



GWAVA Inc.

GWAVA® Retain™

For GroupWise®

Upgrade Guide

From version 1.x to 2.0

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If you have a technical support question, please consult the GWAVA Technical Support section of our website at www.gwava.com.

Sales

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Intended Audience

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

Organization

The guide is organized into two sections, Overview and Installation. The Overview section covers all the basic information needed to plan where to implement and install the different parts of Retain in your System. The Installation section briefly goes over the necessary steps to install Retain.

General use and management of Retain is covered in the User's Guide, please read that guide for setup and configuration steps and information.

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Upgrade Information

Maintaining the integrity of archived mail is necessary for existing Retain systems, and Retain 2.0 has a migration utility to facilitate with the upgrade. The upgrade itself is fairly simple, though there are several steps that must be completed for Retain 2.0 to function correctly because essential elements of Retain have been moved or updated. The two major changes are:

- Retain configuration database
- Indexing and searching engine

Retain 2.0 uses a different license than Retain 1.x. Obtain a Retain 2 license from a sales representative to avoid service interruptions. There is a 30 day grace period.

Configuration Database

Retain 2.0 has changed the location of the Retain configuration database. In Retain 1.x the configuration database was located in an integrated Derby database. Retain 2.0 moves the configuration to the existing Retain storage database. As with the original database, the configuration database must be accessible to the Retain Server on startup, so quick and reliable network connection is inherently important. Recommendations and administration for the storage server and database have not changed, (dependable and fast network connection, backups, and customer management).

Exalead

Retain now includes the option to install an extremely robust indexing engine for larger systems. Exalead can index massive amounts of data and is recommended for archiving systems with 1000 or more users. Because of Exalead's robust nature, more mail searching options will be available. Exalead should be installed and run on a dedicated server for best performance. Exalead should not be run on the same machine as the Retain Server. If using Exalead, the system must be installed and running before the Retain Server is configured. For install and system requirements, please refer to the Exalead installation document.

If an administrator wishes to switch the index engine from Lucene to Exalead, it can be done at any time through the admin interface. The indexes must be rebuilt, however, so the entire process is time consuming. For larger systems, though, the procedure may take quite some time. Please plan your systems accordingly.

Upgrade

When Upgrading Retain from Retain 1.x to 2.0, there are several objects to be aware of and update or migrate before the system will work. All the steps include:

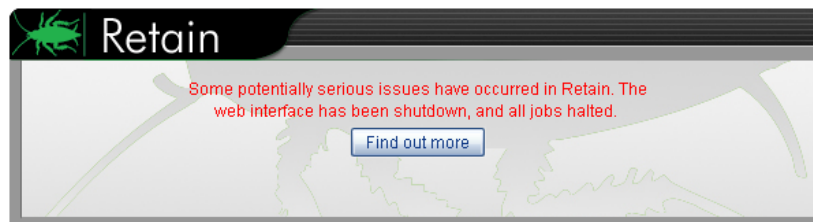
- Backup your Retain System
- Upgrade Retain Server to 2.0
- Check for successful installation
- Run the migration wizard
- Upgrade all Retain Workers
- Upgrade all Migration tools
- Install Retain 2.0 license

Optional upgrades:

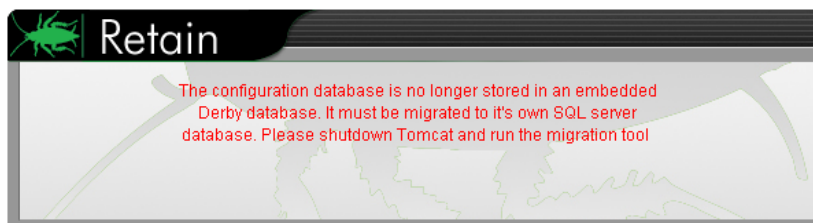
- Exalead

The steps are covered in detail below:

1. **Backup your Retain System.** Should the wrong option be selected during the Retain Server installation, the Retain Server configuration can be overwritten. Connection and access to Retain data requires identification keys stored in the configuration. The Retain Server settings and configuration cannot be lost.
2. **Install Retain Server 2.0.** When Retain is installed, it will detect that a previous version of Retain is installed and prompts whether to upgrade or overwrite the installation. Select the option to **Upgrade, preserving configuration**. If overwritten, Retain Server must be restored from backup and the install upgrade must be restarted.
3. **Check for successful installation.** If the installation upgrade has been successful, the Retain Server home page, (http://<RetainServer_IP_or_Hostname>/RetainServer), should display the following notice:



Selecting the 'Find out more' button will display the next notice:



4. **Run the migration tool.** The migration tool is located in the 'migration' directory in the Retain 2.0 download. Browse to that directory and run the migrator on the Retain Server.

Windows

Locate and run the migrate.bat file. The migration utility assumes the default path to the Retain Server installation. By default, the components are located at: C:\Program Files\Beginfinite\Retain\RetainServer

Linux

If under linux, you may need to add permissions the migrator by typing:

```
chmod +x migrate.sh
```

The migration utility needs to know where the current Retain Server resides in the file system. Run the migration utility and place the working directory of the Retain Server as an argument. Use absolute pathing.

```
./migrate.sh <path to Retain Server>
```

On either Linux and Windows systems, the migration utility places the default locations between brackets before the prompt. To accept the system defaults simply press <Enter>. In most cases, the defaults will be correct and can simply be accepted. The below example assumes Linux default file paths for the Retain Server components.

```
RETAIN2:/share/Retain200Alpha2/migrate # ./migrate0.sh /opt/beginfinite/retain/RetainServer
/opt/beginfinite/retain/java/jdk1.5.0_22
/opt/beginfinite/retain/java/jdk1.5.0_22/bin/java
A copy of the log is stored at: /tmp/migrate-2463459366805147184.log

BEFORE PROCEEDING MAKE SURE YOU CREATE A NEW DATABASE retain_conf, WITH RIGHTS GRANTED TO A USER
PLEASE NOTE: WE WILL CREATE THE INDEXERS FROM SCRATCH
SO IF YOU HAVE ADDED ANY MIME EXTENSIONS OR CHANGED
SIZE SETTINGS OR ENABLED WORD OR PDF, YOU WILL
HAVE TO REDO THESE CHANGES

Press ENTER to continue
```

Read the notice, and hit enter to continue.

```
This application is used to migrate the old Derby Configuration
databases used before Retain 2.0 to the database server you specify
THIS IS A MANDATORY STEP BEFORE RUNNING RETAIN 2.0!

The Derby database will be loaded and upgraded to the Retain 1.80 schema
but otherwise will be remain untouched.

You will be expected to provide the file location of your ASConfig.cfg
file, which needs to be read and written to during the migration process
You will then be asked to confirm the database parameters
By default, this program assumes you want to use the same database server,
user, and password as your Message Store database. In fact the only difference
will be that the Configuration Database will be named retain_conf, instead of retain

BEFORE PROCEEDING MAKE SURE YOU HAVE CREATED THIS DATABASE AND GRANTED RIGHTS TO
THE APPROPRIATE USER!

Location of ASConfig.cfg [/opt/beginfinite/retain/RetainServer/WEB-INF/cfg/ASConfig.cfg]:
```

The migration program will inform you of what it will do and what information is required. The ASConfig.cfg file is located in the .../retain/RetainServerWEB-INF/cfg directory.

```
Location of ASConfig.cfg [/opt/beginfinite/retain/RetainServer/WEB-INF/cfg/ASConfig.cfg]:
ASConfig.cfg will be read for default c:values, and later updated if the migration is successful.
Driver JDBC Class [com.mysql.jdbc.Driver]:
```

The JDBC class location must also be provided. Default is shown.

```
Location of ASConfig.cfg [/opt/beginfinite/retain/RetainServer/WEB-INF/cfg/ASConfig.cfg]:
ASConfig.cfg will be read for default c:values, and later updated if the migration is successful.
Driver JDBC Class [com.mysql.jdbc.Driver]:
Database User Name [retain]:
```

Authentication to the database server hosting the retain database is required. The defaults are listed in the current Retain Server configuration. First provide or confirm the user name.

```
Location of ASConfig.cfg [/opt/beginfinite/retain/RetainServer/WEB-INF/cfg/ASConfig.cfg]:
ASConfig.cfg will be read for default c:values, and later updated if the migration is successful.
Driver JDBC Class [com.mysql.jdbc.Driver]:
Database User Name [retain]:
Database Password [retain]:
```

Next confirm or provide the password to the database .

```
Location of ASConfig.cfg [/opt/beginfinite/retain/RetainServer/WEB-INF/cfg/ASConfig.cfg]:
ASConfig.cfg will be read for default c:values, and later updated if the migration is successful.
Driver JDBC Class [com.mysql.jdbc.Driver]:
Database User Name [retain]:
Database Password [retain]:
Server ID (do not change!) [FXROPPHOTTTI]:
Location of embedded database (ebdb folder) [/var/opt/beginfinite/retain/ebdb]:
```

The ebdb database location is required. Unless changed during initial Retain 1.x install, this can remain as default.

```
Location of ASConfig.cfg [/opt/beginfinite/retain/RetainServer/WEB-INF/cfg/ASConfig.cfg]:
ASConfig.cfg will be read for default c:values, and later updated if the migration is successful.
Driver JDBC Class [com.mysql.jdbc.Driver]:
Database User Name [retain]:
Database Password [retain]:
Server ID (do not change!) [FXROPPHOTTTI]:
```

DO NOT CHANGE the Server ID unless specifically instructed to by Support. Accept default by pressing <enter>.

Confirm your settings.

```
ASConfig.cfg path [include filename]: /opt/beginfinite/retain/RetainServer/WEB-INF/cfg/ASConfig.cfg
DB Class: com.mysql.jdbc.Driver
DB User: retain
DB Password: retain
DB URL: jdbc:mysql://localhost/retain_conf
Derby path: /var/opt/beginfinite/retain/ebdb
ServerID: FXROPPHOTTTI
Confirm your selections (yes or no) [yes]:
```

Look over the above information and confirm the correct information. Type 'no' to correct any information.

After selecting 'yes', the migration utility will setup the retain database with the information just provided along with the current configuration settings in the Retain 1.x configuration database.

This will migrate all jobs, schedules, profiles, and worker information from the 1.x server to the new Retain 2.0 server. After the migration utility has completed, if tomcat has not been started, it should be.

The Retain Server should be fully accessible as usual with the same username and password.

5. **Upgrade all workers and re-upload the bootstrap files for all Retain Workers.** All Retain Workers must be updated to 2.0 or scheduled jobs assigned to an un-updated worker will not run. Retain 1.x workers cannot communicate with Retain Server 2.0. The new bootstrap will be named RetainWorker2.cfg. Run the Retain 2.0 installer on each Retain Worker box and update each Retain Worker.
6. **Upgrade all migration tools.** If there are any GroupWise Archive Migration Tools or GWArchive M+ Archive Migration tools active in the system, they also must be replaced with new migration tools from the Retain 2.0 download. (..\Retain200\tools\Migration Tools)
7. **Update your license.** Retain 2.0 is a new system which requires a new license. There is a 30 day grace period to update the license; however, it is best to update the license while working on the server instead of waiting for the grace period to expire. Download or locate your Retain 2.0 license and upload it to the Retain Server. Log into the Retain Server as admin, select the **Configuration | Licensing** page and upload your new license.

The Retain system has now been updated.

Optional step: Upgrade indexing engine to Exalead.

The Exalead indexing engine is not required, and the system can be switched from Lucene to Exalead at any time. However, the index engines are not compatible with each other and have no way to export the indexes between them, causing a need to re-index the entire mail archive each time the index engine is changed to ensure full coverage. Re-indexing the archive will take substantial amounts of time, and switching the indexing engine should only be run during a 'quiet time' when there are no jobs scheduled to run.

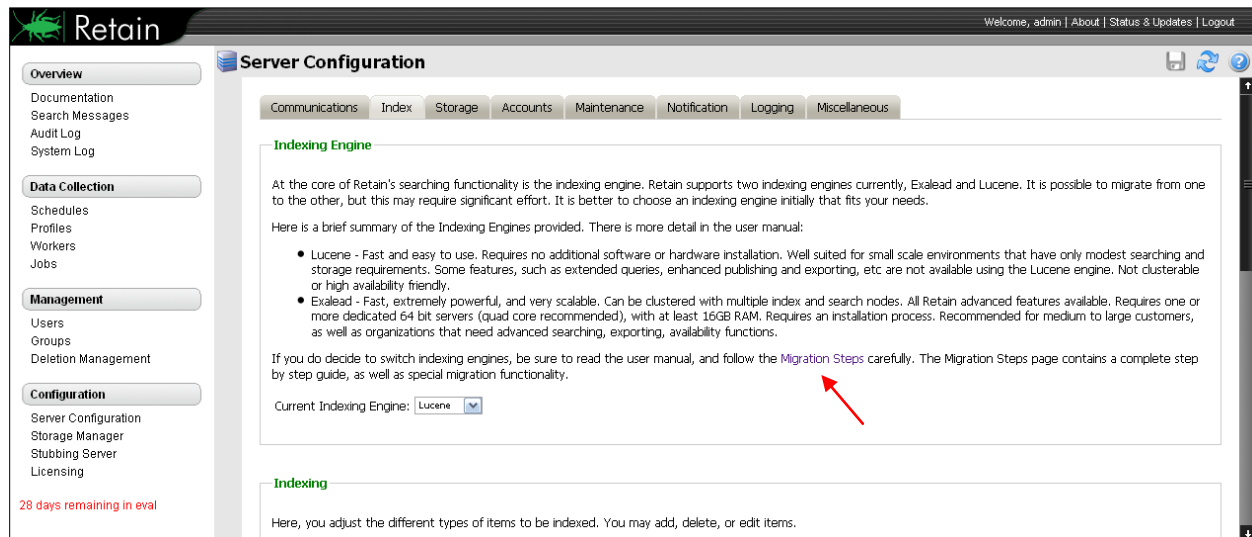
Exalead allows much more flexibility and options in searching and scaling. However, Exalead does require a separate physical machine with robust hardware. For a full list of Exalead requirements and install instructions, see the Exalead Install document. Switching to the Exalead indexing engine will cause some server downtime.

Before you begin the migration to Exalead for the indexing engine, you must first have Exalead installed and working. Log into the Retain Server management console as Administrator, and ensure that:

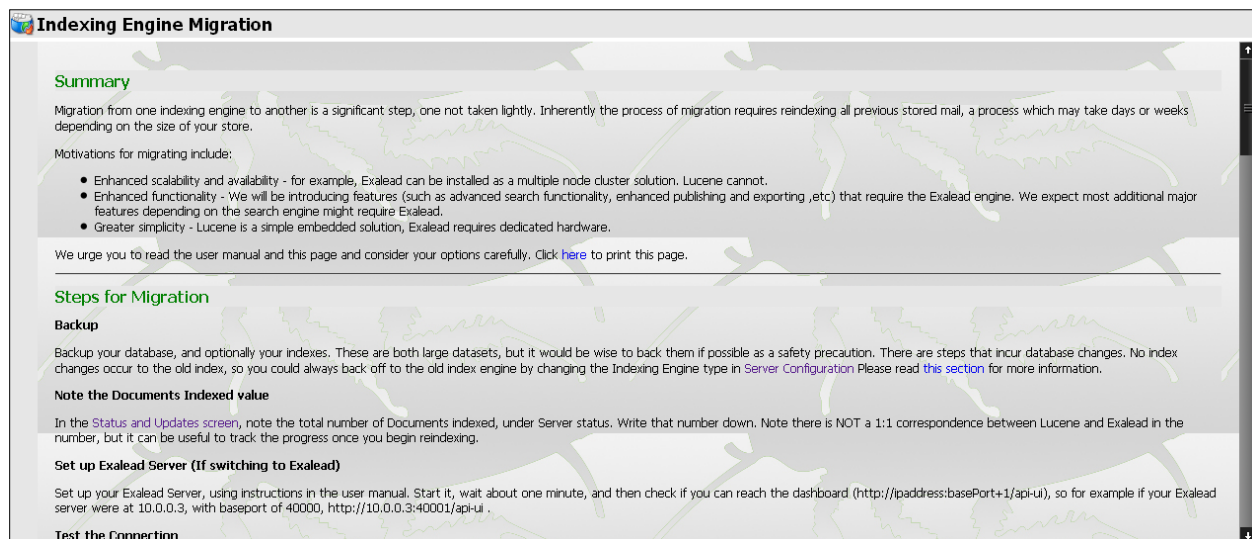
- The Retain System has been backed-up.
- Exalead server has been installed, setup, and is accessible.
- No deletion manager jobs should be running, or set to run.
- Indexer status is set to '0'. On Retain Server status page, the "Total emails in memory queue awaiting indexing" should show '0'. If this is not set to '0', and no job is running, contact support before performing the index engine migration.

From this point on, actual changes will be made in your Retain Server system. To change the index engine, perform the following steps

1. As admin, log into the Retain Server management console and browse to the **Configuration | Server Configuration** page and select the **Index** tab and click on the 'Migration Steps' link to spawn the migration steps window.



Open the migration link in a new window or tab.



This window has links and information on the migration as well as the migration settings further down the page. LEAVE THIS PAGE OPEN.

2. Scroll down the page to the link to the Indexer Reset page.

Indexing Engine Migration

DATABASE CHANGE OCCURS HERE AND IN FUTURE STEPS. YOU CANNOT STOP AT THIS POINT, AND DOWNTIME WILL SHORTLY BE INCURRED

All of your data needs to be reindexed. So we must reset the indexed status, which is a field in the EMail table of your database server to the value 0. (After being indexed, the value is set to >0 if fully indexed, and a negative value if only partially indexed. But non-zero in any case!). Then, the background indexer will gradually reindex all of these items.

To reset the indexing status, login as a user with the Manage Servers right (such as your initially created admin account), and run the [Indexer Reset](http://RetainServerAddress/RetainServer/Util/indexerReset.jsp) utility: <http://RetainServerAddress/RetainServer/Util/indexerReset.jsp>. Normally you want to allow it to reset your entire message store. This operation directly affects only the message store; the index is not written too. (although the background indexer will certainly start reindexing items relatively shortly).

Switch Indexing Engines

In [Server Configuration](#), under the Indexing tab, change your configuration to the new engine, and configure as needed (For example baseport and host for Exalead.). Save your changes, and then **continue to the next step, without pause**

Set Migration Options

(Optional but recommended strongly)

By default, the new engine will handle all indexing, deletion, and searching tasks. Because reindexing takes a while, switching over to the new Indexing engine for your searches would result in NO SEARCH HITS initially. This may be unacceptable. Instead you may want to temporarily continue to use your old indexing engine for search results. Of course, it's important to realize the searches will get increasingly out of date, as new messages will be stored in the new index only. You may also optionally configure an email to be sent to a designated person when the indexing is complete. Again, keep in mind all new items will be indexed only by the NEW engine, and unavailable for search results.

To configure these options, fill out the following form. **Do not fill out and submit this form until you are ready to do so!**

Read the instructions below the form before filling it out and submitting it

Migration Parameters

☐ Migration is in progress?

☐ Activate an alternative searching server?

Searching Server should be

☐ Send an e-mail when migration is completed?

Comma delimited list of e-mail recipients:

Type "I understand". This is required to save the form, and is for your protection:

Open the link in a new page or tab. <http://RetainServerAddress/RetainServer/Util/indexerReset.jsp>

By default, the Indexer Reset page should look like the picture below. (Pay attention to the Unindexed Items (DB): number. It should read '0'. If it does not, do not proceed unless under the instruction of support.

Indexer Background Indexer is alive: true
Indexer currently RUNNING engine: lucene (You may have already switched engines, but this will not be reflected until restart)

Unindexed Items (DB): 0

This utility allows you to reset the indexed status of either the entire message store or a specific mailbox. It may take quite some time on a large database.

Do not run this utility without specific instructions to do so! Misuse can corrupt the index, lead to high CPU utilization, and be quite inconvenient for users, as until the index is rebuilt any items affected will not be searchable.

With Lucene, resetting the index is NOT enough. You must either delete the entire existing index (with tomcat unloaded) or delete all items belonging to a certain mailbox. Otherwise redundant information will be stored! See [luceneDelete.jsp](#) for more.

☐ Reset the entire message store. All items will slowly be reindexed by the background indexer

☒ Reset just a specific user's store. All items will slowly be reindexed by the Background indexer

User UUID to reset (case sensitive):

You may also add an additional restriction - that only email stored after a certain timestamp value is affected. Leave this entry as -1 to disable this feature.

Timestamp restriction:

You must type "I AGREE" below before hitting the submit button.

I understand the significant implications of what I am doing:

The next few steps need to be performed with very little time delay between them. No more than a couple minutes. If not switched soon enough, the indexer reset switch will cause Lucene to re-index, instead of causing Exalead to index the message store, resulting in empty search results when switched to Exalead and slow responses due to Lucene re-indexing the message store. Read through the next steps and decide settings before proceeding. These steps must be completed in the order specified.

3. From the Indexer Reset page, Select **Reset entire message store**. Type **"I AGREE"** in the dialog after reading the warnings. Select **Submit**.

Indexer Background Indexer is alive: true
Indexer currently RUNNING engine: lucene (You may have already switched engines, but this will not be reflected until restart)
Unindexed Items (DB): 0

This utility allows you to reset the indexed status of either the entire message store or a specific mailbox. It may take quite some time on a large database.

Do not run this utility without specific instructions to do so! Misuse can corrupt the index, lead to high CPU utilization, and be quite inconvenient for users, as until the index is rebuilt any items affected will not be searchable.

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☒ Reset the entire message store. All items will slowly be reindexed by the background indexer
☐ Reset just a specific user's store. All items will slowly be reindexed by the Background indexer
User UUID to reset (case sensitive):

You may also add an additional restriction - that only email stored after a certain timestamp value is affected. Leave this entry as -1 to disable this feature.
Timestamp restriction:

You must type "I AGREE" below before hitting the submit button.

I understand the significant implications of what I am doing:

Proceed **without delay** to the next steps

4. **THIS STEP MUST BE DONE QUICKLY AFTER RESETTING THE INDEX.** Go the server configuration in the Retain Server admin page, and switch indexer engine to 'exalead'.

Welcome, admin | About | Status & Updates | Logout

Server Configuration

Communications | Index | Storage | Accounts | Maintenance | Notification | Logging | Miscellaneous

Indexing Engine

At the core of Retain's searching functionality is the indexing engine. Retain supports two indexing engines currently, Exalead and Lucene. It is possible to migrate from one to the other, but this may require significant effort. It is better to choose an indexing engine initially that fits your needs.

Here is a brief summary of the Indexing Engines provided. There is more detail in the user manual:

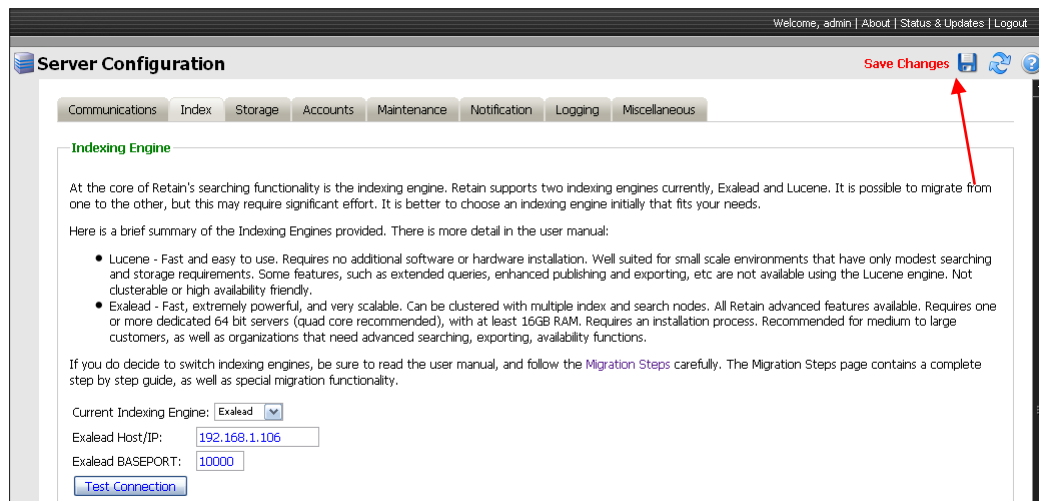
- Lucene - Fast and easy to use. Requires no additional software or hardware installation. Well suited for small scale environments that have only modest searching and storage requirements. Some features, such as extended queries, enhanced publishing and exporting, etc are not available using the Lucene engine. Not clusterable or high availability friendly.
- Exalead - Fast, extremely powerful, and very scalable. Can be clustered with multiple index and search nodes. All Retain advanced features available. Requires one or more dedicated 64 bit servers (quad core recommended), with at least 16GB RAM. Requires an installation process. Recommended for medium to large customers, as well as organizations that need advanced searching, exporting, availability functions.

If you do decide to switch indexing engines, be sure to read the user manual, and follow the [Migration Steps](#) carefully. The Migration Steps page contains a complete step by step guide, as well as special migration functionality.

Current Indexing Engine:

Lucene
Exalead
Lucene

After selecting Exalead as the indexing engine, input the connection information (IP address and base port, the default base port is 10000).



After all changes have been made, select the **Save Changes** button.

5. Go to the **Migration Steps** page and Select, migration in progress, and select to **Send an e-mail when migration is completed**. Specify a destination address.

6. Activate an alternative searching server if desired.

While Exalead is indexing the archive, there will be no mail in the index to be searched through. Depending on how much mail is in the archive, the indexing operation may take a very long time. To have the searching features of Retain available while the archive is processed, specify a separate searching server. In this case, it would be Lucene. The only downside to this operation is that any new mail added to the system during the indexing operation will not be added to the Lucene index, and will not be available to search until Exalead has finished and the search engine has been changed to Exalead.

7. After the settings are correct, type **"I understand"** and select **Save Migration Parameters**.
8. Restart Tomcat on the Retain Server system. When Tomcat starts back up, the settings will be cemented and the archive will be re-indexed into Exalead.
During the indexing process of Exalead, the statistics of the Retain Server Status and update page should rapidly increase. It is one way to monitor the progress of the migration. (The screen shot shown is before the migration is started.)

Welcome, admin | [About](#) | [Status & Updates](#) | [Logout](#)

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Migrate to GroupWise 8

Global Event Series

[Click Here For All The Details](#)

System Status

Jobs Workers **Server** Updates

Server

Index Migration in Progress	false
SQL Server	OK
Server	RetainServer (FXROPPHOTTTI)
Stored EMails	0
Engine	standard
Server started at:	10-Mar-2010 14:00:11
Archived since server started (total/dupes/new)	0 / 0 / 0
Server errors	0

Installation time	08-Mar-2010 15:10:53
Enable Address Book Caching	Yes
Last Address Book Cache	08-Mar-2010 15:13:43
Enable Index Optimization	Yes
Last Index Optimization	Never

Total documents ever indexed	19897
Total emails in memory queue awaiting indexing	0
Total documents indexed so far since uptime	0
Total emails indexed so far since uptime	0
Total emails with indexing errors since uptime	0
Total emails with items skipped (*) since uptime	0
Last item indexed at	Never

9. When the migration complete email arrives, return to the Migration Steps page and unselect the **Migration is in progress** setting, type **I understand**, and **Save Migration Parameters**.

Migration Parameters

☐ Migration is in progress?

☐ Activate an alternative searching server?

Searching Server should be

☒ Send an e-mail when migration is completed?

Comma delimited list of e-mail recipients

Type "I understand". This is required to save the form, and is for your protection:

[Save Migration Parameters](#)

Even though Lucene has been unselected, it will still exist with all the indexes until removed. Again, Re-indexing may take a long time depending on the hardware of the Exalead system, the size of the archive, and the speed of the connecting network. Allow for plenty of time for the indexing to be performed. Time may range from several days to several weeks for extremely large systems.

Once it has been determined that Lucene is no longer wanted or needed as a backup for the system, to save system disk space, the Lucene index should be removed from the system. This is not a necessary step, though it does free up system disk space that currently holds duplicate data that now resides in the more robust Exalead system.

To remove the Lucene Indexes, login as admin to the Retain Server, open a new window or tab, and browse to http://Retain_Server_Address/RetainServer/Util/luceneDelete.jsp to remove the users one by one according to UUID. The lucene delete page is also linked from the **Indexer Reset** page. To manually delete the Lucene indexes, remove the contents of the <storage area>/index directory. There should also be a copy of the index directory in the backup folder of the storage area. This measure is not required.