GWAVA Inc.

GWAVA Retain

Administration and User Guide

Version 3.3.0.0

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Important Notes and New Features

Automated Rules

Retain has added the ability to automatically administer tags and actions to message data based on criteria, helping reduce the amount of time needed to administer the message store and keep data private, confidential, or managed.

6

Improved Mobile Support

Retain now uses the Retain Router which improves control and handling of the message data gathered by the mobile system. The Retain Router ensures that message data is kept with the owning company and is under their control as soon as it is collected.

New User Right

The 'See confidential Items [Other Mailboxes]' right has been added in response to the 'Confidential' tag added to the Retain system. This tag and right allows message data to be open and accessible to all those who need to have access, while protecting delicate information such as Social Security Numbers, payment, or other private information.

Existing Administrators will want to ensure that the appropriate users have this right granted as it will not automatically be granted to existing administrators.

Mobile Device Management

Device Management has been improved with greater abilities to search, select, and manage devices in the system.

Search Messages

The Search Messages interface has new 'Scope' items to improve the management of the message archive. The GroupWise and Android and Blackberry phone calls have been separated. 'Phone Messages' now refers to only GroupWise phone message data, while 'Phone Call' items are exclusive to collected Android and Blackberry phone call records.

Post-Install Tasks

After running through the initial install guide for your OS, you are ready to configure Retain. From this point on, Retain works the same regardless which platform it is running on.

To get Retain ready for regular use, some final one-time procedures need to be run.

- Retain Server needs to be configured.
- Configure the relevant module(s).
- > At least one Retain Worker needs to be configured.

Initial Setup Overview

- 1) Choose your storage path.
- 2) Retain prompts you for access information to your SQL Database Server.
 - You must create this database beforehand. (See install document appendix for documentation for the supported SQL servers.)
 - Retain creates the tables, indexes, and prepares the database for use.

You will be prompted to provide SQL connection information for both the configuration and message store databases. For convenience and simplicity most installations store this information in the same database. The database(s) will be used to store Retain configuration, cached address books, and all saved message data.

- 3) Create an administrator account with the default username, admin. It is the first account to be created.
 - This account is special:
 - It has ALL admin rights
 - It never expires
 - It always uses "offline authentication", (authenticates using a password stored in the SQL configuration database).
 - Additional accounts can be created as desired with as many rights as you wish. User accounts may possess a mixture of administrator level and user level rights. As a result, users may have some admin level rights, but would not be considered an administrator.
- 4) Retain prompts you for the following SMTP information for notification and forwarding. (If no SMTP is present, this step may be skipped by typing the word 'skip' in the SMTP field.)

DNS host names are generally recommended instead of IP Addresses in almost all cases due to ease in central management and repair if a server moves or is replaced. \circ $\;$ SMTP Server to use for sending messages. (DNS or IP) (use DNS whenever possible)

 $\circ~$ From address. Enter the address that you want to appear in the "From" field on the messages Retain sends.

 \circ $\;$ To address. Enter the address to which Retain will send notification.

 \circ $\:$ Username: Enter the username to use for authentication with the SMTP server for relaying mail.

• Password: Enter the password for this username.

5) Select the indexing engine. There are two different indexing engines available for use with Retain: Lucene and Exalead. Exalead is to be used with larger systems and requires a separate dedicated server. Lucene is a high performance embedded indexer, which requires fewer servers, but is more memory intensive and does not offer high availability features. Please see the install guides and system requirements for more information on which is appropriate and should be used. Exalead is priced separately; see your appropriate sales representative.

After initial setup, configuration of a module and creation of a profile, schedule, worker, and job are required before messages can be archived.

GWAVA Retain Initial Setup

- 1) Open your web browser.
- Go to http://<your-RetainServer-ip>/RetainServer
 Follow the wizard. You will see this screen initially:

🗯 Retain		
File Paths Message Store Database Configuration Database Administrator Account		Welcome to GWAVA Retain This wizard will guide you through the initial configuration of Retain. • Storage Path • Message Store Database
SMTP Notification	00	Configuration Database Set Administrator Password ShITP Notification Indexing Engine
		During each step, details will be provided to help guide you. File Path A storage path is required for Retain, under which indexes, attachments, backups is stored. The wizard will attempt to create the directory if it does not exist. If you receive an error, check the rights you granted to your Torncat application. Storage Path Nariopt/beginfinite/retain Advanced Settings If you are planning to use the standard engine or the NetApp engine, this path should point to a storage device with sufficient (significant) disk space. You may use mapped drives, UNC format, etc. For all engines except the standard engine (including NetApp), you'll need to perform additional configuration steps in the Storage Engine section of the main administrative interface, after completing the wizard.
		Continue

Please pay special attention to the Storage Path and the Advanced Settings (see <u>next page</u>). For descriptions of the different engines, see the <u>Storage Manager</u> section. If you select a storage system that is not local, be sure to visit the <u>Storage Manager</u> after the initial setup to ensure that all information has been provided.

- 4) You are now ready to start your initial Retain configuration. Specify a storage path for Retain. Accept the default path unless you have a reason to choose a different one. See the next page for an important note about storage paths. If you are specifying a custom storage path, Retain must have rights to the location. For Linux instructions see *Custom Storage Path Rights*, at the end of the Linux install guide.
- 5) Click "Continue".

About Storage Paths

Retain was designed to be very flexible in allowing you to choose where the data will be stored. Choosing the right hardware and software storage combination is crucial. Storage itself is a function of the operating system and hardware you choose.

As storage needs approach enterprise levels, the need to specify your data storage locations becomes more critical. Some hardware and operating systems have a hard limit of 2 Terabytes, for instance. In situations like these, a SAN might be a good choice for consideration. (Please visit the <u>Storage Manager</u> section to view options for different SAN systems.) Either way, it's imperative that you take the time to investigate your storage needs BEFORE you begin.

When choosing your storage system, bear in mind the following considerations:

- > 2 TB limit. Will storage needs ever exceed this?
- > OS Version and kernel to support the storage system of your choice.
- File system and partitioning.
- ➢ Is a SAN right for you?
- Speed and reliability.
- Backup/restore is your responsibility.

Advanced Storage Options

For this reason, Retain offers the advanced storage options. (Located under Server Configuration.) You can specify where you want Retain to store its information.

Storage					
The storage path is	where indices and archives are	stored. It should be on a bi	nhlv reliable storage devic	e, with plenty of disk spa	CP.
ine storage pour s			gin, reacting a serie	al mer party or and ap	
Advanced Settings	/var/opt/beginfinite/retain				
Advanced Settings					
For more advanced	scenarios, some paths may be a	ssigned to one device and	some to another.		
Derive all file location	ons from above base path? 🗹				
Encryption none	~				
Compression (alway	ys on)				

By default, all data is stored under one master path, specified in the Storage section. From the Retain Server main screen, you can also find this under Server Configuration under the Index/Storage tab. If you wish to specify your storage locations in more detail, click on the "Advanced Settings".

Advanced Settings /var/opt/begintin	ite/retain	
Advanced Settings		
For more advanced scenarios, some p Derive all file locations from above ba	aths may be assigned to one device and some to se path? \Box	another.
Store attachments under this path	/var/opt/beginfinite/retain/archive	
Store xml mappings under this path	/var/opt/beginfinite/retain/xml	
Change of the state of the stat	/var/opt/beginfinite/retain/index	
Store index files under this path		
Store index files under this path Store Embedded DB under this path	/var/opt/beginfinite/retain/ebdb	
Store index files under this path Store Embedded DB under this path Store backups under this path	/var/opt/beginfinite/retain/ebdb /var/opt/beginfinite/retain/backup	

These fields are automatically populated if you only specify the main storage path. You may change them to point anywhere you wish. You may also change the storage locations later due to storage space needs. Please see the <u>Partitions</u> section for details. You also specify to encrypt the data as it's stored.

We strongly recommend for performance and recoverability that you do NOT encrypt using Retain but consider Block level encryption options (such as BitLocker) that have escrow keys and are processed directly at the operating system level.



Database Setup

Potain				
Reidin				
File Paths	\bigcirc	Welcome to GWAVA Ret	tain	
Message Store Database	\bigcirc	This wizard will guide you through the initial confid	puration of Retain.	
Configuration Database	\bigcirc	Storage Path		
Administrator Account		Message Store Database Configuration Database		
SMTP Notification		Set Administrator Password		
Indexing Engine		Indexing Engine		
		During each step, details will be provided to help	guide you.	
		Message Store Database Connection Parame	ters	
		To successfully create the tables the database s	server must be running with the retain data	abase created, and permissions for that database granted to a user. Be sure to specify:
		Driver: Type of Database Server. MySQL 5	5.0/5.1/5.5, Oracle 10 and 11, MS SQL Sen	ver 2005/2008, and PostGres 9.0+ are supported. MySQL 4.x will NOT work correctly. If using
		 MySQL 5, make sure you install the lates Database Server: If the database server 	t version - even minor revisions contain si r is not running on the same machine as	ignificant bug fixes and performance enhancements. Retain, change localhost to the IP address or host name of the machine. (Preferably a DNS
		 host name.) Including :port is legal synta Database Name: Name of the database 	x (e.g.: 192.168.2.31:3306); if not supplied you have created for Retain to use.	d, default ports will be used.
		 Username: Username with full rights to the servers require specific settings or rights 	the database. We recommend that you cre s to connect locally (same box setup) vs. R	eate a specific user with rights only to the "retain" database. Also, remember that many database
		 Password: Password for access. 		
		Warning: If you have not setup the database acc	cording to the documentation, irreparable of	corruption to your data is likely to occur.
		Driver:	MySQL 5.0,5.1,5.5	•
		Database Server:	localhost	
		Database Name:	retain	
		DB Instance (MSSQL only):	default	
		DB Username:	root	
		DB Password:		
		If you are running MySQL, we also need the data	abase server root username/password for	r the initial setup. This will not be stored.
		DB ROOT Username:	root	
		DB ROOT Password:		
		Castinus		
		Conunue		

6) Next, this screen appears for entering the database connection parameters. This is the same information from the database created during the preparation phase. (See Install guide) The connection information must be supplied for both the storage and Configuration databases, though they can be housed in the same database. Assumed default is shown.

Potain			
File Paths	0	Welcome to GWAVA Retain	
Message Store Database		This wizard will quide you through the initial configuration of Retain	
Configuration Database		Storage Path	
Administrator Account		Message Store Database Configuration Database	
SMTP Notification		Set Administrator Password Set MTR Netficients	
Indexing Engine	\bigcirc	Indexing Engine	
		During each step, details will be provided to help guide you.	
		Message Store Database Connection Parameters	
		To successfully create the tables the database server must be runnin	ig with the retain database created, and permissions for that database granted to a user. Be sure to specify:
		Driver: Type of Database Server. MySQL 5.0/5.1/5.5, Oracle 10	and 11, MS SQL Server 2005/2008, and PostGres 9.0+ are supported. MySQL 4.x will NOT work correctly. If using
		 MySQL 5, make sure you install the latest version - even mino Database Server: If the database server is not running on the 	r revisions contain significant bug fixes and performance enhancements. e same machine as Retain, change localhost to the IP address or host name of the machine. (Preferably a DNS
		 host name.) Including :port is legal syntax (e.g.: 192.168.2.31: Database Name: Name of the database you have created for 	3306); if not supplied, default ports will be used. Retain to use.
		 Username: Username with full rights to the database. We rec servers require specific settings or rights to connect locally (s) 	commend that you create a specific user with rights only to the "retain" database. Also, remember that many database ame box setup) vs. REMOTELY (multibox setup).
		 Password: Password for access. 	
		Warning: If you have not setup the database according to the docume	entation, irreparable corruption to your data is likely to occur.
		Driver:	MySQL 5.0,5.1,5.5 -
		Database Server:	MySGL 5.0,5,1,5,5 MS SQL 2005,2008
		Database Name:	Oracle 10,11 Postgres 9.0,9.1
		DB I Isemame:	
		DB Password:	
		If you are running MySQL, we also need the database server root use	ername/password for the initial setup. This will not be stored.
		DB ROOT Reseword:	root
		DENCOTT DEWOLD.	
		Continue	

10

7) Now, supply a password for Retain's administrator account (admin). Do not forget what you choose here! (Use the <u>Recover Admin</u> utility if you have lost the administrator password.)

🗮 Retain		
File Paths Message Store Database Configuration Database Administrator Account SMTP Notification Indexing Engine Trusted Application Setup SOAP Connection	000000000000000000000000000000000000000	Welcome to GWAVA Retain This witzard will guide you through the initial configuration of Retain. • Storage Path • Message Store Database • Configuration Database • Configuration Database • SetAdministrator Password • SetAdministrator Passwor
		Administrator Account This administrator account will be needed for full access to Retain. You may also create additional administrators once this setup wizard has completed. Keep this password secure and safe, and consider creating a backup administrator account. (If you do lose the account password, a utility is available to create a new account, in the Tools folder of your installation package) Login Name: admin Password: ••••• Continue Continue

NOTE: Retain allows the creation of many user accounts that share administrative roles. The initial account created is not particularly special; it's merely a convenience to create one "super user" with all of the Administrative rights granted. DO NOT delete this account. If the admin account is deleted, please contact support or refer to the <u>Recover Admin</u> tool to restore a full administrator account.

8) Enter the information for an SMTP relay host that Retain will use to send mail. Setup will attempt to send a test message. You cannot proceed with installation until the SMTP test message is successfully delivered. If you see an error, check firewall settings, (including local desktop/server firewalls such as McAfee, Symantec, and SUSE).

😹 Retain	
File Paths 📀 V	Welcome to GWAVA Retain
Message Store Database Son Configuration Database Administrator Account SMTP Notification SMTP Notification SMTP Rotification SMTP Notification SMTP Notific	his wizard will guide you through the initial configuration of Retain. Storage Path Message Store Database Configuration Database Set Administrator Password SMTP Notification Indexing Engine Nuring each step, details will be provided to help guide you. SMTP Notification SMTP Notification is used for sending you progress reports, and also is used whenever a user forwards a message from Retain. Below, you configure the defaults. These can be overridden on a per-job basis. Most of these entries are self-explanatory. The TO is used for job notifications, not for forwarding. The SMTP user and password are used for relaying —which you may not need for job notifications, but you will need it if you want to permit forwarding outside your internet domain. SMTP Mail From Address (e.g. retain@yourcompany.com); RITP Isername: SMTP Dassword: SMTP Dassword: Continue

9) Index Engine Selection

😹 Retain	
File Paths Message Store Database	Welcome to GWAVA Retain This wizard will guide you through the initial configuration of Retain.
Configuration Database Administrator Account SMTP Notification	Storage Path Message Store Database Configuration Database Set Administrator Password SMTP Notification
Indexing Engine	 Indexing Engine During each step, details will be provided to help guide you.
	Step 5: Indexing Engine You now need to specify an Indexing Engine to use. This is an important choice, as your decision affects the scalability, hardware requirements, and capabilities of Retain. We strongly recommend you read the user manual and consider your options. Although it is possible to switch indexing engines, doing so requires rebuilding the entire index store, which can be an intensive and extremely lengthy process and should not be undertaken lightly.
	 Here is a brief summary of the Indexing Engines provided: 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 an oroce decicated 64-bit servers (quad core recommended), with at least 160b RAM. Requires an installation process. Recommended for medium to large customers, as well as organizations that need advanced searching, exporting, availability functions.
	Indexing Engine: Choose one of the listed engines Choose one of the listed engines Exalead Lucene

- Lucene is the default indexing engine, and is included in Retain. It is well suited for smaller installations and requires no further configuration or management.
- Exalead is a more robust and powerful search engine, providing high availability and clustering features, as well as more advanced search operations. It requires additional hardware, as well as an additional license, which you may obtain from your sales representative. Exalead should not be installed on the same server where Retain server is installed.

If you wish to use Exalead at this point, it MUST be installed and configured before this step is completed. If selecting Exalead, provide the IP address or DNS name of the Exalead server and the active base port.

e Paths 🔗 We Issage Store Database 🔗 This w Infiguration Database 🔗 •	Icome to GWAVA Retain
ITP Notification	Storage Path Message Store Database Configuration Database Set Administrator Password
fexing Engine Source During During The ini Exchar synchr Com	SMTP Notification Indexing Engine each step, details will be provided to help guide you. tial setup is complete. After you login, you will need to go to Module Configuration and configure your individual compliance solutions (GroupWise, ige, etc.). Afterwards, we recommend that you run all of the Test Connection options in the individual modules, and then do a Address Book onization. Iplete

Initial setup is now complete. Select the 'Complete' button to be presented with the login prompt.

Setting Up GWAVA Retain

Logging In

- 1) From your web browser, type: http://<YourServerIP/RetainServer
- 2) You'll be brought to the login screen:

🗮 Retain		
	Login	
	Language	English 🗸
(2/	

3) After you log in, you will see the main administration page: (Non administrators will only see the Search Interface.)

Overview		
Documentation		
ystem Log		
ata Collection	Status	_
	📔 🐝 Jobs 🕈 Workers 😻 Server \varTheta Updates	🗹 🏹
lanagement		
Isers	A second s	
roups	server	
	Index Migration in progress False	
onfiguration	SQL Server OK	
erver Configuration	server RetainServer (UTLWINCKLS111PSJ2FONSQG)	
odule Configuration	Stores Emais U	
orage Manager	Storage Engine datastore_process	
atistics Server Configuration	Server started at: 23-Jul-2012 11:10:41	
ensing	Archived since server started (tota/dupes/new): 0 / 0 / 0	
nodules configured. Use	Server errors 0	
ule Configuration.		
ast one license has expired	Installation time 23-Jul-2012 11:21:35	
ill be expiring soon.	Enable Index Optimization Yes	
	Last Index Optimization Never	
	Total documents ever indexed 0	
	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	
	Time to process last batch (ms) 0	
	Indexing thread alive True	
	(*) Items may be skipped in indexing for perfectly benign reasons, such as there being no handler for that specific type of file or the file being to knoe according to your settings in Server Configuration. Also, the ratio of documents to emails is indeterminate, but usually ranges from 1-2	D
		.
	4	- F

An informational screen is displayed, showing among other things the latest job activity, server health information, and software updates that are available.

Note: Only users possessing at least one administrative role will see the administrator's screen on login. Other users will be forwarded to the <u>Search Interface</u> (covered later).

Status and Updates

The status page has four different tabs which show the status of your system. The status page is set to display the tab that is deemed to require the most attention, or is deemed to hold the most important information at a given time. For instance, if an error has occurred, that tab will be shown, likewise the update tab will be shown by default if there is an update available. The tabs are discussed below.

The Server tab shows the basic status of the Server with the messages archived and maintenance information. The Workers tab shows the workers connected, and the status of each.

🐇 Jobs 🛛 💍 Workers	Server 🤅	Updates
Server		
Index Migration in progres	s	False
SQL Server		ОК
Server		RetainServer (GRZFZEOEQRNSETOAJSZYDYV
Stored EMails		0
Storage Engine		standard
Server started at:		15-Mar-2011 19:51:32
Archived since server start	ed (total/dupes/new	:0/0/0
Server errors		0
Installation time	12-Jan-2011 09:02:14	
Enable Index Optimization	Yes	
Last Index Optimization	11-Mar-2011 01:02:00	
Total documents ever inde	exed	45363
Total emails in memory qu	eue awaiting indexing	0
Total documents indexed	so far since uptime	0
Total emails indexed so fai	r since uptime	0
Total emails with indexing	errors since uptime	0

🕹 Jobs 🛛 👌 Workers		Server	6
Workers			
Worker	migrator		
Last contact	Never		
Last Job:			
Last job start:	Never		
Last job end:	Never		
Registered:	Never		
Total messages stored:	0		
Total mailboxes scanned:	0		
Worker	new wo	rker	
Last contact	15-Mar-2	2011 22:21:	26
Last Job:	new exc	hange	
Last job start:	15-Mar-2	2011 22:21:	27
Last job end:	15-Mar-2	2011 22:21:	30
Registered:	26-Jan-2	011 05:07:	25
Total messages stored:	18590		
Total mailboxes scanned:	7		

The Jobs page shows the jobs that are assigned to the

server and their status. You also can select the "show only active jobs" checkbox, and only jobs that are currently running will be displayed.

Jobs	
Show only active jobs	
Job	new exchange
Job running	No
Job began	15-Mar-2011 22:21:27
Job ended	15-Mar-2011 22:21:30
Time elapsed	0d : 0h : 0m
Next job time	Find
Last PO / Mailbox scanned	/
Total errors	0
Total mailboxes (job)	2
Total messages (job)	0
Total messages (lifetime)	0
lob	new job
Job running	No
Job began	03-Mar-2011 20:45:00
-	

Updates You have the latest build. Announcements The following releases are the newest for your system: Ourrent Release >>>	🐝 Jobs	ಿ Workers	Server	🤤 Updates
You have the latest build. Announcements The following releases are the newest for your system: Ourrent Release >>>	Undatos			
Announcements The following releases are the newest for your system:	Verificates			
Announcements The following releases are the newest for your system: Current Release >>>	You have t	ne latest build.		
Announcements The following releases are the newest for your system:				
Current Releases SNN SNN SNN SNN SNN SNN SNN SNN SNN SN	Announce	<u>ments</u>	a nowast for ve	ur avstana
	Current Rel	ease >>>	le newest for yo	our system:

The updates tab displays whether there is a later version of Retain available. This tab will be displayed by default only if there is a new update available.

If you are using Exalead as your indexing engine, you will see a 'Trigger Exalead Indexing' button on the 'Server' tab of the Status and Updates page. Selecting this button will force an immediate indexing run by Exalead.

🐇 Jobs 🖉 Workers	Server 🤇	Updates
Installation time	03-Jun-2010 10:2	6:22
Enable Address Book Caching	Yes	
Last Address Book Cache	03-Jun-2010 11:3	0:45
Enable Index Optimization	Yes	
Last Index Optimization	Never	
Total documents ever indexe	d	8423
Exalead internal queue		8423 Trigger Exalead Indexing
Total emails in memory queue	e awaiting indexing	0
Total documents indexed so	far since uptime	8423
Total emails indexed so far sin	ice uptime	1821
Total emails with indexing err	ors since uptime	0
Total emails with items skippe	ed (*) since uptime	772
Last item indexed at		03-Jun-2010 14:10:29
Time to process last hatch (m	(ar	660

After many messages are sent to the Exalead server for indexing, these items are queued. In some cases, there may be a noticeable delay in the processing of that queue, as other processes (such as searching) take high priority. To force an immediate indexing run, press this button.

Warning: Repeatedly using this button can overwhelm your Exalead server, and should NOT be necessary in normal operations.

Saving Changes

Retain uses a web interface for all administration, and is unaware of changes made on the webpage until the information is returned to the Server. To make sure you keep all changes you have made in the interface, select the "Save Changes" button to commit the change to the Server. When you make a change, the website is aware and you will see the 'Save Changes' button become colored at the top right of the screen:

About Status & Updates Logout				
Save Changes		æ	2	

When the "Save Changes" lights up, click on the disk icon to save any changes you have made on this screen otherwise your changes will be lost.

Notifications

Notifications are automatically sent to the administrator whenever data in Retain is moved. Moving data consists of system migration, exporting, forwarding, restoring, and publishing. By default, the address used is the address supplied during severs activation.

To spawn the notifications page, click on the 'Welcome' link at the top of the page.



When notifications are pending, the red flag on the mailbox is lifted.

Selecting the mailbox or welcome link opens a new notifications window.

Your Notifications	
Refresh Mark All Read Delete All	
When you perform actions such as forwarding, exporting, and restoring, you will receive notification messages here to let you know that the task has completed, and provide some information as to the succ	ess or failure of the task.
Today	
O PDF: Retain Export Job "" Completed 11:39	
01-Aug-2011	
PDF: Retain Export Job Completed 18.07	

The highlighted notifications are new, unread notifications and events. Selecting the event notification provides all the pertinent information regarding the event.

If there are any errors, a truncated error log is provided which details the error and the reason for the error.

Notification		×		
Retain Export Job Completed				
Your export job has completed	and is available for download.			
Document Title: Document Subtitle: Comments: Download Filename:	Export Set 01-Aug-2011 15:07:51			
Messages selected: Elapsed time (mm:ss): Page count:	2 00:04 12			
Errors processing message bodi Errors processing attachments:	es: 0 0			
www.g	vava.com + About GWAVA, Inc. + Powered by GWAVA Retain			
© 2010 GWAVA, Inc. All rights reserved.				
		11.		

Modules

Retain integrates and works with several different message systems. Data collection will not be available until one or more modules are configured for the Retain system.

<u>Note</u>: Depending on what license you have purchased for your Retain system, different modules may require an additional license. Check the <u>licensing</u> page to see what licenses you own. An Evaluation license, issued upon initial install, lasts 30 days and grants licenses for all modules

To configure a module, select the 'Module Configuration' page from the Configuration menu.



Each module link will open a new configuration window or tab. If the modules are not configured correctly, messages will not be collected. Profiles and Jobs are separated into module specific sections and no jobs can be configured without first configuring a module. Select the appropriate module(s) for your system by clicking on the module icon.

Certain settings or actions for both Exchange and GroupWise message systems must be configured before Retain can communicate with them. Make sure to complete or check the following changes and settings for each system before continuing. (Links lead to sections in the appendix.)

Mailbox Mapping Options

Mailbox mapping automates the merging of users' mailboxes that have both GroupWise and Exchange accounts, combining the GroupWise and Exchange archives under the same user in Retain. Retain merges the internal UID's of accounts to reflect the same user. After mailbox mapping has been activated, an immediate caching of the address books of both systems is required. Mailbox mapping is not permanent; however, "un-merging" must be performed manually via the Mailbox Merger / Splitter tool found on the 'bug' or 'about' screen. If a refresh of the mailboxes is not performed before users attempt to login or other activity is present on the server, the merge may fail, leaving extra entities created in the Retain archive which must be removed manually. Furthermore, the merge option is a once-off option. Please contact support for further options.

Mailbox Mapping Options
Mailbox Mapping Options
When running more than one email system, it is often desirable to automatically "map" two mailboxes from different email systems together.
Effectively, these two separate mailboxes become one virtual mailbox. Switching between the two is a simple matter of the user choosing the
mailbox from the current browse view. Also, rights to mailboxes become shared between the two, so the user need only log on as one mailbox
to have access to them all.
To achieve this, during address book caching, the administrator needs to have enabled at least one mailbox mapping option.
This must be enabled before the newly added email system is cached for the first time.
You may enable multiple address book mappings if you wish.
It is usually sufficient to enable mapping only for address book caching and only as a one-time procedure, unless both email systems will remain active. (For the latter case, enabling
for all processes, and for constant activity, is advised)
Mapping Enabled Never 👻
Last time mappings were used never Reset
If you enable the XML File mapping option, you must provide the full path to the XML file, including the filename.
XML File Path
Active Mappings
Match the E-Mail Addresses
Custom Description Class

To map one mail system to another, both message systems, Exchange and GroupWise, must be functioning and have the desired accounts created on the system which allows for identification of the different users.

Accounts may be matched via email address, display names, or specified by an administrator supplied XML file. The Address book MUST be refreshed immediately in order to merge the users. The merge will not complete unless the Address Book is cached afterwards, and the merge cannot be re-run.

How the merge runs depends on the different users in the local system. If both message systems are to remain active, with users being added and removed from the system, it will be necessary to have mailbox mapping on all the time. Merged addresses are also required for the GroupWise to Exchange migration to function.

Exchange Module

Retain supports:

- > A single forest Active Directory system, (Exchange and standard users)
- > An Exchange Resource Forest, (One Exchange Forest linked to one or multiple User Forests)
- > Office 365

Retain does NOT support multiple linked Exchange Forests. Ensure that the <u>Exchange settings</u> have been configured correctly before continuing the Exchange module setup.

The Exchange module must be configured in the Retain Server before any communication between Retain and an existing Exchange message system can occur. Open the Retain management page on the Retain Server, and select Module Configuration.

	; 🕑
Documentation	-
System Log After configuring a module, it is recommended you manually refresh the Address Book.	
Data Collection Refresh Address Book Sync job is not running at this time.	
Management	
Users Mailbox Mapping Options	
Groups	
Configuration	
Server Configuration Unconfigured Modules	
Module Configuration	
Storage Manager Storage Source Source Source Exchange	
Gaussies Server Comparation	
No modules configured. Use	
Module Configuration.	E
At least one license has expired Configure	
or will be expiring soon.	
Social Networking	
eth.	
Configure	

Select the 'Configure' option in the Exchange module. A new window or tab will open with the module configuration.

NOTE: Ensure that your Retain Server DNS is set to the same DNS server that your Exchange server uses. The Exchange module uses these DNS setting to auto discover critical information about Exchange stored in Active Directory and will not function correctly unless both systems are pointed to the same DNS server.

Core Settings

🔀 Ex	kchange Mo	odule					🚽 🖓	
								^
	Exchange specific to determine if th	information is conf ney apply to your sy	figured here. At a mi ystem.	inimum, the CORE SE	TTINGS and IMP	ERSONATION	tabs must be filled out completely. Then, examine each of the other tab	;
	Core Settings	Impersonation	Hosted Services	Exchange Forest	User Forests	Delegates		
	- Coro Sotting	-						
	core securitys	,						
	Normally all of t	hese entries should	d be enabled.					
	Enable / Enable /	Address Book Cachi	ing determines if this	module caches addr	ess book entries	from its directo	ory services during Maintenance.	
	If Enable	e Jobs is not enable	ed, no jobs pertainin	g to this module will	be sent to Work	ers.	crencedon system.	
	Enable Address	s Book Caching 📝						
	Enable	Authentication 🔽						
		Enable Jobs 📝						

Normally all of the checkboxes on this tab are always left selected. It is rare that you would ever deselect any of them. Two cases where you might would be troubleshooting, (as instructed by Technical Support), and retiring an old email system.

The Enable Address Book Caching function allows Retain to regularly cache the online email systems address book and synchronize it with Retain. This is critical for administration, authentication, and archiving purposes. It is recommended to cache the Address Book once every 24 hours to keep the Retain storage system up to date. By default, maintenance is set to cache the Address Book once every 24 hours.

The Enable Authentication checkbox determines if end-user authentication is performed when the user logs into Retain. If it is deselected, the Retain system will NOT authenticate the user against the email system and the user will not be able to log in unless another authentication method is enabled.

The Enable Jobs checkbox determines if configured data retrieval jobs are ever passed to the Worker. Even if the individual job is fully configured and enabled, if this checkbox is switched off, no jobs configured for this module will be processed.

Impersonation

If the Impersonation and Core Settings tabs are not completely configured with the correct information, the hosted system will not be archived correctly.

decennine in citey	apply to your syst	tem.	initiani, che conc se i	TINGS and IMPERSONATION tabs must be filled out completely. Then, examine each of the oth
Core Settings I	mpersonation	Hosted Services	Exchange Forest	User Forests Delegates
Impersonation –				
You will need to p	rovide this inform	ation regardless of	f whether you are archi	ving a hosted or on premise Exchange system.
You will need to p The impersonation Is mail enab Has imperso Delegation	rovide this inform user MUST fulfill Iled. onation rights grai rights must be gr	ation regardless of the following requ nted to all Exchan ranted to any Roor	f whether you are archi iirements: ge servers. m or Equipment accour	ving a hosted or on premise Exchange system. ts that you wish to archive.
You will need to p The impersonation • Is mail enat • Has imperso • Delegation Global Catalon	rovide this inform user MUST fulfill led. unation rights gran rights must be gr g User user@fqdi	ation regardless of the following requ nted to all Exchan anted to any Room n.com	f whether you are archi uirements: ge servers. m or Equipment accour	ving a hosted or on premise Exchange system. ts that you wish to archive.

Hosted Services

If the Exchange system is a hosted service system, Retain must be configured to support the hosted system setup.

Setting up the system is no more taxing than setting up a normal system, though a hosted system requires that the Impersonation and Core Settings tabs are completely and correctly filled out. Other tabs are only applicable depending on the settings of the hosted system, configure as appropriate.

🔀 Exchange Mo	odule						
Exchange specific to determine if th	information is cont any apply to your s	figured here. At a mi ystem.	inimum, the CORE SE	TTINGS and IMP	ERSONATION	I tabs must be filled out completely. Then, examine each of the other tabs	
Core Settings	Impersonation	Hosted Services	Exchange Forest	User Forests	Delegates		
Hosted Servin Archive support These s user ma If your s ignored	ts hosted Exchanguervices generally de nual before procee service DOES provio service DOES NOT .	e services such as Liv o NOT provide LDAP Iding). de LDAP access, unci provide LDAP access	re@Edu and Office36 access to their user heck the checkbox o ;, check the checkbox	5. You may igno store, therefore in this tab, and c x on this tab. Do	re this tab if yo you must main onfigure the it NOT configure	rou are not using such services. ntain a list of user accounts manually, using a Powershell script (see the tems in the Exchange Forest and User Forest tabs. re the Exchange Forest, User Forest, and Delegates tabs - they will be	
I am using a he	osted Exchange sys	stem 🔲					

Mark the checkbox to enable Retain support for hosted Exchange services.

IF the hosted system in use is an Office 365 system, further configuration on the Office 365 system is required. Because Office 365 Exchange Servers do not directly expose LDAP information, a Powershell script must run periodically to cache user and group information.

The Script requires PowerShell 2.0. Without this script, you cannot run jobs on Office365, or authenticate users.

<u>Setup</u>

- 1. Install PowerShell 2.0 (not needed for Windows 7 or Windows Server 2008 R2)
- 2. Install the Office 365 PowerShell cmdlets
- 3. Allow PowerShell script execution
- 4. Adapt and execute the "sync365.ps1" script provided by GWAVA
- 5. Automate the script to run regularly
- 6. Place the two resulting csv files in Retain

1. Install PowerShell 2.0

The appropriate version for the Windows system can be found here: <u>http://www.microsoft.com/powershell</u>

Windows 7 and 2008 R2 already come with PowerShell 2.0 (Even if the version says 1.0, really it's 2.0)

2. Install the Office 365 PowerShell cmdlets

The cmdlets can be found here:

http://onlinehelp.microsoft.com/en-us/office365-enterprises/hh124998.aspx

Two setup files are needed from that page:

- Microsoft Online Services Sign-In Assistant
- > Microsoft Online Services Module for Windows PowerShell

Execute them both in above order.

3. Allow PowerShell script execution

The Default Execution Policy is set to restricted, it can be viewed by entering this command in PowerShell: Get-ExecutionPolicy

The script provided by GWAVA must be run in PowerShell while running under Administrator rights.

Set-ExecutionPolicy RemoteSigned

4. Adapt and execute the "sync365.ps1" script provided by GWAVA

Select the "sync365.ps1" script provided by GWAVA in Tools/Exchange/Office 365 folder.

Right click on the script and select "modify".

This will open the script in the Microsoft Integrated Scripting Environment (ISE) editor.

At the top you can find 3 settings: \$User, \$PlainPassword, \$ExportBasePath.

- Set \$User to the UPN of an administrator account in Office 365.
- Set \$PlainPassword to the plain text password of the administrator account.
- Set \$ExportBasePath to a directory where the two resulting csv files will be saved. If the path does not yet exist, it must be created manually as the directory will not be created automatically.

Keep in mind that your backslashes must be quoted, and a final backslash is not needed. Example: \$ExportBasePath="C:\\Temp"

Note: If it is unacceptable to set a password in clear text, please view the following solution:

<u>http://bsonposh.com/archives/338</u> -presents an alternative, which loads and saves encrypted credentials from file.

Execute the script by clicking the play button. This process can take a while for many users. Once the script has completed, a message indicating that the script is done should be displayed along the bottom status bar.

5. Automate it: to run automatically with Task Scheduler at least once a day

The method of automation is up to the administrator. However, the script needs to be run at least once a day, and, due to step 6, the files need to be copied to the Retain Server.

6. Get the files over to Retain Server

In Step 4 the ExportBasePath was set and should contain the two csv files. These files must be automatically copied to the RetainServer/WEB-INF/cfg directory once the script completes. That might require setting up a mapped network drive, or the acceptable solution for the local system. While the ExportBasePath may be mapped directly to the Retain Server, it is recommended to have the csv files copied afterwards.

Retain needs to know login information and existing domains before any archiving can be accomplished. Open the "Exchange Forest" tab and enter the login information.

core seconds	Impersonation	Hosted Services	Exchange Forest	User Forests	Delegates	
-Exchange Forest						
Janoro this tab i	f you are rup	aing a hostod sw	tom			
You MUST fill out	all of the entries	s on this tab if you	are running an on-pres	nice Evchange s	stem Hosted a	convices do not normally use this information
	ide the connec	tivity information fr	are running an on-pre	a user that has i	full access to Ar	tive Directory
Here are the spec	ific requirement	e for this user	and global catalog, and			
The user a	ccount must fu	If all the requirement	ents specified on the I	mpersonation tab	. In fact you er	nter the username and password on that tab. not here.
 Has read-or 	nly access to all	parts of Active Dire	ectory involving the Ex	change System a	nd users.	
You also provide a	list of Active D	irectory DNs to sea	rch for users and group	DS.		
Global Catalog	Host 192.168.	.1.120				
Global Catalog	Port 3268					
Global Catalog Se	curity Plain Text	•				
Add :	Search Base (e. p, dc=company	g. dc=users,dc=co , dc=com	mpany,dc=com)			

Retain uses Active Directory extensively when integrating with Exchange. Its uses include: populating the address book, authentication, and access to the Exchange System.

There are settings required for Exchange, see the Exchange settings section in the appendix.

On the Exchange Forest tab, you configure all of the Active Directory information you need for an Exchange forest. There is no need to fill out any information on the User Forest tab unless the users exist in a separate forest from the Exchange Forest.

On the Exchange Forest tab, specify whether to use SSL or not for the Global Catalog Security, (strongly recommended), and the "search base". The search base is the LDAP path to the base of where Retain will start searching for valid Exchange users.

The Global Catalog Port defaults depend on whether SSL is used for security or not. SSL is STRONGLY recommended. (Default ports are 3268 for plain text, and 3269 for SSL.) Adjust as appropriate for your system.

24

You also must provide the credentials of an Active Directory user. This user is "special" It must have full read rights to Active Directory, be a mailbox-enabled, user, and be granted various Impersonation and Delegation rights. More on this is discussed in the <u>Exchange settings</u> section in the appendix. The username MUST be in UPN format, (user principal name).

This search base, in LDAP form, must be "high enough" in the tree to include ALL users, groups, and servers. Multiple search bases can be specified, though it often results in a less efficient interface. These are LDAP search bases which allow Retain to resolve all users, groups, and servers of interest in the forest.

After the Search Base has been added, test the connection to ensure information and connection works. The test performs a simple login to confirm that the user exists, the Exchange Server is reachable, and that the credentials are accepted. The test does not confirm impersonation or delegation rights necessary for the Service Account.



If the test results in an error stating: "FAILURE: User doesn't exist or is not mail enabled," It indicates that the user's mailbox is unavailable. A mailbox is not required for Retain to utilize the specified user. If the user Retain utilizes does not have a mailbox, this error may be ignored. However, if the user specified does have a mailbox, this may indicate connection issues.

The Exchange Forest tab is the only tab required by the Server and the Worker to archive mail from the Exchange system. The User Forest tab, however, is required for Exchange systems utilizing a resource forest, to allow the end user to log into Retain.

Recourse Forest
Resource Forest
Select this checkbox if Exchange is running in a dedicated resource forest. You must then fill out information on the User Forests tab. If this checkbox is not selected, information on the User Forests tab is ignored.
Enable Resource Forest

If the system contains a Resource Forest, enable the checkbox on the Exchange Forest tab and save changes. If the Resource Forest checkbox is not enabled, the User Forests tab will be non-functional and all settings contained on that tab will be ignored. The checkbox must be unchecked in a single forest Active Directory deployment, but must be checked in a multiple forest Active Directory deployment.

Check all information to ensure that it is correct and save changes, and then configure the User Forest if required.

	iey apply to your sy	figured here. At a i ystem.	minimum, the CORE SE	TTINGS and IMPE	RSONATION	tabs must be filled out completely. Then, examine each of the ot
Core Settings	Impersonation	Hosted Services	Exchange Forest	User Forests	Delegates	
Ignore this ta	ab if you are runn	ning a hosted sys	tem.			
You need to lis Information on	ab if you are runr t every User Forest this tab is used on	ning a hosted sys t (dns name) that y ly for end-user aut	:tem. you will archive in Arch hentication.	ive, along with a G	lobal Catalog	of that forest, and search base(s) capable of resolving all users.
You need to lis You need to lis Information on Add Use	ab if you are runr it every User Forest this tab is used on r Forest	ning a hosted sys t (dns name) that t ly for end-user aut	i tem. you will archive in Arch hentication.	ive, along with a G	lobal Catalog	of that forest, and search base(s) capable of resolving all users.
Ignore this ta You need to lis Information on Add Use	ab if you are runr it every User Forest this tab is used on ir Forest rest b.company.c	ning a hosted sys t (dns name) that t (dns name) that t (dns name) that t (dns name) t (dns name	tem. you will archive in Arch hentication.	ive, along with a G	lobal Catalog	of that forest, and search base(s) capable of resolving all users.
You need to lis Information on Add Use User Fo Global Cat	ab if you are runr st every User Forest this tab is used on ar Forest rest b.company.c alog Host 192.168	ning a hosted sys t (dns name) that t ly for end-user aut tom 3.1.110	:tem. you will archive in Arch hentication.	ive, along with a G	lobal Catalog	of that forest, and search base(s) capable of resolving all users.
You need to lis Information on Add Use User Fo Global Cat Global Cat	ab if you are runn st every User Forest this tab is used on ir Forest rest b.company.c alog Host 192.168 alog Port 3269	ning a hosted sys t (dns name) that : ly for end-user aut com 3.1.110	:tem. you will archive in Arch hentication.	ive, along with a G	lobal Catalog	of that forest, and search base(s) capable of resolving all users.

The User Forest must have an entry for each user forest attached to the system. Select the green '+' button and input the LDAP information required by the Forests' Global Catalog server: IP address or hostname, port, security, (SSL is STRONGLY recommended), and all search bases to include all the users. No administrative credentials are required. Each end user's provided credentials will be used on login.

Save all changes before closing the Exchange Module page.

change Pro	odule								Save	Changes 🗜	12
Exchange specific to determine if th	information is conf ey apply to your sy	igured here. At a mi stem.	nimum, the CORE SE	TTINGS and IMPE	RSONATION	I tabs must	t be filled out co	mpletely. Th	en, examine e	ach of the ot	her tab
Core Settings	Impersonation	Hosted Services	Exchange Forest	User Forests	Delegates						
Core Settings	Impersonation	Hosted Services	Exchange Forest	User Forests	Delegates						
Delegates											
Ignore this ta	ıb if you are runn	ing a hosted syste	m.								
Ignore this ta Archive can para	ib if you are runn tially support the D Archive mailbox of tl	ing a hosted syste elegates feature in E ne first user. Please i	em. Exchange. If a user u note the rights are n	ses Outlook to gra ot granular in this	ant delegatio case - the se	on rights to econd use	o their mailbox to r either has full r	o another us ights or no ri	er, the second ghts to the Ar	user can hav	e
Ignore this ta Archive can para access to the A	Ib if you are runn tially support the D Archive mailbox of the	ing a hosted syste elegates feature in B ne first user. Please	m. Exchange. If a user u note the rights are n	ses Outlook to gra ot granular in this	ant delegatio case - the se	on rights to econd use) their mailbox t r either has full r	o another use ights or no ri	er, the second ghts to the Ar	user can hav chive mailbox.	9

After saving changes, return to the Retain server Module Configuration page, and trigger a refresh of the Address Book.



Depending on the size of the address book, it may take several minutes to return with information, but a successful configuration will return a correct address book cache date and no errors. The date should reflect the date of when the address book refresh was triggered.

The Status may show "Address Book Cache Never Run" or may list commonly misconfigured or missed items if the Refresh job fails.

Once the status is 'configured' and the Address Book has been cached, Retain can connect to and archive messages from the Exchange server. The system is ready to have workers, schedules, profiles, and jobs configured, and those options will now appear on the main administrative interface.

Social Messaging

The Social Messaging module allows Retain to archive Social Messaging communications from Facebook and Twitter. To configure the Social Messaging module, all that is required is to provide the connection information and address to the Retain for Social Messaging Gateway. If the RSM Gateway is not yet installed or available, a direct download link is provided on the last tab.

Connections to So	onnections to Social Messaging Gateway are configured here.								
Core Settings	Gateway	Download RSM OVA							
— Download RS	M OVA								
You need to do	wnload , inst	all and configure the Ref	tain for Social Messaging OVA, which contains the proxy services needed to capture social media information.						

The "Enable Jobs" box must be checked to have any jobs function against the RSM Gateway. See the Retain for Social Media installation guide for more information.

🔅 S	cial Messaging	1. 2
	Connections to Social Messaging Gateway are configured here.	A
	Core Settings Gateway Download RSM OVA	
	Core Settings	
	Normally all of these entries should be enabled.	
	 If Enable Jobs is not enabled, no jobs pertaining to this module will be sent to Workers. 	
	Enable Jobs 🗹	

On the Gateway tab, the connection information must be filled-out. Either place the host name or the IP Address of the RSM appliance and the connection port for the administration interface. Default is shown.

cial Mes	saging				
onnections t	Social Messagir	ng Gateway are co	onfigured here.		
Core Setting	s Gateway	Download RSM	OVA		
Connectio	n				
You must fi	out all of the e	ntries on this tab.			
You must fi Typically you	out all of the e	ntries on this tab. ormation necessa	ry to access the Social Messaging proxy		
You must fi Typically you Host	out all of the e provide the inf 27.0.0.1	ntries on this tab. ormation necessa	ry to access the Social Messaging proxy		
You must fi Typically you Host Port Security	out all of the e provide the inf 27.0.0.1 30 Plain Text -	ntries on this tab.	ry to access the Social Messaging proxy		
You must fi Typically you Host Port Security User	out all of the e provide the inf 27.0.0.1 30 Nain Text V	ntries on this tab.	ry to access the Social Messaging proxy		

Security and user login credentials are required to connect to the RSM. The user must have administration rights to gather data from the Gateway. By default the user account is 'tech' with the password 'retain'.

Save changes and the module is configured.

Google Apps Module

The Google Apps module allows Retain to archive Gmail data items from Gmail. To configure Retain for Gmail archiving, Retain needs Gmail to be configured to allow Retain access, and the appropriate information entered into Retain.

To Configure Gmail for Retain access, login to the Gmail Admin Control panel and select 'Advanced Tools.

Search Images Mail Drive Cale	ndar Sites Groups Contacts More - carl@
Google	Search accounts Search Help Center
Dashboard Organization 8	k users Groups Domain settings Reports Advanced tools Setup Support S
Advanced tools	
Create multiple users	Bulk upload Upload a CSV file to create and update many user accounts at once. Download Directory Sync If you have an on-premise LDAP directory server, you can use Google Apps Directory Sync to automatically in the Google Admin Control Panel. Google Apps Directory Sync is a client application that sets up rules for sync Directory, IBM Lotus Domino, and other LDAP servers with the Google Admin Control Panel. After creating yo synchronization on your command line interface.
Authentication	Set up single sign-on (SSO) SAML-based Single Sign-On (SSO) service allows you to authenticate user accounts for web based application Calendar). For desktop applications (like Google Talk or POP access to Gmail), your users must continue to s username and password set up via the Google Admin Control Panel Learn more Two-step verification Require verification when the user signs in from a new or unrecognized computer. Google sends a verification phone. Image: Allow users to turn on 2-step authentication Advanced Password Settings Allows you to control the length of passwords used with your domain, and monitor existing users' password st
	Manage OAuth domain key Allows administrators in your domain to access all user data without requiring the user's login credentials. (2)

Under the "Authentication" section select "Manage OAuth domain key"

Searc	h Images	Mail	Drive Ca	lendar Site	es Groups	Contacts M	ore -			
G	oogle	!	gwavaqa.I	mygbiz.com	1 - Google Ad Searc	min Control I h accounts	Panel Search	Help Center]	
D	ashboard	Org	anization	& users	Groups	Domain s	ettings	Reports	Advanced tools	Set
<u>«</u>	Back to Ad	vanced	tools							
	Manag	e OA	uth ke	y and s	ecret for	this dor	nain			
	OAuth	consu	mer key:	gwavaqa.	.mygbiz.com	Allows t	ble this co his key ar	onsumer key nd secret to be	used to generate OA	uth req
	OAuth co	onsume	r secret:		OYHPJnM0		Regene	erate OAuth c	onsumer secret	
	х	(.509 ce	rtificate:	We do not	t have a certi	ficate for your	domain.			
				Upload a File must	certificate: (C be in PEM fo	ptional) B rmat. <u>Learn N</u>	rowse lore			
	Tw	o-legge access	d OAuth s control	Allow The key a	access to all nd secret abo	APIs ove are able t	o access	any user's data	a for all Google Data /	APIs. <u>L</u>
				Save ch	nanges	Cancel				

Make note of the OAuth consumer secret and check the "Two-legged OAuth access control" checkbox to allow access to all APIs. This is how Retain will be able to access Gmail. Click "Save changes".

Click again on "Advanced tools", then on "Manage third party OAuth Client access"

Search Images Mail Drive C	alendar Sites Groups	Contacts More -					carl@gwavaqa
Google gwavaqa	a.mygbiz.com - Google Ac	Imin Control Panel th accounts Search	Help Center	J			
Dashboard Organizatio	n & users Groups	Domain settings	Reports	Advanced tools	Setup	Support	Settings
« Back to Advanced tools							
Manage API clier Developers can register the registered clients to access Authorized API clients	nt access eir web applications and ot s your user data without yo The following API clien	her API clients with Go ur users having to indiv t domains are registere	ogle to enable idually give co d with Google	access to data in Goo nsent or their passwo and authorized to acc	ogle services rds. <u>Learn mo</u> ess data for y	like Calendar <u>pre</u> your users.	. You can autho
Client Name Example: www.example.com	One or More API Scop	es oogle.com/calendar/fee	Authorize	elimited)	Ŀ	earn more ab	oout registering i
gwavaqa.mygbiz.com	Groups Provisioning User Provisioning (Re	(Read only) https://ap ead only) https://apps-	ps-apis.google apis.google.co	.com/a/feeds/group/# m/a/feeds/user/#read	readonly only		
gwavaqa.mygbiz.com	This client has access	to all APIs. <u>Learn more</u>					
	I	erms of Service - Billing	<mark>g terms</mark> - <u>Priva</u> 2012 Google Ii	cy policy - <u>Google Ho</u> nc.	me		

In the client Name field enter the name of the Gmail domain. In the "One or More API Scopes" field, enter this:

https://apps-apis.google.com/a/feeds/group/#readonly, https://apps-apis.google.com/a/feeds/user/#readonly

Click the "Authorize" button.

Once authorized, the Google Apps module can now be configured.

월 Google Apps
Connections to Google Apps are configured here.
Core Settings Settings
- Core Settings
Normally all of these entries should be enabled.
• If Enable Jobs is not enabled, no jobs pertaining to this module will be sent to Workers.
Enable Address Book Caching 🔽
Enable Authentication
Enable Jobs 🗹

Address book caching must be enabled to gather and maintain an updated list of users. Authentication is used to allow access to the Retain message store for users based on their existing Gmail account. If the Enable Jobs option is not enabled, no jobs may be completed with the Google Apps module.

Connections to Google Apps are configured here. Core Settings Settings Connection Vou must fill out all of the entries on this tab. Typically you provide the information necessary to access the Social Messaging proxy. Domain OAuthKey OAuthKey OAuthSecret Test Connection	Google Apps	Google Apps						
Connections to Google Apps are configured here. Core Settings Settings Connection You must fill out all of the entries on this tab. Typically you provide the information necessary to access the Social Messaging proxy. Domain OAuthKey OAuthSecret Test Connection								
Core Settings Settings Connection You must fill out all of the entries on this tab. Typically you provide the information necessary to access the Social Messaging proxy. Domain OAuthKey OAuthKey OAuthSecret Test Connection	Connections to G	oogle Apps are configured here.						
Connection You must fill out all of the entries on this tab. Typically you provide the information necessary to access the Social Messaging proxy. Domain OAuthKey OAuthSecret	Core Settings	Settings						
You must fill out all of the entries on this tab. Typically you provide the information necessary to access the Social Messaging proxy. Domain OAuthKey OAuthKey Test Connection	Connection							
You must fill out all of the entries on this tab. Typically you provide the information necessary to access the Social Messaging proxy. Domain OAuthKey OAuthSecret Test Connection	connection							
Typically you provide the information necessary to access the Social Messaging proxy. Domain	You must fill ou	it all of the entries on this tab.						
Domain	Typically you pr	ovide the information necessary to access the Social Messaging proxy.						
OAuthKey OAuthSecret Test Connection	Deserte							
OAuthSecret Test Connection	Domain							
OAuthSecret Test Connection	OAuthKey							
Test Connection	OAuthSecret							
Test Connection								
	Test Connect							

In order to connect to the Google system, Retain requires the domain and administrator login information. Retain archives the Gmail system through IMAP, and will login and download the message data to the Retain data store.

Test the connection to ensure that the configuration has been completed correctly.

Jobs and profiles for Gmail will not be visible until the address book has been cached. After the module has been cached, all configuration options for profiles, workers, schedules, jobs and data storage will be enabled and visible.

Mobile Module

The Retain for Mobile module allows the capture and archiving of MMS, SMS, and phone call information from Android smartphones. (Android 2.2.2+ is supported.) To enable mobile data archiving the following tasks must be completed, in order:

- 1. The Router must be installed and be available outside the host network. (in DMZ)
- 2. The Mobile Module must be configured, and a Mobile worker created.
- 3. The Retain Android application must be installed to users' phones.
- 4. Devices must be registered under 'Device Management'.
- 5. Users must use the registration email to verify device registration with the GWAVA server.
- 6. The data path folder(s) must be manually created.

The Retain Router should be installed in the DMZ area of the host network. The Router must be available to the internet and the Retain Server. The Router and Worker may be installed on the same machine, or apart, however both the Router and the Worker must have access to the Data Path location. If they are not to be installed on the same machine, a mapped drive must be created to the location. See the install guides for more information.

The Retain.apk application is found in the Retain program installation folder in the

'.../Retain330/mobile/android' directory. Use your existing mobile device management system to distribute the APK to devices. (The application may take up to 15 minutes to receive configuration after it is registered. No data will be archived until the application is registered and configured.) The application sends collected information, approximately every hour, to GWAVA Inc. systems, where the organization's data is then directed to the corresponding Retain Server's router. As such, there are no schedules for the module.

Core Settings Provisioning	
here are three parts to setting up the Mobile Module: a Tenant ID, a Message Router, and the Retain Worker.	
 A Tenant ID was generated for your Retain system when this page was loaded. It is used to identify your s The Message Router receives the registration and data collection requests from the devices and forwards t A Retain Worker is used to process the data the Message Router collects from the devices. 	system during the registration and data collection processes. hem on to your Retain system.
Tenant ID	
The Tenant ID is used by Retain, the Message Router and the devices to verify the connections made to the R	etain system.
Tenant ID 61a1c88d-c9a7-418d-bfd1-b7a08f6544c4	
- Message Router EndPoint	
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config	guration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80 Security Plain Text -	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80 Security Plain Test • Base IIBI (sulfconfig	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80 Security Plain Text • Base URL /api/config	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80 Security Plain Text • Base URL /api/config	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80 Security Plain Text • Base URL /api/config Message Router Configuration	juration needs to be valid for connections from inside and outside the firew
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The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80 Security Plain Text • Base URL /api/config Message Router Configuration The Message Router needs to know where to store the device data that is processed by the Worker. Data Path	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80 Security Plain Test • Base URL /api/config Message Router Configuration The Message Router needs to know where to store the device data that is processed by the Worker. Data Path Message Router Logging Options	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80 Security Plain Text Base URL /api/config Message Router Configuration The Message Router needs to know where to store the device data that is processed by the Worker. Data Path Message Router Logging Options Logging Enabled	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80 Security Plain Text Base URL /apl/config Message Router Configuration The Message Router needs to know where to store the device data that is processed by the Worker. Data Path Message Router Logging Options Logging Enabled Log level Disgnostic	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Port B0 Security Plain Text Base URL /api/config Message Router Configuration The Message Router needs to know where to store the device data that is processed by the Worker. Data Path Message Router Logging Options Logging Enabled Log level Diagnostic Compress logs	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80 Security Plain Text Base URL /api/config Message Router Configuration The Message Router needs to know where to store the device data that is processed by the Worker. Data Path Message Router Logging Options Logging Enabled Imagenotic Compress logs Imagenotic Remove oid logs Imagenotic	juration needs to be valid for connections from inside and outside the firew
The Retain system and the mobile devices need to communicate with the Message Router. The endpoint config Host gwavamobility.appspot.com Port 80 Security Plain Text • Base URL /api/config - Message Router Configuration The Message Router needs to know where to store the device data that is processed by the Worker. Data Path - Message Router Logging Options Logging Enabled Log level Diagnostic • Compress logs Ø Remove old logs Ø When age exceeds (days) 10	juration needs to be valid for connections from inside and outside the firew

Host Name

The host name of the router endpoint must be accessible from outside the network. This is the connection information which GWAVA will use to deliver the mobile messages to the Retain Server. While an IP Address will work in this field, DNS is strongly recommended.

Data Path

The data path is the store location for messages received by the router, but not yet input into the Retain Server. This must be a location which the router will have constant and reliable access to. This location must also be accessible to the worker assigned to the router. A mapped drive will be required if the data path is not located on the same box as the mobile worker and mobile router. This path should be the path to the data directory from the Router, and should be absolute. Folders will not be created automatically. If the data path is being created on a Linux system, the ownership should be to mocat:tomcat. After entering the configuration, test the connection.

Provisioning options allow for automatic user accounts, and associated passwords mailed to the designated address. Defaults are shown.

🖗 Mobile			H 🗞
Core Settings Provisioning			
Provisioning			
 After you register a device in Device Manageme automatically registers itself. During the registration process, the adm will still be created and items stored, but In addition, if the account is newly creat for the account. The password cannot be 	nt, an email is sent out to the spec inistrator can allow automatic creati the administrator will have to manu ed, you can optionally email the adr e mailed if the user account already	fied user. The user then installs the mobile application, and on of user accounts. If this is not enabled, the address bool ally create user accounts and/or link them. ninistrator and/or user with the newly generated random pr exists, since Retain does not store passwords.	it k entries assword
Create user accounts automatically?			
Mail the password if a new account is created?			
Mail to whom	Both Administrators and User 🔹		
Note: The mail generated can be customized. P	lease see the User Manual for more	details.	

After the module configuration has been saved, a worker must be created to allow the information to be accepted into the Retain Server. The Mobile worker, Profile, and Device Management menu pages will not be available until the Mobile Module has been configured, and the configuration has been saved.

Worker

The Mobile worker is a special worker configuration which contacts the Retain Router with all the information it needs to function. This includes the configuration settings for the data path and connection information. In general, the Mobile Worker is configured the exact same as most workers in the Retain system, however there is one setting for the Mobile Worker which is specific to the Mobile Module; the data path. The data path is essential for the worker to function with the Mobile Module.

The mobile data is delivered to the Retain Server through a router service, which must be informed how to contact the Retain Server. While the Router is gathering information between jobs, the mobile data is stored. The stored location is specified by the data path. This is why the Router and the worker must

have direct and constant access to the data path; the data path stores the message data collected by the Router and retrieved by the Worker.

To ensure connection to both the data path and the Retain Server are correct, the Connection and the Module Specific tabs must be reviewed and configured. The Connection tab holds the connection address which the Retain Worker will use to contact the Retain Server. Depending on where the Server and the Worker are located in the network, and because the Worker may be installed alongside the Router in the DMZ, the connection information must be accurate to allow a clean connection to the Retain Server. An IP Address will work, but the DNS hostname of the Retain Server is also recognized and supported.

The port and address must be open or forwarded through security and firewalls from the Worker to the Server. In addition, the Retain Server will not accept connections without the password set here. The password is randomized and doesn't need to be changed. Set the correct information and move to the 'Module Specific' tab.

Polling	Logging	Connection	Module specific	Status	Bootstrap	
Server	Connectio	n				
The wor note tha your bro	ker will nee t you are s wser to rea	d to know how becifying the UR ch the Worker o	to connect to the s L from the point of r Server.	Server. It is view of the	highly recom Worker cor	mended that you use a DNS host name for the Host Name. It's important to itacting the Server, which may or may not match the URL you'd use from
For admi of settin	nistrators us g of the Re	sing the Reload i load Server, you	nterface, note the must know this pa	worker pass ssword.	sword assigne	d must be the same for each worker that contacts the Reload Server. As part
Serve	er Protocol	https 👻				
Server H	Host Name	127.0.0.1				
S	erver Port	443				
S	erver Path	/RetainServer/S	erver			
Worker	r Password	•••••	(Passwor	d is default)		
Note: C	hanging any	of these param	eters will require re	copying the	worker boot	strap file!

Under the Module Specific tab, the only field that applies to the Mobile Module is the field at the bottom marked 'Message Router'.

Message Router		
Messages received from the datafiles and how n	the mobile devices are stored in datafiles for the Worker to process and send up to finany days to keep the files.	Retain. The Worker needs to know the path to
Data Path		
Delete files after 0	days	

The path that the Worker will use to connect to the mobile Data directory should be placed here. This may be a mapped drive or a local path. The path should be absolute. The connection to the data directory is essential to the worker function, if this is unavailable or blocked, mobile jobs will fail. The worker will delete files after adding them to Retain according to the time frame listed. A setting of '0' will tell the worker to delete files immediately after importing them into the Retain Server.

Once the Mobile Worker has been configured, save the changes. Once the settings have been saved, the worker will be created, and the configuration saved to the bootstrap file. The bootstrap file must be uploaded to the Retain Worker before the Worker will function. Select the 'Download File' link to save the configuration file. Browse to the worker's page, (<u>http://<RetainWorkerIPAddress>/RetainWorker</u>), and upload the configuration file. Once uploaded, the worker automatically reads the configuration and checks with the Retain Server for jobs.

Polling	Logging	Connection	Module specific	Status	Bootstrap
Boot S	trap				
The Wo use a w	orker softwar eb browser t	e needs a specia to upload the file	al "bootstrap" config e. (http:// <retainv< th=""><th>guration file /orkeripAd</th><th>ile copied to its working directory before it can function correctly. You may copy it manually or ddress>/RetainWorker)</th></retainv<>	guration file /orkeripAd	ile copied to its working directory before it can function correctly. You may copy it manually or ddress>/RetainWorker)
Downloa	ad File				
Last dov Worker	wnloaded: ne ID: 81133f4	ever 7da1b4b05b84c	78518fb3f530		

Profile

The Mobile Profile allows the administrator to dictate what types of message data is collected from registered mobile devices. The profile is universal, and once configured works for the entire mobile system.

😹 Retain		Language English 🛛 🗸 🚱 Welcome, admin About Status	& Updates Logout
Overview	🝟 Profiles		6 🖓 🖯
Documentation Search Messages Audit Log System Log Statistics/Reporting	Profile Name Mobile Profile Core Settings Message Settings Miscellaneous		×
Data Collection Schedules Profiles GroupWise Exchange Social Messaging Mobile	Profile Functions Enable Archiving (store messages in Retain)		

The Mobile Profile is fairly straightforward. To enable message data collection for the mobile system, the profile must be activated.

Under Message Settings, the different types of messages which can be archived from Mobile devices are listed and configured. The message source and type are available for selection or exclusion.

Profile Name Mobile Profile
Core Settings Message Settings Miscellaneous
Item Type
By default, Retain stores every type of message. You can restrict this.
- Item Source
Messages are classified in one of these categories. You may restrict the storage of messages if desired.
Before the profile can be saved, some setting must change for the Retain Server to recognize that something needs to be saved. If no setting has been modified, toggle a setting to trigger the save changes icon to activate and then save the changes.

Profile Name Mobile Profile Core Settings Message Settings Miscellaneous Miscellaneous Miscellaneous Miscellaneous You can save disk space by restricting attachment storage. Image: Comparison of the storage of the stor

If changes are not saved, then the profile will not be saved. Jobs cannot be run unless the profile has been saved.

Once the module, worker, and profile have been configured, devices must be added through Device Management.

Device Management

Devices are added to and deleted from Retain through the Device Management interface. Multiple devices may be selected, and all selected devices remain selected until either action is taken, or the administrator has navigated away from the page.

Once a device is added to the interface, Retain creates an email which contains an activating link. Users need to open this email and follow the link on their mobile device. The link should be activated through the Retain application on the Android device. The activation email can be customized. The template this email is generated from is located in the file:

...\RetainServer\WEB-INF\classes\config\mobile\registeruser.html

The email sent to users may be customized, including any specific instructions for the organization, can be added or modified here, and all emails sent to users will contain information placed in this template. For information on customizing the registration email template, see <u>appendix I</u>.

When a user is sent an email, the Retain system creates a unique device and user identification key, and ties it to the organization from which it came, allowing the Retain system to 'route' the appropriate messages to the owning Retain Server. Devices which have installed the application and activated through the emailed link, will display in the Retain Server as 'registered', in that they will show a code, a device key, and a UID key. Once registered, device data including SMS, MMS, and phone call data will be archived in the Retain System.

Overview	🐞 Device Manag	jement				R
Documentation Search Messages Audit Log System Log Statistics/Reporting Data Collection Schedules ⊮ Profiles Workere	Before managing d Mobile devi Once adder The user sh Once the m Deleting a Note: User	evices, make sure the Mobile Mo ces can be added for existing Re J, an email with a registration lini ould open the email on the dev gistration completes, messages levice will stop the message flow provisioning options in the Mobili	dule, Worker, and Job are properly tain users or for a new user. will be sent to the user. ice and click the registration link. should flow from the device to the to Retain and un-register the dev e Module should be configured appi	r configured. e Message Router and then ice. ropriately to ensure user acc	to Retain. counts are created.	
∃ Jobs	💥 🛛 Delete Devi	ces Add Devices]		9	
Management	Device List					
Users	Enrollm	ent Code Display Name	EMail Address	Device ID	UID	
Groups	S24UGP	K Rick Liljenquist	rickl@qa.gwava.com			
Device Management						
Deletion Management						
Configuration Server Configuration Rules Configuration Module Configuration	Devices Selected:	0				

To add a device to the Retain system, open the Device Management window and select the 'Add Devices' button.

The Add Devices window opens, which allows administrators to select and add multiple users. The system may also add users which are not cached in the Retain system, but they must be added one at a time. Manually input the name and associated email address at the bottom and select the 'add user' button.

Add Devices for Existing Retain Users		
First Name begins with	Search Add Selecte	ed
System GroupWise Show only users 🔽 Show only	recently cached items	
Enter criteria to search the cached addressbook.		
udd Device for a New User		
udd Device for a New User		
Add Device for a New User	and Email Address:	
Add Device for a New User o add a device for a user not already in Retain, enter their name Display Name	and Email Address:	

Mobile Router Page

The Retain Router has its own webpage. This page can be used to test the connection to the Retain Server, as well as verify that communication is open and that devices registered in the Retain Server are listed in the Retain Router.

To access the Router page, open a browser and enter the connection URL. http://Retain_Router_IP_or_Domain/RetainRouter

For example: <u>http://192.168.1.21/RetainRouter</u>

The resulting page should look very similar to this:

🗯 Retai	n			
Message R	louter			
Router Time: 2:42:00	PM			
Retain Server:	http://10.1.26.26:480	080/RetainServer	Test Connection	
Tenant ID:	e950cc40-ef73-43bc	-b1f4-1cca53388ade		
Router data path:	/retain/mobile2			
Archive Inbound:	true			
Archive Outbound:	true			
Mobile License Exp	ired: false			
Daily Router Stats	SMS - Enabled	MMS - Enabled	Phone - Enabled	Total
2014-06-19	5	1	0	6
Device List	Device ID		E-Mail	
mother hydra	3decc634-cbf4-4af	7-b65e-5c1270838eaa	mother@mvtho	s.com
hastur hastur	81287c38-beff-4d6	0-8b2b-f824aae57af5	hastur@mythos	.com

Devices which are active are listed along with daily statistics. The daily statistics are reset every night, and full statistics are kept in the Retain Server.

This page is mainly an informational page.

GroupWise Module

The GroupWise module must be fully configured before Retain can archive or communicate with the GroupWise mail system. Retain must be provided with an IP address and port of a readily accessible Post Office (fast access), appropriate login credentials, and a trusted application key.

The GroupWise module page opens first with the Core Settings.

Core Settings

roupWise Module		l 🖓 🖓
Group vise specific information is o	onngured here. At a minimum, the CORE SETTINGS and SOAP tabs must filled out completely.	
Core Settings SOAP LDA	P Proxy	
Core Settings		
Manual and a fail and a state of a	date a sector a	
Normally all of these entries sho	ıld be enabled.	
Normally all of these entries sho • Enable Address Book Ca	ild be enabled. hing determines if this module caches address book entries from its directory services during Maintenance.	
Normally all of these entries sho Enable Address Book Ca Enable Authentication in P 76 Enable Authentication in	ild be enabled. hing determines if this module caches address book entries from its directory services during Maintenance. dicates if users logging into Retain should be able to use the module's authentication system.	
Normally all of these entries sho Enable Address Book Ca Enable Authentication in If Enable Jobs is not ena	ild be enabled. hing determines if this module caches address book entries from its directory services during Maintenance. dicates if users logging into Retain should be able to use the module's authentication system. Jed, no jobs pertaining to this module will be sent to Workers.	
Normally all of these entries sho Enable Address Book Ca Enable Authentication in If Enable Jobs is not ena Enable Address Book Caching?	uld be enabled. hing determines if this module caches address book entries from its directory services during Maintenance. dicates if users logging into Retain should be able to use the module's authentication system. Jed, no jobs pertaining to this module will be sent to Workers.	
Normally all of these entries sho Enable Address Book Ca Enable Authentication in If Enable Jobs is not ena Enable Address Book Caching? Enable Authentication?	uld be enabled. hing determines if this module caches address book entries from its directory services during Maintenance. dicates if users logging into Retain should be able to use the module's authentication system. Jed, no jobs pertaining to this module will be sent to Workers. V	

Normally all of the checkboxes on this tab are always left selected. It is rare that you would ever deselect any of them. Two cases where you might would be troubleshooting, (as instructed by Technical Support), and retiring an old email system.

The Enable Address Book Caching function allows Retain to regularly cache the online email systems address book and synchronize it with Retain. This is critical for administration, authentication, and archiving purposes. It is recommended to cache the Address Book once every 24 hours to keep the Retain storage system up to date. By default, maintenance is set to cache the Address Book once every 24 hours.

The Enable Authentication checkbox determines if end-user authentication is performed when the user logs into Retain. If it is deselected, the Retain system will NOT authenticate the user against the email system and the user will not be able to log in unless another authentication method is enabled.

The Enable Jobs checkbox determines if configured data retrieval jobs are ever passed to the Worker. Even if the individual job is fully configured and enabled, if this checkbox is switched off, no jobs configured for this module will be processed.

SOAP

Provide the POA Host Name and SOAP port. IP addresses are acceptable, but host names are preferred as IP addresses may change. SSL is supported, but comes at the price of speed, and will slow down the archiving process. Create a Trusted Application key for Retain, either manually from Console One for GroupWise 8.x and higher, or via the provided Key Generator provided and linked from the page. For instructions, see the trusted app key section in the appendix.

	odule			6
roupWise specifi	: informati	on is configured h	ere. At a minimum, the CORE SETTINGS and SOAP tabs must filled out completely.	
Core Settings	SOAP	LDAP Proxy		
Trusted Appli	ation Ke	y Generation		
Retain uses the	Trusted A	pplication feature	of GroupWise to access the user mailboxes. You must generate a trusted application key to continue.	
The Trusted Ap	plication k	ey generation req	guires a Windows machine with a connection to the GroupWise Primary Domain.	
Alternatively, G	oupWise {	3 SP1 and above in	include the ability to generate trusted applications on any platform running ConsoleOne.	
 Downloa Run the Paste the 	<mark>d the key</mark> key gener e key gen	generation applica ation application erated below	ation.	
Trusted I	(ey Name	Retain		
Trusted Applica	tion Key:	1274F00111E000	000A5BFEDA2F08107161274F00211E00000ADDCE493233A1E86	
-GroupWise SC	AP Acces	s		
Retain accesses POA Host Nam SOAP Por Enable SSL	the Group 192.168 t 7191 ?	oWise message sto 3.1.104	ore via the SOAP protocol which needs to be enabled at all Post Offices in ConsoleOne. Retain needs a initial default POA to gather the information	from.
Retain accesses POA Host Nam SOAP Por Enable SSL Test Connectio	the Group e 192.168 t 7191 ?	Wise message str 3.1.104 Tables	ore via the SOAP protocol which needs to be enabled at all Post Offices in ConsoleOne. Retain needs a initial default POA to gather the information	from.

The SOAP access information must be provided, and the connection tested and verified before the system can connect. After providing the required information, click the 'Test Connection' button. The results are displayed. A successful result must be reached before Retain can archive messages from GroupWise.



If mail server Redirection is required for mail servers which are not contained on the local WAN and must have the connection addresses manually specified, the appropriate information may be modified in the redirection table. Most installations will not require any modification.

LDAP

upwise module			2
oupWise specific information is configured here. At Core Settings SOAP LDAP Proxy	t a minimum, the CORE SETTINGS and SOAP tabs	must filled out completely.	
E-Mail Address Based Login			
If enabled, Retain can use the email address of the password. Most administrators do not need this fu users to login using their e-mail addresses it is requ	e user as an alternative to the mailbox login name. unctionality - the LDAP Authentication option in Gru uired.	An LDAP query will be performed, and the password will be matched against the LDAP directory upWise at the Post Office level largely duplicates this functionality. However, if you want to allow	
 The email address attribute in eDirectory is The Admin DN, and Search DN need to be 	s not indexed by default. For large trees, you may a in LDAP form, not eDirectory form. The Admin DI	want to index this field. Consult the user manual for details on how to do this. I should specify a user with rights to all properties in the LDAP Server.	
 The email address attribute in eDirectory is The Admin DN, and Search DN need to be Enable EMail Address lookup? 	a not indexed by default. For large trees, you may a in LDAP form, not eDirectory form. The Admin DI	want to index this field. Consult the user manual for details on how to do this. I should specify a user with rights to all properties in the LDAP Server.	
The email address attribute in eDirectory is The Admin DN, and Search DN need to be Enable EMail Address lookup? LDAP Server (DNS/IP)	s not indexed by default. For large trees, you may in LDAP form, not eDirectory form. The Admin DI	want to index this field. Consult the user manual for details on how to do this. I should specify a user with rights to all properties in the LDAP Server.	
The email address attribute in eDirectory is The Admin DN, and Search DN need to be Enable EMail Address lookup? LDAP Server (DNS/IP) LDAP Port (usually 389 or 636)	s not indexed by default. For large trees, you may in LDAP form, not eDirectory form. The Admin DI 127.0.0.1 389	want to index this field. Consult the user manual for details on how to do this. I should specify a user with rights to all properties in the LDAP Server.	
The email address attribute in eDirectory is The Admin DN, and Search DN need to be Enable EMail Address lookup? LDAP Server (DNS/IP) LDAP Port (usually 389 or 636) Use SSL?	s not indexed by default. For large trees, you may e in LDAP form, not eDirectory form. The Admin DI 127.0.0.1 389	want to index this field. Consult the user manual for details on how to do this. I should specify a user with rights to all properties in the LDAP Server.	
The email address attribute in eDirectory is The Admin DN, and Search DN need to be Enable EMail Address lookup? LDAP Server (DNS/IP) LDAP Port (usually 389 or 636) Use SSL? LDAP Admin User (e.g. cn=admin,o=beginfinite)	not indexed by default. For large trees, you may in LDAP form, not eDirectory form. The Admin DI 127.0.0.1 389 Cn=admin,o=beginfinte	want to index this field. Consult the user manual for details on how to do this. I should specify a user with rights to all properties in the LDAP Server.	
The email address attribute in eDirectory is The Admin DN, and Search DN need to be Enable EMail Address lookup? LDAP Server (DNS/IP) LDAP Port (usually 389 or 636) Use SSL? LDAP Admin User (e.g. cn=admin,o=beginfinite) Password for LDAP Admin User	not indexed by default. For large trees, you may in LDAP form, not eDirectory form. The Admin DI 127.0.0.1 389 Cn=admin,o=beginfinte	want to index this field. Consult the user manual for details on how to do this. I should specify a user with rights to all properties in the LDAP Server.	

LDAP may be used for individual users wishing to access their respective archives. If LDAP is setup and desired to be used for Retain user authentication, it must be fully configured in the GroupWise module.

Utilizing LDAP allows users to log into their respective archives using the user's full email address. This authentication requires that the email attribute be marked indexed in ConsoleOne.

Proxy

GroupWise Module			2	
GroupWise specific information is configured he Core Settings SOAP LDAP Proxy	re. At a minimum, the CORE SETTINGS and SOAP tabs must filled out completely.			4
Ргоху				
You may also enable or disable Proxy Suppo account, and the verification status is cache in Retain. A value of zero disables caching, b	t, which allows users to access mailboxes which they have proxy access to. For performance reasons, proxy access is verified when the user accesses ti d, for a period of days that you specify. This does mean that if the proxy access was revoked in GroupWise, several days may pass before access is revo ut is not recommended.	ne ked		
Enable support for Group Miss Brown				
Enable support for Groupwise Proxy				

Users who have been given proxy to another account in GroupWise may be granted access to proxy accounts in the Retain archive as well. For performance reasons, Retain caches proxy verifications for a period of days.(Default is '7' days.) Revocation of proxy access might not be reflected immediately in Retain. The caching period may be reduced or even disabled, (a value of '0' disables caching), but this is not recommended.

BlackBerry Module

The BlackBerry module allows the collection of BlackBerry phone data from the Enterprise server into the Retain system. BES 5.x and 10.x are supported. To archive the BlackBerry information, the BlackBerry Enterprise Server must be configured to log phone calls, PIN, BBM and SMS data. The server log files are what Retain uses to collect the information about phone activity, and as such no software or modification needs to be made to any system phones. If the BlackBerry server has not been configured to log the data, Retain will be unable to archive the information. For BES 5.x, instructions to modify the logging in the BlackBerry Enterprise Server can be found in the BlackBerry Enterprise Server help file. (Found under Start | Programs | BlackBerry Enterprise Server | Help | BlackBerry Manager Help)

For BES 10.x, users must be set on EMM – Regulated mode and have the logging set to 'yes' for all types desired. Balanced mode users will not have logs created for them in the BES system and as a result will not be archived.

Installing the BlackBerry Module is incredibly simple. Essentially, the module needs to be enabled and configured with the BES log file location. Afterwards, the data is treated the same as any other data entering the Retain archive. Data is archived in the database under the user/phone it originated from and can be searched and viewed through the Search Messages interface.

	BlackBerry
	Configure
Install Date	17-May-2013 15:24:02
Status	Configured.

To enable the BlackBerry Module, select the 'BlackBerry Module' from the module page and click 'configure'.

The BlackBerry module needs to be enabled on this page to make it active in the Retain system. Before data can be archived, the BES log file path must be provided.

ackBerry Enterprise Server	
IES specific information is configured here.	
Core Settings SMTP Connector	
Core Settings	
Normally all of these entries should be enabled.	
• If Enable Jobs is not enabled, no jobs pertaining to this module will be sent to Workers.	
Enable Jobs 🗸	
BlackBerry Enterprise Servers	
The Retain Worker needs to know where the BES log files are located.	
Add BlackBerry Enterprise Server	
Server Name BES10.1	

The log file location must be the address to the log files from the Blackberry Server. Regardless of where the worker is installed, local or remote to the Blackberry Server, it must have direct file access to the logs. This access can be accomplished through a shared folder or location, but it must be available to the Retain worker. Appropriate access through firewalls or network security must be made available if the worker is not installed on the BES system.

SMTP Connector

In order to allow the forwarding of BES items out of the Retain system, the Blackberry Module needs to be configured with an SMTP connector. This connector will provide an outlet into the mail system, for Blackberry data to be forwarded if desired.

BlackBerry Enterpr	ise Server	
BES specific information is o Core Settings SMTP (onfigured here.	
SMTP Connector		
An SMTP Mail Server only	needs to be defined when forwarding t	e BES items to an external system.
SMTP Mail Server	10.1.12.140	
SMTP Mail From Address	Retain320	
SMTP Mail To Address	retain@archive.qa.gwava.com	
SMTP Username		
SMTP Password		
Test Connection		

The amount of configuration necessary for the SMTP Connector depends on the specific setup of the SMTP system. If a username and password are required for the host SMTP system, then it must be provided. If it is not required, the configuration of the username and password is optional.

The address of the Mail Server, the SMTP Mail From Address, and the SMTP Mail To Address, must all be configured for the system to function correctly. The 'to' address is the destination address where the data will be forwarded to. The 'from' is the specified 'from' address.

In addition, the 'Enable SMTP Connector' option must be enabled in the 'jobs' configuration for the Blackberry section.

Archiving/Data Collection – About Workers, Profiles, Schedules, and Jobs

Getting data into the archive is the core functions of Retain. As such, sub-functions have been broken out to give you as much flexibility as possible in deciding your archive policy. Your archiving policy will cover several points:

- What to archive (jobs)
 - Includes what message server(s) to collect data from.
- What worker
- When will the data be collected (schedule)
- How to collect the data will cover (profile)
 - \circ Types of items or users to archive.
 - Date range of items to be archived.
 - Avoiding redundant data collection.
 - Utilizing storage flags to achieve 100% retention.
 - Whether to store attachments.
 - o Advanced criteria, such as attachment names, or folder locations.

Retain Job components

Schedule

The Schedule is the time framework that is set for the job to run on and provides the choice of how often, and when, the job is run. Single time, (job runs once), or a recurring time frame are available. Schedules are universal and are not module or job specific. They may be used for one or all jobs.

Profile

The Profile dictates which kinds of files to retrieve from the message system. All message system items are selectable to be archived, but you may also specify time periods, exclude folders or subjects, and how the data is stored. Profiles are module specific, and the profile section contains sections specified by each module and information only applicable to that module.

The Profile also has a very important function, duplicate checking. This keeps the Retain system from storing multiple instances of the same message. Make sure you check and read the section on Purge (GroupWise), Retention (GroupWise), and Item Store (Exchange/GroupWise) flags.

Worker

The worker is the part of Retain that actually pulls the data from the message system servers. The Worker contacts the Retain Server and gathers information on which jobs are associated with it, when to start them, and which items to get. Workers can only run one job at a time. Workers are not module specific, but may require module specific settings. These settings, where applicable, are found under the module specific tab.

Jobs

The Jobs section is where the Worker, Profile, and Schedule are all brought together and associated into a comprehensive configuration by allowing the user to tie their configuration to a mailbox server, selected user list, or distribution list. The Worker will not start archiving anything until a Job is created is bound to a Worker, Schedule, and Profile. There is no limit on the amount of Jobs, Schedules, Profiles, or Workers that a Retain Server can be configured to use. Jobs are module specific.

Schedules

Schedules define **WHEN** to perform the data collection as defined in a **JOB**. A Job defines what **SCHEDULE**, **PROFILE** and **WORKER** to use.

- > You can create as many schedules as you need.
- Schedules have no functionality until they are associated with one or more **JOBs**.
- > They can be shared across multiple **JOBs**.
- > You cannot DELETE a schedule that is currently associated with a **JOB**.
- Schedules can be recurring or one-time.

SINGLE schedules are configured with one start time, and one date.

To keep jobs from queuing up to the worker, select the box to do not resend a job that has an elapsed start time. Otherwise, a job will queue up on the worker if a previous job has not yet completed, causing the new job to start as soon as the current job is complete or terminated.

Schedules	8 🕹 🖯
default	
Add Schedule	
Edit Schedule No jobs are associated with this schedule. Remove Schedule	
Schedule Name default	
Schedule Frequency Single	
This job will run only once, at the time specified below, unless an error occurs. If an occur occurs, the job will be retrive select the checkbox below.	ed unless you
Date: Aug 🖤 13 🖤 2008 🖤 Time: 16 💌 36 🖤	
If time assigned for job start has elapsed, don't resend job	

RECURRING schedules are configured using a start and interrupt time, and which days to start on.

Schedule Name	full run job		
Schedule Frequency	Recurring	•	
Sunday			
Monday			
Tuesday	9	Start Job at:	01 🚽 :00
Wednesday	1	Maximum job duration	22 🚽 hours
📝 Thursday	I	Do not interrupt job, even when duration expires	V
📝 Friday			
Saturday			

Choose when on which days you want this schedule to trigger a job.

You may specify maximum job duration. If the job runs longer than the time limit you set, it will be interrupted. For cases where you do not want the job to be interrupted – for example, with a job you know will last longer than 22 hours, you may prevent the schedule from interrupting the job.

Don't forget to "Save Changes".

Profiles

A profile assigned to a job tells the system what to archive. Message types, status, date ranges, excluding or including specific users, private or public folders or both, and redundancy check settings are all configured under the profile.

The profile defaults to collecting all data, with no date restrictions. After Retain has finished collecting data the first time, you'll want to narrow the date range and criteria considerably, or pay a high price in performance. Each module has a specific profile page, but different profile pages will not display unless multiple modules have been configured. Each module's profile is explained below.

Exchange Profile

After the Exchange Module has been configured, the Exchange Profile will be available for configuration. If an Exchange Profile is not configured, jobs cannot be run against the Exchange system.

😹 Retain 🔎		Language English	▼ Welcome, admin About	Status & Updates Logout
Overview	📛 Profiles			8 🖓 🖯
Documentation Search Messages Audit Log System Log	exchange	Add Profile		*
Data Collection Schedules → Profiles Exchange		Edit Profile Remove Prof	Associated Jobs new exchange 	
GroupWise Workers ⊮ Jobs	Profile exchange loaded.	*		
Management	Profile Name	exchange		
Groups Deletion Management	Core Settings Messag	ge Settings Scope M	iscellaneous Advanced	
Configuration Server Configuration Module Configuration Storage Manager	☑ Enable Archiving (sto	ore messages in Retain)		
Stubbing Server Licensing				

Click on 'Add Profile' and provide a profile name, or select an already existing profile to access the configuration tabs. All changes made on this page must be saved by selecting the 'save changes', disk **icon, at the top right of the page. Tabs may be changed and navigated through without affecting new** settings, but any move to another page will require saving, or abandoning the changes made.

Core Settings

The core settings consist of an enabled/disabled option which must be enabled for any jobs based on this profile to archive anything.

Manage Settings

Retain can archive and select specific types of mail and Exchange system items to be archived. The Manage Settings tab provides access to manage those settings.

Core Settings Message Settings Scope Miscellaneous Advanced
Mailbox Type
You can choose to store items only from User mailboxes or from Room / Equipment resources.
Users 🗹 Room / Equipment
Item Tune
Item Type
By default, Retain stores every type of message. You can restrict this.
🕼 Mail 🕼 Appointment 🕼 Note 🕼 Task 🕼 Voice Message
Item Source
Messages are classified in one of these categories. You may restrict the storage of messages if desired.
Received Sent Draft Posted
Message Status
You can restrict the storage of messages based upon the setting of various status flags
Read is Private is Personal is Confidential is Doesn't matter → Doesn't matter →

The Mailbox type specifies whether to include or exclude the available types of mailboxes. Because there can be multiple profiles and jobs, it may be advantageous to archive the Users and Room / Equipment mailboxes separately as needed and appropriate for the system.

The Item Type option specifies the different types of messages found in Exchange that can be archived, and allows the exclusion of or inclusion of the different individual types.

The Item Source option allows administrators to exclude or include messages that have not yet been sent or received, or posted.

The Message Status allows messages which have or have not been read or opened, or marked private or confidential to be archived. The different options in the dropdown menu are as shown.

Doesn't matter 🛛 🚽
Doesn't matter
True
False

Scope

The Scope tab dictates how pervasive the attached archiving jobs are, and what kind of duplicate checking is done, or not done, in the Retain system.

The Date Range instructs Retain to scan for, and archive, messages after, or before, a certain date. This is useful if only specific chunks or areas of mail are to be archived.

The duplicate check either scans for all messages, or instructs Retain to only look for messages which are newer than the Item Store Flag, which is a time-stamp on the system. All messages younger than the time stamp will be archived by Retain if the item store flag is utilized, but Retain will ignore all messages which are older.

NOTE: Unlike GroupWise, Exchange does not ensure any compliance when scanning end user mailboxes; users may freely delete their email. The Item store flag does not prevent mail deletion. Only Journaling and archiving a journaling mailboxes, guarantees all items have been archived.

Core Settings Message Settings	cope Miscellaneous	Advanced
Date Range to Scan		
All Messages (ignore date)	•	
Duplicato Check		
Dupicate Check		
Retain only stores a single instance of ea may skip sending them to the Server) is publish all messages unless you are primi	ch message and attachr an important performan ng the system for the fir	nent. Defining how the Worker determines new items (so it ce factor. Using the item store flag is recommended. Never st time.
Try to publish all messages (SLOW)	•	
Set Storage Flags		
You normally want to advance the Item to.	Store flag after a job is	run. However if you run overlapping jobs, you might not want
✓ Item Store Flag		

It is recommended that the first job be allowed to scan for all mail that is desired to be archived, with the duplicate check set to 'publish all messages'. Afterwards, it is recommended to have the duplicate check look for the Item Store Flag, and only check for new mail in the system.

Miscellaneous

The Miscellaneous tab allows access to particular settings detailing how messages are stored and what is archived. Attachments, message information such as the internet headers, and how the data is stored and named, (by folders, year, or year and month), dictate not only the message store structure, but affect the storage size.

Miscellaneous options also allow for the archiving of the 'recoverable items'. To enable checking and archiving of the 'Recoverable Items' for compliance reasons, select the checkbox next to the option.

Core Settings Message Settings Scope Miscellaneous Advanced		
Miscellaneous		
Items from All Folders ONLY Kerns from folders listed below		
You can save use space by restricting accachment storage.		
Store all attachments		
 Don't store any attachments, other than the message 		
You may choose to store and index the Internet Headers. This exacts a performance penalty. However, it may be necessary for your compliance policy.		
Store/index Internet Headers		
Note: The following options can dramatically slow down archiving and increase disk space utilization.		
Include user's archive mailbox		
Include user's recoverable items		
Include Public Folders(exhaustive)		
You may store Journaling Mailboxes in one flat folder, or partition them by year and/or month.		
Store in one folder		
Store by year (yyyy)		
 Store by year and month (yyyyMM) 		

Advanced

Y	

If you want to be more specific as to what to dredge or not to dredge, add the criteria here. Each line will be *logically AND*-ed together.

Think "Dredge all items where the following is true:" Criteria A and Criteria B and Criteria C etc

You may select based on:

- Subject
- Sender
- Recipient
- > Size
- Attachment Name

Whether they are equal to, not equal to, whether they contain or do not contain the item you specify.

51

This gives you great flexibility and granularity. It allows you to customize dredges and retention for many different groups, or even individuals.

Folder Scope

By default we dredge items from all folders. You can specify one or more inclusions or exclusions. Your choices are: Items from All Folders

- Dredge everything
- Dredge only these listed folders
- Dredge everything EXCEPT these listed folders

How to specify the list of folders to dredge/exclude:

1) Select 'Add' to open a new selection.



5) You specify if the option includes subfolder. Example: If you select "old" and "includes subfolder" is unchecked, "Calendar/mail" is selected. If "includes subfolder" is CHECKED, "Calendar/old/mail" would also be selected.

Folder Scope	
Normally, you want to include all fol (you may have multiple subfolders w	lers in your scan. However, you may have specific reasons to include or exclude folders. Choose a folder root, an optional subfolder ith the \ delimiter, and whether to include all subfolders in the pattern.
ONLY items from folders listed below	•
Add	
Delete Calendar 🗸	Include subfolders



GroupWise Profile

😹 Retain 🔎	Language English Velcome, admin About Status & Updates Logout
Overview	🖥 Profiles 🛛 🔒 💐 🥝
Documentation Search Messages Audit Log System Log Data Collection Schedules Profiles Exchange GroupWise	david only Groupwise Add Profile Associated Jobs Edit Profile • new job Remove Profile
Workers Jobs	Profile Groupwise loaded.
Management	Profile Name Groupwise
Users Groups Deletion Management	Core Settings Message Settings Scope Miscellaneous Advanced
Configuration Server Configuration Module Configuration Storage Manager Stubbing Server Licensing	The normal function of Retain is to archive mail. However, GroupWise 8 introduces the capability to "Stub" items so they appear to be in the original mailbox, but are really stored in Retain. This can save disk space. You may enable Archiving and Stubbing separately or together, depending on what you think your users would like. We tend to recommend you do NOT stub Calendar Items, because it can lead to confusing results if they are rescheduled or reassigned. (Most Calendar Items aren't terribly large anyway). You may safely enable stubbing on a GroupWise 7 post office, however the functionality will be ignored, and the item will not be stubbed. Calendar Items aren't terribly large anyway). You may safely enable stubbing (store messages in Retain) Enable Archiving (store messages in Retain) Canable Archiving (if items are already archived) Contor stub Calendar Items (Appointments, Notes, and Tasks) Stub only items exceeding a size threshold 2048 Size Threshold (bytes)
	Archive Mark You can request Retain to mark items as archived. You may view the status at the Windows client as a custom column. This does slightly degrade performance. Mark emails as archived

Core Settings

The Profile Functions tell the Retain Server what to do with the mail it archives from the GroupWise system. If Archiving is not enabled, mail will not be archived by Retain.

Stubbing

Before enabling stubbing, make sure you understand the way stubbing works and how that will work in your system because **once enabled**, **you cannot reverse the stubbing process**. Stubbing, (requires GroupWise 8), allows Retain to replace archived messages and items in the GroupWise Post office with 'stubs' that link back to the full message or item in the Retain Archive. End users should not notice a difference as they have transparent access to the stubbed item through the GroupWise Post office. The stub behaves much like the native item is still in the GroupWise system.

Stubbing CANNOT be reversed. Plan your system and understand the positive and negative sides to Stubbing before you continue. To use stubbing, it is strongly recommended that the GroupWise system be at least 8.02HP1. Previous versions of GroupWise do not contain critical stability fixes.

Why stubbing is good:

- Save Disk space. Mail can be removed from the system without being 'deleted'.
- Users have easy access to items stored in Retain
- > Transparent access, no need to login to Retain for common tasks.

Why stubbing may not work for your system:

- Stubbing CANNOT be reversed. (Once a message is stubbed, it cannot be returned to the same position in the system)
- > User training for stubbed items may be necessary due to decreased access speed
- No method for protecting stubs from deletion in the GroupWise client. (Recreation is difficult and complicated.)
- Non-mail items should not be stubbed. (Calendar and appointment items behave erratically when rescheduled).
- Stub items are NOT COMPATIBLE with third party API's. These applications view the stubs as posted items only, with no text or attachments.
- Mobile, Web, IMAP, and POP3 clients will only see posted empty items, not actual contents.

Determine the correct option for your system. If you wish to enable Stubbing, you need to install and configure the Stubbing Server as well. Refer to the install guide for your specific OS, and the <u>Stubbing</u> <u>Server</u> section for configuration. Stubbing can only be active for items which have been archived by Retain.

Calendar Items should not be stubbed unless necessary, as this can cause erratic behavior if archived items are rescheduled. If you wish to only stub large items in your Post Office, you may set a size threshold. Any item larger than the specified size will be stubbed. If this option is not set, all messages will be stubbed, regardless of size.

Archive Mark

Some users may opt to use the Archive Mark in GroupWise for messages that have been archived by Retain. The archive mark is a custom flag and may be modified, therefore is not secure and should not be used for compliance. Archive Mark slightly degrades job performance. Check the check box to enable Archive Mark for the selected profile.

When the Archive Mark is active, Retain creates a custom column for mail, called "RetainArchived" which users and administrators may add to their GroupWise clients to view mail which has been archived. The RetainArchived column indicates an archived mail item by displaying a '1' in the message row, while remaining blank when the message is not archived.

	From	Subject	Date 🔻 RetainArchived	
) 🖂	Suzie Wathen	cool lightning	8/25/2008 4:21 PM	
\sim	Steve Orchard	Old Ladies' Noggins	8/25/2008 4:17 PM 1	

To add the column, in the client: highlight desired mailbox or folder, right-click on columns header, select **More Columns**, select **RetainArchived**, and select **Add**.

Message Settings:

- > Mailbox Type: You can restrict the type of mailbox to users, resources or both.
- > Message Item Type:Select what type of items within these mailboxes to dredge.
- > Message Source: Select whether incoming, outgoing, draft or posted items get dredged.
- Message Status: You can decide whether to dredge an item based on its GroupWise flags.
 Default is to dredge all items, regardless of flag status.

Core Settings Message Settings Scope Miscellaneous Advanced
Mailbox Type
You can choose to store items only from Users or from Resources.
Ttem Type
By default. Retain stores every type of message. You can restrict this.
V Mail V Appointment V Note V Task V Phone Message
Item Source
Messages are classified in one of these categories. You may restrict the storage of messages if desired.
Received Sent Draft Posted
Message Status
You can restrict the storage of messages based upon the setting of various status flags in GroupWise.
Opened is Doesn't matter 💽 Read is Doesn't matter 💽 Private is Doesn't matter

By default, all items are selected for collection.

Scope

Core Settings Message Settings Scope Miscellaneous Advanced
Date Range to Scan
All Messages (ignore date)
Dunlicato Chack
Retain only stores a single instance of each message and attachment. Defining how the Worker determines new items (so it may skip sending them to the Server) is an important performance factor. Using the retention or purge flag choices are the fastest choices, if these are options. Never publish all messages unless you are priming the system for the first time.
Try to publish all messages (SLOW)
Set Storage Flags
If you are using either the Purge or Retention features in GroupWise, you probably want these to be advanced automatically as items are stored so users may delete messages in their mailbox that have been stored by Retain. The Item Store flag is of similar function, stored in Retain itself, but cannot prevent users fom deleting item. It is most useful in conjunction with GWAVA Reload or in use with multiple overlapping jobs.
🗹 Retention Flag 🔲 Purge Flag 🔲 Item Store Flag

Date Range

The Date Range determines which message items are collected, depending on the date of the message. While the default is to collect all messages, regardless of dates, the administrator will **want and need** to change this. Dredging all messages makes sense **only** when you are collecting data for the very first run (priming the archive). On a day-to-day basis, however, the performance toll will be intolerable.

For instance, you may want to dredge everything once and then make a daily or weekly dredge for items that are 'n' days old. These limited-scope dredges will run much more quickly and they will save you bandwidth. See below under "duplicate check.

Sometimes, you might just want to dredge items that fall within a specific date range. Specify that here.

Duplicate Check

[Duplicate Check
	Retain only stores a single instance of each message and attachment. Defining how the Worker determines new items (so it may skip sending them to the Server) is an important performance factor. Using the retention or purge flag choices are the fastest choices, if these are options. Never publish all messages unless you are priming the system for the first time.
	Try to publish all messages (SLOW)

Retain is a single-instance-storage system. In other words, any given message is stored only once, to eliminate wasted disk space. Therefore, there are mechanisms in place to check for duplicates as messages are dredged and stored. The Retain Worker dredges the messages, sends them across a network link to the Retain Server and the Retain Server stores them in the database.

Eliminating duplicates will save network bandwidth and it will eliminate wasted disk space.

The Retain Server will check for duplicates before a message is stored. However, sending megabytes of messages and attachments to the Retain Server only to have them discarded because "they are already here" wastes processor time and the network bandwidth between the Worker and the Server. Therefore, you want to be able to do some checking at the Worker side.

If you are using the Reload[™] integration, the item store flag is the only duplicate check flag that will work. The Retention and Purge flags will not work against a Reload backup.

In this section, you will tell the worker how to decide whether to dredge a message. Here are your options:

Try to publish all messages (SLOW) Ignore all messages older than retention flag (fastest) Ignore all messages older than purge flag (fastest) Publish all messages newer than last stored message (fast)

"Reload" is a trade mark of GWAVA Inc., 100 Alexis Nihon, Suite 500, Saint Laurent, Quebec H4M 2P1

\triangleright	Publish All Messages:	No duplicate checking.	
		 Every message is sent to the Server. 	
		 The Server is responsible for duplicate checking. 	
		 If there are duplicates, the Server will discard them. 	
		 This is the slowest option. 	
\succ	Use SmartPurge Flag:	Uses the GroupWise flags to determine the newest message.	
		 Fastest option. 	
		 Compares time stamp of the flag to run time. 	
		 Ignores messages older than flag's time stamp. 	
		 It is NOT a usable option when dredging from Reload. 	
≻	Use Retention Flag	functions very similarly to the SmartPurge flag.	
		See below for a comparison	
??L	Jse Item Store Flag	Use an internally stored timestamp.	
		 Similar in function to GroupWise Retention/Purge flags. 	•
		 Determines last message stored. 	
		 Fast option but not as fast as Retention/Purge flags. 	
		 Ignores messages older than flag's time stamp. 	

Set Flags:

<u>As discussed previously</u>, Retain can use the SmartPurge, Retention, and/or the Item Store flags. Select which flags should be "advanced" (in their timestamp values) as items are archived by this profile. Normally, the Retention flag is the one most administrators will wish to use.

NOTE: Generally, if you're using a backup system that leverages SmartPurge, like most backup software, (such as GWAVA Reload), does, you will not want to touch that flag.

About GroupWise's Smart Purge and Retention Flags

The SmartPurge, Retention, and Item Store flags all perform similar functions. The SmartPurge and Retention flags are stored internally in the GroupWise post office on a per-mailbox basis. The Item Store flag is stored by the Retain Server internally in Retain's own configuration database.

Each can be thought of as simply a "timestamp" indicating the last time data was retrieved by a 3rd party application. There are a few subtle differences between the three flags, which are discussed below.

The SmartPurge flag was introduced by Novell in GroupWise version 6.0.

With SmartPurge enabled in GroupWise:

- > The flag is a timestamp, stored in the user's mailbox.
- > Items older than the timestamp can be deleted freely.
- > Items newer than the timestamp cannot be deleted.
- A 3rd party application, such as backup software can retrieve and/or set this timestamp value.
 GroupWise never changes the timestamp value.
- The initial purpose of this was for backup software. Backup software can either manually or automatically, (via the SMS TSAGW component of GroupWise), advance this timestamp once all items are backed up. The backup software can also use this timestamp to "know" that all items older than this timestamp have already been backed up, and can be skipped.
- Retain can use this flag to skip archived items, and automatically advance it as well. However, in practice, you'll rarely want to do this, because backup software, including GWAVA Reload, already uses this flag. There's no way to "share" the flag.

Because makers of retention and compliance software wanted a flag of their own, one that wasn't shared with the backup software SmartPurge flag, the Retention flag was introduced by Novell in GroupWise 6.5.1.

In almost all respects, the Retention flag is exactly identical in purpose and function to the SmartPurge flag. Like the SmartPurge flag, it is stored internally, and is primarily used to prevent premature deletion, and to skip previously stored messages. In fact, these are so identical in purpose, in theory virtually all backup software could switch to using the Retention flag, and all Retention software to the SmartPurge flag, and you'd notice almost no difference. The primary difference is simply it's a different value, used by different vendors.

There are some *small* distinctions:

- > It's enabled and configured in a different location in ConsoleOne.
- > It cannot be enabled or configured until a Trusted Application (like Retain) is installed and specifically requests it be made available.
- The SmartPurge flag is turned on/off globally. The Retention flag can be configured at the Domain, PO, or user level.

Most customers using Retain will want to use the Retention flag. It's logical and consistent to do so, and avoids conflict with backup software. It is recommended that you use this flag unless there is a compelling reason not to. A few possibilities are discussed below.

Retain can use the SmartPurge and Retention flags. In addition, a third flag, the Item Store flag is also available for use. The Item Store flag is similar to the other flags, but has some important differences:

- It's stored in the Retain Server's configuration database, instead of in GroupWise. This rarely matters much, but it does mean that the existence and storage of the flag is not dependent on the existence of the mailbox.
- > Just like the SmartPurge and Retention flags, it can be used by Retain to skip previously archived messages, enormously increasing performance.
- Unlike the SmartPurge and Retention flags, it <u>cannot</u> be used to prevent users from prematurely deleting message items before they are stored by Retain. Given this severe limitation, the administrator might well wonder why this flag is useful...

It's true that you cannot prevent premature deletion using the Item Store flag. However, there are two scenarios where the Item Store flag becomes useful or even essential:

- The first is if for some reason the administrator needs to run multiple jobs or profiles on mailboxes that overlap. In this case, two separate flags are needed so the two different jobs can keep track of where (or more accurately WHEN) to continue archiving from. Admittedly, this is a rare scenario, but without a separate flag, your options would be severely limited.
- More commonly, consider the case of GWAVA Reload. Customers have expressed interest in using the backups created by GWAVA Reload to feed Retain, avoiding unnecessary network bandwidth utilization. But you cannot do this with the built in SmartPurge or Retention flags!
 - GWAVA Reload already uses the SmartPurge flags, and date ranges and profiles between Reload and Retain don't necessarily (and in fact rarely do) match.
 - The Retention flag would be perfect, but Retain isn't able to change the Retention flag. Or more accurately, it is changing it <u>on the Reload box</u>, not on the live GroupWise server. Hence, the changes will never be synchronized with GroupWise, leading to the disastrous

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results of:

- Users will never again be able to delete e-mail from the live GroupWise system.
- Retain will rescan the entire post office every night, because Reload will make a new backup, with an unchanged Retention flag!
- > The situation is resolved by using the internal Item Store flag.

Setting up SmartPurge and Retention flags in GroupWise 7

(Smart Purge Setup under GroupWise 8 is similar.) Setup for both flags is accomplished in ConsoleOne:

	Novell ConsoleOne			
<u>T</u> ools <u>H</u> elp	_			
GroupWise System Operations →	V ID Sort			
GroupWise Utilities 🔹 🕨	Mailbox/Library Maintenance			
GroupWise Diagnostics	<u>S</u> ystem Maintenance			
admin d	<u>B</u> ackup/Restore Mailbox			
	<u>Recover Deleted Account</u>	Gr	oupWise Client C	options X
A david d	<u>C</u> lient Options N	I	_	
🔏 james d	Expired Records 😼			
	Em <u>a</u> il Address Lookup	Environme	- Cand	Documents
	Synchroni <u>z</u> e		int <u>s</u> enu	Documents
	User Mo <u>v</u> e Status		B	
	Link Configuration	Security	Calandar	
	New System	Security	<u> </u>	
	Check eDirectory Schema			
	Gateway Alias Migration		<u>C</u> lose	<u>H</u> elp
	<u>G</u> W / eDirectory Association \rightarrow			

- 1) Go into ConsoleOne
- 2) Select your domain or post office
- 3) Go to Tools | GroupWise Utilities | Client Options
- 4) Select Environment and the 'Cleanup' tab

Mail and Phone		
Manual Delete and A	rchive	6
○ <u>A</u> uto-Delete after:	30 ays	
○ Auto-Archive a <u>f</u> ter:	30 🚔 days	
Appointment, Task, and	I Note	
Manual <u>D</u> elete and A	rchive	6
○ Auto-D <u>e</u> lete after:	14 ays	
○ A <u>u</u> to-Archive after:	14 ays	
Empty Trash		
Manual		6
Automatic after:	7 🚔 days	
🛛 Do not purge items u	ntil they are backed up	ۍ
Prompt user <u>b</u> efor	e purging	
Perform maintenan <u>c</u> e	purges on caching/remote	6
Force synchronization	of cleanup options to caching/remote	6

Once here, SmartPurge is set up like this:

Environment Options: dom	Ж
Retention Junk Mail Calendar Teaming Tutorial Address	s Book
General Chent Access Views File Location Cleanup App	Jeararice
Mail and Phone	
<u>Manual Delete after</u> <u>20 </u>	
○ Auto-Archive after: 30 ★ days	
-Annointment Task and Note	
Manual Delete and Archive	6
○ Auto-Pelete after: 14 📥 days	
○ A <u>u</u> to-Archive after: 14 ★ days	
Empty Trash	
⊖ Manua <u>l</u>	6
Automatic after: 7 days	
Do not purge items until they are backed up	6 0
Prompt user <u>b</u> efore purging	
Perform maintenance purges on caching/remote	<u></u>
Force synchronization of cleanup options to caching/remote	o
<u>Restore Default Settings</u>	
ОК Сапсеі	Help

In the Cleanup tab, UNCHECK the box on "Allow purge of items not backed up" to ENABLE SmartPurge. Lock it to prevent users from disabling it.

(GroupWise 8 uses reverse logic with the purge option. GroupWise 8 lists to "Do not purge items until they are backed up." Reverse the setting for the desired effect.)

Several different backup-retention services may currently use this same timestamp. Plan your system accordingly as Retain also uses this flag. The SmartPurge feature ONLY uses the backup / purge flag set as shown above. If another flag is desired, use of the Item Store Flag is recommended.

Retention Flag

The Retention flag is set up a little differently than SmartPurge. (This is only used when Stubbing.)

- 1) A Trusted App requesting Retention Services must be created. (Done at Retain setup time).
- 2) The Retention flag is enabled on a per domain/po/user basis.
- 3) From the 'Retention' tab under Environment Options, the setting should look like this:

Environment Options: dom X	
Retention Junk Mail Calendar Teaming Tutorial Address Book General Client Access Views File Location Cleanup Appearance	
Enable Message Retention Service	
Retain No.	
Description:	Enable Message Retention Service
	Retain
Restore Default Settings	

Notice in this example that Retain is listed as a trusted application. This was done during our postinstall tasks when we ran the Trusted Application Key program.

Next, CHECK the box to ENABLE the Retention Flag service. Lock it on.

Miscellaneous

 Core Settings
 Message Settings
 Scope
 Miscellaneous

 Miscellaneous

 You can save disk space by restricting attachment storage. You can also attach the Routing Properties to the message, if desired.

 Store all attachments
 Don't store MIME.822 attachments
 Don't store any attachments, other than the message

 You may choose to store Sent Items properties, and/or store and index the Internet Headers. Both of these (particularly Sent Items properties) exact a performance penalty). However, it may be worthwhile to store and index the Internet Header if your compliance policy then allows Retain to choose to skip storing MIME.822 (which consumes lots of disk space since it's not usually single-instanceable).

 Store/index Internet Headers
 Include Routing Properties

Miscellaneous: What to do with attachments

Most of the time, you will want to store all attachments. That is the default.

But if you don't want to store attachments, you can control this here. Note that the attachment names and sizes will still be listed when viewing the message, but the attachments will be clearly marked as unavailable.

Retain can stores the Index or Internet Headers and the Routing properties of messages. This information is stored in a XML attached to the message document and is searchable.

Store/index Internet Headers

This option tells Retain to store the headers in the SQL database. In order to use the header search option in the search interface you must have this option selected. To save disk space and still satisfy storage compliance, select this option and select "Don't store the mime.822 attachments". All other parts of the MIME file are already being archived, so if you store and index the Internet Header, you will already be archiving all information required.

Advanced

rou may add advanced criteria such as specific attachment names, sizes, subject here. Add Delete Subject Subject Sender Recipient Size Folder Scope formally, you want to include all folders in your scan. However, you may have specific reasons to include. Choose a folder sot, an optional subfolder (you may have multiple subfolders with the \ delimiter, and whether to include all subfolders in te pattern. Tems from All Folders	Advanc	ed Criteria					
Add Delete Subject Subject Subject Sender Recipient Size Attachment Name Folder Scope formally, you want to include all folders in your scan. However, you may have specific reasons to include. Choose a folder sot, an optional subfolder (you may have multiple subfolders with the \ delimiter, and whether to include all subfolders in te pattern.	ou may	add advanced c	riteria such as s	pecific attachment i	names, sizes, subject	here.	
Add Delete Subject Subject Sender Recipient Size Attachment Name Folder Scope Iormally, you want to include all folders in your scan. However, you may have specific reasons to include. Choose a folder sot, an optional subfolder (you may have multiple subfolders with the \ delimiter, and whether to include all subfolders in te pattern. Items from All Folders							
Delete Subject Sender Recipient Size Attachment Name Folder Scope Include all folders in your scan. However, you may have specific reasons to include. Choose a folder soot, an optional subfolder (you may have multiple subfolders with the \ delimiter, and whether to include all subfolders in the pattern. tems from All Folders Image: State	Add						
Delete Subject is is is in the subject is is in the subject is sender Recipient Stender Recipient State Attachment Name Folder Stope Folder Stope Informally, you want to include all folders in your scan. However, you may have specific reasons to include. Choose a folder soot, an optional subfolder (you may have multiple subfolders with the \ delimiter, and whether to include all subfolders in the pattern.							
Subject Sender Recipient Size Attachment Name Folder Stope Iormally, you want to include all folders in your scan. However, you may have specific reasons to include. Choose a folder on the subfolder subfolder subfolder with the \ delimiter, and whether to include all subfolders in the pattern. tems from All Folders tems from All Folders	Delete	Subject	v is	v			
Folder Scope ormally, you want to include all folders in your scan. However, you may have specific reasons to include. Choose a folder sot, an optional subfolder (you may have multiple subfolders with the \ delimiter, and whether to include all subfolders in the pattern.		Subject					
Folder Scope Formally, you want to include all folders in your scan. However, you may have specific reasons to include. Choose a folder sot, an optional subfolder (you may have multiple subfolders with the \ delimiter, and whether to include all subfolders in the pattern.		Sender					
Folder Stope ormally, you want to include all folders in your scan. However, you may have specific reasons to include. Choose a folder soot, an optional subfolder (you may have multiple subfolders with the \ delimiter, and whether to include all subfolders in the pattern.		Size					
runder scope ormaliy, you want to include all folders in your scan. However, you may have specific reasons to include. Choose a folder oot, an optional subfolder (you may have multiple subfolders with the \ delimiter, and whether to include all subfolders in ne pattern.	Folder	Attachment Name	e				
ormally, you want to include all folders in your scan. However, you may have specific reasons to include. Choose a folder ot, an optional subfolder (you may have multiple subfolders with the \ delimiter, and whether to include all subfolders in e pattern.	oluer	scope					
on hany, you wan't to include all todays in your scan. However, you may have specific reasons to include. Choose a today tot, an optional subfolder (you may have multiple subfolders with the \ delimiter, and whether to include all subfolders in e pattern.	oveo ollu	uou upot to ios	-ludo all foldore	in unus contra Llouuni		ocific roscons to inclu	da. Chaasa a faldar
loc, an optional solution (you may have margine solutioners with the (deminiter, and whether to include an solutioners in ie pattern.	unnally, ot ap c	you want to int	ciude all toiders ar (wou may bay	in your scan. Howe is multiple subfolder	ren, you may nave sp s with the) delimiter	eunic reasons to inclu	ue, criuuse a iuiuer Iudo all cubfoldors in
tems from All Folders	ou, anu	puonai subiolue re	er (you may nav	e murupie subroider	s with the truemine	, and whether to inc	ique al subidiuers in
tems from All Folders	ie parte	u b					
ems from All Polders		MICHARD?					
	ems from	All Folders					

Advanced Criteria

If you want to be more specific as to what to dredge or not to dredge, add the criteria here. Each line will be *logically AND*-ed together.

Think "Dredge all items where the following is true:"

Criteria A *and* Criteria B *and* Criteria C etc.

You may select based on:

- Subject
- > Sender
- ➢ Recipient
- Size
- Attachment Name

Whether they are equal to, not equal to, whether they contain or do not contain the item you specify.

This gives you great flexibility and granularity. It allows you to customize dredges and retention for many different groups, or even individuals.

Folder Scope

By default we dredge items from all folders. You can specify one or more inclusions or exclusions. Your choices are:

- > Dredge everything
- Dredge only these listed folders
- > Dredge everything EXCEPT these listed folders

How to specify the list of folders to dredge/exclude:

- 6) Specify a System Folder (mandatory). Example: Calendar.
- 7) You specify a subfolder of that folder (optional).
 - Example: entering "old" would mean the folder "old" under "Calendar".
- 8) You can have multiple hierarchies under that with the / delimiter.

Example "old/mail" would mean the subfolder "mail" under "old" under "Calendar".

 You specify if the option includes subfolder. Example: If you select "old" and "includes subfolder" is unchecked, "Calendar/mail" is selected. If "includes subfolder" is CHECKED, "Calendar/old/mail" would also be selected.

Social Messaging Profile

To create a new profile to archive social messaging data, first select the 'add profile' button and name the profile. Then continue configuring as desired.

The **Core Settings** tab holds the enabling setting, which allows jobs connected to this profile to run. This must be checked before jobs will run.

🛎 Profiles	
8	
All	
	Add Profile
	Edit Profile
	Remove Profile
Ŧ	

Core Settings	Message Settings	Advanced						
- Profile Func	tions							
Fnable An	Finable Archiving (store messages in Petain)							
	Enable Archiving (store messages in Retain)							

The **Message Settings** tab can be used to

exclude or include specific data types for this profile. By default all types of messages will be archived. If left blank, the default will persist.

If only specific data types are to be included in a profile, they can be selected from the Member drop-down list, and added to the inclusion list.

All types of data included in the list will be archived. If the list is blank, all users and data will be archived.

Core Settings	Message Settings	Advanced	
— Item Type —			
reem type			
By default, Reta	ain stores every type o	of message. You can restrict this.	
facebook		*	
CWICCEI			
		Remove Member	
			_
		Member (none) - Add Member	

Under the **Advanced** tab, specific criteria can be

used to restrict the archived data. Any combination of the variables listed may be used to restrict the data selection. Advanced criteria may be added up to 7 fields.

Core Setting	gs Message Settings	Adva	nced						
Advanced	Advanced Criteria								
You may ad	ld advanced criteria such as	speci	fic attachment names,	, sizes, subject here.					
Add									
Delete					_				
Delete	Subject	-	is 🔻						
	Subject	_	is						
	Sender		is not						
	Recipient		contains						
	Attachment size (bytes)		does not contain						
	Attachment name (* ok)			·					

Save changes and the profile is configured.

BlackBerry Profile

To create a new profile to archive BlackBerry data, first select the 'add profile' button and name the profile. Then continue configuring as desired.

The **Core Settings** tab holds the enabling setting, which allows jobs connected to this profile to run. This must be checked before jobs will run.



Profile Name BES	5 Profile							
Core Settings	Message Settings	Scope	Advanced					
Profile Functions								
Enable Archiving (store messages in Retain)								

The **Message Settings** tab can be used to exclude or include specific data types for this profile. By default all types of messages will be archived. All BlackBerry data which is selected to be archived MUST be logged in the BlackBerry Enterprise Server or the data will not be available for Retain to archive it.

Core Sett	ings N	lessage Setting	s Scope	Advanced					
Itom Tv	00								
Item Ty	he								
By defaul	By default, Retain stores every type of message. You can restrict this.								
SW2	MMS	Phone Call	BB PIN	🗷 BB Message					

Scope

All Messages (ignore date)	v
Duplicata Chack	
Juplicate Check	
Duplicate Check	
atain only stores a single instance	f each messare and attachment. Defining how the Worker determines new items (so it may skin
ending them to the Server) is an	portant performance factor. Using the item store flag is recommended. Never publish all message
inless you are priming the system	r the first time.
Toy to publish all messages (SLOW)	▼
Try to publish all messages (SCOVV)	
Try to publish all messages (SCOW)	

The Scope tab dictates how pervasive the attached archiving jobs are, and what kind of duplicate checking is done, or not done, in the Retain system.

The Date Range instructs Retain to scan for, and archive, messages after, or before, a certain date. This is useful if only specific chunks or areas of mail are to be archived.

The duplicate check either scans for all messages, or instructs Retain to only look for messages which are newer than the Item Store Flag, which is a time-stamp on the system. All messages newer than the time stamp will be archived by Retain if the item store flag is utilized, but Retain will ignore all messages which are older.

It is recommended to have at least the first job archive everything, with the item store flag checked to archive everything possible in the logs, while setting the item store flag. Subsequent jobs should use the duplicate check and the item store flag to only archive new data afterwards.

Advanced

Advanced Criteria		
You may add advanced criteria such	specific attachment names, sizes, subject here.	
Add		
Delete Subject	is 🔽	
Subject	is	
Sender	is not	
Recipient	contains	ſ
Attachment size (bytes	does not contain	
Attachment name (* ol		

If you want to be more specific as to what to dredge or not to dredge, add the criteria here. Each line will be *logically AND*-ed together.

Think "Dredge all items where the following is true:" Criteria A *and* Criteria B *and* Criteria C etc.

You may select based on:

- > Subject
- > Sender
- Recipient
- Size
- Attachment Name

Whether they are equal to, not equal to, whether they contain or do not contain the item you specify.

This gives you great flexibility and granularity. It allows you to customize dredges and retention for many different groups, or even individuals.

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Google Apps Profile

To create a profile to archive email and data from Google Apps, select the add profiles button and name the profile then continue configuring as desired. The Google Apps profile must be configured and all settings saved before a job can be created and run.

Core Settings

The profile will not become active and will not allow jobs to be run unless the profile is enabled. Enable the profile by placing a checkmark in the 'Enable Archiving' checkbox.

😹 Retain 🏒	Language English 🗸 🕼
Overview	Profiles
Documentation Search Messages Audit Log System Log Statistics/Reporting	Google - Allterns AllMessages Headers NoFlags
Data Collection	Associated Jobs Edit Profile Google Apps - gwavaqa.mygbiz.com Remove Profile Profile Google - Allitems AllMessages Headers NoFlags loaded.
BlackBerry Workers	waming: No hags chosen for advancement
Jobs	Profie Name Google - AllItems AlMessages Headers NoFlags
Management	Core Settings Message Settings Scope Miscellaneous Advanced
Users Groups Device Management Deletion Management	Profile Functions I Enable Archiving (store messages in Retain)

Message Settings

The Message Settings tab contains the source and status settings for the messages to be archived. Message types and sources which are checked will be archived in this profile.

Core Settings	Message Settings	Scope	Miscellaneous	Advanced	
-Item Source-					
					of many set of the stand
Messages are ci	assified in one of thes	e categorie	s. You may restri	t the storage	or messages ir desired.
Received	🗹 Sent 🛛 Draft				
Message Stat	us				
You can restrict	the storage of mess	ages based	upon the setting	of various sta	tus flags.
Read is Doesn't	matter 👻				

Any item type or status which is not selected or specified will exclude qualifying items from being archived in Retain.

Scope

The Scope tab covers the Date Range, Duplicate Check, and Storage Flags. The date range limits the data items archived based on when it was created or sent. The Duplicate check is the method used to eliminate already archived messages from an archival job. Initial jobs should be left to archive all messages, as there are no messages currently archived in the system. Afterwards, the duplicate check should be set to use the storage flag which only attempts to archive messages which are not already in the archive, thus speeding the archival process.

Core Settings Message Settings Scope Miscellaneous Advanced	
Date Range to Scan	
All Messages (ignore date)	
Dupicate Check	
Retain only stores a single instance of each message and attachment. Defining how the Worker determines new items (so it may skip sending them to the Server) is an important performance factor. Using the retention or purge flag choices are the fastest choices, if these are options. Never publish all messages unless you are priming the system for the first time.	
Try to publish all messages (SLOW)	
Sat Starge Flag	
Set Storage hags	
If you are using either the Purge or Retention features in GroupWise, you probably want these to be advanced automatically as items are stored so users may delete messages in their mailbox that have been stored by Retain. The Item Store flag is of similar function, stored in Retain itself, but cannot prevent users fom deleting item. It is most useful in conjunction with GWAVA Reload or in use with multiple overlapping jobs.	
Item Store Flag	

Storage Flags are markers which Retain uses to keep duplicate data items from being added into the archive. This option should be enabled to allow Retain to only archive original data.

Miscellaneous

The miscellaneous tab allows the configuration to allow or deny archiving and indexing of attachments in Retain. If attachments are to be archived, they may also be indexed to provide searching capability in the browse messages interface.

Core Settings	Message Settings	Scope	Miscellaneous	Advanced	
Miscellaneous					
You can save di	isk space by restricting	g attachme	ent storage. You (an also attach	the Routing Properties to the message, if desired.
 Store all 	attachments				
Oon't sto	ore any attachments,	other than	the message		
You may choos However, it may space since it's	e to store Sent Items y be worthwhile to st not usually single-inst	s properties :ore and inc anceable).	i, and/or store and lex the Internet I	d index the Int Header if your	ernet Headers. Both of these (particularly Sent Items properties) exact a performance penalty. compliance policy then allows Retain to choose to skip storing MIME.822 (which consumes lots of disk

ms from All Folders

ONLY items from folders listed below All folders EXCEPT those listed below

Root

Inbox

Notes

Sent Items Work in Progress

Deleted items Calendar Tasks Junk Mail -

Advanced

The advanced tab allows the administrator to be even more specific in what to archive and what to exclude. The criteria added under the 'advanced' tab will limit associated jobs to only the items matching the criteria. Up to 6 lines of advanced criteria may be added to each profile. Each additional line will be *logically AND*-ed together. For example, the system will archive all items where the following is true: Criteria A *and* Criteria B *and* Criteria C etc.

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Core Settings Me	ssage Settings	Scope	Miscellaneous	Advanced
Advanced Criteria				
You may add advand	ed criteria such a	is specific a	attachment name	nes, sizes, subject here.
Add				
Folder Scope				
Normally, you want t nultiple subfolders w	o include all folde vith the \ delimite	ers in your er, and whe	scan. However, y ether to include a	you may have specific reasons to include or exclude folders. Choose a folder root, an optional subfolder (you may have all subfolders in the pattern.
Items from All Folders		•		

You may select based on:

- Subject
- Sender
- Recipient
- Size
- Attachment Name

Whether they are equal to, not equal

Add	
Delete Root -	Include subfolders

to, whether they contain or do not contain the item you specify.

This gives you great flexibility and granularity. It allows you to customize archival jobs and retention for many different groups, or even individuals.

Folder Scope

By default we dredge items from all folders. You can specify one or more inclusions or exclusions. Your choices are:

- Dredge everything
- Dredge only these listed folders
- > Dredge everything EXCEPT these listed folders

How to specify the list of folders to dredge/exclude:

10) Select 'Add' to open a new selection.

- 11) Specify a System Folder (mandatory). Example: Calendar.
- 12) You specify a subfolder of that folder (optional).
 - Example: entering "old" would mean the folder "old" under "Calendar".
- You can have multiple hierarchies under that with the / delimiter.
 Example "old/mail" would mean the subfolder "mail" under "old" under "Calendar".

14) You specify if the option includes subfolder.

Example: If you select "old" and "includes subfolder" is unchecked, "Calendar/mail" is selected. If "includes subfolder" is CHECKED, "Calendar/old/mail" would also be selected.

Folder Scope	
Normally, you want to include all fol	ders in your scan. However, you may have specific reasons to include or exclude folders. Choose a folder root, an optional subfolder
ONLY items from folders listed below	
Add	
Delete Calendar 👻	Include subfolders

Mobile Profile

The mobile profile is unnecessary, as all the gathering of data items is performed by the configured router and application installed on individual Android phones.

Language	English	🗸 📴 Welcome, admin About Status & Upo	lates Logout	
🐸 Profiles				2
				*
In this release of Retain you do not need to configure this item. You do need to configure the Mobile module, the Worker	r and Job, and	the individual devices need to be enrolle	d.	

There is no configuration necessary for the profile, however, as stated in the <u>mobile module</u> <u>configuration section</u>, the mobile module requires the setup and installation of the mobile application on the Android devices, registration of the individual mobile devices, and the Tenant ID created by GWAVA. Contact the appropriate sales representative for your area.

Workers

You will need to set up at least one Retain Worker. The Retain Worker does the actual work of collecting the data from a message system and delivering it to the Retain Server. The Retain Worker component is normally installed local to each GroupWise mail server, or any Exchange server from which you wish to collect data. Although a Worker may be installed on a machine running Retain Server, this is normally not recommended or sufficient, except for very small (100 or fewer users) systems or for evaluation purposes. Ideally, the worker you choose to dredge mail from a desired server is local to the server itself. Using a worker on "Server A" to pull data from a mailbox server on "Server B" is possible, but it will use up network bandwidth and will be slower than simply pulling data locally. For this reason, Retain was designed to allow you as many workers as you need, on Linux or Windows.

Worker Configuration Options

Overview	@ Workers	2	2
Documentation Search Messages Audit Log System Log	migrator new worker Add Worker		*
Data Collection Schedules ■ Profiles Workers	Edit: Worker No jobs are associated with this worker.		
Jobs			
Management Users Groups Deletion Management	Enter new worker below Worker new worker Poling Logging Connection Module specific		
Configuration Server Configuration Module Configuration Storage Manager Stubbing Server Licensing	Interval How often should the worker poll for configuration changes, and how many messages should the worker send before updating status? Poll for configuration every 10 minutes Update status every 500 messages.		

- > Polling: Defines how often the worker polls for configuration changes. (Jobs, job changes, etc.)
 - Default is 10 minutes.
 - o Default is to update the displayed status every 500 messages while running the job.
- **Logging** Controls logging by the Retain Worker.
 - Default is NORMAL.
- Connection. Important. This is the information the worker needs to connect to the Server. Double check this setting.
 - o Protocol
 - URL/host name
 - o password
 - If the connection information is changed, you will need to manually copy the Retain Worker.cfg bootstrap file over to the Worker
 - Correcting the Bootstrap:
 - 1) Stop Tomcat.
 - 2) First delete the Retain Worker.cfg file on the Worker machine. For security reasons, there is no way to do this except by manually deleting the file from the server console itself. The path is: Retain Worker/WEB-INF/cfg. Removing the bootstrap resets the worker to initial configuration.
 - 3) Restart and re-upload the bootstrap to the worker.
- Status Basic status information on the Worker. This status information is updated while the

worker is running according to the "Update Status" interval described above.

Bootstrap – Indicates the download link and when it was last downloaded.

Worker Configuration

From the Retain home page, click Workers. You will see this screen:

migrator new worker	Add Worker	
	Edit Worker No jobs are associated with the Remove Worker	is worker.
Enter new worker below Worker new worker		
Polling Logging Connection	Iodule specific	

- 1) Click "Add Worker".
- 2) Put the name of the worker in the "Worker" box. *Example:* "Linux Worker 1".
- 3) Check the Connections Tab to be sure the Retain Server IP address settings are correct. This tells the Worker where the Retain Server is located. (Server Host Name or IP address must be correct; this should be populated automatically, but double check for accuracy.) The Server Connection setting must be able to resolve to the Retain Server if placed in a browser address bar.

Total of the second secon									
Server Connection									
The worker will need to know how to connect to the Server. It is highly recommended that you use a DNS host name for the Host Name. It's important to note that you are specifying the URL from the point of view of the Worker contacting the Server , which may or may not match the URL you'd use from your browser to reach the Worker or Server.									
For administrators using the Reload interface, note the worker password assigned must be the same for each worker that contacts the Reload Server. As part of setting of the Reload Server, you must know this password.									
Server Protocol http 🗸									
Server Host Name 192.168.1.106									
Server Port 48080									
Server Path /RetainServer									
Worker Password									
Note: Changing any of these parameters will require reconving the worker bootstrap file!									

The Connection tab holds very important contact information for the worker's connection to the Retain Server and the Post Office. Make sure that the Retain Server connection address is correct, or the Retain Worker will not be able to talk to the server.

Double check all these settings to ensure that you will have the best performance and connection for your system.

IMPORTANT NOTE!

It is vitally important that the connection information is correct before you save the worker. On a single server system, it is easy enough – it's the same server. However, in an enterprise setting where you might be using different components on different servers, it is extremely important that each component knows how to connect to the Retain Server.

If you do not set this correctly, the Retain Worker will NOT be able to contact the Retain Server and it will not run jobs.

4) The Module Specific tab contains information specific to individually configured modules. With Exchange, you may optionally specify a specific Active Directory Site the worker is located in. That allows Retain to find the "closest" Exchange Server that is appropriate for the user to be archived. The settings specified here are tied only to the specific worker configured, and does not affect the rest of the system. In general this setting may be ignored unless required. If required, input the appropriate information.

Polling	Logging	Connectio	n Moo	dule specific	Status	Bootstrap		
apending on the modules you have configured, you will need to provide additional configuration information here.								
Groupwise SOAP Access								
When using GroupWise, the Retain Worker needs to connect via SOAP to a initial default POA (preferably one local to the Worker) to gather job membership information. Initially this is set to the default you specified in the Groupwise Module Configuration, but it can be changed on a per worker basis.								
POA Ho	st Name	192.168.1.104						
SO	AP Port	7191						
Ena	able SSL							
Exchan	ge							
As the w improves	vorker pro the accu	cesses each m racy of the alg	ailbox, it i orithm, al	performs an a Ithough this is	uto-discove optional.	ery process to	ind the "best" server to connect to. Providing an Active Directory Sit	
Active D	irectory S	ite (case sensi	tive)					

5) After you have checked and set your settings, click "**Save Changes**" before browsing to another page to finish creating and to save your worker.
After the worker has been saved, two additional tabs become visible for settings on the worker. You MUST save changes on a newly created worker before the 'Bootstrap' tab is available to be used.

The status tab for the new worker will not hold any pertinent information until a job has been run or the worker has registered to the server and is in communication. Once a job has been completed, information will be displayed on the general status of the selected Worker.

Polling	Logging	Connection	Module specific	Status	Bootstrap
Worker S	Status				
Registered	d	26-Jan-201	1 05:07:25		
Last conta	act	09-Mar-201	1 20:35:39		
Last Job		new excha	nge {D69530CFFBA	CFFE9F4A	A32EE560D132
Last job s	tart	09-Mar-201	1 20:35:39		
Last job e	nd	09-Mar-201	1 20:35:42		
Total mail	boxes scann	ned 7			
Total mes	sages store	d 18590			

Check this page after the worker has completed connecting to the Server for information and jobs. After a job has been run, or is running, more pertinent information, such as total mailboxes scanned and messages stored, will be displayed.

6) After you have saved the changes, the Bootstrap tab appears (see below). Click "Download File" to save the configuration to a local workstation.

Polling	Logging	Connection	Module specific	Status	Bootstrap	
Boot St	trap					
The Wor manually	rker softwar or use a we	e needs a speci ab browser to u	al "bootstrap" confi <u>c</u> pload the file. (http	juration file :// <retain< th=""><th>file copied to its working directory before it can function correctly. You may copy it inWorkeripAddress>/RetainWorker)</th></retain<>	file copied to its working directory before it can function correctly. You may copy it inWorkeripAddress>/RetainWorker)	
Downloa	Download File					
Last dow Worker I	vnloaded: Tł ID: FBB0CA9	hu Jan 20 17:12 1718138F8EF5D	:38 MST 2011 IE18FAE00CEA7			

7) Save this file to your hard drive in a place where you can find it. Click "Save".

Do you	want to open or save this file?
	Name: RetainWorker.cfg Type: Unknown File Type, 984 bytes From: 192.168.10.65 Open Save Cancel
	While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or

8) Open a new browser window and type:

http://< your-RetainWorker-ip >/RetainWorker

This screen appears when a worker has not been initialized.

9) Upload the bootstrap file.

Worker	
Each worker needs to be configured in the Arci	hive Server web interface. Once a worker has been configured a
bootstrup me needs to be downloaded and a	pplied to the worker here.
Without a bootstrap file the Worker will not kno file any configuration changes made in the sen the Worker manually unless you change the Co	ow how to find the Archive server. After applying the bootstrap ver will be polled by this worker. You will not have to reconfigure onnectivity settings configured in the Archive Server.
Upload Bootstrap Configuration	
	Browse_
Lipload File	
Opidad Tile	
More Information	
To download the bootstrap file and upload it	there:
Open the Archive server's web interfa	ace.
 Select the Worker. 	
 Navigate to the Bootstrap tab. 	
 Select 'Download File'. 	
 Save the file to your desktop. 	
 Return to this interface. 	
 Click 'Browse' and locate the file on y Click Unland File helew 	our desktop.
 Click "Upload File" below. 	

> Click "Browse" to find the file you just downloaded to select it.

	Choose file					? 🛛
Upload Bootstrap Configuration	Look in:	testserver		• + 1) 💣 📰 •	
Upload File	My Recent Documents Desktop	Worker.cfg				
More Information	My Documents					
Open the Retain server's web interface. Select the Worker. Navigate to the Bootstrap tab. Solect 'Journal of Line	My Computer					
Savet borningar ner Savet the file to your desktop. Return to this interface. Click 'Browse' and locate the file on your desktop. Click 'Browse' and locate the locate the savet below.	My Network Places	File name: Files of type:	Worker.cfg All Files (".")		•	Open Cancel

- Click "Open".
- Click "Upload File".
- If the upload went well, you will see this screen:

Configuration Complete. From now on, you'll have to log in as a user (such as the initially created admin user) with the Manage Workers right.

After you click the "Continue" button, you will be returned to the login page. 10) Login as Admin.

Login		
Password		
	Login	

On all subsequent logins, you should be shown the configuration page first.

Worker Configuration	
Friendly Name	linux worker
Worker Unique ID	A08A7635B8D4025F0A0E7E76B00C978F
URI to Server	http://10.1.1.103/RetainServer
Worker Version	1.6.0
Memory Free/Max/Total	59551/1048576/262654
Check for New Version	
Refresh job cache now	
Click "Refresh job cache now" to prompt the worker t	o poll for configuration changes right now.
Bootstrap information has been applied to this server.	If the configuration must be changed in the future, replace the configuration file at /ont/beginfinite/retain/Retain/Worker/WER-INE/rfg/ and restart

You should be able to see your configuration on the screen, as shown. The "Check for New Version" button checks for updates. The "Refresh job cache now" button tells the worker to poll the server for configuration changes and new jobs. After this button is selected, the Worker page will refresh automatically after the Retain Server has been polled. It takes just a few seconds.

11) Verify the Retain Server connection success by selecting the Server Connection tab.

Configuration	Server Connection	Status	Scheduler
Server Cor	nnection		
Successf	fully connected to se	erver	
	2		

- ➢ Go back to the Retain Server.
- ➢ Click "Workers".
- Click on the worker you just created.

You should see the following:

·		
	Add Worker Associated Jobs	
	rew goo david only Remove Worker	
Module specific Status	Bootstrap	
	Module specific Status	Edit Worker

Pay close attention to "Poll for configuration every 'n' minutes. This is how often Retain will check for new jobs.

Also, status updates are displayed on the admin page every 'n' messages.

Now, set logging to a level you would like. You may use "Diagnostic" at first, until the system is fully operational and tested. Please be aware, however, that using this setting will write a huge amount of data in the log files.

The **profiles**, **schedules** and **jobs** must be setup, if they already have not been, in order to begin actual data collection.

Jobs

Jobs are separated into different modules. A module, schedule, profile, and worker must be configured before a Job can be created. Module specific job menu's only display when multiple modules are configured. Jobs bring the entire configuration together to archive mail from the mail server, according to the configuration. Jobs are where data collection is achieved.

A job:

- > Starts according to the selected SCHEDULE.
- > Collects data according to the selected **PROFILE**.
- Utilizes the selected WORKER, and only the selected worker according to the schedule and profile.
- Collects data from the specified mail source, (messaging server, distribution list, group, and individual user)

Jobs look and act differently depending on which module they are configured under. Select the desired module from the Job menu, (or simply 'Jobs' if only module is configured), and configure according to job needs.

Exchange Jobs

All mail archiving is accomplished through this interface because the methods to interact with the Exchange system are tied into this job interface. Only Exchange profiles will be able to be viewed or selected through this interface, and no other modules profile will be selectable here. However, schedules and workers are universal and can be selected in any modules' job interface.

Overview	🐇 Jobs
Documentation <u>Search Messages</u> Audit Log	9
System Log	Add Job
Data Collection Schedules	Edit Job
Profiles Workers	Remove Job
Exchange Social Networking	

To create a new job, select the 'Add Job' button and provide a name for the job. To save a job, the job must have a Profile, Worker, Schedule, and a mailbox, distribution list, or server to be archived. In other words, a job must have a time to run, types of things to get, something to get it with, and a target or a place to get it, in order to be saved and run.

A job without an assigned profile, schedule, worker, or mailbox cannot be saved.

Core Settings

Under 'Core Settings' the profile, schedule, and worker are selected. Only existing profiles, workers, and schedules may be selected. The selected schedule will determine when the job is run; the Profile determines what kinds of mail are archived, and the worker is the agent which performs the work.

JOD ellapied	V				
Each Job must have t	he followir	ng assigned t	to it:		
 schedule - Hov profile - What worker - Wher 	w often to to do whe re to run t	run en running he job			
Schedule	david only	.			
Profile	exchange	•			
Worker	new worker	-			
Items archived with th timestamp can only be	iis job can e extendeo	optionally be d, never redi	e set with an uced.	"expiration t	timestamp" which the Deletion Manager can use to remove obsolete items. The expiration
Items archived with th timestamp can only be Enable data expiratio	nis job can e extended on 🔲	optionally be d, never redi	e set with an uced.	"expiration t	timestamp" which the Deletion Manager can use to remove obsolete items. The expiration
Items archived with th timestamp can only be Enable data expiratio Expire	nis job can e extended on 🔲 in 0	optionally be d, never redi Days	e set with an uced.	"expiration t	timestamp" which the Deletion Manager can use to remove obsolete items. The expiration
Items archived with th timestamp can only be Enable data expiratio Expire Base Expiration Time of	extended on in 0 Date Ite	optionally be d, never rede Days em is stored in R	e set with an uced. Retain (recommer	"expiration t	timestamp" which the Deletion Manager can use to remove obsolete items. The expiration $\mathbf{\bar{v}}$
Items archived with th timestamp can only be Enable data expiratio Expire Base Expiration Time o	is job can e extended on in 0 on Date Ite	optionally be d, never redi Days am is stored in R	e set with an uced. •	"expiration t nded)	timestamp" which the Deletion Manager can use to remove obsolete items. The expiration \mathbf{v}
Items archived with th timestamp can only be Enable data expiratio Expire Base Expiration Time o	is job can e extended on in 0 Date Ite	optionally be d, never redi Days em is stored in R	e set with an uced.	"expiration t	timestamp" which the Deletion Manager can use to remove obsolete items. The expiration
Items archived with th timestamp can only be Enable data expiratio Expire Base Expiration Time o	is job can e extended on in 0 on Date Ite	optionally be d, never redu Days am is stored in R	e set with an uced.	"expiration t	timestamp" which the Deletion Manager can use to remove obsolete items. The expiration ${\bf v}$

The data expiration is an option to place a timestamp on the mail in the Retain database, which allows for ease of automation for the deletion manager. In addition, devices such as NetApp, Centera, Caringo, and Hitachi HCAP may use this number to enforce hardware level protection of the stored item so that no one (including Retain) may delete the item before its expiration date.

This time stamp simply puts a date on which the mail is "set to expire" and can be in days, months, or years. Mail that has 'expired' due to this time stamp will remain in the database until removed by the deletion manager Job Expiration is not retroactive for mail in the database and only applies to mail archived by the job that it is active for.

There may be some folders which it may not be desirable to place an expiration time stamp on. Such folders may be specified through the 'add' button at the bottom of the page.

Some customers may wish to override the default expiration settings for specific folders. You may specify these folders below - any folders that do NOT meet these criteria will have the expiration settings specified above applied. If you only want the folders to have expiration policies, enter -1 above for the base expiration value.
Add
Delete Root Include subfolders 0 Days

The base folders and criteria are specified here. All messages included in these folders will have a different date, if specified, or exempted from this expiration date. In order to have messages with custom job or folder expiration dates properly expire, the deletion management date scope must be set to delete messages with an Expiration Date older than 1 day.

Journaling

Journaling MUST be enabled on the Exchange system, and Journaling mailboxes must be provided for legal archive compliance.

Core Settings	Journaling	Mailboxes	Notification	Status	
Journaling					
Exchange uses entry to be del select a funnel	Journaling to leted after bei mailbox, each	achieve compl ng archived (r journaling mai	iance. You can ecommended). Ibox will create	list journaling m You may also c separate mailbo	ailboxes to be dredged by the Worker below, and indicate if you wish the original journal onsolidate all archived items to a single mailbox (funnel mailbox) in Retain. If you do not xes in Retain.
Make sure all er	ntries belong t	o the domain	you specified in	the Core Setti	ngs tab, or they will not be saved.
	Enable Jour	naling 🔽			
Delete archive	d items from jo	ournal 🔽			
Journaling ma	ilbox				
Funnel mailbo	x				
]	
L					

To archive messages contained in the Journaling mailbox, specify the Journaling mailbox by selecting it from the user/mailbox list. Open the mailbox selection window by selecting the 'Journaling mailbox' button and searching for the desired mailbox.

After searching for mailboxes and users in the cached address book, the users must be added to the list by selecting the checkbox next to the desired name in the search results box, then selecting the 'Add Selected' button at the top.

The red 'X' next to the names in the 'Currently Selected' list allows removal of selected items. Once

Select	Maliboxes								_ X
Add Se	lected Ok	Cancel							*
Currer	ntly Selected –								
样 a	ıdmin								
🕺 D	David Bassett								
Cuitoui									E
Criteri		1							
First Na	ime 💌	begins with		Searc	h				
Show o	only users 📝 Sł	now only recently	cached items 📃						
									1
Addre	ss Book							_	
	<u>First</u>	<u>Last</u>	Mail Server	<u>Mailbox</u>	<u>Dept.</u>	<u>Type</u>	<u>Domain</u>		
		admin	ро	admin		U	dom		
	David	Bassett	ро	David		U	dom		
	Samuel	Clements	ро	Sam		U	dom		
	Benjamin	Rush	ро	Benjamin		U	dom		
									Ŧ

the list has been configured as designed, selecting the 'Ok' button from the top of the window will add the selected names to the list.

A 'Funnel' mailbox creates a single mailbox in Retain that 'funnels' all the mail from all the different journaling mailboxes into one. If this is not specified, then each Journaling mailbox will be created and archived in the Retain system as any normal mailbox would be archived and created.

It is HIGHLY recommended to delete archived items from the journaling mailbox to avoid bloating the existing message system or requiring manual maintenance and management of the Journaling mailboxes.

Mailboxes

The final setting that a Job must have in order to be saved and run, is a target: where to archive mail from. The Mailboxes tab dictates where a Job will look for mail to archive. Only the users or mail server included in a job will be archived by the job when it is run.

Core Settings	Journaling	Mailboxes	Notification	Status	
Mailboxes					
Assign the Mail	Servers, Datab	ase stores, ar	nd/or Distribution	1 Lists to be included in this job.	
Make sure all er	ntries belong to	o the domain	you specified in	the Core Settings tab, or they will not be saved.	
	1	Mail Serve	rs		
🗉 🗣 🔽	WINSERV086	i4			
٠	1	Distributio	n Lists		

Users may be specified separately, whole servers may be selected, and distribution lists spanning different servers may be selected. A job may span all the selected options, or only one of them, but jobs will be faster and more efficient if they are balanced in their scope, for instance, one separate job for each server each with its respective worker, to allow multiple jobs to be run simultaneously without overwhelming one server or worker.

The open text box next to the selection area is a search or filtering interface which allows the administrator to only display distribution lists or mail servers that match the criteria. A blank criteria window will result in all known servers or distribution lists being displayed.

If a user is desired to be included in or excluded from a job, the selection method is identical to that of the Journaling mailbox. Search for the user via the Select Mailbox window and add it to the list.

Mail servers in Exchange may also be expanded into their respective mailbox databases, and individual, or selective mailbox databases may be selected or excluded from any specific job.

Notification

All errors, summaries, and statistics may be sent in an email notification to a desired address on job completion. If it is desired to be notified, configure the notifications under this tab. At least one of the two notification options must be selected in order for an email notification to be created.

Core Settings	Mailboxes	Notification	Status				
-Notification-							
You can have A	rchive e-mail a	summary of o	perations and/	or errors that occurred a	when the ioh	completes	
Tou can have h					Milen ene job	completes.	
	SMTP Mail Se	erver 192.168.	1.121				
SMTP	Mail From Add	dress admin@c	ompany.com				
	SMTP To Add	dress admin@c	ompany.com				
	SMTP Usern	iame sam					
	SMTP Pass	word •••••	•••••	(Password is default)			
Mail	when errors o	ccur					
Mail summary w	/hen job com	olete 📃					
Test Connect	ion						

Status

On initial creation, there will be nothing of interest shown under the 'Status' tab, as the job is under creation or has not yet run.

However, after a job has been run, or has begun, the 'Status' tab becomes a monitoring tool to report on exactly how much mail and mailboxes have been archived, along with any errors encountered.

Core Settings Journ	haling Mailboxes	Notification Status	
Status [Refreshes in	n O]		
Job: new exchange ((D69530CFFBACFFE9F	4A32EE560D13257)	
	Current	Last	Overall
Job began		04-Mar-201	1 10:35:46
Job ended		04-Mar-201	1 10:35:50
Mailboxes	0	2	2
Messages	0	0	0
Errors	0	0	0
	Current	Last	Error
Mailbox			
MS			
Error			

GroupWise Jobs

All data collection for the GroupWise is configured through the GroupWise job interface. The jobs here combine the GroupWise Profile, the Schedule, and a worker together to archive a specified mailbox, distribution list, or domain. A Job must have a Profile, Schedule, Worker, and a target, mailbox, list, or domain, before it can be saved or run.

Core Settings

	s Jobs	- A Q
Overview		
Documentation		
Search Messages	A	
Audit Log	david only	
System Log	new job	
Data Collection	Edit Job	
Schedules		
	Remove Job	
Workers		
G Jobs		
GroupWise	Job new job loaded.	
Groupwise		
Management	new job	
Licore		
Groups	Core Settings Mailboxes Reload Notification Status	
Deletion Management		
	Core Settings	
Configuration		
Server Configuration	V baldene dot	
Module Configuration	Each Job must have the following assigned to it:	
Storage Manager	schedule - How often to run	E
Stubbing Server	profile - What to do when running worker, where to run the job	
Licensing	• Worker - Where to fair the job	
	Schedule full run job 👻	
	Profile Groupwise 🗸	
	Worker new worker	
	Items archived with this job can optionally be set with an "expiration timestamp" which the Deletion Manager can use to remove obsolete items. The	
	expraction callestanty call only be extended, never reduced.	
	Enable data expiration	
	Expire in 0 Days	
	Proc Evaluation Times on Data New instruction (recommended)	
		_
	Some customers may wish to override the default expiration settings for specific foiders. You may specify these foiders below - any foiders riat do No! meet these criteria will have the eviniting specified above applied if you poly want the folders to have eviniting uplicing entry for the set of the setting specified above applied above applied to the setting specified above applied above	the
	base expiration value.	

The Schedule, Profile, and Worker selected here will determine what is archived, when it is archived, and what worker does the actual archival work. The Job MUST be enabled in order to run. Only previously configured Schedules, Profiles, and Workers can be selected.

The **Data Expiration** is an option to place a timestamp on the mail in the Retain database, which allows for ease of automation for the deletion manager. In addition, devices such as NetApp, Centera, Caringo, and Hitachi HCAP may use this number to enforce hardware level protection of the stored item so that no one (including Retain) may delete the item before its expiration date.

Job Expiration is not retroactive for mail in the database, and only applies to mail archived by the job that it is active for. The base folders and criteria are specified under the custom expiration dates accessed through the 'Add' button at the bottom. All messages included in these folders will have a different date, if specified, or exempted from the standard expiration date. In order to have messages with custom job or folder expiration dates properly expire, the deletion management date scope must be set to delete messages with an Expiration Date older than 1 day.

Mailboxes

The mailboxes tab is where the administrator specifies which entities (mail server(s) and/or Distribution List(s)) are to be scanned.

Expand the Post Office and/or Distribution List trees, and check off the items you want to be dredged. Note: If you desire to have a job backup a single user, or selected group of users, select the Users menu and assign the user(s) desired

Core Settings	Mailboxes	Reload	Notification	Status					
Mailboxes									
Assign the Post Of	Assign the Post Offices and/or Distribution Lists to be included in this job. Distribution Lists <i>must</i> have System Visibility.								
	9	Mail Ser	vers						
ଦ୍ୱ 🔽 po (de 	om)	Distribut	tion Lists						
■ Users									

The users section allows you to select individual users to include, or exclude them from an archive job.

For example: you can select an entire Post Office to be archived, and then expand the users section to include or exclude users to the job.

This can also be used to select only certain users in the system for an archive job.

∎ Users	Image: Mail Servers Image: Mail Servers Image: Mail Servers Image: Distribution Lists	
Add User		
💥 🚦 Bastula 🗶 🚦 blufish		
Exclude: Add User		
🗶 🚦 Jamison		

To add a user to the Include or Exclude list, select the respective 'Add user' button and search for the user. It can be helpful to unselect the 'only show recently cached items' option.

Add the selected users to the list in the search window, then select 'Ok' to add them to the include or exclude list.

NOTE: Retain cannot access certain GroupWise accounts due to GroupWise account limitations. Expired and Disabled accounts are inaccessible to Retain. Prior to GroupWise 7.0.3, limited license accounts also cannot be accessed by Retain.

If an expired or disabled user account, (or limited license accounts under GroupWise 7.0.3), is selected for a job, or a post office containing such user accounts is selected, Retain will notify the administrator of a failure to archive those users. This is not an error, it is a limitation imposed by GroupWise. GroupWise and Retain are functioning correctly.

Reload

Selecting this option tells the job to use the Reload integration for systems utilizing Reload. See the <u>Reload integration</u> section for more information. The Server URL must be edited with the correct contact info for the reload server. The default Reload port is 5555.

Core Settings	Mailboxes	Reload	Notification	Status					
Reload									
You can backup your GWAVA Reload server, saving network bandwidth if desired. This requires Reload 2.5 or newer and some configuration changes on the Reload machine. Please consult the user manual for additional information.									
Enable Reload	Enable Reload Integration								
Reload	Server URL	nttp://myRe	loadBox:5						
Advanced Reloa	d Settings								

Retain instructs Reload to load the corresponding backup set for each date range in the profile. If a different set needs to be specified, the override setting specifies a date range specifically for Reload, which then will ignore the date range in the profile. Retain will still archive according to the profile date range or settings.

Advanced Reload Settings							
Normally the Reload Sets that are backed up correspond to the Date Range specified in the profile. Occasionally, you might want to override this.							
Override Reload Date Range							
Start: 1995 Jan 01 Image: Constraint of the start of the							

Notification

When a job runs, you can request an error report or job summary to be sent by e-mail.

Core Settings	Mailboxes	Reload	Notification	Status						
Notification	Notification									
YOU Can nave R	(eldin e-mail a	summary	or operations an	u/or errors	chat occurred when the job completes.					
	SMTP Mail Se	erver 192	.168.1.104							
SMTP	Mail From Add	dress reta	retain@gwava.com							
	SMTP To Add	dress adm	admin@gwava.com							
	SMTP Usern	ame chri	5							
	SMTP Pass	word •••	•							
Mail	Mail when errors occur									
Mail summary v	vhen job com	olete 📃								
Test Connect	tion									

Job Status

When a job is not running, the status tab displays information about the last time it ran:

Status [Refreshes in	1]		
Job: daily (5828440074	95D6705B173FFE5E4EC23B)		
	Current	Last	Overall
Job Began	Not running	12-Oct-2007 12:00:00	
Job Ended		16-Oct-2007 12:42:04	
Mailboxes	46	46	46
Messages	7596	238896	238896
Errors	0	0	0
	Current	Last	Error
Mailbox	steve	beta	
PO	rlpo	ripo	
Error			

When a job is running, you have the option of aborting the job:

Status [Refreshes in	17]		
Job: first backup (273	318D8551ED008C24B8EABC6CDF8A36)		
	Current	Last	Overall
Job Began	19-Feb-2008 13:10:00	never	
Job Ended	Abort Job	never	
Completed: 12 / 13 ((92%)		
Mailboxes	13	0	0
Messages	3568	0	0
Errors	0	0	0
	Current	Last	Error
Mailbox	lindy	craig	
PO	po-702	po-702	
Error			

This window will refresh every ten seconds to keep you up to date as to the status of the selected job. Is it running, did it run and when, how long did it take, what did it accomplish?

In the title, it displays a refresh countdown in seconds.

The completed line is displayed during an active job. The completed status is a display of how many mailboxes have been completed, the job mailbox total, and gives an incrementing percentage for the amount completed. This amount is based entirely on the number of mailboxes, not the amount of mail. Because the last mailbox could be larger than the rest of the system, this percentage may not be accurate according to time.

Social Messaging Jobs

All data collection for the Social Messaging module is configured through the Social Messaging job interface. The jobs here combine the Profile, the Schedule, and a Worker together to archive a specified mailbox, distribution list, or domain. A Job must have a Profile, Schedule, Worker, and a target, mailbox, list, or domain, before it can be saved or run.

Core Settings

ool o occaligo	
Job enal	bled 🔽
Each Job must have	the following assigned to it:
 schedule - Ho profile - Wha worker - Who 	ow often to run It to do when running Iere to run the job
Schee	dule (none) 👻
Pro	ofile (none) 👻
Wo	vrker (none) 👻
Items archived with toosolete items. The	this job can optionally be set with an "expiration timestamp" which the Deletion Manager can use to remove expiration timestamp can only be extended, never reduced.
Enable data expirat	re in O Davs 👻

The Schedule, Profile, and Worker selected here will determine what is archived, when it is archived, and what worker does the actual archival work. The Job MUST be enabled in order to run. Only previously configured Schedules, Profiles, and Workers can be selected.

The **Job Expiration** is an option to place a timestamp on the data in the Retain database, which allows for ease of automation for the deletion manager. In addition, devices such as NetApp, Centera, Caringo, and Hitachi HCAP may use this number to enforce hardware level protection of the stored item so that no one (including Retain) may delete the item before its expiration date.

Job Expiration is not retroactive for mail in the database, and only applies to mail archived by the job that it is active for. In order to have messages with custom job or folder expiration dates properly expire, the deletion management date scope must be set to delete messages with an Expiration Date older than 1 day.

Users Guide

Mailboxes

The mailboxes tab contains the target users, distribution lists or groups to be archived by the job. By default, all users are included.

The job may be restricted to

specific users, either on the 'Include Users' list. To add users, expand the User's option box and select the users to be archived. For users to be available for this dialog box, the RSM must have been configured with users. Users may be selected through the user search interface, spawned through selecting the 'add user' button.

If there are users listed, then the users listed in the 'Include Users' box are the ONLY included users, while those listed in the 'Exclude' window are excluded from the jobs.

Notification

All errors, summaries, and statistics may be sent in an email notification to a desired address on job completion. If it is desired to be notified, configure the notifications under this tab. At least one of the two notification options must be selected in order for an email notification to be created.

Status

On initial creation, there will be nothing of interest shown under the 'Status' tab, as the job is under creation or has not yet run.

However, after a job has been run, or has begun, the 'Status' tab becomes a monitoring tool to report on exactly how much mail and mailboxes have been archived, along with any errors encountered.



Assign the Mail Servers, Database stores, and/or Distribution Lists to be included in this job.

Make sure all entries belong to the domain you specified in the Core Settings tab, or they will not be saved.

Users Include Users: Add User Exclude Users: Add User Core Settings Mailboxes Notification Status Notification You can have Retain e-mail a summary of operations and/or errors that occurred when the job completes. SMTP Mail Server 192.168.1.104 SMTP Mail From Address retain@gwava.com SMTP To Address admin@gwava.com SMTP Username chris (Password is default SMTP Password Mail when errors occur Mail summary when job complete Test Connection Job: first (78778DFEC4A3E6D22C03108FB693079A) Current Last Job began 15-Sep-2012 15:38:09 Job ended 15-Sep-2012 15:42:09 Mailboxes 0 4 4 Messages 0 3321 3321

Errors	0	0	0
	Current	Last	Error
Mailbox		admin	
MS		ро	
Error			

Google Apps Jobs

All data collection for Google Apps is configured through the Google Apps job interface. The jobs here combine the Profile, the Schedule, and a Worker together to archive a specified mailbox, distribution list, or domain. A Job must have a Profile, Schedule, Worker, and a target, mailbox, list, or domain, before it can be saved or run.

The Schedule, Profile, and Worker selected here will determine what is archived, when it is archived, and what worker does the actual archival work. The Job MUST be enabled in order to run. Only previously configured Schedules, Profiles, and Workers can be selected.

bs 🗟 🖓
8
Google Apps - gwavaga.mygbiz.com
Add Job
Edit Job
Remove Job
Job Google Apps - gwavaqa.mygbiz.com loaded.
Job Google Apps - gwavaqa.
Core Settings Mailboxes Notification Status
Core Settings
Each Job must have the following assigned to it:
 schedule - How often to run
 profile - What to do when running worker - Where to run the job
Children Courte have
Scredule Google Apps
Worker on 118
Items archived with this job can optionally be set with an "expiration timestamp" which the Deletion Manager can use to remove obsolete items. The expiration timestamp can only be extended, never reduced.
Enable data expiration
Expire in 1 Days 🗸
Base Expiration Time on Date Item was delivered to mail server.
Some customers may wish to override the default expiration settings for specific folders. You may specify these folders below - any folders that do NOT meet these criteria will have the expiration settings specified above applied. If you only want the folders to have expiration policies, enter -1 above for the base expiration value.

The **Data Expiration** is an option to place a timestamp on the mail in the Retain database, which allows for ease of automation for the deletion manager. In addition, devices such as NetApp, Centera, Caringo,

and Hitachi HCAP may use this number to enforce hardware level protection of the stored item so that no one (including Retain) may delete the item before its expiration date.

Job Expiration is not retroactive for mail in the database, and only applies to mail archived by the job that it is active for. The base folders and criteria are specified under the custom expiration dates accessed through the 'Add' button at the bottom. All messages included in any specified folders will have a different date or be exempted from the standard expiration date. In order to have messages with custom job or folder expiration dates properly expire, the deletion management date scope must be set to delete messages with an Expiration Date older than 1 day.

Mailboxes

The mailboxes tab is where the administrator specifies which entities (mail server(s) and/or Distribution List(s)) are to be scanned.

Expand the Post Office and/or Distribution List trees, and check off the items you want to be dredged. Note: If you desire to have a job backup a single user, or selected group of users, select the Users menu and assign the user(s) desired

Core Setting	s Mailboxes	No	tification	Status
Mailboxes				
T diboxes				
Assign the P	ost Offices and/o	or Dist	ribution List	ists to be included in this job. Distribution Lists <i>must</i> have System Visibility.
+] 🕈	Mail Serve	vers
+] 🕈	Distributio	tion Lists
•] 🕈	Distributio	tion Lists (exclude)

The users section allows you to select individual users to include, or exclude them from an archive job.

For example: you can select an entire Mail Server to be archived, and then expand the users section to include or exclude users to the job.

This can also be used to select only certain users in the system for an archive job.

To add a user to the Include or Exclude list, select the respective 'Add user' button and search for the user. It can be helpful to unselect the 'only show recently cached items' option.

Users	
Include:	
Add User	
🗶 🚦 Bastula	
🗶 🔒 blufish	
Exclude:	
Add User	
🗶 🚦 Jamison	
🗶 📋 maston	

Add the selected users to the list in the search window, then select 'Ok' to add them to the include or exclude list.

Notification

When a job is run, the notification option allows the administrator to be emailed a summary of each running job if desired.

For notification to function correctly, the SMTP information for the desired SMTP server must be fully filled-out. How much information is required varied

Core Settings Mailboxes Not	ification Status	
Notification		
You can have Retain e-mail a summ	ary of operations and/or error	ors that occurred when the job completes.
SMTP Mail Server	10.1.12.16	
SMTP Mail From Address	Retain320	
SMTP To Address	softwareqa@gwava.com	
SMTP Username		
SMTP Password	(Pa	assword is not set)
Mail when errors occur		
Mail summary when job complete		
Test Connection		

depending on the mail system used.

Status

The Status tab displays the status of any currently running jobs, as well as the stats of the last completed job.

ore Settings	Mailboxes Notification	Status	
Status [Defead	as in Fl		
status [Refrest	ies in 5j		
Job: Google App	s - gwavaqa.mygbiz.com (35254EFAA7D131D948D968F790D2FED)	
	Current	Last	Overall
Job began		04-Sep-2013 22:08:44	
Job ended		04-Sep-2013 22:12:57	
Mailboxes	2	2	4
Messages	0	4	77
Errors	0	0	0
	Current	Last	Error
Mailbox			
MS			
Error			

This tab is informational only unless a job is currently running, an option to abort the currently running job is displayed.

When a job is running, you have the option of aborting the job:

	Current	Last	Overall
Job Began	19-Feb-2008 13:10:00	never	
Job Ended	Abort Job	never	
Completed: 12 / 13 (92%)			
Mailboxes	13	0	0
Messages	3568	0	0
Errors	0	0	0

This window will refresh every ten seconds to keep you up to date as to the status of the selected job. The completed line is displayed during an active job. The completed status is a display of how many mailboxes have been completed, the job mailbox total, and gives an incrementing percentage for the amount completed. This amount is based entirely on the number of mailboxes, not the amount of mail. Because the last mailbox could be larger than the rest of the system, this percentage may not be accurate according to time.

Mobile Jobs

Usually, the Job interface combines the worker, profile, and schedule configurations into a workable format for data collection. However, due to the particular nature of archiving from Mobile devices and the setup of the Mobile module, the profile, schedule, and worker are already dictated. The Job's interface for the Mobile module contains the Data Expiration, Notification, and Status functions for message data gathering. Enabling of Mobile data archiving is achieved in configureing the Mobile module, acquiring a tenant ID, and registering mobile devices.

Core Settings

The core settings tab contains information on the schedule, profile, and worker utilized for the mobile module, as well as the data expiration date.

bs																																						Ŀ]	á	3
You should confi	gure these settir	ngs. You also	need to con	figure the Worker	r, an	and	d t	tł	h	r		00	eg	in	re	gist	ter	rin	g (evi	ces	ur	ld€	er	De	vi	ce	Μ	ar	naç	je	m	en	nt							
Core Settings	Notification	Status																																							
-Core Setting	5																																								
Schedule mot	ile_schedule																																								
Profile mot	ile_profile																																								
Worker 811	33f47da1b4b05	b84c78518fb	3f530																																						
Items archived	with this job ca	n optionally b	e set with ar	n "expiration times	stam	mp	р"	١,	W	h	d	n	th	e	De	elet	tio	n I	٩a	nag	er	car	u	se	to	o r	en	no	ve	9 0	bs	ol	let	te i	iter	ms	s. T	'ne			
expiration time	stamp can only I	be extended	, never reduc	:ed.																																					
Enable data	expiration 🔽																																								
	Expire in 1	Days	•																																						

The **Job Expiration** is an option to place a timestamp on data in the Retain database, which allows for ease of automation for the deletion manager. In addition, devices such as NetApp, Centera, Caringo, and Hitachi HCAP may use this number to enforce hardware level protection of the stored item so that no one (including Retain) may delete the item before its expiration date. Job Expiration is not retroactive for mail in the database, and only applies to mail archived by the job that it is active for. **In order to have messages with custom job or folder expiration dates properly expire, the deletion management date scope must be set to delete messages with an Expiration Date older than 1 day.**

Notification

When a job is run, the notification option allows the administrator to be emailed a summary of each running job if desired.

For notification to function correctly, the SMTP information for the desired SMTP server must be fully filled-out. How much information is required varied depending on the mail system used.

Core Settings	Mailboxes	Notification	Status		
Notification					
You can have R	etain e-mail a	summary of op	erations and/	or errors that occurred w	hen the job completes.
	SMTP Mail S	erver 10.1.12.	16		
SMTP	Mail From Ad	dress Retain32	0		
	SMTP To Ad	dress software	qa@gwava.co	m	
	SMTP Userr	ame			
	SMTP Pass	word		(Password is not set)	
Mail	when errors o	ccur 🔽			
Mail summary w	hen job com	olete 🔽			
Test Connect	ion				

Status

The Status tab displays the status of any currently running jobs, as well as the stats of the last completed job.

Core Settings Notification	Status		
Chattana (Defenationa in D)			
Status [Refreshes in 3]			
Job: Mobile Job (301acdda2055	54dbe92e7aaa4e6239da6	i)	
	Current	Last	Overall
Job began		07-Sep-2013 12:56:44	
Job ended		07-Sep-2013 12:56:46	
Mailboxes	0	1	5602
Messages	0	0	419
Errors	0	0	3
	Current	Last	Error
Mailbox			
MS			
Error			

This tab is informational only for the Mobile module.

Blackberry Jobs

All data collection for the Blackberry module is configured through the Blackberry job interface. The jobs here combine the Profile, the Schedule, and a Worker together to archive the specified server logs. A Job must have a Profile, Schedule, Worker, and a selected server, before it can be saved or run. To create a new job, click, 'Add Job', and configure and save.

Core Settings

The core settings tab contains the basic configuration. Select the 'Job enabled' option to enable archiving. Also select a Schedule, Profile, and Worker to complete the job. If the SMTP Send is enabled, the worker will forward BES message data.

🕹 Jobs	H.	2	2
0 BES 05 Now 0 BES 10 Now BES 08:00 Add Job			*
BES 09:00 BES 10:00 BES 11:00 BES 12:00 BES 13:00 BES 14:00 BES 15:00			
Job 0 BES 05 Now loaded. Job 0 BES 05 Now			
Core Settings Mailboxes Notification Status			
Core Settings Job enabled Fach Job must have the following assigned to it: schedule - How often to run profile - What to do when running worker - Where to run the job Schedule BES 05 Now Profile BES Profile BES Profile BES Profile BES Worker			
Send BES items via the SMTP connector to an external system. Enable SMTP Send			
Items archived with this job can optionally be set with an "expiration timestamp" which the Deletion Manager can use to remove obsolete items. The expiration timestamp can only be extended, never reduced.	he		
Enable data expiration			
Expire in 1 Days -			
Base Expiration Time on Date Item was delivered to mail server.			

The **Data Expiration** is an option to place a timestamp on the data in the Retain database, which allows for ease of automation for the deletion manager. In addition, devices such as NetApp, Centera, Caringo, and Hitachi HCAP may use this number to enforce hardware level protection of the stored item so that no one (including Retain) may delete the item before its expiration date. Job Expiration is not retroactive for mail in the database, and only applies to mail archived by the job that it is active for. The base folders and criteria are specified under the custom expiration dates accessed through the '**Add**' button

at the bottom. All messages included in any specified folders will have a different date or be exempted from the standard expiration date. In order to have messages with custom job or folder expiration dates properly expire, the deletion management date scope must be set to delete messages with an Expiration Date older than 1 day.

Mailboxes

The mailboxes tab contains the target users, and BES servers to be archived by the selected job.

Under the Mailbox tab, select the BES server to be included in the Job. The list of available BES servers is configured from the Modules page. Once selected, all users associated or present on the BES server are included.

Once a job has been run, the user list will be populated and further configuration is possible. The job may also be restricted to specific users, specified on the 'Include Users' list, or restricted to exclude users listed on the 'Exclude' list. To add users, expand the User's option box and select the users to be archived. Users may be

Mailboxes
Select the BES server to be included in this job.
(nons)
(none)
BES10.1

Core Settings	Mailboxes	Notification	Status	
Mailboxes				
Select the BES	server to be ir	ncluded in this j	ob.	
(none) 🔻				
■ Users				

selected through the user search interface, spawned through selecting the 'add user' button.

If there are users listed, then the users listed in the 'Include Users' box are the ONLY included users, while those listed in the 'Exclude' window are excluded from the jobs.

Notification

All errors, summaries, and statistics may be sent in an email notification to a desired address on job completion. If it is desired to be notified, configure the notifications under this tab. At least one of the two notification options must be selected in order for an email notification to be created.

Status

On initial creation, there will be nothing of interest shown under the 'Status' tab, as the job is under creation or has not yet run.

However, after a job has been run, or has begun, the 'Status' tab becomes a monitoring tool to report on exactly how much mail and mailboxes have been archived, along with any errors encountered.

Job: first (78778DFEC4A3E6D22C03108FB693079A)					
	Current	Last	Overall		
Job began		15-Sep-2012 15:38:09			
Job ended		15-Sep-2012 15:42:09			
Mailboxes	0	4	4		
Messages	0	3321	3321		
Errors	0	0	0		
	Current	Last	Error		
Mailbox		admin			
MS		ро			
Error					

Management

Users

User and Rights Management in Retain include:

- Creating, deleting, and editing users.
- > Allowing new user accounts, and restricting specific ones from being created.
- ➢ User expiration.
- Assigning users to groups, to conveniently grant rights or set initial settings on a multiple user basis.
- Granting access to mailboxes others than the user's personal mailbox.
- Changing the specific functions the user can perform.

To access User and Groups Management, the user logging in needs the "Manage users and groups" administrative right.

Creating Users

The primary purpose of a user account is to store their preferences, rights, mailboxes to which they have access, and authentication information.

Users come from one of two places

- > They may be valid message system users logging in with their credentials
 - These users use SOAP authentication for GroupWise and Active Directory authentication for Exchange.
 - Retain checks their login credentials with GroupWise or Exchange
 - These users initially belong to the group *default*. You may change this later.
 - You may restrict users (prevent them from logging in) in <u>Server Configuration</u>.
- > They may be specially created in Retain independently of any message system
 - Users created in Retain do not need to have a message system account.
 - Users who don't exist in the message system will use the *offline password*.

Offline Password

There are, however, occasions when you might want someone to search through the Retain archives, but who is not part of the mail system. Such a person might be an independent auditor, a lawyer, a user deleted from the live system, etc.

For this reason, Retain has an *offline password* system. These passwords are stored in Retain's control database. Retain does not care how a user authenticates: whether offline, via SOAP for GroupWise, Exchange, or LDAP, the same rights can be assigned. An administrator who possesses the Manage Users and Groups' administrative right can assign all the rights they contain.

Users may also be assigned access to more than one mailbox. Offline users will need to be given access to at least one mailbox to perform searches. Users who are assigned "Search All Mailboxes" rights have access to all users' mailboxes.

GroupWise Proxy support only works for users who authenticate via GroupWise SOAP protocol.

-

Creating a new user

- 1) Begin by clicking on the *Add User* button.
- 2) Enter a new user name and then fill out the options under each tab.
- 3) When you are done, click the

SAVE CHANGES disk icon at the upper right.

All previously created users are listed and can be edited or removed, by clicking on the *Edit User* or *Remove User* buttons.

Core Settings

- Authentication method
 - SOAP (for GroupWise users)
 - GroupWise users logging in are authenticated using SOAP.
 - These users are automatically entered into Retain's user list.
 - Exchange (SOAP for Exchange). Exchange users are authenticated via SOAP for

Exchange and users are added into Retain's user list.

- Offline Password (credentials stored within Retain)(any type of user)
- LDAP authentication The <u>LDAP authentication</u> must be setup under Server Configuration, accounts tab.
- You may lock a user account so it can only use one type of authentication.
 - If "exclusive" is not checked, it will try one, then the other.
- Primary UID
 - Offline only accounts usually won't have one.
 - The initial Admin account is set to use *OFFLINE* exclusively, so it never has one.
- Group Membership.
 - Default is "default"
 - Create groups under "<u>Groups</u>" and they will appear as choices here.
 - Users may belong to one and only one group. From an assigned group, additional rights, mailboxes, and initial settings may be inherited.
- Account Expiration.
 - Check this box if this user's account should not expire.
 - Useful for administrator accounts.
 - By default, accounts never expire, (0=never), but can be changed in <u>Server</u> <u>Configuration</u>.
- ➢ Offline Password.
 - If you use this authentication method, store the password here.
 - May be changed as needed.
 - You can prevent the user from changing it themselves.

Core Settings	
Comment	
Authentication Method	Offline Authentication
Primary UID (links your rights)	2edf61cd-4b81-49bc-953a-f049f0e5be65
Group Membership	default 👻
This account does not expire	
Change Internal Password	New Confirm
	Prevent user from changing
Language	English 👻
Disable Account	Date: 2012 V Jul V 27 V

sers	
admin	Add User Add User Edd User Edd User Remove User
User admin loaded. User ID admin Core Settings User Rights	Malboxes Miscelaneous
Authentication Method Primary UID (links your rights)	Offine Authentication V Use Exclusively? int.cbf24999-8bdd-66b6-144a-c28c764d1818
Group Membership This account does not expire	Gefault w
	New Confirm
Change Internal Password	Prevent user from changing? English

-

- Passwords are always stored in an encrypted format <u>never in clear text</u>.
- Default Language.
 - Choose which language will be used in the Search Interface for this user.
- Disable account
 - This allows the admin to pick a date when the account will no longer be allowed to login, but the account will not be deleted.

User Rights

The restore right has been activated. Please understand how this functions for your messaging system(s).				
When restoring to Exchange, the full item is restored, including attachments. There are no dependencies.				
In GroupWise, we restore just the "stub" of the item. This has the advantage of being quite quick, and accurate.				
However, for your users to read the stubbed items, you MUST enable the Retain Stubbing Server, and must set up stubbing in ConsoleOne. You do				
NOT have to enable stubbing while archiving messages.				
Rights explicitly granted to the user.				
Administrator level rights				
Ccess all audit logs				
Deletion Manager				
Add, edit, remove global tag definitions				
Z Apply or remove litigation hold				
V Manage Server				
Manage Users and Groups				
Manage Workers, Schedules, Profiles, Jobs				
V Publish Messages				
Restore messages [Any Mailbox]				
Search all mailboxes				
See Confidential Items [other mailboxes]				
User level siehte				
Ver level rights				
View/Save attachments				
View personal audit log				
Viewe personal messages Viewe personal messages				
V Forward Messages				
✓ Print Messages				
Read Configuration (Redline)				
Restore messages [My Maibox]				
Apply Confidential Tag [own mailbox]				
Add, edit, remove user tag definitions				
The following rights are additionally inherited from the user's group membership:				
View/Save attachments				
Forward Messages Print Messages				
FINIC MICOODYCO				

When an administrator level right is granted a user, that user will see that right in the management console when they log into Retain. If a right that the full Administrator can view is missing from the menu of that user, they are missing that right. To view and have access to that option, they must have the missing right granted to that user. If you have performed an upgrade and are missing options, check for a missing administrator right.

- Control what rights you grant to the user here. Check the box to enable the right.
- These are extra rights.
 - You don't need ANY of them for the user to access their mailboxes.
 - You do need them to do "special things". The first admin account gets them all.
- Retain first checks your assigned group and you start with the group rights.
- The rights you explicitly set here are ADDED to the group rights for the user's effective rights.
- This way, you can control users as a group and give different rights to different groups.
- If you don't have rights to an administrative option, it won't appear on the left.
- > It should be clear from this screen that there is no such thing as an "Administrator" per se in Retain. Instead, some users simply have more rights to do more things than others. A distinction is made between Administrator level rights (which allow a user global system wide power) and User level rights, but any user can have zero or more rights in either category. The "administrator" you created in the setup wizard was simply a user account with all of the Administrator level rights granted by default.

User Rights Summary

Administrator-level rights

- Access Audit Logs
 - The Audit Logs become visible.
 - Main menu audit log
 - . Message properties audit log
 - You can see user activity on two levels 0
 - Globally

- On an individual message basis
- Deletion Manager
 - Allows management of Deletion jobs.
- Add, Edit, Remove global tag definitions.
 - Allows manipulation of global tags in the view messages interface.
- Litigation hold
 - Allows excluding mail from Deletion
- Manage Server
 - Access Server Configuration and Licensing
 - Access diagnostic utilities
- Manage Users and Groups
 - Access Users and Groups
- Manage Workers, Profiles, Jobs, Schedules
 - Access data collection system.
 - Login to Worker web interface
- Allows use of Publisher
- Allows messages to be restored to all mailboxes

Administrator level rights

- Access all audit logs
- Deletion Manager
- Add, edit, remove global tag definitions
- Apply or remove litigation hold
- Manage Server
- Manage Users and Groups
- Manage Workers, Schedules, Profiles, Jobs
- Publish Messages
- Restore messages [Any Mailbox]
- Search all mailboxes
- See Confidential Items [other mailboxes]

<u>User level rights</u>

- Apply Confidential Tag [other mailboxes]
- View/Save attachments
- View personal audit log
- Delete messages in other mailboxes
- Delete personal Messages
- Export Messages
- Forward Messages
- Print Messages
- Read Configuration (Redline)
- Restore messages [My Mailbox]
- Apply Confidential Tag [own mailbox]
- Add, edit, remove user tag definitions

- Search All Mailboxes
 - o Grants access to all mailboxes in the system
 - Allows the user to search and browse them.
- See Confidential Items [Other Mailboxes]
 - Allows users to view items which others have tagged as confidential.

Note: Only users with administrative rights will see the administrator's screen on login. Non-admin users are simply forwarded to the Search Interface.

User-level rights

All user level rights are strictly optional, and add additional functionality.

- > None are needed to <u>access</u> your own mailbox and other mailboxes assigned to you.
- > You may wish to grant Forwarding, View Attachment, and Printing rights.
 - The initial "default" group created upon installation does this.
- **Note:** There is no way to perfectly block printing in a web browser, so using this feature should not be taken as a 100% guarantee that users won't be able to print. Nonetheless, for most users, it is effective.

These rights are self-explanatory:

- View/Save Attachments
- View own audit log
- Forward Messages
- Other rights:
 - Delete messages in other mailboxes
 - Allows access to delete items from mailboxes that the user is granted access to, but is not their personal account
 - Delete personal Messages
 - Allows deletion of items from the user's personal account
 - Export Messages
 - Grants the right to use the export option which sends groups of messages or items as a single PDF document.
 - > Add, Edit, remove user tag definitions
 - This allows the user to create, remove, and edit the user's tags in the search messages interface

The Read Configuration right (Redline Integration)

If you are integrating with GWAVA's **Redline** monitoring product, you will need to create a user account so that Redline can log in and retrieve monitoring information. We recommend the following settings:

- Account Never Expires
- > Offline Password Authentication is required. (use exclusively) (be sure to set the password)
- Read Configuration (Redline) right.

- Restore Messages (My mailbox only)
- Print Messages

Mailboxes

Select the mailboxes this user will be able to access in addition to their own.

Core Settings	User Rights	Mailboxes	Miscellaneous	
Mailboxes				
These are additio these e-mail addr <i>All Mailboxes</i> right	onal mailboxes resses (and to ts can access a	beyond the p their primary Ill mailboxes a	rimary mailbox th mailbox), and mig nd perform any o	at the user may access. A non-admin user will only view messages addressed to ht be able to forward/delete messages if given rights. An admin with <i>Search</i> peration in the Search Interface.
Currently Sel	ected			
样 David Ba	assett			
样 Benjami	n Rush			
Criteria				
First Name	▼ beg	ins with	-	Search
System Social	Networking	 Show only 	users 📝 Show	only recently cached items
Add Selected	d			
<u> </u>				
Address Bool	k			
No items foun	d. Please try a	nother search	1.	

Often, you will want some users to be able to search through more than just their own mailbox. Administrators can have "Search All Mailboxes" as a right which gives them access to EVERYTHING. This section allows you to give a far more selective range of mailboxes to a user for searching.

In the example above, the user has explicit rights to two mailboxes. These mailboxes can be taken away from the user simply by clicking on the red 'X'.

Adding users to the list is done using the Address Book selector. In the criteria section, you may enter information to search for a mailbox or a set of mailboxes. The search results will appear in the Address Book section. Each listed entry has a check box you can use to select that mailbox for addition to the list. Once you are done selecting, click **Add Selected Items** to add those mailboxes to your list of searchable mailboxes.

Address Book Selector

Curre	ently Selected —							
×	David Bassett							
×	Benjamin Rush							
Crite	ria							
First N	Name 👻	begins with	-		Search			
	First Name							
Syste	m Social Networkin	g 👻 Show on	lv users 🔽 Show only	recently cached ite	ems 🔲			
Syste	m Social Networkin	g 👻 Show on	ly users 🔽 Show only	recently cached ite	ems 📃			
Syste Add	m Social Networkin	g 👻 Show on	ly users 👿 Show only	recently cached ite	ems 🔳			
Syste Add	m Social Networkin	g v Show on	ly users V Show only	recently cached ite	ems 🔳			
Syste Add	m Social Networkin	g 🔻 Show on	ily users 📝 Show only	recently cached ite	ems 🔲			
Syste Add Addr	m Social Networkin Selected	g - Show on	ly users 🗹 Show only	recently cached ite	ems 🔲			
Syste Add Addro	m Social Networkin Selected ess Book <u>First</u>	g - Show on	Iv users V Show only Mail Server	recently cached ite	ems	Туре	Domain	
Syste Add Addre	m Social Networkin Selected ess Book First	g Show on Last admin	ly users 🗹 Show only <u>Mail Server</u> po	recently cached ite Mailbox admin	ems Dept.	<u>Type</u> U	Domain dom	
Syste Add Addre	m Social Networkin I Selected ess Book First David	g Show on Last admin Bassett	ly users V Show only Mail Server po po	recently cached ite Mailbox admin David	ems Dept.	Type U U	Domain dom dom	
Add Addre	m Social Networkin I Selected ess Book First David Samuel	g Show on Last admin Bassett Clements	Iy users Show only Mail Server po po po	v recently cached ite Mailbox admin David Sam	ems	Type U U U	Domain dom dom dom	

This interface is utilized in various other areas, but is described here.

It shows the currently selected items at the top, and lets you delete an item by clicking the red X. (The New Mailbox selector in the Search Interface is an exception; just choose another item)

Adding Mailboxes

- 1) Choose between the configured module systems
- 2) Fill out basic criteria to narrow your search results (or no criteria for the first 100)
- 3) Click Search.
- 4) The results up to a maximum of 100 are displayed. The user can then page back and forth among the first 5 pages of results.
- 5) Choose which of the results you want to add to the selected list
- 6) Click Add Selected Items
- Notes: You can restrict to just Users (skipping Resources) You can show only recently cached items (last 10 days) The search is not case sensitive.

About "Show only recently cached items"

This option restricts the list of items shown in the selector to those with items stored within the last 10 days. In user/group management, it restricts the list to users who have logged in to the live Mail system within the last 10 days. The idea is to show only current items. If you DO want to see all items regardless of whether they've shown activity within the last 10 days, just uncheck this option.

Miscellaneous Tab

This tab contains settings that mainly govern the way the Search Interface works for the selected user. Note that the user can change any of these settings by using the User Options tab in the <u>Search Interface</u>.

Core Settings User Rights Mailboxes Miscellaneous
Comment
The default comment appended to forwarded messages can be set here.
Comment
Forward Messages
Internet Domain
Date/Time Formats
Defines how dates and times are displayed.
Date Day-ShortMonth-Year Time 24 Hour
Example: 02-Aug-2012 17:20
Display Number
How many items to display per page
Display Number 25 💌
Message Age Display
How many days of messages should be displayed by default?
Message Age Display Last 30 days -
Session Timeout
Time in minutes, to expire an inactive login session.
Time (minutes) 10

> Comment

Default comment for forwarding messages.

- Date/Time Format How
- How you want your dates and times to be displayed. How many items to display per page.
- Display NumberMessage Age Display
 - e Display Default date filter for searching. May be changed on the fly.
- Session Timeout Inactive session timeout. Can be between 5 and 60 minutes.
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GroupWise Proxy Support

Retain supports the GroupWise proxy function. To enable it, check the box in the <u>Module Configuration</u> section. (NOTE: using proxy is useless if the user you wish to enable this function for is set to use offline authentication – found under the <u>core settings of the user</u>.)

NOTE: The 'All User Rights Access' in GroupWise is NOT supported.

This function is used to enable a user to access the mailbox of another user. For example, if user B grants the right to user A to access their mailbox in the GroupWise client, then user A can "proxy" in to user B's mailbox.

Much the same way, if user A has proxy rights into user B's mailbox in GroupWise, and the function is enabled in Retain, then user A may select user B's mailbox for browsing or may search through user B's mailbox in the Search Screen.

In Retain, it is the MAIL READ right which grants access.

Retain uses the list of available mailboxes shown in the GroupWise client to determine which mailboxes will be made available to the logged in user (user A in our example). Thus, it is important that user A has logged into user B's mailbox as proxy using the GroupWise client before doing this in Retain. While user B might have granted the rights to user A, if user A has not yet logged in as proxy to user B's mailbox with GroupWise, then user B will not appear in user A's list of available accounts to proxy into.

Retain checks these proxy rights the first time you access a proxy users mailbox, then caches the information for 7 days as configured in the server Configuration – Miscellaneous tab. (Default is 7 days.)

If you have access to another mailbox by virtue of GroupWise proxy, then you will see that mailbox appear in the mailbox selector in the search screen or you may search through that mailbox as well.

Groups

Once you have created users, you can group them and give them common rights. For instance, you can make a group called "Auditors" and this group will have rights to certain specific functions. If you then add users to this group, these users will get those specific rights in addition to the rights you have explicitly given them.

Overview	& Groups		Save Changes 📙 卍 ②
Documentation Search Messages Audit Log System Log	♥		
Data Collection Schedules		Edit Group	The group 'default' is special. When users are created they are automatically assigned to the 'default' group. The rights, etc assigned to this group determine a user's initial rights and settings.
Management Users Groups Deletion Management Configuration	Group auditor added. Group auditor Core Settings Group Pichte Malboys	e Microlanoous	
Server Configuration Module Configuration Storage Manager Statistics Server Configuration Licensing	Group Membership	Remove Member Member george • Add Mr	ember
	Comment Language Prevent members from changing password Authentication Method	English • Exchange Authentication • U	se Exclusively

This is a great way to save time in managing the rights of a large number of users.

This is the main Groups administration screen. It's laid out just like the Users screen and rights are assigned the same way, for the most part.

In the Groups screen, you will see all defined groups .The group *default* is created when you install Retain. Users are automatically assigned to this group. If you want users to be part of another group, you must first create that group and then add users to it.

You will notice the drop-down list that allows you to select a member. If it says "(no users)", it means that all users are part of the currently selected group and that there are no more users available to add.

You may specify the default language used in the Search Interface for this group of users.

Creating a New Group

If you want to create a new group, simply

- 1) Click "Add Group"
- 2) Type the name in "Group"
- 3) Click "Save Changes".
- 4) Change the properties of the group in the tabs below.

Group Rights

Core Settings Gro	oup Rights	Mailboxes	Miscellaneous
Group Rights			
Rights granted to th	e group. Mer	obers of the	aroun will inherit these rights, as well as ones evolicitly assigned to them
Administrator level r	<u>ights</u>		
Access all audit l	ogs		
Deletion Manage	er		
Apply or remove	litigation hol	d	
Manage Server			
Manage Users an	nd Groups		
Manage Workers	s, Schedules,	Profiles, Jobs	
Publish Messages	S		
Restore message	es [Any Mailb	ox]	
Search all mailbo	xes		
User level rights			
View/Save attac	hments		
View personal au	udit log		
Export Messages	S		
Forward Message	es		
Print Messages			
Read Configurati	ion (Redline)		
Restore message	es [My Mailbo	x]	

In this tab, you define all the rights that will be common to all members of the group. These rights are ADDITIVE and will be in ADDITION to the rights you have explicitly given to the individual user.

For this reason, if you want to manage users as a group, you would typically not assign any individual rights. Rather, you would assign rights to their group. These rights have all the same meanings and function as the <u>users' rights</u>.

To log into and manage or monitor Workers, a User or Group must have the manage workers, Schedules, Profiles, Jobs right. To set or work with the Deletion Manager, the user must likewise have the Deletion Manager right, or they will not be able to modify those settings.

TIPS

Typically, you will not want to grant Redline rights to a group, but in a situation where you have more than one Redline control center and you want to see which one is monitoring, group-level Redline rights would be appropriate.

Typically, you will want to make the default group's rights rather restrictive, granting very limited access by default. If you wanted a user to have more rights, you would simply assign them to another group or you could assign additional explicit rights.

By using groups, you can have groups of individuals with rights to totally different sets of archives. Users only get rights to the mailboxes you allow them.

"Redline" is a trade mark of GWAVA Inc., 100 Alexis Nihon, Suite 500, Saint Laurent, Quebec H4M 2P1

Mailboxes

Core Settings Group Rights Mailboxes Miscellaneous		
Mailboxes		
These are additional mailboxes beyond the primary mailbox that the members of the group may access. A non-admin user will only view messages addressed to these e-mail addresses (and to their primary mailbox), and might be able to forward/delete messages if given rights. An admin with <i>Search All Mailboxes</i> rights can access all mailboxes and perform any operation in the Search Interface.		
Currently Selected		
Criteria		
First Name		
System Exchange Show only users Show only recently cached items		
Add Selected		
Address Book		
Enter criteria to search the cached addressbook.		

This screen works exactly like the user's access to mailboxes. <u>Please see that section</u> on details on how to select which mailbox or mailboxes to assign to the group.

You use the address book selector to choose which mailbox or mailboxes to give the group access to.

By default, groups have access to NO mailboxes; users may only access their own mailboxes. If the user exists only in Retain (no GroupWise account) and their group has access to no mailboxes, then they will have access to no mailbox either.

Typically, you'll give group access to mailboxes only when you want all members of the group to be able to access a particular mailbox. Some examples could include a general sales account or accounts being audited by a group of auditors, a workgroup needing to access each other's archives, and so on.

Groups – Miscellaneous

Core Settings Group Rights Mailboxes Miscellaneous	
Comment	
The default comment appended to forwarded messages can be set here.	
Comment	This is exactly like the users' miscellaneous configuration screen. It applies to all users in the group and users' explicit settings will override the group settings.
Date/Time Formats	The second state of the se
Defines how dates and times are displayed.	interface works for the selected group. See
Date Day-ShortMonth-Year 👻	more information about these settings in the
Time 24 Hour 👻	
Example: 15-Mar-2011 23:45	
Display Number	
How many items to display per page	
Display Number 25 🗸	
Message Age Display	
How many days of messages should be displayed by default?	
Message Age Display Last 30 days 🗸	
Session Timeout	
Time in minutes, to expire an inactive login session.	
Time (minutes) 10	
Deletion Management

The Deletion Manager provides for the removal of items from the archive according to the specified criteria. The Deletion Manager runs as a scheduled job in the archive, looking for, and processing or deleting items that match the search terms. Mail removed from the archive is permanently deleted. Use this option with care. The Deletion Manager will not show up in your system menu if you have not granted the logged-in user the Deletion Management right, or have the litigation hold right. See <u>User</u> <u>Rights</u>. The Litigation Hold right allows users to go to the deletion management section and add or remove the Litigation Hold right for other users. They cannot modify other settings. Users with the deletion management right can view the litigation hold tab, but they cannot grant rights; it is read only.

Core Settings

Here you enable and disable deletion jobs, and detail which actions they will take. When setting up a deletion job, you have the option to tell the job delete and report on the messages deleted, or to simply generate a report on the mail that will be removed from the database. The report function can be very handy to ensure that a job will not remove any mail that is needed, before the messages are actually deleted.

Overview	🗾 D	eletion Man	agement						🛛 🖯 🧞 🌘	
Documentation Search Messages										
Audit Log		Core Settings	Basic Options	Date Scope	Job Members	Notification	Schedule	Mailbox Deletion	Litigation Hold	
Statistics/Reporting		Core Settings								
Data Collection		Job Enabled 🔽								
 Schedules 		When processi	ng job Delete mess	ages as they are pro	ocessed.	•				
Profiles										

Basic Options

This tab provides the criteria that the deletion job will use to identify messages to be deleted. This should look nearly identical to the profile of an archive job. The functions are the same. The item type, source, and status determine which messages are flagged for deletion.

Core Settings	Basic Options	Date Scope	Job Members	Notification	Schedule	Mailbox Deletion	Litigation I
Item Type							
Du dofault all i	tom trinos ara alia	ible for deletion	hut you con root	rict this			
By default, all it	tern types are eig	ble for deletion,	but you can rest	net this.			
			[married and a second s		DI 0		
🗖 Mail 🗖 App	ointment 🔲 Not	e 🔲 Task 🛄 Pho	one Message 🔲 S		Phone Call	BB PIN 🔲 BBM	
🗖 Mail 🔲 App	oointment 🔲 Noto	e 🔲 Task 🛄 Pho	one Message 🔲 S	SMS MMS	Phone Call	BB PIN 🖾 BBM	
Mail App Item Source	pointment 🔲 Not	e 🛄 Task 🛄 Pho	one Message 🔲 S	5M5 _ MM5 _	Phone Call	BB PIN 🖾 BBM	
Mail App	oointment 🔲 Note	e 🔲 Task 🛄 Pho	one Message 🔲 S	5M5 L MM5 L	Phone Call	BB PIN BBM	
Mail App	lassified in one of	a Task Pho	one Message 🔲 S	le for deletion,	unless you re	strict this.	
Mail App - Item Source Messages are c Received	lassified in one of	e Task Pho these categories	one Message 🛄 S	le for deletion,	unless you re	BB PIN BBM	
Mail App	oointment Not	e Task Pho these categories Posted	one Message 🛄 S	INS MMS	unless you re	BB PIN BBM	
Mail App	assified in one of	e — Task — Pho these categories Posted	one Message 🛄 S	le for deletion,	unless you re	BB PIN BBM	
Mail App Item Source Messages are c Received Message Stat	iointment Not	e Task Pho these categories Posted	one Message 🔲 S	MS MMS	unless you re:	BB PIN BBM	

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Date Scope

There are many dates that are contained in a mail system, and the deletion manager allows you to select different date ranges to identify the scope of the deletion manager. The setup is simple; the date range between the "Begin" and "End" dates will be targeted by the delete job.

🗾 De	eletion Man	agement									8) 🕐
												-
				-								
	Core Settings	Basic Options	Date	Scope	Job Mem	bers	Notifica	tion	Schedule	Mailbox Deletion	Litigation Ho	ld
	Date Scope Here the date r type. The creat Retain. The exp Delete mes	range of messag tion and deliver piration date is r ssages where c	ges to be ed date ar elated to Date Stored i	deleted i e interna the expir n Retain	s defined. I Il dates of t ration settir 🖵 is:	it's imp the me ngs acti	ortant to ssage. T ive in the	o choo he sto e Job v	ise the correc red date is wh when the mes	t range, and the cor nen the message wa ssage was stored.	rect date is stored in	
	© 0I	der than 60	Days	•								
	Be	etween two spe	ecific dates									
	St	tart Date: Jan	▼ 01 ·	1995		18 👻	02 👻]				
	Er	nd Date: Dec	▼ 31 ·	2013	→ Time:	18 👻	02 👻]				

The dates can be identified by the date filter. The Date filter allows you to specify the mail system or Retain message dates. The creation and delivered date are mail system dates. The date archived and expiration dates are set in Retain. The expiration date is tied to the job, and is set under the job section.

Date Stored in Retain Delivered Date Expiration Date Created Date

In order to have data with custom job or folder expiration dates properly expire, the deletion management date scope must be set to delete data with an Expiration Date older than 1 day.

The Job Expiration option allows you to set an 'expiration date' that the mail no longer needs to be archived after. (Different States have different laws and requirements. Usually it is between 5 and 10 years.) The Deletion Management interface can utilize this expiration date to identify messages that are due for removal.

Core Settings	Basic Options	Date Scope	Job Members	Notification
Job Members				
Exclude Jou	urnaling Mailboxes			
Include these o	bjects:			
BESX (blackberry	.gwava.com)	+ Add Mail S	erver	
Add User				
Evelude these a				
	objects:			

Select the options as desired.

Schedule

The Schedule allows you to automate and run a deletion job automatically on mail that has passed its required archive

A delete job will only be active for selected users or a selected mail server. The Job Members tab allows you to include an entire mail server or group of users, while excluding specific users from the delete job.

Use this in conjunction with the Generate Report option under Core Settings to pinpoint the mail that will be included in the delete job.

Notification

The reports, errors, and summaries of delete jobs can be sent to the listed address in the notification tab. Using the Generate Report option in Core Settings is useless unless you set this variable.

Core Settings	Basic Options	Date Scope	Job Mem	bers N	otification	Schedule
Notification						
You can have A	rchive e-mail a sun	nmary of operat	tions and/or	errors that	t occurred	when the job
	SMTP Mail Server	192.168.1.12	1			
SMTP	Mail From Address	admin@comp	any.com			
	SMTP To Address	admin@comp	any.com			
	SMTP Username	sam				
	SMTP Password			(Passwor	d is default)	
Mail	when errors occur					
Mail summary w	vhen job complete					
Test Connect	tion					

duration. The options are to run this weekly or on a specific day of the month. The Deletion job is set to run at the same time as the rest of your scheduled maintenance. (Scheduled Maintenance is found under Server Configuration – <u>Maintenance</u> tab. Manual starting of a job is not currently supported.)

eletion Man	agement					Save Cha	nges 📙	R	2
									^
Core Settings	Basic Options	Date Scope	Job Members	Notification	Schedule	Mailbox Deletion	Litigation	Hold	
Schedule A deletion job e run, and be qui	executes during the intensive, if yo	he maintainence u have many me	period on a weel ssages to delete.	kly or monthly b	asis. A deletio	n job can take a ver	y long time	to	

Mailbox Deletion

Deletion Management also has the ability to clean out mailboxes which no longer need to be archived. Mailbox Deletion will not remove the mailbox itself, but will remove everything in a mailbox; messages, items, and folder structures. Any mailbox which has a litigation hold applied to the whole mailbox will be skipped if placed on this list. Likewise, and any item or message with a litigation hold applied will remain with the dependent folder structure. Everything not protected by a litigation hold will be deleted from the mailbox, archive, and index.

Mailbox Deletion may be	🗾 D	eletion Ma	nagement					Save Cha	nges 🔒 🧔	2 📀
performed with a standard										^
deletion job, but it is not		Core Settings	Basic Options	Date Scope	Job Members	Notification	Schedule	Mailbox Deletion	Litigation H	old
something usually left		Mailbox Dele	tion							
with a scheduled, recurring job, because		Full deletion of	f user mailbox data	including folders	5					
there is no need to re-		Add User								
delete an empty mailbox.		样 🚊 colini	b (gwavaqa.mygbiz	.com.GoogleApp	os)					
It is recommended to use		💥 🚦 bobf	(gwavaqa.mygbiz.	com.GoogleApp	5)					
the Mailbox Deletion		样 🚦 colini	b (gwavaqa.mygbiz	.com.GoogleApp	os)					
option on single instance		样 🚦 carl (gwavaqa.mygbiz.co	om.GoogleApps)	1					
jobs.		样 🚦 bobf	(gwavaqa.mygbiz.(com.GoogleApp	5)					
		样 🚪 carl ((gwavaqa.mygbiz.co	om.GoogleApps)						
To set a mailbox for deletion, select the 'Add										
User' button to open the										
'Select Mailboxes' dialog.										

Select Mailboxes						×
Add Selected Ok Cancel						
Criteria First Name System GroupWise Show only to Address Book	Jisers 🗌 Show o	only recently cached ite	Search			 E
First Last Archive310 BladP Retain310 RickL Resource01 User02-Projects State	Mail Server LXPO GW7NTPO LXPO LXPO LXPO	<u>Mailbox</u> Archive310 BladP Retain310 RickL_Resource01 User02-Projects	<u>Dept.</u>	Type R U R R R	Domain LXDom GW7NTDom LXDom LXDom LXDom	•

Search for and select the desired user, or users' mailboxes.

Select the 'Add Selected' button to add the selected users to the selected user list. Additional searches may be performed after selected users are added to the currently selected list. Repeat until all desired users are selected, then select 'OK' to add the user mailboxes to the

deletion list.

Save the changes on the page. There is no other work to be completed. Once the deletion job executes, the mailbox is cleaned out and all items not subject to a litigation hold are deleted.

Litigation Hold

The Litigation Hold tab provides the ability to exclude any specified user's data from any deletion job, preventing any of their data from being deleted when the job runs.

Core Settings	Basic Options	Date Scope	Job Members	Notification	Schedule	Litigation Hold				
Litigation Ho	ld									
If you have be main search int	en granted rights f erface. Holds place	to do so, you m ed here will prev	ay apply or remov ent ALL message	e litigation hold s from being de	on an entire eleted from th	users mailbox. You e relevant user listo	can apply a hold ed when running	on a per item t a deletion man:	asis from ager job.	the
Add User										

Any official auditors, legal representatives, system administrators, or users may be added to this list. These accounts will be able to set and lift any legislative hold in the system, and therefore this is not a generally granted right and should be restricted to only specified users. Because of the power of this right it is granted separately from the usual rights for users.

To add a user to the legislative hold list, select the 'Add User' button to open the 'Select Mailbox' window.

Select the source system for the user and enter search criteria. After searching, select the desired user or users and select the 'Ok' button to add them to the list. Save all changes.

Select Mailboxes	
Add Selected Ok Cancel	
Currently Selected	
Criteria	
First Name 💌 begins with 💌 Search	
System Exchange Show only users 🔲 Show only recently cached items 🗐	
Address Book	
Enter criteria to search the cached addressbook.	

Configuration

Server Configuration

The overall operation of Retain is configured in this section.

😹 Retain 🔎				Language Englis	wh 🗸 📾 Welcome, admin About Status & Updates Log	jout
Overview	闄 Server Configurati	on			l 🖓	2
Documentation Search Messages Audit Log	Communications Inde	ex Storage Accounts	Maintenance	Logging Miscellaneou	JS	-
System Log Statistics/Reporting	Database Connectivit	y				
Data Collection	The message score data	is stored on a database serve				
Schedules Profiles Workers Jobs	to successuity create tr The correct JDBG be included in th You must provide	e tables, the database server C URL. If the database server e URL. a a user and password for the	r must aiready be ru is not running on tl e database server w	inning, with a database i ne same machine as Reta hich has full rights to the	named retain created. Be sure to specify: ain, the IP address or host name of the machine must a database you created.	
	Message Sto	ore DB		Configuration D	DB	
Management	Database Driver	.1 👻		Postgres 9.0,9.1	•	
Osers Groups Device Management	Database URL jdbc:postgr	esql://10.1.12.236/retain33		jdbc:postgreso	ql://10.1.12.236/retain33_conf	
Deletion Management	Database User retain Account			retain		
Server Configuration Rules Configuration	Database User Password	•••• (Password is se	t)	•••••	•• (Password is set)	
Module Configuration Storage Manager Stubbing Server Statistics Server Configuration Licensing	Notification Retain uses these values SMTP Mail Server SMTP Mail From Address SMTP To Address SMTP To Address SMTP Username SMTP Password Mail when errors occu	for forwarding and for job no 10.1.12.16 Retain33@qa.gwava.com softwareqa@gwava.com	otifications. If the n	ail server is not set, forv	varding is disabled	

Each tab will be explained below.

Along the top, you will see configuration options for the Retain server and workers known to this server.

The most important topic is communications. These are the settings you have set when you initially installed Retain. You may make changes here.

After changing any communications options, it is strongly recommended that Tomcat be restarted immediately.

Communications

The settings for the Communications tab are set in the initial setup of Retain. These include the connection to the SQL Database server, the Retain database, and the notification, SMTP information. If any changes in the system or corrections are needed, they should be configured here.

Index

The Index tab allows the management of the indexing engine as well as the ability to decide what kinds of attachments are indexed, and what size.

l	Communications	Index	Storage	Accounts	Maintenance	Logging	Miscellaneous						
	Indexing												
	Here, you adjust the different types of items to be indexed. You may add, delete, or edit items.												
	 The first co The next of 	olumn india column is t	cates if the e	entry is based	on a filename ex xtension or MIME	tension or M	IIME type.						
	 The third of versions of 	olumn ind Archive.	icates the b	uilt-in extracto	or to use to proce	ess the attac	chment. New extr	actors may be pr	ovided in future				
	 The fourth Size is an u 	 The fourth and fifth column specify the maximum size to process, with -1 indicating no limit (this should rarely be used). The Stream Size is an upper limit on how much text is stored. The File Size limit indicates any file above this size should not be processed at all. 											
	Note: If an extens except the "exale "exalead" handler	sion or min ad" handle can be us	ne type is no er. For Exalea ed to indicat	t listed, the i d, regardless es items that	ndexing engine w of the extractor should only be in	vill not index selected, th idexed by Ex	the contents. For e text extraction v valead.	Lucene, use any will be handled by	y appropriate extractor y Exalead. The				

Because Exalead is a much more robust indexing engine it requires its own server and resources. As such, when Exalead is selected as the indexing engine, a connection address and starting base port are required. The default BASEPORT is 10000. To ensure that the connection to the Exalead server is working, the 'Test Connection' button may be selected, which triggers Retain to contact the Exalead server. The results should shortly appear as a small notification window in your browser.

Lucene is hosted locally on the same machine as the Retain Server, and requires no further configuration, but does not have the same options or the extent of the capabilities as the Exalead engine does.

Current Indexing Engine: Lucene 💽

The indexing engine can be changed between the two engines, but requires the index to be re-created. Recreating the indexes is a time consuming process and should not be done unless required. Searches of the Retain Archive during the index re-creation or migration process may not contain all results.

For details on how to change from one index to another, see the appendix section on <u>switching the</u> <u>index engine</u>.

You can control what Retain indexes here. You may add as many items as you wish to the list of attachment types to index. **Note the explanation at the top of the table.** The items are listed (in order) by type, extension, archived form (extractor used), and maximum stream size and file size. You choose whether to index the attachment based on its filename extension or its MIME type (the content itself). You also choose which extractor to use to index the attachment. Retain supports HTML, RTF, TEXT, XML, OpenXML – (MS Office 2007.docx), OpenOffice2, Word Perfect documents, Excel files, .DOC, and .PDF under the Lucene indexing engine, while Retain supports many more under Exalead. (Because of high CPU, memory, and performance requirements, MS Word and Adobe PDF are not indexed by default and must be enabled to be indexed. If you need to index these items, the allotted memory should be increased. Indexing these items will slow down the indexing process.) Select as many as you need. If an attachment type common in the system which needs to be indexed, but which does not already exist in the system, it may be added by using the 'add' row.

Force Indexing tells the server to index items that are not currently indexed. This queries the system for the top 500,000 items that are not currently indexed, and starts the indexer working if it is not currently working.

- Indexing										
Here, you adjust the different types of items to be indexed. You may add, delete, or edit items.										
• The first column indicates if the entry is based on a filename extension or MIME type.										
 The next column is the entry itself, filename extension or MIME type. The third column indicates the built-in extractor to use to process the attachment. New extractors may be provided in future versions of Retain. 										
 The fourth and fifth column specify the maximum size to process, with -1 indicating no limit (this should rarely be used). The Stream Size is an upper limit on how much text is stored. The File Size limit indicates any file above this size should not be processed at all. 										
Note: If an extension or mime type is not listed, the indexing engine will not index the contents. For Lucene, use any appropriate extractor except the "exalead"										
handler. For Exalead, regardless of the extractor selected, the text extraction will be handled by Exalead. The "exalead" handler can be used to indicates items that should only be indexed by Exalead.										
✓ Extension ✓ Item: exalead ✓ Stream Size: 208400 File Size: 1048576 Add										
V Extension V Item: log text V Stream Size: 1048576 File Size: 1048576 Delete										
V Extension V Item: eml text V Stream Size: 1048576 File Size: 1048576 Delete										
V Extension V Item: docx openxml V Stream Size: 2048576 File Size: 2048576 Elester Extension										
✓ Extension ✓ Item: html ✓ Stream Size: 1048576 File Size: 1048576 Delete										
✓ Extension ▼ Item: cfg text ▼ Stream Size: 1048576 File Size: 1048576 Delete										
✓ Extension ✓ Item: xml ✓ Stream Size: 1048576 File Size: 1048576 Delete										
✓ Extension ✓ Item: rtf ✓ Stream Size: 1048576 File Size: 1048576 Delete										
✓ Extension ♥ Item: odt ooffice ♥ Stream Size: 2048576 File Size: 2048576 Delete										
Extension V Item: txt V Stream Size: 1048576 File Size: 1048576 Delete										
✓ Extension ▼ Item: odp ooffice ▼ Stream Size: 2048576 File Size: 2048576 Delete										
✓ Extension ▼ Item: ods ooffice ▼ Stream Size: 2048576 File Size: 2048576 Delete										
Extension V Item: doc V Stream Size: 2048576 File Size: 2048576 Delete										
Force Indexing Now										

Storage

Communications	Index	Storage	Accounts	Maintenance	Logging	Miscellaneous				
Storage										
- The configuration database, indices, XML files, and the archive files are stored under the storage path which should be on a highly reliable storage device with plenty of disk space.										
The standard sto engine can be ch	rage engin anged fron	e places arch n the Storag	ive files unde e Configuratio	r the storage pat on menu.	th. You may	change the stora	e path on this screen; the	e storage		
Storage Engir	e datastor	e_process								
Base Storage pat	h /var/op	t/storage/sto	ore							
Base Storage path /var/opt/storage/store Advanced Settings Encryption (none) Compression (always on)										

The default storage path for your Retain archives is listed here. (See <u>About Storage Paths</u> and <u>Storage</u> <u>manager</u> sections.)

Retain uses a **hybrid storage system**. All message headers and metadata is stored in the database but all message text and attachments are stored as files on the file system in the location listed here (and subdirectories). This is done a little like GroupWise, where the OFFILES directory stores Binary Large Objects (anything larger than 2KB). In the case of Retain, this is transparent to the user and you may choose whether to encrypt this data. If it is stored in a location accessible ONLY to the Retain Server, then encryption is not strictly necessary.

Accounts

Communications Index Storage Accounts	Maintenance Logging Miscellane	ous	
Account Management			
You may expire unused accounts, disable new accourt	s from being created automatically, and	restrict some users from logging in.	
Expire unused accounts after how many days (0=never)	0		
Disable new accounts			
Prohibited Logins		~	Remove selected address Address Add
You may turn on a password strength policy, if you windividual messaging systems. Password strength: Will accept any password Will accept any password	nt to enforce strong passwords in settin	g user passwords. Keep in mind, the	ese passwords may be overridden by

Open System vs. Closed System

Normally, Retain lets all mail system users log in. This is considered to be an "open" system. When that happens, Retain will check to see if a Retain account already exists and if not, it will create a new account for them and assign them to the group *default*.

Sometimes, you don't want certain users to have access to the Retain archives. In this case, you may add these users to the list of **Prohibited Logins**. You do so by entering their name in the Address field and click "Add".

To make a "closed" Retain system, simply click on "Disable New Accounts". If you use this option, it means that you will have to manually create accounts in Retain for authorized users. In other words, the only people who can access your system will be people who you specifically create an account for.

In Retain, user accounts expire after 30 days of inactivity by default. You may choose the number of days or choose 0 for "accounts never expire".

See "<u>User Rights</u>" for more information.

Password Strength

User-created passwords may be controlled for strength. By default, Retain accepts any password set by users. To require a higher security password, select the higher level desired. Requirements for the low, medium, and high settings are defined as:

Low

Must be between 5 and 15 characters in length, with at least 0 lower case characters, at least 0 upper case characters, at least 0 numerical characters, and at least 0 special characters. Medium

Must be between 5 and 20 characters in length, with at least 1 lower case characters, at least 1 upper case characters, at least 1 numerical characters, and at least 0 special characters.

High

Must be between 8 and 20 characters in length, with at least 2 lower case characters, at least 2 upper case characters, at least 2 numerical characters, and at least 2 special characters. In addition the password will be checked against a dictionary.

Intruder Lockout

Intruder Lockout
Enable this feature to temporarily lockout an account that may be the subject of an illegal entry attempt. You may clear lock outs using the button below, or by restarting Tomcat
Enable Intruder Lockout?
Number of invalid login attempts 3 🗸
Time interval (minutes) 5 🚽
If triggered, lock account for this period (minutes) 10 $-$
Clear lock outs

Accounts may be locked if multiple failed attempts are detected, according to the specified time window. This is useful to deny password cracking attempts on the server.

To enable Intruder Lockout, select the checkbox next to the 'Enable Intruder Lockout' option and save the changes. All changes will be immediate as soon as the save button is selected.

If a user has locked their account and requires immediate access to the system, all lockouts may be cleared. To clear any locked accounts, select the 'clear lock outs' button at the bottom of the page. There is no need to save changes; the clear command is immediate.

Maintenance

Maintaining a Retain system involves many tasks:

- Backup Configuration (Embedded) Database
- Compress Configuration Database
- indexing (All Indexes)

These items are all controlled here.

Communications	Index	Storage	Accounts	Maintenance	Logging	Miscellaneous	
Maintenance/Ca	aching —						
You may automat time. so no jobs n Note that with th	ically backı nay be act e Exalead	up and/or co ive at this p engine, bac	ompress the e oint. kup and optim	mbedded databa ization of the inc	ise at a speci dices will alwa	fied time. The ind	lices are also backed up. The Retain Server is offline at this
Enab	le Backup	of Indices	 (every day 	/) 🗸 weekly	-		
Enable	e Index Op	otimization [V (every day	/) 👻 weekly	-		
Purge exported f	les when (older than	12	hours			
Run m	aintain pro	cedure at	01 🚽 : 00 🚽				
Las	t Backup o	of Indexes 1	2-Mar-2011 01	1:02:00			
Las	t Index Op	otimization 1	2-Mar-2011 01	1:02:00			
- Ignore Domains You might want s	pecific Dor	mains (and t	heir child POs	and users) to be	completely	ignored - not cacl	ned, not stored, etc.
Ignored Domains				Don	nain		Add

This configuration database – the "Embedded" database:

- should be backed up regularly
- contains your system address book
- > also contains key information used by Retain

Configure how often it gets backed up here.

You can also configure how often indexes get backed up and how often the indexes are optimized for speed.

Retain also lists a history of backups and maintenance here.

Note: This maintenance section does NOT involve backup or maintenance of the data store. You must back that up yourself with your normal backup tools.

You must backup:

- SQL Database
- File System where your data is stored. (see <u>index/storage</u> for location)

Ignore Domains

Ignore Domains	
ou might want specific Domains (and th	eir child POs and users) to be completely ignored - not cached, not stored, etc. The reason? GroupWise has the capability to add non-GroupWise
xternal) domains to the system. This is oblems with Retain, since it obviously c	commonly used, for example, to add internet addresses to the System Address Book or to Distribution Lists. However these objects cause annot log into them.
	Remove Calended Depende
nored Domains	Remove Selected Domain
	Domain
<u> </u>	

Some mail systems allow for the addition of non-system, or external domains. Sometimes, you might do this to add external domains to the mail system address book. However, the mail system cannot pull up e-mail from these domains and you may want to tell Retain to ignore references to these external domains to avoid wasting time during data collection.

Specify these domains in this window.

Logging

Configure the system logging here. Normally, you want verbose logging. Diagnostic is ordinarily done just for troubleshooting purposes.

Communications Ind	ex Storage	Accounts	Maintenance	Notification	Logging	Miscellaneous
	esiae Feekledo					
LO	gging Enabled?					
	Log level	Normal V				
	Compress logs?	✓				
R	temove old logs					
When age	exceeds (days)	10				
			-			

You also specify how long to keep logs here. By default, logs are deleted after 10 days. Logs may be compressed to save disk space.

Auditing Records

Retain now will create an auditing record of all actions, specified by the user, which are taken on a specific piece of mail. Auditing records can be removed automatically after a specified length of time. The variable is set in days. All of the options associated with this feature are found under the Server Configuration page, Logging tab.

Auditing
Retain audits all access to messages by default, allowing you to trace when and who opened a message, forwarded a message etc.
Some advanced auditing options are disabled by default, because they would generate enormous audit logs. Enable them with care. Also, consider clearing your audit logs regularly (see below) or exporting your logs from the audit table on your SQL Server.
Days before audit records are removed (0=never remove) 0
Advanced auditing options
Login Changed User/Group
Changed Data Collection 🔲 Searched 🔅 Mailbox Switch
Audited Server Config Change Exported
Published

This logging option creates very detailed logs for the options selected, and it is very important to know that if every option is turned on, the logs can become extremely large. It is highly recommended that an expiration date is set for the logs, so that they are automatically removed from the system to avoid filling up your disk space. Selecting all options for logging will also adversely affect performance. Do not select all the options at one time unless requested by Support.

Miscellaneous

Communications	Index	Storage	Accounts	Maintenance	Logging	Miscellaneous					
Miscellaneous											
You may change t You can enable or recommended un	You may change the default Worker password, which is assigned to all Workers when they are created (but can be individually overridden). You can enable or disable XML Export, which creates XML representations of each message as they are created. Generally this is not recommended unless you absolutely need this feature - it uses a lot of disk space, and slows down the Server.										
Default Worker Pa	assword	•••••	••• ((Password is set)							
Exp	Export XML										
Server Friend	ly Name S	Server									

You may choose the default worker password here. One is automatically generated for you when you create a worker but you may change the password here if you like.

Export XML

This XML Export function is included in Retain in case you have an XML compliance mandate. You enable it here.

When selected, each attachment will have an XML export file of its parent message. In other words, an XML representation of the metadata is created and linked to the blobs as the messages are stored. There's nothing more done.

Ordinarily, you would not want to do this because it consumes enormous quantities of disk space, loads up your file system and degrades performance.

When you do NOT use the XML export function, you will benefit from Retain's single-instance message storage and data compression to save disk space and improve performance.

Module Configuration

Please see the module configuration section in the initial setup section of the manual.

Rules Configuration

Rules for Retain is a way for administrators to automate tasks and administration based on criteria. This means that any message containing items or information specified in the criteria to have the described action applied automatically. A rule must be enabled, have at least one condition, and one action defined before a rule comes into effect.

To create a rule, select the 'add rule' button and name the rule. To make the rule active, select 'Rule Enabled".

😹 Retain 🤎		Langu	age English 🗸	🕞 Welcome, admin About Stat	tus & Updates Logout
Overview	Rules Configuration				6
Documentation Search Messages Audit Log System Log Statistics/Reporting		Add Rule			
Data Collection Schedules	Rule new rule	Remove Rule			
Wanagement Users Groups Device Management Deletion Management	Core Settings Core Settings Rule Enabled				
Server Configuration Rules Configuration Module Configuration Storage Manager Stubbing Server Statistics Server Configuration Licensing					
Conditions The conditions are	the criteria which	Core Settings Conditions Actions Conditions Set the conditions for this rule to be actional for the conditions for the conditional for the conditions for the conditional for the conditing for the conditional for the conditing for the conditi	ive. All the condition:	is must be fulfilled for the Action	ns to be performed.
determine whethe to message data or	r the action is applie r not.	Category Starts with Add Condition	•		
Criteria is entered i regular expression, categories. Select t to, from the menu.	in plain text or in , and are separated i the category that the	nto criteria is to be restricted	Category Category Department Display Name	Starts with Contains Ends with	•
Once a category ha that needs to be sp the critieria. The 'S to either relax som 'Contains' or 'Start Expression'. Select button. Multiple co leaving the page.	as been selected, the becified. The 'Starts w starts with' menu also the constraints by sele ts with', or specify the t the appropriate lim conditions may be ad	criteria to be applied to with' menu further defines o allows the administrator ecting a vague entry like e criteria with 'Regular iter and then select the ded. Make sure to save	Domain Name EMail Address Attachment 1 First Name From Last Name Location Mailbox PO Name Private Recipient Sender Doma Subject Title Type UID	a Equais to Is not eq Name Does not Does not Does not Regular E Starts with Add Co ain changes	ual to contain end with start with xpression th ndition' before

Actions

Actions

The actions tab defines which actions are to be taken. There are four different options to choose from.

All four actions may be applied to any one rule. Once the desired actions are applied to a rule, save changes before leaving the page.

×.,

oply litigation hold to item	· •	
Add Action		

Storage Manager / Storage Engine

Retain Supports the ability to change the location or engine used to store the archived mail.



Enhanced Standard Engine. Store directly on locally accessible drives. Enhanced Standard Engine. Store directly on locally accessible drives. Legacy Engine (pre 3.0). Store directly on locally accessible drives Centera Storage Device NetApp SnapLock

To change the storage option settings which were created during the initial setup of Retain, simply select the different storage engine of your choice.

If the Standard Engine is selected, then the Standard Engine window is displayed. This details the setting location for the default storage location, under Server Configuration, <u>Storage tab</u>.

The other three options are:

Legacy Engine Centera Storage Device NetApp SnapLock

Enhanced Standard Engine

The Enhanced standard storage engine is the standard storage option which should be selected for all new installations of Retain. The storage engine utilizes locally accessible drives and media. When selecting this option, make sure that storage requirements will be easily met, size or capacity increased, and managed.

The enhanced engine also allows for background compression to be used. Background compression is recommended for social media and mobile modules, to help keep the size of the data store down.

Legacy Engine

The legacy engine works as a seamless connection to the 2.x line of Retain, and is available as a bridge for upgraded devices and legacy support systems.

Centera Storage Device

The Centera Storage option simply		
requires you to put the storage	Authentication Method PEA	Authentication Method Credentialed 💌
server IP address or DNS name,	PEA Path (full path)	User
and the authentication method.		Password
Centera		

Centera
Server Connectivity Settings
Note: The hostname/ip may be suffixed with a :port entry, and you may enter more than one hostname. For example, mycenterbox.com:4256,152.62.65.11,152.62.65.12?name=2profile3,secret=2profile3 is a valid entry. At least one hostname must be entered.
Centera Server/IP
Server Access settings
With Centera devices, you have three options for authentication:
 Anonymous, which requires no password, but is insecure. Credentialed, in which you supply a traditional username and password. PEA, in which you supply a file system path accessible by Retain of the PEA file you encrypted to provide authentication information. A good place to put this is in the license directory, (/var/opt/beginfinite/retain/license).
Authentication Method Anonymous

The different Authentication options are PEA and Credentialed. The PEA requires the full path to the PEA file. For a credentialed authentication, simply input the username and the password for the Centera server.

NetApp SnapLock

NetApp is fully supported with SnapLock for storage. Note the information in the option. To enforce WORM rules you MUST set the <u>Job Expiration</u> feature. Also set the IP address, username, password, and the correct path to the server. THE PATH MUST BE SET IN NETAPP FORMAT.

NetApp SnapLock		
SnapLock settings		
If you enable SnapLock, then as items are stored on the NetApp appliance with a Job specifiying an expiry date, their retention date is set according to your Job options. This effectively enforces WORM rules. You may use NetApp without this setting, if preferred, in which case none of the parameters on this screen need to be filled out.		
A note about the path requested below: it is not a Linux, Window path and a share path. It uses the NetApp format, and must point Technical Support for more information on this or on enabling Snap	ws, or UNC path. There is no definite correlation for example between this it to the directory containing all of the Retain blob files. Consult your NetApp apLock.	
Enable SnapLock?	? No 💌	
NetApp Server/IP	p	
Port	t 80	
Admin User	ır	
Admin Password	d	
Base path to archive directory (example: /vol/myvolname/archive)		

Partitions

Retain also supports the ability to define a different storage location, through the partitioning option. **Partitioning is only available when Storage is set to the 'local' drive.** To access the partitions option click on "partitions" in the Enhanced or Standard Engine window. Ideally, this option would **only** be used to archive

Partitions DS			
Creating a partition allow space, or you might pre threshold.	rs you to direct all new at fer to split the storage on	tachment blobs to a new storage d a yearly basis etc.). Retain retrieve	device. (Your old device might be running out o as and stores blobs based upon the partition's d
Deleting or adding a will make all of that d user manual and/or c	partition can easily resu ata completely inaccess onsult with Technical S	It in the loss of data. For exam sible to Retain, unless it is move support before proceeding.	ple, deleting a partition that contains dat ed to another partition. Carefully read the
Current path used for st	orage: /opt/archive/2012 Name	Path	Delate
02-Aug-2012 22:25:43	first partition	/opt/archive/2012	Delete
You may add a partition	below. Just enter a name	e and the full path to the directory	to store blobs under.

to a new, larger, location when the current storage path has been filled, or to separate mail storage between years. (I.e. /archive/2008; /archive/2009)

A Retain system without a specified partition location will store all mail in the default storage location. This is defined in the Server Configuration menu, under the Storage tab mentioned previously. The default location is set during the initial install.

READ THE BOLD WARNING ON CHANGING PARTITIONS!

You may only specify one new partition at a time. After you have entered the new partition information, click 'save changes'. *Creation or changes to a partition requires Tomcat to be restarted.* When adding a Partition on Linux, the path needs to be created manually on the Linux Server before specifying the path within Retain. Ensure that the permissions for the new path are given to Tomcat.

Once Tomcat has been restarted, the new partition can be viewed, edited, or deleted from this window.

Partitions are listed with their Begin Date, Name, and Path. The Begin Date is the creation date. A partition is used to store all archived mail from the moment it is created

Because of how Retain indexes and tracks messages that are archived, deleting a partition can lead to catastrophic data loss. Do not delete an active storage partition or location without first consulting support.

If a partition is deleted Retain will look for the archived mail that was stored in the deleted partition to be stored in the default storage location. (This is defined in Server Configuration, under the <u>Storage tab</u>.) Removing a designated partition in the management console does not delete the storage directories or

- Partitions
Creating a partition allows you to direct all new attachment blobs to a new storage device. (Your old device might be running out of space, or you might prefer to split the storage on a yearly basis etc.). Retain retrieves and stores blobs based upon the partition's date threshold.
Deleting or adding a partition can easily result in the loss of data. For example, deleting a partition that contains data, will make all of that data completely inaccessible to Retain, unless it is moved to another partition. Carefully read the user manual and/or consult with Technical Support before proceeding.
Current path used for storage: /var/opt/beginfinite/retain/archive
There are no partitions defined currently. All blobs will be stored to the default storage path configured in Server Configuration.
You may add a partition below. Just enter a name and the full path to the directory to store blobs under.
New Partition Name new partition
New Partition Path

data on the hard drive or SAN, but it does disconnect Retain from the storage location.

All partition changes are logged in the partition.log file, located in the backup directory specified in Server Configuration. (By default this is located in <your storage location>/backup)

Stubbing Server

Overview	🗇 Stubbing Server		2	2
Documentation				~
Search Messages				
Audit Log	Stubbing is a new feature in GroupWise 8, where a message item may be "stubbed" removing the message permanently from GroupWise, and replacing	g it with	۱ <u>. </u>	
System Log	an item (a stub) that connects to Retain to access the message. Effectively, the user has transparent access to the stubbed item from their GroupWise the stub behaves largely as if a native GroupWise item was still there. Consult the user manual for detailed instructions and the pros and cons of stubbing	client, ai	nd	
Data Collection	Core Settings Logging Connection			
Schedules				
Profiles	Basics			
Exchange				
GroupWise	Choose whether to enable the stubbing server. If it is not enabled, it will not accept requests from any GroupWise POA. In addition, for security purp	ses, you		
Workers	may enter a comma delimited list of IP addresses, and only these POAs will be serviced.			
⊞ Jobs	Earth Children Denne			
	Enable Stubbing Server			
Management	Accept POA connections only from these IP Addresses:			
Users				
Groups				
Deletion Management				
Configuration				
Comguration	How often should the stubbing conver call for configuration shapees?			
Server Configuration	How orden should the scubbing server pointor configuration changes?			
Module Configuration	Poll for configuration every 10 minutes			
Storage Manager				
Stubbing Server				
Licensing				

To set up stubbing, you must perform the following tasks:

- 1. You must be running GroupWise 8.0HP1 Post Office Agent(s). Once enabled, the stubbing process cannot be reversed. Stubbing requires GroupWise 8.0HP1. Previous versions of GroupWise do not contain critical stability fixes.
- 2. ConsoleOne must be configured as discussed below.
- 3. Retain job profiles must have Stubbing turned on. (see the Profiles section)
- 4. Stubbing server must be installed and setup as discussed below. (For install see your platform install guide.)

ConsoleOne GroupWise settings

For the Retain Server to function, GroupWise must be told where the Stub Server is located. In ConsoleOne;

- Connect to the domain and highlight the domain or GroupWise system.
- Select Tools | GroupWise System Operations
 | Trusted Applications
- Select Retain and click Edit.
- Select "Allow Access to Archive Server"

C Edit Trusted Ap	plication			×
Name:	Retain			
Description:	eSecurit	y by Beginfinite		
TCP/IP Address:				<u>/</u>
🔲 Requires SSL				
🏳 Provides Messa	ge Retention Servic			
Allow access t	to Archive Service			
Archive Servi	ce address: 192	.168.2.3:48080		<u>/</u>
🗌 Archive S	ervice requires SSL			
		0 <u>K</u>	<u>C</u> ancel	Help

- Put the address or DNS name of the Stub Server and the correct port as shown. (48080)
- Click OK and exit the rest of the windows.

Your settings should look the same as the settings pictured here with your specific DNS or IP address for the Stub Server.

CEdit Trusted Applicati	on X
Name:	Retain
Description:	eSecurity by Beginfinite
TCP/IP Address:	
Requires SSL	
🔽 Provides Message Rete	ention Service
Allow access to Arch	ive Service
Archive Service addr	ess:
Archive Service r	equires 55L
	O <u>K</u> CancelHelp

We also need to change the settings in the preferences menu:

- Connect to the domain and highlight the domain or GroupWise system.
- Select Tools | GroupWise System Operations
 | System Preferences...
- Ensure that Retain is set under the Archive Service Settings as a trusted Application. Select it if it is not already selected.

C GroupWise System Preferences	×
Admin Preferences Routing Options External Access Rights Nickname Setting Default Password Admin Lockout Settings Archive Service Settings	5
Archive Service Trusted Applications:	
Retain	
O <u>K</u> <u>C</u> ancel <u>H</u> elp	
O <u>K</u> <u>C</u> ancel <u>H</u> elp	

Set the Post Office Remote File Server Settings.

Enter the properties of the Post office. The settings should look as they do here.

Retain should be listed as the Default Archive Service Trusted Application. If it is not set as the default, override and select Retain.

operties of po	
GroupWise ▼ NDS Rights ▼ Other	Rights to Files and Folders
Software Distribution Directory:	MY_SYSTEM
Access Mode:	Client/Server Only
Delivery Mode:	Use App Thresholds
Max Age for Address Book Updates:	15 🔶 days
Disable Live Move	
Restore Area:	(Not Set)
Default Archive Service Trusted Application:	Retain
Cverride	<none></none>
Remote File Server Settings	
Remote User Name:	
Remote Password:	Set Password
Page Options	OK Cancel Apply Help

Retain Stubbing Settings

Job profiles must have Stubbing enabled for the Server to function. See the <u>Profiles section</u> for details. The Stub Server must first be enabled in order to allow access to the bootstrap file required for communications. Set the interval as desired. (10 min. is lowest recommended setting. Anything lower may be unnecessary.)

Core Settings Logging Connection Bootstrap
Basics
Choose whether to enable the stubbing server. If it is not enabled, it will not accept requests from any GroupWise POA. In addition, for security purposes, you may enter a comma delimited list of IP addresses, and only these POAs will be serviced.
Enable Stubbing Server?
Accept POA connections only from these IP Addresses:
Interval
How often should the stubbing server poll for configuration changes?
Poll for configuration every 10 minutes

If you wish to restrict connections to the Stub Server, input the IP address(es) of all the Post Offices that the Stub Server will service. Use commas to separate multiple addresses.

Save changes before continuing.

Logging

Log levels higher than Normal are not necessary unless troubleshooting or working with Support. It is strongly recommended to compress and remove logs after a time period to protect system space. Set time to desired level.

Core Settings	Logging	Connectio	on		
—Logging Optic	ons				
Logging open					
	Loggi	ng Enabled	V		
		Log level	Normal	•	
	Cor	mpress logs	V		
	Remo	ve old logs	V		
Wh	en age exce	eeds (days)	10]	

Connection

The connection to the Retain Server is very important. This must be set to the address of the Retain Server, and is automatically filled out for you. Verify that the Retain Server is located at the specified address and is accessible. Generally you may leave this section default as the Stub Server should be installed local to the Retain Server. If your Retain Server IP address is assigned by DHCP, change the Host Name to the DNS name or localhost (127.0.0.1).

Core Settings	Logging	Connection	
Retain Server	Connectio	n	
The Stubbing Se important to not match the URL y	erver will ne te that you you'd use fr	ed to know hov are specifying th om your browse	I to connect to the Retain Server. It is highly recommended that you use a DNS host name for the Host Name. It's the URL from the point of view of the Stubbing Server contacting the Retain Server , which may or may not r to reach the Stubbing Server or Retain Server.
Serve	er Protocol	http 🗸	
Retain Server I	Host Name	64.34.151.106	
Retain S	Server Port	48080	
Retain S	erver Path	/RetainServer	
Stubbing Serve	r Password	•••••	
Note: Changing	any of the	e narameters w	Il require reconving the stubbling center hontstran file!
note. changing	any of thes	e parameters w	n require recopying the stabooning server bootstrap me:

When you have finished configuring the Stub Server, Save your changes and select the Bootstrap tab. (The bootstrap tab will not be available unless the Stubbing Server has been enabled and settings saved.)

Core Settings Logging	Connection Bootstrap
Boot Strap	
The Stubbing Server softw correctly. You may copy it /RetainStubServer) Download File	are needs a special "bootstrap" configuration file copied to its working directory before it can function manually or use a web browser to upload the file. (http:// <retainstubserveripaddress>:48080</retainstubserveripaddress>

Download and save the bootstrap file.

Open a new browser tab or window, and browse to the Stub Server. The Stub Server answers to the following address (The address is case sensitive):

http://<IP address of StubServer>:48080/RetainStubServer

You should see a window like the one	Retain Stubbing Server
pictured here.	The Stubbing Server needs to be configured in the Retain Server web interface. Once it has been configured a "bootstrap" file needs to be downloaded and applied here.
 Click 'Browse' and browse to the location where you saved the bootstrap file. Select the "StubConfig.cfg" file and select 'Open'. 	Without a bootstrap file the Stubbing Server will not know how to find the Retain server. After applying the bootstrap file any configuration changes made in the Retain Server will be polled by this worker. You will not have to reconfigure the Stubbing Server manually unless you change the Connectivity settings configured in the Retain Server. Upload Bootstrap Configuration Browse_ Upload File
Select the 'Upload File' button.	More Information
After uploading the configuration file, the Stub Server will alert you that it requires authentication from a user with	To download the bootstrap file and upload it here: • Open the Retain server's web interface. • Select the Stubbing Server • Navigate to the Bootstrap tab. • Select 'Download File'. • Save the file to your desktop. • Return to this interface. • Click 'Browse' and locate the file on your desktop. • Click 'Upload File' below.
the "Manage Workers" right. Click 'Continue'.	

Configuration Complete. From now on, you'll have to log in as a user (such as the initially created admin user) with the Manage Workers right.

Continue

We can now Login to the Stub Server. You must Login with a user that has sufficient rights. See the <u>User Rights</u> section to add or remove rights.

😹 Reta	in 🦲		
>	Login		
	Password		
//		Login	2 Sandan

The Stub Server Interface is nearly identical to the Worker interface. You may check for updated versions of the Stub Server or manually trigger server polling by selecting the Refresh 'Configuration now' button.

http://192.168.0.101:48080/RetainServer/
1.7.0
233775/1040512/260224
Server to poll for configuration changes right now

Check the **Server Connection** tab to verify the connection to the Server.

Configuration Server Connection Status Scheduler

-Server Connection

Successfully connected to Retain server

Status

The Status tab gives statistics about up-time and function.

iguration Server Connection Status Schedule	r
Status 4	
Up since	Fri Nov 21 08:45:19 MST 2008
Successful Logins	0
Failed Logins	0
Message Served	0
Attachments Served	0
Communication Errors (POA)	0
Communication Errors (Retain)	0
Cached Sessions	0
Max Sessions	0
Expired Sessions	0

Scheduler

The scheduler tab contains the configuration details sent by the Server this tab is mainly used for Support.

Configuration	Server Connection	Status	Scheduler	
- Scheduler	Status			
To see ad	vanced information rega	arding the i	thread schedu	ler, click <u>here</u> .

Statistics Server Configuration

Retain comes equipped with a separate statistics monitoring server. The Statistics Server may be installed on the same or a different physical or virtual machine as the Retain Server.

Overview	Stats Server	-	N	2
Documentation Search Messages Audit Log System Log	The Stats Server, if enabled, can collect various statistics from the Workers and generate useful reports. Core Settings Logging Connection Notification			*
Data Collection				
Schedules	Basics			
 Profiles Workers Jobs 	Choose whether to enable the Stats Server. If it is not enabled, statistics information will not be stored for Archive jobs. In addition, security purposes, you may enter a comma delimited list of IP addresses, and only these Server will be allowed to update the statist	for ics.		
Management	Enable Data Collection			
Heare	Days to archive job information 14			
Groups	Run maintenance at (hour) 02 👻 :00			
Deletion Management	Update interval for Server Statistics (minutes) 10			
Configuration Server Configuration Module Configuration	Accept Server connections only from these IP Addresses:			
Storage Manager Statistics Server Configuration Licensing	Interval How often should the stats server poll the Archive Server for configuration changes? Poll for configuration every 10 minutes			

The Statistics Server functions much like the Retain Worker in that it is installed as a separate entity and requires connection information from the Retain Server. Additional security is provided through the option to specify exactly which IP address(es) the Retain Server will allow a connection from. Separate with commas the IP addresses allowed if more than one. No mail data is transferred through this connection, only server statistic information.

The Core Settings, Logging, Connection and Notification sections of the Statistics Server configuration work identically to the Worker connection settings, and should be filled-out accordingly. Most server implementations will require little to no modification to these settings save the notification tab.

Core Settings Logging Connection	Notification							
Logging Options								
Logging Enabled								
Log level	Normal 👻							
Compress logs								
Remove old logs								
When age exceeds (days)	10							

Set the logging level to the desired setting. Leaving the logging as default 'normal' is recommended unless instructed to increase the logging level by Support.

Core Settings	Logging	Connection	Notification						
Connection from Stats Server to Archive Server									
The Stats Server will need to know how to connect to the Archive Server. It is highly recommended that you use a DNS host name for the Host Name. It's important to note that you are specifying the URL from the point of view of the Stats Server contacting the Archive Server , which may or may not match the URL you'd use from your browser to reach the Stats Server or Archive Server.									
Server	Protocol	http 👻							
Archive Server Ho	ost Name	192.168.1.114	•						
Archive Se	rver Port	80							
Archive Ser	rver Path	/ArchiveServer							
Stats Server F	Password	•••••	• (Pas	ssword is set)					
Note: Changing an	ny of thes	e parameters v	vill require recoț	oying the stats server bootstrap file!					
Connection from	n Archive	Server to Sta	its Server —						
The Archive Server will need to know how to connect to the Stats Server. It is highly recommended that you use a DNS host name for the Host Name. It's important to note that you are specifying the URL from the point of view of the Archive Server contacting the Stats Server , which may or may not match the URL you'd use from your browser to reach the Stats Server or Archive Server.									
Server	Protocol	http 👻							
Archive Server Ho	ost Name	192.168.1.114							
Archive Ser	rver Port	80							
Archive Ser	rver Path	/ArchiveStatsS	erver						

The Connection between the stats server and the Retain Server should not be changed unless the Retain Server requires a modified connection path, (such as a custom port.)

The Statistics server is different from the Retain Worker in that the Retain Server is able to contact the statistics server as well. The connection address to the statistics server should not be modified unless custom connection settings have been created.

Core Settings Lo	iging C	Connection	Notificatio	n					
Notification									
You are have the O									
You can have the St	at Server (e-mail a sumr	nary or ope	ations and/or erro	ors that o	ccur while	the Stat Serve	r runs.	
SMTP Mail Se	rver 192.	.168.1.121							
SMTP Mail From Add	ress archi	ive@gwava.c	om						
SMTP To Add	ress admi	in@gwava.co	m						
SMTP Usern	ame sam								
SMTP Pass	vord ••••	•••••	(Pa	ssword is default)					
Test Connection									

Notification defaults to the standard notification address specified in the Retain Server activation and initial configuration. If the notification is desired to be different, modify the settings here. Make sure to test the connection to ensure proper function.

Core Settings Logg	ng Connection	Notification	Bootstrap			
Boot Strap						
•						
The Stats Server softw may copy it manually of	are needs a special ` r use a web browser	"bootstrap" conf to upload the f	figuration file c file. (http:// <a< th=""><th>pied to its working direc chiveStatsServeripAddre</th><th>tory before it can function coss>:48080/ArchiveStatsServe</th><th>orrectly. You er)</th></a<>	pied to its working direc chiveStatsServeripAddre	tory before it can function coss>:48080/ArchiveStatsServe	orrectly. You er)
Download File						

Like the Retain Worker, the Statistics server must be uploaded a saved configuration or 'bootstrap' file. To access this tab, the configuration must be saved first. Then the bootstrap tab will become available. Download the file to a known location and then browse to the Statistics server webpage. The default connection address is shown on the connection tab.

le. <u>http://<ip_address_of_server/RetainStatsServer</u>

- The Stats Server needs to be configured in the Archive Server web interface. Once it has been configured a "bootstrap" file needs to be downloaded and applied here.
Without a bootstrap file the Stats Server will not know how to find the Archive server. After applying the bootstrap file any configuration changes made in the Archive Server will be polled by the Stats Server. You will not have to reconfigure the Stats Server manually unless you change the Connectivity settings configured in the " Archive Server.
1) Select the stats configuration file on your local machine
+ Browse
2) Click continue
More Information
To download the bootstrap file and upload it do the following:
Open the Archive server's web interface.
 Select the Stubbing Server Navigate to the Bootstrap tab.
Select 'Download File'. Save the file to your desktop
Return to this interface.
Click 'Browse' and locate the file on your desktop. Click 'Unload File' below.

From the Stats Server initial webpage, click on the "Browse" button and browse to the saved bootstrap file and select it.

2) Click continue

Click 'Continue' to upload the bootstrap file. As the bootstrap file is uploaded, the Stats Server will require an authenticated login. Only users with the administrative "manage workers" rights will be able to login to the stat server.

Login	
Password	
	Login

Home

On login, the Stats Server opens to the Home page. Navigation links to the different pages are listed in the left hand pane, and the navigation window can be collapsed or expanded for screen space. The Home page displays the most pertinent statistics information: messages archived in last seven and 30 days, Job history, active job list, CPU usage, Disk Usage, and a memory map for the Server.



Generate report

On the Generate report page, different reports can be generated in one or several jobs. Jobs can be sorted according to the job name, start time, or end time, and reports can be selected from a sorted list or from a drop-down alphabetical list.

Generate report Schedule email report	Report to Create Report Output Format	Job summary PDF		
Manage scheduled reports	Select the job to report on			
Maintenance	Job name Select a value	- Start time	End Time	\$
	now	07-Aug-2012 16:37	07-Aug-2012 16:37	
	Social Networking	10-Aug-0012 15:07	10-Aug-0012 15:22	
	Deliver report in Browser	•		

To generate a report, select a report type from the 'Report to Create' dropdown menu. The default report type is 'Job summary'.

Also select the Report Output Format desired. The default output type is set to PDF, but HTML, XLS, and CSV format files are also available.

Each report must have a subject. Specify the desired report subject by selecting the appropriate item from the criteria menu. The one displayed is the job summary report, and displays the different jobs that have been run.

Select one of the items, in this example, a job, and then select where the report will be delivered – immediately in the browser or delivered in Email.

Different reports have different criteria as appropriate. Select or specify the desired criteria for the desired report and then click on the "Generate" button to create the Generate report.



Job run averages

Archive summary by user Server utilization User timestamps Job mailbox summary

Job summa

Browser	
Email	

Schedule email reports

Reports can also be scheduled for automatic generation. Automatic reports are always delivered through email, and are created on the 'Schedule email report' page. The same jobs and criteria as found on the 'Generate report' page are found here, but the Schedule report page also includes a schedule for the recurring or single run report, and the dates effective for the report. When the report is configured as desired, click the 'Schedule' button to save the job to the job queue.

Navigation	Generate report		
Home			
Generate report	Report to Create	Job summary 👻	
Schedule email report	Report Output Format	PDF •	
Manage scheduled reports	Select the job to report on		
Maintenance	Job name Select a value	Start time	¢ \$
	now	07-Aug-2012 16:37 07-Aug-2012 16:37	
	Social Networking	10-Aug-0012 15:07 10-Aug-0012 15:22	
ſ	Email details		
	Mail server hostname/IP	192.168.1.121	
	Sender email address	archive@gwava.com	
	Recipient email address(es)	admin@gwava.com	
	Email subject	Archive Report	
	SMTP username (optional)	sam	
	SMTP password (optional)	••••	
)
ſ	Report Schedule		
	Send Report	Daily -	
	At Time (24hr format)	00 - : 00 -	
	Schedule Start Date	1	
	Schedule End Date	ŭ	
	Schedule		

Manage scheduled reports

To view the scheduled job queue or to delete or modify existing reports, select the 'manage scheduled reports' page. The 'Manage scheduled reports' page is the only page which allows the removal or modification of any currently created or active report jobs. To remove a job select the job (s) from the display and select the 'Remove selected' button. To open a job for editing, select the 'View/change details' button. To initiate a job immediately, select the 'Run report now' button.

Navigation () Home	Currently Sch	eduled Jobs				
Generate report Schedule email report Manage scheduled reports Maintenance	Report name No records found.	Output format	Schedule type	Next fire time	Sender email address	Email subject
		View/Change	details Run re	eport now	× Remove selected	

Maintenance

The Stats Server maintains a separate record of the address book and the job cache. The system automatically syncs this information with the Retain Server every 24 hours. Still, the different records may become out of sync. If a sync becomes required, the different records may be individually triggered to refresh immediately.

Navigation	Maintenance
Home Generate report Schedule email report Manage scheduled reports	Maintenance job(s) will be performed at 2:00 (24hr clock). Currently configured to keep 14 days of statistical data. To configure these settings or other stats settings please do so via the <u>Archive Server</u> .
Maintenance	Remove old statistical data now older than 14 days.
	Synchronize address book cache now Synchronize jobs cache now

By default, the statistics server only maintains a record of statistics for 14 days, and all data older than 14 days will be automatically expired and the data deleted. If the statistic data is required for longer or shorter, configure and save the setting.

It is not recommended to maintain statistics older than 30 days.

Licensing

The Retain license is a file with a PEM extension which should be uploaded through this screen. To acquire a license, contact your <u>GWAVA sales representative</u>.

Overview	Licensing
Documentation	
Search Messages	
Audit Log	Licensing
System Log	
Statistics/Reporting	
	Licensed to CN=pg-1384, EMAILADDRESS=info@gwava.com, O=GWAVA, L=Montreal, ST=QC, C=CA
Data Collection	License ID 108f3478-d038-4f15-92a8-ae7e9f6c617c
Schedules	License State Vald License file installed
Profiles	License Type base exchange gw socialnetworking
Workers	Install Date Fri Jul 27 20:50:36 MDT 2012
Jobs	License expires Thu May 30 21:59:59 MDT 2013
	Support expires Thu May 30 23:59:59 MDT 2013
Management	Your license file is currently stored at: /var/opt/netboxblue/archive/license/rtn334351597124430935.pem
Users	Make sure you keep a backup of this file.
Groups	
Deletion Management	
Configuration	
Server Configuration	Sublint Literise
Module Configuration	
Storage Manager	Browse
Statistics Server Configuration	Submit License
Licensing	

Without a license, Retain will function for 30 days for evaluation purposes.

After this period elapses, the following occurs.

- Users without the "Manage Servers" right are not allowed to log in at all.
- > Users with the "Manage Servers" right are allowed access, but only to the Licensing Page.
- All jobs continue to be processed normally

To submit your license, browse to your PEM file and click "Submit License".

Logout and re-login to the server to see the license in effect.

Overview

Audit Log

All operations involving the archives are logged. This is for auditing purposes so you may know who did what when.

Criteria User Start: 2007 Created Created	is and User is Jun V 65 V II End: 2007 V Jun V 11 V III Archived V Viewed V Forwarded V Deleted V				Sort By: Date
Search Date	Info	User	Mailbox	IP Address	Action
18-Jun-2007 03:08	Agent Accounting Data File	linuxworker1	taylor	192.168.100.71	Archived
18-Jun-2007 03:08	Agent Accounting Data File	linuxworker1	taylor	192.168.100.71	Archived
18-Jun-2007 02:03	Retain Error	linuxworker1	willem	192.168.100.71	Archived
38-Jun-2007 02:03	Retain Error	linuxworker1	willem	192.168.100.71	Archived
18-Jun-2007 02:03	Retain Error	linuxworker1	willem	192.168.100.71	Archived
38-Jun-2007 02:03	Retain Error	linuxworker1	willem	192.168.100.71	Archived
18-Jun-2007 02:03	Retain Status Information	linuxworker1	willem	192.168.100.71	Archived
07-Jun-2007 14:09	Retain Test Message Wed Apr 25 17:06:53 EDT 2007.txt	admin	Willem	192.168.100.125	Viewed
07-Jun-2007 14:05	Retain Test Message Wed Apr 25 17:06:53 EDT 2007.txt	admin	Willem	192.168.100.125	Viewed
06-Jun-2007 02:48	Retain Test Message Tue Jun 05 09:30:33 EDT 2007	linuxworker1	willem	192.168.100.71	Archived
06-Jun-2007 02:48	Retain Status Information	linuxworker1	willem	192.168.100.71	Archived
06-Jun-2007 02:45	Agent Accounting Data File	linuxworker1	taylor	192.168.100.71	Archived
15-Jun-2007 11:44	Retain Test Message Wed Apr 25 17:06:53 EDT 2007.txt	guest	taylor	192.168.100.126	Viewed
15-Jun-2007 11:36	Retain Test Message Wed Apr 25 17:06:53 EDT 2007.txt	guest	taylor	192.168.100.125	Viewed
15-Jun-2007 02:49	Retain Status Information	linuxworker1	willem	192.168.100.71	Archived

- > Accessing the audit log requires the "Access Audit Log" administrative right.
- Ordinary users cannot access their audit logs, unless you grant the "Access Personal Audit Log" right, in which case they can find the audit log on a per-message basis under the Properties tab.

To view the system audit trail,

- 1) Enter your search criteria (what part of the log do you want to see?)
- 2) Set a date range
- 3) Click Search.

The results appear below. This may be printed.

If you have rights, you may click on the Action link to open the message.

An auditor does not automatically get the rights to READ messages in mailboxes that are not assigned to them.

System Log

This option lets you read and parse through the latest system log file. The level of detail is controlled in system configuration.

The actual filename and path on the server is also listed. You may clear the view buffer at any time in case you want to monitor a particular operation for troubleshooting purposes.

	Welcome, admin Status & Updates Lo
js	2 3
Clear Buffer	<u>×</u>
Logfile: /srv/www/tomcat5/base/logs/RetainServer.2007-06-11.log	
Record:serverdos.192.168.100.71	
Record:serverport.80	
Record:serverprotocol.http	
Record:serverurl,/RetainServer	
Record:statusinterval,500	
Record:totalmailbox,79	
Record:totalmessage,3522	
Record:workersecret,TZOHCZZBPKDRXW	
vriting to logger	
[RetainServer] sending jobs for worker: D34CC95F03203176D86476B01296433A	
his job may not run!	
senJobs.rs: 0	
have scheduletype: time	
schedule:	
nave days = 0	
have when = 2:00	
Schedule.	
have use $= 2.00$	
shadi a i	
ave days = 2	×.

Searching the Retain Archives

Now that there is data in your Retain archives, you will want to retrieve this information. This is the core of the information retrieval system in Retain. You search for what you want, the results appear and you can view, print, export, or forward the results. If the logged on user has at least one administrative right assigned, the user is brought to the administrative menus upon login, and must click on "Search Messages" to access the search interface.

There are four tabs in the Search Interface:

- Browse- for casual browsing and filtering. You may only browse one mailbox at a time.
- Search- for in-depth search, possibly across many mailboxes.
- Exported Items- List of all export
- > Tag Definitions- ONLY VISIBLE if the user has rights to Tag Definitions.
- > Options- for changing user settings. Similar to settings in the User Admin.

The browse screen shows you one mailbox at a time. The mailbox you're viewing is listed at the top left and the folder structure is replicated as it is in the mail system. The view the screen displays is dependent on the source mail system for the selected or displayed mailbox. Accordingly, the icons and folder structure of different mailboxes will appear differently for a GroupWise account than it does for an Exchange account.

If you have the rights to access more than one mailbox in the mail system, (such as GroupWise proxy rights and the proxy option enabled in Retain), you will see the "New Mailbox" icon along the toolbar allowing you to switch between mailboxes you have access to. In addition, you may switch display languages using the drop-down language selector along the top.

Browse Search Exported I	ems Options		
🗆 🚮 Colin Bretagne		aibox 🖉 Custom	<pre>Previous Next ></pre>
Inbox Sont Items	Type From	Subject	Recipients Date
Drafts	🗐 🚖 🎤 Colin Bretagne	Test xls	Colin Bretagne 27-Jan-2011 14:57
🛨 🥅 Calendar	🗐 🚖 🎤 Colin Bretagne	test doc	Colin Bretagne 27-Jan-2011 14:37
🛨 📴 Junk Mail	🗐 🚖 Colin Bretagne	Re: hi	Colin Bretagne 20-Jan-2011 16:19
	Bill Conlee	[ngw] De-activating mobility users	NGWList 20-Jan-2011 16:19
Public Folders	🔲 🊖 The LogMeIn Team	Your LogMeIn Pro ² trial is expiring — up	Colin Bretagne 20-Jan-2011 11:13
Notes	🔲 🊖 mailman-owner@ngwlist.com	ngwlist.com mailing list memberships rem	Colin Bretagne 18-Jan-2011 15:45
Cabinet Sync Issues	🔲 🊖 LogMeIn.com Auto-Mailer	LogMeIn Account Notification - Computer	Colin Bretagne 22-Dec-2010 13:42
🛨 🗿 Deleted Items	📄 🊖 LogMeIn.com Auto-Mailer	Add this computer to LogMeIn	Colin Bretagne 22-Dec-2010 13:41
0 selected Clear selected	📃 🊖 LogMeIn.com Auto-Mailer	LogMeIn - Please activate your account	Colin Bretagne 22-Dec-2010 13:41

An Exchange mailbox:

GroupWise mailbox:

Brice Bitter Home Mailbox Molibox Molibox Molibox Selected Gear selected	🔒 🖼 Forward 💦 Export 🍃 Rest	ore 🕒 Print 🚦 New Mailbox 🖉 Custom	12	vious Next >
	Type From	Subject	Recipients	Date
	📄 🖂 🖉 Rick Liljenquist	Excel Document	David Morgan +	17-Aug-2010 17:28
	📄 🖂 🖉 Rick Liljenquist	Word Document	David Morgan +	17-Aug-2010 17:28
	📄 🖂 🖉 Art Purcell	Big Message Body Stubbing Test - NT 801	Art Purcell +	21-Apr-2009 17:56
	Tony Caras	Gamespot coupon!	Everyone	25-Aug-2008 16:23
	📄 🖂 🖉 Suzie Wathen	cool lightning	Everyone	25-Aug-2008 16:21

Social Messaging:

□ ¹ / ₁ ?@?	6	F	iorward 📸 Export 🦕 Restore 📒	Print 🚦 Change Mailbox	Þ	Last 30 days	< Previous
🖃 🔚 Twitter		Туре	From	Subject		Recipients	Date
E Tweets		f	Reply to an unavailable item:				11-Aug-2012 11:42
Wall		_	Bob Jackson		Bob Jackson	12-Aug-2012 00:35	
Messages			Wales is in the house!!!	les is in the house!!!			
🕼 Status		f	Reply to an unavailable item:				11-Aug-2012 11:42
0 selected Clear selected			Bob Jackson	Graduated from Mater Derp Herp High Scho		Bob Jackson	14-Aug-2012 09:57
			Graduated from Mater Derp Herp High School				
	E 5	Reply to an unavailable item:				07-Aug-2012 16:37	
			John Smith	If I had friends, they'd show up here.		John Smith	10-Aug-2012 09:10
			If I had friends, they'd show up here.	۱.			

Cumulative Selections

In browse and search as you click on selections, these are preserved cumulatively from page to page or across searches, folders, etc. So you can forward, restore stub, PDF export from many places at once.

Quick View

The search messages interface allows to quickly view items.

🖃 🚹 Colin Bretagne	9	Fo	orward PDF Ex	port b Restore 🕒 Print	🔋 New Mailbox	ļ.	Custon			
🗄 👝 Inbox		Туре	From			Subject				
Sent Items Port Items Calendar		2	Colin Bretag	Quick View To view this email as a web page, click here. Don't let the good times end. Your free						
		2	Colin Bretag		he good times end. Your free	2				
🗄 📴 Junk Mail		2	Colin Bretag	Colin Bretager experience the incredible features of LogMeIn ProÂ ² , you know how it can greatly						
Public Folders			Bill Conlee	Increase your productivity. You should also know something else. Your free trial expires in just 48 hours. If you want to continue enjoying premium features like file transfer, remote sound, remote printing and more, you still have time to purchase ProÅ2 online. Purchase today and get 15% off LogMeIn ProÅ2. Sincerely. The LogMeIn Team Still have questions? Your LogMeIn Sales rep can help. Simply contact Kate Williams at k.williams@logmein.com p. 781-897-5000 Toll Free: 866-330-1521 Privacy Policy Unsubscribe © LogMeIn Inc, 500 Unicorn Park Drive, Woburn MA, 01801 'LogMeIn.'s and other names, associated designs, logos, icons and marks identfying LogMeIn's products and services are trademarks or service marks of LogMeIn. Tuc. and may not be copied, imitated on used, in whole or in part, without the prior written permission of LogMeIn. All other trademarks, registered trademarks, product names, company names or logos mentioned herein are the property of their respective owners and should not be used without that partyä€"'s prior written permission.	ething else. Your free trial ing premium features like file	users				
			The LogMeIn		still have time to purchase n Pro². Sincerely, The	cpiring — up				
+ Cabinet		2	mailman-owr		es rep can help. Simply contact 0 Toll Free: 866-330-1521	berships rem				
		2	LogMeIn.com		orn Park Drive, Woburn MA, logos, icons and marks	n - Computer				
		2	LogMeIn.com		arks or service marks of I, in whole or in part, without	in				
		2	LogMeIn.com		emarks, registered trademarks, erein are the property of their	ur account				
		2	mailman-owr		party's prior written	berships rem				
		2	Colin Bretag							
			Tim Jackson		nin can be wi					
		2	Randy Grein				th GroupWis			
		2	Colin Bretag	ie		Re: hi				
		-								

Accessing the quick view is simple. Simply select the item icon in the 'Type' column, (mail envelope icon), to spawn the quick-view for that item. The quick view displays up to the first 2kb of text for that item in a small window.

NOTE: Date Range Filter



Please pay particular attention to the date range filter. Only messages that match the date range filter are displayed. If you don't see the results you expect, check the date range filter to be sure that the settings are correct. See <u>Specifying a Date Range</u>.

Using Online Help

Retain has context-sensitive help screens that appear in the left column when you click the help icon.

(2)
Browse

Browse Search Exported Iter	ns Oț	Options			
🖃 😭 Colin Bretagne	9	🕞 Forward 🎼 Export 归 Restore 🕒 Print 🚦 New Mailbox	Custom 💌	< Previous	Next >
🛨 👝 Inbox		Type From	Subject	Recipients	Date
		🚖 🖉 Colin Bretagne	Test xls	Colin Bretagne	27-Jan-2011 14:57
🕀 🛅 Calendar		🚖 🎤 Colin Bretagne	test doc	Colin Bretagne	27-Jan-2011 14:37
🗄 📴 Junk Mail		🚖 Colin Bretagne	Re: hi	Colin Bretagne	20-Jan-2011 16:19
		M Bill Conlee	[ngw] De-activating mobility users	NGWList	20-Jan-2011 16:19
Public Folders		🚖 The LogMeIn Team	Your LogMeIn Pro ² trial is expiring — up	Colin Bretagne	20-Jan-2011 11:13
Votes		a mailman-owner@ngwlist.com	ngwlist.com mailing list memberships rem	Colin Bretagne	18-Jan-2011 15:45
Cabinet Sync Issues		🚖 LogMeIn.com Auto-Mailer	LogMeIn Account Notification - Computer	Colin Bretagne	22-Dec-2010 13:42
🛨 🧊 Deleted Items		🚖 LogMeIn.com Auto-Mailer	Add this computer to LogMeIn	Colin Bretagne	22-Dec-2010 13:41
0 selected Clear selected		a LogMeIn.com Auto-Mailer	LogMeIn - Please activate your account	Colin Bretagne	22-Dec-2010 13:41

This is the default **Browse** screen.

The logged-in user's mailbox will be displayed by default along the top of the window. You may choose to browse through another mailbox if you wish (and if you have rights to do so).

If the user's mailbox is empty, or the user has no specifically assigned mailbox, then the user will be prompted to select a mailbox to browse. Only mailboxes which the user has rights to, will be available.

Notice that the folder structure of the mailbox is reproduced at left. You can expand the folder list until there are no more sub folders.

You browse the folders in the current mailbox and when selected, their contents are displayed.

Language Selection

You may select what language the browse screen will use by selecting the drop-down language selector control and choosing your desired language. This selection applies to the search screen as well as the administration interface.

Language	English 💌	Admin	Help	Logout
	German	_		
	English			
	Spanish			
	French			



Merged Mailboxes

If a mailbox has been merged with its migrated counterpart or any other specified mailbox in Exchange, then the user will have the option to switch mailboxes with a drop-down selection box.

🖃 🕋 migration5	9	F F	orward 💦 Export 🦕 Restore	🕒 Print 🚦 Change Mailbox	, p	Last 3 Years 💌 12
E ant Items		Туре	From	Subject	Recipients	Date
Prafts		2	Rick Liljenquist	Excel Document	Rick Liljenquist +	17-Aug-2010 17:28
🗉 🥅 Calendar		2	Rick Liljenquist	Excel Document	Rick Liljenquist +	17-Aug-2010 17:28
🗄 🎒 Public Folders		\ge	Rick Liljenquist	Word Document	Rick Liljenquist +	17-Aug-2010 17:28
0 selected Clear selected		\ge	Rick Liljenquist	Word Document	Rick Liljenquist +	17-Aug-2010 17:28

Mail from both systems will be viewable and manageable in the same window without having to logout or switch mailboxes.



Browsing Tools (Widgets)



Retain will display various options for the user. The specific options displayed depend upon the user's rights, if a user has not been granted the rights to a particular tool, that tool will not be present in their Search Messages interface. The rights are found in the Retain Server Management section, on the <u>Users</u> page. The full range of options includes (From Left to Right):

- LITIGATION HOLD: Applies or removes the litigation hold, banning removal from archive. Litigation hold prohibits the deletion manager and jobs from removing applied and marked messages.
- > TAG DEFINITIONS Apply or remove tags to messages. ONLY visible with rights.
- > DELETE
- > FORWARD: forward selected items by e-mail.
- PDF EXPORT: opens the PDF export window to create a PDF of the selected items to be emailed to a specified mailbox
- ▶ RESTORE: Restores messages to the Mail system. See section for details.

prints a list of selected items.

- PRINT:
- > NEW MAILBOX: select a new mailbox to view.
- > QUICK SEARCH: search the current folder for text in "from", "to", "subject" or body.
- > DATE SELECTOR: select a custom date range. Retain will show items

within this range. The date filter selection is saved automatically whenever it is changed in the browse and search windows and persists between logged-in sessions. Users should take care that the date range sufficiently covers the time range of interest – a common mistake is to assume Retain has not archived anything, when in fact the date range is simply too narrow.

The Delete option is ONLY visible for users with rights to delete data.

> PREVIOUS/NEXT: move to the next or previous page of items.

Browse Window Defaults

- Retain remembers what the last browsed mailbox was.
- Non administrators go right to their mailbox when they log in.
- Administrators get a prompt to select the mailbox they want to view.

New Mailbox

If you click "Change Mailbox" (which is available if you have access to at least one other mailbox in the system), you will see the mailbox selector screen pop up. Select which mailbox you want to see by

clicking on its radio button and clicking OK. This is just like the <u>mailbox selector</u> <u>used in the user rights administration</u> <u>section.</u>

(If Retain for Social Messaging is set to anonymous user, all Social Messaging data will be contained under the single

ect Mailbox							
First Name	•	begins with		Sea	arch	Ok Cancel	
vstem Social Ne Exchan Current Social N	etworking ge letworkin	Show only users	Show only recent	y cached item	s 🛄		
@? ?@? (c999c	17e0-c814	-43d7-a556-fed5d8cbc3l	(2)				
<u>First</u>	Last	Mail Server	<u>Mailbox</u>	<u>Dept.</u>	Type	<u>Domain</u>	
) ?@?	?@?	SocialNetwork	?@?		U	SocialNetwork	

user '?@?', and separate user names and pertinent information is contained in the 'from' dialog.

Otherwise, individual user accounts will be displayed.)

When selecting a single mailbox, the source of the mailbox must be selected as mailboxes from different systems may have the same user name or criteria. Select which mail system the desired user belongs to, specify any further criteria, or leave the criteria blank to display all possible mailboxes from that system.

First Name		th	•	Search	1	Ok	Cancel
System Exch	ange 👻 Show or	nly users 🔽	Show only recent	y cached items	, 		
olin Bretzan	elected e (0836aba0-c8d2-4	302-b61c-bb	8203e7h8e0)				
oiir bretagn	e (90308089-0002-	ae2-001C-00	02030700007				
dos	406	DECY	dos			hbdihami awaya cam	
0 d90	d90	DECV	d90			blackberry.gwava.com	
0 400	490	DEDA	d97			blackberry.gwava.com	
098	098	BESX	098		0	blackberry.gwava.com	
) d99	d99	BESX	d99		U	blackberry.gwava.com	
Rick	Liljenquist	BESX	rickl	development	U	blackberry.gwava.com	
MikeFirst	MikeLast	BESX	MikeAlias	mikedepartment	U	blackberry.gwava.com	
Art	Purcell	BESX	art		U	blackberry.gwava.com	
🗇 u1	u1	BESX	u1		U	blackberry.gwava.com	
							

If the search results are extensive, the system will have a 'Next' or 'Previous' button at the bottom of the search results window, which displays the next set of results.

Refine search parameters to reach a manageable search result.

In Retain, you can only browse one mailbox at a time. To search multiple mailboxes simultaneously, use the search function.

After selecting a mailbox, click 'Ok' to load that mailbox into the viewer.

Browse Search	Exported Items	o Options									
 ☐ maston Home Image: Image: Ima		🔒 🖼 Forward 📸 Export 🌄 Restore 🕞 Print 🊦 New Mailbox 🔊 🔎 Last 30	days V 12 < Previous Next >								
0 selected Clear selected										Image: squirrel.com>	03-Mar-2011 21:56
		□ ☑ _ℓ <john@squirrel.com> _ maston</john@squirrel.com>	03-Mar-2011 21:56								
		□ □ _ℓ <john@squirrel.com> _ maston</john@squirrel.com>	03-Mar-2011 21:56								

Toolbar Options

Specifying a Date Range

You can narrow the scope of your browse by entering a date range. This is what it looks like.

Set Date		>
Date Range Start: 2007 💙 Jun 👻 13		
End: 2007 💙 Jun 💙 13 🗸		
	<u>S</u> June 2007	
Ok	Su Mo Tu We Th Fr Sa	
20	1 2	_
	3 4 5 6 7 8 9	
	10 11 12 13 14 15 16	
	17 18 19 20 21 22 23	
	24 25 26 27 28 29 30	
	this month	
	close	

Litigation Hold

See the <u>Litigation Hold</u> section later in the document.

Add / Remove Tag Definitions

See the <u>Tag Definitions</u> section later in the document.

Delete

The user delete option allows for the removal of data from personal archives. This option will not be displayed unless the user has been granted the delete right or rights in the administration console. The Delete right is not a default right, it must be specifically added to users or groups. Messages or data marked to be deleted will not necessarily be immediately removed, but will be queued for deletion. The actual item removal will depend on server availability and the amount of items queued for deletion.

Forwarding a Message

In the main browser window, you can select a message by checking its checkbox and the click "Forward". You will see this dialog:

Forward Messages	i de la companya de l
Forward Message	S
Recipients(s)	
Subject	Forwarded message from Retain
Comment (optional)	
Forward Cancel)

Enter the recipients (where you want the message(s) to be forwarded), separated by commas. Enter a comment if desired and click "**Forward**". Retain will send the message(s) via SMTP.



PDF Export

PDF Export is a new function which allows users, (with appropriate rights), to export single or multiple items into a PDF file. This PDF can be named and defined by the user exporting the document. Items will appear as navigable files in the PDF. The default view provides a list on top of the PDF viewer which works as a table of contents to provide access to the exported archive.

If you have rights to do so (new user right), can export browse or search results to PDF. Select the desired items and then select the "Export" button.

Browse Search	Exported Ite		Optio	ns			
🖃 🚮 david Home	·	E F	Forward	Export b Restore 🕒 Print 🚦 New M	ailbox Dust	om 💌 🅎 Previous	Next
mailbox selected Clear selected			Туре	From	Subject	Recipients	Date
				<demosrv_update@concureworkplace.com></demosrv_update@concureworkplace.com>	> - Kay Chapma	"david.delainey@ibuycrap.org".	07-Oct-2009 22:01
		V		<demosrv_update@concureworkplace.com></demosrv_update@concureworkplace.com>	< <concur document="" expense="">> - David W. D</concur>	"david.delainey@ibuycrap.org".	07-Oct-2009 21:49
				<1.141662271@multexinvestornetwork.com	Feb 7, 2002 - At what price broadband?	chris.po.dom	07-Feb-2002 02:43
				<artistinsider@info.artistdirect.com></artistinsider@info.artistdirect.com>	MusicNews.Bono.Cobain.Britney.Sade.SnoCo	chris.po.dom	07-Feb-2002 01:29
				<1.141662272@multexinvestornetwork.com	February 7, 2002 - Enterprising investor	chris.po.dom	06-Feb-2002 23:20

Fill out the various options as desired.

The different options include the file information.

Export Messages		×
Core Settings Output Attachments	Miscellaneous	
Basic PDF export settings are set here.		
Send email when export is complete to	six items	
Document Title	stx	
Document Subtitle	there should be six items, three on one page	
Comment to include	included comment	
Download Filename	Export Set 14-Oct-2009 14:10:20	
Password protect PDF (leave blank for none)		
Export Cancel		

The File output and included fields can be edited.



Any attachments to the email sent to the defined recipient.

Core Settings Output Attachments Mscelaneous You may restrict which attachments are included and excluded by extension. By default all attachments are included. You may also set to maximum attachment size in MB. Include attachments with extension Edit Remove Exclude attachments with extension Add Edit Remove Maximum size of attachments, in MB (must be less than 2048) 2048 Exout potentially dangerous attachments? 1	xport Messag	es			
ou may restrict which attachments are included and excluded by extension. By default all attachments are included. You may also set to aximum attachment set in MB. Include attachments with extension Add Edit Remove Exclude attachments with extension Edit Remove Iaximum size of attachments, in MB (must be less than 2048) Export potentially dangerous attachments?	ore Settings	Output	Attachments	Miscellaneous	
Include attachments with extension Add Edit Remove Exclude attachments with extension Exclude attachments, in MB (must be less than 2048) 2046 Export potentially dangerous attachments?	'ou may restri naximum attac	t which atta hment size ii	achments are inclue n MB.	ded and excluded by	extension. By default all attachments are included. You may also set the
Edit Remove Exclude attachments with extension Add Edit Remove Iaximum size of attachments, in MB (must be less than 2048) Export potentially dangerous attachments?	Include att	achments v	with extension—		
Exclude attachments with extension Add Edt Remove axmum size of attachments, in MB (must be less than 2048) Export potentially dangerous attachments?				_	Edit
Exclude attachments with extension Add Edit Edit Remove aximum size of attachments, in MB (must be less than 2048) 2048 Export potentially dangerous attachments?				~	Remove
Edit Edit Edit Remove Export potentially dangerous attachments?	Exclude att	achments v	with extension—		
aximum size of attachments, in MB (must be less than 2048) 2048 Export potentially dangerous attachments?				1	Edit
aximum size of attachments, in MB (must be less than 2048) 2048 Export potentally dangerous attachments?				~	Remove
	aximum size (of attachmer Export p	nts, in MB (must be potentially dangerd	e less than 2048) 204 ous attachments?	8

...And finally, any restrictions to size or time zone for the PDF. If the archive size does not exceed the maximum size, then the archive will be contained in one file. If larger, the archive will be exported into multiple PDFs will be created according to the maximum limit, until the archive export is complete. Time zone information will be used for formatting any time and date information in email headers. The time written to the cover sheet and date column in the PDF table of contents is written according to the time zone of the Retain Server.

Export Messages	×
Core Settings Output Attachments Miscelaneous	
You may set the page size, or the total PDF size.	
Page Size to use Letter Portrait	
Maximum size of PDF in MB (must be less than 2048) 2048	
Time Zone US/Mountain	
Export Cancel	

When finished, select 'Export'. Depending on the size of the PDF export list, the export may take some time. The Export will notify via email when it is complete, if a notification address was provided.

Currently running export jobs are also listed under the 'Exported Items' tab.

Once the Export has completed, the finished PDF is available under the 'Exported Items' tab. Locate the appropriate export list and select the disk icon to download the finished PDF.

Browse Search Exported Items Options			
list of Export jobs is shown below. If you have any running (but not comple	eted) jobs, they wi	l be displayed, and you may request car	cellation.
or jobs that have completed, you may download and/or delete the exported	l file. Please note tl	hat the deletion cannot be undone.	
unning Jobs:			
o Items Found.			
ompleted Exports:			
File	Size (KB)	Date	Actio
Export Set 14-Oct-2009 14:10:20.pdf	39	14-Oct-2009 14:18:42	🗐 🎽
Export Set 13-Oct-2009 13:22:23.pdf	15	13-Oct-2009 13:23:02	📙 🎽
Export Set 09-Oct-2009 14:19:41.pdf	39	09-Oct-2009 14:20:23	H 🕺

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The finished PDF is structured with an email or item list on top as a working table of contents, and the selected item is displayed below. The title, subtitle, and comments are listed on the title page, as shown.

File Edi	ort Set 03-Dec-2009 11_45	_48.pdf-AdobeRe dow Help	eader	_	_	_	_	X
							Search	- 00
								100 Items
	Date	Subject	From	То	Size			
in the second se	9/18/2001 4:20:52 PM	New Contact Info.	delainey.GWIA.dom	"bgabrielson@cdnam.com".GWIA.dom	2.658 KB			Ì
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9/18/2001 4:20:52 PM	New Contact Info.	delainey.GWIA.dom	"bgabrielson@cdnam.com".GWIA.dom	2.658 KB			
1	9/18/2001 4:20:52 PM	New Contact Info.	delainey.GWIA.dom	"bgabrielson@cdnam.com".GWIA.dom	2.659 KB			
1	9/18/2001 4:20:52 PM	New Contact Info.	delainey.GWIA.dom	"bgabrielson@cdnam.com".GWIA.dom	2.659 KB			
1	12/5/2001 7:36:59 AM	FW: New Power	delainey.GWIA.dom	"bgabrielson@cdnam.com".GWIA.dom	2.889 KB			
-							_	•
• •	Cover sheet				1 / 1		.	
								15
				Title				_
				Subtitle		-		
				admin				
			Thu De	ec 03 11:45:53 MS	ST 2009			
		Comments	:					
7		included co						×

Restore

Retain can restore messages to target mailboxes in the mail system, for those users who have the appropriate rights to restore messages. If a user has the rights to restore messages their user interface will have the 'Restore' button visible on their toolbar. Restoring messages **requires** GroupWise 8, or Exchange.

The action that the restore function performs is dependent on what platform the messages are to be restored to. For GroupWise, when the restore function is called, the selected GroupWise message(s) will have a stub restored to the mail system. Because the stub connects to and references the full item in the Retain archive, this function is effectively a 'full restore' of the message or messages. If message(s) are restored to Exchange, a full copy of the entire message with attachments is restored to the mail system. GroupWise messages may be restored to either Exchange or GroupWise.

To restore a message or messages, log into the Retain archive, locate and select the desired message, or messages, and click on the 'Restore' button.



Select the desired target mail system for the restored messages. (This is usually the source mail system, though GroupWise messages may also be restored to the Exchange system.)

Target System	Exchange 🚽		
Target Mailbox	Exchange	ministrator@blackberry.gwava.com)	-
	Groupwise		

After the 'Restore' option has been selected, and if the user has rights to restore to any mailbox, the target mailbox must be specified, otherwise, only the user's mailbox will be available. When the 'Restore Messages' button is selected, Retain connects to the mail system and places a stub or the entire selected message in the target mailbox.

Restore Messages	×
Restore Messages	
If you are running GroupWise 8 SP1 or later, or Exchange, you may re	astore items back to a target mailbox.
Please note the following:	
You will only be allowed to restore to your personal mailbox, u All restored stubs will appear in your Mailbox folder. Target System Exchange	nless the administrator has granted additional rights.
Target Mailbox Administrator (administrator@blackberry.gwava.com)	-
Administrator (administrator@blackberry.gwava.com) Restore Mess BESAdmin (besadmin@blackberry.gwava.com) equipholder (equipholder@blackberry.gwava.com) journalMB (journalmb@blackberry.gwava.com) logintest (logintest@blackberry.gwava.com) roomholder (roomholder@blackberry.gwava.com) test (logintest@blackberry.gwava.com) test (logintest@blackberry.gwava.com) test (logintest@blackberry.gwava.com) test (logintest@blackberry.gwava.com) Colin Bretagne (colinb@blackberry.gwava.com) Colin Bretagne (colinb@blackberry.gwava.com)	

The Users Right that is required to use the Restore feature is called "Restore Messages". Administrator level right allows users to restore messages to any mailbox, including mailboxes which did not have the message before.

Restoring a message which currently exists in the target mailbox results in a duplicate message existing in that mailbox. It is recommended to only restore messages that have been deleted from the mail system, but exist in the Retain archive.

The Restore Stub feature requires:

- GroupWise 8 Client
- GroupWise 8 Post Office
- Retain Stubbing Server
- Stubbing correctly setup in ConsoleOne.
- Sufficient user rights to restore messages.

Search

This is the default **Search** screen.

Core Settings	User Rights	Mailboxes	Miscellaneous
User Rights			
Rights explicitly	granted to the	user.	
Administrator le	vel rights		
Access all a	udit logs		
Deletion M	anager		
Manage Se	rver		
Manage Us	ers and Groups		
🗹 Manage W	orkers, Schedul	les, Profiles, Jo	obs
Publish Me	ssages		
Restore me	essages [Any M	ailbox]	
Search all r	nailboxes		
User level right	5		
View/Save	attachments		
View perso	inal audit log		
Export Mes	sages		
Forward Messages			
Print Messa	iges		
Read Confi	guration (Redlin	ne)	
Restore me	essages [My Ma	ilbox]	

Browse Search Exported Items	Options			
le 😹 🗶	🔒 📑 Forward 💦 Export	Restore 📄 Print 🛛 Last 30 days	< Previous Next >	
Core	🔲 Туре	Subject	From	Date
Subject Contains (exact) Search mailboxes All Mailboxes Selected Select Nermity Selected Ne Mailboxes				
Scope Sort Misc.				
Search Reset 0 selected Clear selected				

In Search, you enter your criteria on the left, including the scope of your search. Multiple criteria are permitted and you can perform a precise search this way. Your search results appear in the main window. Users with more rights will have more tools and search options available. Only users with rights to the different options in the archive will have those options appear in their toolbar.

Retain will search across all mailboxes you have rights to. By default, a regular user only has rights to their own mailbox and therefore will only see results from that.

See Search in More Detail

Opening/Viewing a Message

Here is an example of a message opened in the Retain message window:

Message Properties	
From: Tails <tcmofo@gmail.com> <tcmofo@gmail.com> 14-1</tcmofo@gmail.com></tcmofo@gmail.com>	Feb-2007 12:38 📤
To: julie <clark@redline.gwava.com>, <taylor@taylor.gwava.com>,carl <heinz@redline.gwava.com <melissa@redline.gwava.com>,Greg <lynn@redline.gwava.com>,taite <charles@redline.gwava< td=""><td>i>,mitchell a.com></td></charles@redline.gwava<></lynn@redline.gwava.com></melissa@redline.gwava.com></heinz@redline.gwava.com </taylor@taylor.gwava.com></clark@redline.gwava.com>	i>,mitchell a.com>
Subject: test the group	
Mime.822 (1659 bytes) [Open] [Save]	
Attachments: MESSAGE TEXT (5 bytes) [Open] [Save]	
MESSAGE HTML (6 bytes) [Open] [Save]	
<pre>Return-path: <tcmofo@gmail.com> Received: from nz-out-0506.google.com ([64.233.162.236])</tcmofo@gmail.com></pre>	
<pre>h=received:message-id:date:from:to:subject:mime-version:content-type; b=Mo/LifFmUZM+awWSdXbyHgvrjgxXIp5tL8kLocEx5T7X1U9DGWUEreHFtkzg32AwepnMKnRH1ALFrGDfXQ0S Received: by 10.64.49.20 with SMTP id w20mr3889195qbw.1171474686320; Wed, 14 Feb 2007 09:38:06 -0800 (PST) Received: by 10.65.44.20 with HTTP; Wed, 14 Feb 2007 09:38:06 -0800 (PST) Message-ID: <e5595e4b0702140938s2d64a0eetb62b8f71506a9163@mail.gmail.com> Date: Wed, 14 Feb 2007 12:38:06 -0500 From: Tails <tcmofo@gmail.com> To: charles@redline.gwava.com, melissa@redline.gwava.com,</tcmofo@gmail.com></e5595e4b0702140938s2d64a0eetb62b8f71506a9163@mail.gmail.com></pre>	MWhQmwh/fdr59e
	>

You will see all of the text, the headers and attachments as listed. Here is another example:

12-Feb-2007 17:37 📤

Notice how the message's metadata has all been saved: time/date, status of attachments and so on.

The user may print the message or save it to disk, if they possess the necessary <u>rights</u>. You can also select the properties tab to see more information about the message:

Message	Properties	
From: t	aite <charles@redline.gwava.com></charles@redline.gwava.com>	12-Feb-2007 17:37
To: T	Fails <tcmofo@gmail.com></tcmofo@gmail.com>	
Subject: F	Re: test from outside world (I'm out)	
Attachme	ents: MESSAGE TEXT (38 bytes) [Open] [Save]	
Core		· · · · · · · · · · · · · · · · · · ·
Item	Type: Mail	
Box	Type: sent	
Owner	UID: 013BDEC0-0C5E-0000-AD6D-170031001600	
Parent I	Node: 839	
F	Read: no	
Cre	ated: 12-Feb-2007 17:37	
Deliv	ered: 12-Feb-2007 17:37	
St	ored: 04-Jun-2007 12:27	
	Path: / taite / Sent Items / Re: test from outside world (I'm out)	·
Additi	onal Properties	
domai	in au2dom	
priorit	by Standard	
stati	us: accented opened read	
postoffic	ce: gw2po	
Paratiti	9117F	
		×

The message's item type, status, relationship information, opened status, original location and so on are all stored. All of these items are valid based on the time the message was archived from GroupWise.

The properties section is where a lot of fields that are specific to the Mail system are saved.

Search in More Detail

The search window has some of the same top buttons as the browse window.

|--|

Search Window

The browse window allows the user to access a single mailbox at a time, access the folder tree of the

mailbox and perform some basic searching and filtering. For more advanced searching options, and the ability to search multiple mailboxes at once use the Search Window.

Core Tab

Search Terms – What To Look For

You specify up to 5 additional criteria here. All items are logically AND-ed together to narrow the search unless specified with a double pipe. Using the double pipe denotes an 'or' search criteria. (I.e. A search criteria with 'Retain || Vertigo' would result with messages containing the words 'retain' OR 'vertigo' in the specified field.) To use the Internet Header search term, you must

enable the Internet Header options in the profile.

You can search based on all items shown on the right with operators including:

- Contains (fuzzy)
- Contains (exact)
- > Starts with
- Does not contain

You must have at least one search item. You can add and delete

them using the 🖽 🖬 buttons to the left.

Search Mailboxes – Where to Look

Click the radio button to search through all mailboxes (that you have rights to) or click the other radio button to search through selected mailboxes.

You choose which mailbox, or mailboxes to search through using the mailbox selection tool. (See below) Mailboxes that you have selected for the search are listed in the Currently Selected panel.

Start Your Search

To initiate a search, click the search button. The results will appear on the right, and will be saved as a persistent query. Every time you execute search, even between login sessions, the same query will be executed. If you click on the Reset button, the current query is cleared.

l 🖓 🛃 🖊
Core
- Search terms
🛨 🖃 Subject 🔽
Sender (email) Sender (display) Sender Domain
Seard Recipient
GW Domain Internet Header Message Contents
Currently Selected

Search mailboxes O All Mailboxes
Selected Select
Currently Selected jae smith smith vellem bagchus taylor ocotrane melissa mitchell deve osbourne
Scope
Sort
Misc.
Search Reset

The toolbar on the right provides similar functionality to the browse window toolbar, and allows the user to forward messages from the search results, print, etc. - assuming the user has rights to do so.



RESET clears the query entite

Selecting Mailboxes

When you click on SELECT, you choose which mailboxes to search through using the selection tool. Use the check boxes to select mailboxes and click "Add Selected" to add them to the list in "Currently Selected". You may remove mailboxes from the "Currently Selected" list by clicking on the red X next to them.

You will see the mailboxes made available to you via GroupWise proxy rights (if the function is enabled in Retain), via the "Search All Mailboxes" right or via mailboxes you have been granted access to specifically.

Add Selected Ok Cance Currently Selected ✓ Wilem Bagchus ✓ Colin James ✓ corbrane Criteria First Name ✓ begins with ✓ Begins with <th>Select N</th> <th>lailboxes</th> <th></th> <th></th> <th></th> <th></th> <th></th>	Select N	lailboxes					
Willem Bagchus Colin James carl carl cochrane First Name Begins with First Name Show only users Show only users Openation First Last PostOffice Milem Bagchus gw2po Wilem Greg gw2po Colin James gw2po Hanigan Miss gw2po	Add Se	elected tly Select	Ok Cancel				
Colin James Carl Criteria First Name begins with First Name begins with Show only users Show only recently cached items Address Book First Last PostOffice Mailbox Wilem Bagchus Greg gw2po Colin James gw2po Colin Miss gw2po Hanigan U	🔏 Wil	lem Bagch	ius				
Carl Criteria First Name ▶ begins with First Name ▶ begins with Show only users > Show only recently cached items Address Book First Last PostOffice Mailbox Willem Bagchus gw2po Willem Greg gw2po Colin James gw2po Hanigan Miss gw2po	👗 Col	in James					
Critteria Search First Name begins with Search Show only users Show only recently cached items Image: Constraint of the search Address Book Image: Constraint of the search Image: Constraint of the search First Last PostOffice Mailbox Dept. Type Wilem Bagchus gw2po Wilem U Greg gw2po Lynn U Colin James gw2po Colin U Miss gw2po Hanigan U	👗 car	E					
Criteria Search First Name begins with Search Show only users Show only recently cached items Search Address Book Image: Constraint of the search of the sea	× cor	thrano					
First Last PostOffice Mailbox Dept. Type Willem Bagchus gw2po Willem U Greg gw2po Lynn U Colin James gw2po Colin U Miss gw2po Hanigan U	Criteria First Name Show on	a a v b ly users v s Book	egins with 🛛 💉	tly cached items 🗹	Search		
Willem Bagchus gw2po Willem U Greg gw2po Lynn U Colin James gw2po Colin U Miss gw2po Hanigan U		-irst	<u>Last</u>	PostOffice	<u>Mailbox</u>	<u>Dept.</u>	<u>Type</u>
Greg gw2po Lynn U Colin James gw2po Colin U Miss gw2po Hanigan U	1	Willem	Bagchus	gw2po	Willem		U
Colin James gw2po Colin U Miss gw2po Hanigan U			Greg	gw2po	Lynn		U
I Miss gw2po Hanigan U		Iolin	James	gw2po	Colin		U
			Miss	gw2po	Hanigan		U
🔲 🗌 carl gw2po Heinz V			carl	gw2po	Heinz		U

Loading, Saving and Deleting Searches

The user may save searches for future use, and reload them whenever they are useful. These search queries may also be deleted freely.



The icons (below the tabs) from left to right mean:

- ≻ Load
- Save
- > Delete

You can save up to ten queries and you may delete queries you no longer want.

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Scope Tab

This tab contains functions to further narrow what you're searching through.

Item Type

If no boxes are checked, you will search through every mail system item type. Otherwise, Retain will search through only those types of items you have checked off.

Item Source

If no boxes are checked, you will search through every item source. Otherwise, Retain will search through only those items whose source matches what you have selected.

Attachment Size

When searching through messages, you can tell Retain to search through all messages regardless of the size of the attachments or whether to restrict your search to only those items whose attachments are within the size range you select.

Sort Tab

Choose how you want Retain to sort your search results.

You may sort your results by the date the items were created in the mail system, by the Subject, Sender, Sender's Domain, the Recipient's e-mail address, or display name.

Your sort may be up to three levels deep.

Misc. Tab

Choose your Date Range here. It is important to note WHAT date is being filtered here. It is NOT the same as the date range selector on the results window. The results window date range filters based on the date the item was created in the mail system.

In this case, it is for filtering appointments and tasks. So you are filtering based on the start/end dates of the item, regardless of when it was created in the mail system. For example, you might have created an appointment for yourself that will happen in three months. The creation date is three months away from the start/finish dates.

Scope
Item Type
(Leave unselected to search all types)
Mail Phone Message
Appointment Task
Note SMS
MMS Phone Call
BB PIN BBM
Item Source (Leave unselected to search all sources) Received Posted Sent Draft
Attachment Size
Any

	Core	
	Scope	
	Sort	
Sort Results		
First By: C	reation Date 💉	
Then By: S	ender Domain 💌	
Then By: R	ecip. (display) 🔽	
	Misc.	
	Search Reset	
	Core	
	Scope	
	Sort	
	Misc.	
Start Date	(Appointment, Task)	
(any date)	Range	
End/Comple (any date)	ete Date Range	
	Search Reset	

Litigation hold

Litigation hold is a feature which counteracts the deletion manager. To use the Litigation hold feature, users MUST have the litigation hold right granted to them in the Retain Server.

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The deletion manager is how mail is expired out of the archive, and removed when no longer needed due to age or other circumstance. Litigation hold tells the system to ignore the remove command from the deletion manager; messages or entire user mailboxes with litigation hold applied will not have any mail removed from the system until the hold is removed.

8	Fc	rward 💦 Export 🦕 Restore 🕒 Print 🚦	New Mailbox Custom	Previous Next
	Туре	From	Subject	Recipients
	X	<1.141662271@multexinvestornetwork.com	Feb 7, 2002 - At what price broadband?	chris.po.dom
		<1.141662271@multexinvestornetwork.com	Feb 7, 2002 - At what price broadband?	chris.po.dom
		<artistinsider@info.artistdirect.com></artistinsider@info.artistdirect.com>	MusicNews.Bono.Cobain.Britney.Sade.SnoCo	chris.po.dom

To apply the Litigation hold to an item, select the item then select the padlock at the top of the browse window. The following window will be displayed:

Choose whether to apply or remove the hold from the selected items. The entire use mailbox may be excluded from a deletion job in the deletion manager.

Litigation Hold	×
Apply or remove litigation hold	
Applying litigation hold prevents the deletion manager from deleting the selected item. Note it is more efficient to exclude the entire mailbox if the majority of messages needs to be preserved.	
Apply to selected items \odot Remove from selected items \bigcirc	
Ok Cancel	

<1.141662271@multexinvestornetwork.com	Feb 7, 2002 - At what price broadband?	chris.po.dom	07-Feb-2002 02:43
<artistinsider@info.artistdirect.com></artistinsider@info.artistdirect.com>	MusicNews.Bono.Cobain.Britney.Sade.SnoCo	chris.po.dom	07-Feb-2002 01:29

Items that have a litigation hold active on them are marked by a small padlock in the interface. If a hold needs to be removed, selecting the item then the litigation hold button at the top will bring up the option to remove the hold from the selected items.

Shared Queries

Queries may be shared with other users in the system. Shared queries are still subject to the individual rights of any user that the query is shared with. A shared query shows the full results to the query but does not grant access to the messages. If a user is restricted from viewing the mail from another user, but has a shared query, they will be unable to access the messages outside their rights.

Any search may be saved and any saved query may be shared with other users. When a shared query is created, the creator decides which users to share the query with. Once a query has been saved by using the disk icon at the top of the search window, it can become a shared query.

Creating a shared query takes two main steps. A query must be shared, and then accessed by the user it was shared with. To share an existing query, select the sharing icon at the top of the search window. This icon looks like red and blue users. The icon is between the save, and the close icons.



After selecting the share query icon, a window displaying all saved queries is displayed.

Share Query		×
Vour personal queries		
Sa default	I want to share this query	
Cancel		

There are no queries shared in this window. The queries are listed, displaying name and description. If a query is to be shared, select the gray icon at the beginning of the saved query.

Share Query		
Group Membership		After
auditor	+	query
	Remove Member	users
	Member (no users) 💌 Add Member	Use th
	+	Mem
Ok Cancel		popul share

After selecting the shared query icon, the query creator must now select which users to share the query with.

Use the drop-down menu and 'Add Member, Remove Member' buttons to populate the group the query is to be shared with.

Once the group has been selected, click 'Ok' to be returned to the Share Query window. If the share query icon is now colored instead of gray, then the query has been successfully shared, and the users in the shared group now have access to the query.

There is no limit to the amount of users that a query can be shared with. Adding users to an existing shared query group is accomplished by selecting the shared query icon and editing the existing list. The user which created and initially

Share Query				
-Your p	ersonal queries			
	default	I want to share this query		
Cancel				

shared the query retains the rights to remove users from the shared query group membership or cancel the share altogether.

Accessing Shared Query

To access a shared query, a user which has membership in a shared query group logs into Retain and selects the Search tab. In the Search window, the user selects the Load icon at the top left of the search window. All saved queries will be

À 🔜 🖧 其	📑 Forward 🛛 🔒 Print	Last 30 days 💌 🅎 💷	vious Next
Core	🔲 Туре	Subject	
Contains (exact)			
Sort	Share Query		
Misc.	Queries shared with user		
Search Reset	💥 admin default	I want to share this query	
0 selected Clear selected	Cancel		

displayed, and the query that was shared will be available to be viewed. Select the desired query and the 'Load Selected Query' button to load the search criteria. Clicking 'Search' loads the messages fitting the shared criteria.

Removing a Shared Query

Users have the option to remove a shared query from their saved query list.

If a user desires to remove a shared query from their query list, it is accomplished through the 'Shared Query' window. Select the 'Shared Query' icon to view all queries that are shared, and that the user is sharing.

S 🖬 🕸 🧸	Forward 🕒 Print	Last 30 days 💌 🌇 Previous Next	
Core Search Jerms	📃 Туре	Subject	From
B Subject Contains (exact) Scope Sort Misc.	=		
Search Reset			
selected Clear selected		Load Query Queries shared with user	×

Selecting the red 'X' next to the offending query in the shared query window will remove the query and remove the user from the shared query group.



This action cannot be reversed, but the query may be re-shared.

Tag Definitions

The Tag Definitions tab allows the creation and removal of Tags, their automatic comment, and name. Tags are an informative note which can be attached to any data item in the search messages interface. There is no limit to how many tags any one item may have applied to it, and there is no limit to how many tags a user may create. In addition, tags are also a serachable item, making this one of the most versitile ways to add long-term identification for items in the data store.

Before the tag icon will appare on the toolbar in the search interface, there must be at least one tag defined. To define a tag, enter the tag name and initial comment if desired, then, if the user has permissions to do so, define whether the tag is personal or global. Once saved the tag is available for use.

Global tags are tags that any user with the rights to	
see global tags will be able to view and apply.	

🗮 Retain				25-Jan-2013 22:44 🍞 Welcome, admin
Browse	Search	Exported Items	Tag Definitions	Options
⁹ Tag Do	efinitio	ns		
	<u>Name</u>			<u>Comment</u>
Add new Tag Definition				
Nam	e: ne	w tag definition		
Com	ment:			
Tag	Scope: Glo	obal 👻		
Sav	ve Changes	Cancel		

Personal tags are limited to the user who created them. Only tags visible to users will be available to be searched for by that user.

	Retain	25-Jan-2013 22:45 🌍 Welcome, admin	Language English - Admin	n Help	Logout
Browse	Search Exported Items	Tag Definitions Options			
🕫 Tag D	efinitions				-
Add Nam Com Tag	Name garbage Export new Tag Definition ne: new tag definition ment: Scope: Global • We Changes Cancel	<u>Comment</u> Due for deletion This needs to be sent to			*

Any tags created or subject to manipulation by the user logged-in will be displayed under this tab.



To apply a tag to a message or data item in the search messages interface, simply select the data item or items, and then click the 'Add / Remove' tag button in the toolbar.

Γ	200	Sender@domail		benja	min.po.dom	13
	\sim	<sender@domain< th=""><th>.com></th><th>Renia</th><th>min.po.dom</th><th>15</th></sender@domain<>	.com>	Renia	min.po.dom	15
	\geq	<sender@domai< th=""><th>Tag Messages</th><th>×</th><th>nin.po.dom</th><th>15</th></sender@domai<>	Tag Messages	×	nin.po.dom	15
	\sim	<sender@domai< td=""><td>- Apply/Remove Tags</td><td>٦Å I</td><td>nin.po.dom</td><td>15</td></sender@domai<>	- Apply/Remove Tags	٦Å I	nin.po.dom	15
	\sim	<sender@domai< td=""><td>You may "tag" or "untag" messages here, and then search for</td><td></td><td>nin.po.dom</td><td>15</td></sender@domai<>	You may "tag" or "untag" messages here, and then search for		nin.po.dom	15
	\searrow	<sender@domai< td=""><td>items with these tags applied. This can be helpful for categorization purposes.</td><td></td><td>nin.po.dom</td><td>15</td></sender@domai<>	items with these tags applied. This can be helpful for categorization purposes.		nin.po.dom	15
	\sim	<sender@domai< td=""><td></td><td></td><td>nin.po.dom</td><td>15</td></sender@domai<>			nin.po.dom	15
	\searrow	<sender@domai< td=""><td>Apply tag to selected messages Remove tag from selected messages</td><td>-</td><td>nin.po.dom</td><td>15</td></sender@domai<>	Apply tag to selected messages Remove tag from selected messages	-	nin.po.dom	15
	\sim	<sender@domai< th=""><th></th><th>=</th><th>nin.po.dom</th><th>15</th></sender@domai<>		=	nin.po.dom	15
	\sim	<sender@domai< td=""><td>Apply/Remove tag to children of selected messages</td><td></td><td>nin.po.dom</td><td>15</td></sender@domai<>	Apply/Remove tag to children of selected messages		nin.po.dom	15
	\sim	<sender@domai< th=""><th></th><th></th><th>nin.po.dom</th><th>15</th></sender@domai<>			nin.po.dom	15
	\searrow	<sender@domai< th=""><th></th><th></th><th>nin.po.dom</th><th>15</th></sender@domai<>			nin.po.dom	15
	\geq	<sender@domai< th=""><th> Global Tags</th><th></th><th>nin.po.dom</th><th>15</th></sender@domai<>	Global Tags		nin.po.dom	15
	\searrow	<sender@domai< th=""><th>Garce garbage Ok Cance Personal Tags</th><th>-</th><th>nin.po.dom</th><th>15</th></sender@domai<>	Garce garbage Ok Cance Personal Tags	-	nin.po.dom	15
	\sim	<sender@domai< td=""><td>Export</td><td></td><td>nin.po.dom</td><td>15</td></sender@domai<>	Export		nin.po.dom	15
	\geq	<sender@domair< th=""><th>.com></th><th>Benja</th><th>min.po.dom</th><th>15</th></sender@domair<>	.com>	Benja	min.po.dom	15

Once the 'Add / Remove Tags' button has been pressed, the following information box is displayed:

All tags open for use by the user will be displayed, both global and personal. There is no limit to the amount of tags that can be applied to any one message. An additional comment may be added to the tag for the specific item or items selected. In addition, any associated 'children' messages or data items connected to the selected ones, may also be selected for tag application.

Once a message has one or more tags applied to it, a badge is displayed below the item icon in the window.

🗮 Retain	25-Jan-2013 22:45 🛛 🛜 Welcome, admin		Language E	nglish 🗸 Admin	Help Logout
Browse Search Exported Items	Tag Definitions Options				
🖃 😭 Rush Home	🔒 🛐 😭 Delete 📑 Forward 📸 Export 📇 Print	Change Mailbox	🔎 🛛 Last Year	< Previous	Next >
i Mailbox	Type From	Subject	Recipients	Date	
0 selected Clear selected	sender@domain.com>	-	Benjamin.po.dom	15-Sep-2012 17:13	
	<pre>sender@domain.com> </pre>	-	Benjamin.po.dom	15-Sep-2012 17:13	
	sender@domain.com>	-	Benjamin.po.dom	15-Sep-2012 17:13	
	A sender@domain.com>	-	Benjamin.po.dom	15-Sep-2012 17:13	
	🔄 💽 garbage This is the garbage message	-	Benjamin.po.dom	15-Sep-2012 17:13	
	sender@domain.com>	-	Benjamin.po.dom	15-Sep-2012 17:13	
	<sender@domain.com></sender@domain.com>	-	Benjamin.po.dom	15-Sep-2012 17:13	

Hovering over the item's tag badge will display the tag; the global or personal icon along with the name and initial comment.

Options Tab

The options section here is exactly like the section in the <u>Administration | Users section</u>. These settings here are specific to the currently logged in user. The current loaded user is shown next to "User ID" located below the Core Settings tab.

Browse	Search	Exported Ite	ems	Options		
🖁 Optic	ons					
Co	ore Settings	User Rights	Mailt	ooxes	Miscellaneous	
Use	er ID admin					-
Со	re Settin	gs				
		Comment				
	Authentica	ation Method	Offline A	Authenti	cation (forced)	(Use exclusively)
Prin	nary UID (links	s your rights) o	df8616e	9-c942-4	12a8-919e-6a4ft	o7e2ccc0 (none)
	Group	Membership (none)			
	Accour	nt can expire				
			Old			
	Change Inter	nal Password	New			
			Confirm			

Core Settings

Among the information displayed is:

- > Your User ID (internally generated by Retain)
- > Your Group Membership (you cannot change that here)
- > Your authentication method (you may change this if you have rights to)
- > Your offline password if you don't use SOAP to authenticate
 - You may change the password only if you have rights to

User Rights Tab

You're shown the rights you have within Retain on this screen. Available rights may only be changed by a user administrator within the Administration screen.

Brows	e Search	Exported Item	ns Options	5	
🖁 Options					
1	Core Settings	User Rights	Mailboxes	Miscellaneous	
User ID admin					
L L	User Rights				
R	Rights explicitly granted to you, and inherited from your Group membership.				
Y	You have full rights to search all mailboxes, and perform all operations.				

Mailboxes Tab

In this section, you're shown the mailboxes you have been given explicit rights to work in. By default, you have rights to only your own mailbox. If an administrator explicitly gives you rights to other mailboxes or you are a member of a group that has rights to other mailboxes explicitly, those mailboxes will be shown here.

Brow	se Search	Exported Items	Options	3			
🖁 Op) Options						
	Core Settings	User Rights	Mailboxes	Miscellaneous			
	User ID admin						
	Mailboxes						
	These are additional mailboxes beyond your primary mailbox you may access. You have full rights to search all mailboxes, and perform all operations.						

Miscellaneous Tab

This contains your display and session options.

These work just as described in the <u>user display</u> options in the Administration screen.

Options are:

\triangleright	Comment	Default comment for
		forwarding messages.
\triangleright	Date/Time Format	How you want your
		dates and times to be displayed.
\triangleright	Display Number	How many items to
		display per page.
\triangleright	Message Age Display	Default date filter for
		searching. It may be changed on
		the fly.
\triangleright	Session Timeout	Inactive session timeout. Can be
	between 5 and 60 minu	utes.

Browse Search Exported Items Options				
Options				
Core Settings User Rights Mailboxes Miscellaneous				
User ID admin				
Miscellaneous				
Comment				
The default comment appended to forwarded messages can be set here.				
Comment				
Date/Time Formats				
Defines how dates and times are displayed.				
Day-ShortMonth-Year Time 24 Hour				
Example: 16-Mar-2011 00:38				
Display Number				
How many items to display per page				
Display Number 25 👻				
Message Age Display				
How many days of messages should be displayed by default?				
Message Age Display Last 30 days 👻				
Session Timeout				
Time in minutes, to expire an inactive login session.				

Using the Retain Help System

Retain has context-sensitive help screens that appear in the left column when you click the help icon. (



Quick Reference	Server Configuration	6 🕉 🖯
Configuration	Communications Index/Storage Accounts Maintenance Notification Logging Miscellaneous	~
This page is used to adjust core S configuration parameters. The "Ma is required to access this page.	Miscellaneous	
Many of these configuration option	Default Worker Password	
beyond that appropriate for a brief Use of the user manual is highly re	Export XML	
Communications		
Every item on this page you origina the initial setup wizard.		

To view help, click the help icon on the right (the blue question mark circle icon) and the help will appear on the left.

Scroll through and read what you need. To hide the help and make the menus re-appear, click the X at the upper right of the help screen.

All topics in the main window are covered in help.

About and Diagnostics Page

There is a special page in Retain containing credits for those who helped with the project.

There are also valuable diagnostics on this page. When you tune the memory usage of the Retain components, you may want to refer to these diagnostics and statistics.

To get this page from anywhere in the administrative console of Retain, click on the GWAVA logo in the top left corner, or the 'about' link in the top right.

There are two parts to this screen. The credits part is at the top.



The diagnostics part is below.

Operational statistics are listed such as uptime, component version numbers, directory paths and memory statistics.

Below that, the buttons will give you more detailed diagnostic information. Generally, you will only use these at the request of technical support.

Please pay particular attention to the Tomcat memory statistics. This information is needed to fine tune Tomcat.

uptime	Od: 1h: 9m				
currentTime	Tue Aug 02 22:51:48 MDT 2011				
timezone	Mountain Standard Time				
retainName	SLES11x64				
jvmVersion	20.1-b02				
jreVersion	1.6.0_26-b03				
javaHome	/opt/beginfinite/retain/java6/jdk1.6.0_26/jre				
tomcatHome	/opt/beginfinite/retain/tomcat				
indexDoc	45363				
logHome	/opt/beginfinite/retain/tomcat/logs				
osArchitecture	amd64 (h h 2 S mm				
osName	Linux				
userName	tomcat				
tmpDir	/var/cache/retain-tomcat5/work/Catalina/localhost/RetainServer				
tomcatVersion	Apache Tomcat/5.5.27				
tomcatFreeMemory	193878				
tomcatMaxMemory	932096				
tomcatTotalMemory	250752				
indexEngine	lucene				
indexHost					
indexPort	10000 Change Som				
indexProtocol	http / / / / / /				
retainHome	/opt/beginfinite/retain/RetainServer				
retainEdition	Standard				
retainBuild	250				
retainAvailability	alpha				
configSchema	16				
messageStoreSchema	13				
indexingSchema	1				
derbyVersion	10.5.3.0				
indexingType	lucene () ~ S ~ m				
indexingVersion	3.0.3				
hibernateVersion	3.3.2.GA				
Core Info	JAR List Jobs				
Schedules	Profiles Workers				
Quartz	Retention Date Utility Indexer Status				
Exchange Test	GW to Exchange Migrator GW to Exchange Scope				
Mailbox Merger/Split	tter Indexer Test System Properties				

Diagnostic Buttons

In usual operation, none of these buttons will be used without instruction of support. The diagnostic buttons found on the diagnostics page are used in conjunction with support and can be dangerous for the system if used without understanding or instruction. The utilities contained here display or modify core settings and functions of the Retain Server. Mismanagement of these functions may render the Retain Server unmanageable and in a nonfunctioning state.

Core info, JAR List, Jobs, Schedules, Profiles, Workers

The **Core info, JAR List, Jobs, Schedules, Profiles,** and **Workers** buttons initiate a download of the configuration .xml for each of those categories. All configuration tied to those items which have been configured in the Retain Server will be contained in the downloaded .xml and can be used to examine recorded configuration.

Quartz

The **Quartz** button displays a page containing all information and configuration for the Quartz scheduler. These settings determine when jobs start, when maintenance is, and time in the system.

Retention Date Utility

The **Retention Date Utility** tests the retention and purge flags in the mail systems. It is set in UNIX time stamp format, and should not be used without express guidance from Support.

Indexer Status

The **Indexer Status** displays the current health of the indexer engine along with the total unindexed items and associated memory load. There is also an option to shut off or to turn on the indexer. As the indexer should be alive at 'on' at all times during normal operation, only use this utility under instruction from Support.

Exchange Test

The **Exchange Test** utility attempts to connect to and login to the specified mailbox in the Exchange mail system, utilizing current configuration from the Exchange module, if configured. This is used to ensure that sufficient rights and access is open to Retain in the Exchange system. A target mailbox different from the Retain 'service' account must be specified.

Mailbox Merger / Splitter

This utility lets you move a mailbox to belong to part of the virtual mailbox of another entity. It should be used with care, and knowledge. Backups recommended.					
Merge					
Source Mailbox: admin (po.dom) The virtual mailbox associated with this item has the following mailboxes connected to it: • admin (po.dom), which has these mailbox types connected: • gw (4AC5FF80-11DB-0000-B1DB-F15CE5F2BSEF)	DestinationMailboxGroup: New Entity This uid doesn't have ANYTHING associated with it!				
After moving, if the original entity container is now orphaned, remove it					
Merge					
Batch Load from a File					
See mergesample.xml for the format.					
XML File: Browse_ Merge					

Mailboxes may be automatically merged by the Retain system if configured correctly under the Module Configuration | <u>Mailbox Mapping</u> options screen, but it must be done in correct order or the system will not recognize that a change has occurred and the merge will fail. Automatic merge can only be performed once.

Manually merging and splitting mailboxes is repeatable and is also the only way to undo a merge, automatic or otherwise. A batch load may be created and processed, but requires specific formatting, see the 'mergesample.xml' for format information.

Merging accounts creates a connection between two existing entities in the Retain database by merging their UID's in Retain, and allows a user with two differing email accounts, or one account repeated on two different systems, to manage their mail from within the same interface without having to search for and select a different account, or separately logging-in to two different systems.

To merge two addresses, first select the source mailbox and then select the destination mailbox. After the desired mailboxes have been selected, click the green 'merge' button.

To remove currently merged accounts, select the account you wish to sever as the source mailbox and merge it to a 'new entity'. Because the merge utility relies on tying entities to accounts in the database, the 'new entity' simply unties the account

Merge			
Source Mailbox:		DestinationMailboxGroup:	
Administrator (LION.lion.gwava.com)	•	New Entity	
Administrator (LION.lion.gwava.com) migration (LION.lion.gwava.com)	p mailboxes connected to it:	New Entity Administrator (LION.lion.gwava.com)	
migrations (LION.lion.gwava.com) migration4 (RHINO.lion.gwava.com) migration5 (LION.lion.gwava.com) David Andersen (PO1.Domain)	se mailbox types connected: ≡ p6566c)	migration (LION.lion.gwava.com) migration3 (LION.lion.gwava.com) migration4 (RHINO.lion.gwava.com) migration5 (LION.lion.gwava.com)	5
David Anderson (LION lion, gwava.com) Jason Bailey (PO1.Domain) Jason Bailey (PO1.Domain) Russ Bateman (RHINO.lion, gwava.com) Russ Bateman (RHINO.lion, gwava.com)		David Andersen (PO1.Domain) David Anderson (LION.lion.gwava.com) Jason Bailey (PO1.Domain) Jason Bailey (LION.lion.gwava.com) Russ Bateman (RHINO.lion.gwava.com)	
Michael Bell (LION.lion.gwava.com) Ben Bishop (LION.lion.gwava.com) Ben Bishop (PO1.Domain) Brice Bitter (LION.lion.gwava.com) Brice Bitter (PO1 Demain)		Russ Bateman (P01.Domain) Michael Bell (LION.lion.gwava.com) Ben Bishop (LION.lion.gwava.com) Ben Bishop (P01.Domain) Ben Bishop (P01.Domain)	
Colin Bretagne (LION.lion.gwava.com) Tony Caras (RHINO.lion.gwava.com) Tony Caras (PO1.Domain) Marlow Draney (RHINO.lion.gwava.com)		Brice Bitter (LONLOngwaya.com) Brice Bitter (POI.Domain) Colin Bretagne (LION.lion.gwaya.com) Tony Caras (RHINO.lion.gwaya.com) Tony Caras (POI.Domain)	

from any other connections. Tying a user to a new entity does not create any new, floating entities or make any changes in the mail systems; it only severs the selected account from previously merged accounts.

GW to Exchange Scope

The GroupWise to Exchange Scope utilizes mailbox mappings to direct data from the mailbox and is

required for the Migration.	From this point you can create a new scope file or modify an existing scope file. Please select one of the two options to continue.		
The scope is used to specify			
which users are to be		Browse	
included in a migration job. If	New Scope File	Load Existing Score File	
a user's mailbox data is		Load Existing Scope The	
desired to be migrated from			
GroupWise and placed into			

Exchange, they must be included in a scope file used by the migration.

Select 'New Scope File' unless a scope file already exists and is to be modified. After an uploaded file is loaded and modified, a new file will be created.

From the new scope page, users which have been merged are displayed below. For any users to appear, their accounts must first be merged.

Select the ma	Select the mailboxes mappings that this scope file should contain. Mailbox mappings can be created automatically or using the MergeUD tool.			
	Source	Destination		
	BenB Ben Bishop beno@retahitesting.gwava.com	benb Ben Bishop benb@ion.gwava.com		
	BriceB Brice Bitler briceb@retaintesting.gwava.com	briceb Brice Biter briceb@ion.gwava.com		
	Candace Candace Rivdebach candace@relahitesting.gwava.com	candace Candace Ridelbach candace@bing.wava.com		
	Daron P Daron Parcell darong@refaintesting.gwava.com	daronp Daron Parcell darong@lon.gwava.com		
	DavidM David Morgan davidm@jertaintesting.gwava.com	davidin David Morgan davidingBon gwava.com		
	EricM Eric Mughan ericm@retantesting.gwava.com	ericm Eric Maughan ericm@yion.gwava.com		
	Emie Emie Gedebach eme@relaitesting.gwava.com	emie Ernie Riedebach ernie@⊎on.gwava.com		
Generate	Generate Scope File			

Select the desired users from the list by selecting the checkbox next to the name. A global select option is available at the top.

Once the desired users have been selected, click on the 'Generate Scope File' button to create and download the scope file.

GW Exchange Migrator

The GroupWise to Exchange Migrator is enabled via an additional license file. Because of the complexities of the Exchange environment and possible configuration options with Retain, it is recommended that you consult with your reseller or GWAVA Sales Engineer who can provide the license as well as assistance to ensure a successful system migration.

Warning	×	
You can really badly break a mail system with this tool.		
By clicking "Agree" below you understand the risks associated with this utility and that use is governed by the end user license agreement.		
Agree Cancel	//	

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The process to migrate mail from GroupWise to Exchange begins with an existing Exchange system containing existing accounts equivalent to those found in GroupWise. The GW to Exchange migrator will not create accounts, it must have destination accounts to place the mail, and be told which types of mail, and which accounts to put it into.

Migrating data from GroupWise to Exchange is not a straight-forward endeavor, as Exchange contains default settings which, at default, block messages from 'untrusted' source, messages with specific attachment types or attachments which are too large. (Default limit for Exchange is 10 mb.) Setting appropriate trusted message types, sources, and size settings in Exchange are the responsibility of the system administrator. GWAVA Inc. is not responsible for any data that is not migrated due to incorrect settings.

To migrate data from an existing GroupWise system into an Exchange system, several steps must be performed in correct order.

- 1. Configure and cache the address book for both GroupWise and Exchange modules.
- 2. Merge the virtual Retain accounts either <u>manually</u> or via the automatic merge though <u>mailbox</u> <u>mapping</u>
- Immediately run an <u>Address book refresh</u> from the modules page. (If the address book is not recached *immediately* after an automatic merge, the merge will fail and addresses will have to be manually separated and re-connected. Forcing a failed automatic merge can be accomplished by contacting GWAVA Support.)
- 4. Create a migration scope profile
- 5. Open the migration tool and fill in the pertinent information
- 6. Run the migration

To initiate a migration, select the 'GW to Exchange Migrator' from the diagnostic page. (If your system license does not enable Migration, you will be notified; contact your Retain sales representative.)

The migration tool requires a scope, which functions as a profile for the migration specifying included mailboxes, types of mail to be migrated, and the applicable date range. When an appointment is migrated from GroupWise into Exchange, an alarm can be set in the Exchange system to notify the user of the active appointment. The optional start date creates alarms only for appointments after specified date.

Migrate Store		×
	Enable Null Mode	
Default Sender:		
Start Date:		
End Date:		
Scope File:	Browse	
Duplicates:	Ignore (Create Duplicates) 🔻	
Marrage Turner		
Message Types:	Mail	
	V Appointment	
	V Task	
	V Phone	
Enable Alarms:	Set Alarms for appliclable items	
Start Date:		
Alarm Time (Minutes	s): 15	
Submit Can	icel	
		11.

When using the 'Migrate Store' option, only users specified in the scope will be migrated. Browse to the saved scope file, set the start and end date, (blank migrates everything), the message types desired, and then click 'submit' to initiate the migration. If a specific user is necessary for mail system operation, specify a default sender name.

Migrate Address Book migrates the users' personal address book for the users specified in the scope file.

Be sure to manage the duplicates accordingly, as the migration may be performed multiple times.

Migrate Address Book		×	
	🔲 Enable Null Mode		
	Process Frequent Contacts Address Book		
Default Sender:			
Persisted Files Location:	/var/cache/retain-tomcat5/work/Catalina/localhost/RetainServer		
Scope File:	Browse		
Duplicates:	Ignore (Create Duplicates) 🐱		
Submit Cancel			
		/	

Indexer Test

The indexer test utility provides a simply and quick query to the index engine and database. This is used as a low-level diagnostic tool for Support and is best used in conjunction with Support. Normal operation does not require any use of this tool.

System Properties

The System Properties utility displays basic system information and settings about the Retain Server, host environment, and functioning parts.

Appendix A: Backing up Retain

There are a few areas of Retain that are important to backup.

- ASConfig.cfg
- > License
- Indices
- > Archive
- SQL Database

The storage directory and location holds all of these files, and the backed up versions of those that should not be backed up while in use. (To find your storage location, see the <u>Storage tab</u> under Server Configuration.)

Retain automatically creates a backup of certain files, you may specify the settings for the Lucene index backup under <u>Maintenance</u>. Retain will automatically backup ASConfig.cfg and Lucene Indices. (Exalead indices are **not** backed-up by Retain, as Exalead is a completely separate system and should be backed up individually.) These backups are located in the storage location, under the backup directory. The Archive and the License are kept in the storage location as well, though Retain does not create backups of these, so these require a manual backup.

The sensitive location to backup for Retain is: <your storage location>/backup <your storage location>/license <your storage location>/Archive

Steps to back up the SQL database are dependent on the SQL database. See the recommendations of your SQL vendor to find instructions and backup procedures.

Fine tuning GWAVA Retain Tomcat Memory Usage Tuning Overview

WARNING: Failure to tune Tomcat's memory usage will guarantee failure of the Retain components and may lead to severe and irreparable data loss and/or corruption!

The Tomcat servlet container is configured with parameters to indicate how much memory is available for allocation to web applications. Regardless of the amount of physical memory available in the server machine, Tomcat will never exceed these values.

Tomcat is preconfigured with extremely conservative memory allocation parameters— usually from 64 MB to 256MB RAM parameters. This is by design, to avoid taking away too much memory away from other server processes. <u>Once memory is allocated by Tomcat, it is NEVER returned to the general server memory pool.</u>

Two Critical Issues

However, Tomcat's conservative settings present two critical issues:

- The memory allocation is shared among all web applications running under the Tomcat instance. You cannot specify a specific amount to be reserved for one specific web application. This is the major reason it is <u>strongly recommended</u> that Retain components (especially the Server component) run on a dedicated Tomcat instance on a dedicated server -- Other web applications such as WebAccess, iManager, iFolder, etc., may consume too much of the shared resources.
- The preconfigured memory parameters <u>may</u> be sufficient for the Retain Worker components. They are definitely not sufficient for the Retain Server component.
 Failure to alter these parameters will guarantee a slow Retain Server, or severe unexplainable crashes and/or irreparable data loss. Recovery of information can potentially be impossible.

Hence, it is crucial that the administrator carefully examine and alter the memory allocation parameters on each server.

General Recommendations

The following are our general recommendations for the maximum memory allocation parameter. The initial memory allocation parameter may be anywhere from 50%-100% of these values. These parameters are discussed in more detail in the next section.

Retain Server Component

A minimum of 1 GB of RAM is recommended. For larger systems, 2-3 GB RAM may be fully warranted. Remember, if this RAM is in use by Tomcat, it is unavailable to other server processes – leave sufficient physical RAM for these. Of course, these others server processes are ideally minimal. Also, remember this memory is shared with other web applications.

Retain Worker Component(s)

The Retain Worker component(s) have been designed to be light weight. Nonetheless, a minimum of 64 MB RAM is recommended, and 160 MB is strongly recommended, to give room for future functionality.

Remember, if this RAM is in use by Tomcat, it is unavailable to other server processes – leave sufficient physical RAM for these. Also, remember this memory is shared with other web applications.

Tomcat Configuration Parameters

There are three significant parameters:

- 1) Memory allocated upon Tomcat startup
 - Indicates how much memory is immediately allocated and reserved to Tomcat upon startup. This memory will be in usage for the entire lifetime of Tomcat and never available to the other server processes.
 - Typically this is set to 50%-100% of the maximum memory parameter discusses below. It can be lower, but pre-allocating a sizeable percentage of memory *enhances performance* and reduces memory fragmentation.

2) Maximum Memory available to Tomcat

- If the memory usage grows beyond the startup allocation, Tomcat will allocate additional blocks of memory in chunks as needed up to this limit. It will never return this memory to the general server memory pool. (Although memory internally will be freed and reused for Tomcat applications).
- Tomcat guarantees that it will never exceed this memory allocation parameter. If Tomcat runs out of memory, it will try to reclaim unused memory via garbage collection. If this is insufficient, the web application will be denied the memory allocation. Unpredictable (but invariably unpleasant) results will then occur.

This is the most critical parameter to tune.

3) Stack Size

- For each thread (which includes each and every concurrent user request), Tomcat will allocate stack space.
- > This value is typically measured in KB, and defaults to 512KB.
- It is allocated per concurrent users, and is in fact far too generous a number in general. 1000 users for example would take 500 MB of RAM just for stack space, before the program even allocates memory to run!
- Generally we recommend reducing this number to 128k-160k. Increase conservatively, in 64 KB chunks, if you see out-of-stack-space errors in the logs.

How to change memory values

Linux Embedded Tomcat Memory Tuning

For Embedded Tomcat which ships with Retain, Edit the following configuration file: <<Tomcatconfigurationfilej2ee location>> </<etc/opt/beginfinite/retain/tomcat/j2ee>>

Edit the following line with the appropriate parameters for your system:

CATALINA_OPTS="-Xms256m -Xmx1024m -Xss160k"

This line sets the initial memory pool at 256MB, the maximum at 1024MB, and the stack size at 160KB.

By default, the embedded Tomcat is pre-tuned for basic functions, with 1024MB as the default for the Retain Server, and 256MB for the Retain Worker. THIS WILL NOT BE ENOUGH IN A FULL PRODUCTION ENVIRONMENT. Please tune to fit your system needs.

Windows Embedded Tomcat memory tuning:

- Go to the System Tray icon for Tomcat. (If using the embedded Retain Tomcat, launch tomcat5w.exe located in C:\Program Files\Apache Software Foundation\Tomcat 5.5\bin. Skip step 2.)
- 2) Choose configure.
- 3) Go to the Java tab.
- Set the Minimum Memory (always used), Maximum Memory, and Stack Size. (Retain Tomcat is pre-tuned to 1GB for the Server, and 256MB for the worker, and 160K stack size.)

Checking memory

After logging into Retain Server, click the bug icon at the upper left. Among other stats, you'll see the tomcat Memory statistics. These are for all web apps, not just Retain Server.

UPGRADED SYSTEMS

If you upgraded, it is STRONGLY recommended to return any previous memory tuning back to normal for the original Tomcat while using the embedded Tomcat that comes with Retain. If you are not using the standard Tomcat for any other web resource, simply uninstall or completely disable the standard Tomcat installation.

Windows:

The embedded Tomcat installation overwrites the standard Tomcat installation, and any memory tuning you have previously completed no longer is in effect.

Appendix B – Troubleshooting for Common GroupWise Problems

General GroupWise Error troubleshooting can be effectively done by checking the GroupWise documentation. For any error code not found below, download and check the GroupWise documentation. (http://www.novell.com/documentation/groupwise.html select your GroupWise version and have a look into the Troubleshooting guide for the Error Messages.) Or, the GroupWise online documentation is usually found at wwwnovell.com/documentation/<groupwiseversion>/ i.e.

http://www.novell.com/documentation/gw8/ http://www.novell.com/documentation/gw7/

From the troubleshooting menu, select 'Error Messages'

Some common error codes are:

EA04

EA04: The response is too large, SOAP protocol error, or the POA received too much data at once. This error message is largely invalid and gets thrown due to a bug in the current (7.0.2) GroupWise Post Office Agent. Retain has been tested with multiple attachments, some even tens of megabytes in size, that it does get the entire attachment.

To change the setting, edit the POA startup file and add the /soapsizelimit variable. Please consult the Novell GroupWise online documentation for the syntax.

Example on NetWare: /soapsizelimit-2048

The real solution will be in GroupWise 7 SP3. One workaround is to set the chunking size limit to 2048. We will only take 1024 chunks, and this setting is sufficiently high to fool the POA into not throwing the message.

D712/D714

D712/D714	The administrator has disabled/expired the entire post office or a specific user database.
	Retain cannot log in.
D714	The Database is temporarily disabled. GroupWise believes a MOVE is in progress.
	The MOVE must complete before Retain is allowed to log in.
C05D	
C05D	Item store is missing from Database. A mandatory database file is missing.
	This implies one of two possibilities:
	1) Significant database corruption in the user database, which may be fixed
	WITH GWCHECK, OF

2) This account has never been logged into before. Until an account is logged into at least once from the GroupWise client, Retain cannot access it.

Other notes regarding GroupWise 7, SP 3 (7.0.3)

Retain cannot access mailboxes with either of the following set

- Limited client license

Novell will be addressing the limited client license issue in GroupWise 7 SP 3.

Appendix C – The Tools Folder

There is a TOOLS folder included in the Retain download package. The tools are grouped into categories, diagnostic and Retain archive tools and platform specific:



GroupWise tools

GroupWise Archive Migration Tool

This migration tool is designed to import native GroupWise archives directly into Retain. There are two modes:

- Run at all workstations mode.
 From a command line, you'll run this and it will log into the users mailbox, and then open the local archive. It will then feed messages directly to Retain.
- 2. Centralized run.

This only works if you have all archives stored at a central point.

In this case, one can conveniently run all of the migrations from a single workstation, and not involve the users at all.

Archive Migration Tool

The Archive Migration Tool is for taking your existing native GroupWise archives and sending them to your Retain archive.

The directory contains 5 files:

- 1) The migration tool itself.
- 2) The migration tool configuration utility.
- 3) Two support DLL's and a readme file.

System Requirements

- > A Windows XP workstation running GroupWise client 7.0.1 and up.
- Access to the archives you want to migrate.

Overview; Modes of Operation

The migration tool uses the GroupWise client to access the archives you want to migrate.

- In single-user mode, the migration tool will access the mailbox of the logged-in GroupWise user and it will read the archives available to the GroupWise client and send them to the Retain Server you specify.
- In *multi-user mode*, it will use the trusted application key to log in to the mailboxes of the users specified in a chosen GroupWise distribution list, attempt to access the archives defined in their mailbox and will send them to the Retain Server you specify.

How it Works

The migration tool does not access the archive files directly. Due to the way GroupWise stores its archives, you need the GroupWise client to read the archives and to hand the data to the migration tool. The migration tool then sends the archives to a Retain Server, much like a worker would. In normal operation, a Retain Worker reads data from the live GroupWise system and sends it to a Retain Server. With the migration tool, the tool itself is a worker that reads the archived data from the GroupWise client and sends it to a Retain Server.

The migration tool reads the path to the archives as defined in the GroupWise mailbox that you're accessing. That path must be accessible by the workstation you're on. It will then ask GroupWise to open the archives and it will read the items in the archive and send them to the Retain Server you have specified.

If you run in single-user mode, the migration tool will access the mailbox currently logged into by the GroupWise client. If none is logged in, GroupWise will be opened and you will be asked to log in.

If you run in multi-user mode, the migration tool will open GroupWise, you can be logged in as any valid user, and it will use the trusted application key to log in to each user specified in a GroupWise distribution list, one at a time.

Prerequisites

The GroupWise client on the workstation you're using MUST be able to open the archives you wish to migrate. The process depends on GroupWise being able to access these archives. If you're migrating the archives of another user, as you would be doing in multi-user mode, you MUST be able to access that user's archives from the workstation you're on.

It is not enough that the archives are on a network-accessible volume. GroupWise must be aware of the path to these archives and that path must be available from the workstation you're going to use for migration. Refer to the <u>Error Handling</u> section for important configuration.

Setting It All Up

In multi-user mode, you can use one workstation to migrate the archives of multiple users. In so doing, you can migrate the data without affecting the user(s) in question. In single-user mode, you will run the migration tool on a workstation that has access to the archives you want to migrate (typically the workstation of the user whose archives you're migrating) and you'll migrate just one mailbox.

- 1) Copy the migration tool files to any directory accessible to your workstation.
- 2) Log in to the Retain Server you want to migrate the archives to.
- 3) Create a new worker. You're not actually installing a new Retain Worker anywhere; you're creating a new bootstrap file for the use of the migration tool so it knows which Retain Server to send the archives to. Be sure the settings listed are accessible and usable by the workstation where you will be running the migration tool. The migration tool will use these settings to log into the Retain Server.

Polling Logging	Connection Mod	ule specific Status	is Bootstrap		
Server Connection	-Server Connection				
The worker will ne are specifying the Worker or Server.	The worker will need to know how to connect to the Server. It is highly recommended that you use a DNS host name for the Host Name. It's important to note that you are specifying the URL from the point of view of the Worker contacting the Server , which may or may not match the URL you'd use from your browser to reach the Worker or Server.				
For administrators to the Reload Server,	ising the Reload interfac you must know this pas	ce, note the worker password.	password assigned must be the same for each worker that contacts the Reload Server. As part of setting of		
Server Protoco	http 👻				
Server Host Name	192.168.1.106]			
Server Port	80]			
Server Path	/RetainServer]			
Worker Password	•••••				
Note: Changing an	Note: Changing any of these parameters will require recopying the worker bootstrap file!				
4) Once you've saved changes, you will be able to save the bootstrap file. Save it in the directory of the migration tool.



5) Now start up the migration tool configuration utility. A window will open on top of the configuration utility requiring the location to find the bootstrap file you have just saved.

Welcome to the GroupWise Archive Migration Tool
Retain
You use this program to set up the options for the Migration Tool, which is used to move e-mail from a GroupWise archive into the Retain retention system. You may either run this tool on individual archives or many at once (assuming you have file access to the archive directories.
Before proceeding, create a new Worker component in the Retain Server, and under the Bootstrap tab, save the configuration file (RetainWorker.cfg) to an accessible location. This file will be used to connect to the Retain Server using the LRL and password information you provide.
Below, specify EITHER the path to the RetainWorker.cfg you saved, OR a previous migration tool configuration file you created with this program.
"C: \Users\worknew\Desktop\Retain250beta_104\tools\groupwise\Migration Tools\GroupWise Archive Migration\Mi 😂
Ok Cancel

(This window will also accept saved configurations from previous sessions.)

Archiving Behavior

Date Range – limits or specifies specific mail to process based on a date range.

Archive Directory – The location of the archive or archives to be migrated. The default path is assumed unless selected to be specified.

Miscellaneous – contains the options to preserve the routing properties in the archive or to add a marker file when the migration is complete.

	PECHIC						
Process all message	ges in the archive, regardless of	date					
🔽 If archiv	ving occurred previously, set the	beginning date to	the last ite	m archived			
Only process item	is within a specified date range:	11/19/2007 -	to 11/19	/2007 -	·		
Let GroupWise au Use the path spec	itomatically try to open the archi cified below as the base path. Al	ve. This assumes t archive directorie	the archive is will be ass	ocation se umed to b	t in the Group e direct subdir	Wise client options is a ectories of this path:	ccessible.
Let GroupWise au Use the path spec	itomatically try to open the archi	ve. This assumes t archive directorie	the archive is will be ass	ocation se umed to b	t in the Group e direct subdir	Wise dient options is a ectories of this path:	ccessible.
Let GroupWise au Use the path spec Miscellaneous Include Routing Provider	itomatically try to open the archi clifed below as the base path. Al	ve. This assumes t archive directorie	the archive is will be ass ir file when i	umed to b	t in the Group e direct subdir is complete	Wise client options is a ectories of this path:	ccessible.

Configure User Interface

When the Migration Tool is Started - Begin without user intervention the archive process immediately begins without any prompts. Run minimized sets the migration utility to run the migration in the background while the workstation completes other work. The tool may also be set to run automatically on system boot, in case something interrupts the archive job.

When Migration Tool is Running - Contains options to prohibit the user exiting the program before the archive migration is complete and GroupWise login settings. The

tool must be able to login and gain access to the archives.

Migration Tool Configuration Utility
🗮 Retain
Archiving Behavior Configure User Interface Multiple Archive Processing Errors Logging Retain Server Connection
When the migration tool is started
Begin archiving without user intervention
Run the tool minimized in the System Tray
Add the tool to the Startup menu of Windows, so if it is interrupted it will run again on reboot.
While the migration tool is running
Do not permit the user to exit the tool before it has finished
Prompt for GroupWise Login
O Use current GroupWise Login, or wait silently for valid login
When the migration tool starts, it must have some way to log into a valid GroupWse account. Either the user may provide the login information or the migration tool can wait in the background until the user has logged into GroupWise and then use that account.
When the migration tool has finished
Exit the tool automatically
Let the user know the migration is complete with a popup
Priority (CPU Usage): Lower
Ok Cancel Version: 2.0.2.291

When the Migration Tool has Finished – Contains the behavior of the migration utility on completion;

automatic exit, notification, or neither.

The CPU priority usage is also set here.



Multiple Archive Processing

In order to process more than one user archive the option must be enabled at the top of this page and the users must be verified against the GroupWise system. It is recommended to only process multiple archives from the same post office.

The Multiple User section only appears in **multi-user mode**. (If you click "scan multiple user archives".) It displays the available distribution lists. The archives belonging to the users in the selected distribution list(s) will be migrated. If users from multiple Post Offices are to be migrated, employ some kind of FID

Migration Tool Configuratio	on Utility			×
Archiving Behavior Configure	User Interface Multiple Archive Pr	ocessing Errors Logging	Retain Server Connection	
Enable Multiple User Pr	ocessing Using GW Distribution Lists			
GroupWise Client Paramete	ers			
GroupWise Server IP:	provo1.gwava.com	GroupWise Server port:	1677	
Select Distribution Lists				
				Refresh
FID Clash Prevention	And the City And the			
Only process users in	n the lists where the domain is	and t	he post office is	
, ,				
Note: GroupWise archives a use caution when migrating	re identified by the user's File ID (FI archives from multiple post offices. F	D). FIDs are not guaranteed Please consult the Retain Ger	unique across multiple post o neral Admin Guide for more in	ffices. Therefore, formation.
Ok Cancel				Version: 2.0.2.291

clash protection by verifying archives or only processing users which can be verified by a specified Domain and Post Office, (specified in DNS:port or IP address:port).

Retain

Send an e-mail message

Ok Cancel

nen an error occurs during archiving Write the error to the log file

iving the current user after 20

ing Behavior Configure User Interface Multiple Archive Processing

EMail Options

Id an error occur during the archiving process, you may specify whether to alert the user or administrator or quietly write the information to a log combination of choices. You may also stop archiving the current user if the specified number of errors occur. (Enter 0 to disable this feature)

errors occu

Errors

The error limit and actions taken when an error is encountered are specified on this tab.

Errors may be written to the log file, (specified in the next tab), sent in a pop-up message to the user, or sent as an email to the specified address.

The limit of how many errors may be

encountered before the migration utility quits the current user is specified. A setting of '0' sets the limit to infinite. IMPORTANT! By default, the current user will be skipped after 20 errors by default.

If an email is desired for each error encountered, email settings must be configured. Select 'Email Options 'and input the connection information, source address, destination address, and user login information for the SMTP Mail Server.

Logging

The location, logging levels, and buffer of the logging screen are all configured on this tab.

Where Should Log Files be Stored - A specified path, the path to the current location of the application, or a specified path must be selected.

Amount of Detail in the Log Files – The logging level determines how much information is provided in the log files. Unless troubleshooting, log levels of 'normal' and 'errors only' are sufficient. The buffer size for the logging screen



Retain Server Connection

This is an informational page showing the connection settings from the RetainWorker.cfg created in the Retain Server. If this information is incorrect, the Retain Server Connection settings must be modified under the worker configuration in the Retain Server, and a new bootstrap file downloaded for use.

Migration Tool Configuration Utility
Archiving Behavior Configure User Interface Multiple Archive Processing Errors Logging Retain Server Connection
URL to connect to Retain Server: http://192.168.1.106:48080/RetainServer Name: migrator
This information is taken directly from the original RetainWorker.cfg file that you created in the Retain Server's web interface. The information cannot be edited.
Ok Cancel Version: 2.0.2.291

Com	gure c-mail Opti	ons			
X	Retai	n 🔔			
SMTP	Mail Server:				
SMTP	Mail From Address	•			
SMTP	To Address:				
SMTP	Username:				
SMTP	Password:				
To de a mes becau correi	iver e-mail notifica sage via SMTP reli se it is assumed th thy.	itions, you nee ay. The migrati nat if there is a	d to provide e on tool does n n error, the Gr	nough information ot use native Group oupWise client may	to successfully send Wise notifications, r not be functioning

Version: 2.0.2.291

Migradon roor comiguration of any	
😹 Retain	
Archiving Behavior Configure User Interface Multiple Archive Processing Errors Logging Retain Server Connection	
Where should log files be stored	_
Application Data\RetainMigrationTool	
Application Path	
Selected Folder:	
Amount of detail in the log files	
Log Level Basic Information 👻	
Screen Buffer Size 1000 🔀 lines	
Display URLs in Log	
	-1
You may determine how much is stored in the log files, where they are located, and how large the scollable screen display is. Refer to the log files t troubleshoot any errors that occur during archiving.	to
Ok Cancel Version: 2.0.2.291	

Once the configuration has been setup as desired, click 'Ok' and select the location to save the changes into a 'MigrationTool.cfg' file.



Running the Migration

The migration tool will use the configuration file to run the job as you have specified in the configuration tool. You may run this tool as often as you need to set up the migration job to your liking.

When the tool runs, you will see a screen like this:

Retain GroupWise Archive Migration Tool	x
🗮 Retain	
Total query: 0 Average sec / mail: calculating	
Current: 0 Average Mails / sec: calculating	
Errors: 0 Current mails / sec: calculating	_
[3/23/2011 10:05:10 AM[[INFO] Retain Group/Wee Archive Migration Tool version: 2.5.10.667 [3/23/2011 10:05:10 AM[[INFO] Configuration Loaded from file: (1/Users)worknew[Desktop]Retain250beta_104/Book[group [2/23/2011 10:05:10 AM[[INFO] Log level: 2 [3/23/2011 10:05:10 AM[[INFO] Log level: 2 [3/23/2011 10:05:10 AM[[INFO] Log level: 2 [3/23/2011 10:05:10 AM[[INFO] Retuneter Group/Wise Log Information: True [3/23/2011 10:05:10 AM[[INFO] Retuneter Group/Wise Log Information: True [3/23/2011 10:05:10 AM[[INFO] Retuneter Group/Wise Log Information: True [3/23/2011 10:05:10 AM[[INFO] Group/Wise Majer/Version: 8 [3/23/2011 10:05:10 AM[[INFO] Group/Wise Majer/Version: 8 [3/23/2011 10:05:10 AM[[INFO] Group/Wise Majer/Version: 0 [3/23/2011 10:05:10 AM[[INFO] Group/Wise BuildNumber: 84910	*
< Þ	

You will see any errors in this screen and when the job is complete, it will say so.

For each user in a multi-user job, it will read the location of the archives from GroupWise and then it will attempt to open the archives. It is critically important that the workstation used for the migration can access the archive files.

Limit of 5 Concurrent Migrations

There is a maximum of 5 migrations permitted at any given time. For instance, if you're running the migration tool from the workstations of your users, only 5 at a time can be migrated, the others will wait their turn. This is to prevent all the migration requests from overwhelming the server.

Other Notes

The migration tool may be deployed using management tools such as Novell ZENworks. This is one method to collect archives which have been stored on users' workstations. Users may run the tool manually or it can be run automatically.

BlobExtractionTool.exe

The Archive Plug-in

This is a simple C3PO plug-in for Win32 clients that allows you to

- add a Retain menu item for easy access to web archives
- hide current Archive options.

It can be run interactively or via command line. Run the program for the command line switches.

Blob Extraction Tool

This command line utility provides a quick way to extract the original contents of any compressed/encrypted blob in the system. This is for diagnostic and disaster recovery purposes. Simply type BlobExtractionTool at the command line for the usage options.

Single Sign On

The C3PO Plugin for Win32 provides single sign on functionality. To utilize the single sign on feature, the Win32 GroupWise client must have the Retain plugin installed. The Retain Plugin is located in the downloaded install source. (.../<Retain>/tools/Win32 Client Archive Plugin/Retain Archive Plugin.1.1.0.119.exe) The installer must be run on the machine where Single Sign On will be used. Single Sign On requires Retain Server 1.8x or later. Single Sign On integrates a menu option into the GroupWise Win32 client providing easy access to online archives. The Installation requires the specified address of the Retain Server.

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Novell GroupWise - Mailbox			_ 🗆 🔀
File Edit View Actions Tools Wind	low Help Retain		
- Home Mailbox Cal	endar <mark>Open Retain Archive</mark> cts		
Address Book 🝺 📇 🔎	About Retain Plugin		
诸 Online 🛨 🔹 🔻	- Mailbox	Find: 👻	
🔶 Favorites	From Subject Date A		
Aris chris Home Maibox Sent Items Calendar Frequent Contacts Ocuments Tasklist Work In Progress Cabinet Trash			
		Selected: 0	Total: 0

Once selected, the Open Retain Archive option will sign the user into Retain using the GroupWise authentication active in the GroupWise client, providing a transparent login. As such, it is not recommended for use on public workstations.

The program may be run from command line, the options are:

- /url=URL (Provide URL to the Retain Server)
- /hidemenu (Hide standard GroupWise archive)
- /SILENT (Run without user intervention requires /url argument.)

WebAccess

(Same as Single Sign On above) Requires:

- GroupWise 8 or later
- (Installer only) Java 1.5
- > Windows or Linux

NOTE: If you are running WASP2[™] you must update to the latest version of WASP (Version 2.0.5) in order to continue using both WASP and the Single Sign On Retain Module on the same WebAccess server. If an earlier version of WASP is in use, it will be broken with the addition of the incompatible Retain WebAccess Single Sign On plugin.

The WebAccess module .jar file is located in the Retain install sources. After Retain has been downloaded and extracted, the .jar file can be found in the .../Retain180/tools/WebAccess plugin directory.

To install the module, run the .jar java executable file in an X session.

i.e. On Linux: java –jarRetain_setup_20091005.jar

On Windows: double-click the file.

For NetWare or remote systems SEE THE FOLLOWING LINK: http://support2.GWAVA.com/kb/?View=entry&EntryID=1608

Installing to a remote system **requires** direct file access.

The installer file may be run from a workstation fulfilling the requirements to install on a remote machine. To install remotely, WebAccess source directories must be exported and mounted to the workstation.

i.e.

(For Linux):

/srv/www/tomcat5/base/webapps must be exported and mounted via NFS or a SAMBA share /var/opt/novell/ must be exported from server and mounted to /var/opt/novell on the workstation.

The final step to install the WebAccess plugin is to create two folders in the Novell folder structure. Retain cannot create folders or set permissions on the host system, but requires the folders to be created in the Novell directory structure to function.

Windows:

Two folders need to be created on the GroupWise server. From where GroupWise was installed, browse to:

Create two new folders here:

mobile

simple

Restart Tomcat and the plugin installation is complete.

Linux:

Retain requires two folders to be created, as well as the permissions set to match, on the GroupWise server.

Browse to: /var/opt/novell/groupwise/webaccess/retain/templates/webacc

Create two new folders here: 'mobile' and 'simple' mkdir mobile mkdir simple

Note the file permissions and owner of the 'css' folder, and change the permissions of the two new folders to match.

Restart Tomcat rcretain-tomcat restart

Once Tomcat has been restarted the plugin installation is complete.

Once installed, WebAccess will add a new tab to the User client window called "Retain", which will sign the user into Retain when selected.

For a text-only or shell install on Linux:

1. Copy the "WebAccess plugin" directory (or contents thereof) to the webserver where the WebAccess Application (the Tomcat servlet, not GWINTER) is installed.

2. Flag the .sh files as executable chmod +x *.sh

3. Run desired install:
./installtext.sh (For text mode only install)
./installgui.sh (If running X-windows system and want a graphical install)

(The folders described above must still be created on the GroupWise server.)

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Exchange Tools

The Exchange tools folder contains the tools appropriate for the Exchange mail system: personal archive migration, and single sign on plugins.

Migration	Retain	Retain
Tools	Outlook	Outlook
	2007 Plugin	Plugin

Exchange PST Migrator Migration Tool

The PSTMigrator is a Java utility used to input mail in the PST archives into the Retain system. The PST migrator interfaces with the Retain system through a worker configuration file to contact the Retain server and input the mail found in the PST archive to the Retain system.

The PSTMigrator should be run on the local workstation where the Outlook PST archive file is located, and requires Java to be locally installed.

The PSTMigrator requires a Worker configuration and bootstrap file to know where and how to communicate with the Retain Server.

 In the Retain Server management console, create a new worker, it would be appropriate to name it 'migrator' or 'pst migrator'. A general configuration is all that is required; no specific settings need to be changed from default, except the connection information if it needs to be modified in accordance to the needs of the local network. It is imperative that the PSTMigrator have an open connection to the Retain server. When the settings are correct, save the new worker.

olling Logging	Connection	Module specific	Status Bootstrap	
Server Connectio	n			
The worker will nee	d to know how t	o connect to the	Server. It is highly recom	nmended that you use a DNS host name for the Host Name. It's important to note that
vou are specifying t	he URL from the	point of view of th	ne Worker contacting	the Server, which may or may not match the URL you'd use from your browser to
reach the Worker o	r Server.			
reach the Worker o	r Server. sing the Reload in	terface, note the	worker password assign	ed must be the same for each worker that contacts the Reload Server. As part of
reach the Worker o For administrators u setting of the Reloa	r Server. sing the Reload in Id Server, you mu	terface, note the st know this passv	worker password assigner word.	ed must be the same for each worker that contacts the Reload Server. As part of
reach the Worker of For administrators u setting of the Reloa	r Server. sing the Reload in Id Server, you mu	terface, note the ist know this passv	worker password assigne word.	ed must be the same for each worker that contacts the Reload Server. As part of
reach the Worker o For administrators u setting of the Reloa Server Protocol	r Server. sing the Reload in id Server, you mu http v	terface, note the ist know this passw	worker password assigne word.	ed must be the same for each worker that contacts the Reload Server. As part of
reach the Worker o For administrators u setting of the Reloa Server Protocol Server Host Name	r Server. sing the Reload in id Server, you mu http - 192.168.1.106	iterface, note the ist know this passv	worker password assigne word.	ed must be the same for each worker that contacts the Reload Server. As part of
reach the Worker of For administrators u setting of the Reloa Server Protocol Server Host Name Server Port	r Server. sing the Reload in Id Server, you mu http v 192.168.1.106 48080	sterface, note the ist know this passy	worker password assign word.	ed must be the same for each worker that contacts the Reload Server. As part of
reach the Worker c For administrators u setting of the Reloz Server Protocol Server Host Name Server Port Server Path	r Server. sing the Reload in d Server, you mu http • 192.168.1.106 48080 /RetainServer	iterface, note the ist know this passy	worker password assigne word.	ed must be the same for each worker that contacts the Reload Server. As part of

2. Download the bootstrap file.



 Run the PSTMigrator utility on the Windows workstation containing the pst archive file. If Java is installed, the PSTMigrator.jar file can be run simply by double-clicking on the file. When initially run, the PSTMigrator is placed in the taskbar, and must be selected to be opened.



4. Upload the Worker configuration to the PSTMigrator.

Right click on the PSTMigrator icon in the taskbar, and select 'configuration'. The initial screen of the migrator is opened to the Retain Server Connection tab, where the bootstrap file is specified.

GWAVA PstMigrator Configuration Utility	
Retain	
Kelulit	
Archiving Behavior Errors Logging Retain Server Connection	
URL to connect to Retain Server Worker Name	
Path to RetainWorker Configuration File	-
Specify the location of a valid WorkerConfiguration File that was created from the RetainServers web interface. All needed Int Server Computing tion will be extracted from it	formation for the
Ok Cancel	Version: 0.647 beta

Browse to the location of the worker configuration downloaded in step 2, and select the configuration.

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 Configuration logging, error reporting, and specify the pst archive file.

Logging

Log files will contain as much information as the administrator desires, from a normal or basic level, to diagnostic. Select the path for the logging files, whether that is a custom file path, application path (stored in the same folder as the application), or with the application data, (in Retain).

🗖 GWAVA PstMinrator Configuration Hillity
Retain
Archiving Behavior Errors Logging Retain Server Connection
Where should the log files be stored
Application Data\RetainMigrationTool
Application Path
💿 Selected Folder: \Desktop\Retain250beta_85\tools\exchange\Migration Tools\Outlook PST Migration
Amount of detail in the log files
Log Level: Basic Information 👻
Screen Buffer Size: 0 🚔 lines
Display URLs in log
You may determine how much is stored in the log files, where they are located, and how large the scrollable screen display is. Refer to the log files to troubleshoot any errors that occur during archiving.
Ok Cancel Version: 0.647 beta

Errors

If an error is encountered, what the migrator utility does with that error is determined by the options configured here. The error may be logged, recorded in a popup message, sent in an email notification, or all three options at the same time.

An error limit may also be specified which determines how many errors the migrator can encounter before ceasing the migration job.

GWAVA PstMigrator Configuration Utility	×
😹 Retain	
Archiving Behaving Errors Longing Retain Server Connection	
When an error occurs during archiving	
Write the error to the log file	
Alert the user with a popup message	
Send an email message (use email settings from worker configuration)	
Stop archiving the current user after 0 🚖 errors occur	
Should an error occur during the archiving process, you may specify whether to alert the user or administrator or quietly write the inform a log or a combination of choices. You may also stop archiving the current user if the specified number of errors occur. (Enter 0 to disat	nation to ble this
feature)	
Ok Cancel Version: 0.6	647 beta

Archiving Behavior

The Archiving behavior tab determines what is archived. If the pst archive file has been partially migrated at a previous time, then the PSTMigrator provides the option to only archive the parts which have not been previously archived.

The PSTMigrator also has the option to only migrate mail according to a set data range. The PSTMigrator will work on all archives listed in the Archive File window. To add an archive file to the migration list, select 'add' and browse to and select

🗮 Retain		
Archiving Behavior Errors Logging Retain Server C	Connection	
Date Range of Items to archive		
Process all messages in the file, regardless of date		
If archiving occurred previously, set the beging	inning date to the last item archived	
Only process messages within the specified date re-	ange: 05.03.2011 🐳 till 12.03.2011 🐳	
Determining where the Archive Files are located		
add remove all		
File Path	Email Address	Action
u may choose to archive items based upon a dat s or directories which will be searched for archiv	ie range, or choose to archive all messages. Furthermore you can s e files.	select multiple archiv

the desired pst archive file. After selecting the archive file, the migrator will attempt to access to the archive.

The PSTMigrator may require the email address of the source account in order to achieve access to the archive. Provide the source address.



6. Migrate the pst archive.

Selecting 'Ok' does not initiate the migrator, it only sets the configuration. To start a migration job, right click on the taskbar icon and select 'Run now'.

7. Wait for the migration to finish.

The migrator will run as a background service and complete the entire list of archives. If configuration needs to change between archives, migrate the archives separately with configuration changes in-between.

Run now	
Log	
Configuration	
About	
Exit	

Single Sign On

Single sign on for Exchange comes in two different versions: one which plugs into the Outlook client, and one that works with WebAccess on the Exchange server. Select the version which fills the appropriate need.

Single sign on creates a new entry in the user interface which opens a new window directly into the user's personal Retain archive. This eliminates the need to log into Retain separately from the User's normal mail client.

Exchange Server WebAccess install

The WebAccess plugin installation is simple; run the installer on all applicable Exchange servers and follow the prompts.

The installer prompts for install location and for the URL of the Retain server.

IIS must be restarted. The installer offers the ability to restart IIS automatically.

Outlook Plugin

(NOTE: Trial versions of Outlook have plugins disabled; the Retain outlook plugin will not work on trial versions. Outlook 2007, 2010, and 2013 are supported)

The Outlook plugins are essentially the same thing; Single Sign-on plugins for Retain which allows Outlook users to connect to the Retain archive in simply by connecting to their accounts in the Exchange system. Be sure to install the appropriate one for your system.

The module requires Outlook configured and currently running, authenticated to and part of Active Directory. For the plugin to work correctly, **administrator rights are required during insta**ll. Installation is simple, run the setup.exe installer and follow the prompts. Running the setup.exe installer will download and install all necessary and appropriate files and run the .msi as appropriate. An Internet connection to the target workstation is required to download and install the necessary files, (32-bit or 64-bit as appropriate).

Uninstallation is achieved through the Control Panel | Uninstall or Change a Program utility in Windows.

Accessing the plugin is different in each version of Outlook. The Retain plugin under Outlook 2010 is found under 'Add-ins', where Retain has a toolbar button, 'Open Retain'.

0 = 1 =	Inbox - co	inb@lion.gwava.com - Microsoft Outlook	22 t a
File Home Send / Receive Folder View	Add-Ins		۵ 📀
Upen Ketain			
Toolbar Commands			
▲ Favorites <	Search Inhox (Ctrl+E)	Reviewed Managed also University and Computer 7 and inc	>
🔁 Inbox (292)		Re: [ngw] MessagLabs Honey pots and Groupwise / sending	Su Mo Tu We Th Er Sa
Sent Items	Arrange By: Date Newest on top	to them?	27 28 1 2 3 4 5
Deleted Items (6)	4 Taday	ngw-bounces+colinb=lion.gwava.com@ngwlist.com on behalf of	6 7 8 9 10 11 12
	- 100ay	Extra line breaks in this message were removed.	13 14 15 16 17 18 19
d colinb@lion.gwava.com	Paul Caron 12:04 PM	Sent: Sat 3/12/2011 8:13 AM	20 21 22 23 24 25 26
🖂 Inbox (292)	Incenting of providing from block to in the	To: ngw@ngwlist.com	3 4 5 6 7 8 9
Drafts [1]	Re: [ngw] turn off return email notice	· · · · · · · · · · · · · · · · · · ·	Today
Sent Items	Jon Dustin 11:52 AM	Hi Elbert,	🗢 Turnips; Turnip house; Michael Bell 🔷
Deleted Items (6)	Re: [ngw] Upgrading from 8.02x to 8.0		
Go Junk E-Mail [53]	Paul Caron 11:33 AM	I will speak with the other person in my organization who passed this	1:30 PM - 2:00 PM
MGWList (513)	[ngw] Upgrading from 8.02x to 8.0 ⊎	issue on to me and get back to you.	GWAVA Room; Colin Bretagne 😔 🛞
Outbox	John Dickey 11:32 AM	I do know this. They were speaking with the IT person at the	Tomorrow
A SS Feeds	Re: Ingwj turn off return email hotice	external firm we are trying to send to and supposedly they were in	
MSN Must See (366)	Be: (now) turn off return email notice	communication with MessageLabs.	2 mars and intervals
MSN News (571)	Solution 11:28 AM		2 more appointments
Test Shared Folder (2)	Re: [ngw] turn off return email notice	Let me get back to you.	
	🧧 John Dickey 11:09 AM 🗤 🗸		
	[ngw] turn off return email notice	Thank you.	Arrange By: Flag: Due Date Today on top 🔶
	Tom Miller 10:50 AM	Neil	Type a new task
	Re: [ngw] Question about running G		al [™] Later
	Ingel Quarties about running GW 8	P.S.	
	[iigw] Question about running ow o	rate net retired (autoentrest issue)	lest Retain 2.5
Mail	▲ Last Week	letty not letted (autocorrect issue)	
	Neil Carson Sat 3/12	>>> "Elbert LaGrew" <elbert.lagrew@katun.com> 03/12/11 07:54</elbert.lagrew@katun.com>	
Calendar	Re: [ngw] MessagLabs Honey pots an	AM >>>	
See Contacts	Elbert LaGrew Sat 3/12		
	Re: [ngw] MessagLabs Honey pots an	See more about: Neil Carson.	
2 🖬 🖉 🗸	Elbert LaGrew Sat 3/12		
Items: 325 Unread: 292		This folder is up to date. 🛛 😣 Connected to	Microsoft Exchange 🔲 🛱 100% 😑 🔍 🕂

In Outlook 2007, the option adds a toolbar button. To access the archive, select the 'Open Retain' button from the toolbar.

				$ \rightarrow $		
Sinbox - Microsoft Outlook						- • ×
<u>File Edit View Go Tool</u>	s <u>A</u> ctions <u>H</u> elp					Type a question for help 🔹
🔁 New - 🚔 🐴 🗙 🙈 B	eply 🖂 Reply to All 🙈 Forward	🔡 🍸 📑 Send/Receive 🔹 🖄	Search address books	- 🕡	🚭 Open Retain 🔔 🚱 Back 🕲 🖄 😭 🚮 🚷 outlook:Inbox	
	Messages					2
	, -, Manuel Manuel				1	
Mail «	🔄 Inbox	Search	Inbox	× ب 9	Retain Test Message Thu Feb 10 10:00:11 EST 2011	To-Do Bar » ×
Favorite Folders 🔅	□ Ø From	Subject	Received V Size	ARCH 🕅 🔺	ratain@tast.com	March 2011
Drag Your Favorite Folders Here					Sect. The 2/10/2011 10:00 AM	Su Mo Tu We Th Fr Sa
Mail Falders	Date: Last Month				To: Coin Bretagne	27 28 1 2 3 4 5
Mail Folders ×	📄 retain@test.com	Retain Status Information	Thu 2/17/2011 9 6 KB	Ŷ		6 7 8 9 10 11 12
All Mail Items ▼	retain@test.com	Retain Status Information	Thu 2/17/2011 6 KB	Ŷ	Hello, this is a test message from Retain, testing	20 21 22 23 24 25 26
🖃 🥸 Mailbox - Colin Bretagne	retain@test.com	GWAVA Retain: Expiration Warning	Thu 2/17/2011 5 KB	Ŷ	the SMTP connection.	27 28 29 30 31 1 2
Cabinet Cabinet	retain@test.com	Retain Status Information	Wed 2/16/2011 6 KB	Ý		3 4 5 6 7 8 9
Test Status (53)	retain@test.com	Retain Test Message Wed Feb 16 15:2	Wed 2/16/2011 5 KB	Ÿ		
Deleted Items (22)	retain@test.com	GWAVA Retain: Expiration Warning	Wed 2/16/2011 5 KB	¥		
Drafts [3]	retain@test.com	GWAVA Retain: Expiration Warning	Wed 2/16/2011 3 KB	8		
🖃 🔄 Inbox (13)	retain@test.com	Retain Status Information	Tue 2/15/2011 6 KB	Y		
Personal (29)	retain@test.com	Retain Status Information	Tue 2/15/2011 6 KB	Ÿ		No upcoming appointments.
Outbox	retain@test.com	Retain Test Message Tue Feb 15 15:43.	. Tue 2/15/2011 5 KB	Y		
RSS Feeds	Colin Bretagne	hi	Fri 2/11/2011 3: 4 KB	Ŷ		
🔄 Sent Items	retain@test.com	Retain Test Message Thu Feb 10 10:00:.	Thu 2/10/2011 1 5 KB	<u>X</u>		
Image: Search Folders	i () Colin Bretagne	FW: test doc	Thu 2/3/2011 1: 91 KB	Y		Ammand Ru Dua Data
	Main The LogMein Tea.	LogMeIn Special Offer – Only 2 Days	Thu 2/3/2011 1 14 KB	Y		Ananged by: Due Date
	Date: Older					Type a new task
	🖂 🖉 Colin Bretagne	Test xis	Thu 1/27/2011 2 81 KB	1		🖃 🎽 Today
	🙈 🖉 Colin Bretagne	test doc	Thu 1/27/2011 2 90 KB	V		Today
	🖂 🖉 Colin Bretagne	test doc	Thu 1/27/2011 2 85 KB	~		Test U 🗸
	A The LogMeIn Team	Your LogMeIn Pro ² trial is expiring —	Thu 1/20/2011 1 15 KB	V		
	mailman-owner	ngwlist.com mailing list memberships	. Tue 1/4/2011 5: 5 KB	Ÿ		
	🖂 LogMeIn.com Aut.	LogMeIn Account Notification - Comp	. Wed 12/22/201 7 KB	Ÿ		
🖂 Mail	LogMeIn.com Aut.	Add this computer to LogMeIn	Wed 12/22/201 11 KB	Ÿ		
Calendar	LogMeIn.com Aut.	LogMeIn - Please activate your account	Wed 12/22/201 12 KB	Ÿ		
	🙈 mailman-owner	ngwlist.com mailing list memberships	. Wed 12/1/2010 9 KB	Ÿ		
Secontacts	Bill Conlee	[ngw] De-activating mobility users	Tue 11/23/2010 4 KB	Ÿ		
	📄 ngw-request@n	Welcome to the "ngw" mailing list (Di	Thu 11/4/2010 1 9 KB	Ÿ		
	🖂 ngw-confirm+8d	. Your confirmation is required to join t	. Mon 11/1/2010 10 KB	V •		1
46 Items					All folders are up to date. 🔀 Cor	nected to Microsoft Exchange *

Recover Admin

This is an emergency tool you can use if you happen to lose your admin account/password. This utility will let you create a new admin. Consult the readme file for further information on its use.

Appendix D – Reload Integration

GWAVA Reload and GWAVA Retain perform very different functions. Retain is an archiving product whose main feature is the storage of data in one place for later search and retrieval. Reload is a Hot Backup, Quick Restore and Push-Button Disaster Recovery product whose main feature is the storage of instances of GroupWise post offices for the purposes of restoring items to their original location in their original form or providing disaster recovery of domains or post offices.

So, why would you want to integrate Reload and Retain?

- 1. Reload is very good at moving data efficiently from point A to point B.
 - a. It copies your post office data in its original form.
 - b. It can make what is effectively a full backup by moving and storing as little as 12% of the total amount of data in the post office.
 - c. By having the backed up data available in its original form, it can serve as a data source for Retain.
 - d. Reload's backups are available the moment the backup job is complete.
- 2. Retain moves a lot of data and needs strong network links to do so rapidly.
 - a. An archiving job moving "everything" will move all of the data. This may seem self evident but when you combine Reload with Retain, you can achieve the same thing by moving only 12% of the data.
 - b. If you don't integrate them, you will pull data twice over the link once for Reload, and once for Retain. On top of that, if you don't have Reload and you only have Retain, you will definitely have to move your data twice.
 - c. By integrating Reload and Retain, you can centralize your archives and ensure good backups and achieve a single data pull.

A Brief Review on How Reload Works

No Helper Software Needed.

Reload runs on a Linux server. It does not use agents or helper software on the source post offices to work. In other words, no agents or TSA's are required. Reload simply connects to the server where a post office or domain is stored and then copies the data to its backup storage location.

Backups are instantly available.

Because the data is copied in its original format, the data becomes available as soon as a backup job is complete by simply running a post office agent (POA) against it (for post office backups) or a message transfer agent (MTA) (for domain backups).

Backups Have Little or no Impact on Users.

Because Reload does not use the Post Office Agent to make backups, there is very little impact on users. The POA will continue to run and service users as normal. Reload also does not use TSA software or helper agents on the live post office server. Backups can be made while the users are logged in and working.

Reload Leverages GroupWise's Architecture to Save Bandwidth.

A GroupWise post office is composed of databases and overflow files. Databases contain users' mailbox layouts and indexes and other databases contain users' authentication information. For any GroupWise item exceeding 2KB in size, such as e-mail with attachments, overflow files are stored, commonly called BLOBs (Binary Large Object).

While the contents of the databases changes almost constantly, the BLOBS are static. Therefore, in a Standard Backup, Reload grabs the databases in their entirety but only those BLOBS that have been newly created since the last backup.

Generally, the BLOBs take up almost 90% of the space occupied by the whole post office. Therefore, with a standard backup, Reload can get away with copying only 12% of the data – the databases and only those BLOBs which have recently been added. For those BLOBs that have been backed up in prior backup instances, Reload links to a master backup directory, taken the first time a backup was run, using a Linux feature called symbolic links. A symbolic link is like a Windows shortcut except that it looks, feels, and acts like the real thing.

This is how Reload can achieve VERY fast backups. In addition, using Reload to move data will save tremendously on network bandwidth compared to traditional backup systems which grab all of the data.

Backups Can be Made of Backups Allowing Centralization and Redundancy

Reload was made to backup live post offices and domains and it can also make backups of other Reload backups. The following two cases can help illustrate how useful this can be:

Consider client "A" who has two physical locations, one post office in each. This client wants redundant backups – a primary backup plus a secondary in case the primary fails.

This client installed a Reload server in each location. The servers backed up the local post office in addition to making a backup of the Reload server in the other location. Thus, each Reload box effectively had backups of both servers.

Consider client "B" who has one central data center and four branch offices. This client wants the head office to have backups of all post offices in all locations.

Branch offices 1, 2, and 3 have fast WAN links to head office but branch office 4 has a very weak connection to head office. However, branch office 4 has a strong WAN link to branch office 2. So the client installed a Reload server in each office and one in the head office. The Reload server in the head office was set to back up the Reload servers in branch offices 1, 2, and 3. For Branch office 4, the Reload server in Branch office 2 was set up to back up the data from the Reload server in branch office 4 and then the head office was set to back this data up from the Reload server in branch office 2.

Thus, backups can make as many hops and can be backed up in as many places as you need. Using the ability to backup one Reload server with another, you can achieve data centralization and redundancy. The redundancy also gives you the ability to use Reload for off-site disaster recovery. Additionally, for client "B", their old backup system moved all of the data every day. Using Reload, they managed to cut their network traffic by 88%.

How Retain Takes Advantage of Reload's features

Consider client "B" from the earlier example who has four branch offices and a head office. They want their Retain Server to be located at head office. So they need to centralize their data.

Without Reload, they would have Retain Workers on the branch office POA servers and the data would be sent over the WAN links. For a data collection involving "everything", all data would surely saturate the WAN links.

Plus, their backup/restore software would use the WAN links too, if they were centralizing their backups.

Adding Reload to the mix, they are able to achieve huge bandwidth savings and performance gains. Reload would be set up to centralize the data to one Reload server in head office, saving immediately 88% of their bandwidth compared to their existing backup/restore system.

Next, A Retain Worker would be set up on the central Reload box to draw data from all backed up post offices.

One Retain Worker can only run one job at a time, so the post offices would be archived one at a time.

Multiple Workers on One Server

It is possible to install more than one Retain Worker on one server but this would double the hardware requirements, Tomcat memory tuning, and is limited to Linux as the platform OS. This option is built into the Linux installer and is activated by using the 'addworker' switch to the install command. (I.e. ./RetainInstall.sh addworker)

You would normally only add additional workers if you wanted to dredge more than one post office at a time.

On a Reload server, it might not be so time critical to dredge the post offices on it since there is no impact on the end users. On top of that, Reload has a special feature made especially for Retain, a special post office agent that stays up all the time, except to move to the latest backup. This way, it is always available to Retain.

So you will have to decide if it is acceptable to have the post offices dredged one at a time or if you would prefer to dredge many at a time. To do many at a time requires multiple workers.

Timing

It's important to time the data collection on Retain so that the Reload backup will be complete long before the Retain job is scheduled to start. This is set in the schedule section under the Data Collection menu in Retain.

Retain Settings

The three tasks to configure Retain to work with reload are to assign the reload password for the worker, assign the running jobs to use the Reload integration, (this setting is found in the Jobs configuration page in the Retain management console), and configure the Profile to use the <u>ltem store</u> flag for duplicate checking.

Enter the management console, and select Jobs from the Data Collection menu.

🐇 Jobs 🚽 🔁 🥝
first backup reload job Add Job
Edit Job Remove Job
Job reload job added. Job reload job
Core Settings Mailboxes Reload Notification Status
Reload
You can backup your GWAVA Reload server, saving network bandwidth if desired. You'll need Reload 2.5, and some settings set on the Reload machine. Please consult the user manual for additional information.
Enable Reload Integration? Reload Server URL http://10.1.1.101:55:

Create or select a job which you desire to use against the Reload system, and select the Reload Tab. You must select the Enable Reload Integration option, as well as supply the correct connection address for the Reload Server URL. (Both IP address and DNS name will work, but DNS is recommended wherever possible.)

Set the rest of the Core Settings, Notification, and Status as you would normally for your Retain system, but note that in the Mailboxes section you MUST assign the mailbox that Reload is backing-up. Save the changes.

To specify the Reload –Retain password to the worker, open the specified worker in the worker settings page, and click on the Connection tab. Specify the new Worker Password by entering it into the provided field and then click 'Save changes' in the top corner of the page. **You must re-upload the bootstrap file to the worker after creating a new password.** (See the worker section to get instructions on <u>correcting the bootstrap file</u>).

The worker will nee Name. It's importan may or may not ma	ed to know how to cor t to note that you are tch the URL you'd use	nnect to the Server. It is highly recommended that you use a DNS host name for the Host specifying the URL from the point of view of the Worker contacting the Server , which from your browser to reach the Worker or Server.
Server Protocol	http 🔽	
Server Host Name	10.1.1.101	
Server Port	80	
Server Path	/RetainServer	
Worker Password	•••••	
Note: Changing any	of these parameters	will require recopying the worker bootstrap file!

How to Setup Reload to work with Retain

This part assumes that you have already set up and configured one or more Retain workers to collect data from your Reload box.

First, Reload must be set up so that the backups are available. There is a special feature in Reload for this. It calls up a post office agent that stays up all the time and it only goes down long enough to change to the most recent backup. So it will always be there with very small interruptions as the POA is brought down then up.

Setting up Reload is done on a Profile-by-profile basis. Each post office that you set up for Retain to dredge from must be configured within the profile configuration menu.

1) Start up Reload's Administration menu.



2) From the main menu, choose Profiles – Administer Profiles.

GWAVA Reload Main Menu	1
Daemon Status	
[Running]	
Choose using [UP] [DOWN], [Enter] to Select	
Access Access Backups	
Recovery Disaster Recovery	
Warning Read Warning Jobs Start/Stop Jobs	
Logs View Logs	
Profiles Administer Profiles	
System Administer System	
DOC5 Documentation	
INFO Program Information	
	-
<pre>< OK > < Exit > < Help ></pre>	

3) Choose Advanced Profile Configuration Menu

Choose using [ost Office Profile Administration Main Menu UP] [DOWN], [Enter] to Select
Actions Logs Standard Portable Tape Preferences Advanced Description GroupWise INFO	Profile Actions Menu Profile Logs Menu Standard Backup (Incremental) Configuration Menu Portable Backup (Full) Configuration Menu Tape Backup (TAR Portable Backups) Configuration Menu Preferences Settings Menu Advanced Profile Configuration Menu Edit Profile Description GroupWise Domain & Post Office Information Profile Information
K	<mark>OK > < B</mark> ack > <main menu=""></main>

4) Choose Retain POA Menu & Settings

Access Restore	Access POA Menu & Settings Restore POA Menu & Settings
Live Retain	Live POA Menu & Settings Retain POA Menu & Settings
Recovery	CONFIGURE Disaster Recovery Main Menu
Retry	Failed Connection Retry Attempts
Wait	Wait Interval Between Failed Connection Retrys
Test	Test and Refresh the Profile
Schedules	Advanced Scheduling Options

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	Retain Integration POA Status [Not Running]
oose using [UP]] [DOWN], [Enter] to Select
Wizard	Reload to Retain Integration Configuration Wizard
Startup	Modify Retain POA Startup File
Delete-Retain	Delete and re-create the Retain POA Startup File
Integration	Retain Integration [Enabled]
ADDRESS	Retain POA IP Address [10.1.1.101]
SOAP	Retain POA SOAP Port [7192]
CLIENT	Retain POA CLIENT Port [1678]
HTTP	Retain POA HTTP Port [1679]
SSL	SSL Encryption [Disabled]
Password	Retain Base Worker Password
GroupWise	GroupWise Domain & Post Office Information
Preferences	Integration Preferences Menu
Log	View Retain Integration Agent Log
Testing	Retain Integration POA Testing Menu
< (OK > < Back > <main menu=""></main>

Now it's worthwhile examining this menu. It contains all the settings you will need to make the Retain integration work. This will be a new post office agent running and it will not interfere with the POA being used to access, backup or disaster recovery. Thus, the settings NEED to be different. The easiest way to start is to run the wizard.

Here is another shot of the configuration screen after running the wizard. You will see sample settings and the menu options will be described below.

	Retain Integration POA Status [<mark>Not Running</mark>]
Choose using [UP] [DOWN], [Enter] to Select
Wizard	Reload to Retain Integration Configuration Wizard
Startup	Modify Retain POA Startup File
Delete-Retain	Delete and re-create the Retain POA Startup File
Integration	Retain Integration [Enabled]
ADDRESS	Retain POA IP Address [10.1.1.101]
SOAP	Retain POA SOAP Port [7192]
CLIENT	Retain POA CLIENT Port [1678]
HTTP	Retain POA HTTP Port [1679]
SSL	SSL Encryption [Disabled]
Password	Retain Base Worker Password
GroupWise	GroupWise Domain & Post Office Information
Preferences	Integration Preferences Menu
Log	View Retain Integration Agent Log
Testing	Retain Integration POA Testing Menu
L	

At the top, the status of the Retain Integration POA is displayed.

- Wizard: Run the configuration wizard.
- Startup: modify the startup file for the POA if you want to make specific changes to it.
- > Delete-Retain: delete the startup file if you want to start fresh and configure from default.
- Integration: Enable or disable the Retain Integration
- Address: The IP address this POA will listen on.
- SOAP: The SOAP port this POA will use.
- CLIENT: The port that a GroupWise client may use to access this POA.
- HTTP: The HTTP port for this POA.
- SSL: Enable or disable SSL (Generally keep SSL Disabled)
- Key: A password Retain will use to access this POA.
- GroupWise: Specify the domain name and post office name for this POA.
- Log: View the Integration Agent Log.

The wizard will be shown below.

1) Run the Wizard



2) Enter the name of the post office and domain.



3) Choose an authentication key that Retain will use to access this POA. **This must match the password you assigned to the Retain Worker.** (See the <u>Retain Settings</u>)



4) Specify the IP address and SOAP port for this POA. **Be sure it is unique.** Some will choose one IP for the whole box with different client ports and SOAP ports for each POA. Others use the same ports but the IP addresses are different.



5) Choose the HTTP port for this POA.

Because Reload is creating a faux POA for Retain to archive mail from, the Reload POA must be on a different or unique port, so there is no conflict with your original POA. If your Reload installation is on a separate machine from your POA, any port will do, but if it is the same, pick a port that you know is open, different from the live system.

Retain will pull all necessary connection information from the Reload server. There is no need to enter these settings into the Retain Server.

Now that you have set up the basics, you may edit the POA startup file in case you wish you change any other settings, (Retain.poa), or you can re-run the wizard from step 1.

IMPORTANT Notes for the Integration

Retain

Because Reload essentially creates a snapshot of the Post Office, the duplicate checks that Retain can use are very limited. The retention flag and purge flag will not function as they are kept within GroupWise and would be changed back as soon as Reload creates a new backup. **The Item Store Flag is the only duplicate check that is internal to Retain, and is the ONLY duplicate check ability that will work when Retain archives against a Reload system.** Again, the retention and purge flags will not work but the item store flag will. Be sure your Retain Profile matches this setting.

Profiles	H 🗞
default Add Profile reload Edit Profile No jobs are associated with this Profile. Remove Profile	
Profile reload saved.	
Profile Name reload	
Core Settings Scope Miscellaneous Advanced	
Date Range to Scan	
All Messages (ignore date)	
Duplicate Check	
Retain only stores a single instance of each message and attachment. Defining how the Worker determines new items (so it sending them to the Server) is an important performance factor. Using the retention or purge flag choices are the fastest che these are options. Never publish all messages unless you are priming the system for the first time.	may skip oices, if
Publish all messages newer than last stored message (fast)	

The item store flag is set in two places: Duplicate Check under the Scope tab and under Set Storage Flags under the Miscellaneous tab. The correct settings are shown.

Set Storage Flags	
If you are using either the Purge or Retention features in GroupWise, you probably want these to be advanced automatically as items are stored, so users may delete messages in their mailbox that have been stored by Retain. The Item Store flag is of similar function, stored in Retain itself, but cannot prevent users fom deleting item. It is most useful in conjunction with GWAVA Reload or in use with multiple overlapping jobs.	
🗌 Retention Flag 🔲 Purge Flag 🗹 Item Store Flag	

Reload

To mitigate the chances of getting Retain Worker archive errors while working against a Reload POA, it is STRONGLY recommended that Reload is set to create highly consistent backups.

This setting is located at:

Main menu > Profiles (Administer Profiles) >Standard (Standard backup (incremental) Configuration Profile) > Consistency (Backup Consistency level): Set to highest.

	Post Office Profile Standard Backup Main Menu
Choose using	[UP] [DOWN], [Enter] to Select
Schedule Customize Database BLOBS SmartPurge High	Standard Backup (Incremental) - Basic Schedule Create Customized Job Event Actions Standard Backup Database Threads Configuration Standard Backup BLOBS (OFFILES) Threads Configuration SmartPurge Configuration High Performance Standard Backups: [Enabled]
Consistency DMS	Backup Consistency Level: [Highest] Backup DMS Libraries at Post Office: [Disabled]
L	
-	< <mark>OK > < B</mark> ack > <main menu=""></main>

This is enabled by default for new installs of Reload 2.5, but will have to be manually enabled on systems that are upgraded to Reload 2.5 You want a highly consistent backup, to make sure that you have all the blobs associated with the database. Database is picked-up first, so the blobs that are referenced in the database will be consistent with the current backup.

Appendix E - Migrating Retain to a new Server or Platform

Migrating Retain between different platforms is possible, though time consuming. Retain can also be migrated between 32-bit and 64-bit systems. Migrating or moving the Retain Server can be complicated, because the different Retain components that connect to theRetain server by IP address, file paths mapped in the system, and the unique server identification which allows access to the data storage are all tied to the originalRetain Server. The important variables for theRetain Server are found in the ASConfig.cfg file. The connecting components will need new bootstrap files. In a migration, all these variables must either be corrected, or copied to the new system for the migration to be a success.

There are **no guarantees** when migrating a server. **BE SURE TO CREATE A FULL BACKUP WHEREVER POSSIBLE BEFORE STARTING THE PROCEDURE.** SQL databases and data storage systems are not supported or administered by GWAVA Inc., and are the responsibility of the local system administrator and the customer.

Regardless of the source and destination platform, the main steps will be the same. The steps for migrating aRetain Server are:

- 1. Create a backup of the server, data store, and database.
- 2. IF the SQL database is housed on the source Retain Server, copy or migrate the SQL database to its final destination in accordance with recommended practices for the respective SQL system. Setup the SQL server and get it running on the destination machine.
- 3. Download and install Retain. After Retain has been installed, shutdown Tomcat.
- 4. Copy the data store to the new destination. The data store consists of more than just the storage directory. The data store contains the configuration database, indexes, backups, license, and the archive, (if not on a SAN). If migrating to Linux, the ownership and execute rights to the data store **MUST** be changed. If ownership execute rights are not set correctly, the Retain Server will not function correctly, and will generate inexplicable errors. Commands are:

```
chown -R tomcat:www <storage_directory>
chmod -R u+rwx <storage_directory>/*
```

5. Open the ASConfig.cfg file from the old server with the text editor of choice. (Text editor must be able to view .xml files.) The following file paths which were mapped for the original server must be corrected for the new server:

```
<serverID>unique server ID</serverID>
```

It is ESSENTIAL that the ServerID setting be identical to the original server ID, or the migration will fail.

```
<basePath>/retain</basePath>
<archivePath>/retain/storage</archivePath>
<xmlPath>/retain/xml</xmlPath>
<indexPath>/retain/index</indexPath>
<backupPath>/retain/backup</backupPath>
<licensePath>/retain/license</licensePath>
<EBDBPath>/retain/ebdb</EBDBPath>
```

- 6. When the ASConfig.cfg file has been modified correctly, copy the modified file into the destination server. ../RetainServer/WEB-INF/cfg
- Once the file has been copied into the new server, start Tomcat.
- 7. Verify that theRetainServer is working. If it is not working, view errors and double-check the settings in the ASConfig.cfg file.
- 8. IF the final destination server has a different IP address than the original RetainServer had, all workers and stubbing servers must be reconfigured by re-uploading new bootstrap files for each one. If this step is not completed, the workers and stubbing server will not have contact with the Retain Server, and will not be able to function. See 'correcting the bootstrap' in the worker section.

The process should be done with extreme care and attention to detail, if not under the supervision and by the guidance of Retain Support. Completing ALL steps for your system is extremely important. If there is a problem call support and/or revert to the backup made in step one. Correctly following these steps will result in a fully functioning system on a new platform.

Appendix F – Switching the Indexing Engine

Switching between indexing engines is possible, though frequent changing is not recommended as it is a time consuming process. This guide assumes that the system will be switched from Lucene to the more robust Exalead indexing engine, though the process is nearly identical for the switch back to Lucene, it simply requires selecting 'lucene' instead of 'exalead' when the options are provided, as the positions of Lucene and Exalead are reversed when switching from Exalead to Lucene.

Switching the indexer 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 Adminitrator, and ensure that:

- > The Retain System has been backed-up.
- > Exalead serer 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

 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.

🗯 Retain 🎾	Welcome, admin About Status & Updates Logout
Overview	Server Configuration 🚽 🗞 🥝
Documentation Search Messages Audit Log System Log	Communications Index Storage Accounts Maintenance Notification Logging Miscellaneous Indexing Engine
Data Collection Schedules Profiles Workers Jobs	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.
Management Users Groups	 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, seporting, availability functions.
Deletion Management Configuration Server Configuration Storage Manager	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: Lucane 💌
Stubbing Server Licensing 28 days remaining in eval	Indexing Here, you adjust the different types of items to be indexed. You may add, delete, or edit items.

Open the migration link in a new window or tab.

idexing Engine Migration			
Summary			
Migration from one indexing engine to another is a signific. depending on the size of your store.	ant step, one not taken lightly. Inherently the pro	cess of migration requires reindexing all previo	us stored mail, a process which may take days or weeks
Motivations for migrating include:			
 Enhanced scalability and availability - for example, E Enhanced functionality - We will be introducing fea features depending on the search engine might re Greater simplicity - Lucene is a simple embedded so 	(alead can be installed as a multiple node cluster situres (such as advanced search functionality, enh; quire Exalead. Jultion, Exalead requires dedicated hardware.	olution. Lucene cannot. anced publishing and exporting ,etc) that requ	uire the Exalead engine. We expect most additional major
We urge you to read the user manual and this page and o	onsider your options carefully. Click here to print t	his page,	
Backup Backup your database, and optionally your indexes. These changes occur to the old index, so you could always back	are both large datasets, but it would be wise to I off to the old index engine by changing the Index	back them if possible as a safety precaution. T king Engine type in Server Configuration Please	here are steps that incur database changes. No index a read this section for more information.
Note the Documents Indexed value			
In the Status and Updates screen, note the total number number, but it can be useful to track the progress once y	of Documents indexed, under Server status. Writ ou begin reindexing.	e that number down. Note there is NOT a 1:	1 correspondence between Lucene and Exalead in the
Set up Exalead Server (If switching to Exalead)			
Set up Exalead Server (If switching to Exalead) Set up your Exalead Server, using instructions in the user server were at 10.0.0.3, with baseport of 40000, http://	manual. Start it, wait about one minute, and then .0.0.0.3:40001/api-ui .	n check if you can reach the dashboard (http:	(/ipaddress:basePort+1/api-ui), so for example if your Exale

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.

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 and a negative value if only partially indexed. But non-zero in any casel). Then, the background indexer will gradually reindex all of these items. To reset the indexing status, login as user with the Manage Servers right (such as your initially created admin account), and run the Indexer Reset utility: http://RetainServerAddm/UNI/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. (althou 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 of 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 is complete. Again, ke indexed only by the NEW engine, in unavailable for search results. To configure the search results. To configure the selow the form before filling it out and submit this form until you are ready to do so! Read the instructions below the form before filling it out and submit this form until you are ready to do so!	lue is set to >0 if fully inde ess/RetainServer ugh the background index hanges. and then contin nuld result in NO SEARCH I
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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 admin@ibuycrap.org	
I have "I condensational". They are an an and the second for the second on the second	

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 <u>NOT enough</u> . 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 <u>luceneDelete isp</u> for more.
© Reset the entire message store. All items will slowly be reindexed by the background indexer
V. Kesel just a specific user's store. All frems 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: -1
You must type "I AGREE" below before hitting the submit button.
I understand the significant implications of what I am doing.
Submit

The next few steps need to be performed with little time delay between them. No more than a couple minutes. If not switched soon, 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**.



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'.



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

								Welcome, admin About Status & Updates Logout
🥃 Server Configu	ration	_	_		_	_		Save Changes 📕 ಿ 🥃
Communications	Index	Storage	Accounts	Maintenance	Notification	Logging	Miscellaneous	
-Indexing Engine								
At the core of Ret one to the other, Here is a brief sum • Lucene - F, and storagi clusterable • Exalead - F. or more de clusterable Current Indexing I Exalead Host/IP: Exalead BASEPOR	ain's searc but this m mary of th ast and ea- e requirem or high av ast, extrer dicated 64 as well as o switch in , as well a Engine: E 192.: T: 1000	hing functio lay require si e Indexing I sy to use. Re- ents. Some allability frier nely powerfit bit servers organization idexing engli s special mig calead 168.1.106 0	nality is the ir grificant effo Engines provi equires no ad features, suc dly. J., and very si (quad core re (quad core re is that need is that need nes, be sure reation functio	idexing engine. R rt. It is better to ded. There is mor ditional software h as extended qu calable. Can be d calable. Calable. Calable. Calable. Calable. Calable. Calable. Ca	etain supports choose an inde re detail in the r or hardware ins ueries, enhance ustered with m tith at least 16G ng, exporting, a manual, and foll	two indexing xing engine user manual: tallation. We d publishing. ultiple index .8 B.R.M. Requ vailability fun ow the Migra	a engines current initially that fits yu all suited for small and exporting, ef and search nodes ures an installation ictions. ation Steps carefi	ly, Exalead and Lucene. It is possible to migrate from our needs. scale environments that have only modest searching tc are not available using the Lucene engine. Not s. All Retain advanced features available. Requires one n process. Recommended for medium to large ully. The Migration Steps page contains a complete

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.

Migration Parameters	
Migration is in progress?	
Activate an alternative searching server?	1 1 2 2 2 Survey
Searching Server should be	1 martin 1
Send an e-mail when migration is completed?	
Comma delimited list of e-mail recipients admin@yourdomain.com	
Type "I understand". This is required to save the form, and is for your protection: I understand Save Migration Parameters	

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.)

	v v	Velcome, admin About Status & l
n - Sy	/dney - Melbourne - Brisbane - Wellington - Christchurch - Auckl	and ·
	igrate to CrowpWice 9	
M	Igrate to Groupwise o	
Gle	obal Event Series	
Click	CHere For All The Details	
	C	
A., A.,		
Soos Svorkers	Server	
Server		
Index Migration in Progress	false	
SQL Server	OK	
Server	RetainServer (FXROPPHOTTTI)	
Stored EMails	O	
Engine	standard	
Server started at:	10-Mar-2010 14:00:11	
Archived since server starte	d (total/dupes/new) 0 / 0 / 0	
Server errors	0	
Testellation times	00 May 2010 15 10 52	
Installation time	08-Mar-2010 15:10:53	
Installation time Enable Address Book Cachin Latt Address Book Cachin	08-Mar-2010 15:10:53 Ig Yes	
Installation time Enable Address Book Cachin Last Address Book Cache Enable Indox Optimization	03-Mar-2010 15:10:53 1g Yes 08-Mar-2010 15:13:43 Yes	
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Installation time Enable Address Book Cacher Last Address Book Cacher Enable Index Optimization Last Index Optimization Total documents ever index Total emails in memory que Total emails indexed so far Total emails indexed so far Total emails with indexing e Total emails with index skip	08-Mar-2010 15:10:53 1g Yes 08-Mar-2010 15:13:43 Yes Never eawaiting indexing 0 of arms ince uptime 0 ared (*) since uptime 0 ared (*) since uptime	

9. When the migration compete 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			9 19	
Migration is in progress?				
Activate an alternative searching serve	er?			
Searching Server should be				
Send an e-mail when migration is com	pleted?			
Comma delimited list of e-mail recipien	ts admin@yourdomain.com			
Type "Lunderstand". This is required to save	e the form, and is for your protection: 1	understand		
Save Migration Parameters				

Even though Lucene has been unselected, it will still exist with all the indexes until removed. Again, Reindexing 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 form 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 and

Appendix G – Exchange Permissions required for Retain

Exchange settings

To connect with exchange, Retain needs a user with appropriate rights. This can be accomplished by using an existing user, or by creating a new one. It is recommended to create a new user for Retain archiving. If creating a new user, ensure that the user is an active user account and that the password

does not change to ensure Retain will be able to access mail without changing settings. This user is sometimes called a 'service account'. Retain calls this user the 'global catalog user'.

The user created or used for Retain must be a "mailboxenabled user" with read access to see all other users, groups, resources, and Exchange Servers in the Exchange Forest. The user will be utilized by both the Retain Server and Worker for LDAP lookups in Active Directory. The Retain user also must have Exchange impersonation rights to every mailbox user on every server in the organization to be archived. The Retain user MUST NOT be a member of any Exchange Administrator group, as Exchange denies impersonation rights for all administrator accounts.



Additional permissions need to be added to the user created

for Retain. The quickest way to add these rights is through the Exchange Management Shell. After creating the new user in Active Directory, open the Exchange Management Shell.

Grant Impersonation Permissions to the Retain user.

The commands required are different depending on the version of the Exchange Server. Exchange 2010 requires only one command per Exchange system to be issued, whereas Exchange 2007 requires the commands to be run on every Exchange server in the Exchange system to grant required permissions. If the Exchange system contains 2007 and 2010 servers, the different commands must be completed on one server of each type.

Exchange 2010 command:

For Exchange 2010, the only command necessary for impersonation permissions is:

```
New-ManagementRoleAssignment -name ImpersonationAssignmentName -Role ApplicationImpersonation -User ServiceAccount
```

Where the 'Name' is a name chosen by the administrator and the 'ServiceAccount' is the name of the Retain user.

For Example:

```
New-ManagementRoleAssignment -Name impersonation-retain -Role ApplicationImpersonation -UserRetain
```

If additional Exchange servers are added to the system after running this command to grant rights to the 'retain' user, the command must be run again to grant rights to the new server.
Exchange 2007 commands:

```
('Retain' is the name of the Retain user, or Service Account below)
Get-ClientAccessServer | Add-AdPermission -UserRetain
-ExtendedRights ms-Exch-EPI-Impersonation
Get-MailboxDatabase | Add-AdPermission -UserRetain
-ExtendedRights ms-Exch-EPI-May-Impersonate
Get-MailboxServer | Add-ADPermission -userRetain -ExtendedRights
Send-As, Receive-As, ms-Exch-Store-Admin
```

Room and Equipment Resources

To archive Room and Equipment Resources, or to restore them, the Retain user, or Service Account, must also have delegation rights. These commands must be issued manually for each Room and Equipment or resource mailbox on every relevant server. This is required for both 2010 and 2007.

These commands must be issued:

('Retain' is used here as the name of the Service Account, or Retain user, and the 'Mailbox Database' should be changed to the appropriate name.)

(NOTE: every time a new Room and Equipment or resource mailbox is added, the first command must be re-run.)

Exchange 2010 commands:

Get-Mailbox -ResultSize Unlimited -Database "Mailbox Database" | Add-MailboxPermission -User "Retain" -AccessRights FullAccess

Add-ADPermission -Identity "Mailbox Database" -User "Retain" -ExtendedRights Receive-As

```
Add-ADPermission -Identity "Mailbox Database" -User "Retain" -ExtendedRights Send-As
```

Exchange 2007 commands:

Get-MailboxDatabase | ForEach-Object {Get-Mailbox -ResultSize
Unlimited -Database \$_.DistinguishedName | Add-MailboxPermission
-UserRetain -AccessRights FullAccess}

Get-MailboxDatabase | ForEach-Object {Add-ADPermission -Identity
\$_.DistinguishedName -UserRetain -ExtendedRights
Receive-As,Send-As}

Authentication Methods

Retain requires Basic Authentication to be enabled on EACH CAS Exchange server in the system. Open "Server Manager" on Exchange server.

1. In left pane, expand "Roles", expand "Web Server (IIS)", select "Internet Information Services (IIS) Manager".

2. A new "**Connections**" pane opens, expand your Exchange server object, expand "**Sites**", expand "**Default Web Site (Multiple Protocols)**", select "**EWS**".



3. Under heading "**IIS**", open "**Authentication**" icon

Server Manager					
File Action View Help					
🗢 🔿 🖄 📅 🛛					
Server Manager (WINSERV0864)	Internet Information Services (IIS) N	lanager			
🗄 🛒 Active Directory Certificate		Sites Default Web Site EWS	• •		🔛 🖂 I 🔞 🕶
B Christer Directory Domain Se B Don Server File Services Web Server (IIS) Web Server (IIS) Thermet Information Se The Disposition Configuration Storage	Connections Start Page Start Page Start Page Connections Start Page Connections Start Page Connections Start Page Connections	Authentication Group by: No Grouping Name * Anonymous Authentication ASP.NET Impersonation Basic Authentication Digest Authentication Forms Authentication Windows Authentication	Status Disabled Disabled Disabled Disabled Disabled Disabled Enabled Enabled	Response Type HTTP 401 Challenge HTTP 302 Login/Redirect HTTP 302 Login/Redirect HTTP 401 Challenge	Actions Early E Edd ? Help Online Help

4. Select "**Basic Authentication**", click "**Enable**" in right pane.

You can now close "Server Manager".

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There are two ways to create a Trusted Application key: through ConsoleOne in GroupWise 8, or via utilizing a Trusted Application key generator on a connected and authenticated win32 workstation.

<u>File Edit View Wizards Tools H</u>elp

219

Trusted Application Key creation through Console One for GroupWise 8

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■S server ି 🖁 GroupWise

- 📲 Users

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ConsoleOne with GroupWise 8 supports the native creation of a Trusted Application Key. To create a trusted application key for Retain, select the GroupWise system from the system tree and select GroupWise System Operations Trusted Applications... from the 'Tools' menu.

The Configure Trusted Application window will open, displaying any and all trusted applications currently listed in the system.

From the Configure Trusted Applications window, select 'Create'.

Enter the Name and description of the Trusted Application, in this case, 'Retain'. The name and description may be anything

desired. Check the 'Provides Message Retention Service and 'Archive Service Address' and provide the IP address or DNS name to the Retain server and the port: 48080

Archive Service address:	×				
TCP/IP Address	1				
IP Address: 192 . 168 . 1 . 106					
ODNS Host Name: RetainServerDNS or IP Address					
Archive Service port: 48080					
O <u>K</u> <u>C</u> ancel <u>H</u> elp					

The location for



Name:	Reta	ain				
Description:	Mes	age Archive	Service			
FCP/IP Address:						2
Requires SSL						
🗹 Provides Message Re	etentio	n Service				
Allow access to Ar	chive S	ervice				
Archive Service address:		192.168.1.1	06:4808	C		2
Archive Service requires SSL						
Location for key file:	~/Desktop					
Name of key file:	RetainTAppKey.txt					
			ОК	Cancel		Hein
			<u></u>	- ancer		

the key file and name may be anything desired, but the key file is saved in plain text, so add the .txt extension or open with an editor. The key may be copied and pasted into the Retain interface, or entered manually. The key file may be saved for records or discarded. The new Trusted Application Key is active and now appears to be edited, removed, or removed and recreated.



GroupWise System Operations 🕨

GroupWise Utilities

GroupWise Diagnostics

Users Guide

Select Domain...

System Preferences.

Admin-Defined Fields...

Pending Operations..

Internet Addressing.. Trusted Applications...

LDAP Servers... <u>G</u>lobal Signatures...

Addressing Rules...

Time Zones...

eDirectory User Synchronization...

External System Synchronization...

Software Directory Management...

Restore Area Management...

GroupWise Trusted Application Key generator

IMPORTANT Information about the Trusted Application Key generator:

- > The Trusted Application Key generator must be run from a win32 or compatible system.
- You must use the program included with Retain. The program included with other GWAVA products won't work for Retain.
- > Your workstation must have the Novell and GroupWise clients installed.
- > You must be logged in as the ADMINISTRATOR of the PRIMARY DOMAIN.
- The Trusted App Generator requires access to the domain database; in Linux this requires a SAMBA share or equivalent.
- Note: The Trusted Application Key takes a few moments to propagate through the GroupWise system and therefore it may not be ready for testing or use immediately after you've generated it.

From the GroupWise Module page, select the link to download the Trusted Application Key generator, and select 'run', or run a previously downloaded and saved copy.

1) Click RUN to download and run the Trusted Application Key generator.



2) Follow the wizard. Click Next.

🚟 GWAVA Trusted Applicatio	i Creator	
Select GroupWise domain database	wpdomain.db)	
Domain Directory:		Create Trusted Key
Generate key for product:	Retain	Test Trusted Key
Generated Key:		Cancel
Test trusted key for this mailbox:		

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3) Find your GroupWise domain database. Click on the "..." button.

elect GroupWise domain databas	e (wpdomain.db)		
Domain Directory:	F:\gwsys\gw2dom\wpdomain.db		Create Trusted Ke
Generate key for product:	Retain	~	Test Trusted Key
Generated Key:			X Cancel
Test trusted key for this mailbox			

4) Once you have found your domain, click "Create Trusted Key".

WAVA Trusted Appl A new Trusted Applicatio Depending on the config before this new key actu	ication Generator In has been created and the Generated Key has been copied uration and speed of your GroupWise system, it may take up Ially can be used.	to the Clipboard to one minute
	ОК	
GWAVA Trusted Application	n Creator	
GWAVA Trusted Application	n Creator (wpdomain.db)	
GWAVA Trusted Application ielect GroupWise domain database Domain Directory:	1 Creator (wpdomain.db) F:\gwsys\gw2dom\wpdomain.db	Create Trusted Ke
GWAYA Trusted Application ielect GroupWise domain database Domain Directory: Generate key for product:	1 Creator (wpdomain.db) F:\gwsys\gw2dom\wpdomain.db Retain	Create Trusted Key
GWAVA Trusted Application ielect GroupWise domain database Domain Directory: Generate key for product: Generated Key:	Creator (wpdomain.db) F:\gwsys\gw2dom\wpdomain.db @secan @secan @secanol_concerte_conffoorBool026633620DC00000864CEC00Ff007B00	Create Trusted Key

NOTE: Please allow a few moments for the Trusted Application Key to propagate through the GroupWise system before testing it. You may proceed without testing the key but if you want to test it, please allow the time for the key to propagate through the system.

X Cancel

5) When the key has been generated, enter the name of a valid user on your post office and test the key by clicking "Test Trusted Key". You will be asked to log in to GroupWise for this user.

Step Retain continu	ip - TrustKey alling lease wait while Setup installs	TrustKey on your computer.	generate a trusted application
Select GroupWise domain dat Domain Directory: Generate key for product: Generated Key: Test trusted key for this ma	Novell GroupWise S User ID (Required): Password: Online Address: Caching mailbox path: Remote mailbox path:	Itariup Image: Color colin Image: Color 192.166.10.96 Port: 1677 Image: Color OK Cancel	
All Gro DNS h may m PO Host Name	7404	Car	prease specify me default po the Retain Server. In some o
GWAVA Trusted Applicati	ion Creator		
Domain Directory:	F:\gwsys\gw2dom\wp	odomain.db	Create Trusted Key
Generate key for product: Retain		Test Trusted Key	

6) Once your login was successful, you know that both your trusted application key and the SOAP mechanism are working properly. The trusted application key is now copied to your clipboard so you can paste it to the Retain configuration page.

Generated Key:

Test trusted key for this mailbox: Login for: Colin James was succesful

03E633610DC00000B64CEC00FF007B0003E633620DC00000B64CEC00FF007B00

Appendix I Mobile Registration Email variables

The Retain registration email template,

(...\RetainServer\WEB-INF\classes\config\mobile\registeruser.html), has many variables which allow for a customization of the registration email. There are a few variables which must remain unchanged, but the rest may be removed or modified, as desired, to adapt the email to any organization.

This is a quick description of the different variables, and which can be modified. They are distinguished by double brackets "[[" and "]]". The Retain Server code that sends out the email sets these variables with the product specific and user specific information.

Typically, only #1 will want to be changed – for use in mobile device management software. If an admin wishes to make the registration email to look like it is coming from their company, they should modify #'s 1-2, 6-9. However, variables 6-9 may be simply removed if the admin doesn't want users to know what they are using.

- 1. your install location This is typically the main variable to change. This variable is not included by default in the email to allow admins to utilize mobile device management software to push the Retain app to devices. It may be included in the email and filled in with the app's location so it can be manually downloaded to devices.
- 2. product This is automatically filled out with the Retain product name. Admins may set this to be the company name. This variable is used in the subject and the body of the email message.
- 3. retainheader This is automatically filled with the Retain product logo. Admins may set this to any branding or company image file. This must be an image file.
- 4. name Each user's individual username will be input here. This should not be changed.
- 5. gwavaURL Automatically filled-in with a link to the GWAVA website.
- 6. gwavaURLLabel This determines text displayed for the gwavaURL link.
- 7. productNameURL This is automatically filled-in with a link to the product website.
- 8. productNameLabel This determines text displayed for the productNameURL link.

The registration code and information in that variable MUST NOT CHANGE. This information is generated by the device management page when the device is added.

The following variables MUST NOT CHANGE. DO NOT MODIFY THE FOLLWING:

enrollmentCode: This is generated when the device is created on the device management page. tenantid: This is static number for retain. Displayed on the mobile page from Module Configuration.

email: This is from the Device Management page. name: This is from the Device Management page.

endpoint: This is the address of the Retain Server

rouerURL: This is pulled from the mobile page of Module Configuration.

activateHREF: This is an identification string, a link specific to the user and installation.