

Retain 4.9.2

Configuration and Administration

May 2021

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Contents

Preface	7
About Retain	7
About This Guide	7
For Documentation Feedback	7
To Join the Retain Idea Exchange	7
For Additional Documentation	7
To Contact Technical Support	7
For Sales	7
For Professional Services	7
 1 Configuration	 9
Rules Configuration Page	9
Core Settings tab	9
Conditions tab	10
Actions tab	11
Connecting Retain and the Message Router	12
How Mobile Message Routing Works	12
Setting Up the Retain Message Router	13
Setting Up the Retain Cloud Router	13
Retain Message Router Configuration Page	13
Communications tab	14
Storage tab	15
Logging tab	15
Retain Message Router Console	16
Storage Manager	18
Standard Engine Panel	19
Legacy Engine	19
Centera Storage Device	20
NetApp SnapLock	20
Partitions	21
Stubbing Server	22
Stubbing Server Overview	22
Prerequisites	23
Stubbing Install	24
Stubbing Configuration	25
Retain Stubbing Server Page	28
Configure Stubbing Server	30
Stubbing Server Administrative Console	31
Performing Retain Searches Within The GroupWise Client	34
Configure Stubbing To Remove Messages from GroupWise and Leave Only Stubs	36
Mailbox Mapping Options	39
Mailbox Mapping Enabled	40
Never	40
Once, Address Book Cache only	40
Always, all processes	41
XML File	41
Mailbox Mapping View From The User Mailbox	42
GroupWise Disaster Recovery Integration	43
A Brief Review on How GroupWise Disaster Recovery Works	44
How Retain Takes Advantage of the Features of GroupWise Disaster Recovery	45
Multiple Workers on One Server	46

Timing.	46
Retain Settings.	46
How to Setup GroupWise Disaster Recovery to work with Retain.	48
IMPORTANT Notes for the Integration.	54

2 Server Configuration 57

Communications Tab.	57
Database Connectivity Panel.	58
Notification Panel.	59
Retain Server Connection Panel.	59
Cloud Mobile Service (CMS) Proxy Connection Panel.	60
Index Tab.	61
Indexing Engine Panel.	62
Indexing Panel.	64
Rebuilding Indexes Panel.	64
Storage Tab.	66
Storage Panel.	67
Storage Encryption Panel.	68
Accounts Tab.	72
Account Management Panel.	73
NetIQ Advanced Authentication Configuration Panel.	75
Office 365 End User Authentication Panel.	76
KeyShield SSO Panel.	76
Intruder Lockout Panel.	77
Maintenance Tab.	78
Maintenance/Caching Panel.	79
Ignore Domains Panel.	80
Logging Tab.	80
Logging Panel.	81
Auditing Panel.	82
Miscellaneous Tab.	82
Miscellaneous Panel.	83
Module Forwarding Tab.	83
SMTP Forwarding for Modules Panel.	84
FTP Forwarding for Modules Panel.	85
REST API Tab.	86
License Summary Panel.	87
Submit License Panel.	87
REST Collectors Panel.	88
Digital Certificates Tab.	88

3 Management 91

Users.	91
Settings Tab.	92
User Rights Tab.	95
Mailboxes Tab.	98
GroupWise Proxy Support.	100
Creating Users.	101
Creating a Retain Only User.	102
Groups.	102
Settings Tab.	103
Group Rights Tab.	106
MailboxesTab.	109
Creating a New Group.	109
Authentication.	110
General Account Control.	110

Understanding Retain's Multi-factor Authentication	110
Multi-factor Authentication Setup	112
Account Linking	113
Link Accounts	113
Split Accounts	115
Device Management Overview	117
Searching for Devices	118
Deleting Devices	118
Generating Reports	118
Mobile Device Management	118
Mobile Device Management Overview	118
Deleting Mobile Devices	156
Blackberry Device Management	156
Blackberry Device Management Overview	156
Blackberry Device Management	157
Deleting Blackberry Devices	158
Generating Reports	158
Jobs	159
Starting a Job Manually	159
Stopping a Job	160
Workers	162
Removing a Worker Bootstrap and Re-uploading	162
System Log Option (Overview)	163
Location of Log Files	164
Auditing Option (Overview)	164
Deleting Data	167
Deleting Mailboxes	168
Deleting Items	170
Deleting Individual Messages	177
Deletion Report and Logging	177
Litigation Hold	177
Add User	177

4 Reporting and Monitoring Server 179

Installing a Reporting and Monitoring (R&M) Server	179
Configuring the R&M Server	179
Reporting and Monitoring Administration Console	182
Home Tab	183
Reports, Scheduled Reports, and Manage Scheduled Reports Drop-down Lists	187
System Monitor Tab	187
Mailbox Error Monitoring Tab	189
Maintenance Tab	190
Defining, Scheduling, and Managing Retain Reports	191
Comparing Reports and Scheduled Reports	191
Creating Scheduled Reports—Overview	192
Configuring Email Delivery of R&M Reports	194
Managing Scheduled Reports	195
Retain's Reports	196
Audit User Activity	196
Export Audit Table	197
Job Run Averages	198
Job Run Summary	199
Job Summary	200
Archive Summary by User	202
Archive Summary by Module	204
Server Utilization	205
Job Run Mailbox Summary	206

Job Mailbox Summary	207
Device Management	208

A About Retain 211

About and Diagnostics Page	211
Diagnostic Buttons	213
Retain Component Licensing	216
Apache 2.0 License	216
LGPL – GNU Lesser General Public License	219
BSD License – Individual Component Licenses	221
ANTLR 3 License	221
ASM	222
DOM4J	222
JDOM	223
XStream	224
PAL Artistic License	224
Bouncy Castle APIs	226
PDF Box	226
WSDL4J	228
BSD License	231
Open Software License v. 3.0	232
Mozilla Public License Version 1.1	234
GNU GENERAL PUBLIC LICENSE	241
Bitstream Vera Fonts Copyright	246
Arev Fonts Copyright	247
Java Util Concurrent Public Domain	247
SLF4J MIT License, below	249

Preface

About Retain

Retain Unified Archiving

- ♦ Archives email and text messages.
- ♦ Catalogs them for search and retrieval.

Retain is not a backup/restore system.

About This Guide

This is the administrative documentation for Retain Unified Archiving version 4.9.2.

For Documentation Feedback

Scroll to the bottom of the online page and enter a User Comment.

To Join the Retain Idea Exchange

Got an idea for a new Retain feature or enhancement? [Log in to Microfocus.com](#) and join the conversations happening inside the [Retain Idea Exchange](#).

For Additional Documentation

See the [Micro Focus Knowledge Base](#) website.

To Contact Technical Support

Browse to [the Micro Focus Support Page \(https://www.microfocus.com/support-and-services/\)](https://www.microfocus.com/support-and-services/) and begin typing *Retain Unified Archiving* in the **Search for a Product** field.

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Go to the [Micro Focus Contact page \(https://www.microfocus.com/en-us/contact\)](https://www.microfocus.com/en-us/contact).

For Professional Services

Contact Micro Focus Professional Services by sending an email to sales@microfocus.com or calling (877) 772-4450.

1 Configuration

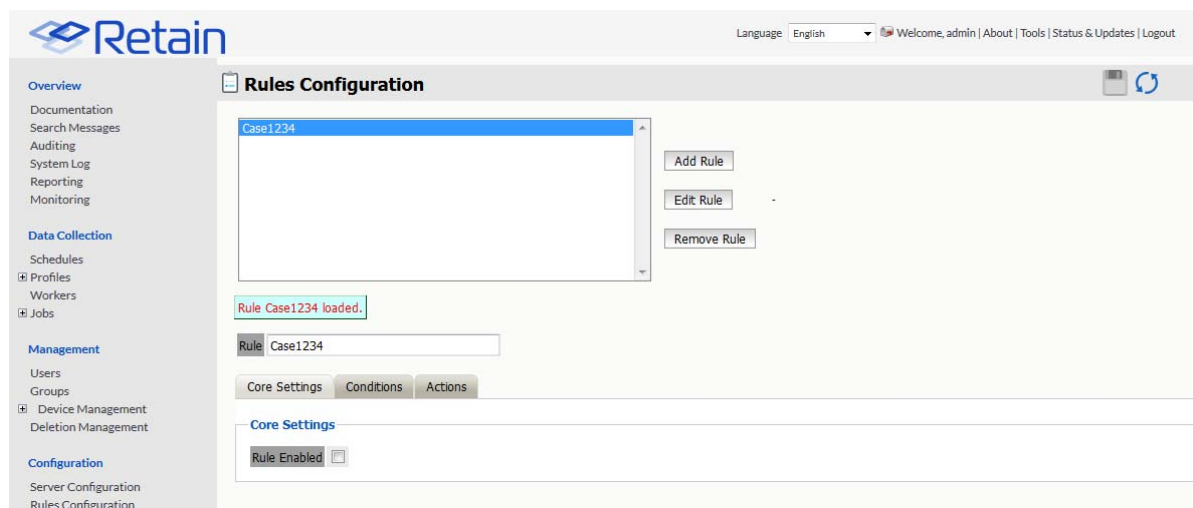
- ♦ “Rules Configuration Page” on page 9
- ♦ “Connecting Retain and the Message Router” on page 12
- ♦ “Retain Message Router Configuration Page” on page 13
- ♦ “Retain Message Router Console” on page 16
- ♦ “Storage Manager” on page 18
- ♦ “Stubbing Server” on page 22
- ♦ “Mailbox Mapping Options” on page 39
- ♦ “GroupWise Disaster Recovery Integration” on page 43

Rules Configuration Page

- ♦ “Core Settings tab” on page 9
- ♦ “Conditions tab” on page 10
- ♦ “Actions tab” on page 11

You can use Rules to automate tasks and administration.

Messages containing items or information specified in the criteria 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.



Core Settings tab

To create a rule, select the **Add Rule** button and name the rule. To make the rule active, select **Rule Enabled**.

Core Settings

Conditions

Actions

Core Settings

Rule Enabled

☒

Conditions tab

The conditions are the criteria which determine whether the action is applied to message data or not.

Core Settings

Conditions

Actions

Conditions

Set the conditions for this rule to be active. All the conditions must be fulfilled for the Actions to be performed.

Category

Starts with

Add Condition

✖

Subject Contains Undeliverable

Category list

Select the category that the criteria is to be restricted to, from the menu.

Category

Category

Department

Display Name

Domain Name

E-Mail Address

Attachment Name

First Name

From

Last Name

Location

Mailbox

PO Name

Private

Recipient

Sender Domain

Subject

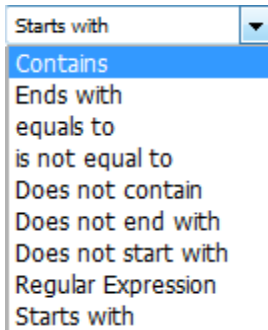
Title

Type

UID

Criteria

After a criterion is selected, the condition is entered in plain text or as a regular expression, and are separated into categories.

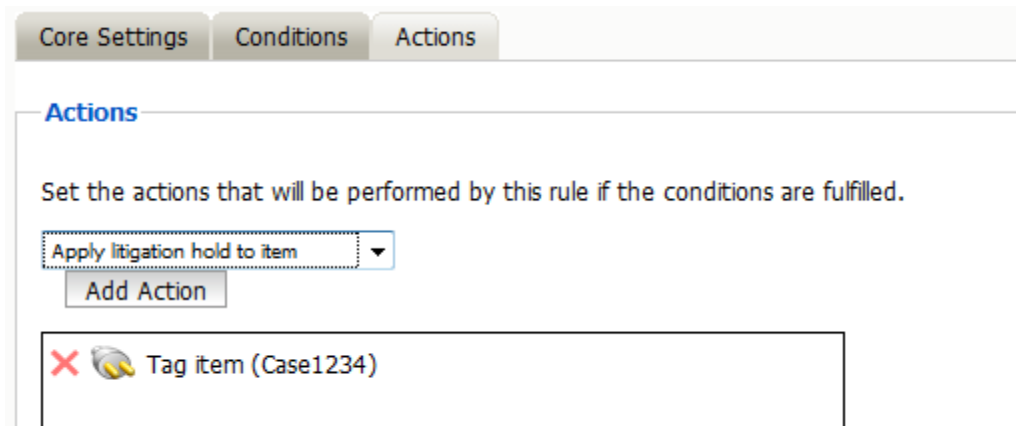


A dropdown menu for selecting criteria. The menu is open, showing a list of options. The first option, 'Starts with', is highlighted in blue. The other options are: 'Contains', 'Ends with', 'equals to', 'is not equal to', 'Does not contain', 'Does not end with', 'Does not start with', 'Regular Expression', and 'Starts with'.

The 'Starts with' menu further defines the criteria. The 'Starts with' menu also allows the administrator to either relax some constraints by selecting a vague entry like 'Contains' or 'Starts with', or specify the criteria with 'Regular Expression'. Select the appropriate limiter and then select the 'Add Condition' button. Multiple conditions may be added. Make sure to save changes before leaving the page.

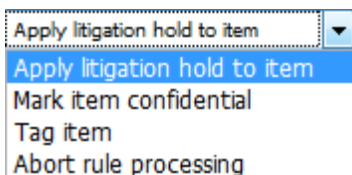
Actions tab

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



The 'Actions' tab interface. It has three tabs: 'Core Settings', 'Conditions', and 'Actions'. The 'Actions' tab is selected. Below the tabs, there is a section titled 'Actions' with a description: 'Set the actions that will be performed by this rule if the conditions are fulfilled.' Below this, there is a dropdown menu with the text 'Apply litigation hold to item' and a button labeled 'Add Action'. Below the button, there is a list of actions: 'Tag item (Case1234)'.

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.



A dropdown menu for selecting actions. The menu is open, showing a list of options. The first option, 'Apply litigation hold to item', is highlighted in blue. The other options are: 'Mark item confidential', 'Tag item', and 'Abort rule processing'.

Connecting Retain and the Message Router

- ♦ “How Mobile Message Routing Works” on page 12
- ♦ “Setting Up the Retain Message Router” on page 13
- ♦ “Setting Up the Retain Cloud Router” on page 13

How Mobile Message Routing Works

The Retain Message Router enables archiving services for mobile devices on the Internet, outside the firewall. Basic functionality is illustrated in [Figure 1-1 on page 12](#) and explained in [Table 1-1 on page 12](#).

Figure 1-1 Retain Message Router Functional Overview

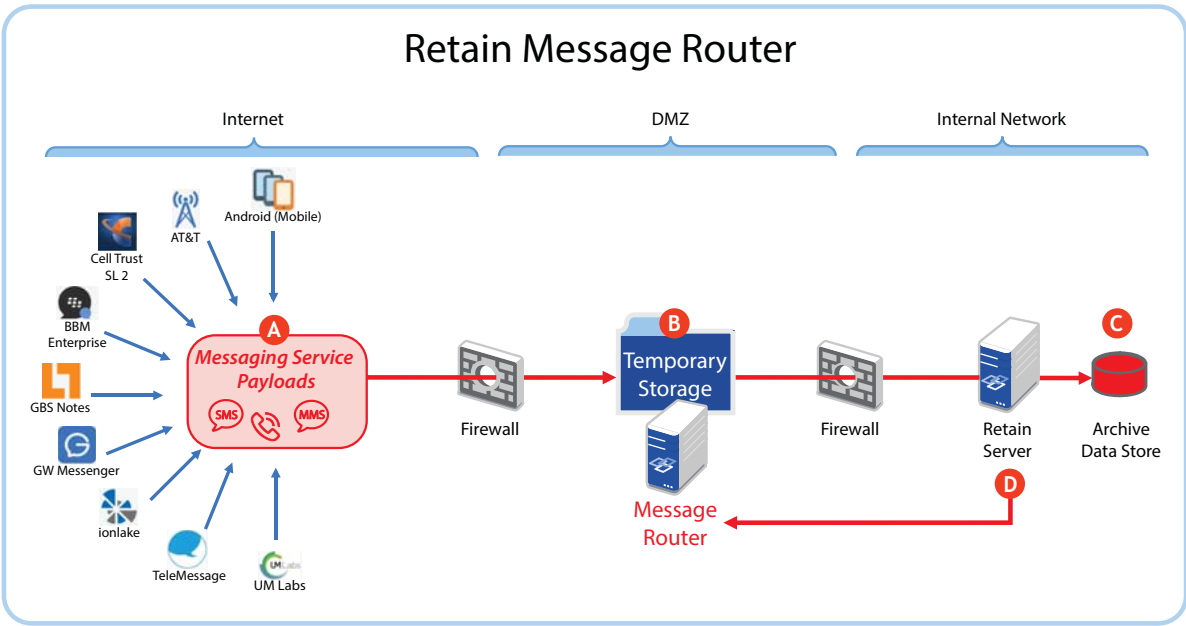


Table 1-1 Job Component Information and Links

Letter	Brief Description
A	Messaging platforms push message data (payloads) to the Retain Message Router.
B	The Message Router stores the payloads in a temporary storage area, which you create while setting up the router and connecting it to Retain.
C	When the Message Router sends the payload to Retain, it archives the messages in the data store.
D	When archiving completes, Retain confirms to the Router, which then deletes the payload from its temporary storage area.

Setting Up the Retain Message Router

To connect a Message Router to Retain, you must do the following:

- 1 Install the Router software on a server in the DMZ, as illustrated in [Figure 1-1 on page 12](#).
For instructions, see “[Installing a Retain Message Router on Linux](#)” or “[Installing a Retain Message Router on Windows](#)” in the *Retain 4.9.2: Installation and Upgrade* guide.
- 2 Create a directory on the Router server for temporarily storing message payloads. For example, you might create a directory named `temp-store` inside the `Retain` folder.
You specify this location when setting up the Retain Message Router in [Step 5](#) below.
- 3 In the [Retain Server Manager > Configuration > Server Configuration > Communications tab > Retain Server Connection panel](#), make sure the settings for connecting to the Retain server are correct, as described in “[Retain Server Connection Panel](#)” on [page 59](#).
- 4 In the [Retain Server Manager > Configuration > Router Configuration > Communications tab > Message Router Connections panel](#), enter the hostname or IP address of the server the Router agent software resides on. Make sure that the Port and Security match the Retain Server Connection settings from [Step 3](#) above.
- 5 Under the Storage tab, enter the storage path you created on the Router server after installing the Router agent. Be sure to specify the path from the perspective of the router. It can be a full drive path, or a path relative to the `/Retain` installation directory on the Router.
- 6 Under the Logging tab confirm that the log level is Diagnostic (Trace) and old logs are removed after a few days.
- 7 Click **Save Changes**.
- 8 Click **Test Connection** to connect to the router and send the configuration information to it.
You can now access the router’s console. For more information, see “[Retain Message Router Console](#)” on [page 16](#).

Setting Up the Retain Cloud Router

After you purchase the Cloud Router:

1. In [Retain Server Manager > Configuration > Router Configuration > Cloud Router Configuration](#), enable **Connected to Cloud Router**.
2. Click **Generate Credentials**.
3. The Message Router generates a Key and Secret.
4. Click **Save Changes**.
5. Contact your Sales Engineer, who gives the Key and Secret to the Micro Focus Cloud team.
6. Complete any other instructions received from the engineer and team.

Retain Message Router Configuration Page

Path: [Retain Server Manager > Configuration > Router Configuration](#)



For tab information, see the following sections.

- ♦ [“Communications tab” on page 14](#)
- ♦ [“Storage tab” on page 15](#)
- ♦ [“Logging tab” on page 15](#)

NOTE: Although this sets up a connection with the Retain Message Router, it does not require installing the Router software on the Retain server.

Communications tab

The Communications tab sets communications parameters for the Retain server to communicate with the Message Router.

Path: [Retain Server Manager](#) > [Configuration](#) > [Router Configuration](#) > [Communications tab](#)

Table 1-2 Using the Communications tab

Field, Option, or Button	Information and/or Action
Tenant ID Panel	
This identifies the Retain server to the Message Router and other REST applications.	
♦ Tenant ID	♦ Retain automatically creates this the first time you open the page.
Message Router Connections Panel	
This provides the Retain server with network contact details for the Message Router.	
The Router should be installed in your network’s DMZ so that Retain is behind the firewall and not directly exposed to the Internet.	
♦ Host	♦ Host name or IP address of the server where the Router software is installed.
♦ Port	♦ Port on which Retain and the Router communicate. Defaults: SSL = 443, Plain Text = 48080.
♦ Security	♦ SSL (default) or Plain Text
♦ Test Connection button	♦ Make sure you click this to verify that the connection with the Message Router is working.
Cloud Router Configuration Panel	
♦ Connected to Cloud Router	♦ Enable this if you are setting up and using the Retain Cloud Router.
♦ Key	♦ Retain generates this when you click the Generate Credentials button.

Field, Option, or Button	Information and/or Action
♦ Secret	♦ Retain generates this when you click the Generate Credentials button.
♦ Local URL	♦ The Retain server's complete URL, including its port, for use by anyone to reach the Retain server. For security reasons, Micro Focus recommends always using SSL (port 443) rather than Plain Text.
♦ Use Message Router Connections	♦ Enable this to have the Cloud Router send data to the Message Router rather than to the Retain server. This assumes, of course, that a Message Router is also installed. Otherwise, the Cloud Router should use a secure connection (SSL) for data transfers to Retain.
♦ Get Connection Status	♦ Click this to get status for the Cloud Router connection to Retain.
♦ Generate Credentials	♦ Click this to generate credentials for Retain to use in communications with the Cloud Router.

Storage tab

The storage tab contains the path to the temporary storage location that you create on the Message Router.

Path: [Retain Server Manager](#) > [Configuration](#) > [Router Configuration](#) > [Storage tab](#)

Table 1-3 Using the Storage tab

Field, Option, or Button	Information and/or Action
Message Router REST Storage Panel	
The Router stores data here (usually for only a few seconds but longer if needed) before sending it to Retain.	
♦ Storage Path	♦ You create this when setting up the Message Router. See “Installing a Retain Message Router on Linux” and Installing a Retain Message Router on Windows .

Logging tab

The logging tab contains settings to enable logging, dictate the logging level of the Router, and settings to purge old logs from the system after a specified age.

Table 1-4 Using the Logging tab


Field, Option, or Button	Information and/or Action
Message Router Logging Options Panel	
♦ Logging enabled	♦ Select this to enable Message Router logging.
♦ Log level	♦ Select a level of events to log: Diagnostic (Trace), Verbose (Debug), Normal (Info), Error Only.
♦ Compress logs	♦ Select this to store the logs using file compression.
♦ Remove old logs	♦ Select this to prevent the log directory from running out of disk space.
♦ When age exceeds (days)	♦ Set this to the number of days you want log files kept before deletion.

Retain Message Router Console

After installing the Retain Message Router and connecting to it from the Retain Server, you can access its console.

Using an administrative browser, enter the following URL and sign in as the Retain administrative user on the Retain server connected with the router.

Path: `http://routing-server-IP-or-DNS/RetainRouter`


Welcome, admin [Help](#) [Logout](#)

Message Router
Show Log
Test Server Connection
Upload Pending Payloads

Router Time: 11:21:45 AM

Retain Server: <http://retain2.qiprwa.com/RetainServer>

Tenant ID: 7f828252-8f6f-44f1-8089-d46cb22994d4

Storage Path: /retain/rest

Archive Inbound: true

Archive Outbound: true

Daily Mobile Stats

Date	SMS - Enabled	MMS - Enabled	Phone - Enabled	Total
2020-08-27	0	0	0	0

Mobile Device List

Display Name	Device ID	E-Mail	Last Connection
APurcell_Resource01	8J0LEQ2V0JGO1ZDF1NV9DBV1	apurcell_resource01@qiprwa.com	
Device8379324	8379324	8379324@karnet.com	
RetainService Emulator	Q73RCR46C1TVACH0SW17O1S0	RetainService@gmail.com	
nexus green afw	UNZC0A9YOJ8WXDEAAV1K58SX	nexusgreen@retainmobile.com	
Device1666910	1666910	1666910@karnet.com	
Test	123456789	test@qiprwa.com	
AppleiPhone6	EB4EFQEI9MIXOB54U7W34W4N	appleiphone6@qiprwa.com	

Retain REST API Statistical Data

Payloads Pending Upload: 0

Uploaded Payloads Pending Deletion: 0

The Message Router console lets you view the devices that connect to Retain through the router and the state of temporarily stored communications (payloads) waiting to be transferred to Retain.

Table 1-5 Using the Message Router Console

Field, Option, or Button	Information and/or Action
Information block	<p>The upper-left section shows the following configuration settings:</p> <ul style="list-style-type: none"> ♦ Retain Server: The DNS name of the Retain server. ♦ Tenant ID: The automatically generated ID used to verify connections with the Retain server. ♦ Storage Path: The temporary storage directory for data waiting to be transferred to Retain. ♦ Archive Inbound: The state of data coming from mobile carriers. ♦ Archive Outbound: The state of data transferring to Retain for archiving.
Show Log button	1. Click this to view the Message Router log file.
Test Server Connection button	1. Click this to verify the connection to the Retain server is working.
Upload Pending Payloads button	1. Click this to immediately upload the message data that is accumulated in the temporary storage directory to the Retain server.

Field, Option, or Button	Information and/or Action
Daily Mobile Stats	A daily count of devices with each of the supported message types.
Mobile Device List	Information about each device that has had messages routed through the Message Router. Sort any column by clicking its header.
Retain REST API Statistical Data	Information about the current state of message data payloads.

Storage Manager

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

Storage Manager

Here, you may configure the storage engine to use with Retain. The Standard engine stores all attachment and e-mail pieces directly on a standard drive mapping. This engine works with all platforms.

Other engines include:

- Centera - Used to store files on the EMC Centera storage devices.
- NetApp SnapLock - Used for configuring the NetApp SnapLock feature. This is optional - NetApp works without it. It is used to ensure compliance.

Regardless of which engine you select, substantial disk space may be consumed locally as well. (The default drive-based engine consumes the most space).

Restarting Tomcat after changing the Storage Engine configuration is strongly advised.

Storage Engine: Standard Engine. Store directly on locally accessible drives.

Standard Engine

The Standard Engine supports file consolidation. This is particularly useful when archiving smaller messages. This option is recommended only if archiving mobile or social messages.

Note: You can alter the the storage paths in the Storage tab of the [Server Configuration](#) menu option.

Enable file consolidation? ☐

Last Access Date ☐ Set Last Access Date according to Expire Date

In addition, if desired, you may define and remove "partitions" [here](#).

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 |Storage Tab.

Standard Engine. Store directly on locally accessible drives.

Standard Engine. Store directly on locally accessible drives.

Centera Storage Device

NetApp SnapLock

The other two options are:

- ♦ Centera Storage Device
- ♦ NetApp SnapLock

Standard Engine Panel

Storage Engine

Standard Engine. Store directly on locally accessible drives. ▼

Standard Engine

The Standard Engine supports file consolidation. This is particularly useful when archiving smaller messages. This option is recommended only if archiving mobile or social messages.

Note: You can alter the the storage paths in the Storage tab of the [Server Configuration](#) menu option.

Enable file consolidation?

☐

Last Access Date

☐

Set Last Access Date according to Expire Date

In addition, if desired, you may define and remove "partitions" [here](#).

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

Partitions Sub-panel

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: /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 Path

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 server IP address or DNS name, and the authentication method.

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, (/retain/license).

Authentication Method Anonymous ▾

The different Authentication options are PEA and Credentialed.

The PEA requires the full path to the PEA file.

Authentication Method PEA ▾

PEA Path (full path)

For a credentialed authentication, simply input the username and the password for the Centera server.

Authentication Method Credentialed ▾

User

Password (Password is not set)

NetApp SnapLock

NetApp is fully supported with SnapLock for storage. Note the information in the option. To enforce WORM rules you MUST set the Job Expiration feature. Also set the IP address, user name, 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 specifying 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, Windows, or UNC path. There is no definite correlation for example between this path and a share path. It uses the NetApp format, and must point to the directory containing all of the Retain blob files. Consult your NetApp Technical Support for more information on this or on enabling SnapLock.

Enable SnapLock?	No	
NetApp Server/IP		
Port	80	
Admin User		
Admin Password		(Password is not set)
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 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)

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: /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	

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.

NOTE: 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 Storage Tab.) Removing a designated partition in the management console does not delete the storage directories or 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

Retain has the ability to use the Stubbing capabilities of GroupWise. Stubbing was designed as a way to reduce disk space usage in a time when the cost of disk space was at a premium. This is less of an issue today.

- ♦ [“Stubbing Server Overview” on page 22](#)
- ♦ [“Prerequisites” on page 23](#)
- ♦ [“Stubbing Install” on page 24](#)
- ♦ [“Stubbing Configuration” on page 25](#)
- ♦ [“Retain Stubbing Server Page” on page 28](#)
- ♦ [“Configure Stubbing Server” on page 30](#)
- ♦ [“Stubbing Server Administrative Console” on page 31](#)
- ♦ [“Performing Retain Searches Within The GroupWise Client” on page 34](#)
- ♦ [“Configure Stubbing To Remove Messages from GroupWise and Leave Only Stubs” on page 36](#)

Stubbing Server Overview

The Stubbing server has two abilities:

1. Enabling Retain Archive search [“Performing Retain Searches Within The GroupWise Client” on page 34](#) from the GroupWise desktop client.
2. Removing items [“Configure Stubbing To Remove Messages from GroupWise and Leave Only Stubs” on page 36](#) from GroupWise and leaving stub pointers to the data in the Retain Archive. This functionality CANNOT be reversed. *We do not recommend enabling this functionality.*

How Retain Interacts With GroupWise Stubbing

When GroupWise is set up for stubbing and the Stubbing Server is configured in Retain, the archive job that runs will archive all the items and place in their stead in the GroupWise mailbox a "stub". Since the actual message gets placed into the Retain system, GroupWise replaces the original message with a stub that points to the message residing in Retain. A user's GroupWise mailbox will look the same - the user will see a list of messages; however, the icon is different.

When a user clicks on a stubbed message, the GroupWise POA will send a request to the Retain Stubbing Server for the item. Retain sends the item to the POA and the client displays it; however, this does NOT place the message back into GroupWise. When the user closes the message, the stub is all that remains.

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.
- ♦ The "Restore" feature in Retain can be enabled. However, it does not actually restore the message into GroupWise. It only restores the stub if the stub is missing (user deleted it).

Why Stubbing May Not Work for a System

- ♦ *Stubbing CANNOT be reversed.* Once a message is stubbed, it cannot be returned to the same position in the system.
- ♦ *Stub items are NOT COMPATIBLE with third party APIs.* 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.
- ♦ User training for stubbed items may be necessary due to decreased access speed.
- ♦ No method for protecting stubs from deletion in the GroupWise client (re-creation is difficult and complicated).
- ♦ Non-mail items should not be stubbed (calendar and appointment items behave erratically when rescheduled).

Determine the correct option for your system. If you wish to enable Stubbing, you need to install and configure the Stubbing Server as well. If you wish to only stub large items in your mail server, 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.

Prerequisites

- ♦ You must be using GroupWise 8.0HP1 or greater.
- ♦ The GroupWise module must be configured. This means that a Trusted App Key exists for Retain to use already.

- ◆ Confirm that stubbing is *disabled* in *all* the GroupWise profiles:

Profile Name

Core Settings Message Settings Scope Miscellaneous Advanced

Profile Functions

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.

☒ Enable Archiving (store messages in Retain)

☐ Enable Stubbing (if items are already archived)

☒ Do not stub Calendar Items (Appointments, Notes, and Tasks)

☐ Stub only items exceeding a size threshold

Size Threshold (bytes)

Stubbing Install

If you did not install the Stubbing Server during the initial install of the Retain Server you can install it now.

Run the installer and click through to the point where the installer detects what you have installed.

Retain Installer 4.1.0.0

Retain has already been installed on this system with the following components:

Retain Server
Retain Reporting & Monitoring Server
Retain Worker

Choose one of these options:

- 1) Upgrade current installation of Retain
- 2) Upgrade current installation of Retain and add new components
- 3) Exit this installer

Choose (1-3): █

Choose "2) Upgrade current installation of Retain and add new components."

Retain Installer 4.1.0.0

Retain has already been installed on this system with the following components:

Retain Server
Retain Reporting & Monitoring Server
Retain Worker

Choose one of these options:

- 1) Upgrade current installation of Retain
- 2) Upgrade current installation of Retain and add new components
- 3) Exit this installer

Choose (1-3): 2

Choose components...

Install Retain Stubbing Server (y/n)?y

Install Retain Message Router (y/n)?n

Then tell the installer to Upgrade Retain, preserving configuration. The installer will stop tomcat, install the Stubbing server and restart tomcat.

Stubbing Configuration

GroupWise

Update Trusted Application Key

1. Go to the Retain Trusted App Key and enable "Allow access to archive service"
2. Set the Archive Service Address to the Retain server IP Address or hostname

3. Set the port to 48080 (the Retain tomcat port)

Retain

Name: Retain

Description: Trusted App key for Retain archiving

☐ Restrict use of the trusted app key to connections from:

Address:

Port: 0 ☐ Require SSL

☒ Provides Message Retention Service

☒ Allow access to archive service

Archive Service Address: 10.1.4.131

Port: 48080 ☐ Require SSL

OK Cancel

Now you have to decide if you are going to use stubbing on a particular Post Office or System wide.

Archive Service System Setting

If you are enabling stubbing across the entire system you will need to override the Archive Service Trusted Application setting in System Preferences.

Go to System | System Preferences.

Under Settings and Archive Service Trusted Application, enable the Override and select the Trusted Application Key that Retain is using.

System Preferences
Close

General
Settings

Administrator Lockout Settings

☒ Restrict System Operations to Primary Domain

☐ Lock Out Older GroupWise Administration Tools

Minimum Admin Tool Release Version(x.x.x)
14.2.0

Minimum Admin Tool Release Date(01/01/11)

Archive Service Settings

Default Archive Service Trusted Application:

Retain
None
Retain

Nickname Settings

Auto-create on User Move

☐ Never
☐ Always
☒ Prompt

Expire after: 30 days (0-365)

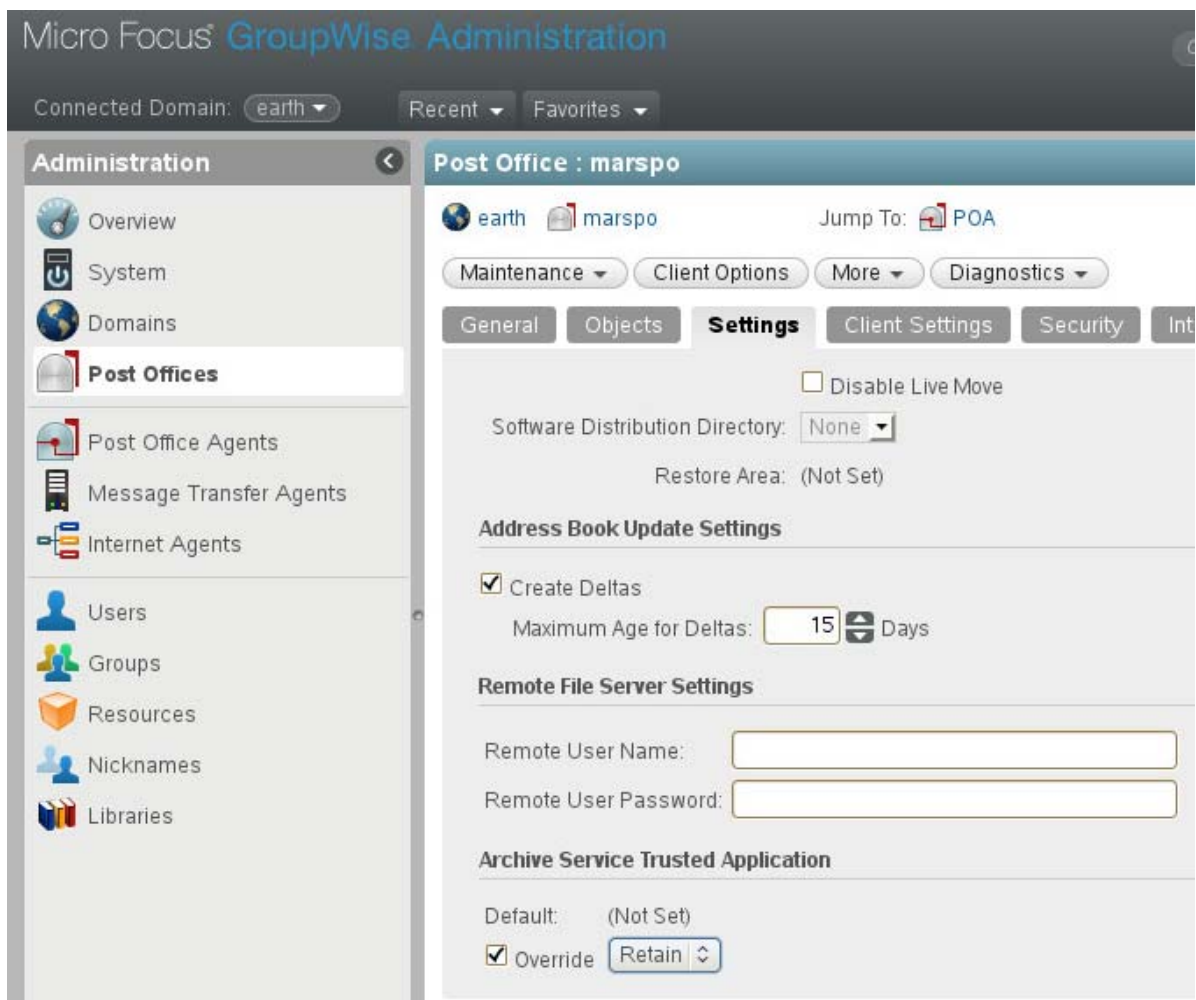
?
OK
Cancel

Archive Service Post Office Settings

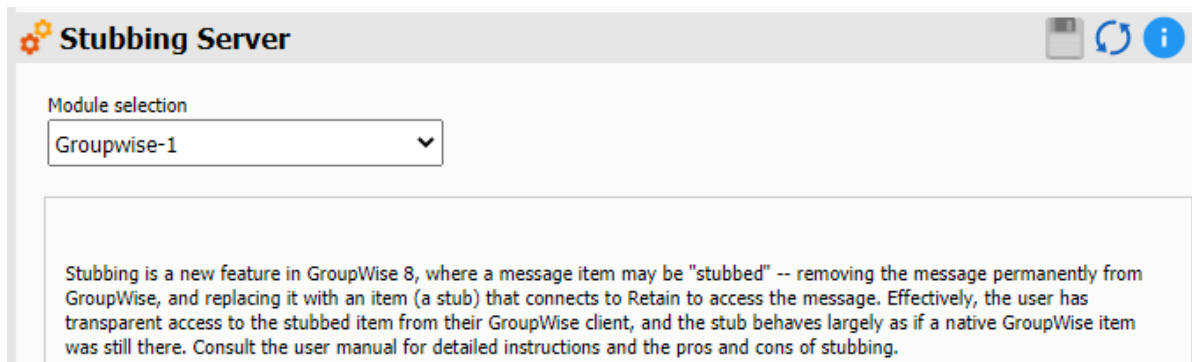
If you are just stubbing one, some but not all Post Offices you will need to override the Archive Service Trusted Application setting for each Post Office.

Go to the Post Office that will be stubbed.

Under Settings and Archive Service Trusted Application, enable the Override and select the Trusted Application Key that Retain is using.



Retain Stubbing Server Page



In Retain, open the Stubbing Server page from the left-navigation bar.

Core Settings tab

Check the box next to "Enable Stubbing Server"

You may restrict the IP addresses POA connections will be accepted from. Use commas to separate multiple addresses.

The screenshot shows the 'Core Settings' tab selected. It contains two sections: 'Basics' and 'Interval'. In the 'Basics' section, the 'Enable Stubbing Server' checkbox is checked, and there is a text input field for 'Accept POA connections only from these IP Addresses:'. The 'Interval' section has a label 'How often should the stubbing server poll for configuration changes?' and a value of '10' in a text input field followed by the word 'minutes'.

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.			
<input checked="" type="checkbox"/> Enable Stubbing Server			
Accept POA connections only from these IP Addresses: <input type="text"/>			
Interval			
How often should the stubbing server poll for configuration changes?			
Poll for configuration every <input type="text" value="10"/> minutes			

Logging tab

Set the logging level to Diagnostic (Trace)

The screenshot shows the 'Logging' tab selected. It contains a section titled 'Logging Options' with a table of settings. The settings are: 'Logging enabled' (checked), 'Log level' (set to 'Normal (Info)' in a dropdown), 'Compress logs' (checked), 'Remove old logs' (checked), and 'When age exceeds (days)' (set to '10' in a text input field).

Core Settings	Logging	Connection	Bootstrap
Logging Options			
	Logging enabled	<input checked="" type="checkbox"/>	
	Log level	Normal (Info) ▼	
	Compress logs	<input checked="" type="checkbox"/>	
	Remove old logs	<input checked="" type="checkbox"/>	
	When age exceeds (days)	<input type="text" value="10"/>	

Connection tab

If you have installed the stubbing server on a separate server you will need to specify the location of the Retain server so that it can connect.

Core Settings
Logging
Connection
Bootstrap

Retain Server Connection

The Stubbing Server will need to know how to connect to the Retain 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 **Stubbing Server contacting the Retain Server**, which may or may not match the URL you'd use from your browser to reach the Stubbing Server or Retain Server.

Server Protocol	http
Retain Server Host Name	localhost
Retain Server Port	48080
Retain Server Path	/RetainServer/
Stubbing Server Password (Password is set)

Note: Changing any of these parameters will require recopying the stubbing server bootstrap file!

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, which we do not recommend, change the Host Name to the DNS name or localhost (127.0.0.1).

Press "Save Changes" and the Bootstrap tab will appear.

Bootstrap tab

Click on "Download File" to save the bootstrap file.

Core Settings
Logging
Connection
Bootstrap

Boot Strap

The Stubbing Server software needs a special "bootstrap" configuration file copied to its working directory before it can function correctly. You may copy it manually or use a web browser to upload the file.
(<http://<RetainStubServeripAddress>:48080/RetainStubServer>)

[Download File](#)

Configure Stubbing Server

Browse to http://<Retain_Stubbing_Server_Address>/RetainStubServer or http://<Retain_Stubbing_Server_Address>:48080/RetainStubServer and upload the bootstrap.



Retain Stubbing Server

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.

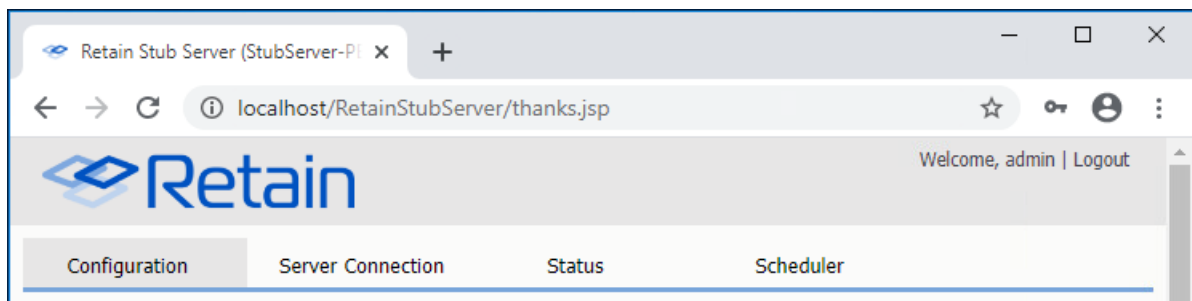
Without a bootstrap file the Stubbing Server will not know how to find the Retain server. After applying the bootstrap file any configuration changes made in the Retain Server will be polled by the stubbing server. You will not have to reconfigure the Stubbing Server manually unless you change the Connectivity settings configured in the Retain Server.

Upload Bootstrap Configuration

When the Configuration is complete, press 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.

Stubbing Server Administrative Console



Path: `http://stubbing-server-IP-or-DNS/RetainStubServer`

Log in to the console with the admin user.

You will then see the Stubbing Server Configuration tab page, which looks much like the Worker page.

Configuration Tab

The screenshot shows the 'Configuration' tab of the Retain Stubbing Server Manager. The interface has a top navigation bar with four tabs: 'Configuration' (selected), 'Server Connection', 'Status', and 'Scheduler'. Below the navigation bar, the 'Stub Server Configuration' section is displayed. It contains a table with the following data:

URI to Server	http://localhost:48080/RetainServer/
Stub Server Version	4.9.0
Memory Free/Max/Total	3265561/12582912/4194304

Below the table, there are two buttons: 'Check for New Version' and 'Refresh Configuration now'. A text instruction follows: 'Click "Refresh Configuration now" to prompt the Stubbing Server to poll for configuration changes right now.' At the bottom, a note states: 'Bootstrap information has been applied to this server. If the configuration must be changed in the future, replace the configuration file at C:\Program Files\Beginfinite\Retain\RetainStubServer\WEB-INF\cfg\ and restart the Stubbing Server.'

Path: [Retain Stubbing Server Manager](#) > Configuration Tab

Server Connection Tab

This tab will show you if the Stubbing server was able to connect to the Retain Server.

The screenshot shows the 'Server Connection' tab of the Retain Stubbing Server Manager. The interface has a top navigation bar with four tabs: 'Configuration', 'Server Connection' (selected), 'Status', and 'Scheduler'. Below the navigation bar, the 'Server Connection' section is displayed. It contains a single line of text: 'Successfully connected to Retain server'.

Path: [Retain Stubbing Server Manager](#) > Server Connection Tab

Status Tab

This tab provides statistics about what has been happening with the Stubbing server.

Configuration	Server Connection	Status	Scheduler
Status 3			
Up since	Tue Jun 30 14:25:56 PDT 2020		
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		

Path: [Retain Stubbing Server Manager](#) > Status Tab

Scheduler Tab

This tab is mainly used by support.

Configuration	Server Connection	Status	Scheduler
Scheduler Status			
To see advanced information regarding the thread scheduler, click here .			

Path: [Retain Stubbing Server Manager](#) > Scheduler Tab

Scheduler Advanced Information Tab

This tab is mainly used by support.

Configuration	Server Connection	Status	Scheduler
Scheduler Status			
To see advanced information regarding the thread scheduler, click here .			

Path: [Retain Stubbing Server Manager](#) > Scheduler Tab

Performing Retain Searches Within The GroupWise Client

Once GroupWise and the Stubbing server is configured to this point, it is possible to use the Retain Stubbing Server to allow GroupWise to search the Retain archive from the GroupWise client.

GroupWise client only performs whole-word searches. For example, searching for "wel" will only return messages with the word "wel" in them. Retain performs begins-with searches "wel*" and will return "wel", "well", "welcome" and so on.

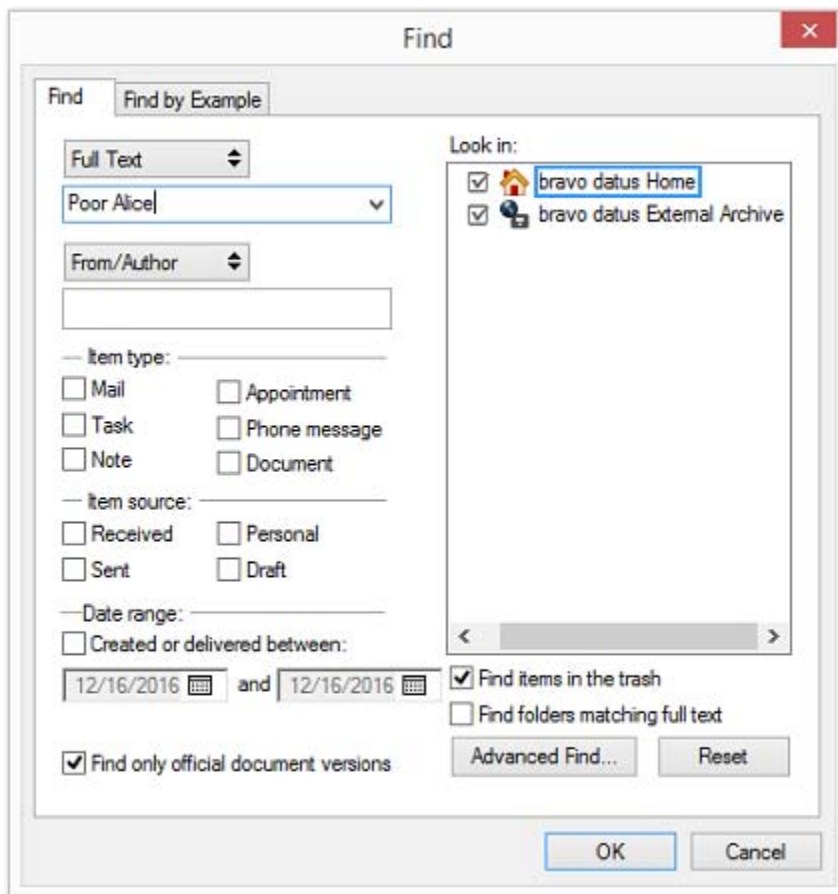
NOTE: GroupWise client is hard-coded to search only up to 5 years in an archive search.

Prerequisites

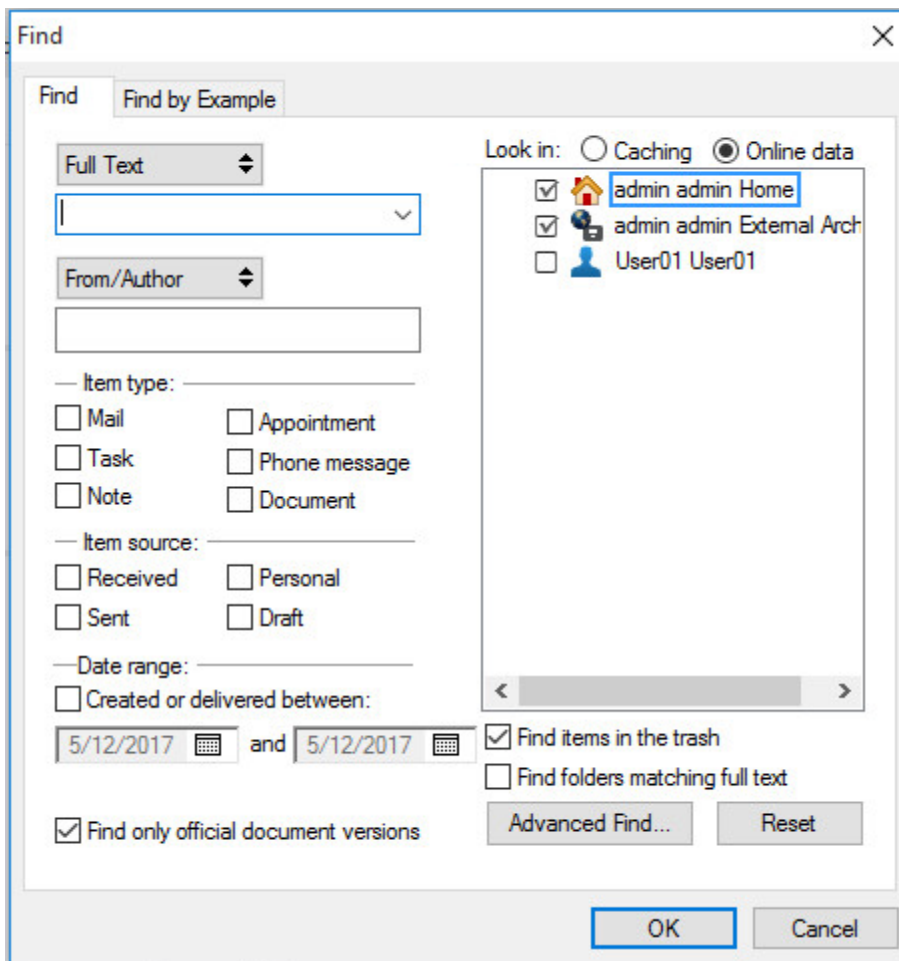
Setup Stubbing Server as above. However, do *NOT* enable stubbing in the Retain Profile.

In the GroupWise client click on the search magnifying glass icon. Under the Find tab you'll see an External Archive for the user that is the Retain archive.

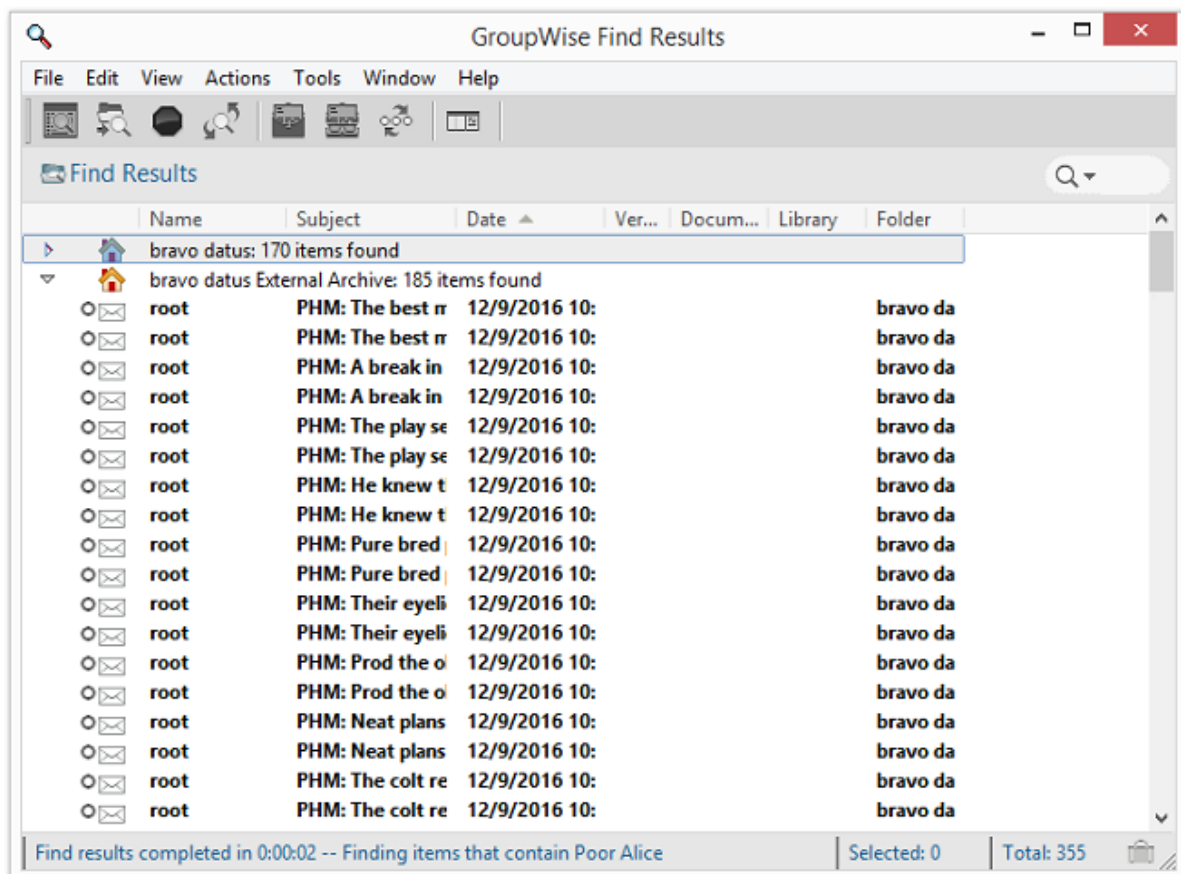
In *Online* mode, click the checkbox to enable the *External Archive* search.



In *Caching* mode, you will also have to set Look in to *Online data*.



Now a search will search not only the GroupWise mailbox but also the Retain mailbox. The Retain ones will show the empty circle stubbing icon for the messages it has.



Configure Stubbing To Remove Messages from GroupWise and Leave Only Stubs

Enabling Stubbing in the Profile will cause Retain to automatically delete items from GroupWise and replace them with a stub pointer to the Retain Archives. This will have effects, for example, you will be able to see the header data in GroupWise but not the message bodies or attachments, on viewing the items in anything other than the desktop client.

Once you start stubbing in the profile you cannot reverse it. We do not recommend this use of stubbing.

Once GroupWise and the Stubbing Server have been configured as above, you need to enable stubbing in the Profile.

Profile Name

Core Settings Message Settings Scope Miscellaneous Advanced

Profile Functions

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.

☒ Enable Archiving (store messages in Retain)

☒ Enable Stubbing (if items are already archived)

☒ Do not stub Calendar Items (Appointments, Notes, and Tasks)

☐ Stub only items exceeding a size threshold

Size Threshold (bytes)

Retain will show a popup warning of the effects of stubbing.

Warning: Groupwise will delete messages from the post office after they have been archived in Retain. Only use this option if you understand the implications to data integrity

WARNING: GroupWise will delete messages from the post office after they have been archived in Retain. Only use this option if you understand the implications to data integrity.

The next job that runs will delete items from GroupWise and replace them with stubs that point to the Retain Archives. Users will not be able to see anything other than the header data (Subject, to, from, date, &etc.) in WebAcc, or mobile clients. User will be able to read the whole message only in the desktop GroupWise client.

You would want to set the Date Range to Scan to "All Items in Mailbox" because what would be the point of stubbing only new messages.

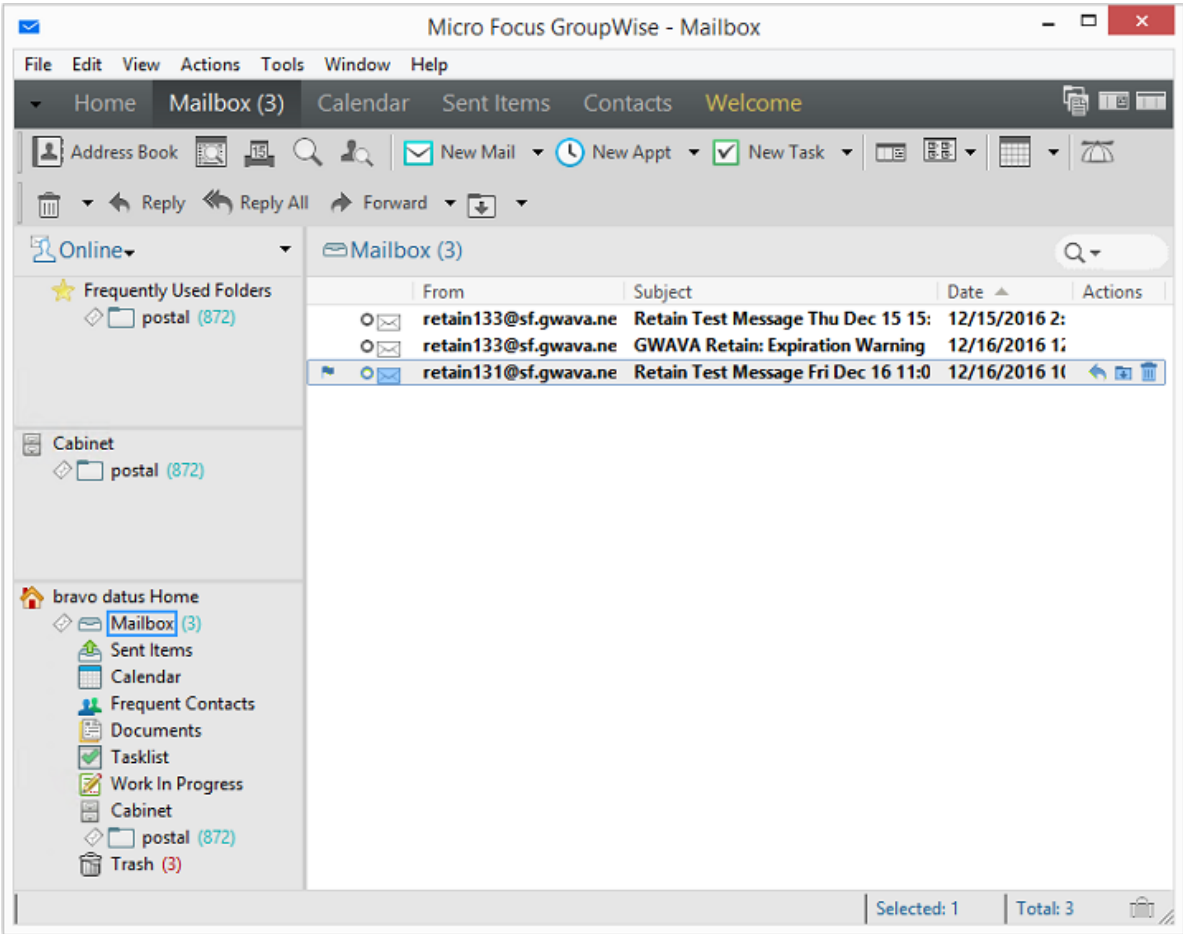
Set up the Job

You can set up the job to use the Stubbing profile and select the Mailboxes to a particular Post Office or a particular User.

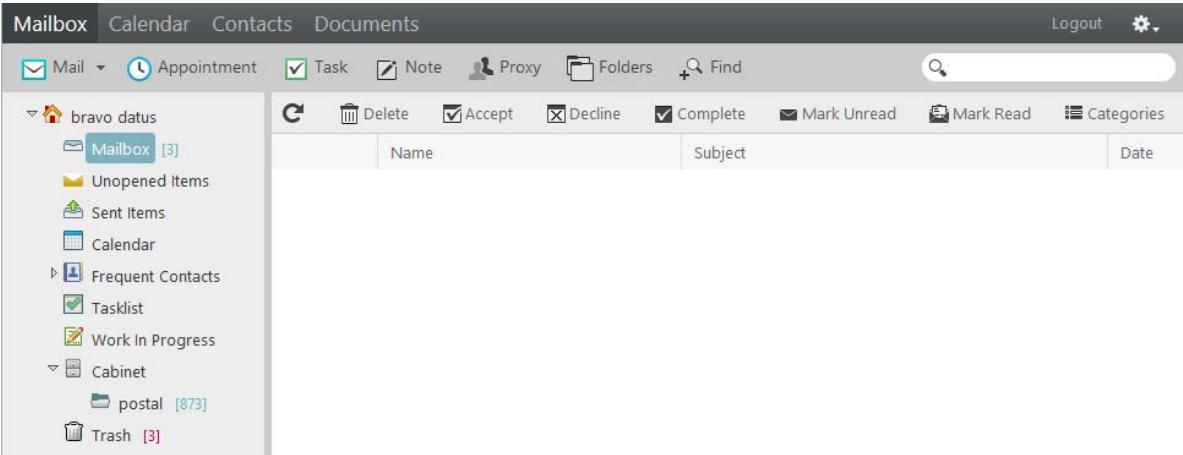
When the worker successfully dredges each item in the mailbox the item will be deleted and stubs placed.

GroupWise Client

In the GroupWise Client, messages that have been stubbed will be marked with an open circle icon. Opening messages may take a moment as the data is retrieved from Retain.



But in web access and third-party applications, you'll see nothing:



Mailbox Mapping Options

Mailbox mapping automates the merging of users' login names that have both GroupWise and Exchange accounts, combining the GroupWise and Exchange archives under the same user in Retain. Retain connects the internal GUID's of accounts to reflect the same user.

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. How Retain should map the users must be added to Active Mappings, and the options must be saved. Only then an Address Book refresh can be triggered. This needs to happen before the next server maintenance cycle, or the mapping may fail.

After mailbox mapping has been activated, an immediate caching of the address books of both systems is required.

Mailbox mapping is not necessarily permanent; however, splitting must be performed manually via the Mailbox Merger / Splitter tool found on the '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.

Go to Module Configuration and click the Mailbox Mapping Options button to reveal the tool.

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

Add

Custom

Description

Class

Accounts may be matched via email address, display names, and/or specified by an administrator supplied XML file. We generally recommend a combination of Email Addresses, Display Names and First and Last Names. The mapping will attempt to map by the first criteria and then continue down the list until it finds a match or not.

Active Mappings

Use an administrator-supplied XML file to bind the two accounts

Custom	Description	Class	
	Match the E-Mail Addresses	com.gwava.management.uid.EmailAddressUIDMapper	↑ ↓ ✕
	Match the Display Names	com.gwava.management.uid.DisplayNameUIDMapper	↑ ↓ ✕
	Match first and last name	com.gwava.management.uid.FirstLastNameUIDMapper	↑ ↓ ✕

Most organizations maintain a naming scheme from one system to the next which results in the email address being the same in both systems. For this situation, the email address match is the easiest and quickest way to map the users. For systems, which have listed the first and last name of each user, but have different email addresses, the name matching is the best option. The final option is for an administrator provided xml file to bind the accounts together is time consuming and requires the administrator to build a list of matching addresses with UUID's in both systems.

Match the Display Names

Match the E-Mail Addresses

Match the Display Names

Use an administrator-supplied XML file to bind the two accounts

Match first and last name

Any mis-mapped addresses may be corrected by using the Mailbox Merger/splitter utility found on the 'About' page. see the 'About and Diagnostics Page' section for more information.

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.

Mailbox Mapping Enabled

The settings here are designated for the different situations which a system migration may be in.

Mapping Enabled

Last time mappings were used

Never

Never

Once, Address Book Cache only

Always, all processes

Never

This setting disables mailbox mapping, and is to be used in most cases.

Once, Address Book Cache only

To migrate a system, or for systems which have already been switched over, where the old system is no longer being used, but is still running.

Always, all processes

For situations where both mail systems continue to have incoming, new mail, the mapping needs to be completed repeatedly, to keep the message data mapping to be accurate for newly archived mail. The Address Book is refreshed whenever the button is pressed, during the nightly maintenance cycle, and before each job.

XML File

The supplied XML file is the way for an administrator to manually dictate which addresses are to be mapped or tied together in the Retain system. This process is not recommended as it is time consuming and somewhat complicated. In general, it is likely quicker to use the Mailbox Merger/ Splitter tool from the 'About' page instead. Both situations require the administrator to know which email addresses are to be tied together before beginning.

The XML file requires the administrator to specify, in pairs, which addresses are to be tied.

The source address is the address from which the system is being migrated.

The destination address is the address which the user is the new system, or where the data is being migrated to.

The 'removeOrphanedEntity' option tells Retain to remove any unconnected entities left over. Default for the XML file is 'true', while the default in the Mailbox Merger/ Splitter tool is 'false'. By rule of thumb, if you are uncertain, don't remove it.

A sample XML file is provided and can be download from the 'Mailbox Merger/ Splitter' utility page, it is also shown below.

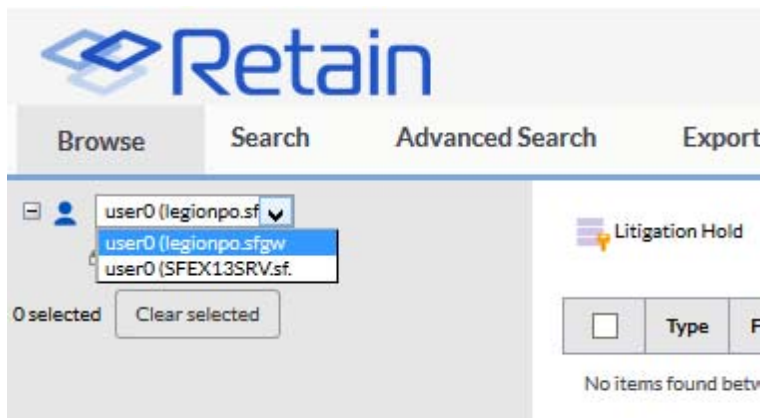
```

- <MergeTasks>
  - <tasks>
    - <MergeTask>
      <sourceMailbox>source0</sourceMailbox>
      <destinationMailbox>destination0</destinationMailbox>
      <removeOrphanedEntity>true</removeOrphanedEntity>
    </MergeTask>
    - <MergeTask>
      <sourceMailbox>source1</sourceMailbox>
      <destinationMailbox>destination1</destinationMailbox>
      <removeOrphanedEntity>true</removeOrphanedEntity>
    </MergeTask>
    - <MergeTask>
      <sourceMailbox>source2</sourceMailbox>
      <destinationMailbox>destination2</destinationMailbox>
      <removeOrphanedEntity>true</removeOrphanedEntity>
    </MergeTask>
    - <MergeTask>
      <sourceMailbox>source3</sourceMailbox>
      <destinationMailbox>destination3</destinationMailbox>
      <removeOrphanedEntity>true</removeOrphanedEntity>
    </MergeTask>
    - <MergeTask>
      <sourceMailbox>source4</sourceMailbox>
      <destinationMailbox>destination4</destinationMailbox>
      <removeOrphanedEntity>true</removeOrphanedEntity>
    </MergeTask>
  </tasks>
</MergeTasks>

```

Mailbox Mapping View From The User Mailbox

Once mailbox mapping is enabled the user will see a dropdown menu that will allow them to switch easily between their mailboxes.



GroupWise Disaster Recovery Integration

Micro Focus GroupWise Disaster Recovery and Micro Focus 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. GroupWise Disaster Recovery 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 GroupWise Disaster Recovery and Retain?

- ♦ GroupWise Disaster Recovery is very good at moving data efficiently from point A to point B.
 - ♦ It copies your post office data in its original form.
 - ♦ 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.
 - ♦ By having the backed up data available in its original form, it can serve as a data source for Retain.
 - ♦ GroupWise Disaster Recovery's backups are available the moment the backup job is complete.
- ♦ Retain moves a lot of data and needs strong network links to do so rapidly.
 - ♦ An archiving job moving "everything" will move all of the data. This may seem self evident but when you combine GroupWise Disaster Recovery with Retain, you can achieve the same thing by moving only 12% of the data.
 - ♦ If you don't integrate them, you will pull data twice over the link – once for GroupWise Disaster Recovery, and once for Retain. On top of that, if you don't have GroupWise Disaster Recovery and you only have Retain, you will definitely have to move your data twice.
 - ♦ By integrating GroupWise Disaster Recovery and Retain, you can centralize your archives and ensure good backups and achieve a single data pull.

A Brief Review on How GroupWise Disaster Recovery Works

No Helper Software Needed.

GroupWise Disaster Recovery 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. GroupWise Disaster Recovery 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 GroupWise Disaster Recovery 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. GroupWise Disaster Recovery 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.

GroupWise Disaster Recovery 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, GroupWise Disaster Recovery 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, GroupWise Disaster Recovery only need to copy the new data which is 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, GroupWise Disaster Recovery 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 GroupWise Disaster Recovery can achieve VERY fast backups. In addition, using GroupWise Disaster Recovery 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

GroupWise Disaster Recovery was made to backup live post offices and domains and it can also make backups of other GroupWise Disaster Recovery 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 GroupWise Disaster Recovery server in each location. The servers backed up the local post office in addition to making a backup of the GroupWise Disaster Recovery server in the other location. Thus, each GroupWise Disaster Recovery 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 GroupWise Disaster Recovery server in each office and one in the head office. The GroupWise Disaster Recovery server in the head office was set to back up the GroupWise Disaster Recovery servers in branch offices 1, 2, and 3. For Branch office 4, the GroupWise Disaster Recovery server in Branch office 2 was set up to back up the data from the GroupWise Disaster Recovery server in branch office 4 and then the head office was set to back this data up from the GroupWise Disaster Recovery 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 GroupWise Disaster Recovery server with another, you can achieve data centralization and redundancy. The redundancy also gives you the ability to use GroupWise Disaster Recovery for off-site disaster recovery.

Additionally, for client “B”, their old backup system moved all of the data every day. Using GroupWise Disaster Recovery, they managed to cut their network traffic by 88%.

How Retain Takes Advantage of the Features of GroupWise Disaster Recovery

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 GroupWise Disaster Recovery, 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 GroupWise Disaster Recovery to the mix, they are able to achieve huge bandwidth savings and performance gains.

GroupWise Disaster Recovery would be set up to centralize the data to one GroupWise Disaster Recovery 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 GroupWise Disaster Recovery 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. (For example: `./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 GroupWise Disaster Recovery 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, GroupWise Disaster Recovery 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 GroupWise Disaster Recovery 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 GroupWise Disaster Recovery are to assign the GroupWise Disaster Recovery password for the worker, assign the running jobs to use the GroupWise Disaster Recovery integration, (this setting is found in the Jobs configuration page in the Retain management console), and configure the Profile to use the Item store 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

Create or select a job which you desire to use against the GroupWise Disaster Recovery system, and select the GroupWise Disaster Recovery Tab. You must select the Enable GroupWise Disaster Recovery Integration option, as well as supply the correct connection address for the GroupWise Disaster Recovery 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 GroupWise Disaster Recovery is backing-up.

Save the changes.

To specify the GroupWise Disaster Recovery –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 correcting the bootstrap file.)

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	localhost
Server Port	48080
Server Path	/RetainServer
Worker Password (Password is default)

Note: Changing any of these parameters will require recopying the worker bootstrap file!

How to Setup GroupWise Disaster Recovery 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 GroupWise Disaster Recovery box.

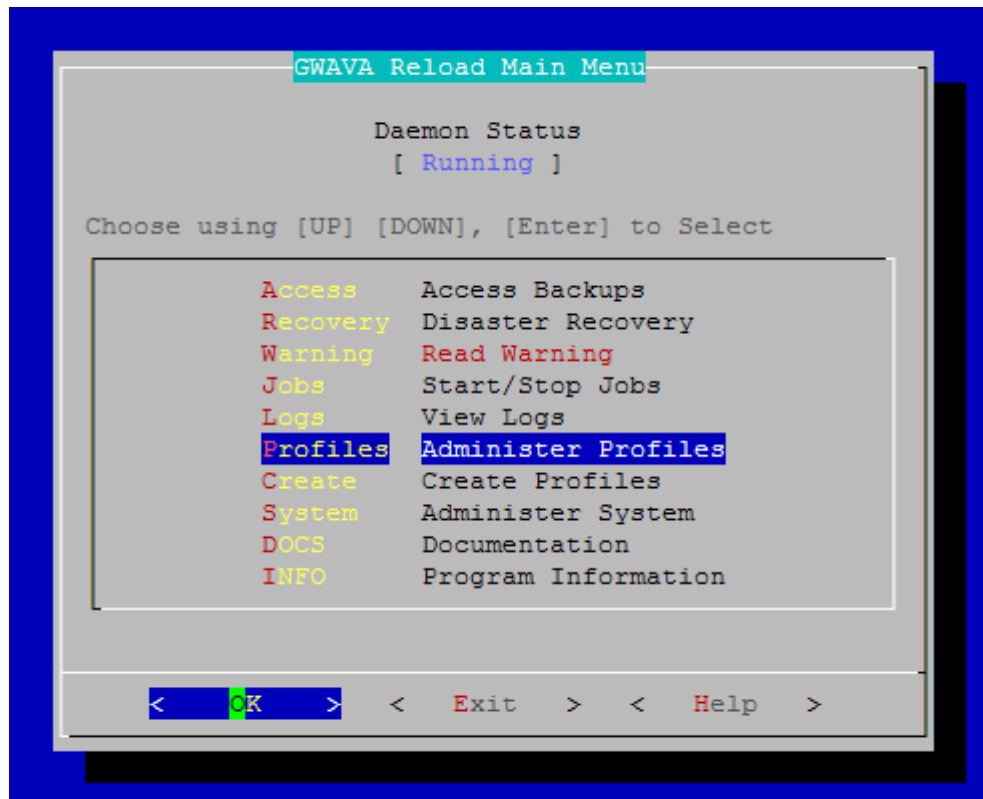
First, GroupWise Disaster Recovery must be set up so that the backups are available. There is a special feature in GroupWise Disaster Recovery for this. It calls up a post office agent that stays up all the time and it only goes down long enough to change to the most recent backup. So it will always be there with very small interruptions as the POA is brought down then up.

Setting up GroupWise Disaster Recovery 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.

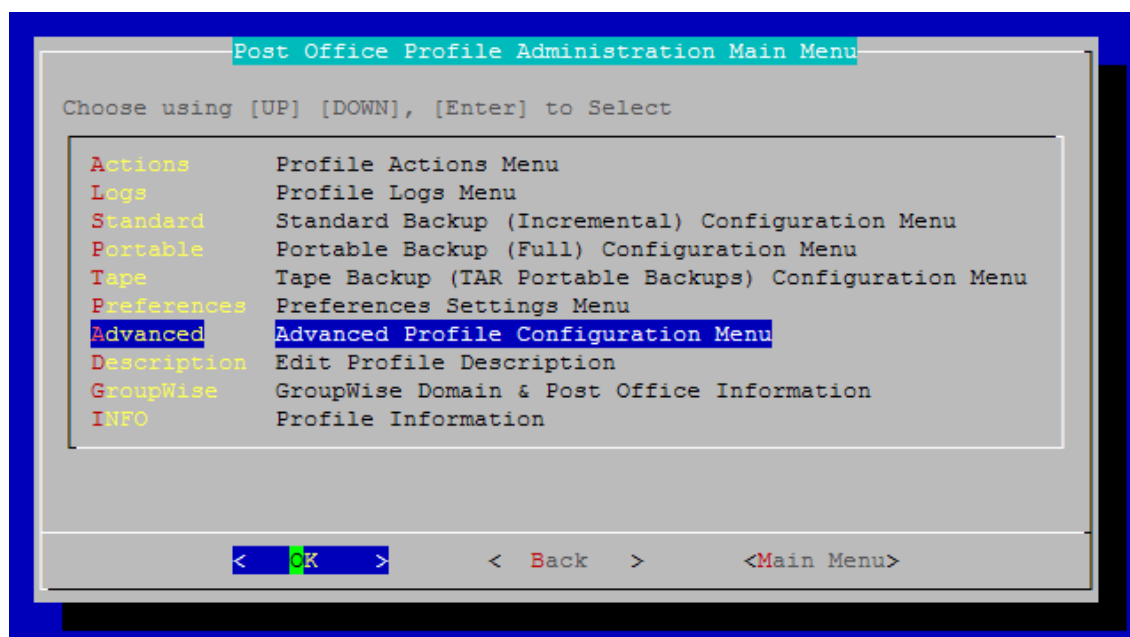
1. Start up GroupWise Disaster Recovery's Administration menu.



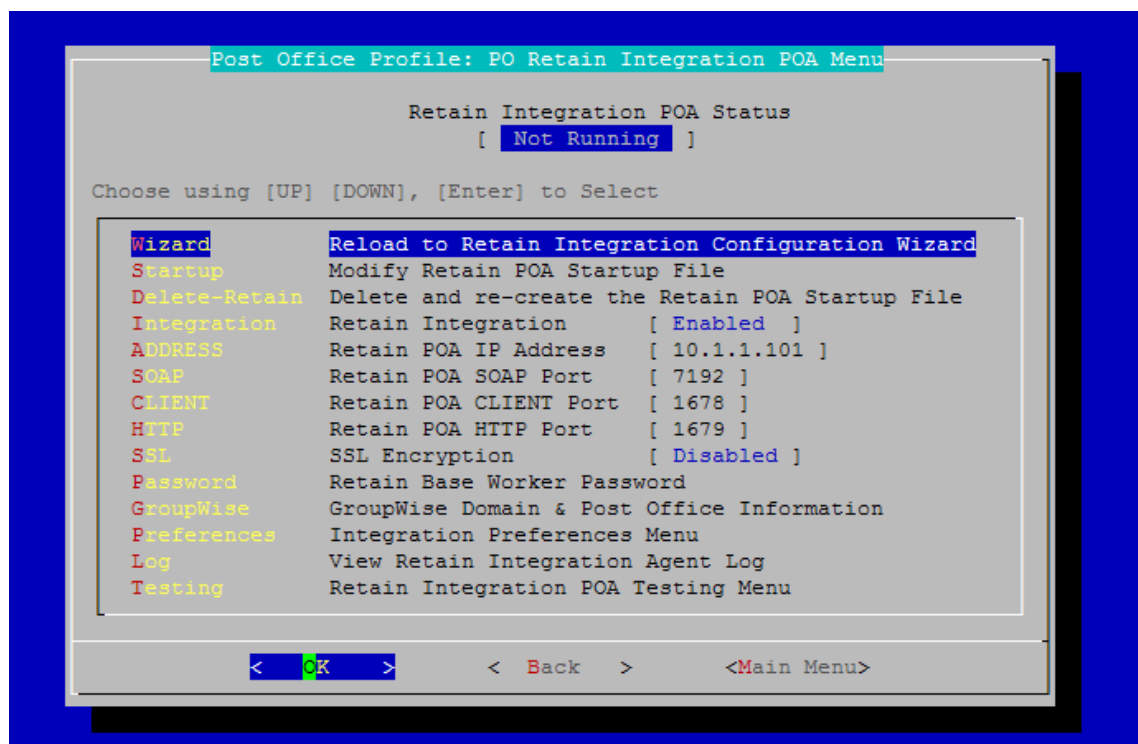
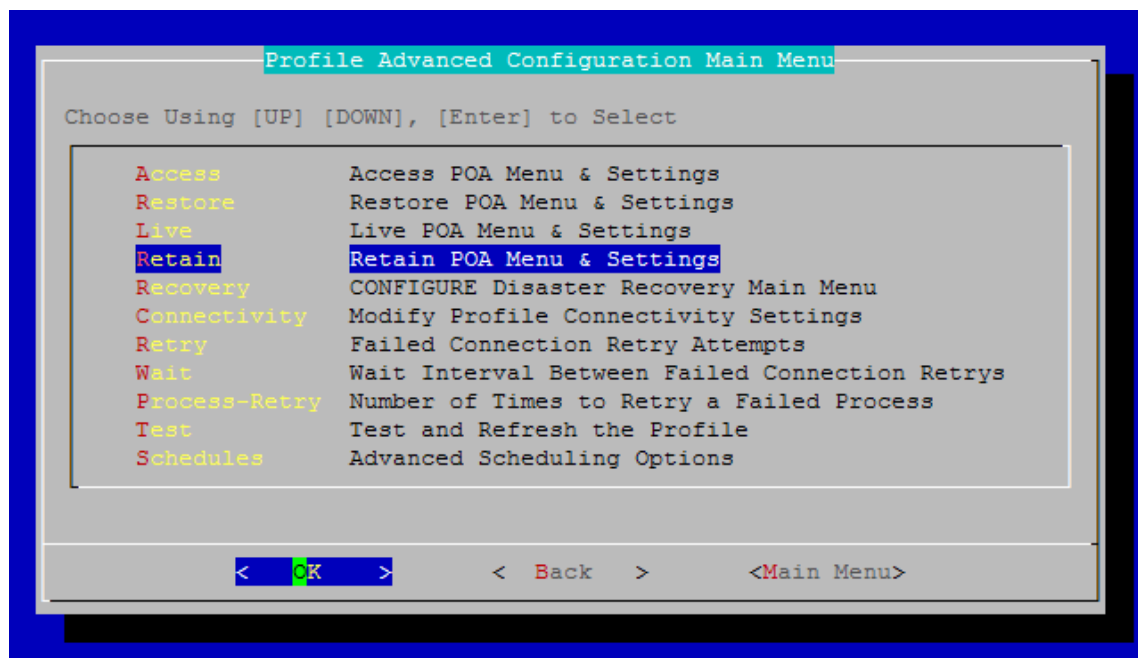
2. From the main menu, choose Profiles – Administer Profiles.



3. Choose Advanced Profile Configuration Menu

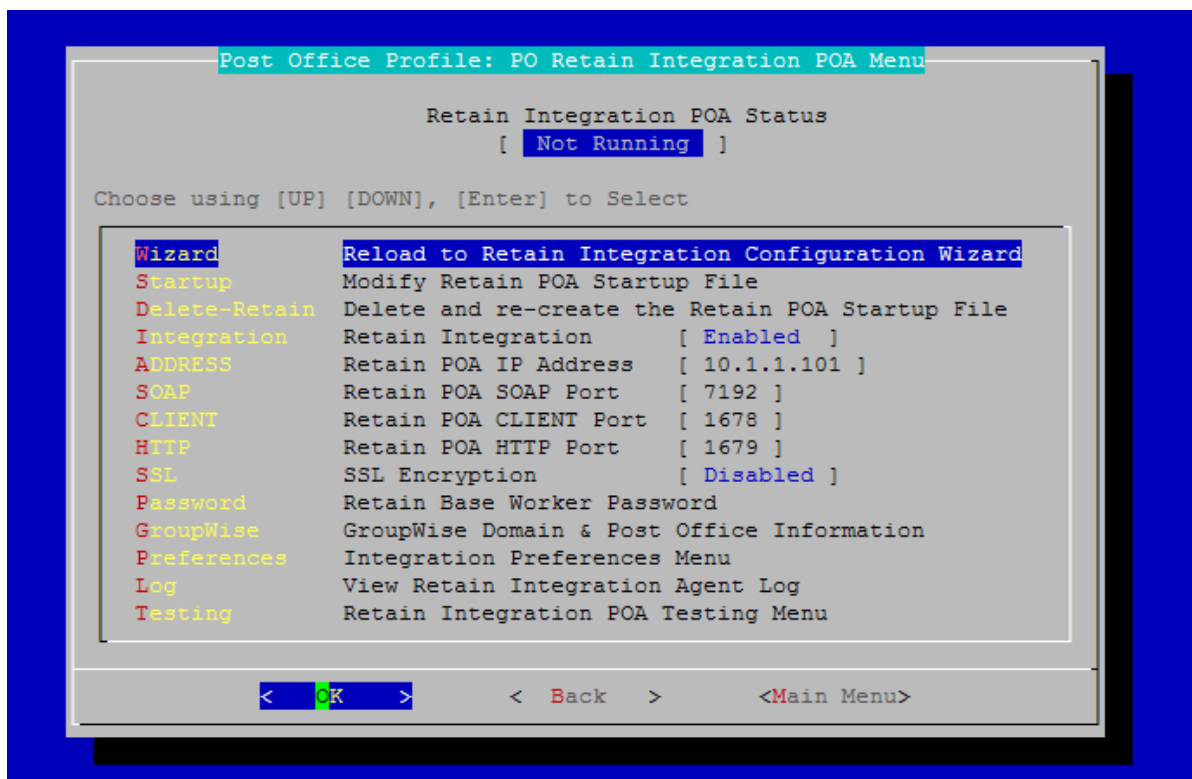


4. Choose Retain POA Menu & Settings



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.

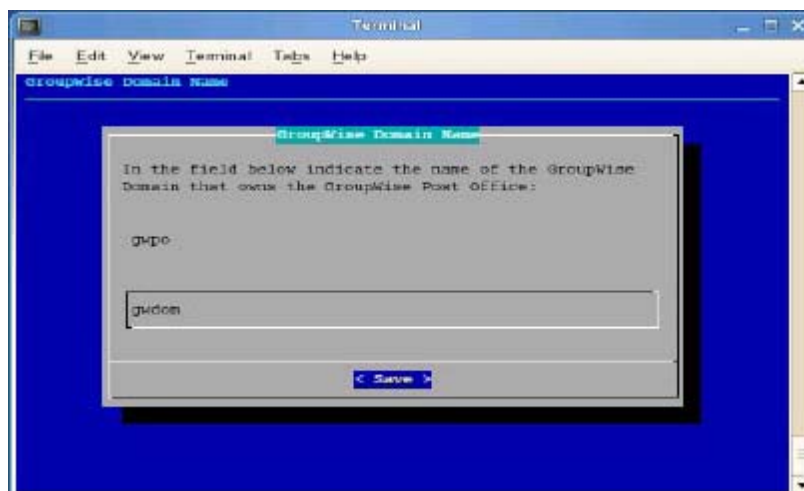
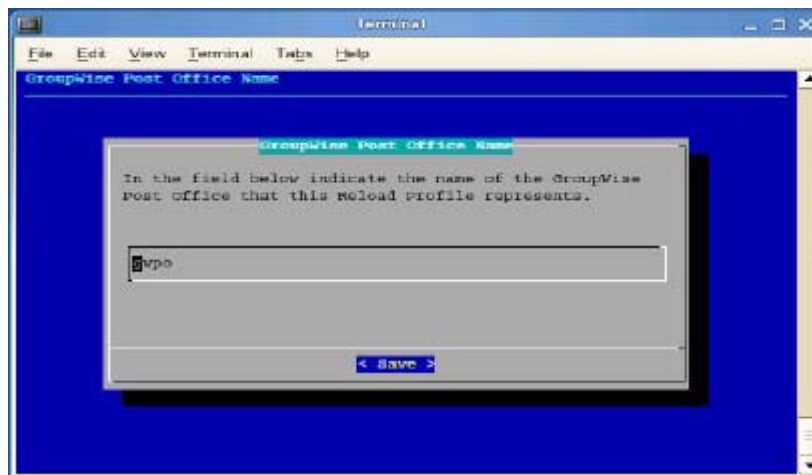


At the top, the status of the Retain Integration POA is displayed.

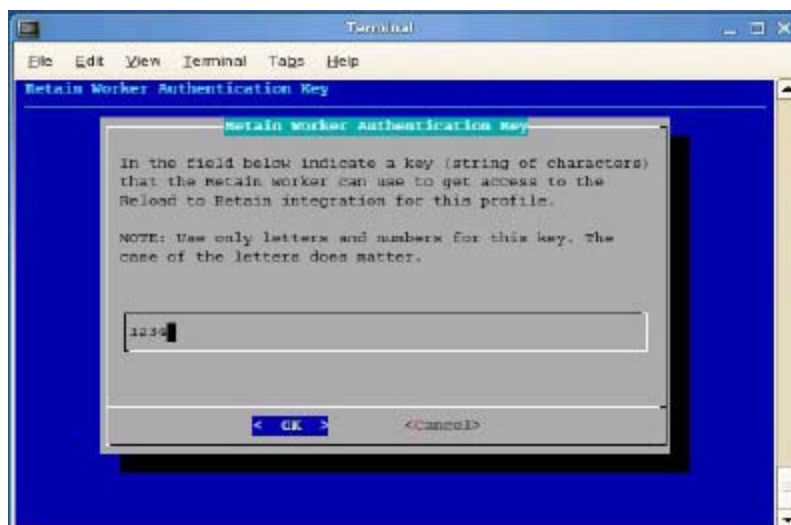
- ♦ Wizard: Run the configuration wizard.
- ♦ Startup: modify the startup file for the POA if you want to make specific changes to it.
- ♦ Delete-Retain: delete the startup file if you want to start fresh and configure from default.
- ♦ Integration: Enable or disable the Retain Integration
- ♦ Address: The IP address this POA will listen on.
- ♦ SOAP: The SOAP port this POA uses.
- ♦ 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 uses 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.

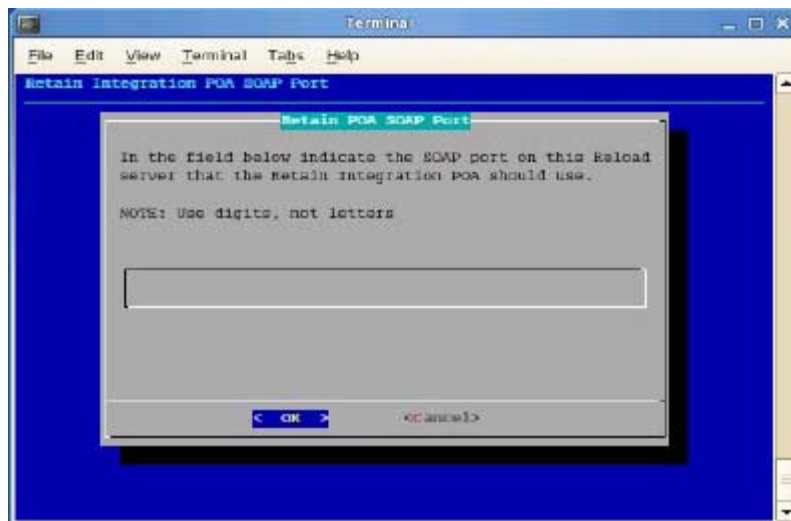
1. Run the Wizard



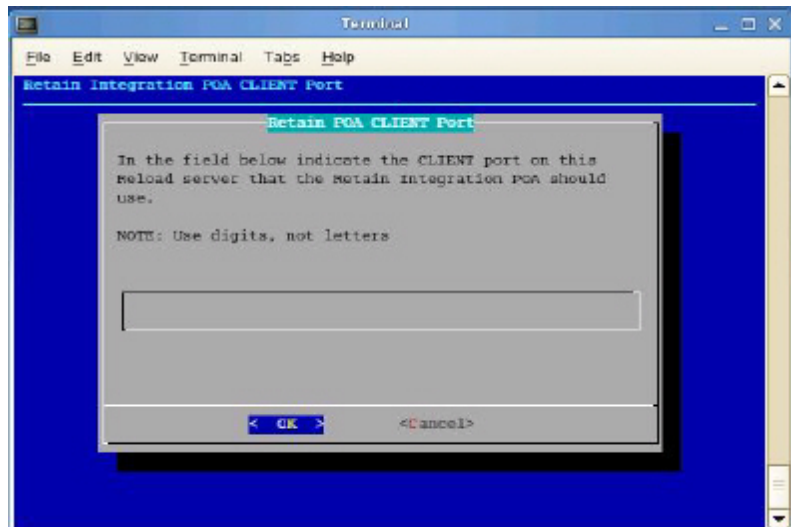
2. Enter the name of the post office and domain.



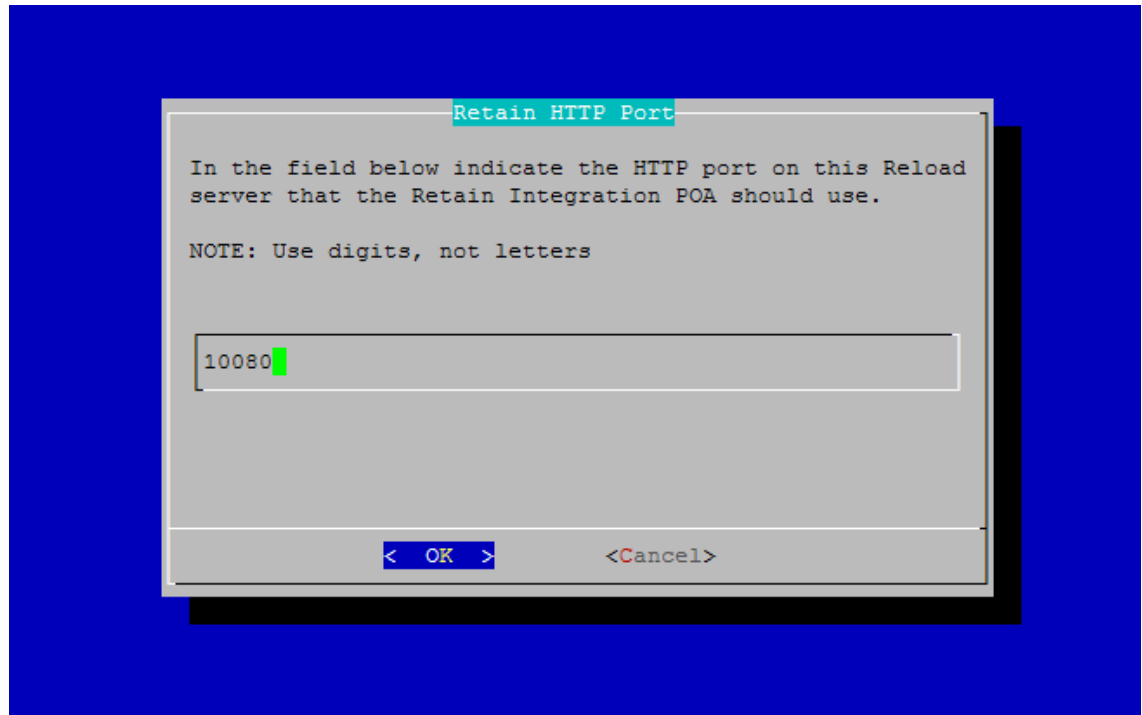
3. Choose an authentication key that Retain uses to access this POA. This must match the password you assigned to the Retain Worker.



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 GroupWise Disaster Recovery is creating a faux POA for Retain to archive mail from, the GroupWise Disaster Recovery POA must be on a different or unique port, so there is no conflict with your original POA. If your GroupWise Disaster Recovery 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 GroupWise Disaster Recovery 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 GroupWise Disaster Recovery 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 GroupWise Disaster Recovery 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 GroupWise Disaster Recovery system. Again, the retention and purge flags will not work but the item store flag will. Be sure your Retain Profile matches this setting.

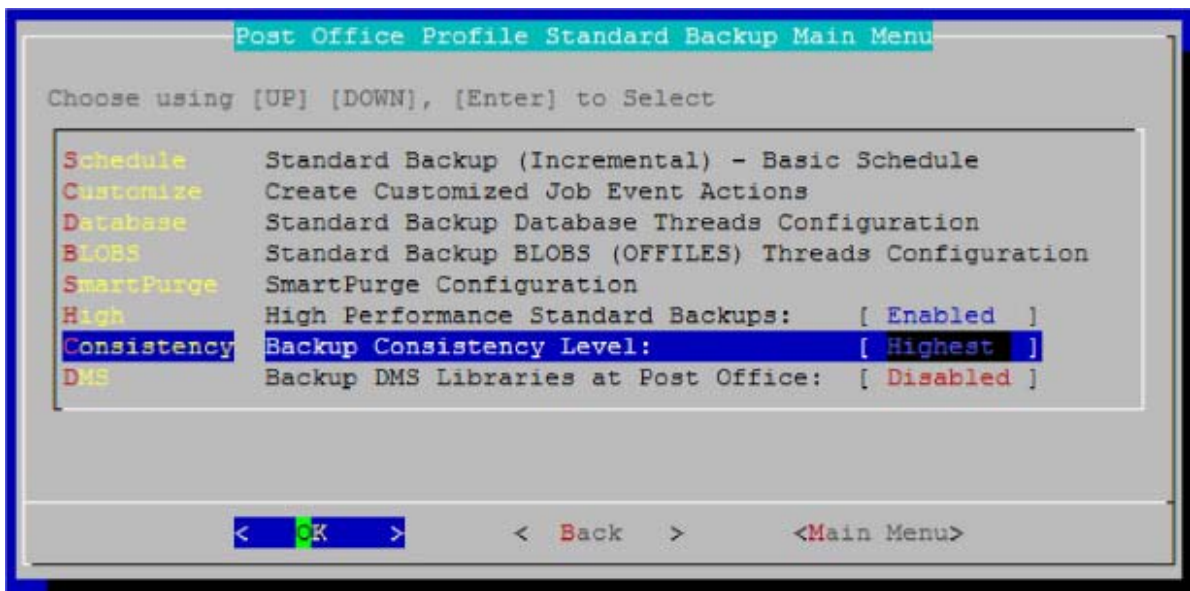
The item store flag is set in two places: Duplicate Check under the Scope tab and under Set Storage Flags under the Miscellaneous tab. The correct settings are shown.

GroupWise Disaster Recovery

To mitigate the chances of getting Retain Worker archive errors while working against a GroupWise Disaster Recovery POA, it is **STRONGLY** recommended that GroupWise Disaster Recovery is set to create highly consistent backups.

This setting is located at:

Main menu > Profiles (Administer Profiles) > Standard (Standard backup (incremental) Configuration Profile) > Consistency (Backup Consistency level): Set to highest.



This is enabled by default for new installs of GroupWise Disaster Recovery, but will have to be manually enabled on systems that are upgraded to GroupWise Disaster Recovery 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.

2 Server Configuration



Use these tabs and panels to manage your Retain server's configuration.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#)

Server Configuration includes the following tabs:

- ♦ [“Communications Tab” on page 57](#)
- ♦ [“Index Tab” on page 61](#)
- ♦ [“Storage Tab” on page 66](#)
- ♦ [“Accounts Tab” on page 72](#)
- ♦ [“Maintenance Tab” on page 78](#)
- ♦ [“Logging Tab” on page 80](#)
- ♦ [“Miscellaneous Tab” on page 82](#)
- ♦ [“Module Forwarding Tab” on page 83](#)
- ♦ [“REST API Tab” on page 86](#)
- ♦ [“Digital Certificates Tab” on page 88](#)

Communications Tab



Use this tab to change various server configuration settings made during the initial setup of Retain.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Communications Tab](#)

The Communications Tab contains the following panels:

- ♦ [“Database Connectivity Panel” on page 58](#)
- ♦ [“Notification Panel” on page 59](#)
- ♦ [“Retain Server Connection Panel” on page 59](#)
- ♦ [“Cloud Mobile Service \(CMS\) Proxy Connection Panel” on page 60](#)

Database Connectivity Panel

Database Connectivity

The message store data is stored on a database server.

To successfully create the tables, the database server must already be running, with a database named retain created. Be sure to specify:

- The correct JDBC URL. If the database server is not running on the same machine as Retain, the IP address or host name of the machine must be included in the URL.
- You must provide a user and password for the database server which has full rights to the database you created.

	Message Store DB	Configuration DB
Database Driver	PostGres 9.0+ ▾	PostGres 9.0+ ▾
Database URL	jdbc:postgresql://localhost/retain-db	jdbc:postgresql://localhost/retain-db
Database User Account	retain-user	retain-user
Database User Password (Password is set) (Password is set)

The Database Connectivity panel contains the connection information for both the configuration and storage databases.

WARNING: Do not change these settings except in conjunction with migrating the database server to a new location.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Communications Tab](#) > [Database Connectivity Panel](#)

Table 2-1 Using the Database Connectivity Panel

Option, Field, or Sub-panel	Information and/or Action
Message Store DB	
Database Driver	The database driver to use.
Database URL	The database URL
Database User Account	The database user
Database User Password	The password for the above
Configuration DB	
Database Driver	The database driver to use.
Database URL	The database URL
Database User Account	The database user
Database User Password	The password for the above

Notification Panel

Notification

Retain uses these values for forwarding search results and for sending job notifications. If the mail server is not set, forwarding search results is disabled.

SMTP Mail Server	<input type="text"/>
SMTP Security Protocol	<div>unencrypted</div>
SMTP Port	<div>25</div>
SMTP Mail From Address	<div>Retain@microfocus.com</div>
SMTP To Address	<input type="text"/>
SMTP Username	<input type="text"/>
SMTP Password	<input type="password"/> (Password is not set)
Mail when errors occur	<input type="checkbox"/>
<div>Test Connection</div>	

In this location, the admin user specifies what address receives notifications about the general system, as well as what SMTP Gateway to utilize to send these notifications. This is also used for forwarding messages from Retain to the SMTP Mail Server for transmission to the recipients.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Communications Tab](#) > [Notification Panel](#)

Table 2-2 Using the Notification Panel

Option, Field, or Sub-panel	Information and/or Action
SMTP Mail Server	The SMTP mail server
SMTP Security Protocol	Security protocol used
SMTP Port	Port used
SMTP Mail From Address	From address to use
SMTP To Address	To address to use
SMTP Username	Username to use
SMTP Password	Password
Mail when errors occur	Email address for errors
Test Connection button	Use to test validity of configuration

Retain Server Connection Panel

This specifies the connection address, port, and protocol that the Router and other REST applications should use to communicate with the Retain server. Settings must be correct for the Retain server from the point of view of the applications connecting to the Retain server.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Communications Tab](#) > [Retain Server Connection Panel](#)

Table 2-3 Using the Retain Server Connection Panel

Option, Field, or Sub-panel	Information and/or Action
Server Protocol	<ol style="list-style-type: none">Specify whether Retain uses insecure (HTTP) or secure (HTTPS) communications with other Retain components, such as the Reporting and Monitoring server or the Retain Message Router. <p>The protocol specified here must be consistent among all the Retain components.</p>
Retain Server Host	<ol style="list-style-type: none">Specify the DNS name that other components use when communicating with the Retain server.
Retain Server Port	<ol style="list-style-type: none">This field is automatically populated when you choose the Server Protocol. (http=4080, https=443) <p>Only change this if your network uses a non-standard protocol.</p>
Retain Server Path	<ol style="list-style-type: none">This is the path where the Retain Server is installed. Only change it if you installed Retain in a non-standard location

Cloud Mobile Service (CMS) Proxy Connection Panel

Cloud Mobile Service (CMS) Proxy Connection

To route automatic (IMEI) mobile registration messages from Retain through a proxy, specify the proxy server settings.

Enable CMS Proxy?	<input type="checkbox"/>
Proxy Server Host	<input type="text"/>
Proxy Server Port	<input type="text" value="80"/>
Proxy User	<input type="text"/>
Proxy Password	<input type="password"/>

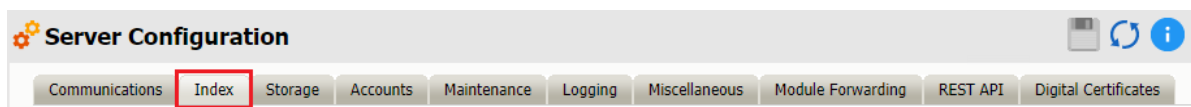
If you use Retain's Cloud Mobile Service (CMS) to automatically provision and register devices in Retain, this option lets you specify a Proxy server for your Retain server to connect to CMS.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Communications Tab](#) > [Cloud Mobile Service \(CMS\) Proxy Connection Panel](#)

Table 2-4 Using the CMS Proxy Connection Panel

Option, Field, or Sub-panel	Information and/or Action
Enable CMS Proxy?	1. Select this to enable CMS.
Proxy Server Host	1. Specify the CMS proxy server host's IP address.
Proxy Server Port	1. Specify the port on which the proxy server communicates. (Default is 3128.)
Proxy User	1. Type the name of the user with rights to access the proxy server.
Proxy Password	1. Type the password of the Proxy User.

Index Tab



Use the Index tab to manage the indexing engine, the kinds and sizes of attachments that are indexed, index optimization, and so on.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Index Tab](#)

The Index tab contains the following panels:

- ♦ [“Indexing Engine Panel” on page 62](#)
- ♦ [“Indexing Panel” on page 64](#)
- ♦ [“Rebuilding Indexes Panel” on page 64](#)

Indexing Engine Panel

Indexing Engine

At the core of Retain's searching functionality is the indexing engine.

In the fields below you specify the host name and port number for one of the Index Manager instances. All information about the index cluster will be automatically retrieved from this instance.

Connect to this Index Manager:

Index Manager Host Name

localhost

Index Manager Port

9081

Index Manager Ensemble:

1

localhost:9081

Refresh Index Configuration

Index schema: 403

Index Cluster:	Indexed: 0, unindexed: 0, failed: 0				
	Indexing Node	Core	Shard	Cluster State	Connectivity
1	https://localhost:8081/hpi	retaincore	shard1	member	online

Most Recent Index Maintenance:

Last Backup of Indexes 22-Sep-2019 01:02:00

Last Index Optimization 26-Sep-2019 01:02:00

Optimize Index Now

Retain utilizes two index engine choices. These choices are set at install or upgrade. The index engine is the same for both the Standard High Performance Index and the High Availability Index options, (HAI). However, while the Standard engine is installed with the Retain Server, the HAI is a cluster of index engines, managers, and replicas which provide scalability and disaster protection. The standard index engine will perform better than the HAI under all but the heaviest loads. (Index engine speed is limited by disk IO for the Standard indexer, and by Disk IO and network speed for the HAI.)

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Index Tab](#) > [Indexing Engine Panel](#)

Table 2-5 Using the Indexing Engine Panel

Option, Field, or Sub-panel	Information and/or Action
Connect to this Index Manager:	
Index Manager Hostname:	The DNS name of the server where the index manager is installed.
Index Manager Port:	The port on which the index manager communicates. (Default is 9081.)
Index Manager Ensemble:	
Refresh Index Configuration button	Use this to refresh the configuration settings.

Option, Field, or Sub-panel	Information and/or Action
Index Schema:	The version of the index schema
Index Cluster:	Information about the index cluster
<ul style="list-style-type: none"> ♦ Indexing Node ♦ Core ♦ Shard ♦ Cluster State ♦ Connectivity 	<ul style="list-style-type: none"> ♦ IP address of the node ♦ Name of the core ♦ Shard number ♦ Role of the node ♦ Status of the connection
Most Recent Index Maintenance:	
Last Backup of Indexes	Date and time of last index backup
Last Index Optimization	Date and time of last index optimization
Optimize Index Now button	Click this to optimize the index immediately.

Index Maintenance and Optimization

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

Use the **Optimize Index Now** button if you need to optimize the index immediately rather than waiting for the scheduled cycle. While the optimization proceeds, the **Last Index Optimization** field changes to `In Process`. When the process finishes, the date and time display, and the indexer log is updated.

WARNING: Index optimization will temporarily *double* the amount of index storage used as new index files are written. If a job is running the space use can *triple*. It is recommended to run index optimization on the weekend while no jobs are running.

Indexing Panel

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.

Note: If an extension or mime type is not listed, the indexing engine will not index the contents.

☒

Extension

Item:

excel

Add

☒

Extension

Item:

xls

excel

Delete

☒

MIME

Item:

application/excel

excel

Delete

☒

MIME

Item:

application/vnd.ms-excel

excel

Delete

☒

Extension

Item:

htm

html

Delete

☒

Extension

Item:

html

html

Delete

☒

MIME

Item:

text/html

html

Delete

☒

Extension

Item:

odp

office

Delete

☒

Extension

Item:

ods

office

Delete

☒

Extension

Item:

odt

office

Delete

You can control what Retain indexes here by adding as many items as you wish to the list of attachment types to index. Items are listed (in order) by type, extension, archived form (extractor used), and maximum stream size and file size. 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. Select as many as you need. If an attachment type is common in the system and needs to be indexed, but is not already indexed, configure the row above the list with the information, then click **Add**.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Index Tab](#) > [Indexing Panel](#)

Table 2-6 Using the Indexing Panel

Option, Field, or Sub-panel	Information and/or Action
Extension/MIME drop-down	Use this to specify whether the item is identified by a filename extension or by its MIME type.
Item:	The file extension or application designation
Action button	Use these to add a new item or delete an existing one.
Extension/MIME list	A list of various applications, beginning with exalead.

Rebuilding Indexes Panel

Rarely, usually due to hardware failure, Retain’s search indexes can become incomplete or even damaged. Acting under direction from Retain support, you can use this panel to return the index to health

Rebuilding Indexes

Under rare circumstances - and usually due to hardware failure/issues - the indexes used by Retain when the search feature is invoked become damaged or files become missing. Resetting the index state of messages in the Retain database causes the Retain indexer to re-index the affected messages.

WARNING: This should only be done under the direction of a Retain customer support engineer. It is recommended that you first back up your Retain database.

NOTE: Depending on the number of messages to be re-indexed, this process could take a long time. Most systems index 2M - 8M messages per day, which is dependent upon various hardware factors.

Re-index Failed Messages

Re-indexes messages where one or more parts of the message failed to index. Existing indexes are updated with changes. Searches will work as normal during the reindex process.

Re-index All Messages

Re-indexes all messages and updates existing index with changes. Searches will work as normal during the re-index process.

Delete Index

Deletes the current index and re-indexes all messages. Searches will not be accurate until the re-index completes.

WARNING: Rebuilding indexes consumes significant amounts of CPU, RAM, disk IO and time.

Back up the Retain database before proceeding. Then use this panel only under the direction of a Retain customer support engineer.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Index Tab](#) > [Rebuilding Indexes Panel](#)

Table 2-7 Using the Rebuilding Indexes Panel

Option, Field, or Sub-panel	Information and/or Action
Reindex Failed Messages button	Click this when one or more parts of the message failed to index. Existing indexes are updated with changes. Searches will work as normal during the reindex process.
Reindex All Messages button	Click this to reindex all of the messages in the system and update the existing index as required. Searches continue to work.
Delete Index button	Click this to delete the existing index and create a new one by indexing all messages in the system. Initially, no results are returned, but searches become more accurate over time as reindexing continues.

NOTE: Depending on the number of messages to be reindexed, this process could take a long time. Most systems index 2M - 8M messages per day, which is dependent upon various hardware factors.

There are 3 options:

1. **Reindex Failed Messages:** reindexes messages where one or more parts of the message failed to index. Existing indexes are updated with changes. Searches will work as normal during the reindex process.

2. **Reindex All Messages:** reindexes all messages and updates existing index with changes. Searches will work as normal during the reindex process.
3. **Delete Index:** Deletes the current index and reindexes all messages. Searches will not be accurate until the reindex completes.

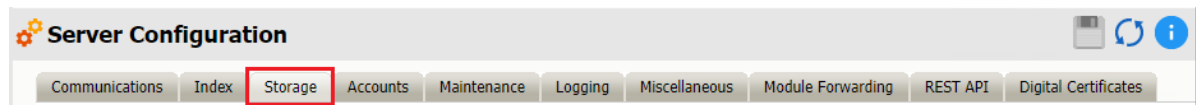
Index performance can be increased by the number of threads allowed to the indexer. Again this uses significant amounts of CPU, RAM and disk IO and any one of these can limit indexing and Web UI performance.

To increase indexing threads:

1. Stop tomcat
2. Edit ../RetainServer/WEB-INF/classes/config/solrcloud.indexing.properties
3. At the end of the file, change the setting: *indexingThreads=0* to *indexingThreads=[1 - 24]* (You should not go higher than 10 times the number of CPU cores; otherwise, the overhead of CPU slicing would actually work against you.)
4. Start tomcat

You will also need to keep in account users needing to access their Retain mailboxes and perform searches. Increasing threads could slow down the web UI response, so you'll need to experiment with what works best for your system.

Storage Tab



Use this tab to specify where the Retain archive files are stored and to manage encryption of archive BLOB files.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Storage Tab](#)

The Storage tab contains the following panels:

- ♦ [“Storage Panel” on page 67](#)
- ♦ [“Storage Encryption Panel” on page 68](#)

Storage Panel

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 storage engine places archive files under the storage path. You may change the storage path on this screen; the storage engine can be changed from the Storage Manager menu.

Storage Engine

datastore_process

Base Storage path

/retain

Advanced Settings

For more advanced scenarios, some paths may be assigned to one device and some to another.

Derive all file locations from above base path? ☐

Attachments Path

/retain/archive

XML Mappings Path

/retain/xml

Index Path

/retain/index

Exports Path

/retain/export

Backups Path

/retain/backup

License Path

/retain/license

Digital Certificates Path

/retain/keystore

Compression

(always on)

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Storage Tab](#) > [Storage Panel](#)

Table 2-8 Using the Storage Panel

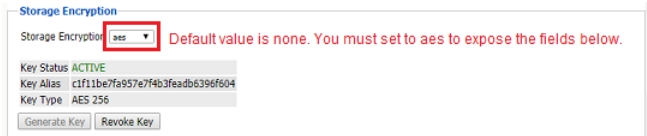
Option, Field, or Sub-panel	Information and/or Action
Storage Engine	Only informational. Configurable in the Storage Manager
Base Storage Path	Sets the default path for where the Retain archive, XML files, search index files, PDF exports, backups, and license files are stored. Customized paths for these can be set by clicking the Advanced Settings link and deselecting the Derive all file locations ... option.

Server Configuration

67

Option, Field, or Sub-panel	Information and/or Action
Advanced Settings	<p>Use this link to access customizable storage paths for the Retain archive, XML files, search index files, PDF exports, backups, and license files.</p> <p>Deselect the Derive all file locations ... option to display the list of paths.</p> <p>You can specify customized paths for the following:</p> <ul style="list-style-type: none"> ◆ Attachments ◆ XML Mappings ◆ Indexes ◆ PDF Exports ◆ Backups ◆ License Files
Compression	A reminder that compression is always used.

Storage Encryption Panel



- ◆ “Keystore Sub-panel” on page 70
- ◆ “Storage Re-encryption Sub-panel” on page 71

NOTE: Encryption is not currently supported on MS SQL databases.

Path: [Retain Server Manager](#) > **Configuration** > **Server Configuration** > **Storage Tab** > **Storage Encryption Panel**

Table 2-9 Using the Storage Encryption Panel

Option, Field, or Sub-panel	Information and/or Action
IMPORTANT:	The following options, fields, etc. display only after you change the Storage Encryption option to aes .

Option, Field, or Sub-panel	Information and/or Action
Storage Encryption option	<ul style="list-style-type: none"> ♦ none: This is the default state. Jobs run normally and Retain archive files are not encrypted. If you switch back to this option after encrypting archive files, new archive files won't be encrypted, but files that are already encrypted remain encrypted. ♦ aes: When you select this, Job processing is suspended until a new key is generated using the Generate Key button. After a key is generated, Job processing resumes, and Retain encrypts new files as they come in. Existing files are encrypted in the background when the server is idle. Although encrypting a large amount of archived data can take some time, there are no impacts on user tasks or the overall user experience.
Key Status field	<ul style="list-style-type: none"> ♦ Initial: This indicates that the system is waiting for key generation. Jobs are suspended until that is done. ♦ Active: This indicates that the key with the Alias name displayed below is currently being used to encrypt the Retain archive files. ♦ Revoked This indicates that the encryption key that was previously active is no longer in use for encrypting archive files. Encryption is currently suspended until a new key is generated and stored in the keystore.
Key Alias	This is the system name that Retain assigned to the currently active encryption key. Keys are listed in the keystore using this system name (alias).
Key Type	<p>The encryption type and level of the currently active encryption key.</p> <p>Retain generates new keys to the 256-bit Advanced Encryption Standard (AES 256).</p>
Generate Key button	<p>Clicking this causes Retain to generate a new AES 256 key and to begin encrypting the Retain archive files with that key.</p> <p>When generating the system's first key, you must set and confirm a keystore password that</p> <ul style="list-style-type: none"> ♦ Contains at least 6 upper- or lower-case alphanumeric characters. ♦ Does not contain special characters. <p>IMPORTANT: Make sure you don't lose the keystore password.</p> <p>For generating subsequent keys, you need only enter the password once.</p>
Revoke Key button	<p>Clicking this and confirming the action, causes the encryption key to be revoked. Encryption of incoming archive items is suspended and the Key Status changes to Revoked.</p> <p>The revoked key is saved in the keystore so that Retain can decrypt any archive files that were encrypted with it.</p> <p>Revoked keys are only removed after all items that were previously encrypted by the revoked keys are re-encrypted by a new key through Retain's Storage Re-encryption functionality.</p>

Keystore Sub-panel

Keystore

The keystore holds the keys used for encryption and is protected by a password. The password will need to be supplied in order to generate, revoke, export or import keys.

No file chosen

The keystore password can be changed using the button below. *Note that changing the password will also update the key modification date(s) to the current date.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Storage Tab](#) > [Storage Encryption Panel](#) > [Keystore Sub-panel](#)

Table 2-10 Using the Keystore Sub-panel

Option, Field, or Sub-panel	Information and/or Action
Display Keys button	<p>Clicking this displays the names (key aliases) and modification dates of all keys in the keystore.</p> <p>To view the contents of an exported .jks file that is offline, use one of the following options.</p> <p>At a terminal prompt,</p> <ol style="list-style-type: none"> 1. Install Java 1.8. 2. Use the command line tool keytool.exe (https://docs.oracle.com/javase/8/docs/technotes/tools/unix/keytool.html) to view the file. <p>For example,</p> <pre>keytool -list -v -keystore key-store-file.jks</pre> <p>In a desktop GUI environment,</p> <ol style="list-style-type: none"> 1. Install and use a GUI tool, such as Portecle (https://www.ssldesk.com/portecle-advanced-keystore-creation-and-manipulation-tool/).
Export Keys button	<p>Clicking this and entering the keystore password causes the keystore to be exported as a .jks file named <code>retainKeyStore.jks</code> and downloaded to the browser's default download location on the machine that is running the management browser.</p> <p>We recommend renaming this file to reflect its origin. For example, <code>Retain-svr01-KeyStore.jks</code> for a retain server named <code>Retain-svr01</code>.</p>
Import Keys button	<p>Before clicking this button, you must first browse to and choose a .jks file.</p> <p>After clicking this button, you must enter the keystore password for this Retain server and then the keystore password for the keystore on the server where the .jks file originated.</p>
Choose File button	Click this button to browse to and select a .jks keystore file for importing.
Change Password button	Click this button to change the keystore password for this Retain server.

Storage Re-encryption Sub-panel

Storage Re-encryption

Items in the storage area can be re-encrypted using the active key referenced above. This is a lengthy process as it involves the modification of all items in the storage area. The process can be started immediately or it can be scheduled to run during off-hours, for a specified amount of time, until it is complete. Upon completion, a report can be sent to the Retain administrator, if desired.

Configuration

Enable Re-encryption Process

☒

Schedule

Daily

Run at

19

:

43

Mail report to Retain administrator

☐

Limit processing time

☒

Hours

1

Processing threads

1

Start Re-encryption Now

Stop

Process Status

The information below shows the progress of the current cycle, if running, or the final state of the last cycle. Use the Update Stats button to refresh the data when processing is active.

Current cycle	RUNNING
Status of previous cycle	UNKNOWN
Items to process	33256
Processed in current cycle	3002
Processing rate (items/second)	35
Duration (hhh:mm:sec)	0:1:25

Update Stats

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Storage Tab](#) > [Storage Encryption Panel](#) > [Storage Re-encryption Sub-panel](#)

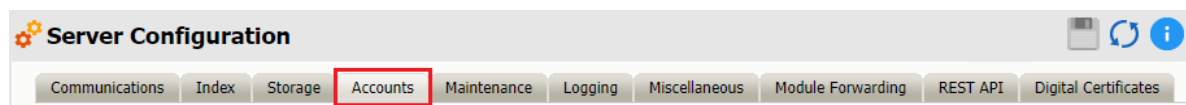
Table 2-11 Using the Storage Re-encryption Sub-panel

Option, Field, or Sub-panel	Information and/or Action
Configuration Section: Use the following to manage and control the re-encryption process.	
Enable Re-encryption Process option	Re-encryption only runs when this is enabled.
Schedule drop-down list	You can schedule re-encryption processes to run daily, weekly, or monthly.
Run at option	Specify when you want re-encryption processes to run in 24-hour time.
Mail report to Retain administrator option	If you have configured the system with SMTP services and the Retain administrator has an associated email account, enabling this causes Retain to email the administrator with status updates.
Limit processing time option	If you want to limit the length of time spent on re-encryption in each run cycle, enable this option.
Hours field	Specify the number of hours the system can spend on re-encryption in each run cycle.
Processing threads option	Specify the number of threads the system can devote to re-encryption processes.
Start Re-encryption Now button	Click this to circumvent the schedule and start re-encryption immediately.

Server Configuration 71

Option, Field, or Sub-panel	Information and/or Action
Stop button	Click this to halt the current re-encryption process.
Process Status Section: Informational fields for tracking re-encryption process status.	
Current cycle	<ul style="list-style-type: none"> ♦ Not running ♦ Running
Status of previous cycle	<ul style="list-style-type: none"> ♦ Unknown ♦ End_of_Processing ♦ Manual_stop
Items to process	The total number of archived items that require re-encryption.
Processed in current cycle	The total number of items encrypted during the current cycle.
Processing rate (items/second)	The average number of items processed per second.
Duration (hhh:mm:sec)	How long the current cycle has been running.
Update Stats button	Click this to immediately update the statistics displayed above it.

Accounts Tab



Use this to control the creation and functionality of accounts.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Accounts Tab](#)

The Accounts tab contains the following panels:

- ♦ [“Account Management Panel” on page 73](#)
- ♦ [“NetIQ Advanced Authentication Configuration Panel” on page 75](#)
- ♦ [“Office 365 End User Authentication Panel” on page 76](#)
- ♦ [“KeyShield SSO Panel” on page 76](#)
- ♦ [“Intruder Lockout Panel” on page 77](#)

The accounts tab lets you control accounts and manage access to Retain.

Account Management Panel

Account Management

You may expire unused accounts, disable new accounts 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 enable a password strength policy if you want to enforce strong passwords for users. Keep in mind these passwords may be overridden by individual messaging systems.

Password strength:

Will accept any password

Will accept any password

Low

Medium

High

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Accounts Tab](#) > [Account Management Panel](#)

Table 2-12 Using the Account Management Panel

Option, Field, or Sub-panel	Information and/or Action
Expire Unused Accounts after How Many Days	Specify how many days to keep unused accounts. Setting this to 0 disables account expiration.
Disable New Accounts option	Selecting this prevents the automatic creation of new accounts.
Prohibited Logins list	Prevent users from logging in to Retain by listing them here.
Remove Selected Address button	Select an address to remove from the list and click this button.
Address	Type the address to add in this field.
Add button	Click this to add the typed address to the list.
Password Strength: drop-down	Use this to specify password strength.

Expire unused accounts after how many days: Enabling this causes the removal of any account, including admin, that has not logged in for the set number of days (0=never expire)

Disable new accounts: will prevent new accounts from being enabled by default.

Prohibited logins: Block specific users from logging into Retain. Enter the username or email address and add or select and press Remove selected address.

Password strength

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 “User Rights” 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:

Will accept any password

Will accept any password

Low: Must be between 5 and 15 characters in length.

Must be between 5 and 15 characters in length.

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

Must be between 5 and 20 characters in length, with at least 1 lower case characters, at least 1 upper case characters and at least 1 numerical 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.. Also, the password will be checked against a dictionary.

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.. Also, the password will be checked against a dictionary.

NetIQ Advanced Authentication Configuration Panel

Retain supports multi-factor authentication for GroupWise and on-prem Exchange users through an integration with NetIQ Advanced Authentication.

You use this panel to connect the Retain server with the NetIQ system.

For information about the entire process of enabling multi-factor authentication on Retain, see [“Multi-factor Authentication Setup” on page 112](#).

Figure 2-1 The NetIQ Advanced Authentication Configuration Panel

NetIQ Advanced Authentication Configuration

Enable Multi-factor Authentication	<input type="checkbox"/>
Server URL of AA Server:	/
Client ID:	
Client Secret:	
Tenant Name:	TOP
Redirect URI:	http://localhost:48080/RetainServer/Server/AdvancedAuthentication.jsp

[Test Login with Advanced Authentication](#)

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Accounts Tab](#) > [NetIQ Advanced Authentication Configuration Panel](#)

Table 2-13 Using the NetIQ Advanced Authentication Configuration Panel

Option, Field, or Sub-panel	Information and/or Action
Enable Multi-factor Authentication checkbox	You must enable this for multi-factor authentication to work.
Server URL of AA Server field	The URL that this system uses to communicate with the Advanced Authentication server.
Client ID field	The Client ID generated for this Retain system when you create an OAuth2 event for it on the Advanced Authentication server. See Multi-factor Authentication Setup, Step 7 on page 112
Client Secret field	The Client Secret generated for this Retain system when you create an OAuth2 event for it on the Advanced Authentication server. See Multi-factor Authentication Setup, Step 7 on page 112
Tenant Name field	The default Tenant Name is TOP. If you created a different name, specify that here.
Redirect URI field	The URI path from the AA server to this Retain server. See Multi-factor Authentication Setup, Step 4 on page 112
Test Login with Advanced Authentication button	When Retain and the Advanced Authentication server are configured and the system is ready, use this button to check that MFA is working as expected. When prompted, log in as one of the users that you have enabled for MFA.

Office 365 End User Authentication Panel

Office 365 End User Authentication

Tenant ID	<Copy and paste the Tenant ID here>
Client ID	<Copy and paste the Client ID here>
<input type="button" value="Test Login with Office 365"/> This button displays after the Tenant and Client IDs are entered.	

Retain supports modern authentication through users entering their Office 365 credentials. This panel sets up the connection with Office 365. The entire setup procedure is documented in [“Providing OpenID Access \(Modern Authentication\) to Users”](#) in *Retain 4.9.2: Archiving Guide*.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Accounts Tab](#) > [Office 365 End User Authentication Panel](#)

Table 2-14 Using the Office 365 End User Authentication Panel

Option, Field, or Sub-panel	Information and/or Action
Tenant ID field	This information is exposed when you complete the procedures described in “Synchronizing the Address Book Using Office 365 (Microsoft GraphAPI)” in <i>Retain 4.9.2: Archiving Guide</i> .
Client ID field	This information is exposed when you complete the procedures described in “Synchronizing the Address Book Using Office 365 (Microsoft GraphAPI)” in <i>Retain 4.9.2: Archiving Guide</i> .
Test Connection button	Click this to verify that the credentials you have entered are valid with your Office 365 system.

KeyShield SSO Panel

KeyShield SSO

Configure this feature if Keyshield SSO is to be used for user authentication.

Enable Keyshield SSO authentication?	<input type="checkbox"/>
KeyShield SSO Server URL (e.g. http://127.0.0.1:8485)	
Connection timeout (in seconds)(e.g. 5)	
User ID alias (e.q. x-retain)	
API key	
<input type="button" value="Test Connection"/>	

Retain supports the use of KeyShield SSO for users.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Accounts Tab](#) > [KeyShield SSO Panel](#)

Table 2-15 Using the KeyShield SSO Panel

Option, Field, or Sub-panel	Information and/or Action
Enable KeyShield SSO Authentication option	Select this to enable KeyShield SSO authentication.
KeyShield SSO Server URL	Specify the KeyShield server URL.
Connection Timeout (in seconds)	Specify the length of time a connection request remains active
User ID Alias	The alias id assigned to this server
API Key	The API key from KeyShield
Test Connection button	Click this to test the KeyShield connection.

To use the KeyShield client in coordination with Retain, Retain needs to have an open connection to the KeyShield server, the User ID alias, and the API key. Specify the KeyShield SSO Server URL, Alias, and API key. The Timeout is set in seconds, and may be anything required, 5 is recommended. Test the connection to ensure proper function.

When configured, Retain checks to see if the KeyShield client is running and if the user is currently logged in. If they are logged in, Retain checks the user against the specified KeyShield Server and then either fails authentication and sends users to the login page, or immediately passed them to their interface. The effect is that users who are already logged into the KeyShield client will not be required to login to Retain, but will be immediately taken to their appropriate interface.

Intruder Lockout Panel

Intruder Lockout

Enable this feature to temporarily lockout an account that may be the subject of an illegal entry attempt. You may clear lockouts using the button below, or by restarting Tomcat

Enable Intruder Lockout?	<input type="checkbox"/>
Number of invalid login attempts	3 ▼
Time Interval (minutes)	5 ▼
If triggered, lock account for this period (minutes)	10 ▼

Clear lockouts

Accounts can be locked if multiple failed attempts are detected within a specified window of time. This is useful to deny password cracking attempts on the server.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Accounts Tab](#) > [Intruder Lockout Panel](#)

Table 2-16 Using the Intruder Lockout Panel

Option, Field, or Sub-panel	Information and/or Action
Enable Intruder Lockout option	Select this to enable intruder lockout protection.
Number of Invalid Login Attempts	Set the number of invalid login attempts before an account is locked.

Option, Field, or Sub-panel	Information and/or Action
Time Interval (minutes)	Specify how long the system allows access attempts.
If triggered, lock account for this period (minutes)	Specify how long the account is locked out.
Clear Lockouts button	Use this to clear locked accounts. (Doesn't require saving.)

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 Tab



Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Maintenance Tab](#)

The Maintenance tab contains the following panels:

- ♦ [“Maintenance/Caching Panel” on page 79](#)
- ♦ [“Ignore Domains Panel” on page 80](#)

Maintaining a Retain system involves many tasks:

- ♦ Backup Configuration (Embedded) Database
- ♦ Compress Configuration Database

These items are all controlled here.

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.

Maintenance/Caching Panel

Maintenance/Caching

You may automatically backup and/or compress the embedded database at a specified time. The indices are also backed up. The Retain Server is offline at this time. so no jobs may be active at this point.

Enable Backup of Indices	<input checked="" type="checkbox"/>	Weekly	Sunday
Enable Index Optimization	<input checked="" type="checkbox"/>	Daily	
Mail Job Report	<input type="checkbox"/>		
Purge exported files when older than		12	hours
Run maintain procedure at		01	: 00

Index optimization will require 10.0 GB of free disk space on the drive. (0 segments will be merged).

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Maintenance Tab](#) > Maintenance/Caching Panel

Table 2-17 Using the Maintenance/Caching Panel

Option, Field, or Sub-panel	Information and/or Action
Enable Backup of Indexes	Select this to enable scheduled index backups at the interval specified.
Enable Index Optimization	Select this to enable scheduled index optimization at the interval specified.
Mail Job Report option	Specify whether a Mail Job Report is generated.
Purge exported files when older than	Specify how old exported files can be before they are purged.
Run maintenance procedure at	Specify when to run the maintenance procedure.

Datastore Maintenance

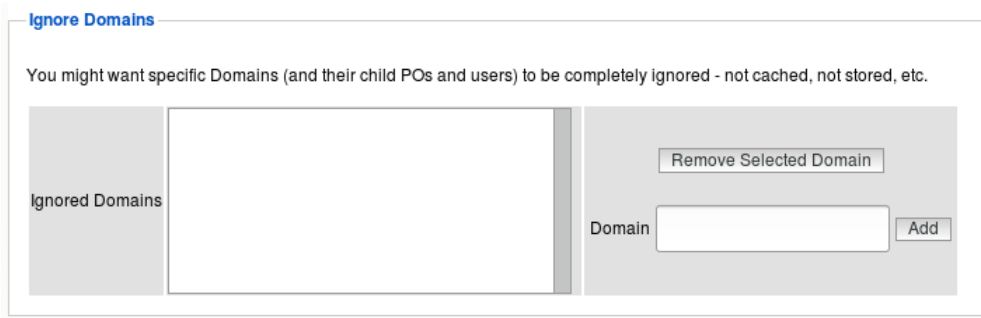
Retain also lists a history of backups and maintenance here.

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

Ignore Domains Panel



Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Maintenance Tab](#) > [Ignore Domains Panel](#)

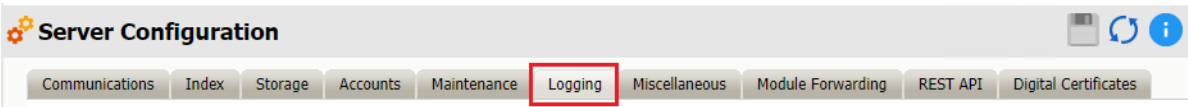
Table 2-18 Using the Ignore Domains Panel

Option, Field, or Sub-panel	Information and/or Action
Ignored Domains list	A list of Domains that Retain ignores.
Remove Selected Domains	Select an entry in the Ignored Domains list and use this button to remove it.
Domain	Type a domain to be added to the Ignored Domains list in this field.
Add button	Click this to add the typed domain to the Ignored Domains list.

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 Tab



Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Logging Tab](#)

The Logging tab contains the following panels:

- ♦ [“Logging Panel” on page 81](#)
- ♦ [“Auditing Panel” on page 82](#)

Logging Panel

Logging

Logging enabled	<input checked="" type="checkbox"/>
Log level	D diagnostic (Trace) ▼
Compress logs	<input checked="" type="checkbox"/>
Remove old logs	<input checked="" type="checkbox"/>
When age exceeds (days)	10

Configure the system logging here.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Logging Tab](#) > [Logging Panel](#)

Table 2-19 Using the Logging Panel

Option, Field, or Sub-panel	Information and/or Action
Logging Enabled option	Select this to enable logging
Log Level	Use this drop-down list to specify what the system logs. <ul style="list-style-type: none">◆ Diagnostic◆ Verbose◆ Normal◆ Error only
Compress Logs option	Select this to compress logs and save disk space.
Remove Old Logs option	Select this to have logs automatically removed when they reach a specified age. <ul style="list-style-type: none">◆ When age exceeds (days)<ul style="list-style-type: none">◆ Specify the age at which logs are to be removed.

Normally, you want verbose logging. Diagnostic is ordinarily done just for troubleshooting purposes.

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 Panel

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

☐ Select/Unselect all

☐ Changed User/Group

☐ Mailbox Switch

☐ Exported

☐ Mobile Device Management

☐ Router Configuration

☐ Reporting and Monitoring

☐ Cloud Router Configuration

☐ Changed Data Collection

☐ Audited

☐ Published

☐ Rules Configuration

☐ Storage Manager

☐ Data Removal

☐ Skipped Message

☐ Searched

☐ Server Config Change

☐ Restored Message

☐ Module Configuration

☐ Stubbing Server

☐ Licensing

Retain creates an auditing record of all actions, specified by the user, which are taken on a specific piece of mail. You can remove Auditing records after a specified length of time.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Logging Tab](#) > [Auditing Panel](#)

Table 2-20 Using the Auditing Panel

Option, Field, or Sub-panel	Information and/or Action
Days before audit records are removed (0=never)	Specify how long auditing logs are retained.
Advanced Auditing Options	You can log all actions that users take on specific messages. Select the actions that you want logged.

The variable is set in days. All of the options associated with this feature are found under the Server Configuration page, Logging tab.

This logging option creates very detailed activity logs for the options selected. It is very important to know that if every option is turned on the logs can become extremely large. However, the audit log cannot be searched for any items or activity which is not configured to be logged. If activity on any of the offered items it must first be enabled here. 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 Tab

Server Configuration

Communications

Index

Storage

Accounts

Maintenance

Logging

Miscellaneous

Module Forwarding

REST API

Digital Certificates

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Miscellaneous Tab](#)

The Miscellaneous tab contains the following panels:

- ◆ “Miscellaneous Panel” on page 83

You can specify a worker password that is different from the one the system generates when you create a worker.

Miscellaneous Panel

Miscellaneous

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.

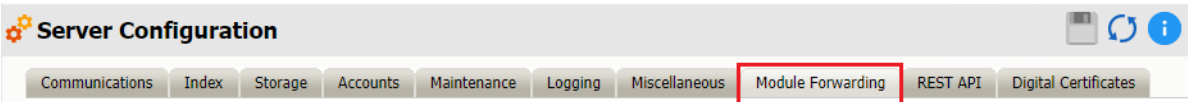
Default Worker Password (Password is set)
Export XML	<input type="checkbox"/>
Server Friendly Name	RetainServer
Restrict Global Tag application to users with rights	<input checked="" type="checkbox"/>
Use strong security policy	<input checked="" type="checkbox"/>

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Miscellaneous Tab](#) > [Miscellaneous Panel](#)

Table 2-21 Using the Miscellaneous Panel

Option, Field, or Sub-panel	Information and/or Action
Default Worker Password	If desired, specify a password for all the workers.
Export XML	<p>This XML Export function is included in Retain in case you have an XML compliance mandate. You enable it here.</p> <p>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.</p> <p>Ordinarily, you would not want to do this because it consumes enormous quantities of disk space, loads up your file system and degrades performance.</p> <p>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.</p>

Module Forwarding Tab



This tab lets you specify an SMTP mail server or an FTP server (or both) to serve as targets for redundant archiving of items archived in Retain.

In addition to specifying the target servers here, you must also enable this feature in the affected modules.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Module Forwarding Tab](#)

The Module Forwarding tab contains the following panels:

- ♦ [“SMTP Forwarding for Modules Panel” on page 84](#)
- ♦ [“FTP Forwarding for Modules Panel” on page 85](#)

Modules can be set to forward all new items to another location.

SMTP Forwarding for Modules Panel

The screenshot shows the 'SMTP Forwarding for Modules' configuration panel. At the top, a note states: 'An SMTP mail server only needs to be defined when forwarding a copy of the items collected by Retain to an external system.' Below this, there are several input fields: 'SMTP Mail Server' (text), 'SMTP Security Protocol' (dropdown menu showing 'unencrypted'), 'SMTP Port' (text, value 25), 'SMTP Mail From Address' (text), 'SMTP To Address' (text), 'SMTP Username' (text), and 'SMTP Password' (text). At the bottom left is a 'Test Connection' button.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Module Forwarding Tab](#) > [SMTP Forwarding for Modules Panel](#)

SMTP Forwarding is a feature which instructs Retain to forward a copy of any archived message data to the specified address and domain, when the message item is archived. For Module Forwarding to function, it must be configured here on the Server Configuration and also enabled on the specific desired module. Any module which has the SMTP Forward option enabled will send messages according to the settings configured here.

This setting is designed for exporting data to an external SMTP system for redundant archival. This is most often used for mobile or blackberry message systems. SMTP Forwarding will take a text, pin, sms, or posted message and message data, convert it into a MIME file and send the message to the specified SMTP system. The Forward process checks for and sends any queued data once every 10 minutes. If a message is unable to be sent for any reason, after 5 days the MIME file will be saved to the local disk and may be reviewed and repaired by an administrator.

This feature is not recommended for use with any SMTP system which Retain is currently archiving. If Module Forwarding is enabled and configured to use the SMTP system which Retain is currently archiving, duplicate data will be archived; Mobile and Blackberry data will be doubled in the Retain archive.

DO NOT use SMTP Forwarding with any email module if Retain is archiving the destination SMTP Mail System. This will cause a feedback loop which will rapidly fill the archive and email system.

Requirements

- ♦ Separate, working SMTP system
- ♦ Mobile module requires the mobile app 4.0.1 or higher

Configuration

The SMTP Forwarding feature requires a SMTP Mail Server connection configured. Input the destination Mail Server's DNS name, protocol, and port.

The SMTP Mail From Address will be the address which displays as the 'from' address for the forwarded messages.

The SMTP To Address is the destination account for messages. If a single address is to be used, it should be a journaling mailbox. Retain can also send each message to a destination mailbox for each originating user. If it is desired to send the messages to each respective owner's mailbox, configure the 'SMTP To Address' with: {userid}@<yourdomain>.com

Retain will automatically use the userID of the originating device or account. Use of this feature requires that the SMTP server has an existing mail account for each user which matches the userID Retain shows for the mobile or Blackberry device.

If the destination SMTP server requires a login, provide an appropriate login. The login username and password will have no bearing on the 'from' address.

Press the "Test Connection" button to have Retain send a test message to the destination.

For troubleshooting, attempting to telnet from the Retain server to the SMTP server may provide useful information. Configuration data is stored in ASConfig.cfg.

FTP Forwarding for Modules Panel

FTP Forwarding for Modules

An FTP server only needs to be defined when uploading a copy of the items collected by Retain to an external system.

FTP Server	<input type="text"/>
FTP Security Protocol	<div>unencrypted ▼</div>
FTP Port	<input type="text" value="21"/>
FTP Upload Location	<input type="text"/>
FTP Username	<input type="text"/>
FTP Password	<input type="password"/>

Test Connection

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Module Forwarding Tab](#) > **FTP Forwarding for Modules Panel**

This feature instructs Retain to take a copy of any archived message data to the specified location, when the data item is archived. This feature must be configured here, in Server Configuration as well as selected on the desired system module configuration page.

FTP Forwarding is designed for exporting data to an external FTP server for redundant archival. While the FTP Forwarding service does not have the inherent danger of duplicating data as the SMTP Forwarding feature does, it is important to note that should the exported data be sent through

any system the Retain system archives, it will duplicate data in the Retain archive. FTP forwarding simply sends a copy of the data in the format that it is received, (Mime, text, etc.). The FTP Forwarding service is run every 10 minutes, checking for any data queued for delivery.

Requirements

- ♦ Separate, working FTP Server
- ♦ Module and Server Configuration must both be configured

Configuration

The FTP Forwarding feature must have a configured FTP Server connection before the forward option will appear in the Module configuration pages. To configure the FTP Forwarding option fill out all the required information and then test the connection. Test results will be displayed after the test completes.

FTP Server is the connection address or DNS name of the FTP Server

FTP Security Protocol is the security of the receiving FTP server. Options are Unencrypted, SSL, or TLS.

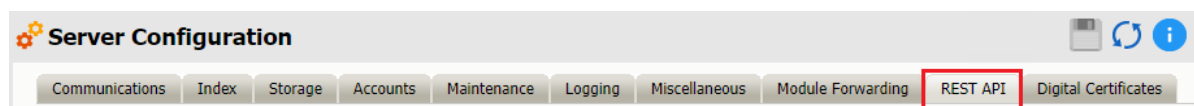
FTP Port is the listening port of the FTP server.

FTP Upload Location is the path to the desired destination directory of the FTP Server. This must be the location as you would view it in an FTP client. FTP Username and Password are the login credentials to the FTP Server.

Once configured, select 'Test Connection' and then save the settings by selecting the disk icon at the top right of the page. Now the FTP Forwarding option has been configured the FTP option will appear in the module forwarding section of each individual module configured in the system. Only the modules which have had the FTP option saved will utilized FTP Forwarding. The feature must be configured in both places in order to function.

For troubleshooting, attempting to FTP from the Retain server to the FTP server may provide useful information. Configuration data is stored in ASConfig.cfg.

REST API Tab



The REST API is an interface that allows third-party applications to input data into the Retain archive. For third-party applications to utilize the REST API, they must have a key provided by Micro Focus.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [REST API Tab](#)

The REST API tab contains the following panels:


- ♦ [“License Summary Panel” on page 87](#)
- ♦ [“Submit License Panel” on page 87](#)
- ♦ [“REST Collectors Panel” on page 88](#)

The REST API is an input protocol only. For Archive security, the API prohibits migrating data out of the Retain Archive. There are also limits placed in each applications API license file to protect the integrity of the data being input into the archive, based on the application.

License Summary Panel

License Summary

Global Settings

	API Enabled	True
	License begins	Mon Dec 28 12:02:10 MST 2015
	License expires	Mon Feb 21 10:59:59 MST 2033
	Maximum read requests per minute	100000
	Maximum write requests per minute	60000
	Maximum read requests per application per minute	10000
	Maximum write requests per application per minute	6000
	Maximum read requests per user per minute	10000

Application Settings

Application	Retain Worker
Application Key	75C1F268-9AC9-43C4-BBD5-DB31F856E30C
Enabled	True
License begins	Sat Feb 11 12:10:32 MST 2017
License expires	Thu Mar 03 10:59:59 MST 2033
Maximum read requests per minute	100000
Maximum write requests per minute	100000
Capabilities	Manage, Search, Insert, Read

Application	Retain AT&T
Application Key	5DFD6637-23BA-4AD1-9513-5939B097D81F
Enabled	True
License begins	Tue Aug 01 11:25:55 MDT 2017
License expires	Thu Dec 31 10:59:59 MST 2037
Maximum read requests per minute	10000
Maximum write requests per minute	6000

Path: [Retain Server Manager](#) > Configuration > Server Configuration > REST API Tab > License Summary Panel

Submit License Panel

Submit License

Browse...

No file selected.

Submit License

Path: [Retain Server Manager](#) > Configuration > Server Configuration > REST API Tab > Submit License Panel

To gain a credentialed key for a third party application, contact a Micro Focus sales representative. Use of the REST API will require a REST API base license, and an application specific license for each desired application.

REST Collectors Panel

REST Collectors

REST Collectors are given rights to push data inside of Retain using the REST API.

Collector Name

Add collector

Some modules use the REST API for data collection. You need to create a collector to connect to the message system. You may have multiple REST collectors.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [REST API Tab](#) > [REST Collectors Panel](#)

Table 2-22 Using the REST Collectors Panel

Option, Field, or Sub-panel	Information and/or Action
Collector Name	A name of your choosing, preferably one that identified the system that will use it to archive to your Retain server.

- ♦ *Create* a REST Collector by providing:
 1. The *Collector Name* can be anything you want, but we recommend something easy to identify with the system it connects with. A Key and Secret will be created for the collector. The Key and Secret will be used on the message system side of the system for authentication.
 2. Then press "*Add collector*" to enable the collector.
 3. *Export* the collector allows you to export the Key and Secret to disk for use with the message system.
 4. Send exported file to your message service provider.
- ♦ *Delete* removes the collector.

Digital Certificates Tab



Secure communications require that the Retain server use certificates from industry-recognized Certificate Authorities. Use this tab to install and manage these certificates.

Path: [Retain Server Manager](#) > [Configuration](#) > [Server Configuration](#) > [Digital Certificates Tab](#)

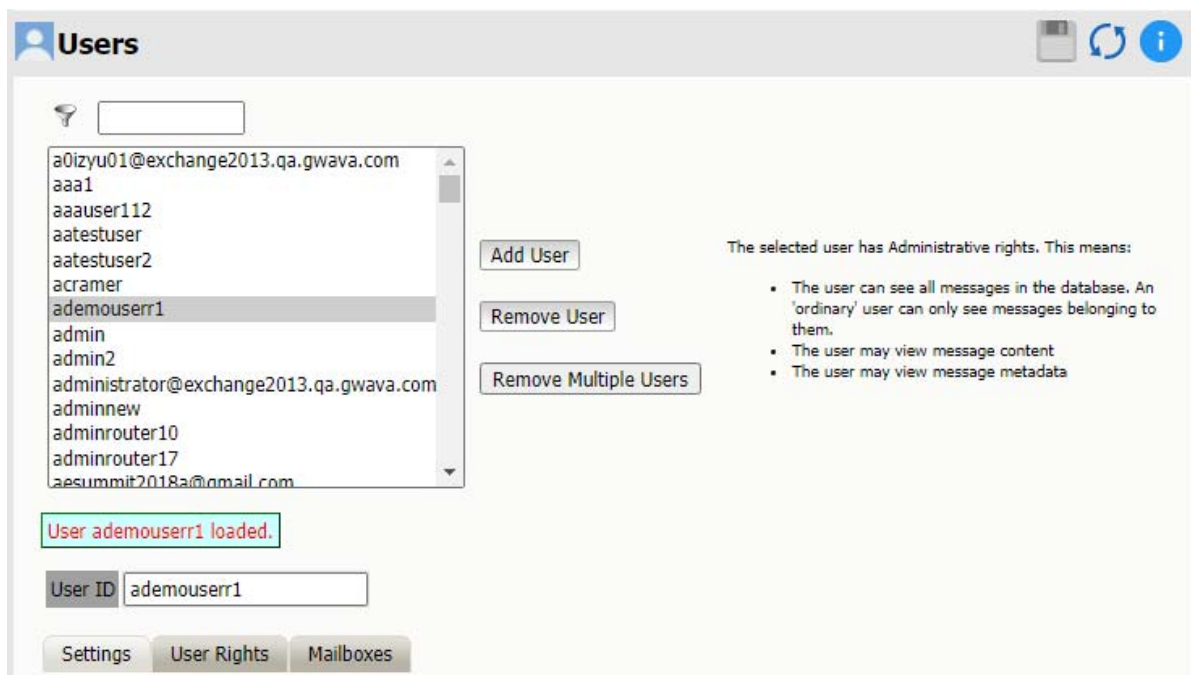
Table 2-23 *Using the Digital Certificates Tab*

Option, Field, or Sub-panel	Information and/or Action
Retain KeyStore/TrustStore panel	<ul style="list-style-type: none">♦ KeyStore radio button: Select this to view the certificates that are installed in the KeyStore.♦ TrustStore radio button: Select this to view the certificates that are installed in the TrustStore.♦ Add button: Click this to open a dialog for adding certificates.

3 Management

- ♦ “Users” on page 91
- ♦ “Groups” on page 102
- ♦ “Authentication” on page 110
- ♦ “Account Linking” on page 113
- ♦ “Device Management Overview” on page 117
- ♦ “Mobile Device Management” on page 118
- ♦ “Blackberry Device Management” on page 156
- ♦ “Jobs” on page 159
- ♦ “Workers” on page 162
- ♦ “System Log Option (Overview)” on page 163
- ♦ “Auditing Option (Overview)” on page 164
- ♦ “Deleting Data” on page 167
- ♦ “Litigation Hold” on page 177

Users



Path: Retain Server Manager > Management > Users

- ♦ “Settings Tab” on page 92
- ♦ “User Rights Tab” on page 95

- ♦ [“Mailboxes Tab” on page 98](#)
- ♦ [“GroupWise Proxy Support” on page 100](#)
- ♦ [“Creating Users” on page 101](#)
- ♦ [“Creating a Retain Only User” on page 102](#)

User and Groups Management requires the `Manage users and groups` or the `Assign Rights` administrative right.

Settings Tab

Path: [Retain Server Manager](#) > **Management** > **Users** > **Settings** tab

Table 3-1 Using the Settings tab

Field, Option, or Button	Information and/or Action
Users List	
Select a user from the list.	
♦ Add User button	♦ Click to create a new user. See “Creating Users” on page 101
♦ Remove User and Remove Multiple Users buttons	♦ Click to remove users. In the case of users imported from messaging systems, those systems are unaffected.
User-specific Settings Panel	
These settings are specific to each user.	
♦ Description	♦ Optional information about the user.
♦ Primary UID	♦ Offline-only accounts usually won't have this. ♦ The initial admin account is set to use offline exclusively, so it doesn't have this.
♦ Expire Account	♦ This lets the admin set a date when the account will no longer be allowed to log in. When an account expires, the account is not removed from Retain.
♦ List of groups	♦ Default is default . ♦ Create groups under Groups and they appear as choices here. ♦ If you choose to assign users to multiple groups, make sure you understand the explanation in “When Users Belong to Multiple Groups” on page 95 . ♦ If a listed group displays in red text, that group has been designated as the Default Configuration group for the user.
♦ Remove Group button	♦ Click this to remove the selected group. When the change is saved, the user no longer inherits privileges from this group.

Field, Option, or Button	Information and/or Action
♦ Add Groups button	<p>♦ Click this to display a list of groups.</p> <p>Select one or more groups and click OK.</p> <p>The user then inherits privileges from the additional groups. Additionally, the groups that are added are eligible to be selected as the Configuration Group for the user.</p>
Inheritable Settings from Group Panel (User context)	
<p>These settings can be inherited from the specified Configuration Group. If so, setting information, etc. displays in blue text.</p> <p>Settings displayed in normal text are set directly in the User account.</p>	
♦ Configuration Group	<p>♦ Initially, no group appears in this field, which means that the default group settings are available to be inherited.</p> <p>You can select one group from the groups assigned to this user in the User-specific panel (above).</p> <p>The settings under “Inheritable Settings from Group Panel (Group context)” on page 104 are then available to be inherited by the user by selecting the empty slot at the top of each drop-down list.</p> <p>Alternatively, any of the other selectable settings will override the Configuration Group’s setting if they are specifically selected.</p>
♦ Enable Multi-factor Authentication	<p>IMPORTANT: This option only appears for GroupWise and on-prem Exchange users.</p> <p>♦ This must be Enabled for MFA to work for this user.</p> <p>♦ You can enable the option here, or you can enable it in the user’s designated Configuration Group.</p>

Field, Option, or Button	Information and/or Action
♦ Authentication Method	<ul style="list-style-type: none"> ♦ You can have the user inherit this setting from a specified Configuration Group, or you can set it to one of the values in the drop-down list, as follows: <ul style="list-style-type: none"> ♦ Offline Authentication: Credentials stored within Retain, any type of user <ul style="list-style-type: none"> ♦ If you use this authentication method, store the password here. ♦ It can be changed as needed. ♦ You can prevent users from changing it. ♦ Passwords are always stored in an encrypted format - never in clear text. ♦ LDAP Authentication (GW): Must be set up in the GroupWise module > LDAP Tab. ♦ SOAP Authentication (GW): Users are automatically entered into Retain's user list ♦ Exchange Authentication: Users are automatically entered into Retain's user list ♦ Google IMAP: Google users are authenticated through IMAP to the Google system ♦ Use Exclusively: Allows the user to only use one type of authentication. If this setting is not checked, it will try one authentication and if that is unsuccessful, it will try another
♦ Language	<ul style="list-style-type: none"> ♦ The language used in the search interface for this user. <p>You can have the user inherit this setting from the specified Configuration Group, or you can set it to one of the values in the drop-down list.</p>
♦ Change Internal Password	<ul style="list-style-type: none"> ♦ If Allow User to Change Password is set to yes, the user can reset the password in Retain..
♦ Forwarded Messages Comment	<ul style="list-style-type: none"> ♦ The default comment for forwarding messages. <p>You can have the user inherit this setting from the specified Configuration Group, or you can set it to one of the values in the drop-down list.</p>
♦ Forwarded Messages Internet Domain	<ul style="list-style-type: none"> ♦ Automatically append the specified address to forwarded messages. <p>You can have the user inherit this setting from the specified Configuration Group, or you can set it to one of the values in the drop-down list.</p>
♦ Date Display Format	<ul style="list-style-type: none"> ♦ How to display dates. <p>You can have the user inherit this setting from the specified Configuration Group, or you can set it to one of the values in the drop-down list.</p>
♦ Time Display Format	<ul style="list-style-type: none"> ♦ How to display time. <p>You can have the user inherit this setting from the specified Configuration Group, or you can set it to one of the values in the drop-down list.</p>
♦ Display Number of Messages Per Page	<ul style="list-style-type: none"> ♦ How many items to display per page. <p>You can have the user inherit this setting from the specified Configuration Group, or you can set it to one of the values in the drop-down list.</p>

Field, Option, or Button	Information and/or Action
♦ Message Age Display	<ul style="list-style-type: none"> ♦ Default date filter for searching. Can be changed on the fly. <p>You can have the user inherit this setting from the specified Configuration Group, or you can set it to one of the values in the drop-down list.</p>
♦ View Message Format	<ul style="list-style-type: none"> ♦ Whether to display HTML format when possible or always display text regardless of actual format. <p>You can have the user inherit this setting from the specified Configuration Group, or you can set it to one of the values in the drop-down list.</p>
♦ Session Timeout (Minutes)	<ul style="list-style-type: none"> ♦ A value between 10 and 480 minutes. <p>You can have the user inherit this setting from the specified Configuration Group, or you can set it to one of the values in the drop-down list.</p>

When Users Belong to Multiple Groups

The following points apply:

- ♦ **Access Rights:** Users inherit the access rights assigned to each group they belong to, in addition to their explicitly assigned rights and attributes. If privilege-level differences exist between assigned groups, the highest privilege level applies.
- ♦ **Mailboxes:** In addition to their primary mailbox, users have access to all mailboxes available to the groups that they belong to.
- ♦ **Inheritable Attributes:** Several attributes that affect users can be assigned directly in the user's account or inherited from a designated Configuration Group. For more information about these attributes, see [“Inheritable Settings from Group Panel \(User context\)” on page 93](#) and [“Inheritable Settings from Group Panel \(Group context\)” on page 104](#).

User Rights Tab

When an administrator-level right is granted to 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.

Settings User Rights Mailboxes

User Rights

Rights explicitly granted to the user.

Administrator level rights

- ☒ Search all mailboxes
- ☒ Publish messages
- ☐ Restore messages [any mailbox]
- ☐ See confidential items [other mailboxes]
- ☐ View all Messages
 - ☐ View Message Content
 - ☐ View Message Metadata
- ☐ Manage Server
 - ☐ Encryption Management
- ☐ Access Reporting and Monitoring Server
- ☐ Assign Rights
- ☐ Access all audit logs
- ☐ Deletion Manager
- ☐ Device Management
- ☐ Add, edit, remove global tag definitions
- ☐ Apply or remove litigation hold
- ☐ Manage Users and Groups
- ☐ Manage Workers, Schedules, Profiles, Jobs

User level rights

- ☐ Apply confidential tag [other mailboxes]
- ☐ View/Save attachments
- ☐ View personal audit log
- ☐ Delete messages [other mailboxes]
- ☐ Delete messages [own mailbox]
- ☐ Export messages
- ☐ Forward messages
- ☐ Print messages
- ☐ Read configuration (Redline)
- ☐ Restore messages [own mailbox]
- ☐ Apply confidential tag [own mailbox]
- ☐ Add, edit, remove user tag definitions

Administrator-level Rights

- ♦ Search all mailboxes: also grants View all Messages rights.
- ♦ Publish messages: allows user to connect to Retain with the Publisher tool.

- ♦ Restore messages [any mailbox]: returns message to live mailbox in Exchange, adds stub to GroupWise mailbox.
- ♦ See confidential items [other mailboxes]: Allows users to view items which others have tagged as confidential
- ♦ View all messages: All messages and content in Search Messages.
 - ♦ View Message Content: Only the message body and attachments.
 - ♦ View Message Metadata: Only the properties of the message.
- ♦ Manage Server: Allows user access to the Configuration section of the Retain Server and access diagnostic utilities.
 - ♦ Encryption Management: Generate and revoke storage encryption keys under Server Configuration | Storage.
- ♦ Access Reporting and Monitoring Server
- ♦ Assign Rights: Can assign rights to other users.
- ♦ Access all audit logs: Enables access to the audit logs.
- ♦ Deletion Manager: Access to Item and Mailbox Deletion.
- ♦ Device Management: May add, remove, and edit devices.
- ♦ Add, edit, remove global tag definitions: Allows manipulation of global tags in the view messages interface.
- ♦ Apply or remove litigation hold: On individual users or groups.
- ♦ Manage Users and Groups: Create users and groups and modify rights.
- ♦ Manage Workers, Schedules, Profiles, Jobs: Control archive jobs.

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 functionality. None are needed to access your own mailbox and other mailboxes assigned to you. The "Default" group grants Forwarding, View Attachment, and Printing rights. 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. Rights marked [other mailbox] refers to other mailboxes the user has been granted rights to as explained below for the Mailboxes tab.

- ♦ Apply confidential tag [other mailboxes]
- ♦ View/Save attachments
- ♦ View personal audit log
- ♦ Delete messages [other mailboxes]
- ♦ Delete messages [own mailbox]
- ♦ Export messages: Enables the export to PDF button.
- ♦ Forward messages
- ♦ Print messages
- ♦ Read configuration (Redline)
- ♦ Restore messages [own mailbox]

- ♦ Apply confidential tag [own mailbox]
- ♦ Add, edit, remove user tag definitions

The Read Configuration right (GroupWise Reporting and Monitoring Integration)

If you are integrating with GroupWise Reporting and Monitoring (GWRM) product, you will need to create a user account so that GWRM 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.

Mailboxes Tab

Select the mailboxes this user will be able to access in addition to their own. This allows one user to access another user's mailbox.

Settings
User Rights
Mailboxes

Mailboxes

These are additional mailboxes beyond the primary mailbox that the user 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 *Search All Mailboxes* rights can access all mailboxes and perform any operation in the Search Interface.

Currently Selected

✖ administrator

Criteria

First Name
begins with
Search

System GroupWise
Show only users
Show only recently cached items

Add Selected
Add All

Address Book

Enter criteria to search the cached addressbook.

Granting Rights to All Mailboxes

You may want some users to be able to search through more than just their own mailbox. Administrators have the “Search All Mailboxes” under User Rights as a right which gives them access to everything. If that is too much access for that user you can grant rights to individual mailboxes.

Granting Rights to Individual Mailboxes

You may grant rights to some users so they can access just certain mailboxes. For example we can give the facilities manager rights to two of his workers.

The screenshot shows a web interface for managing user rights. At the top, a 'User ID' field contains 'facilities-management'. Below it are three tabs: 'Settings', 'User Rights', and 'Mailboxes', with 'Mailboxes' being the active tab. The main section is titled 'Mailboxes' and contains a descriptive paragraph about mailbox access. Below this is a 'Currently Selected' section with a list of two items: 'loki odinson' and 'thor odinson', each preceded by a red 'X' icon. Underneath is a 'Criteria' section with a search interface. It includes a 'Display Name' dropdown set to 'begins with', an empty text input field, and a 'Search' button. There are also checkboxes for 'Show only users' (checked) and 'Show only recently cached items' (unchecked), along with 'Add Selected' and 'Add All' buttons. At the bottom is an 'Address Book' section with a text input field containing the placeholder 'Enter criteria to search the cached addressbook.'

User ID: facilities-management

Settings User Rights Mailboxes

Mailboxes

These are additional mailboxes beyond the primary mailbox that the user 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 *Search All Mailboxes* rights can access all mailboxes and perform any operation in the Search Interface.

Currently Selected

- ✗ loki odinson
- ✗ thor odinson

Criteria

Display Name begins with Search

Show only users ☒ Show only recently cached items ☐

Add Selected Add All

Address Book

Enter criteria to search the cached addressbook.

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'.

Address Book Selector

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.

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

Criteria

First Name begins with

System Show only users ☐ Show only recently cached items ☐

Address Book

Previous ... Next

<input type="checkbox"/>	First	Last	Mail Server	Mailbox	Dept.	Type	Domain
<input type="checkbox"/>	retain		Exchange2013	retain		U	ExchangeQA
<input type="checkbox"/>	Administrator		Exchange2013	Administrator		U	ExchangeQA
<input type="checkbox"/>	Archive310		LXPO	Archive310		R	LXDom
<input type="checkbox"/>	BladP		GW7NTPO	BladP		U	GW7NTDom
<input type="checkbox"/>	CobraCal		CBIPO	CobraCal		R	CBIDOMAIN
<input type="checkbox"/>	Conf 1		CBIPO	Conf 1		R	CBIDOMAIN
<input type="checkbox"/>	Conf 2		CBIPO	Conf 2		R	CBIDOMAIN

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
5. The user can then page back and forth among the first 5 pages of results
6. Choose which of the results you want to add to the selected list
7. 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.

GroupWise Proxy Support

Retain supports the GroupWise proxy function. To enable it, check the box in the Module Configuration 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 core settings of the user)

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.

Creating Users

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

Retain allows two types of users:

- ♦ **Associated Messaging System Users:** Retain adds these in conjunction with archiving their message content.

These users authenticate to Retain using their messaging system credentials. For example, GroupWise users authenticate using SOAP, Exchange users authenticate using Active Directory credentials.

- ♦ **Retain-Only Users:** You create these in Retain, independent of any message system.

These users authenticate using what Retain calls an [Offline Passwords](#), which you create for them. Offline means that no connection to a separate system is required for authentication.

Initially, both of these user types belong only to the group named `default`, but you can add them to other groups that you create as needed.

Offline Passwords

You can allow users to search through the Retain archives who are not part of the mail system, such as an independent auditor, a lawyer, or a user that has been deleted from the system.

Offline passwords are stored in Retain’s control database.

All Authentication Methods Provide Access

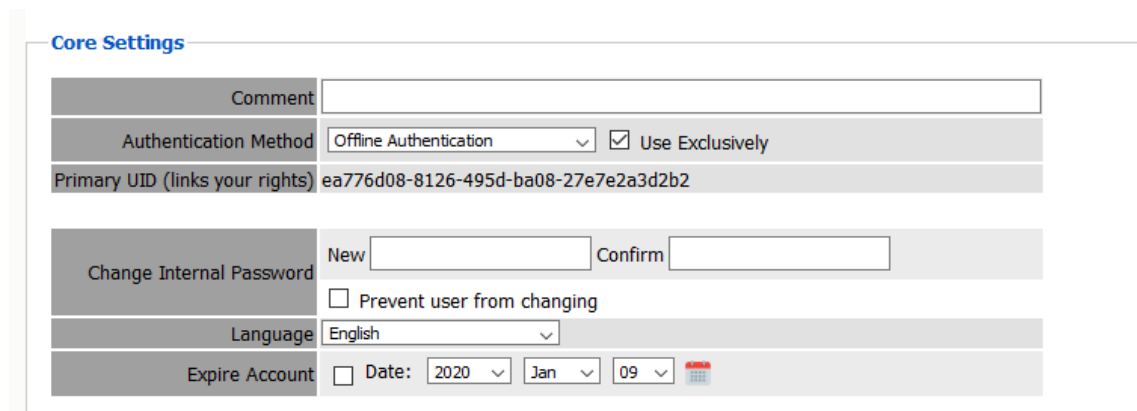
How a user authenticates has no bearing on their access rights within Retain. An administrator who possesses the `Assign Rights` administrative right can assign all pertinent rights to any user on the system.

Users can be assigned access to more than one mailbox. Retain-only users must be given access permissions for at least one mailbox to perform searches. Users who are assigned “Search All Mailboxes” rights have access to all users’ mailboxes.

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

Creating a Retain Only User

- 1 Click the “Add User” button.



The screenshot shows the 'Core Settings' form for creating a user. The form has several sections:

- Comment:** A text input field.
- Authentication Method:** A dropdown menu set to 'Offline Authentication' and a checked checkbox for 'Use Exclusively'.
- Primary UID (links your rights):** A text field containing the value 'ea776d08-8126-495d-ba08-27e7e2a3d2b2'.
- Change Internal Password:** A section with 'New' and 'Confirm' password input fields, and a checkbox for 'Prevent user from changing'.
- Language:** A dropdown menu set to 'English'.
- Expire Account:** A section with a checkbox, a 'Date:' label, and three dropdown menus for year (2020), month (Jan), and day (09), followed by a calendar icon.

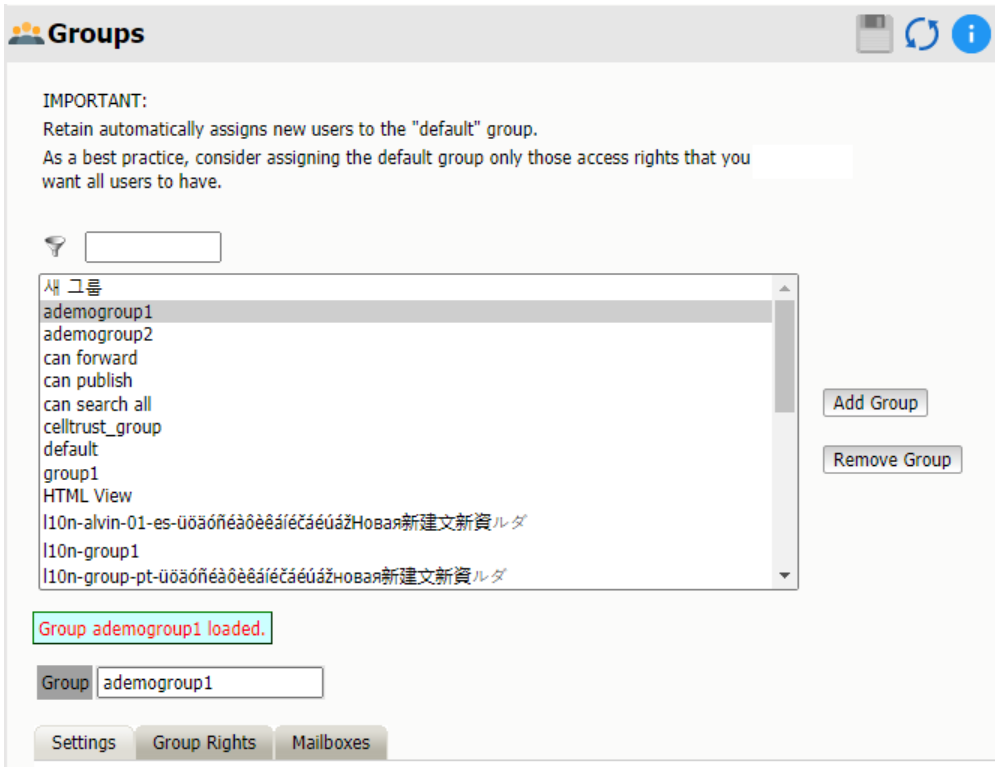
- 2 Enter a new user name and then fill out the options under each tab.
- 3 When you are done, click the save changes disk icon at the upper right

Groups

After you have created users, you can group them for the purpose of assigning the same settings and rights to everyone in the group.

For example, you could create a group named “Auditors” and assign the group rights to specific functions that an auditor needs.

Or you could create a group named GW-MFA and enable Multi-factor Authentication as an inheritable setting. GroupWise and on-prem Exchange users with GW-MFA as their assigned Configuration Group, could then inherit the setting and access Retain using multi-factor authentication (MFA).



Path: [Retain Server Manager](#) > [Management](#) > [Groups](#)

The groups page lists all defined groups, including the group named default, which is created when you install Retain.

Users are automatically assigned to default when they are first created. If you want users to be part of other groups, you can create them and then add users to them.

Use the information in the following sections to manage the groups on your Retain system.

- ◆ [“Settings Tab” on page 103](#)
- ◆ [“Group Rights Tab” on page 106](#)
- ◆ [“MailboxesTab” on page 109](#)
- ◆ [“Creating a New Group” on page 109](#)

Settings Tab

Path: [Retain Server Manager](#) > [Management](#) > [Groups](#) > [Settings tab](#)

Table 3-2 *Using the Settings tab*

Field, Option, or Button	Information and/or Action
Group-specific Settings Panel	
These settings are specific to each group.	
Changes take effect when you click Save.	
◆ Description	◆ Optional information about the group.

Field, Option, or Button	Information and/or Action
♦ Group Membership	♦ A list of users belonging to the group.
♦ Configuration Group Membership	♦ A list of users who have this group assigned as their Configuration Group. Before users can be assigned here, they must be listed in the Group Membership list. If they are subsequently removed from the Group Membership list, they are automatically removed from this list. ♦ Adding a user to this list, automatically sets this group as the user's Configuration Group in the Inheritable Settings from Group Panel (User context) . ♦ Setting this group as the Configuration Group for multiple users is more easily accomplished by adding the users here than by accessing each user's Inheritable Settings from Group panel individually and then selecting this group.
♦ Remove Member buttons	♦ Click this to remove the selected users.
♦ Add Members button	♦ Click this to display a list of users. ♦ Select one or more users and click OK.
Inheritable Settings from Group Panel (Group context)	
The settings specified for the following fields can be inherited by users who have this group selected as their Configuration Group. Settings you make in this panel are only potentially effective if this group is selected as a User's Configuration Group and another setting made in the user's configuration doesn't override the setting.	
♦ Language	♦ The language used in the search interface for this user. Users can inherit this value if this group is selected as their Configuration Group and they haven't selected an alternative value.
♦ Allow User to Change Password	♦ This setting controls whether users are able to store their internal password.

Field, Option, or Button	Information and/or Action
♦ Authentication Method	<ul style="list-style-type: none"> ♦ Users can inherit this setting if this group is their specified Configuration Group: <ul style="list-style-type: none"> ♦ Offline Authentication: Credentials stored within Retain, any type of user <ul style="list-style-type: none"> ♦ If you use this authentication method, store the password here. ♦ It can be changed as needed. ♦ You can prevent users from changing it. ♦ Passwords are always stored in an encrypted format - never in clear text. ♦ LDAP Authentication (GW): Must be set up in the GroupWise module > LDAP Tab. ♦ SOAP Authentication (GW): Users are automatically entered into Retain's user list ♦ Exchange Authentication: Users are automatically entered into Retain's user list ♦ Google IMAP: Google users are authenticated through IMAP to the Google system ♦ Use Exclusively: Allows the user to only use one type of authentication. If this setting is not checked, it will try one authentication and if that is unsuccessful, it will try another
♦ Enable Multi-factor Authentication	<ul style="list-style-type: none"> ♦ GroupWise and on-prem Exchange users can inherit this value if this group is selected as their Configuration Group and they haven't selected an alternative value.
♦ Forwarded Messages Comment	<ul style="list-style-type: none"> ♦ The default comment for forwarding messages. Users can inherit this value if this group is selected as their Configuration Group and they haven't selected an alternative value.
♦ Forwarded Messages Internet Domain	<ul style="list-style-type: none"> ♦ Automatically append the specified address to forwarded messages. Users can inherit this value if this group is selected as their Configuration Group and they haven't selected an alternative value.
♦ Date Display Format	<ul style="list-style-type: none"> ♦ How to display dates. Users can inherit this value if this group is selected as their Configuration Group and they haven't selected an alternative value.
♦ Time Display Format	<ul style="list-style-type: none"> ♦ How to display time. Users can inherit this value if this group is selected as their Configuration Group and they haven't selected an alternative value.
♦ Display Number of Messages Per Page	<ul style="list-style-type: none"> ♦ How many items to display per page. Users can inherit this value if this group is selected as their Configuration Group and they haven't selected an alternative value.
♦ Message Age Display	<ul style="list-style-type: none"> ♦ Default date filter for searching. Can be changed on the fly. Users can inherit this value if this group is selected as their Configuration Group and they haven't selected an alternative value.

Field, Option, or Button	Information and/or Action
♦ View Message Format	<ul style="list-style-type: none"> ♦ Whether to display HTML format when possible or always display text regardless of actual format. <p>Users can inherit this value if this group is selected as their Configuration Group and they haven't selected an alternative value.</p>
♦ Session Timeout (Minutes)	<ul style="list-style-type: none"> ♦ A value between 10 and 480 minutes. <p>Users can inherit this value if this group is selected as their Configuration Group and they haven't selected an alternative value.</p>

Group Rights Tab

Group rights are the same as user rights [“User Rights Tab” on page 95](#), just applied to the entire group.

Group Rights

Rights granted to the group. Members of the group will inherit these rights, as well as ones explicitly assigned to them.

Administrator level rights

- ☐ Search all mailboxes
- ☐ Publish messages
- ☐ Restore messages [any mailbox]
- ☐ See confidential items [other mailboxes]
- ☐ View all Messages
 - ☐ View Message Content
 - ☐ View Message Metadata
- ☐ Manage Server
 - ☐ Encryption Management
- ☐ Access Reporting and Monitoring Server
- ☐ Assign Rights
- ☐ Access all audit logs
- ☐ Deletion Manager
- ☐ Device Management
- ☐ Add, edit, remove global tag definitions
- ☐ Apply or remove litigation hold
- ☐ Manage Users and Groups
- ☐ Manage Workers, Schedules, Profiles, Jobs

User level rights

- ☐ Apply confidential tag [other mailboxes]
- ☒ View/Save attachments
- ☐ View personal audit log
- ☐ Delete messages [other mailboxes]
- ☐ Delete messages [own mailbox]
- ☐ Export messages
- ☒ Forward messages
- ☒ Print messages
- ☐ Read configuration (Redline)
- ☐ Restore messages [own mailbox]
- ☐ Apply confidential tag [own mailbox]
- ☐ Add, edit, remove user tag definitions

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 functions as the user rights.

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. There are, however, certain rights which implicitly grant other rights. For example, granting a Group the `Restore Messages [Any Mailbox]` right automatically grants the `Restore Messages [Own Mailbox]` right.

TIPS

Typically, you will not want to grant GroupWise Reporting and Monitoring rights to a group, but in a situation where you have more than one GroupWise Reporting and Monitoring control center and you want to see which one is monitoring, group-level GroupWise Reporting and Monitoring 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. Other than their own mailboxes, users only get rights to the mailboxes that you grant to them.

MailboxesTab

Settings

Group Rights

Mailboxes

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 *Search All Mailboxes* rights can access all mailboxes and perform any operation in the Search Interface.

Include these objects:

BES10 (BlackBerry)

Add Mail Server

Currently Selected

Criteria

First Name

begins with

Search

System

GroupWise

Show only users

Show only recently cached items

Add Selected

Add All

Address Book

Enter criteria to search the cached addressbook.

- ♦ This screen works exactly like the user's access to mailboxes. Please see the user's mailbox section for 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.
- ♦ Only give group access to mailboxes 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.

Creating a New Group

If you want to create a new group, simply

1. Click "Add Group"
2. Type the name in "Group"

3. Change the properties of the group in the tabs below
4. Click “Save Changes”

Authentication

By default, users with archived content can authenticate to Retain using their messaging system credentials. Retain automatically adds the users when their messages and other content is archived.

You can also create Retain-specific user accounts and, for example, assign them administrative or auditing capabilities.

The **Server Configuration > Accounts tab** lets you control the creation and functionality of all Retain user accounts, as outlined in the following sections:

- ♦ [“General Account Control” on page 110](#)
- ♦ [“Understanding Retain’s Multi-factor Authentication” on page 110](#)
- ♦ [“Multi-factor Authentication Setup” on page 112](#)

General Account Control

The [Account Management Panel \(page 73\)](#), lets you control when new accounts are created, manage account expiration, prevent specific users from logging in, and set password strength (except where overridden by associated messaging systems).

Understanding Retain’s Multi-factor Authentication

Through an integration with NetIQ Advanced Authentication, Retain supports multi-factor authentication (MFA) for users originating on GroupWise and on-premise Exchange systems. Other users are not currently supported.

Figure 3-1 Determining When Multi-factor Authentication Applies

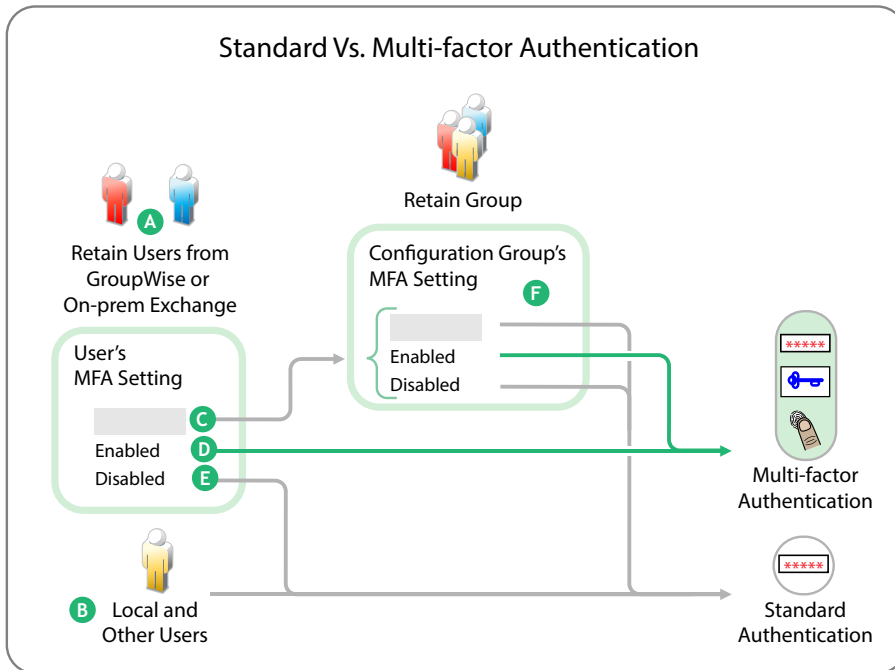


Table 3-3 Standard Vs. Multi-factor Authentication

Letter	Explanation
A	Only GroupWise and On-prem Exchange Users are supported for Multi-factor Authentication.
B	Local and other users authenticate using their username and password.
	Multi-factor Authentication settings are available at the user and group levels as explained in User Settings Tab (page 92) and Group Settings Tab (page 103) . User settings always override group settings.
C	If a user's MFA setting is Blank (not set): Retain uses the user's Configuration Group's MFA setting. (See F.)
D	If a user's MFA setting is Enabled: Retain displays the MFA prompts defined in the applicable NetIQ Advanced Authentication configuration. For more information about configuring Retain to interface with NetIQ Advanced Authentication, see "Multi-factor Authentication Setup" on page 112 .
E	If a user's MFA setting is disabled: Retain displays the standard authentication prompt.
F	If a user's MFA setting is blank (see C), Retain uses the User's Configuration Group's setting as follows: <ul style="list-style-type: none"> ♦ If the Group's Setting Is Blank or Disabled: Retain displays the standard authentication prompt. ♦ If the Group's Setting Is Enabled: Retain displays the MFA prompts defined in the applicable NetIQ Advanced Authentication configuration.

Other Information about Multi-factor Authentication in Retain

- ♦ **Authentication is persistent:** Credentials need only be entered once and last until the browser's associated cookies have expired.
- ♦ **MFA can still work when the GroupWise or Exchange systems are offline:** If a GroupWise or an on-prem Exchange user has previously connected to Retain using MFA, they can still log in to Retain using MFA, provided that the LDAP repository configured in Advanced Authentication is still accessible.

Multi-factor Authentication Setup

You are responsible to set up and configure MFA prior to implementing it in Retain. For help with setting up MFA on your email systems, refer to the [NetIQ Advanced Authentication 6.3 Administration Guide](#) (or to the guides for your version of the Advanced Authentication product).

To set up Multi-factor authentication support in Retain, do the following:

- 1 Using your management browser, open the Retain Administrative Console and access the [Accounts Tab > NetIQ Advanced Authentication Configuration Panel](#). See [Figure 2-1, "The NetIQ Advanced Authentication Configuration Panel,"](#) on page 75.
- 2 Select the option to enable Multi-factor Authentication.
- 3 In the **Server URL ...** field, type the URL that you use to access the NetIQ Advanced Authentication server.
- 4 In the configuration panel > **Redirect URI** field, modify the displayed URI as follows:
 - 4a Specify the protocol (HTTP or HTTPS) used for connections to this Retain server.
 - 4b Replace `localhost` with the DNS name or IP address of the Retain server.
 - 4c (Optional) If an alternate port is used for connections to the Retain server, modify the port number accordingly.
 - 4d Leave the rest of the URI intact.

You copy this to the Advanced Authentication server in <step> below.
- 5 Open a new tab in your management browser.
- 6 Access the NetIQ Advanced Authentication administrative console as described in the [Advanced Authentication Administration Guide](#).
- 7 Create an "OAuth2 event" for the Retain server by following the steps in [Creating an OAuth2.0/OpenID Connect Event](#).
- 8 Copy the generated `OAuth2 Client ID` and `OAuth2 Client Secret` from the AA admin console to their respective fields in the Retain console,
- 9 While still in the Retain console, copy the modified URI ([Step 4](#)) in the **Redirect URI** field to the clipboard, then paste it in the **Redirect URIs** field in the OAuth2 event configuration dialog in the Advanced Authentication console.

IMPORTANT: The URI on the Retain and AA servers must match exactly.

- 10 Save the configurations in both consoles.
- 11 Enable Multi-factor authentication on an individual user basis, or by including users in a Configuration Group and enabling MFA for the group.

For information on enabling individual users, see ["Inheritable Settings from Group Panel \(User context\)"](#) on page 93.

For information on enabling multiple users, see [“Inheritable Settings from Group Panel \(Group context\)” on page 104](#).

- 12 Using the Test Login with Advanced Authentication button, sign in as one of the users you have enabled for MFA.

Account Linking

- ♦ [“Link Accounts” on page 113](#)
- ♦ [“Split Accounts” on page 115](#)

Account linking allows user accounts to be linked together. This is used when you have migrated from one email system to another and you wish to allow users to access their previous data.

A report may be downloaded by pressing the “Generate Account Reports” button.

If you want to allow one user to access the archived mailbox of another user, use the Mailboxes tab of Users Management section [“Mailboxes Tab” on page 98](#).

There are two functions: Link accounts, which will bring accounts together and split accounts which will separate accounts.

Link Accounts

When you add a new email module Retain will ask you if you wish to link accounts. If you agree, you will be taken to the Account Linking page.

Account Linking

Link accounts Split accounts Generate Account Reports

Manually select accounts for linking:

Module: All State: All

Search accounts

Administrator (administrator@sf.gwava.net) Exchange-142	add
Aiden Li (aiden@doc.mf.net) Groupwise-1	add
Alan Smith (alan@doc.mf.net) Groupwise-1	add
Blake Zhang (blake@doc.mf.net) Groupwise-1	add
Carter Wang (carter@doc.mf.net) Groupwise-1	add
Dakota Nguyen (dakota@doc.mf.net) Groupwise-1	add
Eden Garcia (eden@doc.mf.net) Groupwise-1	add
Finley Gonzalez (finley@doc.mf.net) Groupwise-1	add
frigg allmother (frigg@sf.gwava.net) Exchange-142	add
Gunter Scunthorpe O'Malley-Callaghan Jr. (gunter@doc.mf.net) Groupwise-1	add
Hayden Hernandez (hayden@doc.mf.net) Groupwise-1	add
HealthMailboxd3902c0fb457082cb2cfcadbd638 (healthmailbox59643d6716b346da83218bfc262b671@sf.gwava.net) Exchange-142	add
HealthMailboxd8c147a5b6db41f9898222179296c55 (healthmailbox746a6bd078d34b7ea89280228c2c85d4@sf.gwava.net) Exchange-142	add
HealthMailboxd9e27e126644619be14a2c97469c4 (healthmailboxedac96f129a84275b036cdc7ec995f17@sf.gwava.net) Exchange-142	add
Jayden Smith (jayden@doc.mf.net) Groupwise-1	add
Kamryn Smirnov (kamryn@doc.mf.net) Groupwise-1	add
Ioki odinson (ioki@sf.gwava.net) Exchange-142	add

Accounts to be linked manually:

<No accounts selected>

Add to linking queue Clear

Automated scanning

Match Email Address

Start scanning with automated linker

Linking queue:

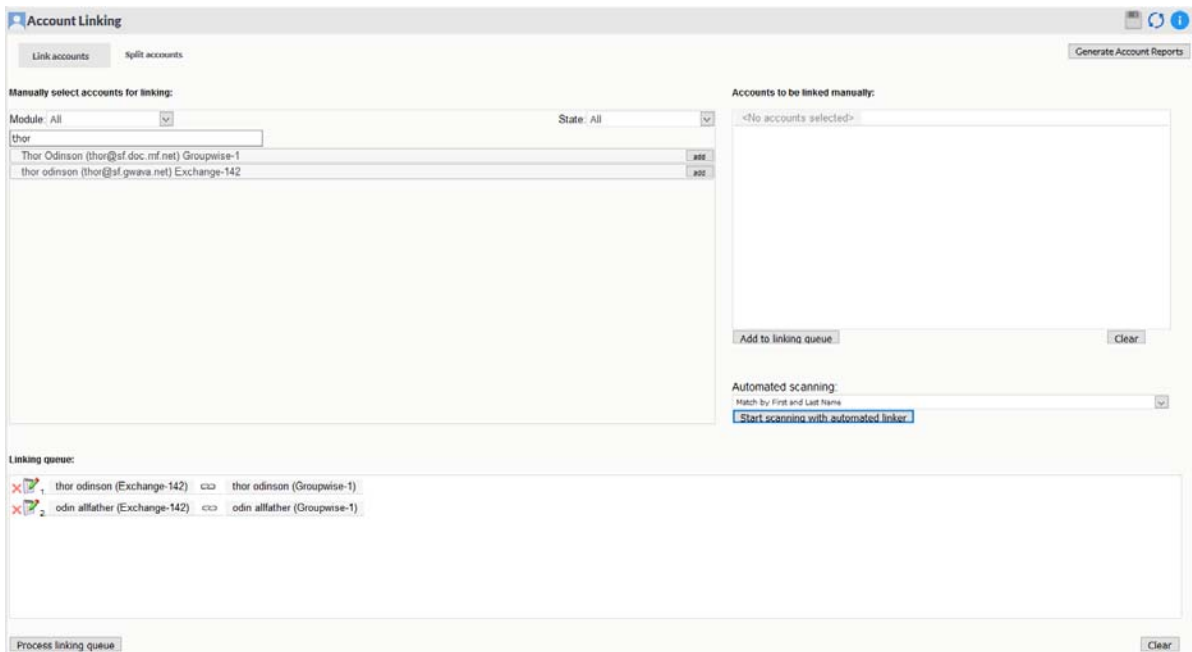
<Linking queue is empty>

Process linking queue Clear

There are two ways to link accounts: automatically and manually.

Automatic Linking

Automatic linking will attempt to link accounts by a selected criteria.



1. Select one of the criteria:
 - ♦ Match EMail Address
 - ♦ Match Display Name
 - ♦ Match by First and Last Name
2. Press the “Start scanning with automated linker” button. Matches will be added to the Linking queue.
3. You may select a different scan criteria and scan again.
4. You may remove incorrect links by pressing the red X next to the account.
5. Press the “Process linking queue” button to link the accounts.

Manual Linking

You may also link accounts manually. For example if the user had a name change during the migration.

1. Select an account from the “Manually select accounts for linking:” pane, and press the “add” button. It will now appear in the “Accounts to be linked manually:” pane.
2. Select another account and press “add.”

Account Linking

Link accounts | Split accounts | Generate Account Reports

Manually select accounts for linking:

Module: All | State: All

Search accounts

Administrator (administrator@sf.gwava.net) Exchange-142	add
Aiden Li (aiden@doc.mf.net) Groupwise-1	add
Alan Smith (alan@doc.mf.net) Groupwise-1	add
Baldur (baldur@sf.doc.mf.net) Groupwise-1	add
Blake Zhang (blake@doc.mf.net) Groupwise-1	add
Carter Wang (carter@doc.mf.net) Groupwise-1	add
Dakota Nguyen (dakota@doc.mf.net) Groupwise-1	add
Eden Garcia (eden@doc.mf.net) Groupwise-1	add
Finley Gonzalez (finley@doc.mf.net) Groupwise-1	add
Freyja Allmother (freyja@sf.doc.mf.net) Groupwise-1	add
Not linked	
frigg allmother (frigg@sf.gwava.net) Exchange-142	add
Fryt (fryt@sf.doc.mf.net) Groupwise-1	add
Gunter Scunthorpe O'Malley-Callaghan Jr. (gunter@doc.mf.net) Groupwise-1	add
Hayden Hernandez (hayden@doc.mf.net) Groupwise-1	add
HealthMailbox3902c0f0457062c2b2fcadbde38 (healthmailbox59643d5716b345da83218bc2629671@sf.gwava.net) Exchange-142	add

Accounts to be linked manually:

- frigg allmother.frigg@sf.gwava.net (d570955-2853-4ca4-a778-fee16611c981)
- frigg.frigg@sf.doc.mf.net (2B0C7D00-02A8-0000-816D-796437323664)

Add to linking queue | Clear

Automated scanning:

Match by First and Last Name

Start scanning with automated linker

- Press the “Add to linking queue” button to add the selected accounts to the linking queue. You may press the red X to remove a link from the queue.

Linking queue:

1. frigg allmother (Exchange-142) Freyja Allmother (Groupwise-1)

Process linking queue | Clear

- Press the “Process linking queue” button to link the accounts in the queue.

Verify Linking

Verify that this worked by running an archive job on the new server with one of the linked or all accounts. You should see a drop down menu to switch between the accounts.

Browse | Search | Advanced Search

odin allfather (Exchange-142)

Odin Allfather (Groupwise-1)

odin allfather (Exchange-142)

Lit

Last 30

No ite

Split Accounts

Accounts may also be split so the archive mailboxes are no longer associated with each other.

Account Linking

Link accounts

Split accounts

Generate Account Reports

Manually select accounts for splitting:

Module: All

Search accounts

Freyja Allmother (freyja@sf.doc.mf.net) Groupwise-1	edit	split
Frigg (frigg@sf.doc.mf.net) Groupwise-1	edit	split
frigg allmother (frigg@sf.gwava.net) Exchange-142	edit	split
Odin Allfather (odin@sf.doc.mf.net) Groupwise-1	edit	split
odin allfather (odin@sf.gwava.net) Exchange-142	edit	split
Thor Odinson (thor@sf.doc.mf.net) Groupwise-1	edit	split
thor odinson (thor@sf.gwava.net) Exchange-142	edit	split

Remove accounts from link:

✗ frigg allmother,frigg@sf.gwava.net (d57f9f65-2853-4

✗ Freyja Allmother,freyja@sf.doc.mf.net (F26CA381-0;

✗ Frigg,frigg@sf.doc.mf.net (2B0C7D00-02A8-0000-8;

Apply changes

Split All

In case you want to split all account linkings in Retain, you can do so by pressing the button "Split All".

Split All

Splitting Accounts Automatically

You may split all links between all accounts by pressing the “Split All” button at the bottom of the page.

Splitting Accounts Manually

Existing links will be shown under the “Manually select accounts for splitting:” pane.

Split all links between an account by pressing the “split” button next to one of the account.

Editing Links

Links between accounts may be edited:

1. Select a link to edit from the “Manually select accounts for splitting:” pane
2. Press “edit” next to one of the accounts to load it into the “Remove accounts from link:” pane. For this example Frigg was added incorrectly to Freyja.

The screenshot shows a web interface for managing account links. It is divided into two main sections:

- Manually select accounts for splitting:** This section contains a dropdown menu for 'Module' set to 'All', a search bar, and a table of accounts. Each row in the table has 'edit' and 'split' buttons.
- Remove accounts from link:** This section shows a list of accounts that have been added to the link, each preceded by a red 'X' icon.

At the bottom right, there is an 'Apply changes' button.

Manually select accounts for splitting:	
Module: All	
Search accounts	
Freyja Allmother (freyja@sf.doc.mf.net) Groupwise-1	edit split
Frigg (frigg@sf.doc.mf.net) Groupwise-1	edit split
frigg allmother (frigg@sf.gwava.net) Exchange-142	edit split
Odin Allfather (odin@sf.doc.mf.net) Groupwise-1	edit split
odin allfather (odin@sf.gwava.net) Exchange-142	edit split

Remove accounts from link:	
X	frigg allmother,frigg@sf.gwava.net (d57f9f65-2853-4
X	Freyja Allmother,freyja@sf.doc.mf.net (F26CA381-0
X	Frigg,frigg@sf.doc.mf.net (2B0C7D00-02A8-0000-8

Apply changes

3. Press the “Apply changes” button to split the link.
4. Verify by going into Browse Messages and changing to the Freyja account and finding no drop down menu to the other accounts.

Device Management Overview

- ♦ [“Searching for Devices” on page 118](#)
- ♦ [“Deleting Devices” on page 118](#)
- ♦ [“Generating Reports” on page 118](#)

Retain manages Blackberry and mobile devices such as Android and iOS devices.



In the Device Manager Interface devices can be:

- ♦ Added
- ♦ Removed
- ♦ Reported on

NOTE: Connection information from Server Configuration | Communications tab | Retain Server Connection panel will be used. If users will travel internationally, it is important to set the Retain Server Port to port 80 as port 48080 is blocked by telecom companies across borders.

Searching for Devices

Use the search text box to filter devices.

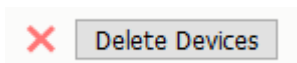


This is a “Starts with...” type of search. You may search by Enrollment Code, Display Name and Email Address.

Clicking on a column can change the sort direction.

Deleting Devices

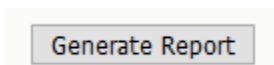
The *Delete Device* button will only remove the selected device or devices from device management, but will not remove the data from the Retain archive.



To remove data you would have to use Data Removal as described in [“Deleting Data” on page 167](#).

Generating Reports

The *Generate Report* button will take open a new tab or window to the Reporting and Monitoring server and open a Device Management Report configuration page.



See Reporting and Monitoring Device Management Report [“Device Management” on page 208](#) for more information.

Mobile Device Management

- ♦ [“Mobile Device Management Overview” on page 118](#)
- ♦ [“Deleting Mobile Devices” on page 156](#)

Mobile Device Management Overview

- ♦ [“Provisioning Mobile Devices” on page 119](#)
- ♦ [“Registering Mobile Devices” on page 125](#)

Mobile devices are managed through the device management interface on the Mobile page. You may click on columns to sort by ascending or descending, or search with the filter text field.

Device Management Save Changes

If you are unfamiliar with the Device Management feature, please refer to the online documentation which can be accessed using the [i](#) button on the top right corner of this screen.

[Delete Devices](#)
[Generate Report](#)
[Add Devices](#)
[Reregister Devices](#)

Device List

Enrollment Code	Display Name	Email Address	Phone Number	Device ID	FWOP ID	UID	Device Added	Registration Sent	Time of Registration	FOR	IMEI
<input type="checkbox"/> US38WAD	Device 1180803	1180803@hammer.com		1180803	-	58b54f41-4287-4cef-beda-214b18731c99	20-Jan-2016 22:20:49		20-Jan-2016 22:20:49		
<input type="checkbox"/> G742PTU	Device 1866910	1866910@hammer.com		1866910	-	89480ba8-dc90-4439-9f0f-2836339da7f7	26-Jan-2016 10:53:17		26-Jan-2016 10:53:18		
<input type="checkbox"/> 3V26DOK	Device 1868169	1868169@hammer.com		1868169	-	ec416dc8-9cd0-43e2-a2c0-5ca9f43f9a8c	21-Jan-2016 08:35:39		21-Jan-2016 08:36:00		
<input type="checkbox"/> U480R1TF	Device 2277610	2277610@hammer.com		2277610	-	c0d744e+173d-4eae-afab-413b7ecdf9a	26-Jan-2016 11:47:58		26-Jan-2016 11:47:58		
<input type="checkbox"/> 4F1PAJUP	Device 6014601	6014601@hammer.com		6014601	-	8c495818-696c-4a66-922c-9911f4bc4806	20-Jan-2016 22:20:48		20-Jan-2016 22:20:49		

Provisioning Mobile Devices

- ◆ “Add Device Button” on page 119
- ◆ “Batch Device Registration” on page 122
- ◆ “Provisioned Groups” on page 123

Before mobile devices can be registered in Retain they need to be provisioned.

From the Retain device management page, devices can be provisioned in three different ways:

- ◆ Using the *Add Devices* button.
- ◆ Batch device registration.
- ◆ Provisioned group or groups from an LDAP directory.

NOTE: Phone numbers can only be added with “Add Device for A New User” or adding the phone number to the CSV file for Batch Device Registration. There is no option to edit the user to add the phone number when adding the user by searching “Add Devices for Existing Retain Users”.

You can add existing users that are cached in the Retain system, that have a user name and email address from another module.

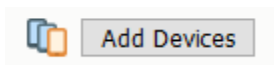
You can also add users which are not cached in the Retain system, but they must be added one at a time by manually entering the display name, email address, phone number and device IMEI associated with each device.

You have the option to add a user via:

- ◆ Email registration
- ◆ Automatic registration

Add Device Button

Devices can be added individually through the *Add Devices* button for either existing Retain users or new Retain users.



Existing User

To add devices for users that are already cached in the Retain system, navigate to the device management page and click on the Add Devices button.

1. In the Add Devices window that opens, under Add Devices for Existing Retain Users, enter the criteria to search the cached address book of Retain and click on the Search button.

2. Select the desired users from the returned search results.
3. Click on Add Selected button at the bottom left corner.

The screenshot shows a window titled "Add Devices" with a blue header bar. Inside the window, there is a section titled "Add Devices for Existing Retain Users". This section contains a search interface with the following elements:

- A "First Name" dropdown menu.
- A "begins with" dropdown menu.
- A text input field for search criteria.
- A "Search" button.
- A "System" dropdown menu currently set to "GroupWise".
- A "Show only users" checkbox.
- A "Show only recently cached items" checkbox.
- A large text area with the placeholder text "Enter criteria to search the cached addressbook."
- An "Add Selected" button at the bottom left of the window.

4. Your selected users are now added to the device management table.

New User (email)

Email registration requires end user intervention as Retain sends a registration email to the user, which must be accessed from the device in order to register with the Retain Server.

The user must have the **RetainService** application installed on the device for successful registration.

Email registration offers two options to register with the Retain Server:

1. *Via Retain Registration JSON file*: the user downloads the JSON file and places it in the device's Download folder to complete the registration process.
2. *Via the activation link*: the user opens the activation link using the **RetainService** application to complete the registration process.

Add Devices

System: Groupwise ☐ Show only users ☐ Show only recently cached items

Enter criteria to search the cached addressbook.

Add Device for a New User

To add a device for a user not already in Retain via email registration, enter their Display Name and Email Address, otherwise, if you choose automatic registration, enter their Display Name, Email Address, Phone Number and Device IMEI:

Display Name

Email Address

Phone Number

Register Device Automatically ☐

To use email registration:

1. Navigate to the device management page and click on the Add Devices button.
2. In the Add Devices window that opens, under Add Device for a New User.
3. Provide values for Display Name and Email Address.
4. Click on *Add User* button found on the bottom left corner.
5. Your user is now added to the device management table and an email is sent to the user, which will be used to complete the registration process.

New User (automatic with IMEI)

Automatic registration will register devices without end user intervention. The user must have the RetainService application installed for successful registration.

Add Devices

Enter criteria to search the cached addressbook.

Add Selected

Add Device for a New User

To add a device for a user not already in Retain via email registration, enter their Display Name and Email Address, otherwise, if you choose automatic registration, enter their Display Name, Email Address, Phone Number and Device IMEI:

Display Name

EMail Address

Phone Number

Register Device Automatically ☒

Device IMEI

Add User

To use automatic registration:

1. If using IMEI automatic registration the Retain server must have access to the Micro Focus Retain Cloud Mobile Service (CMS) through the firewall (via whitelisting etc.). Customers who use automatic registration need to permit the Retain server to access: `cms.qa.gwava.com`.
2. Navigate to the device management page and click on the *Add Devices* button.
3. In the Add Devices window that opens, under Add Device for a New User, check the box to Register Device Automatically.
4. Provide values for Display Name, Email Address, Phone Number and Device IMEI.
5. Click on *Add User* button found on the bottom left corner.
6. Your user is now added to the device management table and an automatic registration attempt takes place.

Batch Device Registration

To register multiple devices, a file can be used to specify the Display Name, EMail Address, Phone Number, and Device International Mobile Equipment Identity (IMEI) Number for each device that is uploaded to Retain which will sent registration data to the device.

Batch Device Registration

See sample for the expected structure. [Example](#)

Browse... No file selected.

Upload a CSV file.

The display name and email address is required in all cases. The RetainService app must be on the target device before attempting to register the device.

To register a device with an email message, enter the display name and email address of the users. A registration email will be sent to the user and the user will need to open the email and click the link to register the device.

To register a device automatically, enter the display name, email address, phone and IMEI numbers of the users, no further user intervention is necessary.

Once the file is prepared, upload the file to Retain.

To upload the registration file, click on Browse, select the file and click on Upload a CSV file. Once the file is processed, the entries will appear in the list of devices.

Batch Registration CSV file

You will find a sample file under the “Example link” on the Add Device page.

The registration file must contain *one record per line with these four fields*, delimited by a comma (,) character: *Display Name, EMail Address, Phone Number, Device IMEI*

For **email registration**, the Phone Number and IMEI fields can be left empty, but must still include the comma delimiter like this example:

```
Joe Cole,joe@microfocus.com,,
```

For **automatic registration**, all fields must be supplied, like this example:

```
Bob Wood,bob@microfocus.com,4548278127,451289080261454
```

The Retain Server must have access to CMS as adding a new user above. To upload the registration file, click on Browse, select the file and click on Upload a CSV file. Once the file is processed, the entries will appear in the list of devices.

Provisioned Groups

A provisioned group of users in your LDAP system can be used to add user devices in Retain by providing the necessary attributes in the device management page, under Provisioned Groups section.

Provisioned groups are synced every 8 hours by default. The LDAP sync frequency can be changed in the Mobile Module configuration page under the Core Settings tab. A manual sync process can be triggered by clicking on the Synchronize Now button in the device management page.

Adding Users To Retain with a Provisioned Group

When a user is added to the provisioned group, during the sync process the user will be identified as new user by Retain.

If there are only name and email address fields a registration email will be sent and the user will have to complete the registration process manually.

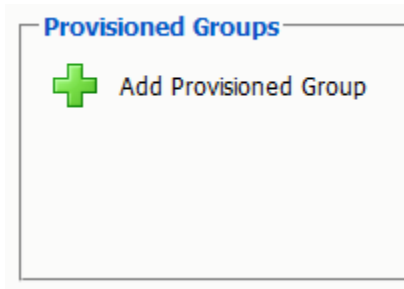
If there are name, email, phone and IMEI fields then the device will be registered automatically.

If there is no email address then an error will be logged and the user will not be added. Changing the email address will trigger a new registration during the next synchronization process.

If a user is removed from the provisioned group then the archiving of messages will be disabled during the next synchronization. If the user is added back into the group archiving will resume after the next synchronization, messages and calls from the period outside of the group will not be archived. The same mailbox will be used unless the email address was changed.

Add a Provisioned Group

Add a new group by pressing the green plus sign.



You may now fill in the group information so that Retain can connect to and gather data from your LDAP directory.

A screenshot of the "Add Provisioned Group" form. The form contains the following fields:

- Common Name (e.g. cn=users): cn=RetainMobileDevices
- Context (e.g. o=beginfinite): ou=GWTestSystem,o=gwava
- LDAP Directory Implementation: NetIQ eDirectory
- LDAP Server (Host/IP): rick-edir.qa.gwava.com
- LDAP Port (usually 389 or 636): 389
- Use SSL: ☐
- LDAP Admin User (e.g. cn=admin,o=beginfinite): cn=ldapuser,o=gwava
- Password for LDAP Admin User: [masked]
- LDAP attribute for Full name: fullName
- LDAP attribute for EMail: mail
- LDAP attribute for Mobile phone number: mobile
- LDAP attribute for IMEI: mobileIMEI

A "Synchronize now" button is located at the bottom right of the form.

Common name: The common name of the provisioned group. The distinguished name of the organizational unit of the group. For example, CN=MobileUsers.

Context: The context of the group, or the LDAP path to the organizational unit. For example, OU="Special Groups",OU=Users

LDAP Directory Implementation: Choose NetIQ eDirectory or Microsoft Active Directory.

LDAP Server: The hostname or IP address of the LDAP server.

LDAP Port: 389 or 636.

Use SSL: Enable, if desired. Set the port appropriately above.

LDAP Admin User: The distinguished name of an LDAP admin. For example, CN=admin,OU=Users,DC=company,DC=com

Password for LDAP Admin User: Password of the LDAP admin user.

LDAP attribute for Full Name: Specify the Display name field used in the directory. Required for email registration. Required for IMEI automatic registration.

LDAP attribute for Email: Specify the email field used in the directory. Required for email registration. Required for IMEI automatic registration.

LDAP attribute for Mobile phone number: Specify the mobile phone number field used in the directory. Required for IMEI automatic registration.

LDAP attribute for IMEI: Specify the IMEI of the mobile device field used in the directory. Required for IMEI automatic registration.

Press the *Synchronize Now* button to have Retain synchronize with the LDAP group.

Registering Mobile Devices

- ♦ [“Device Permissions” on page 125](#)
- ♦ [“Email Registration” on page 125](#)
- ♦ [“Automatic \(IMEI\) Registration” on page 147](#)
- ♦ [“Re-registering Devices” on page 155](#)

Once mobile devices are provisioned they can be registered with Retain. Devices can be registered via email or automatically.

Device Permissions

The Retain APK requires permission to access certain areas of the device. RetainService needs to be allowed to:

- ♦ Access Contacts
- ♦ Make and Manage Phone Calls
- ♦ Access Phone Call Logs
- ♦ Access Photos, Media, and Files
- ♦ Send and View SMS messages

Email Registration

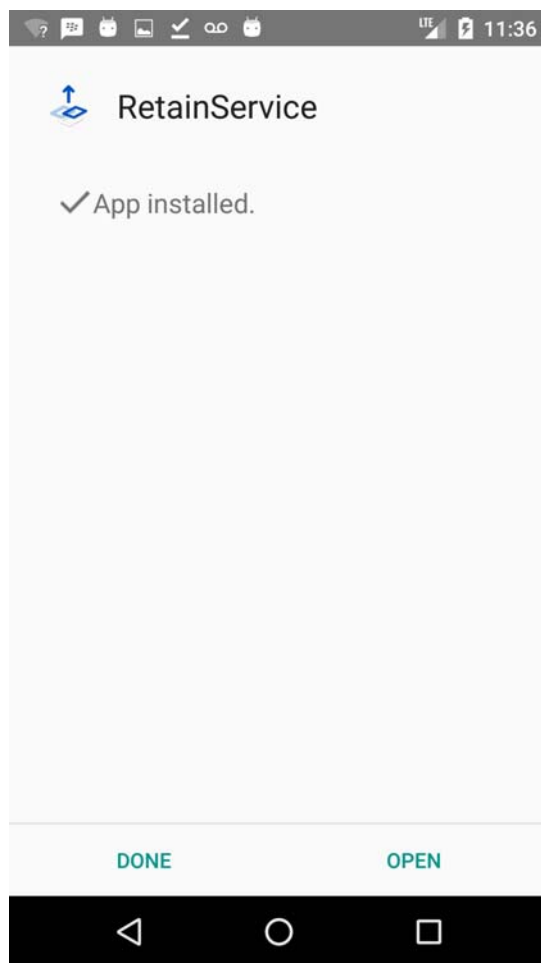
Email registration takes place when:

- ♦ Only the Display Name and the Email Address are provided at the time the user was added in Retain.
- ♦ The sysadmin clicks on the *Reregister Devices* button on the device management page.

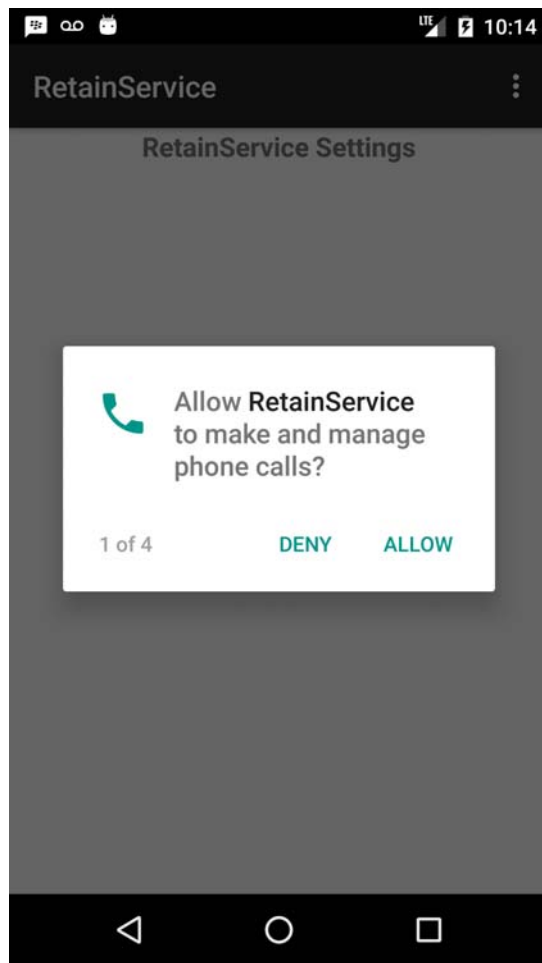
Email Registration by JSON

The RetainService application needs to be registered to a Retain Server before any data collection is done.

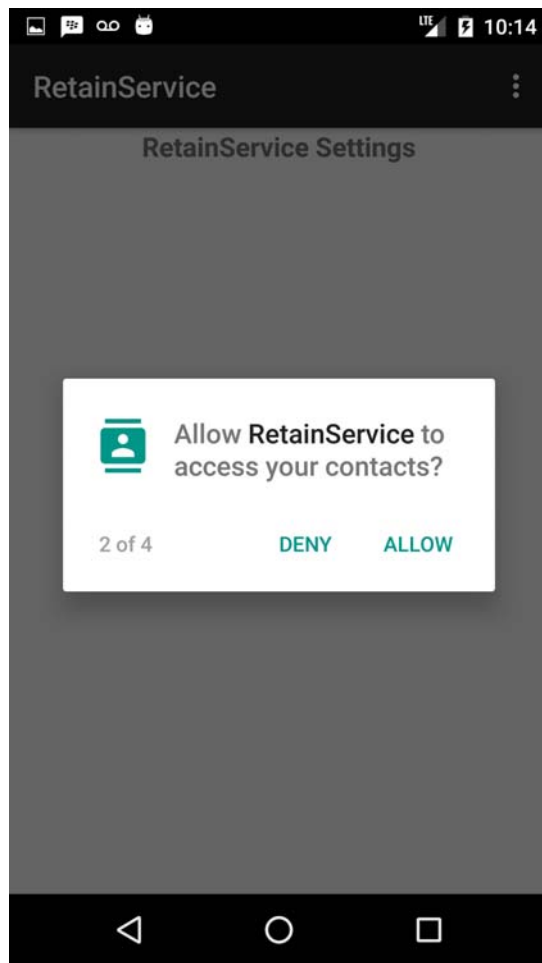
1. Install the RetainService application on your Android device.
2. Click on Open once the installation is complete.



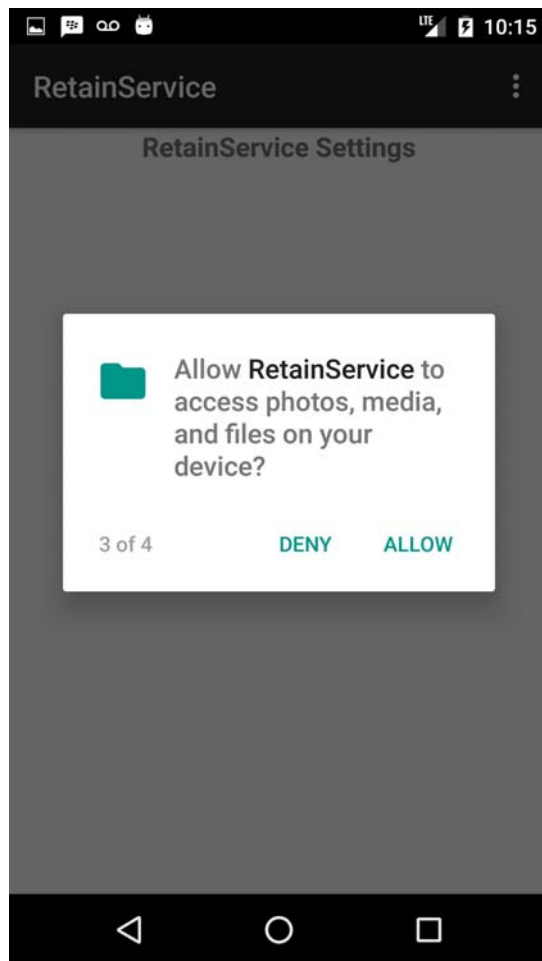
3. The application has to be launched once in order to be subscribed to notifications. The user/MDM will have to grant all rights to the app:
 - ♦ Allow RetainService to make and manage phone calls.



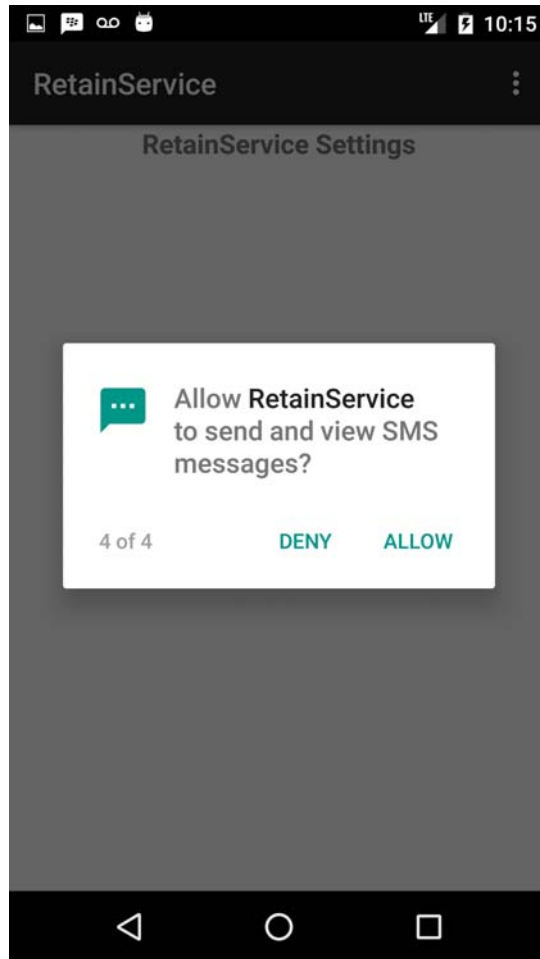
- ◆ Allow RetainService to access your contacts.



- ♦ Allow RetainService to access photos, media and files on your device.



- ◆ Allow RetainService to send and view SMS messages.



4. Close the RetainService application and make sure it is not running.
5. From your Android device, open the registration email sent by Retain.

From: <retain2_noreply@qa.gwava.com>
To: <Fathimam@qa.gwava.com>
Subject: **Installation of Retain on your mobile device**
Attachments: [RetainRegistration.json](#) (377 Bytes) [View](#)



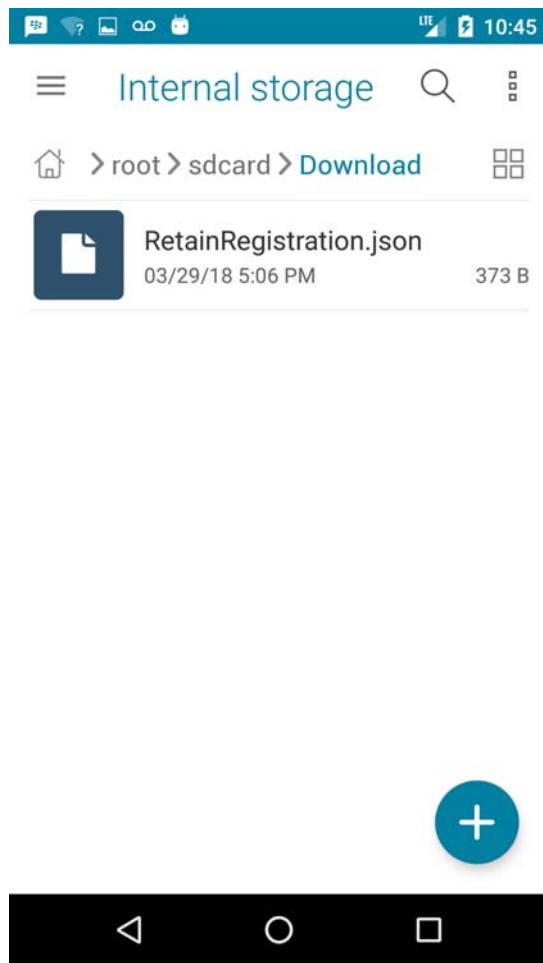
Fathima M

Your administrator has invited you to use the Retain archiving system

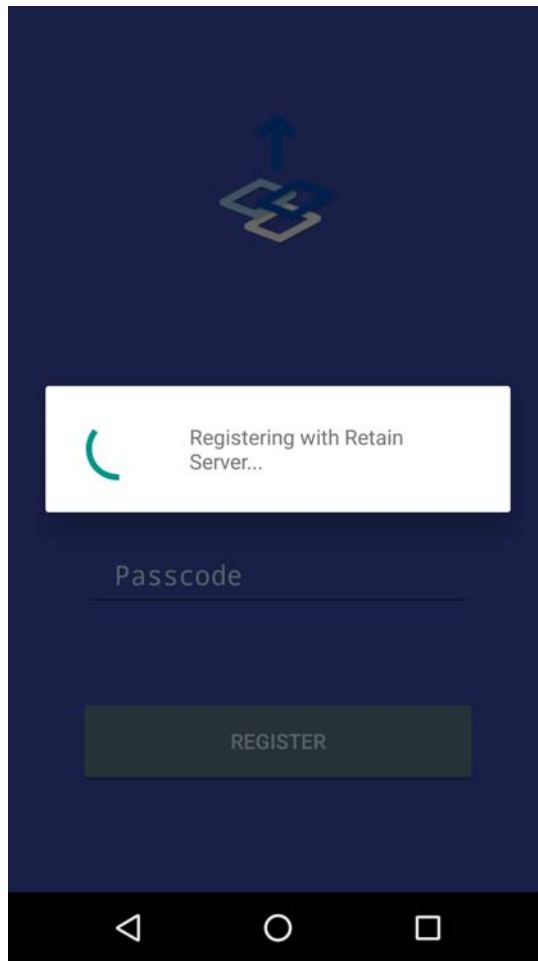
Open this email on the device and [click here](#) to activate.

<http://www.microfocus.com> • Retain

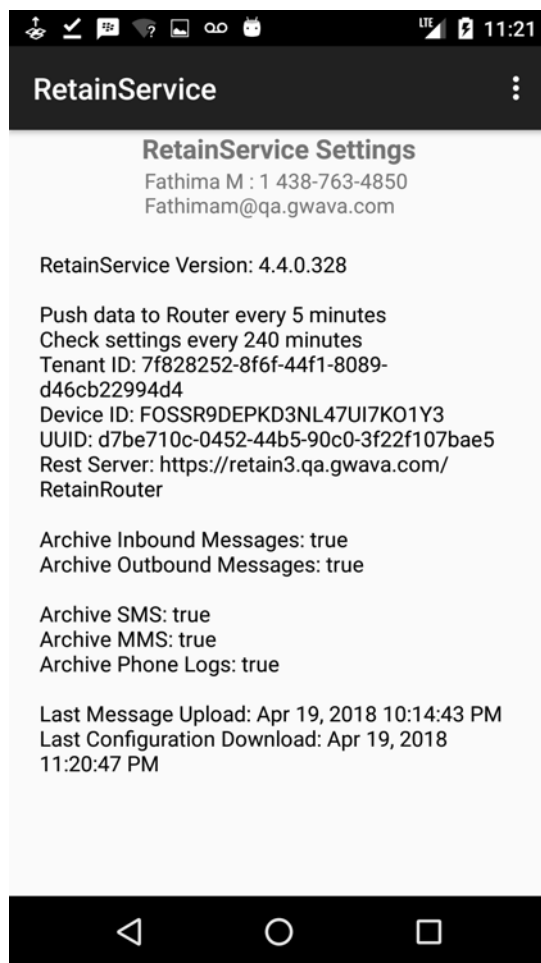
6. Place the RetainRegistration.json file inside the Download folder on your mobile device.



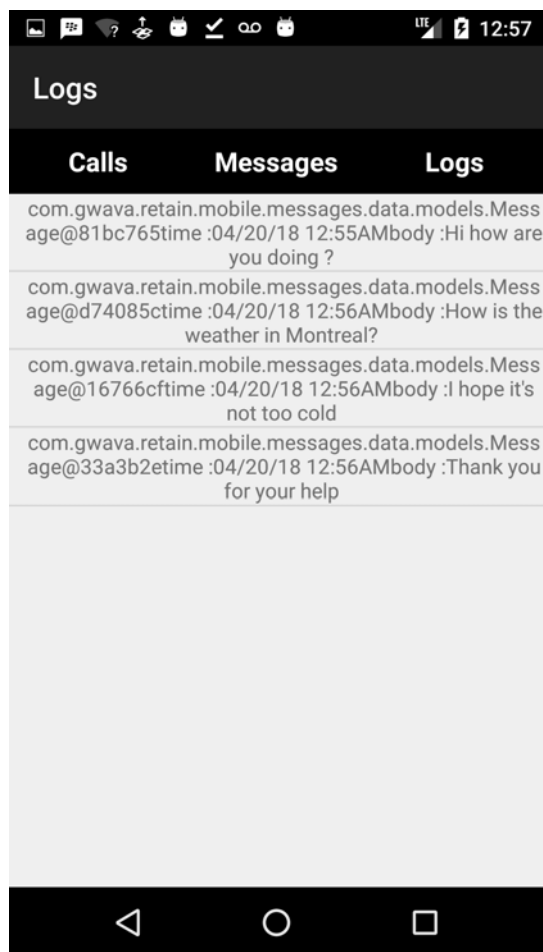
7. Open the RetainService application.

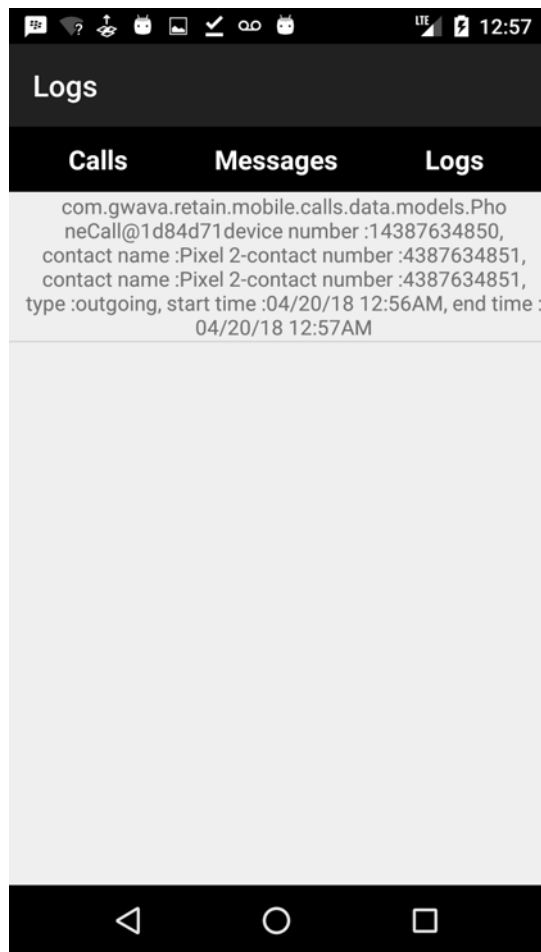


8. Upon successful registration, your main activity screen should display the Tenant ID, DeviceID, UUID and Rest Server URL.



9. You can now begin archiving your SMS/MMS messages as well as phone calls. SMS/MMS messages will appear in the logs under the Messages tab and phone calls will appear under Calls tab.





JSON File Details

The registration email will contain a RetainRegistration.json file with the registration metadata.

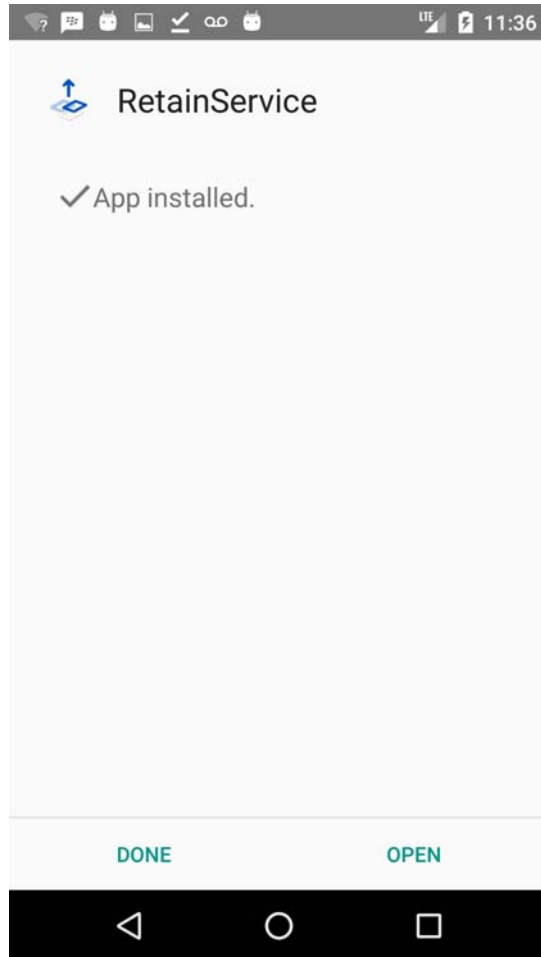
RetainRegistration.json file contains:

- ♦ *Timestamp*: Time device was add or reregistered in Retain.
- ♦ *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. It is used to identify your system during the registration and data collection processes.
- ♦ *Deviceid*: This is from the Device Management page.
- ♦ *Email*: This is from the Device Management page.
- ♦ *Name*: This is from the Device Management page.
- ♦ *RouterURL*: This is pulled from the mobile page of Module Configuration.
- ♦ *RestServer*: This is pulled from the mobile page of Module Configuration.

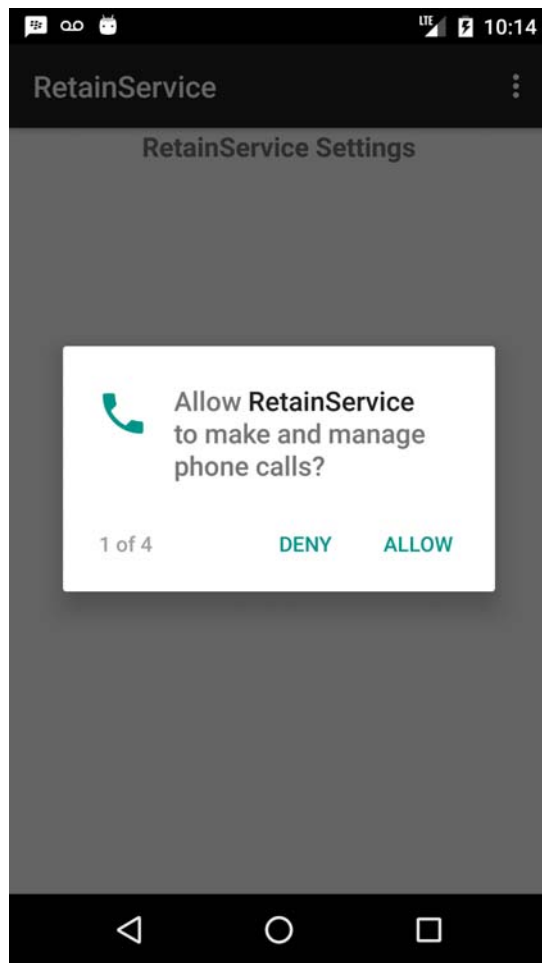
Email Registration by Link

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. Therefore, the RetainService application must be installed on the Android device prior to clicking the activation link.

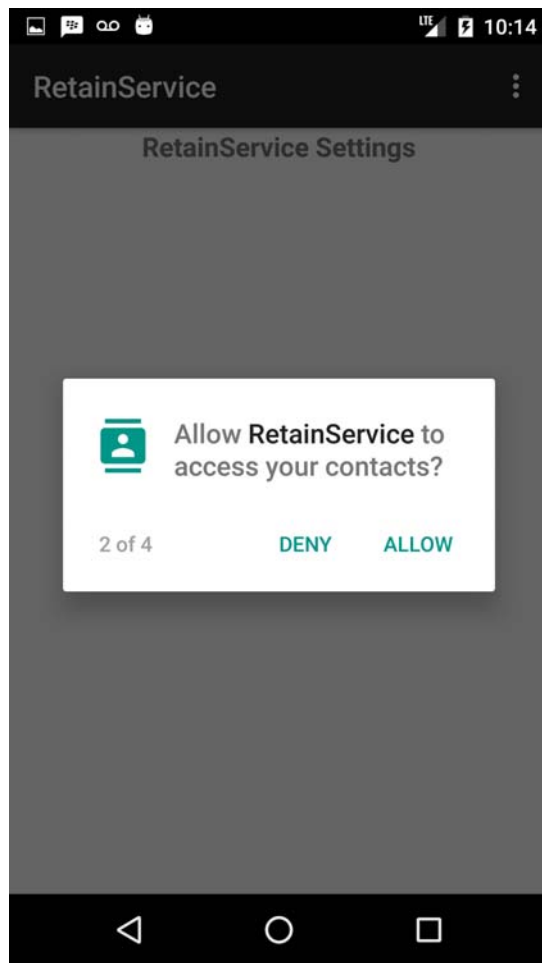
1. Install the RetainService application on your Android device.
2. Click on Open once the installation is complete.



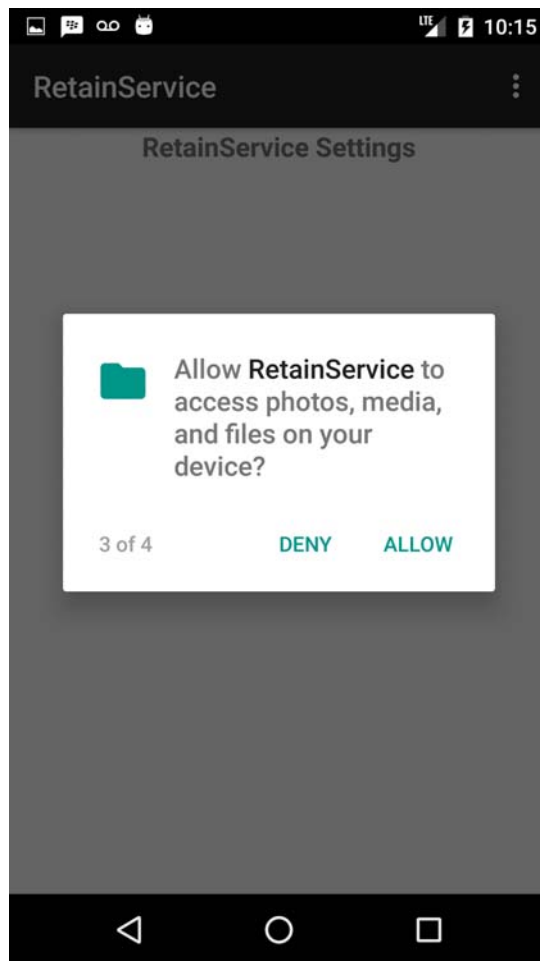
3. The application has to be launched once in order to be subscribed to notifications. The user/MDM will have to grant all rights to the app:
 - ♦ Allow RetainService to make and manage phone calls.



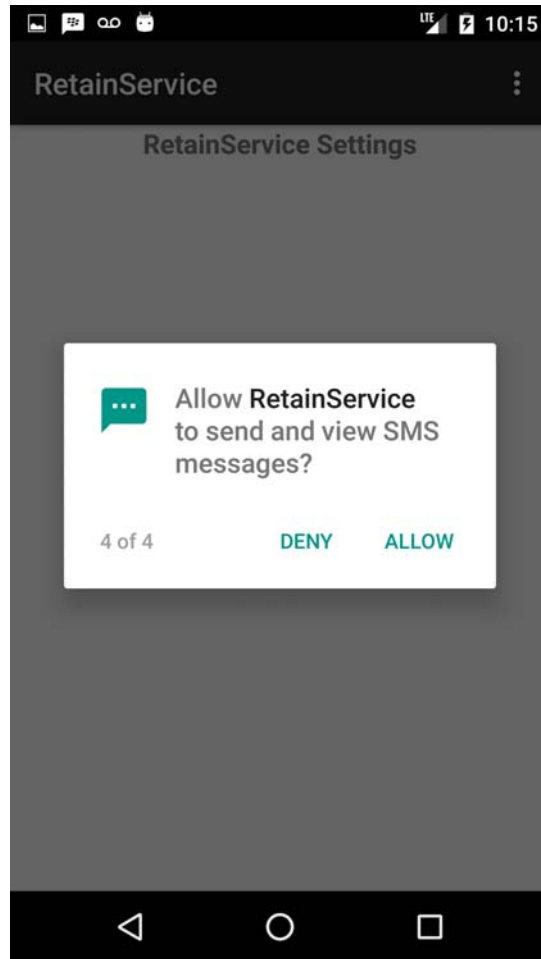
- ◆ Allow RetainService to access your contacts.



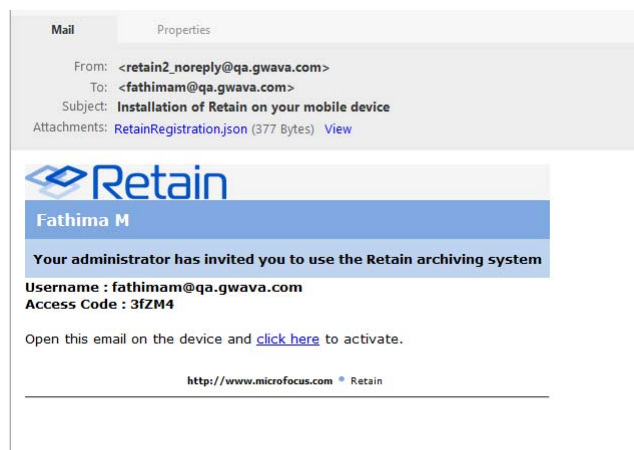
- ♦ Allow RetainService to access photos, media and files on your device.



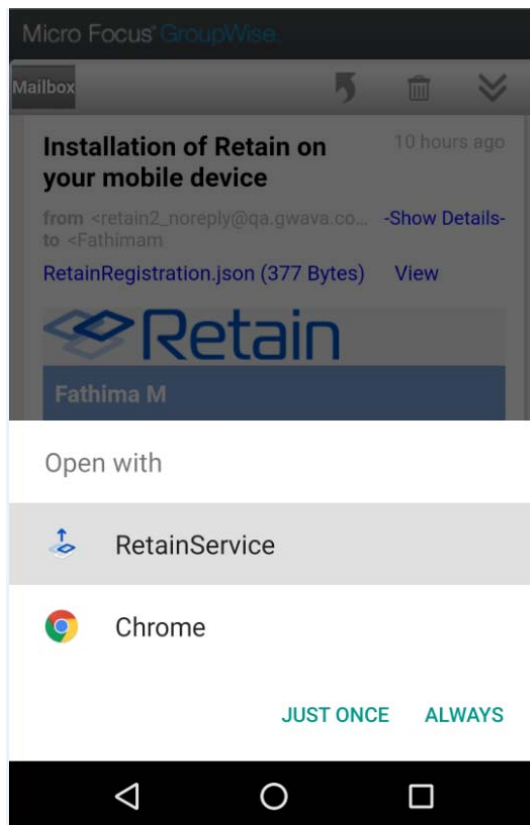
- ◆ Allow RetainService to send and view SMS messages.



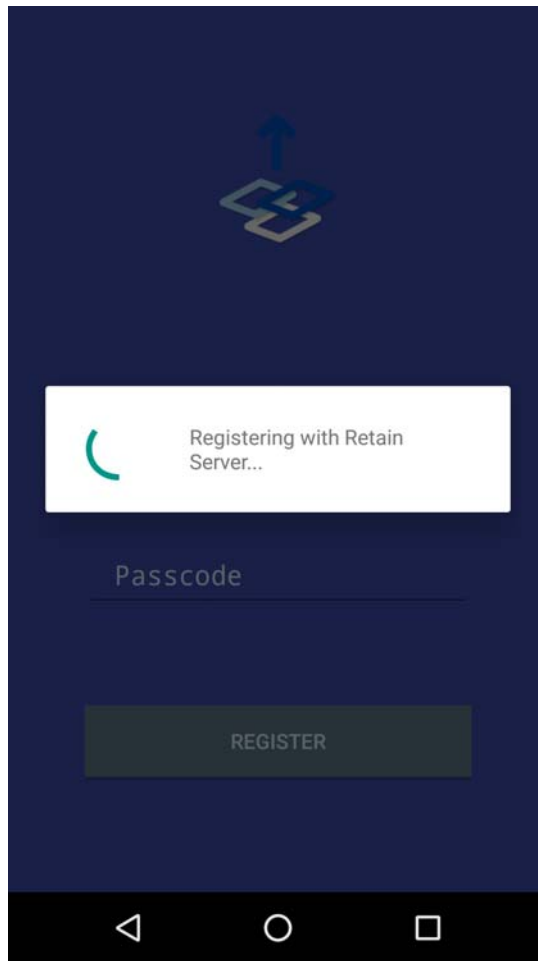
4. Close the RetainService application and make sure it is **not running**.
5. From your Android device, open the registration email sent by Retain.



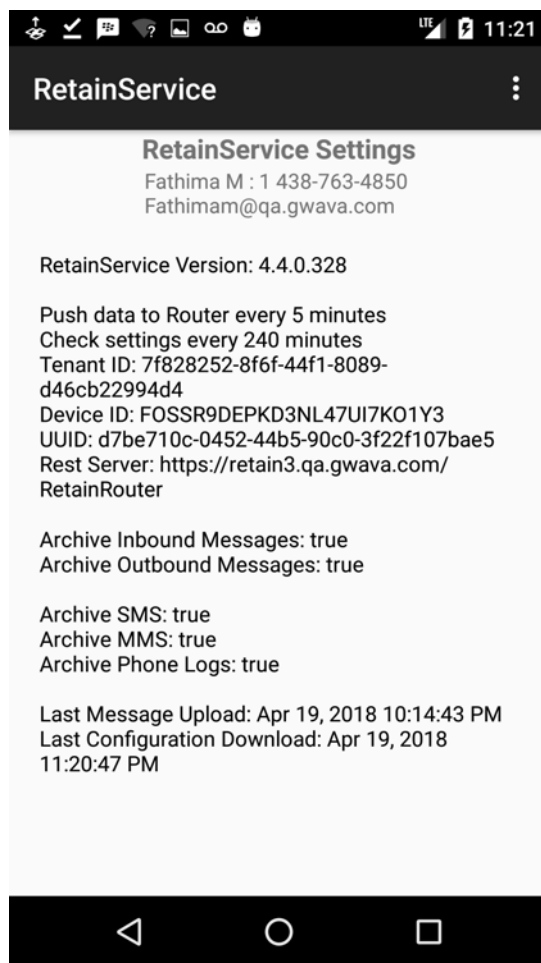
6. When prompted, click on open with RetainService and then click ALWAYS.



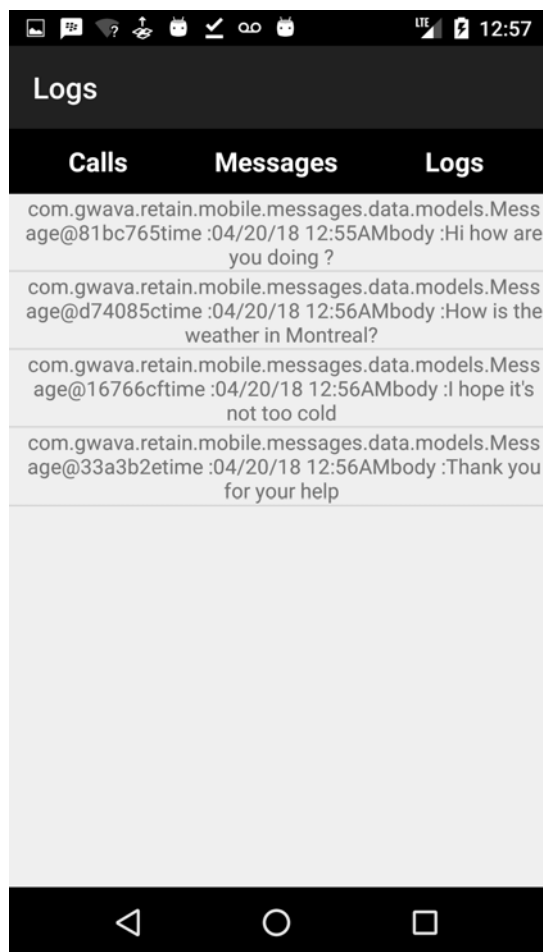
7. Open the RetainService application.

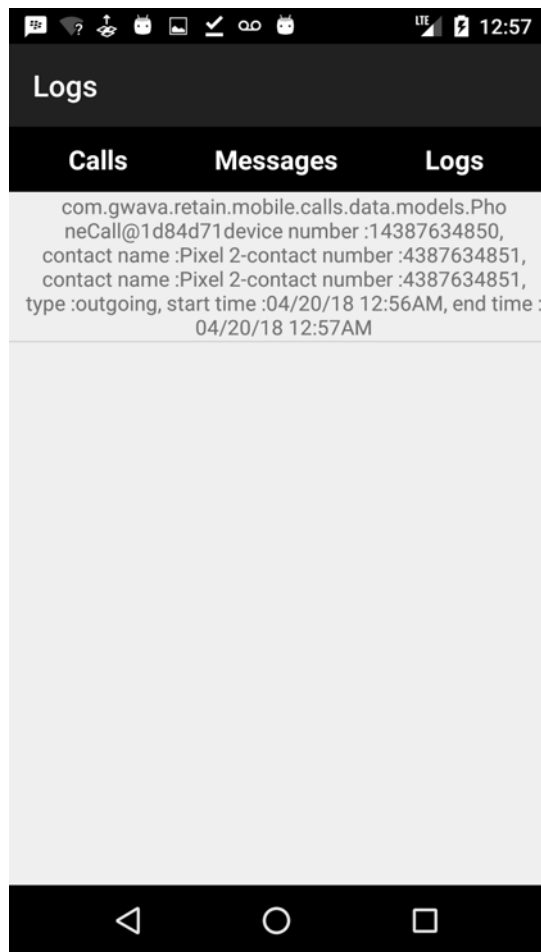


8. Upon successful registration, your main activity screen should display the Tenant ID, DeviceID, UUID and Rest Server URL.



9. You can now begin archiving your SMS/MMS messages as well as phone calls. SMS/MMS messages will appear in the logs under the Messages tab and phone calls will appear under Calls tab.





Customizing the Registration Email

An activation email will be sent to the associated email address. The activation email can be customized. The template from which the email is generated is located in the file:

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

The template contains different variables that are distinguished by double brackets "[[]]". The below variables can be customized to adopt the email sent out by Retain to any organization:

- ♦ *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.
- ♦ *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.
- ♦ *GwavaURL*: Automatically filled-in with a link to the Micro Focus website.
- ♦ *GwavaURLLabel*: This determines text displayed for the GwavaURL link.
- ♦ *ProductNameURL*: This is automatically filled-in with a link to the product website.
- ♦ *ProductNameLabel*: This determines text displayed for the productNameURL link.

The below variables **cannot** be changed. This information is generated by the device management page when the device is added:

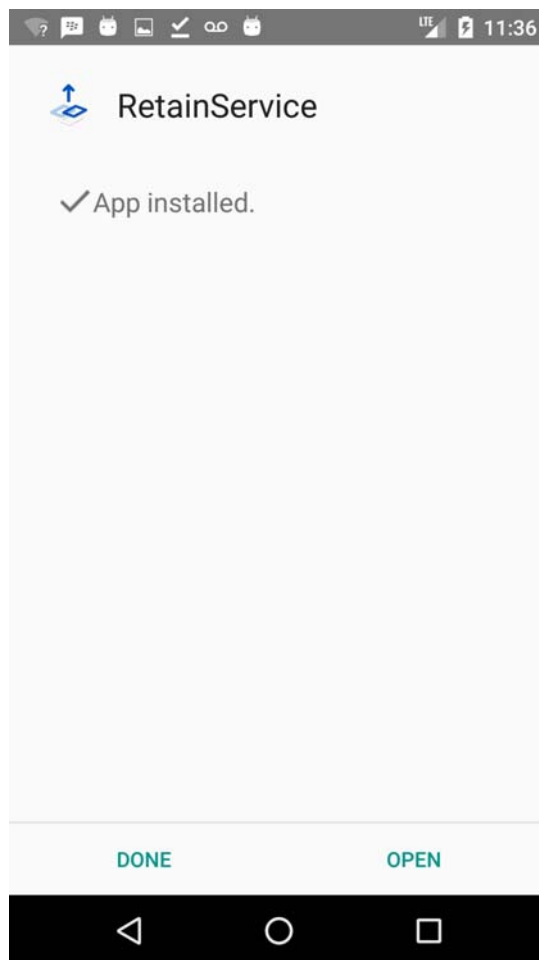
- ♦ *Name*: Each user's individual user name will be inputted here.
- ♦ *ActivateHREF*: This is an identification string, a link specific to the user and installation.
- ♦ *Username*: Applicable for cloud registration only.
- ♦ *Password*: Applicable for cloud registration only.

Automatic (IMEI) Registration

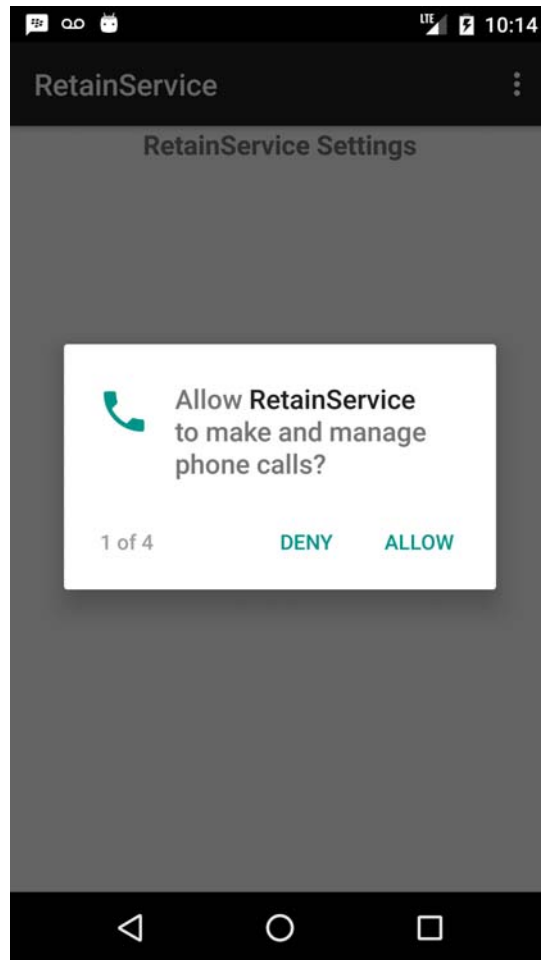
Automatic registration is done through our Cloud Registration Service (CMS). This registration method requires no end user intervention and ideally, the user should not be aware of the registration process. Automatic registration requires four mandatory values to be provided in the device management page at the time of registration: display name, email address, phone number and IMEI number.

Before attempting an automatic registration, ensure that the RetainService application is installed on the Android device.

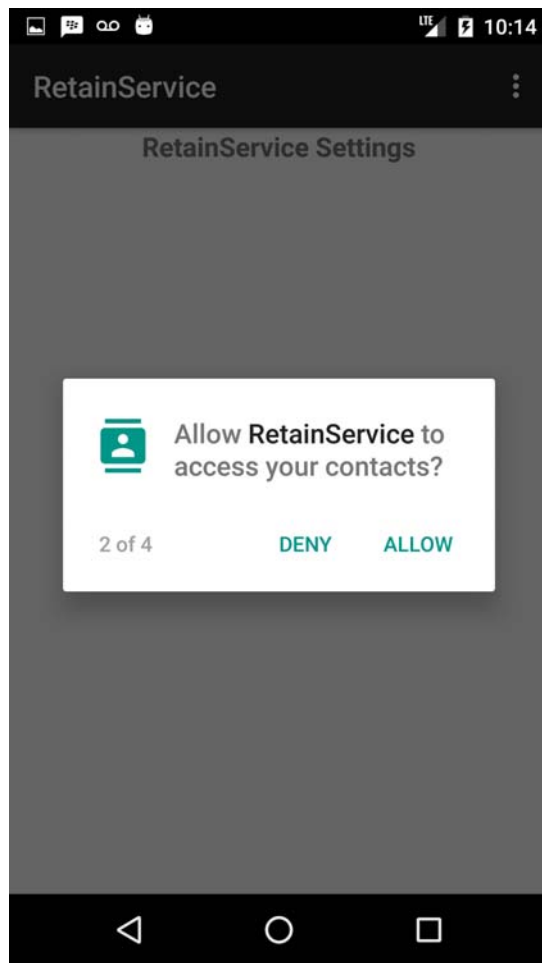
1. Install the RetainService application on your Android device.
2. Click on Open once the installation is complete.



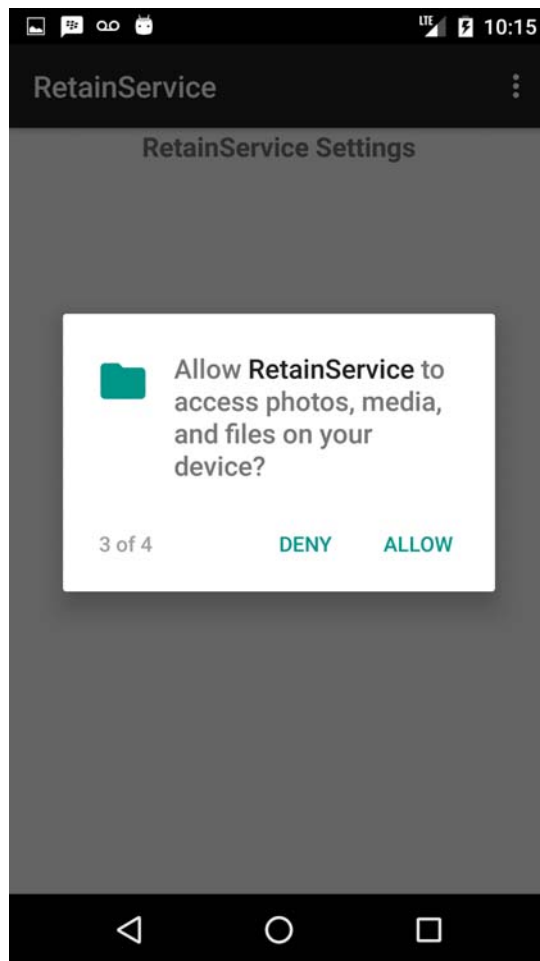
3. The application has to be launched once in order to be subscribed to notifications. The user/MDM will have to grant all rights to the app:
- ♦ Allow RetainService to make and manage phone calls.



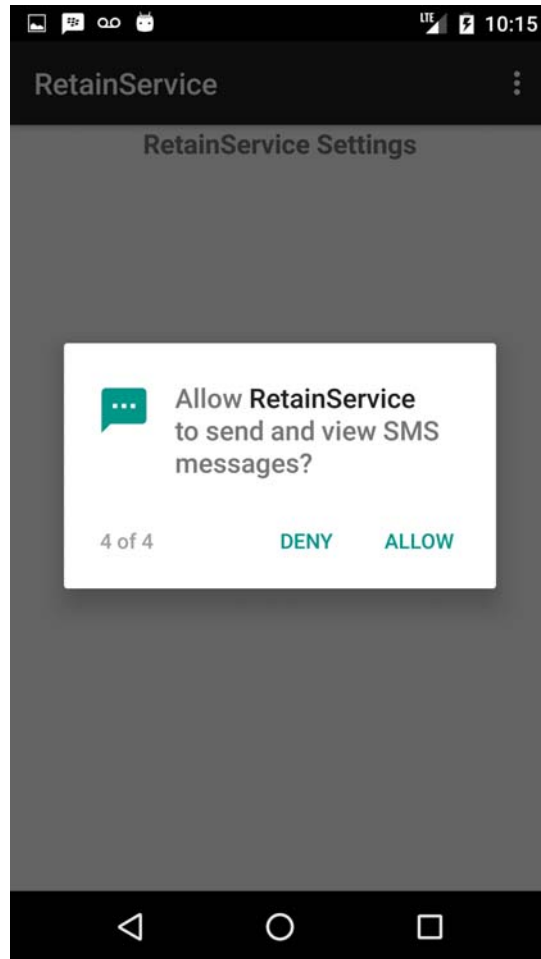
- ♦ Allow RetainService to access your contacts.



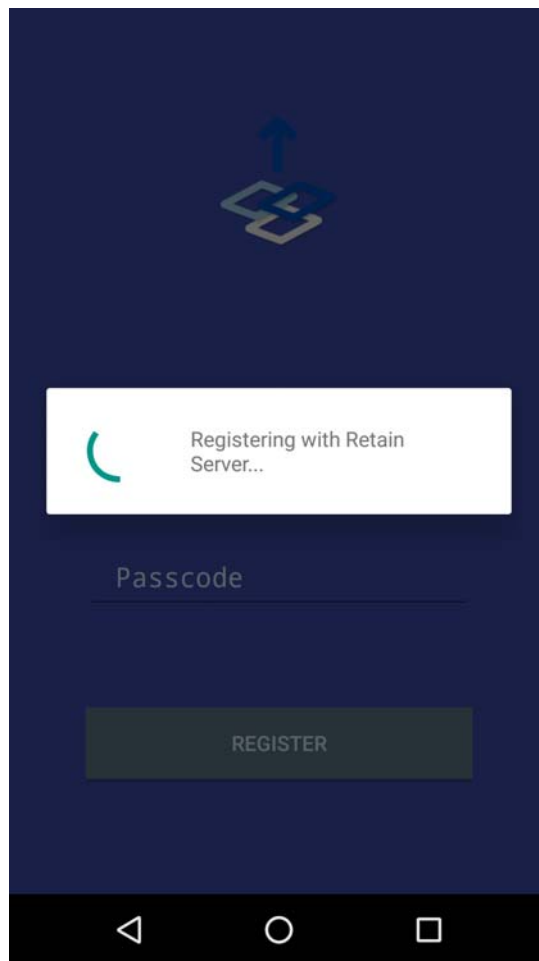
- ♦ Allow RetainService to access photos, media and files on your device.



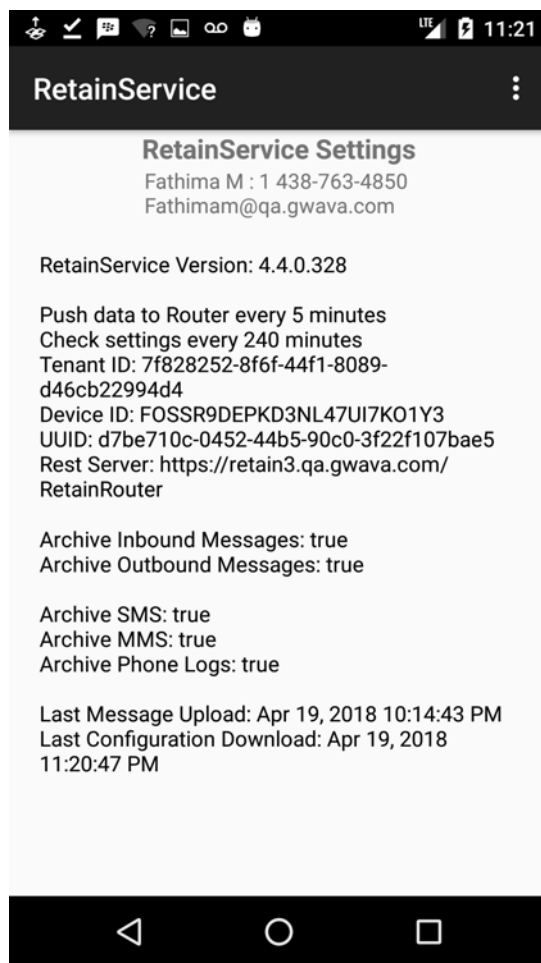
- ◆ Allow RetainService to send and view SMS messages.



4. Close the RetainService application and make sure it is not running.
5. In the Retain device management page, add a device that is eligible for automatic registration. Hence, provide display name, email address, phone number and IMEI number. For more information, refer to the device provisioning section of this document. ["Provisioning Mobile Devices" on page 119](#)
6. Open the RetainService application.



7. Upon successful registration, your main activity screen should display the Tenant ID, DeviceID, UUID and Rest Server URL.



8. The “Time of Registration” field will updated for your device in the device management table of Retain.

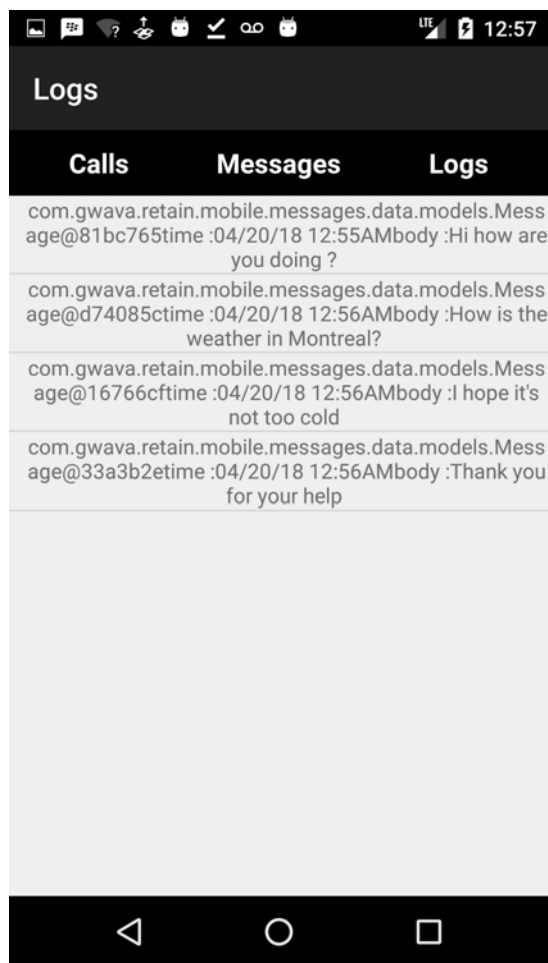
Device Management Save Changes

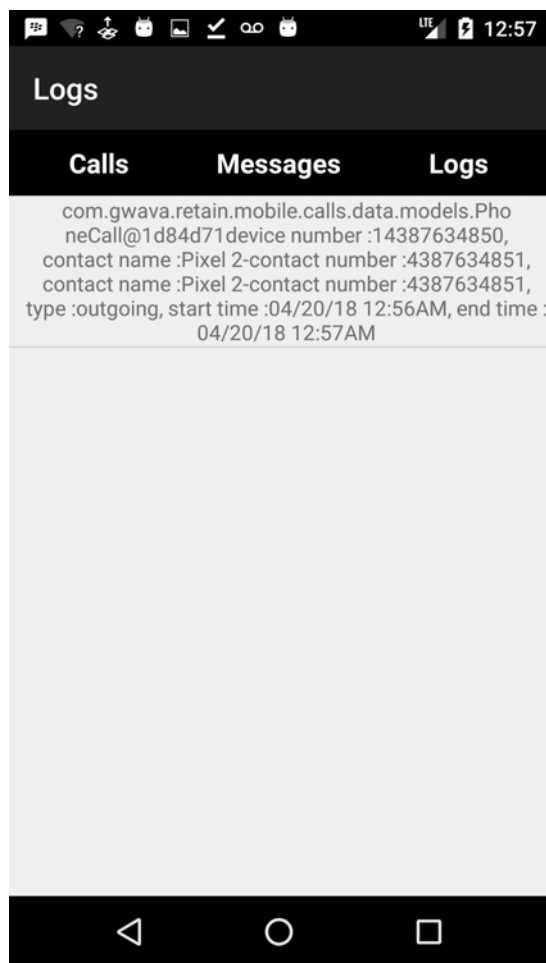
If you are unfamiliar with the Device Management feature, please refer to the online documentation which can be accessed using the **i** button on the top right corner of the screen.

☐ Delete Devices

Enrollment Code	Display Name	Email Address	Phone Number	Device ID	HPPOP ID	UUID	Device Added	Registration Sent	Time of Registration	FOR	IMEI
<input type="checkbox"/> MUBGCP	LG Optimus Excceed QA Phone	lgoptimusexcceed@qa.gwava.com		FT62A85Y3G00H01KTD3R00VY	-	93f89bdc-910f-4a18-b253-18fa2a9431a7	25-Apr-2018 09:35:46	25-Apr-2018 09:35:46	25-Apr-2018 10:32:29		

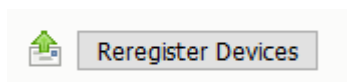
9. You can now begin archiving your SMS/MMS messages as well as phone calls. SMS/MMS messages will appear in the logs under the Messages tab and phone calls will appear under Calls tab.





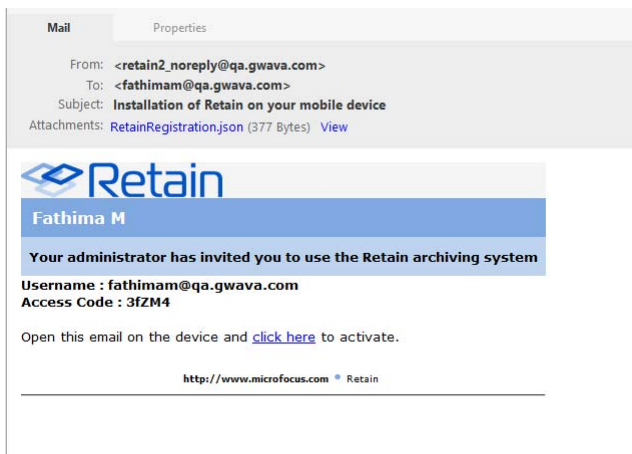
Re-registering Devices

To re-register a device, navigate to the Device Management page, select the desired device and press the *Reregister Devices* button. Once pressed, Retain will recreate the enrollment, remove the old Device ID, and resend the registration email. The end user will need to repeat the enrollment process.



NOTE: Important Note Regarding Reregistration. Regardless of the registration method initially used to register the device with Retain Server (email registration or automatic registration), once the *Reregister Devices* button is clicked, the reregistration will be done through email. The only difference is, if the device was initially provisioned to use automatic registration, the reregistration email sent will contain two new fields: a Username and an Access Code as seen below. In other words, if a device that contains values for display name, email address, phone number and IMEI number has been selected for reregistration, Retain will fall back to the email registration method. The email will always contain the embedded link, .json file and additionally, it will contain the username/access code combination for access through the RetainService UI.

The Username and Access Code provided in the reregistration email can be entered in the first page of the RetainService application to re-register the device with the Retain Server. Once done, click on REGISTER to connect to the Retain Server.



Deleting Mobile Devices

Mobile devices can be selected and deleted from Device Management enrollment by selecting one or more devices and pressing “Delete Device”.



Blackberry Device Management

- “Blackberry Device Management Overview” on page 156
- “Blackberry Device Management” on page 157
- “Deleting Blackberry Devices” on page 158
- “Generating Reports” on page 158

Blackberry Device Management Overview

Retain supports archiving data from both Blackberry devices and devices running the BBM Enterprise system. Devices running the BBM Enterprise system can have their communication data archived through the BBM app, obtained from Blackberry.

You must first configure the Blackberry Module and Job. See “Creating a Blackberry Module” and “Creating a Blackberry Job” in the *Retain 4.9.2: Archiving Guide*.

Device Management

Before managing devices, make sure the Mobile Profile is properly configured.

- Mobile devices can be added for existing Retain users or for a new user.
- Once added, an email with a registration .json file and link will be sent to the user.
- The user should open the email on the device and download the .json file or click the registration link.
- Once the registration completes, messages should flow from the device to the Message Router and then to Retain.
- Deleting a device will stop the message flow to Retain and un-register the device.
- Note: User provisioning options in the Mobile Module should be configured appropriately to ensure user accounts are created.

Delete Devices
Generate Report
Add Devices
Reregister Devices

Device List

<input type="checkbox"/>	Enrollment Code	Display Name	E-Mail Address	Phone Number	Device ID	UID	Time of Registration
<input type="checkbox"/>	CL38FBO	Aileen O'Leary	aileen@sfgw14.gwava.net		VZDZQCNTPED53JY2TYBOM6WX		
<input type="checkbox"/>	08C6SBC	Aiden Li	aiden@doc.gwava.net		I4JR4P TKQDBP808K3MZESAZ		
<input type="checkbox"/>	OIDMG8C	Leroy Jenkins	leroy@sfgw14.gwava.net		AE8GJQ516OS0MOIMJYSCTX9V		

Devices Selected: 0

Batch Device Registration

See sample for the expected structure.[Example](#)

Browse...
No file selected.

Upload a CSV file.

The Blackberry device page displays all devices which have been registered into the Retain system. Native Blackberry and BBM Enterprise devices are displayed together. Retain registers Blackberry devices through log files from the BES server or through data sent by the device running the BBM Enterprise application. If a device is not yet registered, it is either not in the BES address book or no data has been archived for the device. The device list may be filtered for any specified content desired. In addition, devices may be selected for removal.

Blackberry Device Management

- ♦ “Adding Blackberry Devices” on page 157

Adding Blackberry Devices

Blackberry devices are managed through the device management interface on the Blackberry page.

Device Management

Information about the BlackBerry devices known to Retain.

- One way the device information is added to Retain is during the BES Address Book synchronization.

Delete Devices
Generate Report

Device List

<input type="checkbox"/>	Enrollment Code	Display Name	E-Mail Address	PIN	Phone Number	MPQP ID	UID	Time of Registration
<input type="checkbox"/>	WISPTFK	test device	testdevice@mail@test.com				7028e34f4ec-413e-422b-05db-13c5f93e	09-Apr-2018 13:18:46
<input type="checkbox"/>	VKTH050V	test device	testdevice@mail@test.com				7028e34f4ec-413e-422b-05db-13c5f93e	09-Apr-2018 13:18:51
<input type="checkbox"/>	Tm2M6zPW-Wbwa3ozc6Bh2WamGQz	Example User	user@org.com	28EAD000	+15144631295		791f7b34f63b-4a2c-beeb-e57877c2a6ee	20-Feb-2017 11:15:55

Devices are added automatically after an address book sync from the BES servers. You may click on columns to sort by ascending or descending, or search with the filter text field. Retain supports Blackberry Multiple Points of Presence, which has not been deployed by Blackberry Limited as of this release.

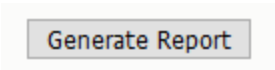
Deleting Blackberry Devices

Blackberry devices can be selected and deleted from Device Management enrollment by selecting one or more devices and pressing “Delete Device”.

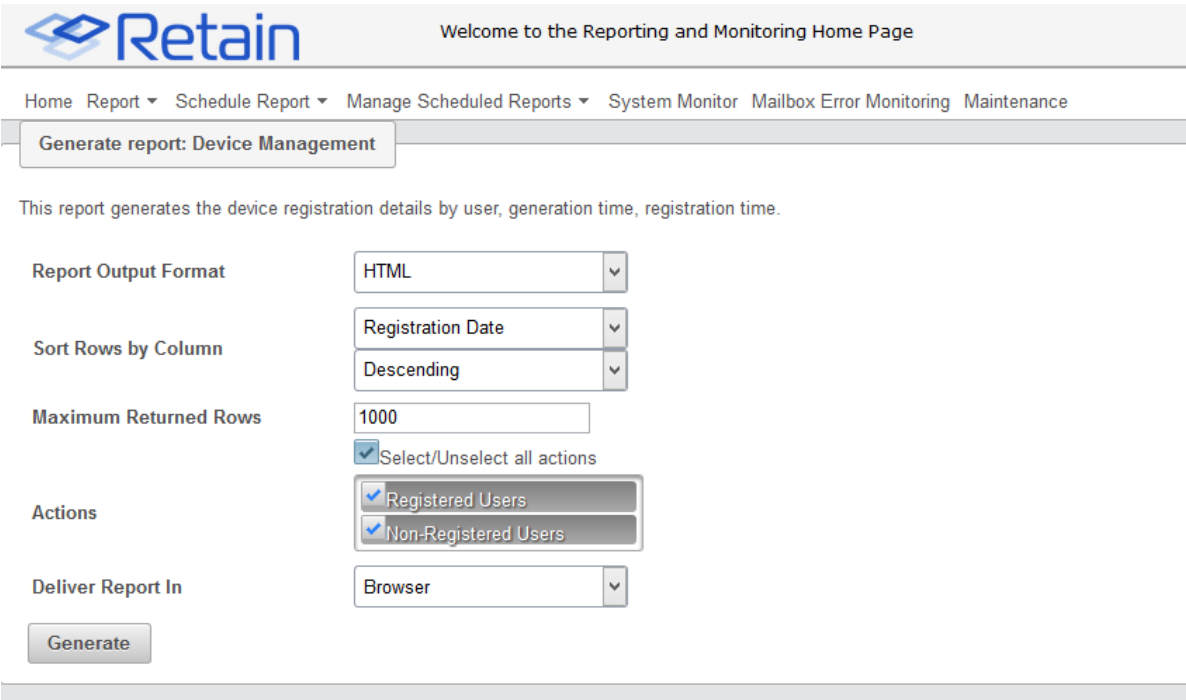


Generating Reports

The *Generate Report* button will take open a new tab or window to the Reporting and Monitoring server and open a Device Management Report configuration page.



The *Generate Report* button will open a new Reporting and Monitoring: Generate report window, where a report can be created.



See Reporting and Monitoring Device Management Report “Device Management” on page 208 for more information.

Jobs

- “Starting a Job Manually” on page 159
- “Stopping a Job” on page 160

Starting a Job Manually

Jobs will start automatically at the date and time they are set to.

To start an archive job manually you need to:

1. Select a Single Frequency Schedule for the job. Save Changes
2. Go the selected single frequency schedule and set the time at least 1 minute into the past.

Schedules

Daily

Now

Schedule Name

Now

Schedule Frequency

Single

This job will run only once, at the time specified below unless an error occurs

Date:

Jan

04

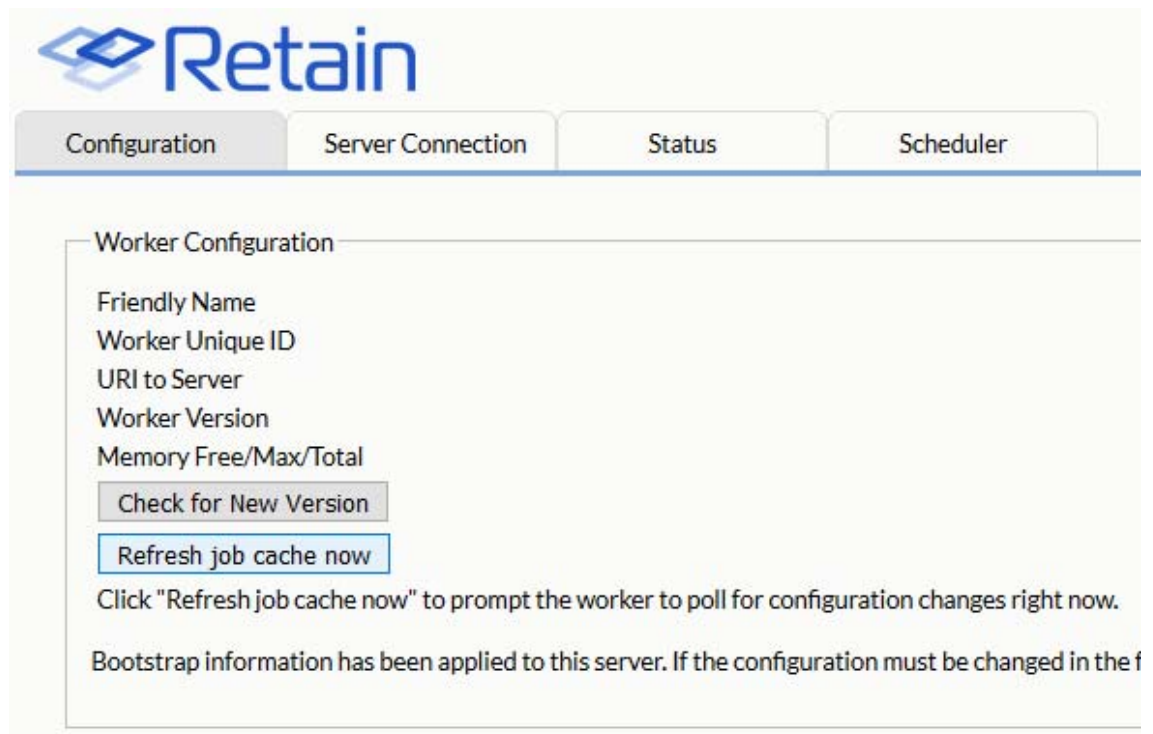
2018

Time:

11

56

3. Browse to the Worker Console <http://<Retain_Worker_Host>/RetainWorker
4. Click the “Refresh job cache now” button.





5. The job will begin momentarily.
6. Once the job has completed you will want to confirm the data is in the archive. See [“Using Retain's Archives”](#) in the [Retain 4.9.2: User Guide](#).

Stopping a Job

A running job can be aborted.

Go to **Jobs | Status tab**. There will be an abort button visible. Press it and in a few moments the job should abort.


Jobs



Daily
Special

Job Special loaded.

Job

Core Settings Journaling Mailboxes Notifications

Status [Refreshes in 3]

Job: Special (3801A8E6DD96BC844F7EF9E9A0FA447)

	Current
Job began	21-Mar-2018 12:51:02
Job ended	<div>Abort Job</div>

Completed: 0 / 28 (0%)

Mailboxes	28
Messages Archived	0
Messages Processed	0
Messages Deleted	0
Errors	0

	Current
Mailbox	retain@ex121.doc.mf.net
MS	EX121
Error	

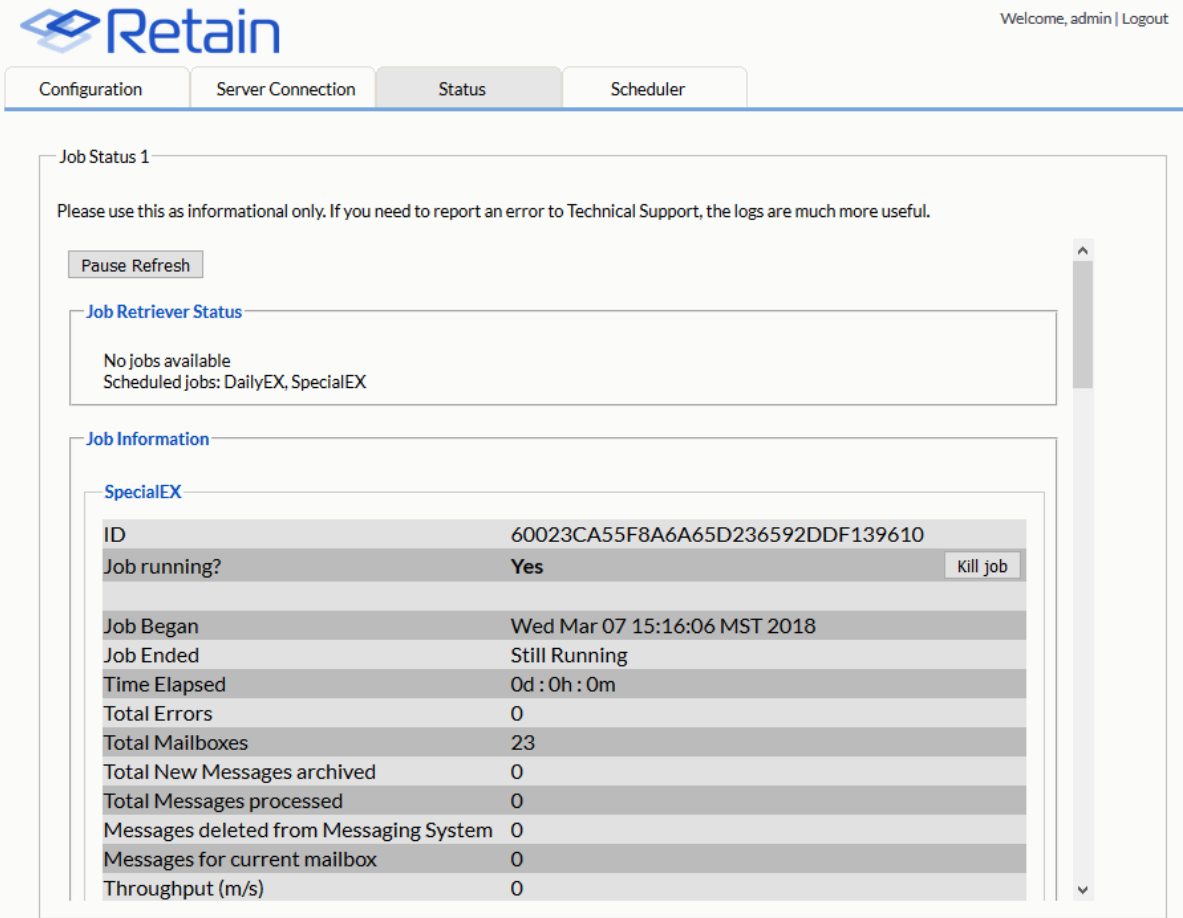
If after at least **five minutes** the job does not abort, you may want to consider killing the job.

Killing a Job

To kill a job, go to the Retain Worker Console and under the Status tab attempt to kill the job with the “Kill Job” button.

WARNING: Do NOT use this button if you have not already attempted to use the Abort Job button in Retain Server | Job | Status.

Alternatively, you can restart tomcat to stop a job.



The screenshot shows the Retain Worker Console interface. At the top, there's a navigation bar with tabs: Configuration, Server Connection, Status (selected), and Scheduler. The main content area is titled "Job Status 1" and includes a "Pause Refresh" button. Below this, there's a "Job Retriever Status" section indicating "No jobs available" and "Scheduled jobs: DailyEX, SpecialEX". The "Job Information" section is expanded, showing details for a job named "SpecialEX".

SpecialEX	
ID	60023CA55F8A6A65D236592DDF139610
Job running?	Yes Kill job
Job Began	Wed Mar 07 15:16:06 MST 2018
Job Ended	Still Running
Time Elapsed	0d : 0h : 0m
Total Errors	0
Total Mailboxes	23
Total New Messages archived	0
Total Messages processed	0
Messages deleted from Messaging System	0
Messages for current mailbox	0
Throughput (m/s)	0

Workers

- ♦ [“Removing a Worker Bootstrap and Re-uploading” on page 162](#)

Removing a Worker Bootstrap and Re-uploading

If you change something on a worker's connection tab, you must remove the old bootstrap to reset the worker connection and then upload the new bootstrap file.

Removing a Single Worker Bootstrap File

If a worker agent cannot connect to the Retain Server correctly, a new bootstrap may help. The old bootstrap must be removed to reset the Worker agent. This assumes only a single worker on the server.

1. On the Worker Agent server, stop tomcat. See “[Starting and Stopping the Retain Server](#)” in the [Retain 4.9.2: Installation and Upgrade](#).
2. Navigate to the Worker configuration folder.
 - a. Linux: `opt/beginfinite/retain/RetainWorker/WEB-INF/cfg`.
 - b. Windows: `[Disk]:Program Files\Beginfinite\Retain\RetainWorker\WEB-INF\cfg`.
3. Remove `RetainWorker2.cfg` and `RetainWorker2_bak.cfg`. Removing the bootstrap resets the worker to initial configuration.
4. Start tomcat. The Worker Agent is now in its un-configured state and needs a bootstrap.
5. Download the new or updated Worker bootstrap from the Retain Server Console.
6. Upload the bootstrap. See “[Uploading a Worker Bootstrap to the Worker Console](#)” in [Retain 4.9.2: Archiving Guide](#).

Removing a Worker Bootstrap when Multiple Workers Are Present

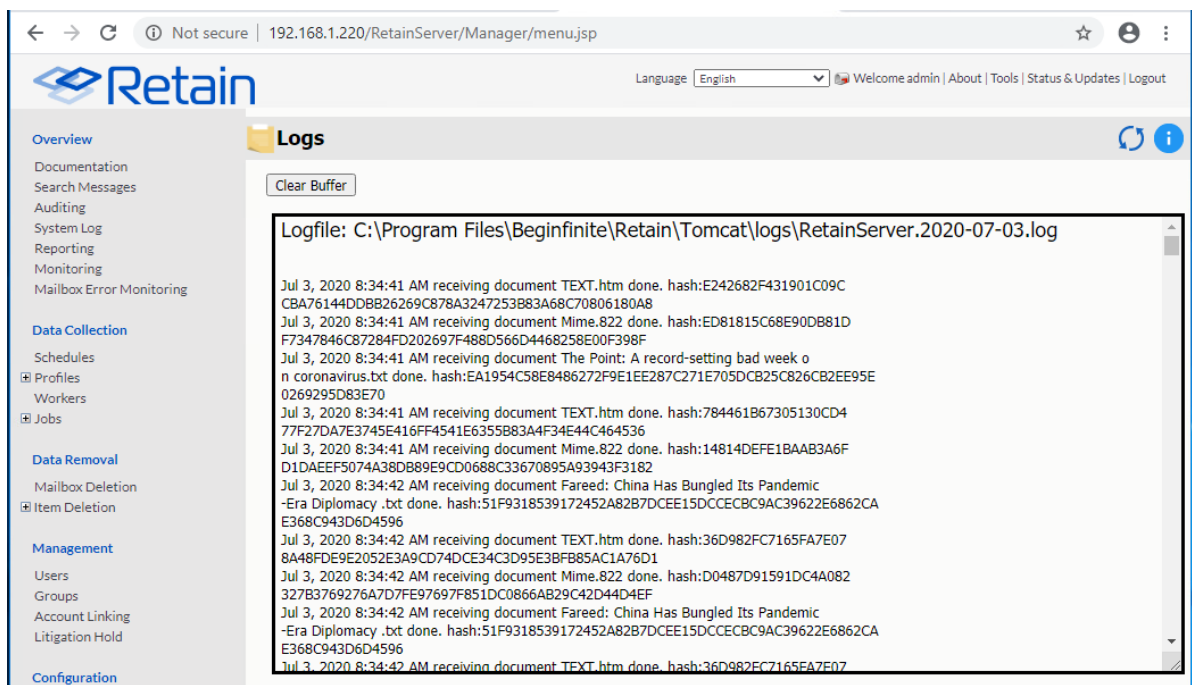
If you have multiple workers on a server you will need to make sure you are removing the bootstrap to the correct worker, which will be dependent on the worker number. See “[Deploying Production-Use Worker Agents on Linux](#)” or “[Installing Additional Retain Workers on Windows](#)” in [Retain 4.9.2: Installation and Upgrade](#).

1. On the Worker Agent server, stop tomcat. See “[Starting and Stopping the Retain Server](#)” in [Retain 4.9.2: Installation and Upgrade](#).
2. 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: `.../RetainWorkerN/WEB-INF/cfg`, *N* being the number of the Worker Agent. Removing the bootstrap resets the worker to its initial configuration.
3. Start tomcat. The Worker Agent is now in its un-configured state and needs a bootstrap.
4. Download the new or updated Worker bootstrap from the Retain Server Console.
5. Browse to the worker console of the worker you are updating. `http://<retain worker address>/RetainWorkerN`
6. Upload the bootstrap to the worker “[Uploading a Worker Bootstrap to the Worker Console](#)” in [Retain 4.9.2: Archiving Guide](#).

System Log Option (Overview)

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.



Location of Log Files

At the end of each day the logs are closed and compressed to save space. After 10 days, by default, the logs are removed from the system.

The full length logs can be found in, by default:

Linux: /opt/beginfinite/retain/tomcat8/logs

Windows: C:\Program Files\Beginfinite\Retain\Tomcat 8.0\logs

There are several log files that are stored here, the ones of primary interest are:

RetainServer.<date>.log: Contains server transactions.

RetainWorkerN.<date>.log: Contains worker transactions. N being the worker number.

Indexer.<date>.log: Contains indexer transactions.

Auditing Option (Overview)

This option provides reports on user activities.

Path: [Retain Server Manager](#) > [Overview](#) > Auditing

All pertinent actions performed by users in Retain are logged and can be discovered and printed. If Reporting and Monitoring is installed, four buttons are added to the following page, as shown below.

Figure 3-2 Audit Page without a Reporting and Monitoring Server Installed

Audit

Start date2020-06-11 08:53

End date2020-07-11 08:53

Sort rows by columnDate

Descending

Maximum returned rows0

Select/Unselect all actions

Archived

Deleted

FTP Forwarded

Forwarded

Litigation Hold

Login

SMTP Forwarded

Viewed

Run report on

All users

Select users

Search

Reset

Auditable Users

	User Name	User UID	Display Name
<input type="checkbox"/>	a		
<input type="checkbox"/>	admin	24fcb828-38b9-44bf-9152-adb15470f731	admin

Date	Info	User	Mailbox	Job Name	Action
11-Jul-2020 08:01	Success [-:1]	admin	admin	-	Login
11-Jul-2020 08:01	Success [-:1]	admin	admin	-	Login
11-Jul-2020 07:57	Success [-:1]	admin	admin	-	Login
11-Jul-2020 07:43	Success [-:1]	admin	admin	-	Login
11-Jul-2020 07:57	Success [-:1]	admin	admin	-	Login
11-Jul-2020 07:43	Success [-:1]	admin	admin	-	Login

The Audit dialog is also available through the Reporting and Monitoring Server admin console as shown in [Figure 3-3 on page 166](#) .

Figure 3-3 Audit Page with a Reporting and Monitoring Server Installed

The screenshot shows the Retain Audit interface. At the top, there's a header with the Retain logo and the word "Audit". Below the header, there are tabs for "Report" and "Schedule Report". The main area contains several filter sections: "Start date" (2020-06-11 12:34), "End date" (2020-07-11 12:34), "Sort rows by column" (Date, Descending), "Maximum returned rows" (0), and "Actions" (a list of checkboxes for Archived, Deleted, FTP Forwarded, Forwarded, Litigation Hold, Login, SMTP Forwarded, and Viewed). Below these is the "Run report on" section with radio buttons for "All users" (selected) and "Select users". There are "Search" and "Reset" buttons. At the bottom, a table displays the results, showing columns for Date, Info, User, Mailbox, Job Name, and Action. The table has 6 columns and 6 rows of data.

Date	Info	User	Mailbox	Job Name	Action
11-Jul-2020	Success [192.168.1.224]	admin	admin	-	Login
11-Jul-2020	Success [192.168.1.224]	admin	admin	-	Login
11-Jul-2020	Failure [192.168.1.224]	admin	admin	-	Unsuccessful Login
11-Jul-2020	Success [::1]	admin	admin	-	Login
11-Jul-2020	Success [::1]	admin	admin	-	Login
11-Jul-2020	Message ID = 35201	collector	AmandeenK		Archived

- ♦ Accessing the audit log requires the “Access all audit logs” administrative right.
- ♦ Ordinary users cannot access their audit logs unless you grant the “View Personal Audit Log” right, in which case they can find the audit log on a per-message basis under the Properties tab.

To view actions, select the desired actions, one or all, a date range, and a user, one or all, and then click Search. The results are displayed in a table with sortable columns.

You can print the report by selecting **Export as PDF** and printing the result.

Auditors do not automatically have rights to READ messages in mailboxes that are not assigned to them.

The Export Audit Table sorts the entire Audit log with the settings desired and creates a report for specific users or all users, with specific events or all events. This report can be limited by size and date range.

Generate report: Export Audit Table

This report exports the audit log entries and filters the results by date range, user, mailbox or action performed.

Report Output Format

HTML

Start Date

2019-11-03 03:34

End Date

2019-12-03 03:34

Sort Rows by

Date

Column

Descending

Limit the size of the report

Limit By Size

Limit By Items

File Size: 0

KBs

Send data in multiple files

Select/Unselect all actions

Archived

Audited

Changed Data Collection

Changed User/Group

Cloud Router Configuration

Data Removal

Deleted

Exported

Exported

Run Report On

All Users

Select Users

Deliver Report In

Browser

Generate

Auditable Users

	User Name	User UID	Display Name
<input type="checkbox"/>		f8420f7d-bc59-4afd-9528-5680efcecac3	rickl@GWAVA.COM
<input type="checkbox"/>		8b9a8dab-46ff-4f36-92d6-a86e6336c13e	hakim rasoli
<input type="checkbox"/>		4f1900d2-cbf3-4f9a-b117-7f714284b260	amandeepk@EDIR4
<input type="checkbox"/>		ccb1691f-83c0-421a-80c3-8d64426abf00	Dave Nuttall<18013619867>
<input type="checkbox"/>		03a266d2-ccd7-44ab-aa5a-f3a75a988a23	matts@NBLOCAL
<input type="checkbox"/>		a4c22aa6-eb1b-4806-b6f4-d7f46f634306	sorchard@EDIR4
<input type="checkbox"/>		90f3e05c-4aec-4d9b-be84-6ee2141c53cd	Nexus5 White QA Phone<14387634851>
<input type="checkbox"/>		ed59e084-ef3-439a-b93c-232f6ae7793	BlackBerryZ10
<input type="checkbox"/>		3d486a63-0b40-49ac-b60c-38797cdcca3a	ericm@EDIR4

1 of 211

1

2

3

4

5

6

7

8

9

10

10

Output formats for this report include: HTML, PDF, XLS, and CSV.

You can limit the report by size or by items. Enabling the **Send data in multiple files** option generates a complete report broken down into multiple files, each conforming to the limits set above the option.

If restricting the report to a specific user or users, a menu displaying 'auditable users' is displayed. The different fields are searchable. The option to select all, or none, is also present. Users may be searched for via User Name or email address, User UID, or the user Display Name.

Date

Info

User

Mailbox

Job Name

Action

The rows and columns are not sortable in the generated report, but they can be sorted or organized from the report generation interface. The rows may be organized by the columns listed.

This has the exact same effect as organizing columns for the jobs on the reporting and monitoring home page. Configure as desired and then select 'Generate' to create the report.

To Schedule the report, select the 'Schedule' button from the top of the report to keep the settings.

Deleting Data

- ◆ ["Deleting Mailboxes" on page 168](#)
- ◆ ["Deleting Items" on page 170](#)

Management 167

- ♦ “Deleting Individual Messages” on page 177
- ♦ “Deletion Report and Logging” on page 177

Deleting Mailboxes

Mailbox Deletion will delete one or more entire mailboxes from Retain.

If you are trying to clean up mailboxes for your license report, run mailbox deletion on the target users. All messages are deleted, except those flagged with a litigation hold.

Deleting Users

The primary action is to press the *Add User* button to select users to be deleted from Retain.

Core Settings—Data Deletion

Core Settings allows you to choose between *Generate a report but don't delete message* and *Delete messages as they are processed* when processing the job.



The screenshot displays the 'Mailbox Deletion' interface. At the top, a header bar contains the title 'Mailbox Deletion' with a red 'x' icon. Below the header, the text 'Full deletion of user mailbox data including folders' is shown. A large rectangular area contains a list of users; the first user is 'kamryn (docdom.docpo)' with a red 'x' icon to its left. To the right of this list is an 'Add User' button. Below the list area is a 'Run Job Now' button. At the bottom, there are two tabs: 'Core Settings' (selected) and 'Notification'. Under the 'Core Settings' tab, there is a section titled 'Core Settings' with a label 'When processing job' and two radio button options: 'Generate a report but don't delete messages' (selected) and 'Delete messages as they are processed'.

Data Deletion Notifications

To be notify about errors and/or when the job is complete, fill out this tab. By default it is filled in with the notification data from Server configuration.

Mailbox Deletion

Full deletion of user mailbox data including folders


 kamryn (docdom.docpo)

Add User

Run Job Now

Core Settings

Notification

Notification

You can have Retain e-mail a summary of operations and/or errors that occurred when the job completes.

SMTP Mail Server	<input type="text" value="10.1.4.214"/>
SMTP Security Protocol	<input type="text" value="unencrypted"/>
SMTP Port	<input type="text" value="25"/>
SMTP Mail From Address	<input type="text" value="retain10@gwava.net"/>
SMTP To Address	<input type="text" value="aileen@sfgw14.gwava.net"/>
SMTP Username	<input type="text"/>
SMTP Password	<input type="password"/> (Password is not set)
Mail when errors occur	<input checked="" type="checkbox"/>
Mail summary when job complete	<input checked="" type="checkbox"/>

Test Connection

Press the *Run Job Now* button to begin the process.

Deleting Items

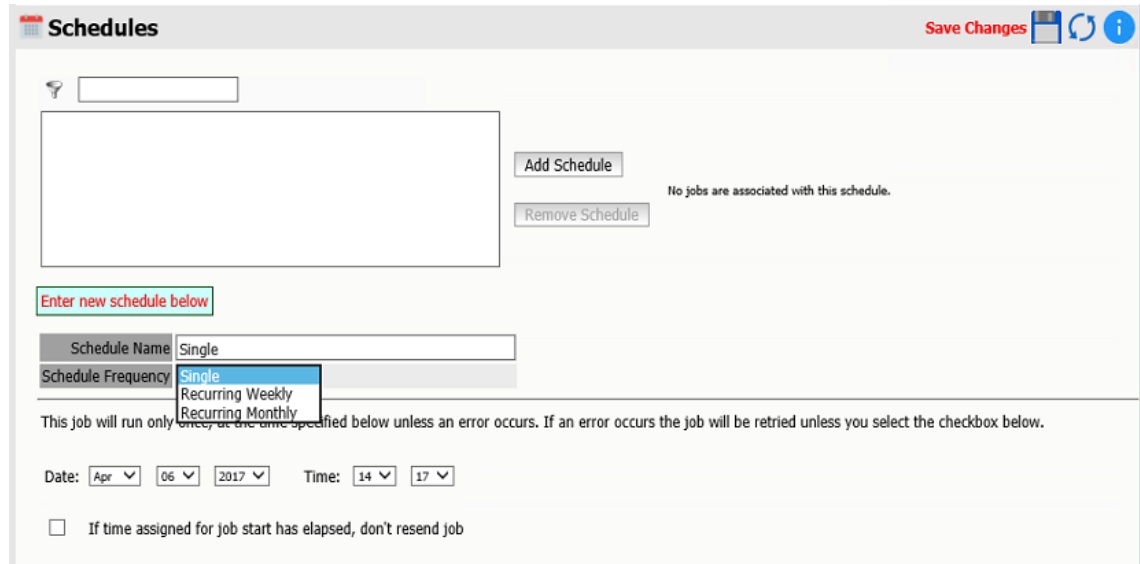
When items pass out of their retention period it is time to remove them from the system.

An item deletion job is set up much like an archive job with a schedule, profile and job, but there is no need for a worker because Retain can connect to itself just fine.

Scheduling Item Deletion

There are three types of schedules:

- ♦ *Single*, the job will run only once at the assigned date and time



The screenshot shows a web interface titled "Schedules". At the top right, there are links for "Save Changes", a save icon, a refresh icon, and an information icon. Below the title, there is a search bar with a magnifying glass icon. A large empty box is intended for a list of schedules. To the right of this box are two buttons: "Add Schedule" and "Remove Schedule". Below the box, a message states "No jobs are associated with this schedule." A red-bordered box contains the text "Enter new schedule below". Below this, there are two input fields: "Schedule Name" with the value "Single" and "Schedule Frequency" with a dropdown menu showing "Single", "Recurring Weekly", and "Recurring Monthly". Below these fields, a note reads: "This job will run only once, at the time specified below unless an error occurs. If an error occurs the job will be retried unless you select the checkbox below." The date is set to April 06, 2017, and the time is 14:17. At the bottom, there is a checkbox labeled "If time assigned for job start has elapsed, don't resend job".

- ♦ *Recurring Weekly*, the job will run each week on the assigned day and time

Schedules

🔍

- Monthly
- Single
- Weekly**

Add Schedule

Remove Schedule

Schedule Weekly saved.

Schedule Name:

Schedule Frequency:

☐ Sunday
☐ Monday
☐ Tuesday
☐ Wednesday
☐ Thursday
☐ Friday
☒ Saturday

Start Job at:

- ♦ *Recurring Monthly*, the job will run each month on the assigned day and time

Schedules

🔍

- Monthly**
- Single
- Weekly

Add Schedule

Remove Schedule

Schedule Name:

Schedule Frequency:

Run job on day of the month

Start Job at:

Creating an Item Deletion Profile

The profile sets the type and age of the items to be deleted.

Basic Options Tab

Sets the limits on the Type, Source and Status of the items to be deleted

Profiles

Add Profile

Remove Profile

No jobs are associated with this Profile.

Enter new profile below

Profile Name

Basic Options

Date Scope

Item Type

By default, Retain stores every type of message. You can restrict this.

☒ Mail
☒ Appointment
☒ Note
☒ Task
☒ Voice Message
☒ Message
☒ Phone Call
☒ BB PIN
☒ BBM
☒ Social Messages

Item Source

Messages are classified in one of these categories. You may restrict the storage of messages if desired.

☒ Received
☒ Sent
☒ Draft
☒ Personal

Message Status

You can restrict the storage of messages based upon the setting of various status flags

Read is
Private is
Personal is

Item Types include: Mail, Appointment, Note, Task, Voice Message, Message, Phone call, BB PIN, and BBM Messages.

Item Sources include: Received, sent, draft and personal.

Message Status can include Read, private or personal, depending on Doesn't matter, True or False.

Date Scope Tab

Items can be deleted based on the following:

- ♦ *Date Stored in Retain:* This date is set by Retain. This is when your Retain server copied the message to the Retain archive. This is a good time to use if Retain has archiving for at least as long as your organization's retention period and is a trusted source.
- ♦ *Delivered Date:* This date is set by the recipient mail server. This is when your organization's mail server received the message. This is considered the most accurate date as your email server sets this time and is a trusted source.

- ♦ **Expiration Date:** This date is set by your Retain server and is based on when the message is stored in Retain. Configure this in the Job | Core Settings tab. This date will be set in the future.
- ♦ **Created Date:** This date is set by the sending mail client. This date is set by an untrusted source. This is considered the least desirable date to use as spammers often set the date to the far future to keep their messages at the top of the list of the recipient's mail client.

And if the items are older than a specified number of Days, Months or Years or between two specific dates.

Profiles Save Changes

No jobs are associated with this Profile.

Enter new profile below

Profile Name

Date Scope

Here the date range of messages to be deleted is defined. It's important to choose the correct range, and the correct date type. The creation and delivered date are internal dates of the message. The stored date is when the message was stored in Retain. The expiration date is related to the expiration settings active in the Job when the message was stored.

Delete messages where is:

☒ Older than

☐ Between two specific dates

Start Date: Time:

End Date: Time:

Creating Item Deletion Jobs

Creating a deletion job is just like creating an archive job select a schedule and profile to prepare the job.

Core Settings Tab

A job can be enabled or disabled.

Core Settings allows you to choose between *Generate a report but don't delete message* or *Delete messages as they are processed* when processing the job.

A Schedule and a Profile must be chosen.


Jobs

Add Job
Remove Job

Enter new job below

Job

Core Settings
Mailboxes
Notification

Core Settings

Job enabled
☒

When processing job

Generate a report but don't delete messages
Delete messages as they are processed.

Each Job must have the following settings:

- **schedule** - How often to run
- **profile** - What to do when running


Schedule
Single

Profile
10Year

Selecting Mailboxes for Data Deletion

Select the objects to be included for the deletion job.

- ♦ Journaling Mailboxes may be excluded.
- ♦ An entire mail server or post office can be included.
- ♦ Individual users may be included or excluded.

Jobs

Add Job

Remove Job

Enter new job below

Job

10YearPolicy

Core Settings

Mailboxes

Notification

Mailboxes

☐ Exclude Journaling Mailboxes

Include these objects:

docpo (docdom)

Add Mail Server

Add User


Hayden Hernandez

Exclude these objects:

Add User

Notification Tab

To be notify about errors and/or when the job is complete, fill out this tab. By default it is filled in with the notification data from Server configuration.

Jobs

Add Job

Remove Job

Enter new job below

Job10YearPolicy

Core Settings

Mailboxes

Notification

Notification

You can have Retain e-mail a summary of operations and/or errors that occurred when the job completes.

SMTP Mail Server	10.1.4.214
SMTP Security Protocol	unencrypted
SMTP Port	25
SMTP Mail From Address	retain10@gwava.net
SMTP To Address	ailleen@sfgw14.gwava.n
SMTP Username	
SMTP Password	(Password is not set)
Mail when errors occur	<input checked="" type="checkbox"/>
Mail summary when job complete	<input checked="" type="checkbox"/>

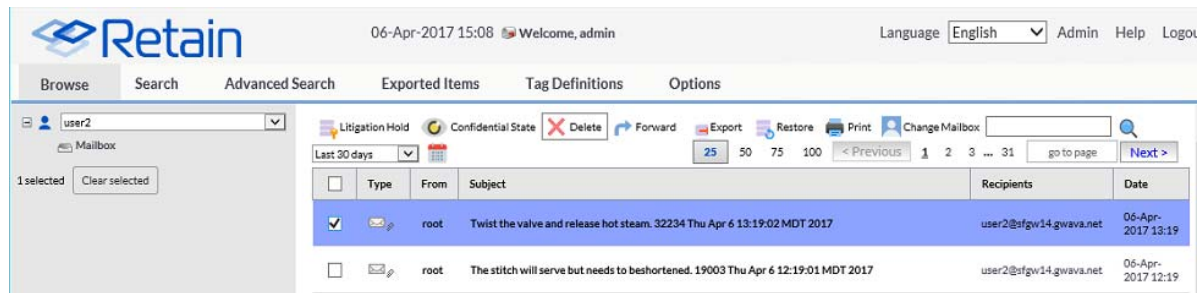
Test Connection

If tomcat crashes during a deletion job, then the job will continue when the tomcat is restarted.
If there is an issue and the server goes down during a job, then the job will need to be rerun.

Deleting Individual Messages

Individual Messages can be deleted by the admin or a user given [sufficient rights \(RetainDocs/Administration/User_and_Group_Management/User and Group Management.htm#XREF_User_rights\)](#). Deletion actions will be logged in the RetainServer log.

Within the users mailbox one or more messages can be deleted by selecting with the checkbox and pressing the *Delete* button.



Deletion Report and Logging

The resulting report CSV file will be placed in the archive directory. For large deletion jobs, the report file will be split into CSV files of up to 500,000 line each. The mailbox will be labeled by the user's first, last and display names with a list of items removed.

The job will be logged in the RetainServer log.

Litigation Hold

- ♦ [“Add User” on page 177](#)

Litigation hold prevents a mailbox and its associated data from being deleted until the hold is released. This will prevent items from being removed from disk by Mailbox Deletion, Item Deletion or by users with the Delete Messages rights. If Data Removal is run and disk space does not increase it may be because items are under Hold. Items not removed because of a hold will be shown in the RetainServer log.

Add User

Add mailboxes by clicking on the *Add User* button and selecting user or users from the dialog box.

Litigation Hold

[Save Changes](#)

Litigation Hold

If you have been granted rights to do so, you may apply or remove litigation hold on an entire users mailbox. You can apply a hold on a per item basis from the main search interface. Holds placed here will prevent ALL messages from being deleted from the relevant user listed when running a deletion manager job.

Jayden Smith

Alan Smithee

Add User

Add Item

Individual or groups of items may have litigation hold applied by a user with the litigation hold right, for example the admin user.

In the user's mailbox, select the item or items and click on the Litigation Hold action to apply the hold.

Litigation Hold
 Confidential State
 Delete
 Forward
 Export
 Restore
 Print

<input type="checkbox"/>	Type	From	Subject
<input checked="" type="checkbox"/>		root <root@mail2.gwava.net>	The couch cover and hall drapes were blue. 26832 Tue A
<input checked="" type="checkbox"/>		<DataSoong@omicrontheta.com>	FILE:The stems of the tall glasses cracked andbroke. 321

4 Reporting and Monitoring Server

- ♦ “Installing a Reporting and Monitoring (R&M) Server” on page 179
- ♦ “Configuring the R&M Server” on page 179
- ♦ “Reporting and Monitoring Administration Console” on page 182
- ♦ “Defining, Scheduling, and Managing Retain Reports” on page 191
- ♦ “Retain’s Reports” on page 196

Retain includes a separate Reporting and Monitoring server. Although the server can be installed on a separate machine (physical or virtual), best practice is to install it and the Retain Server on the same machine.

Installing a Reporting and Monitoring (R&M) Server

See “Installing Retain 4.9.2” in the *Retain 4.9.2: Installation and Upgrade* guide. When choosing which components to install, include **Reporting and Monitoring Server** among your selections.

Configuring the R&M Server

After the server is installed, do the following:

- 1 On an administrative workstation, open a [supported administrative web browser](#).
- 2 Open Retain’s administration console <http://RetainServer-IP-or-DNS/RetainServer>.
- 3 Browse to **Configuration > Reporting and Monitoring**.
- 4 Configure the R&M Server as outlined in the following table.

NOTE: Most R&M deployments require few if any modifications, except to Notification tab settings.

Table 4-1 Configuring the Reporting and Monitoring Server

Tab	Information or Action
Core Settings Tab	
Basics Panel	
♦ Days to retain job information	1. Specify how long the R&M server retains job information. Default is 14 days. Maximum allowed value is 90 days.
♦ Run maintenance at (hour)	1. Specify what time R&M maintenance runs each day. Default is 0200 or 2 AM.
♦ Update interval for Server Statistics (minutes)	1. Specify how often server statistics, such as CPU usage, disk storage, and so on are collected. Default is every 10 minutes.

Tab	Information or Action
♦ Update interval for Archive Statistics (minutes)	<ol style="list-style-type: none"> Specify how often archiving statistics such as messages archived, messages processed, errors, and so on are collected. Default is every 10 minutes.
♦ Accept Server connections only from these IP addresses	<ol style="list-style-type: none"> To limit connections to the R&M server to only specified IP Addresses, type the addresses separated by commas. All connections are allowed by default.
♦ Do not expire inactive sessions	<ol style="list-style-type: none"> Select (enable) this to prevent inactive data collection sessions from expiring. This is useful in conjunction with the Monitoring page. Default is disabled (inactive sessions expire).
♦ Disable the disk usage statistics	<ol style="list-style-type: none"> Deselect (disable) this to prevent Archive Size from being listed in the Server Utilization report. Default is enabled (size is listed in the report).
♦ Disable the number of messages statistics	<ol style="list-style-type: none"> Select (enable) this to prevent the Total Messages Stored number from appearing on the Reporting and Monitoring dashboard. This is useful if collecting the total is impacting your system's performance. Default is disabled (total is collected and displayed).
Interval Panel	
♦ Poll for configuration change	<ol style="list-style-type: none"> Specify how often (in minutes) the R&M server checks with the Retain server for retrieving new statistics. Value must be between 10 and 100. Default is 10.
Logging Tab	
♦ Logging enabled	<ol style="list-style-type: none"> Use this to enable and disable logging. Default is enabled.
♦ Log level	<ol style="list-style-type: none"> You can change the logging level if required. Best practice is to not change this unless Support directs you to. Levels are: Diagnostic (Trace), Verbose (Debug), Normal (info), and Error only. Default is Normal (Info).
♦ Compress Logs	<ol style="list-style-type: none"> Deselect this to disable log file compression. By default, the system compresses log files to save disk space.
♦ Remove Old Logs	<ol style="list-style-type: none"> You can prevent log files from being discarded by disabling this option. However, you should only do this temporarily. By default, old logs are removed after a set number of days (see the next field).
♦ When age exceeds (days)	<ol style="list-style-type: none"> Use this to specify how long log the server retains its log files. Default is 10 days.
Connection Tab	

Tab	Information or Action
	<p>IMPORTANT: If your Retain system uses HTTPS, the web server must use a full TLS certificate chain signed by a trusted third-party Certificate Authority.</p> <p>The chain must include both server and intermediate certificates.</p> <p>Self-signed certificates do not work.</p>
	Connection from R&M Server to Retain Server Panel
	<p>IMPORTANT: Do not change these system-created connection settings unless the Retain Server requires a modified connection path, such as a custom port.</p>
♦ Server Protocol	1. Select the protocol (http or https) for communications from the R&M server to the Retain server.
♦ Retain Server Host Name	1. Specify the DNS host name of the Retain server.
♦ Retain Server Port	1. Specify the port on which the R&M server communicates with the Retain server.
♦ Retain Server Path	1. Specify where Retain is installed on the server.
♦ R&M Server Password	1. Specify the Admin user password to the R&M server.
	Connection from Retain Server to R&M Server Panel
	<p>IMPORTANT: Do not modify these system-created connection settings unless you have created custom connection settings.</p>
♦ Server Protocol	1. Select the protocol (http or https) for communications from the Retain server to the R&M server.
♦ R&M Server Host Name	1. Specify the DNS host name of the R&M server.
♦ R&M Server Port	1. Specify the port on which the Retain server communicates with the R&M server.
♦ R&M Server Path	1. Specify where Reporting and Monitoring is installed on the server.
	Connection from Browser to R&M Server Panel
	<p>These settings specify the connection when the browser is redirected from Retain server links to the R&M server.</p>
♦ Server Protocol	1. Select the protocol (http or https) for communications from the browser to the R&M server.
♦ R&M Server Host Name	1. Specify the DNS host name of the R&M server.
♦ R&M Server Port	1. Specify the port on which the browser communicates with the R&M server.
♦ R&M Server Path	1. Specify where Reporting and Monitoring is installed on the R&M server.
Notification Tab	
	<p>By default, this tab reflects the settings specified for the Retain server.</p> <p>You can retain the same settings or specify new ones for the R&M server.</p>
	Notification Panel

Tab	Information or Action
♦ SMTP Mail Server	1. Specify the DNS hostname (preferred) or IP address of the SMTP server that Retain should use for emailing notifications.
♦ SMTP Security Protocol	1. Select the security protocol setting Retain uses for communications with the SMTP server: unencrypted, SSL, or TLS.
♦ SMTP Port	1. Specify the port on which Retain communicates with the SMTP server.
♦ SMTP Mail From Address	1. Specify the From address shown on the messages that Retain sends.
♦ SMTP To Address	1. Specify the address to which Retain sends notifications through the SMTP server.
♦ SMTP Username	1. Specify the username for authenticating with the SMTP server.
♦ SMTP Password	1. Specify the password for the username.
♦ Test Connection button	1. Click this to test the connection with the SMTP server. If the test succeeds, an email message is received in the SMTP To Address mailbox .

Bootstrap Tab

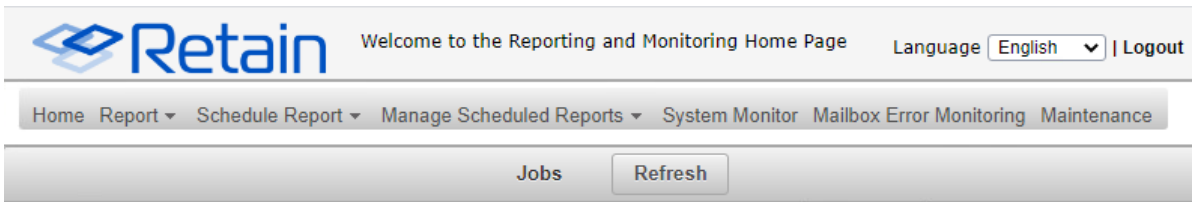
This tab appears after the configuration is saved.

♦ Download File link	<p>TIP: To easily download and then upload the bootstrap file, access both the Retain server and the R&M server on the same machine.</p> <ol style="list-style-type: none"> 1. Use this button to download the R&M server's bootstrap file. 2. Note where the file is downloaded.
♦ URL to R&M server	<ol style="list-style-type: none"> 1. Click this link in the explanation that displays to access the R&M server for the first time. 2. Log in using the Retain admin username and password. 3. On the R&M server's initial webpage, browse to the saved bootstrap file and select it. 4. Click Continue to upload the bootstrap file. 5. After the bootstrap file is uploaded, users with the Access Reporting and Monitoring Server right can access the R&M server.

Reporting and Monitoring Administration Console

Using an administrative browser, enter the following URL and sign in as a Retain administrative user.

Path: `http://reporting-and-monitoring-server-IP-or-DNS/RetainStatsServer`



NOTE: You can also access the R&M server from the Retain administration interface by clicking either the **Reporting** or **Monitoring** links in the left navigation panel.

From the R&M console, you can access the following:

- ♦ “Home Tab” on page 183
- ♦ “Reports, Scheduled Reports, and Manage Scheduled Reports Drop-down Lists” on page 187
- ♦ “System Monitor Tab” on page 187
- ♦ “Mailbox Error Monitoring Tab” on page 189
- ♦ “Maintenance Tab” on page 190

Home Tab

The Reporting and Monitoring Home tab/page lists current archive activity on the associated Retain server. It also includes the following subpanels.

- ♦ “Job History Panel” on page 184
- ♦ “Job Details Panel” on page 185
- ♦ “Job Mailbox Summary Panel” on page 186

Path: Retain Reporting and Monitoring Server > Home

Job Name	Worker	Profile	Schedule	Email System	Last Reported Time
exchange-jobs	worker	exchange-i	exchange-schedule	Exchange	2020-01-04 10:14
exchange-jobs	worker	exchange-i	exchange-schedule	Exchange	2020-01-04 10:14
exchange-jobs	worker	exchange-i	exchange-schedule	Exchange	2020-01-04 10:14
exchange-jobs	worker	exchange-i	exchange-schedule	Exchange	2020-01-04 10:14
exchange-jobs	worker	exchange-i	exchange-schedule	Exchange	2020-01-04 10:14
exchange-jobs	worker	exchange-i	exchange-schedule	Exchange	2020-01-04 10:14
exchange-jobs	worker	exchange-i	exchange-schedule	Exchange	2020-01-04 10:14
exchange-jobs	worker	exchange-i	exchange-schedule	Exchange	2020-01-04 10:14
exchange-jobs	worker	exchange-i	exchange-schedule	Exchange	2020-01-04 10:14
exchange-jobs	worker	exchange-i	exchange-schedule	Exchange	2020-01-04 10:14

Table 4-2 Using the Reporting and Monitoring Server Home Page

Field, Option, or Button	Information and/or Action
Language Drop-down	♦ Use this to select or change the UI display language.

Field, Option, or Button	Information and/or Action
Top Navigation Bar	<ul style="list-style-type: none"> ♦ Use this to navigate among the following. Click the links for more details about each item. <ul style="list-style-type: none"> ♦ Home: Open or return to this page. ♦ Report drop-down ♦ Scheduled Report drop-down ♦ Manage Scheduled Reports drop-down ♦ System Monitor page ♦ Mailbox Error Monitoring page ♦ Maintenance page
Refresh button	1. Click this to refresh the details displayed.
Jobs list	<p>This lists all of the jobs in your Retain system along with their associated workers, profiles, schedules, and last-reported run times.</p> <p>You can</p> <ul style="list-style-type: none"> ♦ Sort the list by clicking any of the column headings. ♦ Click a finished Job run to display <ul style="list-style-type: none"> ♦ A Job History report. ♦ Details of the selected job ♦ A Mailbox Summary Report. ♦ In the Job History report you can also drill down into mailbox errors for a given job run.

Job History Panel

Path: [Retain Reporting and Monitoring Server](#) > [Home](#) > select a listed Job

Job History										
Job Name	Job Run ID	Status ▾	Messages P	Archived Me	Speed (Mess	Errors	Warnings	Start Time ▾	End Time ▾	Duration (hh:
Job1	Job100	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job101	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job102	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job103	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job104	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job105	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job106	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job107	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job108	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job109	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job110	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job111	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job112	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job113	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job114	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00
Job1	Job115	Completed	100	0	1.00	0	0	2008-07-24 0	2008-07-24 0	00:00:00

Table 4-3 Using the Job History Panel

Field, Option, or Button	Information and/or Action
List of Job runs	<ul style="list-style-type: none"> ♦ Job Name: Name that you assigned to the job. ♦ Job Run ID: Internal ID assigned to job run. ♦ Status: Current job status. ♦ Messages Processed: Number of messages processed by the job. ♦ Archived Messages: Number of messages archived by the job. ♦ Speed (Messages/sec): How many messages the job processed per second. ♦ Errors: Number of errors encountered on each job run. The number links to an error summary panel with more information about each error, such as severity, how many mailboxes had the error, and how many times it occurred during the job run selected. ♦ Warnings: Number of warnings generated during the job. ♦ Start Time: Date and time that the job started. ♦ End Time: Date and time that the job ended. ♦ Duration (hh:mm:ss): How long the job run lasted.

Job Details Panel

Path: [Retain Reporting and Monitoring Server](#) > [Home](#) > select a listed Job > select a Job Run ID—the Job Details panel for the selected run displays directly below the Job History panel.

Job Details			
Job Name	12345	Status	Completed
Worker	worker1	Duration (hh:mm:ss)	00:05:11
Start Time	2012-01-11 10:00:00	End Time	2012-01-11 10:05:11
Mailboxes Processed	15	Archived Messages	0
Messages Processed	150	Message Data Stored	1.5 MB
Last PO Scanned	2012-01-11	Last Mailbox Scanned	Mailbox1
Errors	0	Last Error	

Table 4-4 Using the Job Details Panel

Field, Option, or Button	Information and/or Action
Job Detail Items	<ul style="list-style-type: none"> ♦ Job Name: Name that you assigned to the job. ♦ Status: State of the job run. ♦ Worker: Worker that is running or that ran the job. ♦ Duration (hh:mm:ss): How long the job has been running or if completed, how long it ran. ♦ Start Time: Date and time that the job started. ♦ End Time: Date and time that the job ended. ♦ Mailboxes Processed: Total number of mailboxes processed during the run. ♦ Archived Messages: Total number of messages archived during the run. ♦ Messages Processed: Total number of messages that the job processed during this run. ♦ Message Data Stored: Size of the message data that the job stored during this run. ♦ Last PO Scanned: Last Post Office scanned during the job run. ♦ Last Mailbox Scanned: Last mailbox scanned during the job run. ♦ Errors: Number of errors encountered during the job run. ♦ Last Error: Last error message recorded during the job run.

Job Mailbox Summary Panel

Path: [Retain Reporting and Monitoring Server](#) > [Home](#) > select a listed Job > select a Job Run ID—the Job Mailbox Summary panel for the selected run displays directly below the Job Details panel.

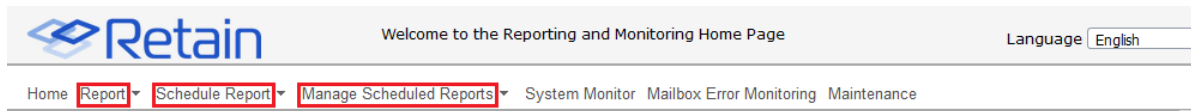
Job Mailbox Summary								
Mailbox ▾	Messages Proc	Archived Messa	Errors ▾	Warnings ▾	Advanced Date	Start Time ▾	End Time ▾	Duration (hh:mm:ss)
ChattanoogaC:\job	0	0	0	0		2020-01-01 00:00	2020-01-01 00:00	00:00:00
stephens\job	0	0	0	0		2020-01-01 00:00	2020-01-01 00:00	00:00:00
... (Job ID=100)	0	0	0	0	Last Mailbox Flag: 2020-01-01	2020-01-01 00:00	2020-01-01 00:00	00:00:00

Table 4-5 Using the Job Mailbox Summary Panel

Field, Option, or Button	Information and/or Action
Mailbox Summary Columns	<ul style="list-style-type: none"> ♦ Mailbox: Mailbox UserID and post office name. ♦ Messages Processed: Number of messages processed from this mailbox during the job run. ♦ Archived Messages: Number of messages archived from this mailbox during the run. ♦ Errors: Number of errors encountered on the mailbox during the job run. ♦ Warnings: Number of warnings encountered on the mailbox during the job run. ♦ Advanced Date Flags: Date flags encountered for the mailbox during the job run. ♦ Start Time: Date and time the mailbox processing started. ♦ End Time: Date and time the mailbox processing ended. ♦ Duration: How long it took to process the mailbox.

Reports, Scheduled Reports, and Manage Scheduled Reports Drop-down Lists

Path: [Retain Reporting and Monitoring Server](#) > [Report](#) or [Schedule Report](#) or [Manage Scheduled Reports](#)

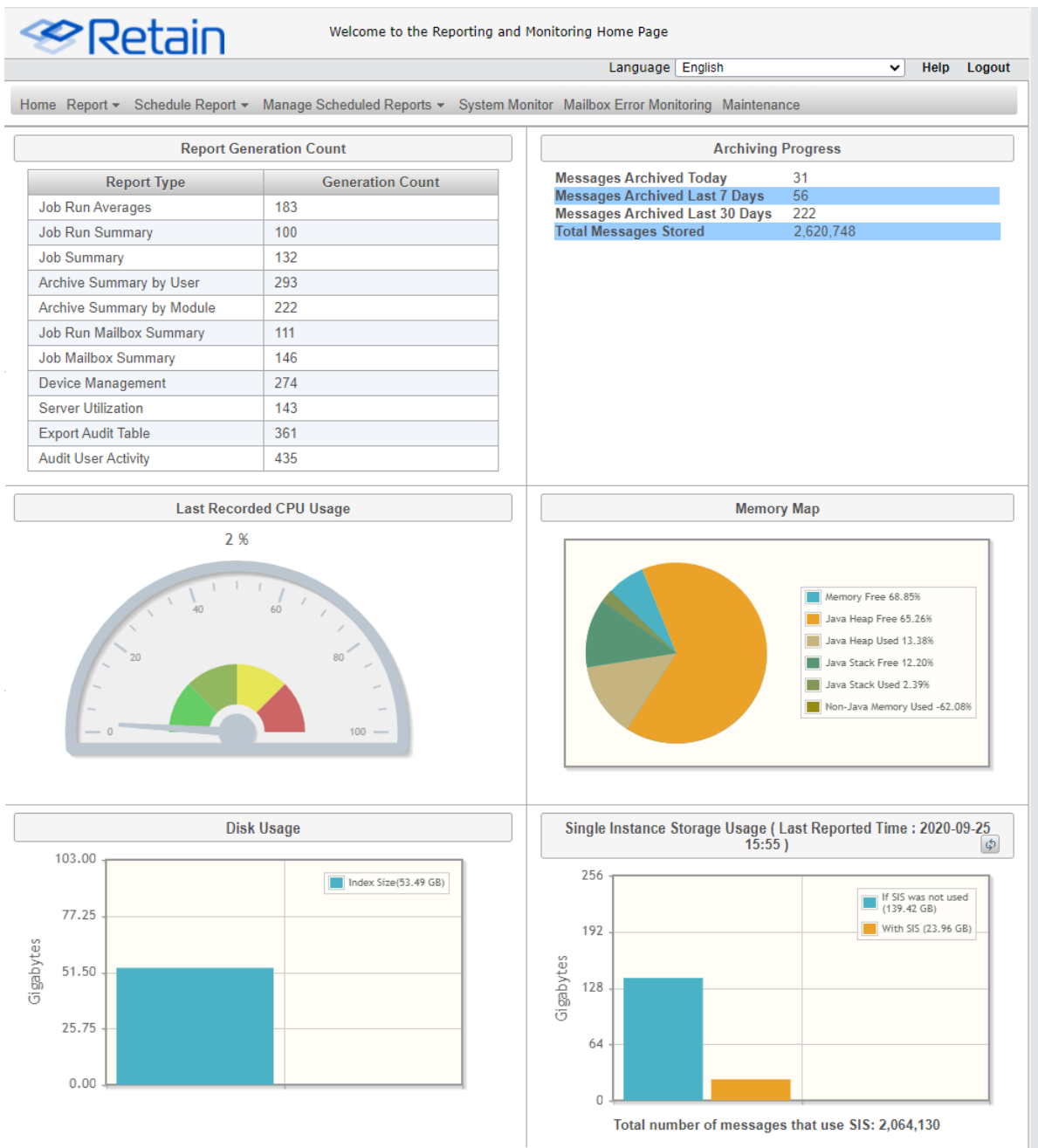


For information and usage instructions for these drop-down reports and tasks, see the following sections:

- ♦ “[Comparing Reports and Scheduled Reports](#)” on page 191
- ♦ “[Creating Scheduled Reports—Overview](#)” on page 192
- ♦ “[Managing Scheduled Reports](#)” on page 195

System Monitor Tab

Path: [Retain Reporting and Monitoring Server](#) > [System Monitor Tab](#)



The System Monitor page shows the following:

- ♦ **Report Generation Count:** The total number of reports that have been generated on the system, by type.
- ♦ **Archiving Progress:** Two calculation methods are reflected in these numbers.
 - ♦ **Messages Archived:** These numbers for the previous day, week, and month, include only the primary or initial messages themselves. Attached and child messages that are associated with the primary message threads, are not counted.
 - ♦ **Total Messages Stored:** This number includes all messages. In other words, it reflects all initial messages and all of the attached and child messages associated with them.
- ♦ **Last Recorded CPU Usage:** This is the latest measured System CPU load recorded.

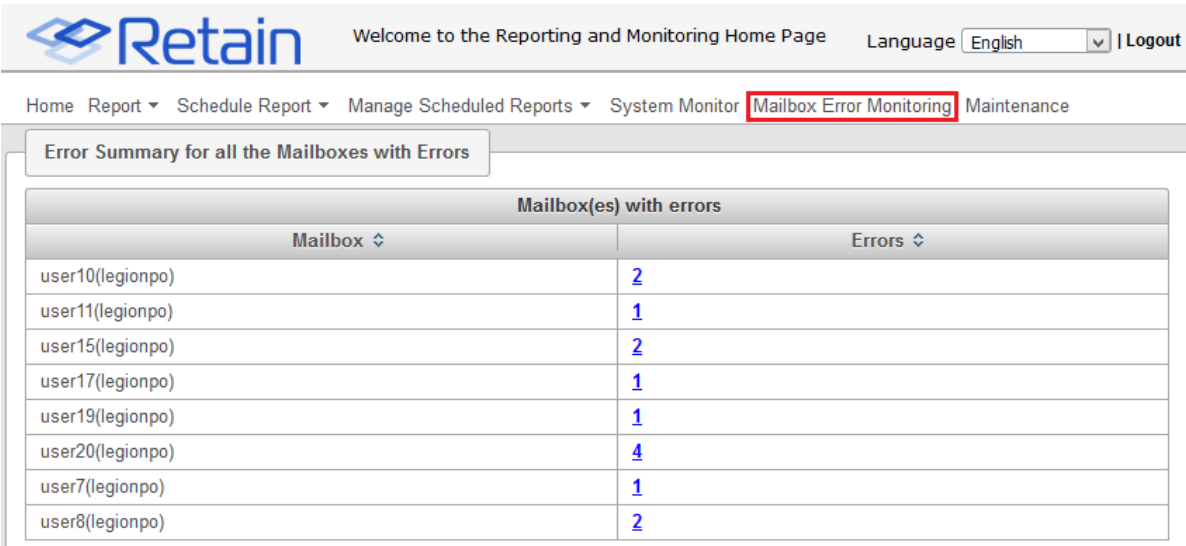
- ♦ **Memory Map:** This pie chart focuses on memory usage by various Java-associated processes that support Retain functionality.
- ♦ **Disk Usage:** This reports the disk space consumed by Retain's data index.
- ♦ **Single-Instance Storage Usage:** This compares the disk space actually used by archived messages against what would have been used if messages sent to multiple mailboxes had been archived separately for each mailbox.

Retain's [single-instance storage system](#) archives message data only once and links the archived data to the mailboxes that received the messages.

NOTE: If there is a problem gathering system-level information, the CPU, RAM, and system memory usage are set to 0 until the issue is resolved.

Mailbox Error Monitoring Tab

Path: [Retain Reporting and Monitoring Server](#) > **Mailbox Error Monitoring Tab**



The screenshot shows the Retain Reporting and Monitoring Home Page. The top navigation bar includes the Retain logo, a welcome message, a language dropdown set to English, and a Logout link. Below this is a secondary navigation bar with links: Home, Report, Schedule Report, Manage Scheduled Reports, System Monitor, Mailbox Error Monitoring (highlighted with a red box), and Maintenance. A tab titled 'Error Summary for all the Mailboxes with Errors' is active. Below the tab is a table titled 'Mailbox(es) with errors' with two columns: 'Mailbox' and 'Errors'. The table lists eight mailboxes and their corresponding error counts.

Mailbox(es) with errors	
Mailbox ↕	Errors ↕
user10(legionpo)	2
user11(legionpo)	1
user15(legionpo)	2
user17(legionpo)	1
user19(legionpo)	1
user20(legionpo)	4
user7(legionpo)	1
user8(legionpo)	2

Table 4-6 Using the Mailbox Error Monitoring Page

Field, Option, or Button	Information and/or Action
Mailbox(es) with errors	
♦ Mailbox	Mailbox name

Field, Option, or Button	Information and/or Action
♦ Errors	<p>A number that links to error information for the mailbox.</p> <ol style="list-style-type: none"> 1. Access the errors for a given mailbox by clicking the error number. The Error Summary for Mailbox [mailboxName] list displays. Each line includes: <ul style="list-style-type: none"> ♦ A description of the error and its error code ♦ The path to the folder the message was found in ♦ The message's subject, sender, attachment that the error occurred on, and the delivered date. 2. If the message is accessible from the user's client, save the message from the client. Then import the message into Retain using the PST Importer or GroupWise Personal Archive Migrator. 3. To skip messages the next time the job runs, <ol style="list-style-type: none"> a. Select individual messages or use the title bar checkbox to select all. b. Then click the Skip Errors button. <p>The message is not reported in future job runs.</p>

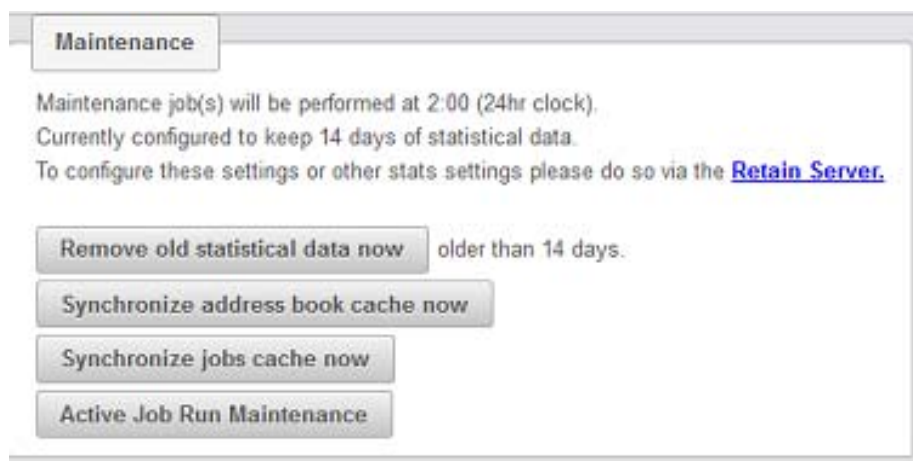
NOTE: This page is also accessible through the Retain Admin Console > Overview > **Mailbox Error Monitoring**

Maintenance Tab

The R&M server refreshes itself automatically each morning at 2 a.m. by expiring and deleting statistical data that is older than 14 days.

Use this dialog if you need to manually purge older data.

Path: [Retain Reporting and Monitoring Server](#) > **Maintenance** Tab



- ♦ **Retain Server link:** Click this to open the Retain administrative console.

In the administrative console, you can adjust the data retention period setting by accessing the [Reporting and Monitoring configuration page](#). Micro Focus recommends not retaining statistical data longer than 30 days.

- ♦ **Remove old statistical data now:** Use this button to remove statistical data that is older than the number of days indicated, immediately rather than at 2 a.m.
- ♦ **Synchronize address book cache now:** Use this button if you need to ensure that the R&M server's address book is synchronized with the Retain server's address book. (They are automatically synchronized every 24 hours, but they can get out of sync in the interim.)
- ♦ **Synchronize jobs cache now:** Use this button if you need to ensure that the R&M server's job cache is synchronized with the Retain server's address book. (They are automatically synchronized every 24 hours, but they can get out of sync in the interim.)
- ♦ **Active job run maintenance:** Use this button to clear the current job status, for example when a job has completed but the R&M server shows it as is still running.

Defining, Scheduling, and Managing Retain Reports

- ♦ [“Comparing Reports and Scheduled Reports” on page 191](#)
- ♦ [“Creating Scheduled Reports—Overview” on page 192](#)
- ♦ [“Configuring Email Delivery of R&M Reports” on page 194](#)
- ♦ [“Managing Scheduled Reports” on page 195](#)

Path: [Retain Reporting and Monitoring Server](#) > **Report** or **Scheduled Report** drop-down

Comparing Reports and Scheduled Reports

Reports and Scheduled reports have the same titles and contain the same information. Reports are generated one time as requested; Scheduled reports are generated at specified intervals.

[Table 4-7 on page 191](#) outlines the main differences between the **Reports** and **Scheduled Reports**.

Table 4-7 Reports vs. Schedule Reports

Feature or Item	Report	Schedule Report
Reports Available	All summarized in “Retain’s Reports” on page 196 .	Reports not available as scheduled reports include: <ul style="list-style-type: none"> ♦ Job Run Summary ♦ Job Run Mailbox Summary
Output Format Availability:		
HTML	Yes (In-browser only)	No
PDF	Yes	Yes
XLS	Yes	Yes
CSV (for Audit User Activity, Export Audit Table, and Device Management reports only)	Yes	Yes
In-browser Delivery	Yes	No
Email Delivery	Yes	Yes

Feature or Item	Report	Schedule Report
Automatic Report Generation	No	Yes
Report Date Range	Generated reports include the Start Date thru the End Date specified.	<p>The result of the specified Use Data from Last range of time counted back from each report generation specified by the Send Report value.</p> <p>For example, if the R&M server uses data from the last 1 day and sends a report Daily, each report covers exactly one day.</p> <p>Obviously it is possible to specify reports that either overlap or miss periods of time.</p>
Report Start and End Dates	One report only is generated for each request made.	<p>Report generation starts on the date specified for the Schedule Start Date field.</p> <p>If the Schedule End Date field is blank, reports are generated until specifications change.</p> <p>If a Schedule End Date is set, report generation ceases on the specified date.</p>
Report Size and Multiple Pages	<p>Settings vary by report.</p> <p>Some let you limit the number of errors reported or set other limitations.</p> <p>If you select an output other than HTML, some reports let you limit the file size, number of pages, etc.</p>	Generally, the same settings available for the Report version are also available for the Schedule Report version of the same report.

Creating Scheduled Reports—Overview

The process for creating scheduled reports is illustrated and briefly explained in the following graphic and table.

Figure 4-1 Reports Scheduling Overview

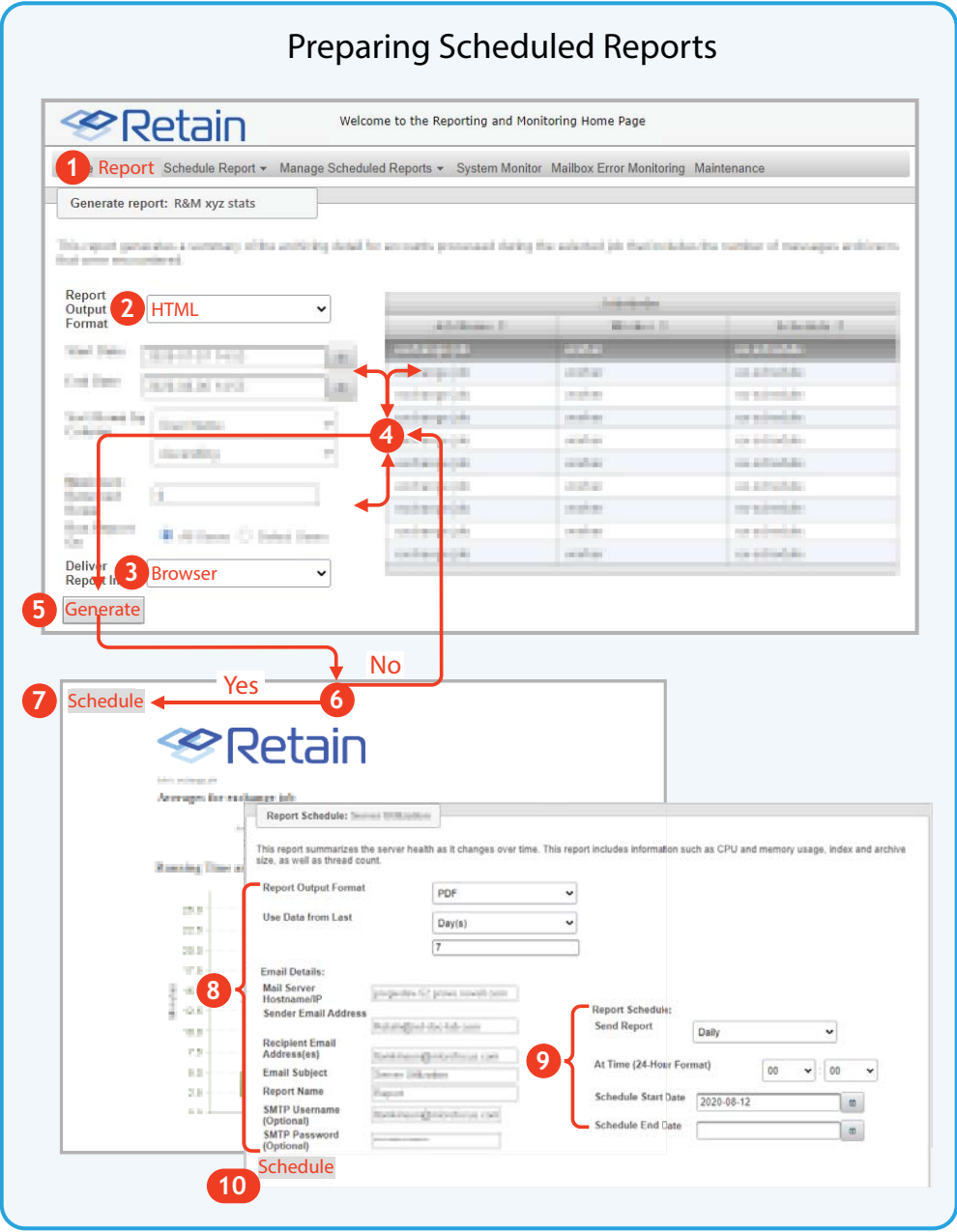


Table 4-8 Setting up a Scheduled Report

Number	Details
1	In the R&M server console, click the Report tab and select a report that you want to schedule for regular generation. IMPORTANT: The Job Run Summary and Job Run Mailbox Summary reports are not available for scheduling.
2	Select HTML as the report output format.

Number	Details
3	Specify Browser delivery for the report you are setting up. This lets you quickly view in your browser what is being reported.
4	Adjust the report parameters as needed for the data that you want included in the report.
5	Click Generate . An HTML rendition of the report displays.
6	Review the report contents. Then if you want to adjust the output, return to Step 4 and adjust the parameters.
7	When the generated report meets your needs, click Schedule . The Schedule dialog opens.
8	Specify the output format you want (PDF or XLS) and the SMTP settings for delivery of the generated report as an email attachment.
9	Specify the schedule for when, how often, and how long you want the report generated.
10	Click Schedule . Retain generates and sends regular reports according to the schedule you have specified.

Configuring Email Delivery of R&M Reports

If you choose to deliver an R&M server report in email, the Email Details panel displays for specifying the SMTP server to use.

By default the R&M server is configured with the same SMTP configuration as you specified for Retain in “[SMTP Notifications](#)” in the [Retain 4.9.2: Installation and Upgrade](#) guide.

You can specify a different configuration here if needed.

Table 4-9 Specifying R&M Report Delivery through Email

Email Details Panel

1. Specify the SMTP configuration settings that you want used for emailing the report you are configuring.

Mail Server Hostname/IP	The DNS hostname (preferred) or IP address of the SMTP server that the R&M server uses for emailing notifications.
Sender Email Address	The From address shown on the messages that the R&M server sends.
Recipient Email Addresses	The email addresses of report recipients.
Email Subject	The Subject line on the sent email.
Report Name	The reports filename.
SMTP Username (Optional)	A username on the SMTP server. Optional if the SMTP server doesn't require authentication.
SMTP Password (Optional)	The password of the user.

Managing Scheduled Reports

You can modify, manually run, or delete scheduled reports by using the Manage Scheduled Reports drop-down options.

Path: [Retain Reporting and Monitoring Server](#) > **Manage Scheduled Reports** Drop-down



Changing or Viewing Scheduled Reports

Path: [Retain Reporting and Monitoring Server](#) > **Manage Scheduled Reports** Drop-down > **View/Change Details**

Report Name	Output Format	Schedule Type	Next Fire Time	Sender Email Address	Email Subject
Archive Summary by User	pdf	Daily	2020-08-19 15:04	Retain@ret-doc-lab.com	Archive Summary by User
Job Run Averages	pdf	Daily	2020-08-19 15:01	Retain@ret-doc-lab.com	Job Run Averages
Audit User Activity	pdf	Daily	2020-08-20 00:00	Retain@ret-doc-lab.com	Audit User Activity
Server Utilization	pdf	Daily	2020-08-19 15:06	Retain@ret-doc-lab.com	Server Utilization
Device Management	pdf	Daily	2020-08-19 15:07	Retain@ret-doc-lab.com	Device Management
Export Audit Table	pdf	Daily	2020-08-19 15:00	Retain@ret-doc-lab.com	Export Audit Table
Archive Summary by Module	pdf	Daily	2020-08-19 15:05	Retain@ret-doc-lab.com	Archive Summary by Module
Job Summary	pdf	Daily	2020-08-19 15:03	Retain@ret-doc-lab.com	Job Summary
Job Mailbox Summary	pdf	Daily	2020-08-19 15:06	Retain@ret-doc-lab.com	Job Mailbox Summary

[View/Change Details](#)

- 1 To modify or view a report's settings, select a report in the list, then click **View/Change Details**.
- 2 The report's configuration dialog opens.

- 3 Adjust the report's settings as needed.
- 4 Click **Update** to save your changes or **Cancel** to leave the settings unchanged.

Running or Removing Scheduled Reports

Path: [Retain Reporting and Monitoring Server](#) > **Manage Scheduled Reports** Drop-down > **Run and Delete Reports**

<input type="checkbox"/>	Report Name ↕	Output Format ↕	Schedule Type ↕	Next Fire Time ↕	Sender Email Address ↕	Email Subject ↕
<input checked="" type="checkbox"/>	Archive Summary by User	pdf	Daily	2020-08-19 15:04	Retain@ret-doc-lab.com	Archive Summary by User
<input type="checkbox"/>	Job Run Averages	pdf	Daily	2020-08-19 15:01	Retain@ret-doc-lab.com	Job Run Averages
<input type="checkbox"/>	Audit User Activity	pdf	Daily	2020-08-20 00:00	Retain@ret-doc-lab.com	Audit User Activity
<input type="checkbox"/>	Server Utilization	pdf	Daily	2020-08-19 15:06	Retain@ret-doc-lab.com	Server Utilization
<input type="checkbox"/>	Device Management	pdf	Daily	2020-08-19 15:07	Retain@ret-doc-lab.com	Device Management
<input type="checkbox"/>	Export Audit Table	pdf	Daily	2020-08-19 15:00	Retain@ret-doc-lab.com	Export Audit Table
<input type="checkbox"/>	Archive Summary by Module	pdf	Daily	2020-08-19 15:05	Retain@ret-doc-lab.com	Archive Summary by Module
<input type="checkbox"/>	Job Summary	pdf	Daily	2020-08-19 15:03	Retain@ret-doc-lab.com	Job Summary
<input type="checkbox"/>	Job Mailbox Summary	pdf	Daily	2020-08-19 15:06	Retain@ret-doc-lab.com	Job Mailbox Summary
			<input type="button" value="Run report now"/>	<input type="button" value="✕ Remove selected"/>		

- 1 To run a listed report, select its checkbox in the list, then click **Run Report Now**.
- 2 To delete one or more reports, select the checkboxes for the reports you want to delete.
- 3 Click **Remove Selected**.

The selected reports are removed.

Retain's Reports

The following sections detail the content of each R&M report.

- ♦ [“Audit User Activity” on page 196](#)
- ♦ [“Export Audit Table” on page 197](#)
- ♦ [“Job Run Averages” on page 198](#)
- ♦ [“Job Run Summary” on page 199](#)
- ♦ [“Job Summary” on page 200](#)
- ♦ [“Archive Summary by User” on page 202](#)
- ♦ [“Archive Summary by Module” on page 204](#)
- ♦ [“Server Utilization” on page 205](#)
- ♦ [“Job Run Mailbox Summary” on page 206](#)
- ♦ [“Job Mailbox Summary” on page 207](#)
- ♦ [“Device Management” on page 208](#)

Audit User Activity

Report Contents: A summary of all specified auditable actions by each user.

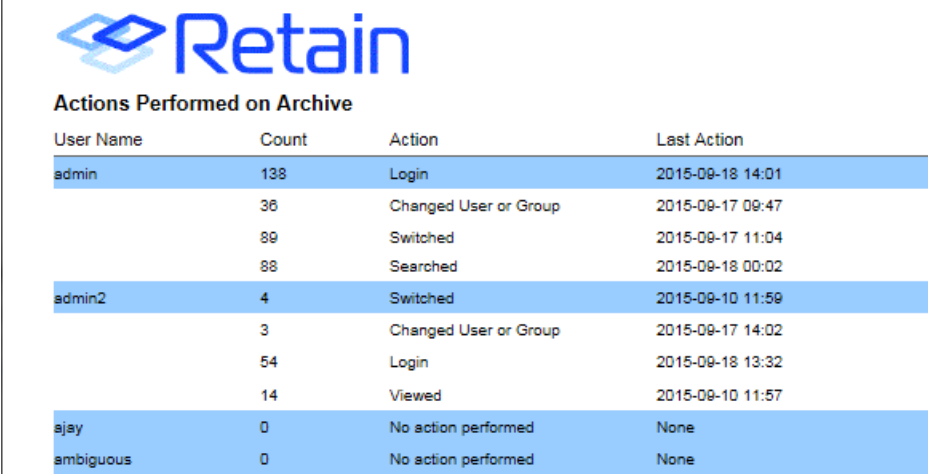
See [Table 2-20 on page 82](#) for instructions on specifying which actions are logged and therefore available for reporting.

Path: [Retain Reporting and Monitoring Server](#) > [Report](#) or [Schedule Report](#) > [Audit User Activity](#)

Table 4-10 *Configuring an Audit User Activity Report*

Section or Item	Information or Action
Report Parameters	
There are no report-specific parameters to set for this report.	
For help with setting standard report parameters, such as email delivery and schedule settings, see “Defining, Scheduling, and Managing Retain Reports” on page 191.	

Figure 4-2 *Sample Audit User Activity Report*



The screenshot displays the Retain logo at the top. Below it, the title "Actions Performed on Archive" is centered. A table follows with four columns: "User Name", "Count", "Action", and "Last Action". The table lists activities for users "admin", "admin2", "ajay", and "ambiguous".

User Name	Count	Action	Last Action
admin	138	Login	2015-09-18 14:01
	36	Changed User or Group	2015-09-17 09:47
	89	Switched	2015-09-17 11:04
	88	Searched	2015-09-18 00:02
admin2	4	Switched	2015-09-10 11:59
	3	Changed User or Group	2015-09-17 14:02
	54	Login	2015-09-18 13:32
	14	Viewed	2015-09-10 11:57
ajay	0	No action performed	None
ambiguous	0	No action performed	None

Export Audit Table

Report Contents: A customized view of the Audit Log, showing the users and events that you specify, with report contents organized by the column that you specify.


Path: [Retain Reporting and Monitoring Server](#) > [Report](#) or [Schedule Report](#) > [Export Audit Table](#)

Table 4-11 *Configuring an Audit Table Report*

Section or Item	Information or Action
Report Parameters	
For help with setting standard report parameters, such as email delivery and schedule settings, see “Defining, Scheduling, and Managing Retain Reports” on page 191.	

Section or Item	Information or Action
Sort Rows by Column	<ol style="list-style-type: none"> Choose which column you want the report to be sorted by: <ul style="list-style-type: none"> ♦ Date ♦ Info ♦ User ♦ Mailbox ♦ Job Name ♦ Action Specify whether you want it sorted in ascending or descending order.
Action	<ol style="list-style-type: none"> Select the Actions that you want included in the report. <p>NOTE: Of course, if an action is not logged, it cannot appear in the exported table.</p>
Run Report on	<ol style="list-style-type: none"> Choose either All Users, or choose Select Users and pick those you want included from the list that displays. Click Generate.

Figure 4-3 Sample Export Audit Table Report



Export of Audit Log Items

Date	Info	User	Mailbox	Job Name	Action
2020-07-24 08:33	Message ID = 45718	collector	Stubby14		Archived
2020-07-11 08:32	Message ID = 34993	collector	Stubby14		Archived
2020-07-25 08:38	Message ID = 46575	collector	Stubby14		Archived
2020-07-25 08:43	Message ID = 46717	collector	User07		Archived
2020-07-10 08:37	Message ID = 34083	collector	User07		Archived
2020-07-10 08:32	Message ID = 33645	collector	Stubby14		Archived
2020-07-22 08:40	Message ID = 43829	collector	Stubby14		Archived
2020-07-29 08:53	Message ID = 48932	collector	Stubby14		Archived

This report is also available on systems without a Retain Reporting and Monitoring Server installed. For help, see [“Auditing Option \(Overview\)”](#) on page 164.

Job Run Averages

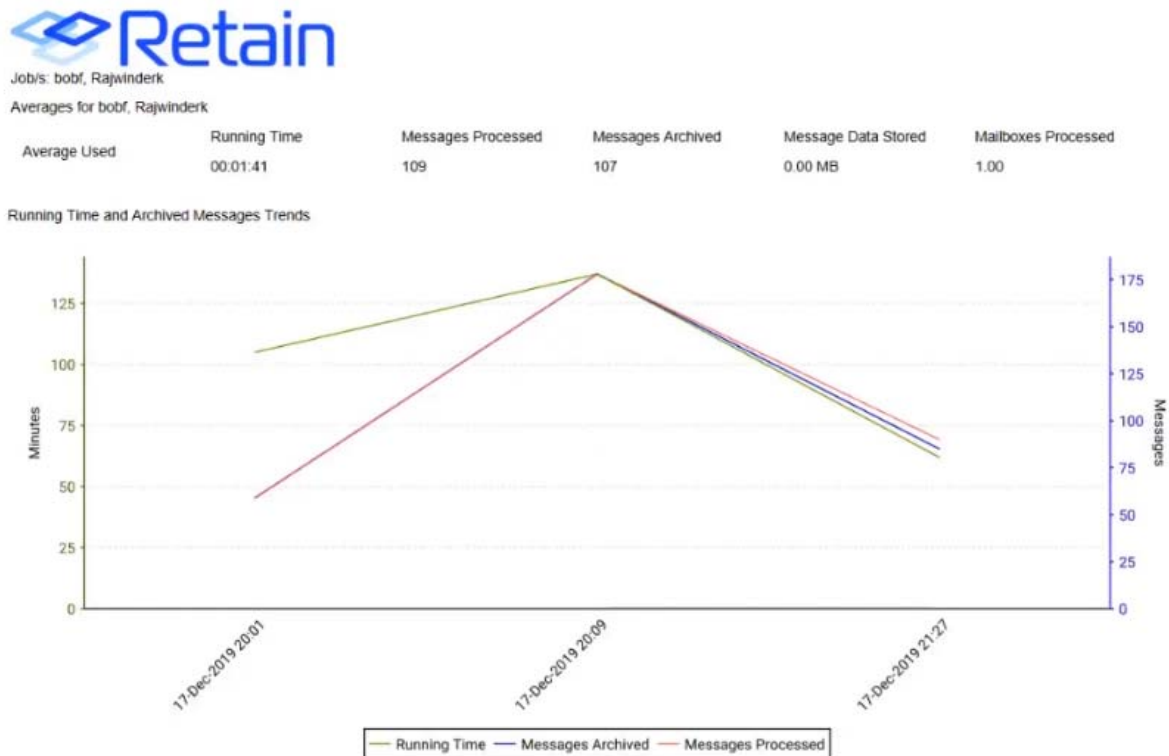
Report Contents: A chart for one or more selected jobs, showing and comparing the jobs’ effectiveness, overall load, and performance.

Path: [Retain Reporting and Monitoring Server](#) > [Report or Schedule Report](#) > [Job Run Averages](#)

Table 4-12 Configuring a Job Run Averages Report

Section or Item	Information or Action
Report Parameters	
For help with setting standard report parameters, such as email delivery and schedule settings, see “Defining, Scheduling, and Managing Retain Reports” on page 191.	
Jobs	<ol style="list-style-type: none"> 1. Select one (or more) of the listed jobs that you want to view trends for (and optionally compare). 2. Click Generate.

Figure 4-4 Sample Job Run Averages



You can see performance trends when you compare run time with message counts over a time period. The averages used to create the graph are listed above the graph; the legend is below.

Job Run Summary

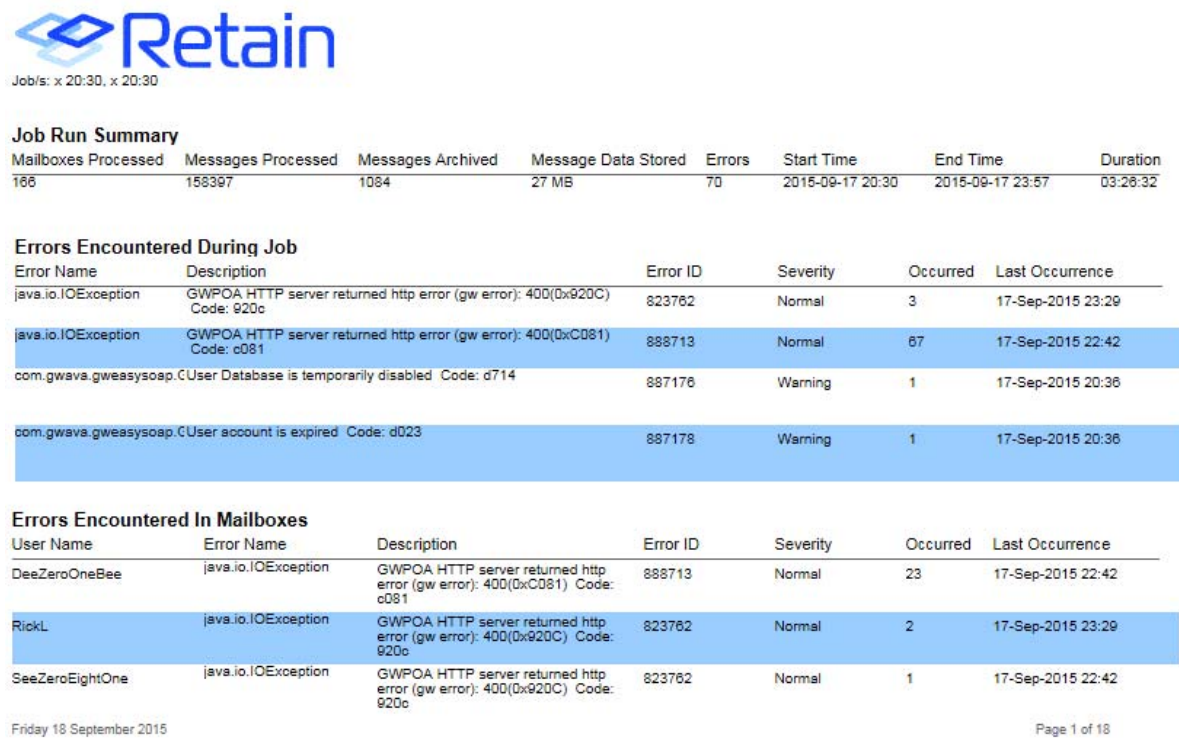
The Job Run Summary report covers one job run in detail.

Path: [Retain Reporting and Monitoring Server](#) > **Report** > **Job Run Summary**

Table 4-13 Configuring a Job Run Summary Report

Section or Item	Information or Action
Report Parameters	
For help with setting standard report parameters, such as email delivery and schedule settings, see “Defining, Scheduling, and Managing Retain Reports” on page 191.	
Job Run Summary	
Job Name > Select a Value drop-down	<ol style="list-style-type: none"> 1. Click the drop-down and select one of the listed job names to filter the Job list. 2. Select one of the listed jobs. 3. Click Generate.

Figure 4-5 A Sample Job Run Summary Report



The summary displays the total mailboxes, messages, data store, errors, and running time of the job. Afterwards, this information is broken down by each mailbox the job covers.

Job Summary

The Job Summary reports on the same statistics as the Job Run Summary report, but it summarizes the complete history for all runs of a given job rather than a single run.

Path: [Retain Reporting and Monitoring Server](#) > [Report or Schedule Report](#) > [Job Summary](#)

Table 4-14 Configuring a Job Summary Report

Section or Item	Information or Action
Report Parameters	
For help with setting standard report parameters, such as email delivery and schedule settings, see “Defining, Scheduling, and Managing Retain Reports” on page 191.	
Job Summary	
Job Name	1. Select one of the listed jobs.
	All of the jobs with that name are selected in the background.
	2. Click Generate .

Figure 4-6 A Sample Job Summary Report



Job Summary

Mailboxes Processed	Messages Processed	Messages Archived	Message Data Stored	Errors	Start Time	End Time	Duration
166	158397	1084	27 MB	70	2015-09-17 20:30	2015-09-17 23:57	03:28:32

Errors Encountered During Job

Error Name	Description	Error ID	Severity	Occurred	Last Occurrence
java.io.IOException	GWPOA HTTP server returned http error (gw error): 400 (0x920C) Code: 920c	823762	Normal	3	17-Sep-2015 23:29
java.io.IOException	GWPOA HTTP server returned http error (gw error): 400 (0xC081) Code: c081	888713	Normal	67	17-Sep-2015 22:42

Errors Encountered In Mailboxes

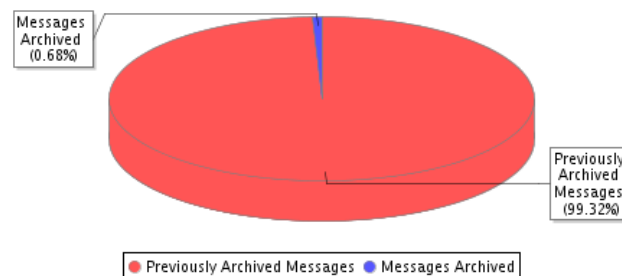
User Name	Error Name	Description	Error ID	Severity	Occurred	Last Occurrence
DeeZeroOneBee	java.io.IOException	GWPOA HTTP server returned http error (gw error): 400(0xC081) Code: c081	888713	Normal	23	17-Sep-2015 22:42
RickL	java.io.IOException	GWPOA HTTP server returned http error (gw error): 400(0x920C) Code: 920c	823762	Normal	2	17-Sep-2015 23:29

SeeZeroEightOne	java.io.IOException	GWPOA HTTP server returned http error (gw error): 400(0x920C) Code: 920c	823762	Normal	1	17-Sep-2015 22:42
SeeZeroEightOne	java.io.IOException	GWPOA HTTP server returned http error (gw error): 400(0xC081) Code: c081	888713	Normal	44	17-Sep-2015 22:42

Friday 18 September 2015

Page 1 of 18

Archive Ratio of Processed Messages



Friday 18 September 2015

Page 6 of 18

Job/s: x 20:30

Archive Summary per Mailbox

Mailbox	Messages Processed	Messages Archived	Errors	Warnings	Advanced Date Flags	Start Time	End Time
aa	218	0	0	0	Last Archived Flag (2015-09-08 17:07)	2015-09-17 22:40	2015-09-17 23:42

Archive Summary by User

This report summarizes the archive history for selected users, including pertinent information for each mailbox over the previous 3 months.

While the report cannot be sorted after it is generated, it may be sorted at generation through the 'Sort Rows by Column' feature. The columns may be sorted by either descending or ascending order. Select 'Generate' to create the report.

Path: [Retain Reporting and Monitoring Server](#) > [Report](#) or [Schedule Report](#) > [Archive Summary by User](#)

Table 4-15 *Configuring an Archive Summary by User Report*

Section or Item	Information or Action
Report Parameters	
For help with setting standard report parameters, such as email delivery and schedule settings, see “Defining, Scheduling, and Managing Retain Reports” on page 191.	
Sort Rows by Column	<ol style="list-style-type: none">Choose which column you want the report to be sorted by:<ul style="list-style-type: none">♦ User Name♦ Messages Processed♦ Messages Archived♦ Disk Space Used♦ Retention Flag♦ Purge Flag♦ Last Archive FlagSpecify whether you want it sorted in ascending or descending order.
Maximum Returned Rows	<ol style="list-style-type: none">Use this to limit the size of the report.
Run Report On	<ol style="list-style-type: none">Choose either All Users, or choose Select Users to specify a subset from the list that displays.

The report displays the total information for every mailbox selected, including: User name, the time stamps and their advanced dates, and the message store for the associated user.

Figure 4-7 A Sample Archive Summary by User Report



Administrators often use this report to monitor disk space usage and messages processed and stored on a user-by-user basis.

Archive Summary by Module

Administrators find this report especially useful for monitoring archiving by push-based messaging systems that don't have admin-created Jobs.

Push-based modules include:

- ♦ Mobile
- ♦ AT&T
- ♦ Celltrust
- ♦ GBS Notes
- ♦ BBM
- ♦ Ionlake
- ♦ Tele Messages
- ♦ UM Labs

Path: [Retain Reporting and Monitoring Server](#) > [Report or Schedule Report](#) > [Archive Summary by Module](#)

Table 4-16 Configuring an Archive Summary by Module Report

Section or Item	Information or Action
Report Parameters	
For help with setting standard report parameters, such as email delivery and schedule settings, see “Defining, Scheduling, and Managing Retain Reports” on page 191 .	
Module	<ol style="list-style-type: none">1. Select one or more modules from the list.2. Click Generate.

Server Utilization

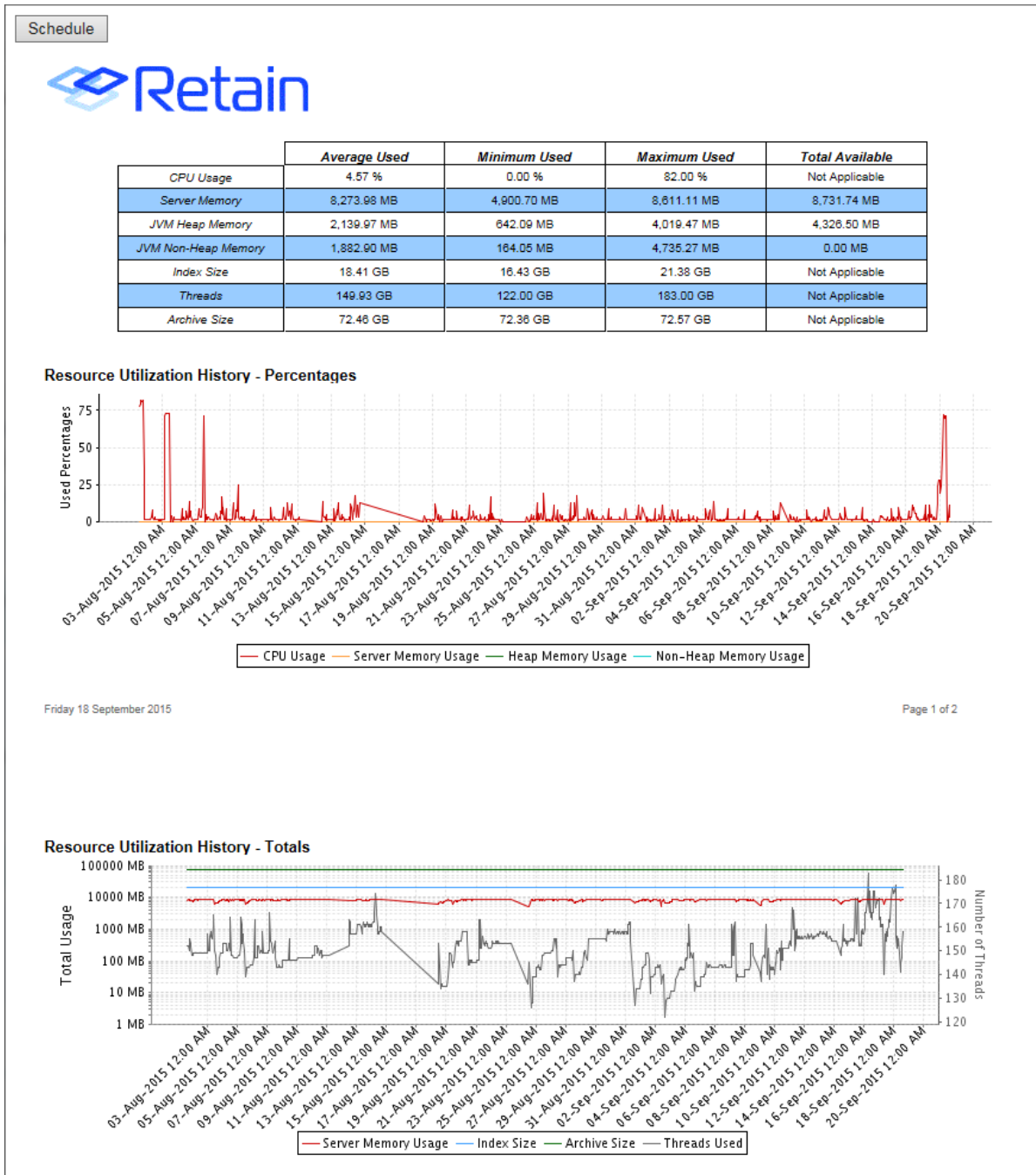
The Server Utilization report shows the memory, CPU utilization, archive size, thread usage, index size, heap memory, and non-heap memory usage for the Retain server.

Path: [Retain Reporting and Monitoring Server](#) > **Report** or **Schedule Report** > **Server Utilization**

Table 4-17 Configuring an Archive Summary by Module Report

Section or Item	Information or Action
Report Parameters	
For help with setting standard report parameters, such as email delivery and schedule settings, see “Defining, Scheduling, and Managing Retain Reports” on page 191 .	
Module	<ol style="list-style-type: none">1. Specify the date range you want to examine.2. Click Generate.

Figure 4-8 A Sample Server Utilization Report



Job Run Mailbox Summary

The report shows the user name, messages archived, disk space used, and archiving time for each mailbox as well as for the total job run.

Path: [Retain Reporting and Monitoring Server](#) > [Report](#) > [Job Run Mailbox Summary](#)

Table 4-18 Configuring a Job Run Mailbox Summary Report

Section or Item	Information or Action
Report Parameters	
For help with setting standard report parameters, such as email delivery and schedule settings, see “Defining, Scheduling, and Managing Retain Reports” on page 191 .	
Job Runs List	
Job Name > Select a Value drop-down	<ol style="list-style-type: none"> 1. Click the drop-down and select one of the listed job names to filter the Job list. 2. Select one of the listed jobs.
Run Report on	<ol style="list-style-type: none"> 1. Choose either All Users, or choose Select Users and pick those you want included from the list that displays. 2. Click Generate.

Figure 4-9 A Sample Job Run Mailbox Summary Report



This report cannot be scheduled.

Job Mailbox Summary

The Job Mailbox Summary report displays the number of messages archived, the disk space used, and the time the job took, by individual, specified mailboxes (users).

Path: [Retain Reporting and Monitoring Server](#) > **Report** or **Schedule Report** > **Job Mailbox Summary**

Table 4-19 Configuring a Job Mailbox Summary Report

Section or Item	Information or Action
Report Parameters	

Section or Item	Information or Action
For help with setting standard report parameters, such as email delivery and schedule settings, see “Defining, Scheduling, and Managing Retain Reports” on page 191.	
Jobs List	
Sort Rows by Column	<ol style="list-style-type: none"> Choose which column you want the report to be sorted by: <ul style="list-style-type: none"> ♦ User Name ♦ Messages Archived ♦ Disk Space Used ♦ Archiving Time Specify whether you want it sorted in ascending or descending order.
Job Name > Select a Value drop-down	<ol style="list-style-type: none"> Select one of the listed Job Names. All of the Job Name entries are selected in the background
Run Report on	<ol style="list-style-type: none"> Choose either All Users, or choose Select Users, select a Mail Server from the drop-down list, specify the users that you want included. Click Generate.

Figure 4-10 A Sample Job Mailbox Summary Report



Archive Report Totals

Messages Archived	1084
Disk Space Used	27 MB
Archiving Time	03:19:18

Archiving Detail by User

User Name	Messages Archived	Disk Space Used	Archiving Time
aa	0	0 MB	00:00:18
Administrator	0	0 MB	00:00:04
Allen, Jared	4	0 MB	00:06:59
Alungh, Suman	160	4 MB	00:00:41

Device Management

The device management report generates the device registration details by user, generation time, registration time.


Path: [Retain Reporting and Monitoring Server](#) > **Report** or **Schedule Report** > **Device Management**

Table 4-20 Configuring a Device Management Report

Section or Item	Information or Action
Report Parameters	
For help with setting standard report parameters, such as email delivery and schedule settings, see “Defining, Scheduling, and Managing Retain Reports” on page 191.	
Sort Rows by Column	<ol style="list-style-type: none"> Choose which column you want the report to be sorted by: <ul style="list-style-type: none"> Registration Date (date the user was officially registered) Generation Date (when the registration process began) User Name Email Specify whether you want it sorted in ascending or descending order.
Actions	<ol style="list-style-type: none"> Select the user types you want included (Registered, Non-registered, or both)
Email Details	<ol style="list-style-type: none"> You must specify a valid SMTP configuration. Browser delivery is not available.
Report Schedule	<ol style="list-style-type: none"> Specify when and how often you want the report generated and sent. Click Schedule.

Figure 4-11 A Sample Device Management Report

Schedule



Device Management

First Name	Last Name	Registration Date	Generation Date	Email	Phone
Mandeep	S.	2017-04-04 12:10	2017-02-07 09:35	mandeeps@qa.gwava.com	
TongN		2017-04-04 10:08	2017-02-03 10:00	tongn@qa.gwava.com	
Diana	Stanley	2017-02-02 12:30	2017-02-02 12:20	diana@mythos.com	
knox	in canada	2017-01-19 08:08	2017-01-18 13:32	hakmr@qa.gwava.com	
Lily	Chen	2017-01-17 10:30	2016-10-27 08:03	lily@mythos.com	
Jacqueline	Fine	2016-12-15 12:24	2016-12-15 11:32	jacqueline@mythos.com	
vampire		Not Registered	2016-10-27 08:03	vampire@mythos.com	

A About Retain

- ♦ [“About and Diagnostics Page” on page 211](#)
- ♦ [“Retain Component Licensing” on page 216](#)
- ♦ [“LGPL – GNU Lesser General Public License” on page 219](#)
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About and Diagnostics Page

To get this page from anywhere in the administrative console of Retain, click on the Retain logo in the top-left corner, or the **about** link in the top-right.

uptime	0d : 17h : 33m
currentTime	Tue Dec 03 02:07:40 MST 2019
timezone	Mountain Standard Time
retainName	retain2
jvmVersion	11.0.5+10
jreVersion	11.0.5+10
javaHome	/opt/beginfinite/retain/java/jdk-11.0.5+10
tomcatHome	/opt/beginfinite/retain/tomcat
indexDoc	70
logHome	/opt/beginfinite/retain/tomcat/logs
osArchitecture	amd64
osName	Linux
userName	tomcat
tmpDir	/var/cache/retain-tomcat/work/Catalina/localhost/RetainServer
tomcatVersion	Apache Tomcat/8.5.32
tomcatFreeMemory	6304071
tomcatMaxMemory	16777216
tomcatTotalMemory	13619200
indexEngine	High Performance Index
indexHost	
indexPort	10000
indexProtocol	http
retainHome	/opt/beginfinite/retain/RetainServer/
retainEdition	Standard
retainBuild	235
retainAvailability	qa
configSchema	48
messageStoreSchema	7
indexingSchema	1
derbyVersion	10.13.1.1
indexingType	High Performance Index
hibernateVersion	4.3.11.Final

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/Splitter	Indexer Test	System Properties
Generate License Report	Verify DB Schema	

This page displays statistics and general program information as well as linking to valuable diagnostics. When tuning the memory usage of the Retain components, it is useful to refer to these diagnostics and statistics.

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.

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 non-functioning 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 un-indexed 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

Mailboxes may be automatically merged by the Retain system if configured correctly under the Module Configuration |Mailbox Mapping 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.

This utility enables you to assign a mailbox to the virtual mailbox of another entity. It should be used with care by a knowledgeable individual. Reliable backups are recommended.

Merge	
Source Mailbox:  <input type="text"/>	Destination Mailbox Group:  <input type="text"/>
sorchard@gwava.com (BlackBerry.BlackBerry) samsunggalaxysiii@qa.gwava.com (BlackBerry.BlackBerry) neema@gwava.com (BlackBerry.BlackBerry) Administrator (Exchange2013.ExchangeQA) ajay@qa.gwava.com (BlackBerry.BlackBerry) blackberryz10@qa.gwava.com (BlackBerry.BlackBerry) user3@org.com (BlackBerry.BlackBerry) user@org.com (BlackBerry.BlackBerry) sorchard@gwava.com (BlackBerry.BlackBerry) retain (Exchange2013.ExchangeQA) This uid doesn't have ANYTHING associated with it!	New Entity sorchard@gwava.com (BlackBerry.BlackBerry) samsunggalaxysiii@qa.gwava.com (BlackBerry.BlackBerry) neema@gwava.com (BlackBerry.BlackBerry) Administrator (Exchange2013.ExchangeQA) ajay@qa.gwava.com (BlackBerry.BlackBerry) blackberryz10@qa.gwava.com (BlackBerry.BlackBerry) user3@org.com (BlackBerry.BlackBerry) user@org.com (BlackBerry.BlackBerry) sorchard@gwava.com (BlackBerry.BlackBerry) This uid doesn't have ANYTHING associated with it!

Remove the original entity container if it is orphaned after the merge ☐

Merge

Batch Load from a File

Refer to [mergesample.xml](#) for the format.



XML File: No file selected.

Merge

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.

Merge

Merge	
Source Mailbox:  <input type="text"/>	Destination Mailbox Group:  <input type="text"/>
<div>userb6 (sfgw14po.sfgw14) user17 (legionpo.sfgw14) user7 (legionpo.sfgw14) user2 (sfgw14po.sfgw14) user14 (legionpo.sfgw14) user4 (legionpo.sfgw14) userb8 (sfgw14po.sfgw14) user19 (legionpo.sfgw14) user9 (legionpo.sfgw14) user11 (legionpo.sfgw14)</div>	<div>New Entity userb6 (sfgw14po.sfgw14) user17 (legionpo.sfgw14) user7 (legionpo.sfgw14) user2 (sfgw14po.sfgw14) user14 (legionpo.sfgw14) user4 (legionpo.sfgw14) userb8 (sfgw14po.sfgw14) user19 (legionpo.sfgw14) user9 (legionpo.sfgw14)</div>
The virtual mailbox associated with this item has the following mailboxes connected to it: <ul style="list-style-type: none">• userb6 (sfgw14po.sfgw14), which has these mailbox types connected:<ul style="list-style-type: none">◦ gw (3573BE80-0761-0000-A473-666733343035)	The virtual mailbox associated with this item has the following mailboxes connected to it: <ul style="list-style-type: none">• userb6 (sfgw14po.sfgw14), which has these mailbox types connected:<ul style="list-style-type: none">◦ gw (3573BE80-0761-0000-A473-666733343035)

To merge two addresses, first select the source mailbox and then select the destination mailbox. After the desired mailboxes have been selected, click the 'Merge' button. A successful merge will show two entries under the source mailbox.

This utility enables you to assign a mailbox to the virtual mailbox of another entity. It should be used with care by a knowledgeable individual. Reliable backups are recommended.

Merge

Source Mailbox:

userb9 (sfgw14po.sfgw14)
user16 (legionpo.sfgw14)
user8 (legionpo.sfgw14)
userb6 (sfgw14po.sfgw14)
user13 (legionpo.sfgw14)
user5 (legionpo.sfgw14)
userb3 (sfgw14po.sfgw14)
user10 (legionpo.sfgw14)
user18 (legionpo.sfgw14)
userb0 (sfgw14po.sfgw14)

The virtual mailbox associated with this item has the following mailboxes connected to it:

- user8 (legionpo.sfgw14), which has these mailbox types connected:
 - gw (D5EBC900-11CC-0000-A473-666733343035)
- user8 (SFEX13SRV.sf.gwava.net), which has these mailbox types connected:
 - exchange (c0adcb08b1910a4eb7a087cb397f4962)

Destination Mailbox Group:

New Entity
userb9 (sfgw14po.sfgw14)
user16 (legionpo.sfgw14)
user8 (legionpo.sfgw14)
userb6 (sfgw14po.sfgw14)
user13 (legionpo.sfgw14)
user5 (legionpo.sfgw14)
userb3 (sfgw14po.sfgw14)
user10 (legionpo.sfgw14)
user18 (legionpo.sfgw14)

This uid doesn't have ANYTHING associated with it!

Split

Merge

Source Mailbox:

userb6 (sfgw14po.sfgw14)
user17 (legionpo.sfgw14)
user7 (legionpo.sfgw14)
userb2 (sfgw14po.sfgw14)
user14 (legionpo.sfgw14)
user4 (legionpo.sfgw14)
userb8 (sfgw14po.sfgw14)
user19 (legionpo.sfgw14)
user9 (legionpo.sfgw14)
user11 (legionpo.sfgw14)

The virtual mailbox associated with this item has the following mailboxes connected to it:

- user7 (legionpo.sfgw14), which has these mailbox types connected:
 - gw (D4220580-11CC-0000-A473-666733343035)
- user7 (SFEX13SRV.sf.gwava.net), which has these mailbox types connected:
 - exchange (9d0c456db062684ebf5fd19417d5d113)

Destination Mailbox Group:

New Entity
userb6 (sfgw14po.sfgw14)
user17 (legionpo.sfgw14)
user7 (legionpo.sfgw14)
userb2 (sfgw14po.sfgw14)
user14 (legionpo.sfgw14)
user4 (legionpo.sfgw14)
userb8 (sfgw14po.sfgw14)
user19 (legionpo.sfgw14)
user9 (legionpo.sfgw14)

This uid doesn't have ANYTHING associated with it!

Remove the original entity container if it is orphaned after the merge ☐

Merge

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 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.

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.

Verify DB Schema

This button lets Retain administrators verify database schema integrity manually.

When a Retain database is created or updated, Retain automatically runs a schema check to verify integrity.

If errors are found, they are logged, an email is sent to the system admin, Retain is switched to maintenance mode, and a schemaCheckFailed flag is set.

Restarting Retain at that point initiates a schema update process that should resolve the issue and allow normal operations to resume.

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Version 3, 29 June 2007

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NOTICE PURSUANT TO SECTION 9 OF THE COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL)

The code released under the CDDL shall be governed by the laws of the State of California (excluding conflict-of-law provisions). Any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California and the state courts of the State of California, with venue lying in Santa Clara County, California.