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# GroupWise 8.0.2 to Exchange 2010 Migration

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## Introduction

There has never been a better time to migrate to Microsoft Exchange Server from other messaging platforms such as Novell GroupWise. With the release of Exchange Server 2010, Microsoft's messaging system took a huge leap forward in terms of cost, integration flexibility, and ease of use and management, and it is now undoubtedly the world leader in the messaging platform.

This white paper will help you understand the process of migrating from GroupWise to Exchange 2010 and the cloud, including how the features of Exchange 2010 will affect your migration. You will then learn seven steps and best practices to help you overcome any challenges and ensure a seamless transition.

## Exchange 2010 Key Functionality

Exchange 2010 builds on Exchange 2007's strong foundation, adding superb functionality in three key areas:

- **Flexibility and Reliability.** Exchange 2010 has enhanced availability and redundancy, and is easy to manage, deploy and integrate online.
- **Specifically,** Exchange 2010 has again improved on IOPS (input output per second) requirements, significantly improves continuous replication down to the disk block level, and introduces the Database Availability Group (DAG). In addition, Exchange 2010 has been specifically engineered to make use of low-cost, large-capacity storage in the form of 2TB+ SATA drives.
- **Anywhere Access.** Exchange 2010 provides access across mobile and desktop clients; this is a key component in making online deployments of Exchange possible. Exchange 2010 also benefits the end user. For instance, end users can configure their mailbox, including changing distribution group membership and updating contact information by means of the Exchange Control Panel (ECP), which is a simple and web-based control panel. Undeliverable messages and e-mail "accidents" are minimized by Mail Tips, which provide relevant information to users about the e-mail they are about to send.
- **Protection and Compliance.** Exchange 2010 offers enhancements in data security as well. Its close integration with Active Directory Rights Management Services can help prevent data leaks, both within the organization and when working with partners. A close integration with the Forefront product suite enhances security, and protects the Exchange from viruses and spam in both the cloud and on-premises. Another key new feature for improved protection and compliance is archiving, which can have a big impact on migration and is explained in detail in the next section.

These three sets of enhancements are all underpinned by the ability to integrate closely between on-premises and online deployments. This enables interaction between on premise and online users.

## Exchange 2010 Features: How they affect GroupWise Migrations

Many of the new features of Exchange 2010 focus on providing users with enhanced levels of redundancy, availability, and simplicity. Therefore, they do not impact the migration from GroupWise to Exchange to a major extent.

### Active Directory and the Global Address List

In Exchange 2010, the Global Address List (GAL) is the Exchange equivalent of the GroupWise Address Book. The GAL is a filtered view of Active Directory objects, and it shows the attributes of both the standard user and the Exchange. GroupWise, on the other hand, maintains its own directory. The GroupWise directory is the domain database, wpsdomain.db. However, the user object is in the eDirectory, also called Novell Directory Services (NDS). The mailbox is created in the GroupWise domain database and linked or associated with a user object in eDirectory.

### No Native Tools

The most significant difference between the 32-bit versions of Exchange (2003 and earlier) and the 64-bit versions of Exchange (2007 and on) is the lack of Microsoft native tools for establishing GroupWise and Exchange coexistence. Microsoft's GroupWise coexistence tools, Novell GroupWise Connector and Calendar Connector, were discontinued in Exchange 2007.

The lack of native coexistence tools impacts Exchange 2010 migrations because many third-party products rely on the native tools for some form of coexistence, like facilitating free-busy calendar lookups between GroupWise and Exchange. If free-busy interoperability is required and you need to use the native tools, your only option is to use an Exchange 2003 bridgehead server in the Exchange 2010 environment and a supported version of GroupWise running the GroupWise Gateway.

### Exchange 2010 Personal Archive

To address the problems with .pst files, Exchange 2010 introduces the Personal Archive, which operates as a secondary mailbox that can be stored either on the same or a different database as the primary mailbox. Depending on the policies you have set, mail is moved automatically from the primary mailbox into the archive. Users can thus cater to the mailbox size requirements, without creating new .pst files. Archived .pst files can be imported into the archive, so they can be managed, backed up, and searched as required by your organization. Unlike .pst files, the archive is fully discoverable and can even be put on litigation hold to prevent changes and deletions from destroying evidence.

The Exchange Personal Archive works just like a user's regular mailbox, so no additional training is required. The archive works with Outlook 2007, Outlook 2010, and Outlook Web App, and is available anytime you have a connection to the Exchange server.

### **Third-Party Archiving Solutions, including Quest Archive Manager**

Third-party solutions like Quest Archive Manager extend the functionality built into the Exchange Personal Archive. Archive Manager simplifies and accelerates compliance initiatives with powerful search capabilities to retrieve and export relevant content for legal investigations. Granular retention policies provide more flexible control over the disposition of the e-mail ensuring that you keep only what you need. In addition, Archive Manager uses true single instance storage to reduce the amount of e-mail stored on your server and the archive; it stores e-mail message attachments separate from the message body and metadata and keeps only a single copy of an attachment. This reduces backup and restore times, and helps improve system performance.

How do these archives affect migration? One key to a successful move to Exchange is to bring all of your e-mail data under the control of Exchange so it can be managed, backed up and searched. Quest offers tools that can migrate any GroupWise archives into Exchange or .pst files.

## **Migration Challenges**

There is more to a successful migration than installation of the correct software and patches. Migration challenges tend to fall into three broad categories:

- Technical
- Logistical (processes)
- Cultural (people)

### **Technical Challenges**

Migration to an existing target Exchange 2010 system typically involves two technical stages:

1. Ensuring coexistence
2. Migrating data

### **Ensuring Coexistence**

Some organizations opt to go with a "big bang" approach, migrating from GroupWise to Exchange over an extremely aggressive period, such as a weekend. This minimizes migration complexity and provides a uniform experience to all users. Quest GroupWise Migrator for Exchange can be scaled out to move large quantities of mailboxes in parallel. For example, GroupWise Migrator for Exchange can successfully move several hundred mailboxes and multiple terabytes of data in a 48-hour migration window, running on four migration servers.

When planned correctly, a “big bang” approach can work for small and medium-sized organizations.

However, most organizations migrate from GroupWise to Exchange over a longer period of time and require coexistence, which means the two e-mail systems behave, look and feel to the end users as a single system. This requires some thought in three areas:

- Directory synchronization
- Mail flow
- Calendar and free-busy lookups

### **Directory Synchronization**

The first key coexistence step is provisioning of objects in Active Directory: In case the AD object is not present, it will neither get a mailbox, nor appear in the Exchange GAL. It is of utmost importance to get AD correct. When GroupWise and Exchange 2010 exist in parallel, both systems should have the same view and agree on the definition of users, groups and resources. Both systems need to display the same address book or GAL.

If Active Directory objects are provisioned from eDirectory using Microsoft Directory Synchronization Services (MSDSS) or Quest NDS Migrator, then GroupWise resources won't have corresponding Active Directory objects to mailbox-enable, and other steps may need to be taken before these resources can be migrated.

### **Mail Flow**

Ensuring accurate and continuous mail flow requires planning for the following four cases:

1. Mail from non-migrated GroupWise users' needs to be properly routed to users migrated to Exchange 2010.
2. Mail from migrated users' needs to be routed correctly to users still on GroupWise.
3. Mail from the outside needs to be routed correctly to GroupWise or Exchange, depending on the mail system that the recipient is using.
4. Mail from either GroupWise or Exchange needs to be routed properly to the outside world.

If you treat the combined mail system of GroupWise and Exchange as a whole, then you can address two simpler scenarios.

- Mail within the system
- Mail to and from the system

### **Calendar and Free-Busy Lookups**

Exchange 2010 is a messaging and collaboration product. Legacy calendar content can be migrated easily, but collaborative use of calendaring between GroupWise and Exchange 2010 is not delivered by either product natively.

Because both the Novell GroupWise Connector and the Calendar Connector were discontinued in Exchange 2007, Free- busy calendar lookup between GroupWise and Exchange 2010 can be accomplished only by using the Exchange 2003 native tool, Calendar Connector. Once configured for GroupWise, it then shares the Microsoft Connector for Novell GroupWise with directory synchronization and mail flow.

Meeting requests will still work in the absence of free-busy information sharing. However, it will be without the facility of a scheduling assistant.

## **Migrating Data**

The second stage of migration, and usually the longest and most visible to the end user community is moving data. Begin by asking the following questions:

- How much data do you intend to move?
- How much space does it consume now?
- How much space will it consume after it's moved?

The choices for migration include:

- Not migrating – New, empty mailboxes (every GroupWise user gets an empty mailbox in Exchange 2010, with no data migration)
- Legacy Exchange 2003 Server Migration Wizard
- Third-party tools such as the Quest GroupWise Migrator for Exchange

## **Logistical Challenges**

The logistics of managing a GroupWise migration to Exchange include the following three areas:

- Migration schedule
- User training and support
- Deploying Outlook to the desktop

## **The Migration Schedule**

In its simplest form, a migration schedule needs to include a list of names and dates. Start with a definitive list of users, mailboxes, and resources, and then, with some careful coordination by office location and department, draft a migration schedule. Organizations often choose to migrate entire departments (or other groups of users that collaborate) at the same time because it reduces the need for collaboration between the legacy source and the new target system, and allows the staff to share their experiences and support each other during the process. Finding the right time for each department can be a challenge: you should consider the role that the department plays and any calendar or scheduling deadlines they may have, such as end-of-month for sales personnel, financial year-end for accounting



departments, or shift schedules for businesses that operate outside of regular 9–5 office hours.

Note that coordinating and managing migration logistics is a full-time job. Migrations go far more smoothly when this role is assigned and taken seriously than when a more laid-back and reactive approach is used.

### **User Training and Support**

GroupWise and Outlook behave differently. Your processes and help desk staff should be capable of supporting users, when you migrate them to Outlook and Exchange. The best way to smooth the transition for staff is to provide basic training at the right time. Although you should not be late in training users, you should also not train them too early, as the training will be forgotten.

Don't underestimate the work involved in coordinating training schedules as you migrate batches of users. Make allowances for each department's scheduling constraints, including sick leave and vacations, as well as for new employees.

The content of the training is also critical. The vast majority of help desk calls after a migration fall into the following two categories:

- Training requests: "How do I do in Outlook what I already knew how to do in GroupWise?"
- Inconsistencies between source and target address lists. These lead to non-delivery reports (NDRs) caused by missing users or missing distribution lists or membership.

To minimize training requests, choose a training course or trainer who doesn't simply cover textbook Outlook, but is familiar with issues for users moving from GroupWise. The most confusing topics to GroupWise users new to Outlook are "delegate and shared access," "send on behalf of," and "send as." Also be sure to cover the GroupWise and Outlook features that sound similar but behave differently, such as message tracking options and message recall.

The second type of support calls can be minimized by careful object and resource provisioning. When merging directories from GroupWise, eDirectory, and Active Directory, be sure to look out for GroupWise or eDirectory objects with slightly different spellings, and issues with maiden name versus married name when the e-mail address and GroupWise object are updated but the eDirectory object isn't. Also be very careful that you don't end up with malformed SMTP addresses that GroupWise can handle but Exchange, with its more strict RFC compliance, can't.

### **Deploying Outlook to the Desktop**

Don't overlook Outlook deployment and configuration. Outlook 2010 is the client of choice for Exchange 2010, and replaces GroupWise on the desktop. GroupWise and Outlook can

coexist on the same workstation, but only if Outlook is installed last: if you install GroupWise over Outlook, then Outlook stops working. There are several ways to deploy Outlook: Group Policy, System Center Configuration Manager, or manual install. There are also many configurable options that can be customized and tailored using the Office Customization Tool, which has replaced the Custom Installation Wizard.

## Cultural Challenges

The migration can cause great stress to both your IT department staff and your end users. Not everybody is going to welcome Microsoft Exchange. Users may have strong loyalty to GroupWise, and you may have to deal with fear, uncertainty, doubt, and possibly passive or even active resistance. Administrators may resist the change, especially if the migration to Exchange 2010 is likely to reduce the number of IT staff required.

Don't underestimate the work involved in communicating and managing this culture change.

## Steps for GroupWise to Exchange Migration

### Overview

A successful migration should include the following steps:

1. Perform a pre-migration assessment
2. Provision your Exchange 2010 mailboxes
3. Integrate GroupWise and Exchange 2010
4. Establish a migration baseline
5. Run a pilot migration
6. Plan data storage
7. Migrate your data and track migration progress

### Perform a pre-migration assessment

Before you begin your migration, try to gain a really clear understanding of what will be involved and what criteria you will use to measure success. Agreeing that you are finished can be difficult if you don't agree up-front what "finished" is. Be realistic. In particular, understand that it is unreasonable to expect 100 % of your data to be migrated successfully. GroupWise is a file-based mail system, and like any other mail system, it is prone to file or database corruption. In addition, not every GroupWise message type has an equivalent in Exchange. Therefore, the reality is that not every message in GroupWise will be intact after the migration. Pick an achievable threshold, such as that 98 % of messages should migrate for 98 % of mailboxes. Tracking the percentages is the key to any successful migration, and tracking results is only possible if you start with a pre-migration assessment.

In addition to establishing completion criteria, you should ask the following questions:

- How many domains, post offices, and physical servers exist?
- How many mailboxes do you have?
- How many of these are expired, disabled, orphaned or unused? (Disabled or expired mailboxes can't be migrated by Quest GroupWise Migrator for Exchange)
- How much data is there between the combined mailboxes and archives?
- How much data do you intend to migrate? For example, all, two years, or only the last six months?
- Will GroupWise archives be migrated to Exchange 2010 or to Outlook .pst files?
- How much storage do you estimate you will have after migration?

You can use native tools like the GroupWise Utilities to list mailboxes and estimate data volumes. Use Quest GroupWise Migrator for Exchange to perform a Directory Export against each post office, and combine the data to obtain a definitive list of objects for migration.

You should then pull a detailed statistics output from the GroupWise post office Library Maintenance. These statistics can be exported into a .csv file or Excel spread sheet listing mailboxes with sizes and number of items, as shown below:

displayname	userid	type	mailboxsize (MB)	emailaddress	ismigrated	gwactive
Dudackova, Hana	HDU1PRA	Contact	3976	Hana.Dudackova@T...	True	True
Hruba, Hedvika	HHR1PRA	Contact	1624	Hedvika.Hruba@TMF...	True	True
Erenyi, Jakub	JER1PRA	Contact	9804	Jakub.Erenyi@TMF-G...	True	True
Kotatko, Libor	LHR1PRA	Contact	160	Libor.Kotatko@TMF-...	False	True
Krizek, Martin	MKR2PRA	Contact	7913	Martin.Krizek@TMF-...	True	True
OrionTmf-czech	OrionTmf-czech	Resource	160	orion.tmf-czech@TMF...	True	
Dusek, Petr	PDU1PRA	Contact	1067	Petr.Dusek@TMF-Gr...	True	True
Pechova, Petra	PPE2PRA	Contact	2261	Petra.Pechova@TMF-...	True	True
Kolhova, Radka	RK01PRA	Contact	24219	Radka.Kolhova@TM...	True	True
Swarovski TMF-Cze...	Swarovski TMF-...	Resource	21833	Swarovski.TMF-Czec...	True	
Sucha, Tereza	TSU1PRA	Contact	2394	Tereza.Sucha@TMF-...	True	True

Figure 1. Sample pre-migration report on mailbox size

This report gives you a definitive list of mailboxes, an approximate number of items, and an estimate of data size. Knowing the mailbox sizes is important; it enables you to batch mailboxes together with some confidence that no batch exceeds the capacity of the migration tool.

### Provision your Exchange 2010 mailboxes

When creating AD objects for Exchange 2010 mailboxes, remember that the GroupWise directory is separate from eDirectory, and that GroupWise resources don't need eDirectory user objects. These objects may need to be created using a different mechanism than regular user objects, if you have chosen to migrate user objects from eDirectory.

## **Integrate GroupWise and Exchange 2010**

You need to identify how you intend to provide directory synchronization between GroupWise and Exchange 2010 to ensure that the GroupWise Address Book and the Exchange Global Address List reflect the same users, distribution groups, and resources.

Use SMTP routing to route mail between GroupWise and Exchange, and between the combined GroupWise/Exchange hybrid system and the outside world. Keep track of the message size limits and message formats.

Mail flow with the outside world works as follows: In order for two mail systems to share a common mail domain, one system needs to be authoritative, and the other needs to be non-authoritative. Mail is first passed to the non-authoritative system. It then delivers mail for any mailboxes it owns, and passes (or forwards) mail for unresolved recipients to the authoritative system.

The authoritative system is the end of the line: if it has a matching mailbox, it delivers the mail; in case it doesn't have a mailbox, it produces a non-delivery report (NDR).

There are two ways to achieve mail flow between GroupWise and Exchange:

- Exchange 2003 Connector for Novell GroupWise
- SMTP forward domain

### **Option 1: Exchange 2003 Connector for Novell GroupWise**

If you implement an Exchange 2003 server in your Exchange 2010 organization, you can pass mail between GroupWise and Exchange 2010 using the Exchange 2003 Connector for Novell GroupWise.

If your MX record points to GroupWise, GroupWise becomes non-authoritative, and forwards mail for unresolved recipients to Exchange. In order for the Exchange 2003 Connector to accept and process forwarded messages from GroupWise, it is often necessary to run the GroupWise Internet Agent (GWIA) with Internet Addressing Disabled, using the /DIA switch. Adding the /DIA switch can alter the SMTP addresses of delivered mail for your production GroupWise mailboxes. The Internet e-mail address for the GroupWise mailboxes is ignored, and mail is delivered to addresses that GroupWise builds from both the user ID and the foreign domain ID. If these do not match the SMTP addresses in use, the mail is sent back to the sender with an NDR.

Regardless of where your MX record points to, Exchange or GroupWise, mail is delivered first to the non-authoritative system and then relayed to the authoritative one via the Connector. In this scenario, the GroupWise components of the connector predate HTML as a popular message format, so any messages are converted to plain text as they pass over the Connector.

## Option 2: SMTP Forward Domain

The second and more popular option for SMTP routing between source and target systems is to use a forward domain. One system (usually GroupWise) keeps its live mail domain while the second system (usually Exchange) gets more than one mail domain per mailbox: the live one and a secondary mail domain, which is usually, but not necessarily, a sub-domain. Mail is forwarded from Exchange to GroupWise using the live production SMTP domain.

This approach has some significant advantages. You know that mail delivery to the production SMTP domain works for the existing GroupWise system, and, most importantly, you don't have to make any changes to the production system.

In GroupWise Migrator for Exchange you use the secondary address as a forward domain to send mail to users migrated to Exchange via client-side rules set by the Quest tool. Client-side forwarding offers some other advantages, because GroupWise can be configured not to delete or purge forwarded messages. This provides you with a safety net as you resolve unexpected or unplanned issues with mail size restrictions or quota limits between source and target systems.

Flat forwarding in GroupWise, which allows mail to be forwarded from the original sender and not from the source GroupWise mailbox, is enabled via the /FLATFWD switch in the GWIA configuration.

Calendar free-busy lookup is available only if you setup an Exchange 2003 machine running the relevant coexistence connectors, before you install Exchange 2010.

## Establish a migration baseline

After you obtain a definitive list of mailboxes for migration from your pre-assessment, you need to know how fast the data can be moved. This information comes from a migration baseline that is obtained by performing a controlled migration of a known quantity of production GroupWise data on a single migration server.

Production data and production systems are critical for several reasons:

- You need to understand how the production environment is going to behave; a baseline in a lab environment does not provide that information.
- You can gain some level of expectation about message or database corruption, the number of instances of message type that don't exist in Exchange, and target thresholds to aim for based on your sample data.

The migration baseline comes down to a number: the throughput in GB/hour. It is the throughput that determines the time that the total data volume will take to migrate, and consequently, how long the project will run.

Throughput is a function of several factors, including the bandwidth available to GroupWise in a WAN environment and server performance as limited by memory or CPU. Throughput

can be optimized in many ways. Quest GroupWise Migrator for Exchange is multi-threaded, and each thread moves a certain amount of data per hour; increase the number of threads and you increase your migration performance. Another option is to scale out instead of scaling up: if the migration server starts to get stressed, run two or more in parallel.

However, scaling up or scaling out the migration infrastructure can overcome bottlenecks only up to a certain point. Somewhere along the line you are likely to hit an optimal throughput. Exchange 2010 Server by default will allow only 32 MAPI sessions for each migration account, and the legacy GroupWise server can cope with only so many client connections before the CPU exceeds 80 %.

Other factors that affect throughput are server and mailbox placement. Multiple GroupWise post offices running on multiple servers will give you better performance than having all of your mailboxes on a single server... We have seen a throughput of 12-15 GB/hour on a regular basis in collocated on-premises GroupWise to Exchange migrations. However, the figures vary, and we have also come across 2-20 GB/hour. In general, 6-10 GB/hour is a good target to aim for.

The migration baseline feeds into several other migration and planning activities, including:

- Planning the migration schedule. The baseline throughput per server multiplied by the number of migration servers dictates the volume of mail that can be moved, and hence the number of mailboxes per migration batch, as well as the number of required batches to complete the project. For example, in an actual project, we had to move 7.7 terabytes of mailbox data in a 12-week window. Since our baseline migration rate was 14 GB/hr, we had to schedule 563 hours of data migration. In order to get the migration done within the scheduled time, we scaled out to three migration servers and ran two migrations per week, each with an eight-hour window.
- Establishing success criteria. The test migration used to establish the baseline will also help you estimate the number of errors to expect from the GroupWise data. Quest GroupWise Migrator for Exchange logs errors related to the consistency of GroupWise data, so that you can set expectations with users about what data will migrate, what won't, and what conversion issues should be expected.

### **Run a pilot migration**

The goal of a pilot migration is to identify challenges you might face once full migration starts, and determine how to prevent or resolve them. Therefore, you should expect and even welcome problems during the pilot migration. A pilot must be large enough to capture a representative sample of the issues that can be expected during migration. If the number of mailboxes you are migrating is in the low thousands, including about 5 percent of the total user population should give a good sample; for extremely large migrations, the percentage can be smaller.

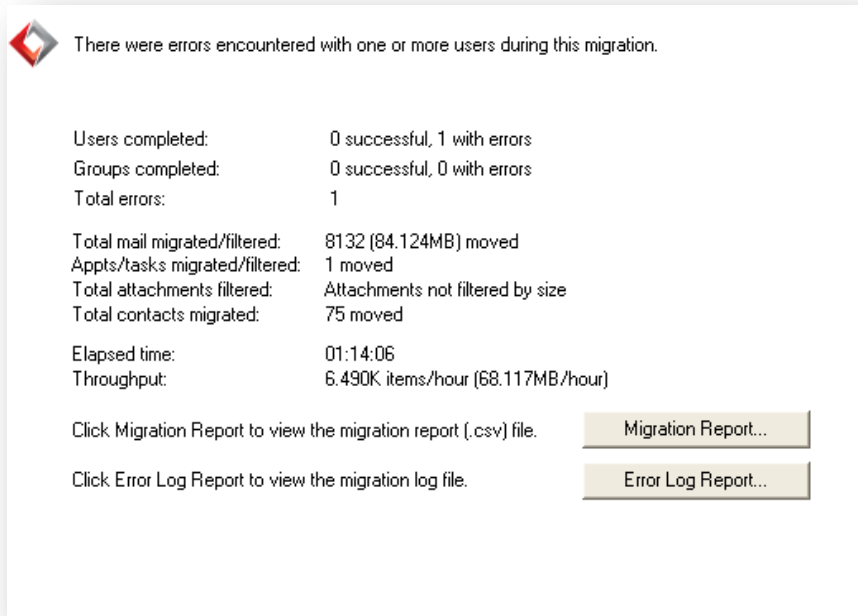
## **Plan data storage**

Before you begin migrating data, be aware that the amount of disk space required on the target can vary greatly from the source, depending on the version of GroupWise and the platform it's running on. Older versions of GroupWise running on NetWare servers, which are the most likely candidates for migration, use a heavily modified FAT32 file system, whereas Exchange 2010 uses NTFS. This can result in a net reduction in volume post migration, even allowing for the removal of single instance storage (SIS). We've seen 40 percent reductions in data volume based on the smaller sector size alone during migration. Obviously, sometimes the volume of data on target will be greater than the data on the source. If you want to know how your data is going to behave, your only option is to test it.

Consider archiving before you migrate. Quest Archive Manager can archive mailbox content from GroupWise, and then you can use Quest GroupWise Migrator for Exchange to very quickly move the small or empty mailboxes to Exchange, where the Outlook client reconnects the existing archive to the new Exchange mailbox for each user.

## **Migrate the data and track migration progress**

After migration of each batch of mailboxes, Quest GroupWise Migrator for Exchange produces a results log file for the batch that lists among other things, the total number of messages moved, the total number of messages filtered (skipped), and the total number of errors or warnings per mailbox. Individual logs for each migrated mailbox list the total number of messages and appointments the mailbox started with. Interpreting this data is not rocket science; add the number of filtered items to the number of moved items, subtract the number of errors, and divide the result by the total message count to calculate a percentage. If that percentage is 98 percent or higher, it denotes success, and you can confidently sign off on the mailbox. (In the real-world example below, the filtered message count is high because we applied date filtering to our migration.)



## Tips and Best Practices for Migration to Exchange 2010

### Work with the product, not against it

Don't try to make Exchange behave like GroupWise. The GroupWise client and server have different features and capabilities than the Outlook client and Exchange server. Try to take this into consideration from day one. It can be tempting to try to recreate something in Outlook and Exchange that worked in GroupWise, but you'll often be disappointed.

### Know your numbers and your limits

Run enough test migrations to understand the performance limits of the GroupWise and Exchange systems and the migration infrastructure. Spend time with the logs and the numbers to understand the percentages of messages that migrate, or fail to migrate, and how fast data is moving.

### Run a directory export from each post office

The GroupWise Migrator for Exchange Directory Exporter can see all objects on a post office, and all objects with GroupWise visibility set to "system." It will not see GroupWise objects on post offices other than the one currently used by the Directory Export or any objects that are not set to "system" visibility. Run a Directory export from each post office, and combine the results to create a master list.



## **Forward mail sent using GroupWise Frequent Contacts**

After a user is migrated, mail can sometimes still make it into the user's old GroupWise mailbox. The most common reason this occurs is that mail is sent by a GroupWise user using Frequent Contacts. GroupWise Frequent Contacts is similar to the Outlook nicknames cache; it's built up over time from the addresses you use when you send or reply to messages. It is used heavily in GroupWise, and in a local environment it often contains a GroupWise format address for local mailboxes. When a message is sent from a GroupWise client, the recipient can be selected automatically from the Frequent Contacts using this GroupWise format address, and even if the user has been migrated to Exchange, the mail is delivered locally to GroupWise. The client side forward is one way to handle this issue.

## **Enable GroupWise flat forwarding**

With flat forwarding, mail sent from the GroupWise mailbox to the Exchange mailbox of a migrated user is seen as coming from the original sender and the recipient can reply to it. Without flat forwarding, such mail is seen as having come from the GroupWise mailbox that is doing the forwarding, which is less useful. You can enable flat forwarding on the GWIA using the /FLATFWD switch OR Configure Forwarding rule on GroupWise Mailbox.

Be careful about changing settings on the production GWIA because there could be dependencies on existing behavior. A better and safer option is to set up a new GWIA simply for SMTP coexistence and set the /FLATFWD switch on that GWIA.

## **Plan conversion of GroupWise archives**

If you intend to use Quest GroupWise Migrator's Self-Service Desktop Migrator option to convert GroupWise Archives to Outlook .pst files, then you will need to retain the GroupWise client on the desktop. The Quest product is essentially client-side driven, and you need native GroupWise API's to open the GroupWise mailbox, then Outlook API's to open the Exchange mailbox, to move messages from one to the other. If you remove GroupWise from the desktop too early, or don't plan an alternative strategy for archives (such as copying them to a central location and Processing them with the GroupWise Migrator for Exchange Admin-Driven Batch utility), you may not be able to convert archives.

## **Scale your Exchange transaction log volumes during migration**

Exchange database changes are written to transaction log files. In a migration scenario, all migrated data is new data to Exchange and gets written to logs before it is committed to the database. Every 100 GB of database is also 100 GB of log files. Therefore, without correctly scaled log volumes, you run the risk of log volumes filling up during migration. Other options include circular logging or more frequent backups to clear down the log files during busy migration windows. During the migration, you should give Exchange 2010 the low-cost disk that it needs to allow for transaction logs to grow.

## Be flexible with maintenance windows, but don't cancel them

Don't neglect regular maintenance of both the source and target systems during migration. Expect that maintenance and administration activities may need to change. In particular, remember the following:

- GroupWise maintenance has likely been scheduled to coincide with low productivity hours, such as evenings and weekends. These same low productivity hours will most likely be the first preference for migration, so the maintenance window may have to move, but it should not be simply cancelled. Remember that GroupWise mailbox maintenance is the single biggest resolution to migration issues.
- Exchange backups may have to be run more frequently to handle increased transaction logging with on-premises Exchange.

## Summary

Exchange 2010 offers important new functionality, including the ability to closely integrate on-premises and online deployments. For this reason, migrating from GroupWise to Exchange can offer significant benefits. Understanding the common challenges of migration and following the migration procedure outlined in this document will help ensure that your project is successful.

## About Happiest Minds Technologies:

Happiest Minds, the Mindful IT Company, applies agile methodologies to enable **digital transformation** for enterprises and technology providers by delivering seamless customer experience, business efficiency and actionable insights. We leverage a spectrum of disruptive technologies such as: Big Data Analytics, AI & Cognitive Computing, **Internet of Things**, Cloud, Security, **SDN-NFV**, **RPA**, Blockchain, etc. Positioned as "Born Digital . Born Agile", our capabilities spans across product engineering, digital business solutions, infrastructure management and security services. We deliver these services across industry sectors such as retail, consumer packaged goods, edutech, e-commerce, banking, insurance, hi-tech, engineering R&D, manufacturing, automotive and travel/transportation/hospitality.

Headquartered in Bangalore, India; Happiest Minds has operations in USA, UK, The Netherlands, Australia and Middle East.

**To know more about our offerings. Please write to us at [business@happiestminds.com](mailto:business@happiestminds.com)**