

Reload - GroupWise Backups and Disaster Recovery Done Right

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With Reload, you will no longer feel as though you don't want to use your backup software. Reload will become an integral part of your GroupWise system, and you are likely to use it several times a month because using it is so easy.

Introduction to Reload

QUESTION: What is Reload?

ANSWER: Reload is an easy to implement and easy to use, hot backup solution for Novell GroupWise post offices and domains. By hot backup, we mean that instances of a GroupWise post office, are immediately available for either:

- x Quick restoration of GroupWise mail, calendar items, tasks or address book items in their native GroupWise format
- x Push-button failover, in disaster recovery situations

Reload's Benefits in a Question and Answer Style

QUESTION: At a high-level, why would I want Reload?

ANSWER: Reload saves effort and a lot of time. It is a solution that you are likely to use several times in a month.

With Reload, the time to recover e-mail or to recover from a disaster truly comes down to minutes. Currently GroupWise customers have either had to

implement two or more solutions to provide many of the features that Reload gives, or they simply have an in-adequate backup and disaster recovery solution. Below is a list of the major features that Reload provides:

- x In the case of a server or a site-disaster, an on-site or off-site Reload server can be immediately used to host both GroupWise post offices or GroupWise domains. Using Reload for disaster recovery purposes is also push-button easy. There is no need to choose or combine backup sets, or make other decisions at the time of a disaster. There is only one button to push!
- x Users can restore message items, in their native GroupWise format, in a matter of minutes. If you choose to have users restore their own mailbox items, training them to do so is very easy. They only need to know how to use their GroupWise client.
- x Items cannot be purged from a user's mailbox until they are backed up by Reload. This way, the backup of a GroupWise post office is truly a backup, not just an attempt to get most data backed up.
- x No client software needs to be installed to user's desktops.
- x No software needs to be installed to any of the servers that house GroupWise post offices and domains. Reload backs up GroupWise post offices and domains on any platform you have GroupWise installed on.
- x After a disaster recovery scenario, in which you have switched over to the Reload server, Reload can migrate a GroupWise post office to a production server either at the original location, or a whole different location. The migration can happen simultaneously while Reload is still hosting the live GroupWise post office. The downtime window during the migration period is minimal, as Reload will pre-migrate 90% of the size of the post office prior to the final migration that needs to happen with no users logged into the live post office on the Reload server.
- x Reload is the fastest backup solution for GroupWise post offices. No longer do you need to concern yourself with long backup windows for backing up a GroupWise post office. In a gigabit network environment most customers are achieving backup times between 5 and 10 gigabytes of post office backed up per minute. For example, a 300+ Gigabyte post office being backed up in 40 minutes.
- x Because accessing backups is quick and easy, customers often find that they use Reload several times a month. As a result, each time they use Reload they are proving not only that their GroupWise backup scheme is

working but that their Reload server is also capable of being the disaster recovery solution if the need ever arises.

- x Because of Reload's unique design, maintaining the Reload software is simple. The Reload software is installed on the Reload server. Even upgrading Reload is simple, it's push-button easy. You will not feel as though you need a special certification course to install or use Reload, it was designed expressly with ease-of-use in mind. There are no additional modules to buy with Reload. You are not limited to the number of Reload servers you install.

Contrasts Between Reload and Other Solutions

QUESTION: There are other solutions that provide both backup and disaster recovery for GroupWise, what makes Reload unique?

In one sentence: Reload is a hot backup solution for GroupWise with the fastest speed to access hot backups and with the least amount of resources needed to maintain hot backups.

NOTE: The term hot backup refers to the fact that the backup is on disk, on the Reload server.

The solutions that can be most closely compared to Reload with regards to speed to access a backup is snapshot or full-backup-to-disk technologies. It's the resource requirements of Reload that make Reload starkly different when contrasted with snapshot and full-backup-to-disk technologies. Here is an explanation of those differences:

- x Each Reload backup of a GroupWise post office is only 12% of the total size of the post office. However; a Reload backup is immediately available as a full backup of a GroupWise post office.
- x Because of this efficiency, it is feasible for the average Reload customer to keep a time range of 2 to 3 weeks of post office data available on the Reload server. For most customers, this time range addresses 99% of their need to access backups, eliminating the time and effort associated with going to tape backups of a GroupWise post office.

Snapshot and full-backup-to-disk technologies require that 100% of the size of a GroupWise post office (over 8 times more than Reload) needs to be replicated and stored for each backup instance of a post office.

QUESTION: We have a hot backup solution, and we've already allocated the disk space for that solution. What major benefits does Reload hold for me outside of disk space savings?

ANSWER: Because Reload only needs to replicate 12% of the size of a post office, vs. 100% when compared to similar technologies, the backup times of a GroupWise post office are faster. Here are some specific numbers from one customer environment:

Network speed: Gigabit
Post Office Size: 317 Gigabytes
Post Office Platform: NetWare Cluster
Reload backup time: 40 Minutes

Network speed: Gigabit
Post Office Size: 60 Gigabytes
Post Office Platform: Linux
Reload backup time: 10 Minutes

ANSWER: Reload integrates with GroupWise at a deeper level than most backup technologies, in whatever form they come in. For example:

- x Mailbox items cannot be purged until they are backed up by Reload.
- x When instances of a GroupWise post office are backed up to the Reload server, they then can be made accessible to users; however, a user cannot purge items from their GroupWise mailbox on the Reload server.
- x GroupWise has a very efficient message store design. Although the design is efficient, the approach to backing up a GroupWise message store can be difficult when considering messages that come in during the time that a GroupWise post office is actually being backed up. Here's why. The individual portions of a GroupWise message can be spread across several different separate files. Reload uses a model that takes into account GroupWise's unique design, and guarantees that even if items come in during the time of the backup, all of the components of that message are backed up. It is for this reason, that Reload can be considered the highest consistency backup of a GroupWise post office.
- x Reload can integrate with the File|Open Backup feature built right into the GroupWise 7 client. This is what enables Reload to work so well, without the need to implement any client-side software to allow users to access backups. Reload also functions well with GroupWise 6.5, users must use the archive feature in order to restore mail with GroupWise 6.5.

ANSWER: Reload is also, significantly easier to use than other backup systems. Reload was designed from the perspective of the GroupWise administrator. It is not a backup solution that is modified for GroupWise. Reload is a backup solution for GroupWise that was built from the ground-up specifically for use with GroupWise.

QUESTION: Does Reload eliminate the need for tape backup technology?

ANSWER: No

Tape backup technology is still a viable solution for long-term backups. Reload can enhance your tape backup technology in the following ways:

- x Reload can be configured to push its backups into a single Tape Archive File (a *.tar file). The *.tar file can be streamed to tape, or restored from tape significantly faster than if a GroupWise post office is backed up directly by the tape backup software.
- x Because of Reload's centralized approach to backing up GroupWise post offices and domains, there is no longer a need to put backup agents on servers that are dedicated to GroupWise. The backups can be done right from the Reload server.

QUESTION: At a high-level, what would I need to do to implement Reload

ANSWER: Here are the five basic steps:

1. Install a Novell/SuSE Linux server SLES or OES. For example a SLES10 server. Installing Novell's Linux platform is simpler than installing either a NetWare or Windows server.
 - x For the testing period, or if you only intend to use Reload for hot-backup purposes only, you could just use a workstation-grade machine.
 - x The disk space requirements for a 100 Gigabyte post office that you want to keep two weeks worth of backups for would be approximately 550 Gigabytes. If you wanted to implement Reload only for disaster recovery, then all the disk space you would need is 150 Gigabytes. The disk space can either be local, or on a SAN, or a Linux based NAS, such as the Buffalo Terastation Pro II, or even an NFS mount to another Linux or Unix host.
2. Obtain the Reload software and a Reload license file from GWAVA.

3. Install the Reload software, which is one command to execute in a terminal session on the Linux server. The Reload software installation takes about a minute, and all dependency software is installed. Rarely do customers need to install additional packages to the Linux server that houses Reload.
4. In ConsoleOne with the GroupWise Admin Snapins installed, enable the SmartPurge feature for the post offices that are being backed up with Reload.
5. In the profile creation wizard (6 questions to fill in), create a Reload profile for post offices and domains.

QUESTION: We are very interested in the disaster recovery angle of Reload. How current is a Reload post office backup in the case of a disaster recovery failover.

ANSWER: The biggest limitation to how current a Reload backup is, how long it takes to backup your post office. Fortunately Reload is extremely fast at backing up GroupWise post offices. If for example, your post office is 100 Gigabytes in size, and took 20 minutes to backup, then it's feasible that you might want to have Reload create a backup image of the post office every hour during regular business hours.

QUESTION: We have a NAS, because we are moving away from tape technology. Can Reload keep the data on the Reload server for a couple of weeks, and then move the data to our NAS for long-term storage?

ANSWER: Yes, reload has a feature that supports this.

QUESTION: We intend to implement Retain, why would we want Reload?

ANSWER: Retain is a compliance and archive solution. Compliance and archive solutions are meant for long-term reference and legal discovery. Compliance and archive solutions do not provide the following features that Reload provides:

- x Push-Button disaster recovery
- x Restoration of mail and calendar items in their native and usable GroupWise format
- x Restoration of accidentally deleted user accounts
- x Restoration of address book items

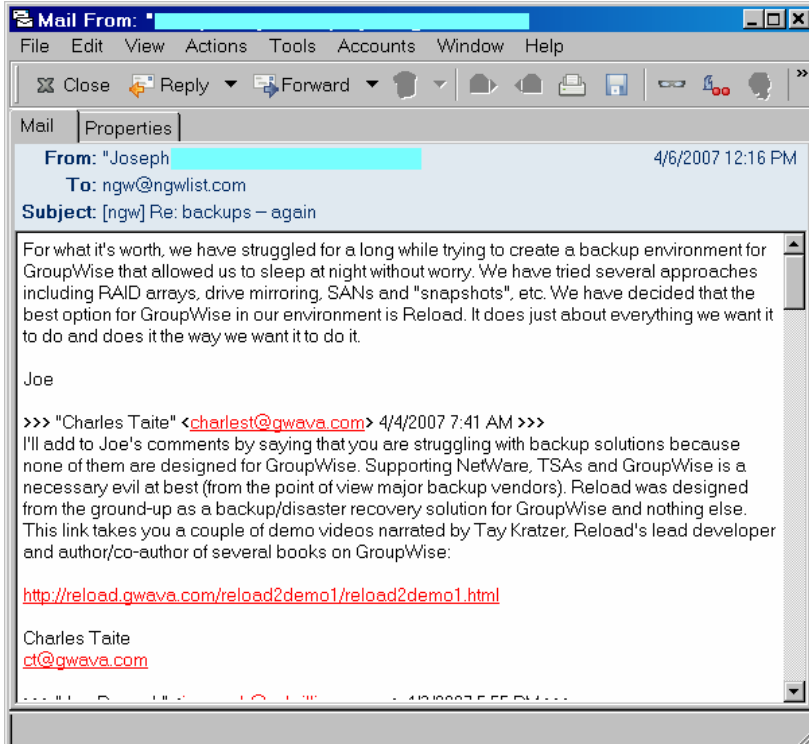
- o For example, a user synchronizes their PDA device, chooses the wrong answer to a screen prompt, and loses their personal address book. An archive solution cannot help to bring the addresses back, Reload can.
- x An indisputable backup of a user's mailbox

Customer Quotes

These customer quotes are taken from the GroupWise NGW List server with regards to Reload:

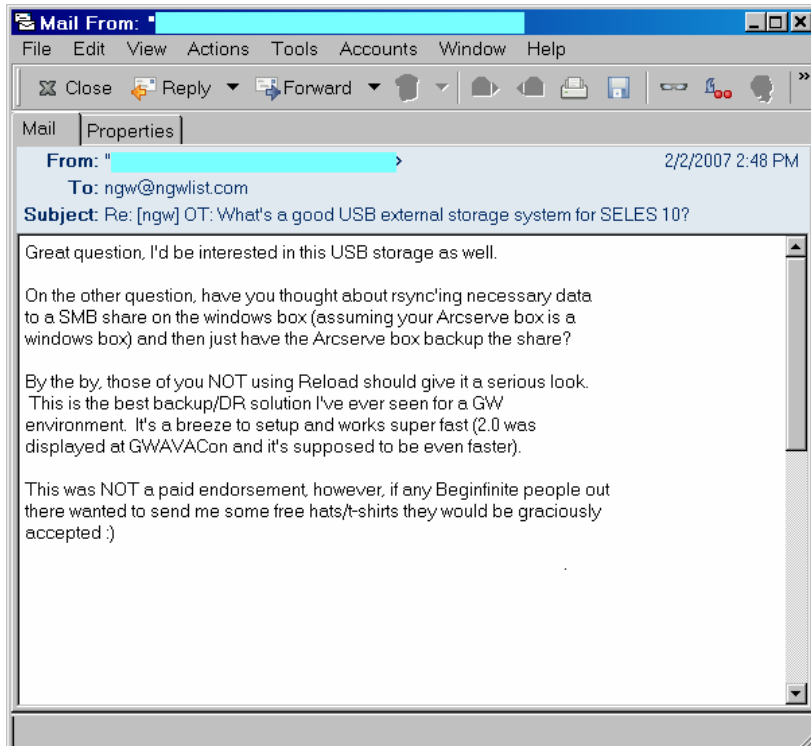
Customer Quote # 1:

For what it's worth, we have struggled for a long while trying to create a backup environment for GroupWise that allowed us to sleep at night without worry. We have tried several approaches including RAID arrays, drive mirroring, SANs and "snapshots", etc. We have decided that the best option for GroupWise in our environment is Reload. It does just about everything we want it to do and does it the way we want it to do it.



Customer Quote # 2:

By the by, those of you NOT using Reload should give it a serious look. This is the best backup/DR solution I've ever seen for a GW environment. It's a breeze to setup and works super fast (2.0 was displayed at GWAVACon and it's supposed to be even faster).



See Demonstration Videos at <http://reload.gwava.com>

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