded 🐁 Job Status 🏢 Disk Space Latest Backup : TUEMAR14
👸 Overview 🙀 Backups 🚓 Disaster Recovery 📝 Configure 🛼 Event Log 🔍 Agent Log
Preferences
User Access to Backups
Backup Job Settings
Configure All Profiles
Use This Section to Configure Standard (Daily) Backups
Number of Backups To Keep: 14 Edit

Disaster Recovery Configuration

Disaster Recovery Mode allows the GroupWise Disaster Recovery server to take over the duties of the domain, MTA, GWIA and/or one or more POs.

Configuring Disaster Recovery (DR) takes substantial time, while it could be done during a disaster it would be best to configure Disaster Recovery prior to an actual disaster, when loss of communications may be an issue.

When setup correctly, during a disaster you will only need to enable Disaster Recovery Mode and change the DNS A record to point to the correct server. Your users will need to restart their client to connect to the new server but it should continue on without further disruption.

When designing your disaster recovery plan there are, basically, two types of disasters to prepare for:

- Server failure
- Site failure

A Server failure is just that: the server fails. The power supply or hard drive system fails and the server goes down and doesn't come back up. A system update goes bad or malware got through.

A Site failure is the server room is no longer functional. There is a power failure, or perhaps the sprinkler system went off by accident or the site was hit by a tornado.

Configure Disaster Recovery

This step takes some time to setup, so it is best to do this before the disaster. While it can be done during the disaster it is much harder and takes much longer until mail flow is reestablished.

If Disaster Recovery is setup correctly, it will take only seconds to be live on the GroupWise Disaster Recovery server as the DNS A record is updated and the Disaster Recovery POA is enabled.

IP Addresses

On the GroupWise Disaster Recovery server, for each Post Office Profile:

Provide an available IP address. None of these should be the IP address of the GroupWise Disaster Recovery server.

Bind the IP address to the NIC on the GroupWise Disaster Recovery server. It is recommended to provide an alias to distinguish them easily. This can be set up in: YaST >> Network Devices >> Network Settings, select the appropriate NIC device, select 'Edit', and add the IP address aliases there.

DNS

You will need to set several A Record names in your DNS. This is the one setting you'll have to change outside of GroupWise Disaster Recovery during a disaster. When the disaster is over and the production GroupWise server is ready to go live the A Record will need to be changed back.

By configuring names and using them throughout your system your users will not need to change any settings and will see minimal disruption.

Configure DNS A Records:

For each domain, and post office, create an A Record in the DNS.

- GroupWise Server. For example, gw100.company.com 10.1.1.100
- Domain. For example, gwdom.company.com 10.1.1.100
- Post Office. For example, gwpo.company.com 10.1.1.100
- *MTA*. For example, gwmta.company.com 10.1.1.100

GroupWise Server

Configure the Live GroupWise server to use domain names.

POA

- 1. Set the POA to use the hostname, in *Groupwise Administration* | Post Office Agents | <poa> | Agent Settings | Network Address | TCP/IP Address
- 2. Disable "Bind exclusively to TCP/IP Address" and Save
- Confirm that the MTP port is specified, by default 7101. MTP communication is not only a faster means of communication between MTAs and POAs, but it is essential disaster recovery purposes. If the MTP port is different that will need to be entered into GroupWise Disaster Recovery later on.

Micro Focus GroupWise Administration		
Connected Domain: docdom 🗸	Recent - Favorites -	
Administration 3	Post Office Agent : POA	
Overview	🚱 docdom 📄 docpo 🛁 POA	
June System	Delete Diagnostics	
Domains	General Agent Settings Log Settings SSL Settings	
Post Offices	Message Processing	
Post Office Agents Image: Second s	Message File Processing: All Message Handler Threads: 6 Message Transfer Port. 7101 SSL: Enabled Enable caching Disable Administration Task Processing Network Address	
	TCP/IP Address: gw160.doc.gwava.net External IP Address:	

MTA

- 1. Set the MTA to use the hostname, in *Groupwise Administration* | *Message Transfer Agents* | <*mta>* | *Agent Settings* | *Network Address* | *TCP/IP Address*
- 2. Disable "Bind exclusively to TCP/IP Address" and Save
- Confirm that the MTP port is specified, by default 7100. MTP communication is not only a faster means of communication between MTAs and POAs, but it is essential disaster recovery purposes. If the MTP port is different that will need to be entered into GroupWise Disaster Recovery later on.

Micro Focus GroupWise	
Connected Domain: docdom 🗸	Recent 🖌 Favorites 🗸
Administration	MTA : MTA
Overview	Solution docdom
5ystem	Delete Diagnostics
Domains	General Agent Settings Log Settings SSL Settings
Post Offices	Scan Cycle: 15 Seconds
Post Office Agents	Scan High: 5 🗧 seconds
Message Transfer Agents	Attach Retry: 60 🖨 seconds
e	Enable Automatic Database Recovery
L Users	Use 2nd High Priority Scanner
🌉 Groups	Use 2nd Mail Priority Scanner
💗 Resources	SNMP Community "Get" String:
₄ Nicknames	Network Address
ibraries	TCP/IP Address: gw160.doc.gwava.net
	Admin Port: 9710
	Bind exclusively to TCP/IP Address
	Message Transfer
	Port 7100 SSL: Enabled V

GWIA

1. Set the GWIA to use the hostname, in *Groupwise Administration* | *Message Transfer Agents* | <*gwia>* | *Agent Settings* | *Network Address* | *TCP/IP Address*
2. Disable "Bind exclusively to TCP/IP Address" and Save

nnected Domain: 🛛 docdom 🚽	Recent 😽 Favorites 🚽				
Iministration 🔇	Internet Agent : GW	A	_		_
Overview	🚯 docdom 🛛 🚽 GWIA				
System	Delete Diagnostic	s •			
Domains	GroupWise SMT	P/MIME POP3/IMAP4 S	erver Direct	ories Acces	ss Control
Post Offices		1			
Post Office Agents	General		Port	SSL	SSL Port
Message Transfer Agents	Agent Settings	Message Transfer:	0	Disabled 🗸	
Internet Agents	Log Settings	HTTP:	9850	Disabled 🗸	
a internet Agenta	SSL Settings	SMTP:	25	Disabled v	
Users	Time Settings	ngs	110	Disabled	995
Groups	Optional Settings	-		Disabled V	
Descurees	Administrators	IMAP:	143	Disabled v	993
Resources	Gateway Aliases				
Nicknames		Network Address			
Libraries			u160 doc a	wava nat	

GroupWise Client

 Set the GroupWise Client on all workstations to connect using a domain name. For example, gwpo.company.com. This allows the DNS A Record for the Post Office to be changed and the users will not notice a difference. If this is not set, then during a disaster you will be trying to contact all users and telling them what address to connect to.

No	vell GroupWise Startup	>
User name (Required):	aiden	
Password:		
Online Address:	mail.gwava.net Port: 1677	
\bigcirc Caching mailbox path:	C:\Users\admin\AppData\Local\Novell\Group'	
0.5 1 1 1		:thus

GroupWise Disaster Recovery Server

Configure Domain

1. Browse to the Web Administration Console and select the *Domain* profile.

- 2. Under the Configure tab, open the Disaster Recovery {FAILOVER] section
- 3. The TCI/IP Address should be pre-set to the GroupWise Disaster Recovery server.
- 4. MTAs and POAs should always be configured to communicate via MTP (Message Transfer Protocol vs. message file queuing and message file scanning) to one another. MTP communication is not only a faster means of communication between MTAs and POAs, but it is essential for disaster recovery purposes.

Make sure that the MTAs and the POAs have an MTP port specified. Typically the MTP port for the MTA is 7100, and the MTP port for the POA is 7101.

5. Configure the profile settings to match those of the live GroupWise domain. Confirm the ports used.

If you have multiple domains you will want to set this to separate addresses bound to the network card.

Reload Tools (Choose) Click - GO v GO Help DR Plan What's New!
1. DOMAIN \ominus Health 🔵 Backup Loaded 🎭 Job Status 🏢 Disk Space Latest Backup : WEDMAR15
⊘ Overview 😵 Backups 🚓 Disaster Recovery 📝 Configure 👼 Event Log 🔍 Agent Log
Preferences
Backup Job Settings
Domain and MTA Settings
Disaster Recovery [FAILOVER]
Configure All Profiles
Ise This Section to Configure What Reload Does When Disaster Recovery [FAILOVER] is Enabled
Disaster Recovery MTA Settings
TCP/IP Address: 10.1.4.161 Edit
MTP Port: 7100 Edit
MTA HTTP Configuration
Failover Settings
Advanced Failover Settings

Configure Post Office

- 1. Browse to the GroupWise Disaster Recovery Web Administration Console and select the *Post Office* profile
- 2. Under the Configure tab, open the Disaster Recovery {FAILOVER] section
- 3. The TCI/IP Address should be pre-set to the GroupWise Disaster Recovery server
- 4. Configure the profile settings to match those of the live GroupWise domain

If you have multiple post offices you will want to set this to separate addresses bound to the network card.

5. Outbound Message Transfer Port (Domain MTA) (MTP) Address

Tools (Choose) Click - GO GO Help DR Plan What's New!
1. PO 😑 Health 🌍 Backup Loaded 🏪 Job Status 🏢 Disk Space Latest Backup : TUEMAR14
👸 Overview 🙀 Backups 🚓 Disaster Recovery 📝 Configure 👼 Event Log 🗐 Agent Log
User Access to Backups
Backup Job Settings
Post Office and POA Settings
Disaster Recovery [FAILOVER] Configure All Profiles Use This Section to Configure What Reload Does When Disaster Recovery [FAILOVER] is Enabled
 Disaster Recovery POA Settings TCP/IP Address: 10.1.4.161 Edit Client/Server Port: 1677 Edit
Inbound Message Transfer Port (MTP): 7101 Edit
Outbound Message Transfer Port (Domain MTA) (MTP) Address: 10.1.4.161 Edit Port: 7100 Edit
POA HTTP Configuration
POA SOAP Configuration
Failover Settings
Advanced Failover Settings

Testing Disaster Recovery

Disaster Recovery can be tested without downing the production GroupWise server by activating the Disaster Recovery POA and connecting to it with a GroupWise client.

A full-scale test should be run that shuts down the production mail server. Attempts to send and receive from external email systems so all parts are tested and mail flows properly. DNS changes, or GroupWise systems changes can effect Disaster Recovery Mode functionality. A full-scale test where the product GroupWise POA is shut down should be run yearly.

Post Office Test

The simplest test is to enable Disaster Recovery mode and see if a client can connect by entering the IP of the GroupWise Disaster Recovery server DR POA

- 1. Close the GroupWise client if it is open
- 2. Browse to the GroupWise Disaster Recovery Web Administration Console
- 3. Click on the Post Office profile ambulance to engage Disaster Recovery Failover Mode

Reload	Jick-G0 ∨ G0 Help DR Plan What's Rew!	iome 🏠 Logo
View Agent Log		
	[FAILOVER] - DISASTER RECOVERY MODE has been TURNED ON for Profile: PO	
	G	
	Here Are The Actions Reload Will Take	
	 This Profile will be Changed to Disaster Recovery Mode Backups for This Profile will be Disabled While the Profile is in Disaster Recovery Mode All Queue Backup Jobs for This Profile Will be Removed From the Job Queue The Access Mode POA Will be Unloaded The Disaster Recovery POA for This Profile Will be Loaded Against the Most Current Backup The TCP/IP Address of the Disaster Recovery POA is: 10.14.161 The TCP/IP Tolend Berver Port of the Disaster Recovery POA is: 1677 The TCP/IP HTP Port of the Disaster Recovery POA is: 7181 The TCP/IP MTP Port of the Disaster Recovery POA is: 10.14.161 The TCP/IP MTP Port of the Disaster Recovery POA is: 10.14.161 The Access of the MTA that the Disaster Recovery POA is: 10.14.161 The Access of the MTA that the Disaster Recovery POA is: 10.14.161 The CP/IP Port of the MTA that the Disaster Recovery POA will send to is: 10.14.161 The CP/IP Port of the MTA that the Disaster Recovery POA is: 10.14.161 The CP/IP Port of the MTA that the Disaster Recover POA is: 10.14.161 The CP/IP Port of the MTA that the Disaster Recover POA is: 10.14.161 The CP/IP Port of the MTA that the Disaster Recover POA is: 10.14.161 The CP/IP Port of the MTA that the Disaster Recover POA is: 10.14.161 The CP/IP Port of the MTA that the Disaster Recover POA is: 10.14.161 The CP/IP Port of the MTA that the Disaster Recover POA is: 10.14.161 The CP/IP Port of the MTA that the Disaster Recover POA is: 10.14.161 	
	IMPORTANT NOTE	
Wait for about a minute to allow If there seems to be a problem I from the from the Home page of load.	the Disaster Recovery POA to load. Then use the Home button to see the latest status of the profile. oading the Disaster Recovery POA, then look at the System Agent Log by clicking the "View Agent Log" button above. Or the System Agent Log ca this Reload server. Viewing the System Agent Log will help you to troubleshoot the Disaster Recovery POA for this Profile, if the Disaster Recover	n be viewed y POA does not

4. Went Ambulance lights are on and the Red Arrow is up the DR POA is active.

₹ R	eload	Tools (Choose) Click - GO 🗘 😡	Help DR Plan What's New!	Home 🏠 Logou
Mor	nitor Overvie	w 📝 Configure 👼 Event Log	g 퇹 Agent Log 퇹 Bluep	brint Log
•	System Health: All	Profiles Are Functioning Correctly		🗞 Reload Jobs Running: 0
	Post Office Profiles	Status	Actions	Description
0	<u>1. PO</u>	🚫 🏀 🔳 TUEMAR14	I	Post Office
	Domain Profiles	Backup Access Status: Disast Status	er Recovery Enabled - The Disa Actions	ster Recovery POA has the backup [TUEMAR14] loaded. Description
0	1. DOMAIN	🔵 🎭 🏢 WEDMAR15	I	Primary Domain

5. Open the GroupWise client and instead of logging into the production Post Office, enter the hostname or IP address of the GroupWise Disaster Recovery server.

No	vell GroupWise Startup)
User name (Required):	aiden	
Password:		
Online Address:	reload.gwava.net Port: 1677	
O Caching mailbox path:	C:\Users\admin\AppData\Local\Novell\Group	
Remote mailbox path:		·****

Test the Disaster Recovery system:

- 1. Send a message internally to someone on the same Post Office.
- 2. Send a message internally to someone on the same Domain.
- Send a message externally to someone on the Internet. End the test:
- 4. Click on the Post Office profile ambulance to disengage Disaster Recovery Failover Mode.

The ambulance lights will turn off.

If a backup was loaded before Disaster Recovery mode was enabled, the red up arrow will change to a green right arrow.

Otherwise, the red up arrow will change to a blue dot.

Create Disaster Recovery GWIA

This step is optional, it depends on the design of your GroupWise system, and has nothing to do with GroupWise Disaster Recovery itself.

If your GroupWise server fails you may lose the GWIA as well and mail will not flow. It is prudent to set up a secondary GWIA for disaster recovery.

Setting up a GWIA is a GroupWise function. Please see GroupWise documentation for setting up an alternate GWIA for a domain (https://www.novell.com/documentation/groupwise2014r2/gw2014_guide_admin/data/adm_gwia_config_alternate.html).

Prerequisite

Set up, configure and test Disaster Recovery before a disaster.

Concept

- 1. Create a secondary GW domain on a server in the off-site disaster recovery location.
- 2. Create the GWIA off the secondary GW domain.
- 3. In GroupWise administration, define the GWIA as the secondary GWIA.

Retain Integration

Retain archives best when archiving the items directly. However, as an alternative to archiving messages directly from GroupWise, GroupWise Disaster Recovery can run a POA that Retain can archive from. This is useful for archiving data from unstable GroupWise servers or dealing with archiving from tape backups. This is different from the GroupWise Disaster Recovery for Retain product which backs up the Retain server to the GroupWise Disaster Recovery server.

This feature sets up a POA that is active almost all the time for Retain to connect to archive from, except for short periods as GroupWise Disaster Recovery switches to the latest backup.

Prerequisites

Since this requires running a POA, it is best to bind an extra IP address to the server for the Retain POA or you will need to make sure to change the POA settings in such a way that it does not interfere with the Access Mode POA or Disaster Recovery POA.

There must be an existing Post Office Profile and backup in place.

GroupWise Disaster Recovery Setup

Retain Integration is setup on a per Profile basis. Each Post Office Profile will have to be configured to use this feature.

On the GroupWise Disaster Recovery server, go to GroupWise Disaster Recovery Administration by running:

reload

Then go to Profiles | Post Office Profile

- 1. Select the desired profile
- 2. Select "Advanced Profile Configuration Menu"
- 3. Select "Retain Integration Settings"
- 4. Select "Retain to Reload Integration Configuration Wizard"
 - a. Enter the GroupWise Post Office name
 - b. Enter the GroupWise Domain name
 - c. Enter the Retain Worker Password (This can be set in the Retain Console, by default it is the Retain admin password)

- d. Enter the IP address and ports the Retain POA will bind to. If this POA will be sharing the IP address with any other GroupWise Disaster Recovery POA, the Client, SOAP, and HTTP connection ports must be unique to avoid port conflicts. GroupWise Disaster Recovery should be installed on a machine other than the live POA server, but the standard ports are usually best used for one of the other GroupWise Disaster Recovery POAs, (Disaster, Restore, and Access). Pick a port for each connection which you know is open. Retain will pull all necessary connection information from the GroupWise Disaster Recovery server. There is no need to enter these settings into the Retain Server.
- e. To mitigate the chances of getting Retain Worker archive errors while working against a GroupWise Disaster Recovery POA, it is *STRONGLY* recommended that GroupWise Disaster Recovery is set to create highly consistent backups. This setting is located at *Main menu* | *Profiles* | (Select Profile) |Standard | Advanced | Consistency: Set to highest.

Retain Setup

On the Retain Web Console:

- 1. Set the worker password:
 - a. This can be set in the Retain Web Console under *Workers* | <*desired worker>* | *Connection tab*, by default it is the Retain admin password
 - b. If the password is changed, the Worker bootstrap will need to be updated.
 - c. To remove an existing Worker bootstrap:
 - i. On the Retain server, stop tomcat
 - ii. Navigate to /opt/beginfinite/retain/RetainWorker/WEB-INF/cfg/ or wherever the worker is stored and remove RetainWorker2.cfg
 - iii. Start tomcat
- 2. Create a Profile for use with GroupWise Disaster Recovery:
 - a. Set the Scope "Date Range to Scan":
 - b. If using *Retain 4.1 or higher*. set to New Items stores which items have been archived internally.
 - c. If using *Retain 4.0.3.1 or lower*: set to Publish all messages newer than last stored message (fast) and the "Set Storage Flags" must be set to "Item Store Flag"
- 3. Create a Job as normal with Schedule, Profile, and Worker:
 - a. Under the Reload tab:
 - i. Set "Enable Reload Integration"
 - ii. Set "Server Protocol" http or https
 - iii. Set "Server Host Name" to the Reload server hostname or IP address
 - iv. Set "Server Port", default 5555
 - b. Select Mailboxes to dredge

Now the job will dredge the GroupWise Disaster Recovery server rather than the GroupWise server.

6 Restoration

Restoring Items Overview

Since GroupWise Disaster Recovery is a backup solution it has the ability to restore items to GroupWise.

That are two methods for restoring items: Restore mode and Access mode.

Restore mode uses the GroupWise restore area manager to allow GroupWise to access the backed up items directly.

Access mode uses a POA on the GroupWise Disaster Recovery server that the GroupWise client can access directly, the items can be archived and then restored after reconnecting to the production GroupWise system.

Prerequisites

- 1. Configure the Restore Area
- 2. Have backups

Loading a Backup

On the GroupWise Disaster Recovery server

Most Recent Backup

1. To load the most recent backup browse to *GroupWise Disaster Recovery Web Administration Console* | *<Profile>* | *Turn On Access to Backup* action button

X	Reload	lick - GO Y GO Help DR Plan	What's New! Blueprint	
	Monitor 🙋 Overview 📝 Config	ure 👼 Event Log 🙇 Agent Lo	g	
	Sustam Usalthi All Brafilas Ara Fun	etioning Correctly		
	System Health: All Profiles Are Fun	ctioning correctly		
	Post Office Profiles	Status	Actions	Description
	<u>● 1. PO <~></u>	🔵 🎭 🔳 WEDMAR15		Post Office
	Domain Profiles	Status	Action: Click to Turn on Acce	ess to the Backup: [WEDMAR15]
	<u>● 1. DOMAIN <~></u>	🔵 🏀 📑 THUMAR16		Primary Domain

Prior Backup

1. To load a prior backup browse to GroupWise Disaster Recovery Web Administration Console | <Profile> | Backups tab |Turn On Access To Prior Backups | <Backup>



Restore Mail Items

One or more items can be restored to the user's mailbox. There are two modes for restoring items: Restore mode and Access mode.

- "Restore Mode" on page 156 uses GroupWise's restore area to allow the user to use the GroupWise client to restore their items.
- "Access Mode" on page 158 has the Client access the GroupWise Disaster Recovery POA directly where the item(s) can be archived and then unarchived once attached to the production GroupWise server.

Restore Mode

Restore mode uses GroupWise's restore area to allow the user to use the GroupWise client to restore their items.

On the GroupWise Disaster Recovery server

• Load a backup on the GroupWise Disaster Recovery server from a time period where the item existed

On the GroupWise Client Workstation

- 1. On the user's workstation open the GroupWise client
- 2. Select "*File* | *Open Backup*". This will show the items on the GroupWise Disaster Recovery POA and *not* available on the production GroupWise server

0				
<u>F</u> ile	<u>E</u> dit	<u>V</u> iew	<u>A</u> ctions	<u>T</u> ools <u>\</u>
	New			+
	Op <u>e</u> n.			
	Save <u>A</u>	<u>A</u> s		
	<u>P</u> rint			+
	Mode			•
	Pr <u>o</u> xy.			
	Open	Archive	2	
	Open	<u>B</u> ackup)	
	<u>I</u> mpor	rt/Expor	t	•
	S <u>h</u> arir	ng		
	P <u>r</u> ope	rties	Alt	+Enter
	Exit			Alt+F4

- 3. Select the item(s) to be restored
- 4. Right-click and select "Restore"



Access Mode

Access mode has the Client access the GroupWise Disaster Recovery POA directly where the item(s) can be archived and then unarchived once attached to the production GroupWise server.

Personal archives must be enabled in GroupWise Administration.

On the GroupWise Disaster Recovery server

- 1. If needed, enable the access mode POA in *GroupWise Disaster Recovery Web Administration* Console | <Profile> | Configure | User Access to Backups
- 2. Load a backup on the GroupWise Disaster Recovery server from a time period where the item existed
- 3. The address the client must connect to can be found in the *GroupWise Disaster Recovery Web* Administration Console | <*Profile>* | *Backups tab* | *GroupWise Client Access to GroupWise Disaster Recovery Backups*

On the GroupWise Client Workstation

1. An archive directory must be set in *GroupWise Client* | *Tools* | *Options* | *Environment* | *File Locations* | *Archive Directory*



2. Open the GroupWise client and connect to the POA on the GroupWise Disaster Recovery server

🗢 Nov	ell GroupWise Startup
User name (Required): Password:	aiden
Online Address:	reload.gwava.net Port: 1677
 Caching mailbox path: Remote mailbox path: 	C: \Users \admin \AppData \Local \Novell \Group'
	OK Cancel

3. Right-click on the item and select "Archive"

0			Archive the sele	ected item				×
File Edit View Actions To	ools Window	Help						
- Home Mailbox (6	56) Calen	dar Sent	Items Contacts Welco	ne			ē 🖬	
Address Book		🖂 New Ma	il 🔻 🕓 New Appt 🝷 🔽 New	Task 🔻 🛄				
💼 👻 🆘 Reply 🦚 Repl	iy Ali 🛛 🏕 Fon	ward 🔻 🚺	Y					
Sonline -	🕾 Mailbo	x (66)					Q,+	
🚖 Favorites		From	Subject		Date 🔺			^
	N 🖂	root <root@< td=""><td>Open</td><td>red snap</td><td>2/2/2017 7:57</td><td></td><td></td><td></td></root@<>	Open	red snap	2/2/2017 7:57			
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asklist		root <root@< td=""><td>Move to</td><td>• e is over.</td><td>2/3/2017 12:5</td><td></td><td></td><td></td></root@<>	Move to	• e is over.	2/3/2017 12:5			
Cabinet		root <root@< td=""><td>Mark Pead</td><td>ainted re</td><td>3/15/2017 4:0</td><td></td><td></td><td></td></root@<>	Mark Pead	ainted re	3/15/2017 4:0			
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			Properties			Selected: 1	Total: 67	ît /

- 4. Exit GroupWise Client
- 5. Reopen the GroupWise Client and connect to the POA on the Production GroupWise server

Nov	vell GroupWise Startu	up	
User name (Required):	aiden		
Password:	••••		
Online Address:	mail.gwava.net	Port:	1677
O Caching mailbox path:	C:\Users\admin\AppData\	Local Wovel	l\Group!
O Remote mailbox path:			
	0	к	Cancel

6. Select "File | Open Archive"

\odot				Toggle	between archived and non-arch	ived items			х
File	Edit View Action	ns Tools	Window	w Help					
	New	,	Caler	ndar Sent Items	Contacts Welcome			6	
	Open						_		
	Save As			🛛 🖂 New Mail 🔻 🕓 I	New Appt 🔻 🗹 New Task 🔻 🗔				
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				iwaru • 🕂 •					
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	Proxy			From	Subject	Date 🔺			•
	Open Archive			root <root@gopostal16< td=""><td>The cup cracked and spilled its contained</td><td>2/2/2017 8:57</td><td></td><td></td><td>^</td></root@gopostal16<>	The cup cracked and spilled its contained	2/2/2017 8:57			^
	Open Backup			root <root@gopostal16< td=""><td>The pods of peas ferment in bare fit</td><td>2/2/2017 9:57</td><td></td><td></td><td></td></root@gopostal16<>	The pods of peas ferment in bare fit	2/2/2017 9:57			
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	Sharing			root <root@gopostal16< td=""><td>That move means the game is over.</td><td>2/3/2017 12:5</td><td></td><td></td><td></td></root@gopostal16<>	That move means the game is over.	2/3/2017 12:5			
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			\sim	root <root@gopostal16< td=""><td>The line where the edges join was cl</td><td>3/15/2017 6:0</td><td></td><td></td><td></td></root@gopostal16<>	The line where the edges join was cl	3/15/2017 6:0			
			\ge	root <root@gopostal16< td=""><td>Mark the spot with a sign painted re</td><td>3/15/2017 7:0</td><td></td><td></td><td></td></root@gopostal16<>	Mark the spot with a sign painted re	3/15/2017 7:0			
				root <root@gopostal16< td=""><td>Wake and rise, and step into the gre</td><td>3/15/2017 8:0</td><td></td><td></td><td></td></root@gopostal16<>	Wake and rise, and step into the gre	3/15/2017 8:0			
1 🟠 /	Aiden Li Home			root <root@gopostal16< td=""><td>The friendly gang left the drug store</td><td>3/15/2017 10:</td><td></td><td></td><td></td></root@gopostal16<>	The friendly gang left the drug store	3/15/2017 10:			
<	Mailbox (82)			root <root@gopostal16< td=""><td>The bright lanterns were gay on the</td><td>3/15/2017 11:</td><td></td><td></td><td></td></root@gopostal16<>	The bright lanterns were gay on the	3/15/2017 11:			
	A Sent Items			root <root@gopostal16< td=""><td>Screw the round cap on as tight as n</td><td>3/16/2017 12:</td><td></td><td></td><td></td></root@gopostal16<>	Screw the round cap on as tight as n	3/16/2017 12:			
	Erequent Cont	acte		root <root@gopostal16< td=""><td>The grass and bushes were wet with</td><td>3/16/2017 1:0</td><td></td><td></td><td></td></root@gopostal16<>	The grass and bushes were wet with	3/16/2017 1:0			
	Documents		\geq	root <root@gopostal16< td=""><td>Most of the news is easy for us to he</td><td>3/16/2017 2:0</td><td></td><td></td><td></td></root@gopostal16<>	Most of the news is easy for us to he	3/16/2017 2:0			
	Tasklist		\ge	root <root@gopostal16< td=""><td>Tear a thin sheet from the yellow pa</td><td>3/16/2017 3:0</td><td></td><td></td><td></td></root@gopostal16<>	Tear a thin sheet from the yellow pa	3/16/2017 3:0			
	🔀 Work In Progre	ss	\geq	root <root@gopostal16< td=""><td>There is a fine hard tang in salty air.</td><td>3/16/2017 4:0</td><td></td><td></td><td></td></root@gopostal16<>	There is a fine hard tang in salty air.	3/16/2017 4:0			
	🗄 Cabinet		\geq	root <root@gopostal16< td=""><td>The ram scared the school children (</td><td>3/16/2017 5:0</td><td></td><td></td><td></td></root@gopostal16<>	The ram scared the school children (3/16/2017 5:0			
	🛱 Trash (12)		\leq	root <root@gopostal16< td=""><td>For scraps littered the stone floor.</td><td>3/16/2017 6:0</td><td></td><td></td><td></td></root@gopostal16<>	For scraps littered the stone floor.	3/16/2017 6:0			
			\leq	root <root@gopostal16< td=""><td>The lobes of her ears were pierced 1</td><td>3/10/2017 1:0</td><td></td><td></td><td></td></root@gopostal16<>	The lobes of her ears were pierced 1	3/10/2017 1:0			
				root <root@gopostal16< td=""><td>A big wet stain was on the round cau</td><td>3/16/2017 9:0</td><td></td><td></td><td></td></root@gopostal16<>	A big wet stain was on the round cau	3/16/2017 9:0			
		_				-,,			~
							Selected: 1	Total: 83	

7. Right-click on the item and disable "Archive"

0			Archive the	selected item			- 🗆 ×			
File Edit View Actions T	ools Window Help									
- Home Mailbox Calendar Sent Items										
Address Book	Q Q Nev	/ Mail 🔻 🕻	🕓 New Appt 🔻 🗹 🕅	Vew Task 👻 🔲						
💼 👻 🍖 Reply 🦛 Rep	ly All 🔶 Forward 👻 [÷ ·								
Archive - ▼	🕾 Mailbox						Q.+			
🔶 Favorites	From		Subject		Date 🔺					
Cabinet Aiden Li Home Aiden Li Home Mailbox Sent Items Calendar Calendar Calendar Calendar Vork In Progress Cabinet Tasklist Trash		Ope Save Print Find Repl Forw Dele Dele V Arch Mov Mari Cate Prop	n As As in 'Mailbox' folder y vard ard as Attachment te te and Empty ive e to c Read gories erties))						
						Selected: 1	Total: 1			

8. Select "File" and disable "Open Archive"

\odot			Toggle between archived and non-archived items	_ _ ×
File	Edit View Acti	ions Tools	Window Help	
	New	•	ndar Sent Items	· · · · · · · · · · · · · · · · · · ·
	Open			
	Save As			
	Print	•		
	Mode	•	failbox	Q.+
	Proxy		From Subject Date A	
~	Open Archive			
	Open Backup			
	Import/Export	•		
	Sharing			
	Properties	Alt+Enter		
	Exit	Alt+F4		
	Aiden Li Home			
	C Mailbox			
	A Sent Items			
	Documents			
	📝 Tasklist			
	Work In Prog	jress		
	Trash			
				Selected: 0 Total: 0

9. The item will appear in the mailbox

0	Novell GroupWise - Mailbox	- 🗆 ×
File Edit View Actions To	ools Window Help	
- Home Mailbox (8	33) Calendar Sent Items Contacts Welcome	ē = =
Address Book	I 🔍 🥼 Vew Mail 🔹 🕓 New Appt 🔹 🗹 New Task 🔹 🗔 😨	
💼 👻 🏀 Reply 🦚 Repl	ly All 🎓 Forward 🔻 😱 💌	
S_Online- ▼	🕾 Mailbox (83)	Q.
🔶 Favorites	From Subject Date 🔺	^
	root <root@gopostal16 2="" 2017="" 7:57<="" a="" box="" bright="" by="" held="" is="" red="" snapp="" td="" the=""><td></td></root@gopostal16>	
	root <root@gopostal16 2="" 2017="" 7:57<="" a="" box="" bright="" by="" held="" is="" red="" snapp="" td="" the=""><td></td></root@gopostal16>	
	root <root@gopostal16 2="" 2017="" 8:57<="" a="" for="" light="" makes="" maple="" p="" room.="" swell=""></root@gopostal16>	
	root <root@gopostal16 2="" 2017="" 9:57<="" along="" care="" crawled="" he="" ledg="" p="" the="" with=""></root@gopostal16>	
Cabinat	root <root@gopostal16 10:5<="" 2="" 2017="" hip="" his="" knee="" next="" of="" p="" struck="" the="" =""></root@gopostal16>	
E Cabinet	root <root@gopostal16 11:5<="" 2="" 2017="" both="" in="" lives="" lost="" p="" raging="" stc="" the="" their=""></root@gopostal16>	
	root <root@gopostal16 12:5<="" 2="" 2017="" a="" black="" coat="" covered="" of="" p="" paint="" thick=""></root@gopostal16>	
	root <root@gopostal16 1:57<="" 2="" 2017="" a="" by="" from="" hidden="" it="" mass="" o="" p="" sight="" was=""></root@gopostal16>	
	root <root@gopostal16 2="" 2017="" 2:57<="" a="" friend.="" his="" of="" p="" revives="" sip="" tea="" tired=""></root@gopostal16>	
	root <root@gopostal16 2="" 2017="" 3:57<="" apple="" big="" fell="" ground.="" p="" red="" the="" to=""></root@gopostal16>	
💫 Aiden Li Home	root <root@gopostal16 2="" 2017="" 4:57<="" breeze="" is="" islands="" on="" p="" sea="" soft="" the=""></root@gopostal16>	
Mailbox (83)	root <root@gopostal16 2="" 2017="" 5:57<="" and="" board="" cc="" more="" one="" p="" step="" the="" will=""></root@gopostal16>	
📤 Sent Items	root <root@gopostal16 2="" 2017="" 6:57<="" bank="" for="" of="" p="" payment="" pressed="" th="" the=""></root@gopostal16>	
Calendar	root <root@gopostal16 2="" 2017="" 7:57<="" faced="" four="" hours="" of="" steady="" td="" us.="" work=""><td></td></root@gopostal16>	
1 Frequent Contacts	☐ root <root@gopostal16 2="" 2017="" 8:57<="" and="" conte="" cracked="" cup="" its="" p="" spilled="" the=""></root@gopostal16>	
Documents	root <root@gopostal16 2="" 2017="" 9:57<="" bare="" ferment="" fie="" in="" of="" peas="" pods="" td="" the=""><td></td></root@gopostal16>	
Tasklist	root <root@gopostal16 10:5<="" 2="" 2017="" a="" at="" buyer="" ga="" gift="" good="" sell="" td="" to="" your=""><td></td></root@gopostal16>	
Work In Progress	root <root@gopostal16 11:5<="" 2="" 2017="" :="" kept="" of="" pearl="" pin="" td="" the="" theft="" was=""><td></td></root@gopostal16>	
E Cabinet	root <root@gopostal16 12:5<="" 2="" 2017="" 3="" game="" is="" means="" move="" over.="" td="" that="" the=""><td></td></root@gopostal16>	
📅 Trash (12)	root <root@gopostal16 15="" 2017="" 3="" 4:0<="" a="" mark="" painted="" re="" sign="" spot="" td="" the="" with=""><td></td></root@gopostal16>	
_	root <root@gopostal10 15="" 2017="" 3="" 5:0<="" bike="" he="" past="" td="" the="" wheeled="" windir=""><td></td></root@gopostal10>	
	root <root@gopostal16 15="" 2017="" 3="" 6:0<="" cl="" edges="" join="" line="" td="" the="" was="" where=""><td></td></root@gopostal16>	
	root <root@gopostal10 15="" 2017="" 3="" :0<="" a="" mark="" painted="" re="" sign="" spot="" td="" the="" with=""><td>×</td></root@gopostal10>	×
		Selected: 1 Total: 84 🔒 🏛

Restore a User's Address Book

Address book items can only be restored using Access Mode. The address book includes the GroupWise Address Book, Frequent Contacts, the user's Address Book, &etc.

Access Mode

Access mode has the Client access the GroupWise Disaster Recovery POA directly where the item or items can be archived and then unarchived once attached to the production GroupWise server.

Personal archives must be enabled in GroupWise Administration.

On the GroupWise Disaster Recovery server

- 1. If needed, enable the access mode POA in *GroupWise Disaster Recovery Web Administration* Console | <Profile> | Configure | User Access to Backups
- 2. Load a backup on the GroupWise Disaster Recovery server from a time period where the item existed
- 3. The address the client must connect to can be found in the *GroupWise Disaster Recovery Web* Administration Console | <*Profile>* | Backups tab | GroupWise Client Access to GroupWise Disaster Recovery Backups

On the user's GroupWise client

1. Open the GroupWise client and connect to the POA on the GroupWise Disaster Recovery server

Novell GroupWise Startup								
User name (Required): Password:	aiden							
Online Address:	reload.gwava.net Port: 1677							
 Caching mailbox path: Remote mailbox path: 	C: Users (admin (AppLiata (Local (Novell (Group)							
	OK Cancel							

- 2. Select the contacts to restore or an address book
- 3. Select "File | Export"

😂 Novell GroupWise - Aiden	_ 🗆 🛛
File Edit View Actions Tools Window Help	
Home Mailbox (84) Calendar Sent Items Contacts Welcome	
🛃 Address Book 🔟 🖳 🔍 🎝 New Mail 🔻 🕓 New Appt 👻 New Task 🔹 🖽 📧 💷 🗸 📩	
💼 🔻 🏕 Forward 👻 🋅 🔂 🔚 💽 👻	
Sonline-	Q.+
Address Book -	
Aid File Edit View Help	
🖹 Doc Aut New - 🔣 Details 前 Delete 🦺 Find 🏝 Action -	
< 🖉 Ønline 🔹 Personal 📀	
Cabinet GroupWise Addres Look For: Inside: Name ▼ Addres Book Addres Book Sent Ite Per Aiden Li Home Addres Book Frequet Contacts Precents Close Book Delete Book Refresh Book Rename Book Save As Book Save As Book Sharing Properties	
	Selected: 0 Total: 5

4. Export the items to a local .NAB file

_		Choose Export File		×
⊕ 🦻 - ↑ 🗖	Desktop >		✓ C Search Desktop	Q
Organize 👻 Nev	v folder			0
★ Favorites ■ Desktop ■ Downloads	Homegroup	admin	This PC	
Recent places	Libraries	Network	GWArchive	
🔞 Homegroup	M+Netmail	test docs		
[삎 This PC	PL-	1997 - Celes		
<table-of-contents> Network</table-of-contents>				
File name:	AidenAddr			~
Save as type:	Novell Address Book (*.nab)			~
) Hide Folders			Save Can	cel:

- 5. Close the client
- 6. Reopen the GroupWise Client and connect to the POA on the Production GroupWise server

User name (Required):	aiden			
Password:	•••••			
Online Address:	mail.gwava.net	Port:	1677	_
O Caching mailbox path:	C:\Users\admin\AppD	ata\LocalWove	l\Group!	2 ⁴⁰
O Remote mailbox path:				-
		ОК	Cancel	1

- 7. Open the address book and select a book
- 8. Select "File | Import"



9. Browse to the file and Open it

10. Select the book to import to



Restore a User's Calendar Items

Calendar items can only be restored using Access Mode.

Access Mode

Access mode has the Client access the GroupWise Disaster Recovery POA directly where the item or items can be archived and then unarchived once attached to the production GroupWise server.

Personal archives must be enabled in GroupWise Administration.

On the GroupWise Disaster Recovery server

- 1. If needed, enable the access mode POA in *GroupWise Disaster Recovery Web Administration* Console | <Profile> | Configure | User Access to Backups
- 2. Load a backup on the GroupWise Disaster Recovery server from a time period where the item existed
- 3. The address the client must connect to can be found in the *GroupWise Disaster Recovery Web* Administration Console | <*Profile>* | *Backups tab* | *GroupWise Client Access to GroupWise Disaster Recovery Backups*

On the user's GroupWise client

1. Open the GroupWise client and connect to the POA on the GroupWise Disaster Recovery server

🗢 Nov	ell GroupWise Startup
User name (Required):	aiden
 Online Address: 	reload.gwava.net Port: 1677
O Caching mailbox path:	C:\Users\admin\AppData\Local\Novell\Group'
O Remote mailbox path:	
	OK Cancel

- 2. Select the calendar item to restore
- 3. Right-click and select "Move to Archive"

0			Archive the se	elected item				Edit	
File Edit View Actions To - Home Mailbox (8	ools Window Help 14) Calendar Sent Ite	ems Co	ontacts Welc	ome	_	_		Decline Decline with Options	
💶 Address Book 🔲 🖪	Q LQ ⊠ New Mail	• 🕓 Ne	ew Appt ▾ ☑ Ne te New Time 🕒 I	w Task 🔹 📰 📳	I • 🔲 • 🛣 •			Change to Invite Delegate and delete Dunlicate	
Inter →	Calendar							Save As	
🚖 Frequently Used Folders	3/17/2017 ▼ 4 ▶ ‰	Today	1 D	ay 7 Week 31	Month 365 Year	III Multi-User Columns		Delete Mark Private	
Documents	SMTWTFS March 2017		Monday March 13, 2017	Tuesday March 14, 2017	Wednesday March 15, 2017	Thursday March 16, 2017	~	Alarm Categories	,
د »	1 2 3 4	24						Move to Archive	
Calendar	12 13 14 15 16 17 18	0 AM						Show Appointment As	,
	19 20 21 22 23 24 25	0 /14						Hide Icons	
	26 27 28 29 30 31	9						Move to	•
Aiden Li klome	April 2017	10				O Her Aralland	•	Additional Time Zone Graphic Display	
🖉 😁 Mailbox (84)	2 3 4 5 6 7 8	11				interview (here)		Text Display	
Association Sent Items	9 10 11 12 13 14 15 16 17 18 19 20 21 22	12 PM						Time Interval	•
Prequent Contact	23 24 25 26 27 28 29 30	1					TR	Quarterry 1 review	
Documents	May 2017	2							
Aiden	1 2 3 4 5 6 7 8 9 10 11 12 13	3							
Default Librar	14 15 16 17 18 19 20	4 PM							
	21 22 23 24 25 26 27	-						~	
								tît -	

- 4. Close the client
- 5. Reopen the GroupWise Client and connect to the POA on the Production GroupWise server
- 6. Select "File | Open Archive"

\odot				Toggle	between archived and non-arch	ived items			X
File	Edit View Action	ns Tools	Windo	w Help					
	New	+	Cale	ndar Sent Items	Contacts Welcome			6	8
	Open								
	Save As		40,	New Mail 🔻 🕓	New Appt 🔻 🗹 New Task 👻 🗔				
	Print	+	re Fo	orward 💌 🚛 💌					
	Mode	+	tailb	ox (92)				0	
	Proxy		anu	0X (02)				ц.	•
	Open Archive			From	Subject	Date 🔺			^
	Open Backup			root <root@gopostal16< td=""><td>The cup cracked and spilled its conte</td><td>2/2/2017 8:57</td><td></td><td></td><td></td></root@gopostal16<>	The cup cracked and spilled its conte	2/2/2017 8:57			
	openbeckap			root <root@gopostal16< td=""><td>The pods of peas ferment in bare fie</td><td>2/2/2017 9:57</td><td></td><td></td><td></td></root@gopostal16<>	The pods of peas ferment in bare fie	2/2/2017 9:57			
	Import/Export	•		root <root@gopostal16< td=""><td>The theft of the near nin was kent i</td><td>2/2/2017 10:5</td><td></td><td></td><td></td></root@gopostal16<>	The theft of the near nin was kent i	2/2/2017 10:5			
	Sharing			root <root@gopostal16< td=""><td>That move means the game is over.</td><td>2/3/2017 12:5</td><td></td><td></td><td></td></root@gopostal16<>	That move means the game is over.	2/3/2017 12:5			
	Properties	Alt+Enter		root <root@gopostal16< td=""><td>Mark the spot with a sign painted re</td><td>3/15/2017 4:0</td><td></td><td></td><td></td></root@gopostal16<>	Mark the spot with a sign painted re	3/15/2017 4:0			
	Exit	Alt+F4		root <root@gopostal16< td=""><td>He wheeled the bike past the windi</td><td>3/15/2017 5:0</td><td></td><td></td><td></td></root@gopostal16<>	He wheeled the bike past the windi	3/15/2017 5:0			
-	1	-		root <root@gopostal16< td=""><td>The line where the edges join was cl</td><td>3/15/2017 6:0</td><td></td><td></td><td></td></root@gopostal16<>	The line where the edges join was cl	3/15/2017 6:0			
			\sim	root <root@gopostal16< td=""><td>Mark the spot with a sign painted re</td><td>3/15/2017 7:0</td><td></td><td></td><td></td></root@gopostal16<>	Mark the spot with a sign painted re	3/15/2017 7:0			
			\sim	root <root@gopostal16< td=""><td>Wake and rise, and step into the gre</td><td>3/15/2017 8:0</td><td></td><td></td><td></td></root@gopostal16<>	Wake and rise, and step into the gre	3/15/2017 8:0			
10	Aiden Li Home		\geq	root <root@gopostal16< td=""><td>The gold ring fits only a pierced ear.</td><td>3/15/2017 9:0</td><td></td><td></td><td></td></root@gopostal16<>	The gold ring fits only a pierced ear.	3/15/2017 9:0			
· ·	🖉 😁 Mailbox (82)		\geq	root <root@gopostal16< td=""><td>The friendly gang left the drug store</td><td>3/15/2017 10:</td><td></td><td></td><td></td></root@gopostal16<>	The friendly gang left the drug store	3/15/2017 10:			
	📤 Sent Items		\geq	root <root@gopostal16< td=""><td>The bright lanterns were gay on the</td><td>3/15/2017 11:</td><td></td><td></td><td></td></root@gopostal16<>	The bright lanterns were gay on the	3/15/2017 11:			
	Calendar		\leq	root <root@gopostal16< td=""><td>Screw the round cap on as tight as n</td><td>3/16/2017 12:</td><td></td><td></td><td></td></root@gopostal16<>	Screw the round cap on as tight as n	3/16/2017 12:			
	😃 Frequent Cont	acts	\simeq	root <root@gopostal16< td=""><td>The grass and busines were wet with</td><td>3/10/2017 1:0</td><td></td><td></td><td></td></root@gopostal16<>	The grass and busines were wet with	3/10/2017 1:0			
	Documents			root <root@gopostal16< td=""><td>Tear a thin sheet from the vellow na</td><td>3/16/2017 2:0</td><td></td><td></td><td></td></root@gopostal16<>	Tear a thin sheet from the vellow na	3/16/2017 2:0			
	Tasklist			root <root@gopostal16< td=""><td>There is a fine hard tang in salty air.</td><td>3/16/2017 4:0</td><td></td><td></td><td></td></root@gopostal16<>	There is a fine hard tang in salty air.	3/16/2017 4:0			
	Work In Progre	255		root <root@gopostal16< td=""><td>The ram scared the school children (</td><td>3/16/2017 5:0</td><td></td><td></td><td></td></root@gopostal16<>	The ram scared the school children (3/16/2017 5:0			
	Cabinet			root <root@gopostal16< td=""><td>Torn scraps littered the stone floor.</td><td>3/16/2017 6:0</td><td></td><td></td><td></td></root@gopostal16<>	Torn scraps littered the stone floor.	3/16/2017 6:0			
	(12)			root <root@gopostal16< td=""><td>The lobes of her ears were pierced 1</td><td>3/16/2017 7:0</td><td></td><td></td><td></td></root@gopostal16<>	The lobes of her ears were pierced 1	3/16/2017 7:0			
			\sim	root <root@gopostal16< td=""><td>Seven seals were stamped on great</td><td>3/16/2017 8:0</td><td></td><td></td><td></td></root@gopostal16<>	Seven seals were stamped on great	3/16/2017 8:0			
				root <root@gopostal16< td=""><td>A big wet stain was on the round car</td><td>3/16/2017 9:0</td><td></td><td></td><td>~</td></root@gopostal16<>	A big wet stain was on the round car	3/16/2017 9:0			~
							Selected: 1	Total: 83	

- 7. Browse to the item
- 8. Right-click and select "Unarchive"

0			Archive the se	lected item					×
File Edit View Actions T	ools Window Help								
- Home Mailbox	Calendar Sent Items								
Address Book	🔍 🧟 🔛 New Mail	* () N	lew Appt 👻 🔽 Ne	er Task 👻 🔲 😫	I • 🔲 • 🖾				
🔺 Reply 🦛 Reply All	🖊 Accept 👻 🗙 Decline 👻 🤇	S Propo	ose New Time 🕒 Ir	ivite 🔻 🕓 😱	•				
퇸Archive+ ·	Calendar							Q.+	
🚖 Favorites	3/17/2017 ▼ 4 ▶ ‱	Today	1 D	y 7 Week 31	Month 365 Year	Multi-User Columns	0	v 🛛 +	-
	SMTWTFS March 2017		Monday March 13, 2017	Tuesday March 14, 2017	Wednesday March 15, 2017	Thursday March 16, 2017	F Marc	riday h 17, 2017	
Calendar	1 2 3 4 5 6 7 8 9 10 11	24							0
	12 13 14 15 16 17 18 19 20 21 22 23 24 25	8 AM							^
	April 2017	10							
Aiden Li Home	2 3 4 5 6 7 8	11				<u>o</u>			
Calendar Documents	9 10 11 12 13 14 15 16 17 18 19 20 21 22	12 PM							
Tasklist	23 24 25 26 27 28 29 30	1					1	Open Save Ar	
🗎 Cabinet 🗊 Trash	May 2017 1 2 3 4 5 6	3						Delete Categorier	
	7 8 9 10 11 12 13 14 15 16 17 18 19 20	4 PM					~	Move to A	rchive
	21 22 23 24 25 26 27							Show Appo	ointmer

Restore Documents to Document Management

Document items can only be restored using Access Mode

Access Mode

Access mode has the Client access the GroupWise Disaster Recovery POA directly where the item(s) can be archived and then unarchived once attached to the production GroupWise server.

Personal archives must be enabled in GroupWise Administration.

On the GroupWise Disaster Recovery server

- 1. If needed, enable the access mode POA in *GroupWise Disaster Recovery Web Administration* Console | <Profile> | Configure | User Access to Backups
- 2. Load a backup on the GroupWise Disaster Recovery server from a time period where the item existed
- 3. The address the client must connect to can be found in the *GroupWise Disaster Recovery Web* Administration Console | <*Profile>* | *Backups tab* | *GroupWise Client Access to GroupWise Disaster Recovery Backups*

On the user's GroupWise client

- 1. Open the GroupWise client and connect to the POA on the GroupWise Disaster Recovery server
- 2. Select the document to restore
- 3. Save to disk

0	Save the	selected iten	ns and att	achme	ents	
File Edit View Actions Tools Window He	lp					
- Home Mailbox (84) Calendar	Sent Items Cont	acts Welco	ome			
Address Book 🔯 🖳 🔍 <table-cell></table-cell>	New Mail 🔻 🕓 New A	ppt 👻 🔽 Nev	v Task 🔻	<u> </u>	<u>88</u> •	
Frequently Used Folders Name Documents Aiden Aiden Aiden Default L Default L	Subject d ibrary	Modified 3/16/2017 10:02 3/16/2017 10:02 3/16/2017 9:56	Docum	Ver	Library	
 Aiden Li 	The Origin of Col R3283.pdf _Code reviews are gartner_magic_qu	3/16/2017 10:04 3/16/2017 10:04 3/16/2017 10:04 3/16/2017 10:04	1 2 3 4	Curre Curre Curre Curre	DocLib DocLib DocLib DocLib	
C Default Library	Open	04	5	Curre	DocLib	
Aiden Li Home Mailbox (84) Sent Items Calendar Frequent Contact Personal Aiden Li Documents Aiden Aiden Aiden Aiden	Print Find in 'Documents' fold Forward as Attachment Duplicate Delete Delete and Empty Junk Mail Move to	er				
Tasklist V	Mark Unread Mark Private Show in Tasklist Categories					

- 4. Close the client
- 5. Reopen the GroupWise Client and connect to the POA on the Production GroupWise server
- 6. Re-introduce the document to GroupWise

Restore Deleted User

Occasionally a user and all their items is inadvertently deleted from GroupWise. GroupWise Disaster Recovery can restore the user and their items.

This assumes that the deletion was caught and the user was not recreated in GroupWise Administration, which would create the user with a different FID.

If the user was recreated in GroupWise with a different FID, that user will have to be renamed so the original user can be restored. If that new user has received mail, the mail will need to be forwarded once the restoration is complete.

Prerequisites

- 1. GroupWise 2014, or 2014 R2
- 2. Domain backup
- 3. Post Office backup
- 4. Restore Area setup

Download wpdomain.db from GroupWise Disaster Recovery

From the GroupWise server:

Current Domain Backup

1. Browse to GroupWise Disaster Recovery Web Administration Console | < Profile> | Click to Download the Backup action button

🗮 Reload	Tools (Choose) Click - GO 🗸	GO Help DR Plan	What's New! Blueprint	ome 🏠 Logout 🖅
Monitor ⊘ Overvie	w 📝 Configure 👼 E	Event Log 🔍 Agent Log		
System Health: All	Profiles Are Functioning Corr	rectly	🇞 Reio	ad Jobs Running: 0
Post Office Profiles	Status	Actions	Description	
<u>● 1. P0 <~></u>	📀 🎨 🔳 THUMAR16		Post Office	
Domain Profiles	Status	Actions	Description	
<u> ● 1. DOMAIN <~></u>	🔵 🌦 🏢 THUMAR16	🧕 🚑	Primary Domain	
		Action: Click to	Download the Backup: [T	HUMAR16]

- 2. Download the ZIP File
- 3. If not on the GroupWise server, copy the ZIP file to the GroupWise server

Previous Domain Backup

1. Browse to GroupWise Disaster Recovery Web Administration Console | < Profile> | Backups tab | Select Another Domain Backup to Download

Reload Tools (Choose) Click - GO GO Help D
1. DOMAIN 🕘 Health 🔵 Backup Loaded 🎭 Job Status 🏢 Disk Spa
🚫 Overview 👔 Backups 🚓 Disaster Recovery 📝 Configure
Access Backups for Download
Download Most Current Domain Backup [THUMAR16]
Select Another Domain Backup For Download
Select Backup: WEDMAR15 V Select Backup
Download the Most Recently Selected Backup

- 2. Select the Domain backup the user was a part of, press Select Backup, and a new window will appear
- 3. Wait about 20 seconds for the zip to be created
- 4. Click on "Download The ZIP File That Was Just Created"



- 5. Download the ZIP File
- 6. If not on the GroupWise server, copy the ZIP file to the GroupWise server

Restore the User

On The GroupWise server:

- 1. Unzip the wpdomain.db file
- 2. Browse to GroupWise Administration | System | Recover Deleted Account

Micro Focus GroupWise		Global S
Connected Domain: (docdom 🕶	Recent 🗸 Favorites 🗸	
Administration 3	System	
Overview	addressing Rules	🚰 Global Signatures
Domains	📕 Admin Defined Fields	(i) Information
Post Offices	Administrators	Internet Addressing
Post Office Agents	Calendar Publishing	DAP Servers
Message Transfer Agents	Directory Associations	• Legacy
Tenternet Agents	🕕 Document Viewer Agent	🛐 Link Configuration
Lusers	Email Address Lookup	S. Pending Operations
4 Groups	P1	
🮯 Resources	Market Cords	Record Enumerations
🔩 Nicknames	🐻 External System Synchronization	Recover Deleted Account
📦 Libraries		

3. Browse to the location of the wpdomain.db file

ou can use this tool	to restore recently deleted Gro	oupWise user and resource accounts. E	efore using this tool, you
hust restore a backu	p copy of your primary domain	i database (wpdomain.db) where the di	eleted account still exists.
Backup Domain D	atabase File:		
wodomain db		E	
mpaorinanian			
(ip domain up	Account To Recove	r) << Select account to recover	

- 4. Click on the Groupwise world icon in the section "Account to Restore"
- 5. Select the user to be restored

		0	Search User Name	0	
ו	≜ Name	First Name	Last Name		0
]	🙎 aiden	Aiden	LI	-	Users Resources
]	💄 blake	Blake	Zhang		O IVESUAICES
9	💄 carter	Carter	Wang		
]	💄 dakota	Dakota	Nguyen		
]	💄 eden	Eden	Garcia	10	
]	💄 finley	Finley	Gonzalez		
]	💄 hayden	Hayden	Hernandez		
]	💄 jayden	Jayden	Smith		
]	💄 kamıyn	Kamıyn	Smirnov		
]	1 riley	Riley	Muller	>	
		1-10 of 10			

6. Click Restore

A desinstation to	Interest Addressing	1000 1000
Recover Deleted Account		Close 🗙
You can use this tool to restore recently del must restore a backup copy of your primary Backup Domain Database File:	leted GroupWise user and resource accounts. E y domain database (wpdomain.db) where the de	Before using this tool, you Bleted account still exists.
wpdomain.db	°E ₈	
Account To Recover:	USER.docdom.docpo.carter	
Last Name:	Wang	
First Name:	Carter	
File ID:	w9k	
GUID:	25F5D180-15B9-0000-8D64-6F6336363265	
Visibility:	2 (System)	
0		Recover Cancel

7. Click Done when recovery is complete

Restore All Items

- 1. Load a backup on the GroupWise Disaster Recovery server from a time period where the user existed
- 2. Browse to GroupWise Administration | User| <Restored User>

Micro Focus GroupWise	Administration	Globa
Connected Domain: 🚺 🗸 🗸 🗸 🗸	Recent + Favorites +	
Administration	User : carter	
🛞 Overview	🖉 🥌 docdom 🛛 docpo 🔔 carter	
J System	(Maintenance) Client Options) Change Password) More Diagnostics	•
S Domains	General Account Internet Addressing Objec Delete	
Post Offices	Associate File ID: w9k Move	
Post Office Agents	Restore Area: Reload Rename	
Message Transfer Agents	Visibility: System > Replicate	
- Internet Agents	External Sync Override: Synchronize according to visibility	0
👤 Users	LDAP Authentication:	
	Expiration Date:	

3. Select "More | Restore | Yes"

Restore Mailbo	x		Close 🗙
Restore all messa	ges for "carter"?		
User:	carter.docpo.docdom		
Restore Area:	Reload		
Path:	/mnt/reload/connect/restore		
0		Yes	No

4. Items will be restored to the mailbox, this will take time depending on the amount of mail and the speed of the system

Restore From a Tape Backup

GroupWise Disaster Recovery can create TAR files for long term storage and can restore from those TAR files if they are made available.

The simplest way to restore items from a tape backup is to create a new profile, copy the backup to the folder of the new profile and connect to the Access Mode POA. This prevents the need to merge BLOB files in an existing profile.

NOTE: Keeping backups frozen for the long term will impact disk space as GroupWise Disaster Recovery will not be able to remove items.

For long term access to data we recommend our Retain (https://www.gwava.com/unified-archiving) archiving product.

On the GroupWise Disaster Recovery Server

- 1. Increase the number of backups to keep so they are not removed by the cleanup routine (doubling is good) *GroupWise Disaster Recovery Web Administration Console* | <*Profiles* | *Configure*| *Backup Job Settings panel* | *Number of Backups to Keep*
- 2. Copy the TAR file to the GroupWise Disaster Recovery server
- 3. Extract the file with the tar command. This will merge the data to the profile as long as it has the same name. If the profile was renamed between the tape backup and the restore then a profile with the old name will need to be created. For example tar -xf <file.tar> /<GroupWise Disaster Recovery Data Directory>
- 4. Browse to GroupWise Disaster Recovery Web Administration Console | <Profile> | Configure| User Access to Backups panel | POA SOAP Configuration section | Re-create Backup Indexes Now | Do It and press Save

Reload
2. UNTAPE 🔴 Health 🔥 Backup Loaded 韂 Job Status 🔳 Disk Space Latest Backup : NONE
🔅 Overview 😵 Backups 🚓 Disaster Recovery 📝 Configure 👼 Event Log 🔍 Agent Log
Preferences
User Access to Backups
Configure All Profiles
Use This Section to Configure What Happens When Access to a Backup is Turned On
Load the Access Mode GroupWise POA: Enabled Edit
Access Mode POA TCP/IP Address: 10.1.4.161 Edit Client/Server Port: 1677 Edit
POA HTTP Configuration
POA SOAP Configuration
SOAP: Disabled Edit Port: 7191 Edit SSL: Disabled Edit
Delete and Re-Create the Access Mode POA Startup File Now: Do It Edit
Re-create Backup Indexes Now: Do It Save

- 5. Allow several minutes for the GroupWise Disaster Recovery daemon to scan the directory and add the files
- 6. Browse to GroupWise Disaster Recovery Web Administration Console | < Profile> | Backups | Freeze a Backup From Deletion
- 7. Browse to GroupWise Disaster Recovery Web Administration Console | < Profile> | Backups | Turn On Access to Prior Backups
- 8. Choose the desired backup and press "Turn on Access"



- 9. Allow the backup to load
- 10. Connect to the Access Mode POA (Restore_Mail_Items.htm#Access_Mode) and restore the items.

Post Restore Tasks

Once the restore operation is complete the TAR file or files can be removed, extra backups will need to be unfrozen, and number of backups kept reduced to free up space on the GroupWise Disaster Recovery server. Once backups are un-frozen GroupWise Disaster Recovery will remove them during the next backup job.

- 1. Browse to GroupWise Disaster Recovery Web Administration Console | < Profile> | Backups | Un-Freeze a Backup (Backups With "_F" Are Frozen)
- 2. Reduce the number of backups to keep to normal levels. Default is 14 days. *GroupWise Disaster Recovery Web Administration Console* | <*Profile>* | *Configure*| *Backup Job Settings panel* | *Number of Backups to Keep*
- 3. Remove old TAR files from the server

7 Disaster Recover Mode

Activating Disaster Recovery mode

If the Production GroupWise server has gone down it is obvious that it isn't coming backup anytime soon, it is time to activate GroupWise Disaster Recovery's Disaster Recovery mode.

This involves enabling Disaster Recovery Failover Mode on the GroupWise Disaster Recovery server and changing the A Record of the post office server on the DNS.

- 1. Browse to the GroupWise Disaster Recovery Web Administration Console
- 2. Click on the Post Office profile ambulance to engage Disaster Recovery Failover Mode
- 3. Go to the DNS and *change the DNS A Record IP address* of the post office server to the IP address of the GroupWise Disaster Recovery server
- 4. Test mail flow with a client
- Contact GroupWise Disaster Recovery Technical Support (http://support.gwava.com/) for assistance

Post Disaster Migration

After the disaster is over you will have data on the GroupWise Disaster Recovery server that does not exist on the GroupWise server. That data will need to be migrated to the GroupWise server.

Pre-migrate Data

- 1. Run the migration tool. This gets the messages you sent or received during the DR period back to the production post office. This can only be done from the GroupWise Disaster Recovery administration console.
 - 1a. Recovery | POST OFFICE PROFILE | [post office] | Migrate
 - 1b. Start at "Step #1" highlight it and press ENTER to begin the pre-migration process.

1c. After Step 1 has completed, have the users exit the client and press ENTER on "Step #2". This takes you to the Disaster Recovery POA Settings menu. Go to "Unload" and press ENTER. This unloads the DR POA but leaves GroupWise Disaster Recovery in disaster recovery mode.

1d. Once Step 2 has completed, go back to the migration menu and initiate Step #3 (full migration). Wait until this process has completed before moving to the next task (turning off DR).

Revert to Normal Mode

- 1. Turn off Disaster Recovery (click on the ambulance button from the web interface).
- 2. Verify that GroupWise Disaster Recovery has properly re-enabled your backup schedules and that the DR POA has unloaded.
- Change the DNS A record for the production POA. It should now reflect the IP address of the actual post office or live POA.

Migrate Final Data

- 1. Load the production post office POA.
- If running GroupWise 2014 or higher on Linux, there is a script for restoring all mail:

A script was created by GWAVA with the assistance of Micro Focus that makes merging two versions of a post office very simple. This script requires the version of GroupWise to be GroupWise 2014 or higher.

- 1. Set up a Restore Area that uses the GroupWise Disaster Recovery server, see the GroupWise Disaster Recovery configuration documentation for more details
- Use the GroupWise Restore Script (gwrestore.sh) [http://reload.gwava.com/gwrestore.sh] script
- 3. Make sure to modify the Variables section of the GroupWise Restore Script

NOTE: If you modify the script on a Windows machine, to convert the script to Linux format use the "dos2unix" command on the Linux server once it is saved on the Linux server. Example:

dos2unix gwrestore.sh

4. Make the gwrestore.sh script executable:

chmod 777 gwrestore.sh

5. Run the gwrestore.sh script

./gwrestore.sh

- 6. The GroupWise Restore Script tells the GroupWise system to create a restore request for each user in the post office specified in the variable section of the script.
- 7. The GroupWise POA then looks inside of the message store in the GroupWise Restore Area associated with the GroupWise Disaster Recovery server, and brings across any mail items on the version of the post office on the GroupWise Disaster Recovery Server into the message store on the GroupWise post office.

GroupWise Disaster Recovery logs what it does to make troubleshooting easier.

GroupWise Disaster Recovery Web Console

The GroupWise Disaster Recovery Web Console has tabs to display the most recent entries of the Event, Agent and, if installed, the Blueprint logs. There are also links to the day's full logs as well as the Daemon, Error and Audit logs

For support purposes, GroupWise Disaster Recovery will create a single zip file of all the logs which can be downloaded from the GroupWise Disaster Recovery Web Administration page:

- Browse to GroupWise Disaster Recovery Web Administration
- Select "Tools | Download Logs | GO | "Download The RELOAD SUPPORT.ZIP File"

Command line

Alternatively, the log files may found on the GroupWise Disaster Recovery server in:

```
/opt/beginfinite/reload/logs
```

/opt/beginfinite/reload/save

/opt/beginfinite/reload/support/reload_support.zip

Details

There are a number of logs: found in /opt/beginfinite/reload/logs

EVENT.LOG = General logging.

AGENT.LOG = Detailed log file of all GroupWise Disaster Recovery activity.

ERROR.LOG = Error state reported to the system. The error that occurred and its time stamp

MONITOR.LOG = GroupWise Disaster Recovery version and build, license information, profile names, Groupwise agent version, and other general GroupWise Disaster Recovery configuration information.

DAEMON.LOG = Checks for jobs, generating the diagnostic log, and the support (reload_support.zip) log file.

DIAGNOSTICS.LOG = Server statistics like kernel version, disk space, processor, memory, NIC, resolv.cfg, hosts, and fstab.

<profile>.EVENT.LOG = Contains almost all of the data that is in the event.log that is specific to the profile.

<profile>.AGENT.LOG = Contains almost all of the data that is in the agent.log that is specific to the profile.

*.TEST.LOG = test connectivity, rights, enables profile, and lists what OS the GroupWise is installed on.

UPGRADE.LOG = Upgrade process activity.

AUDIT.LOG = Record of all actions.

9 Blueprint

Blueprint for GroupWise Disaster Recovery version 1.6 Overview

Blueprint for GroupWise Disaster Recovery extracts important business intelligence data from your GroupWise message store by performing in-depth analysis on your GroupWise Disaster Recovery backups.

Driven by customer needs, Blueprint for GroupWise Disaster Recovery plugs directly into your existing GroupWise Disaster Recovery server and leaves your GroupWise system stress-free while delivering timely reports that you can easily analyze and put into action — even on your mobile device or tablet computer.

GroupWise Mail Analysis — Blueprint for GroupWise Disaster Recovery will help you analyze, down to a user level, how much space you need for your message store and for your archive solution.

With Blueprint for GroupWise Disaster Recovery, you can create mailbox usage policies with all of this information and more:

- The cumulative size of all users' mailbox items over X days (90 days, 60 days, etc.)
- The cumulative size of all users' mailbox items under X days (90 days, 60 days, etc.)
- How many and what type of items are in a user's mailbox
- Which users have mailbox storage limits, what the limits are, and how close a user is to their limit *Reduce Costs* — GWAVA Blueprint for GroupWise Disaster Recovery can help you cut your IT costs.
- Identifies inactive users
- Determines client types (full license vs. limited license)
- Assesses clients' GroupWise versions to help assure that all users have upgraded
- Provides the information you need to accurately calculate your GroupWise and archiving storage needs
- · Identifies users that are over-using resources

Usable Reporting — Blueprint for GroupWise Disaster Recovery generates navigable HTML reports for each post office and sends them to your email. View and print these reports from anywhere, including iPhones, iPads and Android devices.

Summary Reports — provide at-a-glance information for executive review and quick analysis.

User Analysis Reports — lets you drill down by each user and provide action items for follow-up. View mailbox limits, usage, item types, activity, license and version information and more.

Spreadsheet Reports — Blueprint for GroupWise Disaster Recovery generates *.CSV files with all of the information in the HTML reports, and much more. These *.CSV files can then be pulled into a spreadsheet application so you can sort and manipulate the data, making it easy to analyze and localize the data.
Simply Usable — Blueprint for GroupWise Disaster Recovery e-mailed reports are friendly to all platforms and configurations. If you want to share mailbox size information with a particular user, just click on the user's name within the Blueprint report, and a mail message will open up with the user's mailbox size information in the message body.

Intended Audience

This manual is intended for IT administrators in their use of Blueprint or anyone wanting to learn more about Blueprint. It includes installation instructions and feature descriptions.

Installation

Blueprint comes with every installation of GroupWise Disaster Recovery, but will not be installed by default. It can be downloaded (http://download.gwava.com/ download.php?product=Blueprint&version=current) separately.

As it is a separate product, Blueprint requires a separate "Licensing" on page 186.

Installation

Install Blueprint by clicking the Blueprint button on the top navigation bar of the GroupWise Disaster Recovery Web Administration page.



This will open a new tab.



You may open each panel for more information.

- About Blueprint for GroupWise Disaster Recovery provides bulletpoints on the benefits of
 Blueprint
- Example Blueprint Reports provides fictitious example reports to show you how it looks
- Install Blueprint Free Trial allows you to install Blueprint with a 30-day free trial license

Re	eload 📕 🎽
9	About Blueprint for Reload
1	Example Blueprint Reports
	Install Blueprint - Free Trial
NOTE post	E: Blueprint will be installed and configured for all of the post office profiles. Blueprint Reports will run on the first 20 Percent of the users on a office, up to a maximum of 150 users on a post office.
-	To Install Blueprint Select: 🔇 Install Blueprint Now

Select *Install Blueprint Now*, a new tab will open as a request to the GroupWise Disaster Recovery daemon to install Blueprint is sent. It will take a short time for Blue to be installed.

A request for the Reload Daemon to install the Blueprint for Reload software package was created.

When Blueprint has been successfully installed you will see the "Blueprint Configuration" panel in the system level "Configure" tab.



NOTE: The installation process usually takes about 3 minutes to perform.

The installation will be complete when the Blueprint Log tab appears.



Licensing

Blueprint comes with a 30-day free trial period, once the trial period is over reports will no longer be created.

To license Blueprint talk to your sales representative for a validation key

Enter the validation key at licenses.gwava.com (https://licenses.gwava.com/) to download your license PEM file

Browse to the GroupWise Disaster Recovery Administration Console and select License from the top navigation bar drop-down menu and press Go

🗯 Reload	License	✓ G0
A Kelouu		

Select Click Here to License Blueprint for GroupWise Disaster Recovery this will open a new tab

	R CLICK HERE TO OBTAIN A LICENSE FILE, IF YOU DO NOT HAVE ONE YET	
	Click Here to License Blueprint for Reload	
to subline the Reidau lidense me do the R	avenig.	
1. Select the "Browse" button, to sele	ct the license file called: ".pem	

Browse to the location of the PEM file and Submit the license file



The license will be uploaded successfully

The Blueprint for Reload license file was uploaded successfully. Blueprint for Reload is now licensed. The next Blueprint Report job will use this new Blueprint License File. You may now close this page

Upgrading Blueprint

Blueprint will check for upgrades every 3 days. It will download a small manifest file to determine if there has been a version change and if so it will download and install the update.

If the GroupWise Disaster Recovery server does not have access to the internet then the update can be downloaded from http://download.gwava.com/download.php?product=Blueprint&version=current

Copy the file to the GroupWise Disaster Recovery Server and place in

/opt/beginfinite/blueprint/upgrade

At a command prompt, type:

blueprint upgrade

Configuration

Once Blueprint has completed installation, it needs to be configured.

Select the Configure tab and open the Blueprint panel.

1 A	Relo	ad 🔎	Tools (Choose) Cli	ck - GO 🗘 🔽 GO	Help DR Plan	What's New!	Home 🏠 L
_	Monitor	Overview	Configure	e 👼 Event Log	Agent Log	Blueprint Log	
	>	Bluepr	int. Reload				
	About B	llueprint					
	😑 Send	d Blueprint Repo	rts to Email: E	nabled Edit			
	١	General Setting	IS				
	s 😽	ummary Report Se	ettings				
	83	Users Report Setti	ings				
	👗 Re	esources Report Se	ettings				
	₹	Advanced Settin	igs				
	😑 Turn	Off All Blueprint	t Reporting: D	sabled Edit			

General Settings

- 1. Set your Preferred Internet Domain Name to your email system
- 2. You may enable Attach HTML Reports to E-mail Messages

3. Number of Days for GWCHECK Mailbox Contents Contrast is set to 90 days, by default

General Settings			
😑 Preferred Internet Domain Name:	doc.gwava	a.net	Save
😑 Attach HTML Reports to E-mail Me	ssages:	Enabled 💌	Save
Number of Days for GWCHECK Ma	ilbox Con	itents Contrast	: 90 Edit

Summary Report Settings

- 1. Summary Report TO Address Who should receive the summary
- 2. Summary Report FROM Address This is arbitrary so it can be something easy to understand where it came from
- 3. Send Summary Reports to a CC Recipient This is optional
- 4. Summary Report CC Address An additional user can receive a copy of the report.

Summary Report Settings	
😑 Summary Report TO Address:	aiden@doc.gwava.net Save
😑 Summary Report FROM Addres	s: reload161@doc.gwava.c Save
Send Summary Reports to a CO	Recipient: Enabled V Save
Summary Report CC Address:	blake@doc.gwava.net Save

Users Report Settings

- 1. Users Report TO Address Who should receive the summary
- 2. Users Report FROM Address This is arbitrary so it can be something easy to understand where it came from
- 3. Send Users Reports to a CC Recipient This is optional

4. Users Report CC Address An additional user can receive a copy of the report.



Resources Report Settings

- 1. Resources Report TO Address Who should receive the summary
- 2. Resources Report FROM Address This is arbitrary so it can be something easy to understand where it came from
- 3. Send Resources Reports to a CC Recipient This is optional
- 4. Resources Report CC Address An additional user can receive a copy of the report.

Resources Report Settings
Resources Report TO Address: aiden@doc.gwava.net Save
Resources Report FROM Address: reload161@doc.gwava.c Save
Send Resources Reports to a CC Recipient: Disabled Edit
Resources Report CC Address: joe@example.com Edit

Advanced Settings

Clicking on Advanced Settings button will open the Advanced Settings page

Personal Mailbox Reports

These are reports Blueprint will send to each user.

- · Send Mailbox Reports to Active Users You may enable or disable this feature here
- + Personal Mailbox Report FROM Address Set the email address the report is sent from

 Send Only To Users in The Inclusion List Limit reports to included users. The inclusion list is a simple ASCII text file saved as:

/opt/beginfinite/blueprint/conf/individual_report_inclusion_list.conf

 Exclude Users in The Exclusion List exclude users from the report. The exclusion list is a simple ASCII text file saved as:

/opt/beginfinite/blueprint/conf/individual_report_exclusion_list.conf

- Include Custom Message in Personal Mailbox Reports Add a custom message text. A custom message can be added to the Personal Mailbox Report email, perhaps to warn a user they are reaching their storage limit
- Custom Message Text File The location of the custom message test file. Be default, the custom message is saved as:

/opt/beginfinite/blueprint/conf/custom_content.txt

Personal Mailbox Reports
Show Me - Example 1 Show Me - Example 2
Send Mailbox Reports to Active Users: Enabled ♥ Save
Personal Mailbox Report FROM Address: reload161@doc.gwava.n Save
Send Only To Users in The Inclusion List: Disabled Edit
Exclude Users in The Exclusion List: Disabled Edit
Include Custom Message in Personal Mailbox Reports: Disabled Edit
Custom Message Text File: /opt/beginfinite/blueprint/conf/custom_content.txt Edit

Threshold Highlighting

Reports can highlight when users exceed certain thresholds. The colors are set by HTML color codes (http://htmlcolorcodes.com/).

Highlight "All Mailbox & Calendar Items" Over a Certain Threshold Enables or disables this feature

All Mailbox and Calendar Items

- "All Mailbox & Calendar Items" Warning Threshold (in Bytes)
- "All Mailbox & Calendar Items" Error Threshold (in Bytes)
- Highlight "All Mailbox & Calendar Items" Over a Certain Threshold Normal Highlight Color
- Highlight "All Mailbox & Calendar Items" Over a Certain Threshold Warning Highlight Color
- Highlight "All Mailbox & Calendar Items" Over a Certain Threshold Error Highlight Color
- Highlight "All Items Under X Days" Over a Certain Threshold All Items Under X Days
- "All Items Under X Days" Warning Threshold (in Bytes)
- "All Items Under X Days" Error Threshold (in Bytes)

- Highlight "All Items Under X Days" Over a Certain Threshold Normal Highlight Color
- Highlight "All Items Under X Days" Over a Certain Threshold Warning Highlight Color
- Highlight "All Items Under X Days" Over a Certain Threshold Error Highlight Color
- Highlight "All Items Over X Days" Over a Certain Threshold All Items Over X Days
- "All Items Over X Days" Warning Threshold (in Bytes)
- "All Items Over X Days" Error Threshold (in Bytes)
- + Highlight "All Items Over X Days" Over a Certain Threshold Normal Highlight Color
- Highlight "All Items Over X Days" Over a Certain Threshold Warning Highlight Color
- + Highlight "All Items Over X Days" Over a Certain Threshold Error Highlight Color

Threshold Highlighting
Show Me - Example 1 Show Me - Example 2
e Highlight "All Mailbox & Calendar Items" Over a Certain Threshold: Disabled Edit
All Mailbox and Calendar Items
"All Mailbox & Calendar Items" Warning Threshold (in Bytes): 2147483648 Edit
"All Mailbox & Calendar Items" Error Threshold (in Bytes): 2684354560 Edit
e Highlight "All Mailbox & Calendar Items" Over a Certain Threshold - Normal Highlight Color: FFFFFF Edit
e Highlight "All Mailbox & Calendar Items" Over a Certain Threshold - Warning Highlight Color: FFF06A Edit
e Highlight "All Mailbox & Calendar Items" Over a Certain Threshold - Error Highlight Color: FF9797 Edit
e Highlight "All Items Under X Days" Over a Certain Threshold: Disabled Edit
All Items Under X Days
"All Items Under X Days" Warning Threshold (in Bytes): 524288000 Edit
"All Items Under X Days" Error Threshold (in Bytes): 786432000 Edit
e Highlight "All Items Under X Days" Over a Certain Threshold - Normal Highlight Color: FFFFFF Edit
e Highlight "All Items Under X Days" Over a Certain Threshold - Warning Highlight Color: FFF06A Edit
e Highlight "All Items Under X Days" Over a Certain Threshold - Error Highlight Color: FF9797 Edit
e Highlight "All Items Over X Days" Over a Certain Threshold: Disabled Edit
All Items Over X Days
"All Items Over X Days" Warning Threshold (in Bytes): 1073741824 Edit
"All Items Over X Days" Error Threshold (in Bytes): 1610612736 Edit
e Highlight "All Items Over X Days" Over a Certain Threshold - Normal Highlight Color: FFFFFF Edit
Highlight "All Items Over X Days" Over a Certain Threshold - Warning Highlight Color: FFF06A Edit
e Highlight "All Items Over X Days" Over a Certain Threshold - Error Highlight Color: FF9797 Edit

Administration

Once Blueprint is installed jobs can be run against a profile.

When Blueprint is installed a report job will run. Report jobs will also run after backup jobs or when you select a report job to start.

Starting a Blueprint Report Job

- 1. Browse to the GroupWise Disaster Recovery Web Administration page and select a Post Office profile.
- 2. Under the Backups tab, open the GroupWise Disaster Recovery & Blueprint Job Control panel
- 3. There will be two new options:
 - a. Start a Blueprint Report Job
 - b. Stop the Currently Running Blueprint Report Job

Reload	∀ G0	Help D			
1. PO 😑 Health 🔵 Backup Loaded	🛬 Job Status 🔳 Dis	sk Space I			
👸 Overview 😵 Backups 🚓 D	isaster Recovery	Configure			
Actions on Existing Bac	<u>kups</u>				
Reload & Blueprint Job	<u>Control</u>				
Start a Standard Backup Job - (From the Collector)					
Clear Queued Reload Jobs for This Profile 👔					
Stop the Currently Running Relo	ad Job for This Profile	2			
Start a Blueprint Report Job 🥝					
Stop the Currently Running Blue	print Report Job 👔				

Blueprint Job

When a Blueprint Report job is running the gears will be colored blue

X	Relo	ad	Tools (Choose) (Click - GO 🗘 🚺 😡	Help	DR Plan	What's New!	Blueprint	
-	Monitor	👸 Overview	Configu	ire 👼 Event I	Log	Agent Log	Bluepr	int Log	
	😑 System	n Health: All Pr	ofiles Are Fund	tioning Correctly	Y				
	Post Of	ffice Profiles	Sta	tus		Actions			De
	<u>● 1. P0 <~></u>		🔵 🐄 🔳	FRIAPR07		F	3	Post Office	Ð

Summary Report

The Summary report contains an overview of the post office

Blueprint for Reload | Summary | BEG2PO

Report Summary

Statistics for GroupWise Post Office: BEG2PO Reload Profile Name: POST1 Report Date: 1/26/2013 Report Creation Run Time: 2 Hours, 16 Minutes Mailbox Statistis Analysis: 90 Days Action Item Alerts: 70 (See Users Analysis Report)

User Mailbox Summary

Total Number of User Mailboxes: 111 Active Mailboxes: 41 Inactive Mailboxes: 70 All User Mailbox Items: 27.35 GB Mailbox Items Under 90 Days: 5.09 GB (18%) Mailbox Items Over 90 Days: 22.25 GB (82%) Size of Inactive Mailboxes: 11.93 GB (43%)

Resource Mailbox Summary

Number of Resource Mailboxes: 1 All Resource Mailbox Items: 5 KB Mailbox Items Under 90 Days: 0 bytes (0%) Mailbox Items Over 90 Days: 5 KB (100%)

Blueprint Server Information

License Lease Information: Feb 4 04:59:59 2013 GMT Blueprint for Reload Version: 5.1 GWAVA Reload Version: Reload 4.0 Build (400800) GWAVA Reload Server Name: RELOADDEMO

Users Report

The Users report contains and analysis of each user in the post office.

At the top of the report is a quick summary, and links to users by name and action item sections

Blueprint for Reload | Users Analysis | BEG2PO

All Users Mailbox Analysis Report	Quick Navigation Index
Post Office: BEG2PO Profile Name: POST4	ABCDEF
Report Date: 01/26/2013 Number of User Mailboxes: 111	GHIJKL
Active Mailbox Licenses: 41	MNOPQR
All User Mailbox lems: 27.35 GB tems: Linder 90 Days: 5.09 GB (18%)	S T U V W X
Items Over 90 Days: 22.25 GB (82%) Inactive Mailboxes: 11.93 GB (43%)	Y Z Report End
	70 Action Items

Each user gets a section

AKRISTINACHUNG	Mailbox Summary	[Top]
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User: AKRISTINACHUNG (Kristina Chung) Department: N/A Land London for 1019 Days
Last Login, macuve for fors bays
Mailbox Size Analysis
All Mail & Calendar Items: 127 MB
All Items Under 90 Days: 80 KB (1%)
All Items Over 90 Days: 127 MB (99%)
Mailbox Storage Limit: 300 MB (42% Used)
Item Count Analysis
All Mail & Calendar Items: 2046
All Items Under 90 Days: 8 (1%)
All Items Over 90 Days: 2038 (99%)
Mail Items Over 90 Days: 2038
Calendar Items Over 90 Days: 0
Item Location Analysis
All Inbox Items: 1005
All Outbox Items: 1041
All Posted Calendar Items: 0
All Draft Items: 0
All Trash Items: 0

At the end of the report is a list of recommended action items

User Mailbox Action Items Report

Action Items for Post Office: BEG2PO Report Date: 01/26/2013

Action Item #1 [Top] User: <u>AKRISTINACHUNG</u> (Kristina Chung) Alert: Account Inactive for 1019 Days

Action Item #2 [Top] User: <u>ASHERRIMELTON</u> (Sherri Melton) Alert: Account Inactive for 1984 Days

Action Item #3 [Top] User: AGRETCHENHILL (Gretchen Hill) Alert: Last Login: 01/18/13

Action Item #4 [Top] User: <u>AR</u> (Elsie Hamilton) Alert: Account Inactive for 50 Days

Blueprint Command Line Options

Blueprint can be controlled from the command line. For a list of options, type: blueprint View Blueprint Agent Log - Syntax: blueprint log Run Job Syntax: blueprint job start <GWAVA GroupWise Disaster Recovery profile name> Stop Job Syntax: blueprint job stop Stop One Profile's Current Running Job: blueprint job stop <GWAVA GroupWise Disaster Recovery profile name> Remove "Stop All Jobs" Syntax: blueprint job stop Single User Syntax: blueprint job start post1 "tkratzer" Single User - Live P.O. Syntax: blueprint live job start post1 "tkratzer" Report Job Status: blueprint status Configure Post Office Syntax:

blueprint -r <GroupWise Disaster Recovery profile name> -c <GroupWise post office
name>

• **Upgrade Blueprint** (Check status before using this command, do not use when a blueprint job is running!)

blueprint upgrade

Report Version:

blueprint -v