

Mobile Module Setup

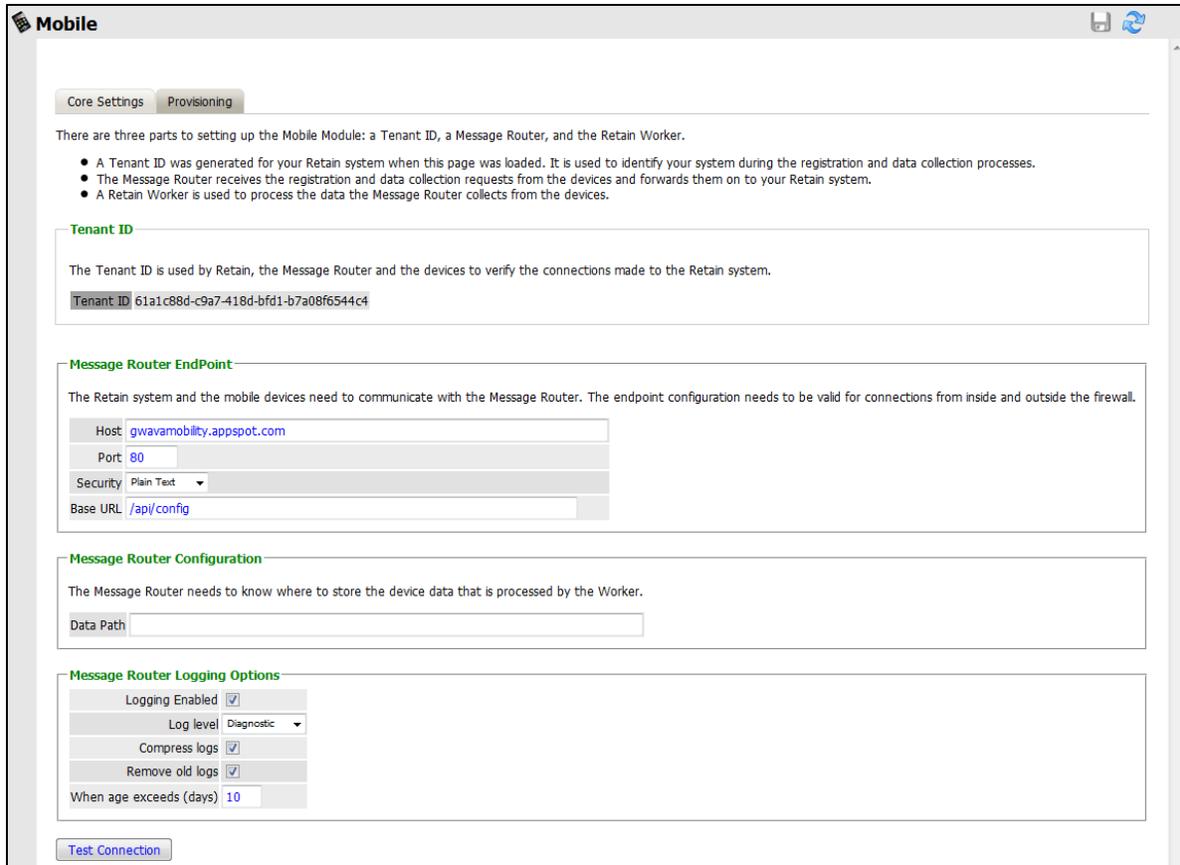
Mobile Module

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

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

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

The Retain.apk application is found in the Retain program installation folder in the ".../mobile/android" directory. Use your existing mobile device management system to distribute the APK to devices. (No data will be archived until the application is registered and configured.) The application sends collected information, approximately every hour, to the Retain Router.



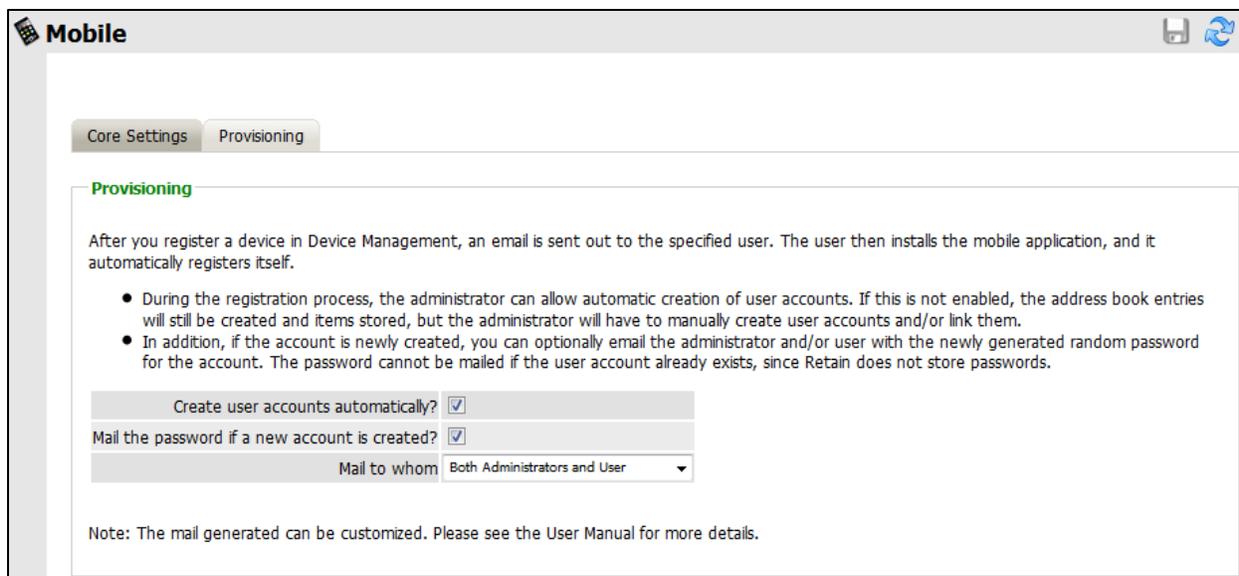
Host Name

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

Data Path

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

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



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

Worker

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

The mobile data is delivered to the Retain Server through a router service, which must be informed how to contact the Retain Server. While the Router is gathering information between jobs, the mobile data is stored. The stored location is specified by the data path. This is why the Router and the worker must have direct and constant access to the data path; the data path stores the message data collected by the Router and retrieved by the Worker.

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

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

Polling	Logging	Connection	Module specific	Status	Bootstrap
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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	https	
Server Host Name	127.0.0.1	
Server Port	443	
Server Path	/RetainServer/Server	
Worker Password	(Password is default)

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

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

Message Router	
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Messages received from the mobile devices are stored in datafiles for the Worker to process and send up to Retain. The Worker needs to know the path to the datafiles and how many days to keep the files.

Data Path	
Delete files after	0 days

The path that the Worker will use to connect to the mobile Data directory should be placed here. This may be a mapped drive or a local path. The path should be absolute. The connection to the data directory is essential to the worker function, if this is unavailable or blocked, mobile jobs will fail. The worker will delete files after adding them to Retain according to the time frame listed. A setting of '0' will tell the worker to delete files immediately after importing them into the Retain Server. Once the Mobile Worker has been configured, save the changes. Once the settings have been saved, the worker will be created, and the configuration saved to the bootstrap file. The bootstrap file must be uploaded to the Retain Worker before the Worker will function. Select the 'Download File' link to save the configuration file. Browse to the worker's page, (<http://<RetainWorkerIPAddress>/RetainWorker>), and upload the configuration file. Once uploaded, the worker automatically reads the configuration and checks with the Retain Server for jobs.

Polling	Logging	Connection	Module specific	Status	Bootstrap
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Boot Strap

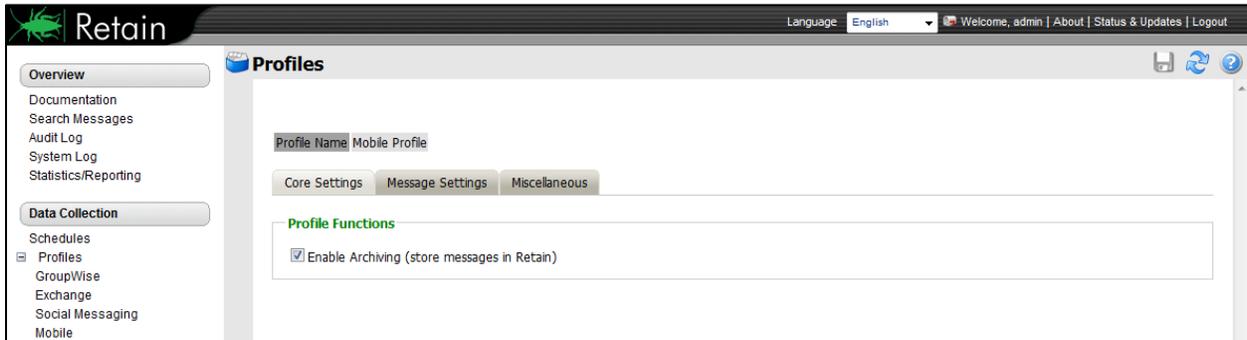
The Worker software needs a special "bootstrap" configuration file copied to its working directory before it can function correctly. You may copy it manually or use a web browser to upload the file. (<http://<RetainWorkerAddress>/RetainWorker>)

[Download File](#)

Last downloaded: never
Worker ID: 81133f47da1b4b05b84c78518fb3f530

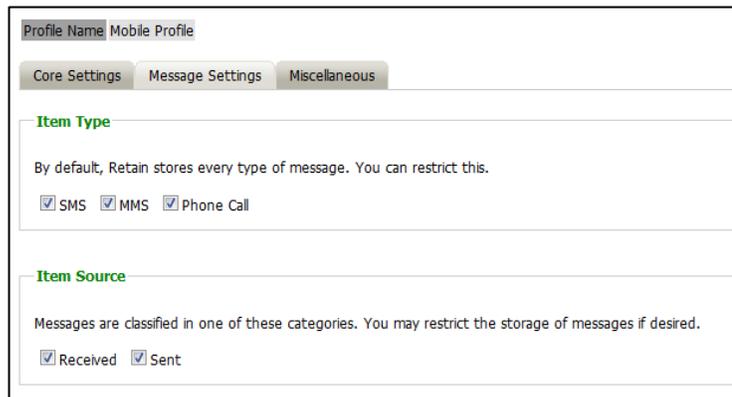
Profile

The Mobile Profile allows the administrator to dictate what types of message data is collected from registered mobile devices. The profile is universal, and once configured works for the entire mobile system. From the left pane menu, select **Profiles | Mobile** to open the profile configuration.



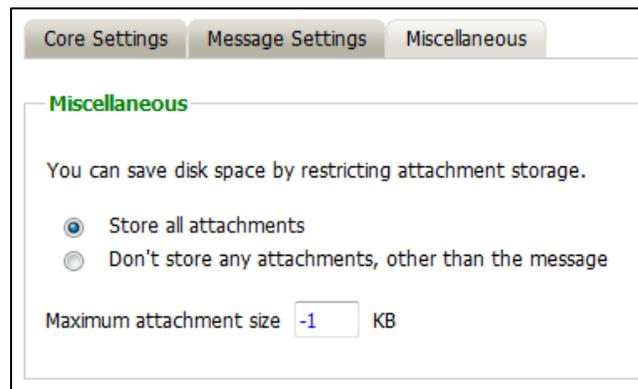
The Mobile Profile is fairly straightforward. To enable message data collection for the mobile system, the profile must be activated.

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



Finally, the Miscellaneous tab allows for configuring attachments. Attachment size and general attachment settings can be configured here. If there is a maximum limit, set it in the field below.

The attachment size limit is listed in KB. If the size limit is configured to -1, then there is no limit and all attachments will be archived no matter the size.



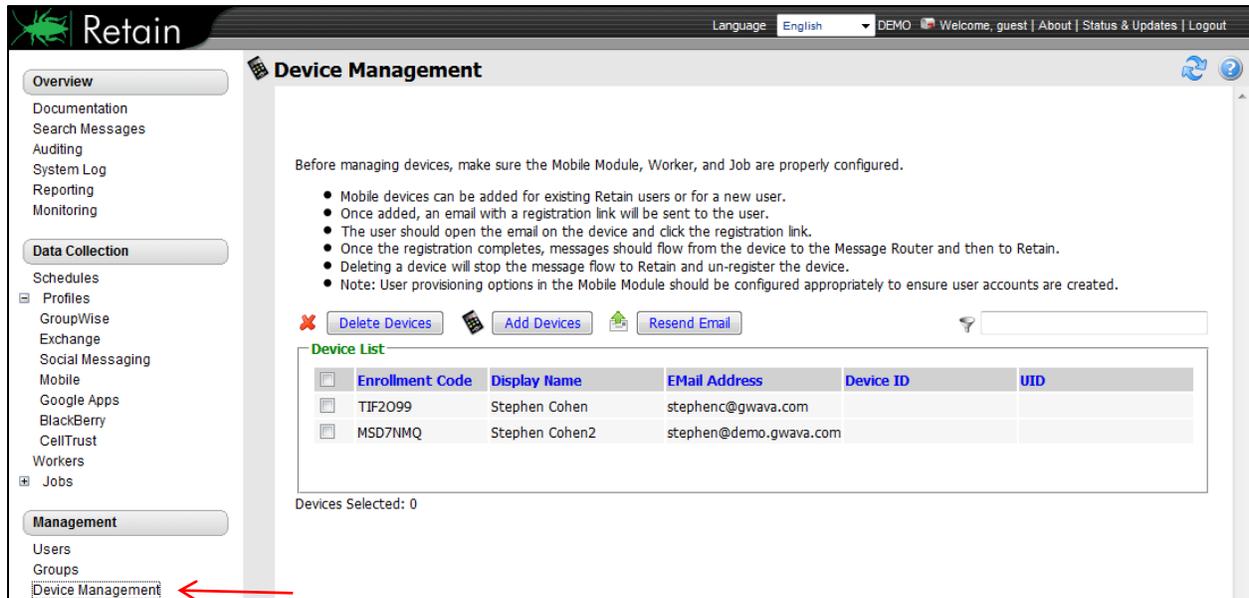
Before the profile can be saved, some setting must change for the Retain Server to recognize that something needs to be saved. If no setting has been modified, toggle a setting to trigger the save changes icon to activate and then save the changes.

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

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

Device Management

Device management is found from the left hand configuration menu under **Management | Device Management**. Devices are added to and deleted from Retain through the Device Management interface. Multiple devices may be selected, and all selected devices remain selected until either action is taken, or the administrator has navigated away from the page.



The screenshot shows the Retain web interface. The top navigation bar includes the Retain logo, a language dropdown set to 'English', and user information: 'DEMO Welcome, guest | About | Status & Updates | Logout'. The left sidebar has three main sections: 'Overview' (Documentation, Search Messages, Auditing, System Log, Reporting, Monitoring), 'Data Collection' (Schedules, Profiles, GroupWise, Exchange, Social Messaging, Mobile, Google Apps, BlackBerry, CellTrust), and 'Management' (Users, Groups, Device Management). A red arrow points to 'Device Management' in the sidebar. The main content area is titled 'Device Management' and contains the following text:

Before managing devices, make sure the Mobile Module, Worker, and Job are properly configured.

- Mobile devices can be added for existing Retain users or for a new user.
- Once added, an email with a registration link will be sent to the user.
- The user should open the email on the device and 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.

Below the text are three buttons: 'Delete Devices' (with a red X icon), 'Add Devices' (with a mobile phone icon), and 'Resend Email' (with a mail icon). There is also a search filter input field.

The 'Device List' table is as follows:

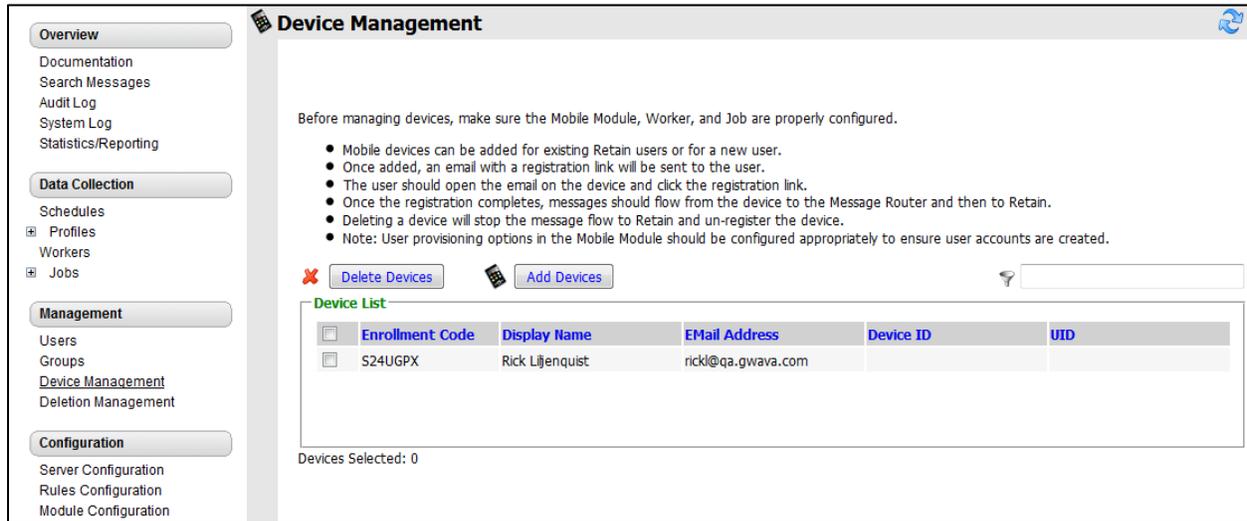
<input type="checkbox"/>	Enrollment Code	Display Name	Email Address	Device ID	UID
<input type="checkbox"/>	TIF2O99	Stephen Cohen	stephenc@gwava.com		
<input type="checkbox"/>	MSD7NMQ	Stephen Cohen2	stephen@demo.gwava.com		

Devices Selected: 0

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

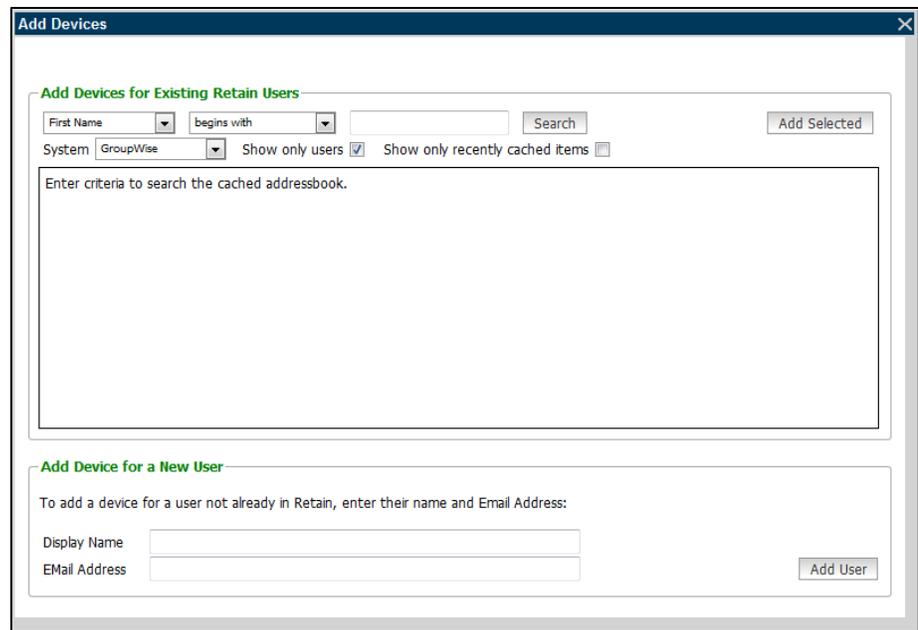
...\RetainServer\WEB-INF\classes\config\mobile\registeruser.html

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



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

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



Mobile Router Page

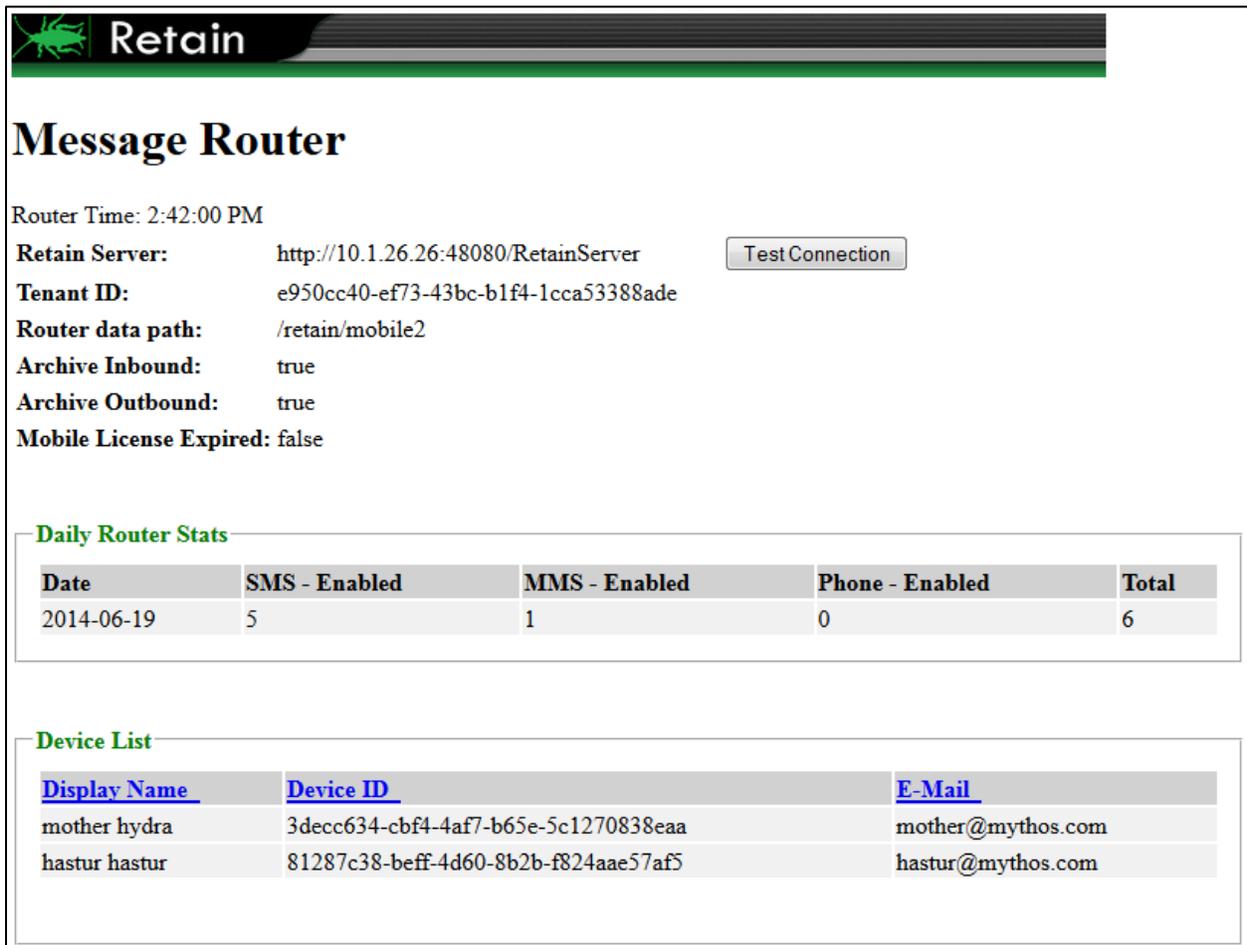
The Retain Router has its own webpage. This page can be used to test the connection to the Retain Server, as well as verify that communication is open and that devices registered in the Retain Server are listed in the Retain Router.

To access the Router page, open a browser and enter the connection URL.

http://Retain_Router_IP_or_Domain/RetainRouter

For example: http://192.168.1.21/RetainRouter

The resulting page should look very similar to this:



Retain

Message Router

Router Time: 2:42:00 PM

Retain Server: http://10.1.26.26:48080/RetainServer

Tenant ID: e950cc40-ef73-43bc-b1f4-1cca53388ade

Router data path: /retain/mobile2

Archive Inbound: true

Archive Outbound: true

Mobile License Expired: false

Daily Router Stats

Date	SMS - Enabled	MMS - Enabled	Phone - Enabled	Total
2014-06-19	5	1	0	6

Device List

<u>Display Name</u>	<u>Device ID</u>	<u>E-Mail</u>
mother hydra	3decc634-cbf4-4af7-b65e-5c1270838eaa	mother@mythos.com
hastur hastur	81287c38-beff-4d60-8b2b-f824aae57af5	hastur@mythos.com

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

This page is mainly an informational page.

Schedules

Schedules define **when** to perform the data collection as defined in a job. You can create as many schedules as you need.

- Schedules have no functionality until they are associated with one or more Jobs.
- They can be shared across multiple Jobs.
- You cannot DELETE a schedule that is currently associated with a Job.
- Schedules can be recurring or one-time.

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

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

Schedules

default
new default

Add Schedule

Edit Schedule

Remove Schedule

No jobs are associated with this schedule.

Schedule Name default

Schedule Frequency Single

This job will run only once, at the time specified below, unless an error occurs. If an occur occurs, the job will be retried unless you select the checkbox below.

Date: Aug 13 2008 Time: 16 36

If time assigned for job start has elapsed, don't resend job

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

Schedule Name full run job

Schedule Frequency Recurring

Sunday

Monday

Tuesday Start Job at: 01 :00

Wednesday Maximum job duration 22 hours

Thursday Do not interrupt job, even when duration expires

Friday

Saturday

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

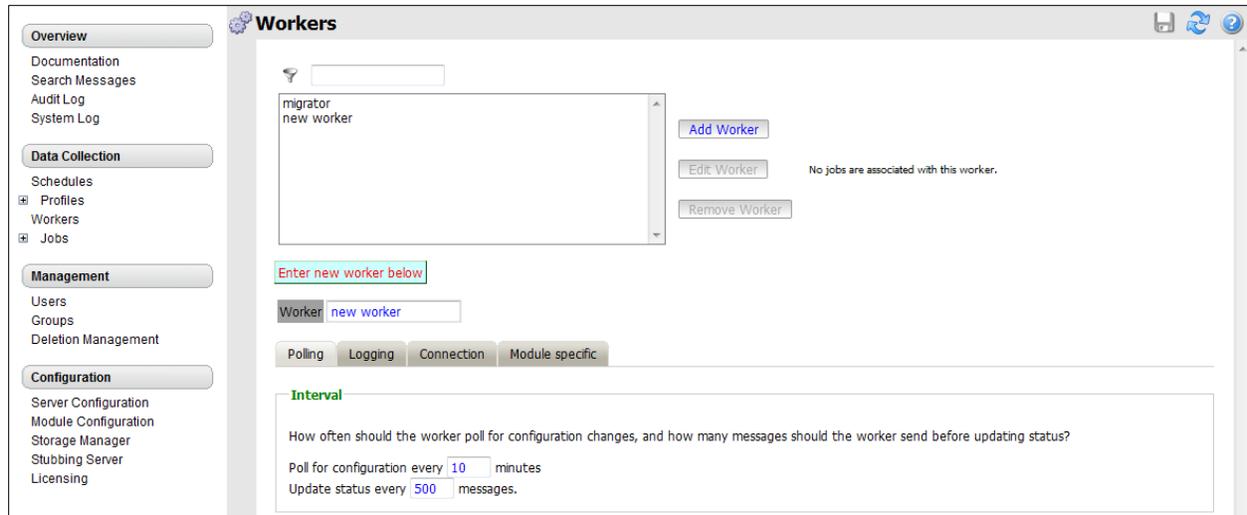
You may specify maximum job duration. If the job runs longer than the time limit you set, it will be interrupted. For cases where you do not want the job to be interrupted – for example, with a job you know will last longer than 22 hours, you may prevent the schedule from interrupting the job.

Don't forget to "Save Changes".

Workers

You will need to set up at least one Retain Worker. The Retain Worker does the actual work of collecting the data from the Retain Router and delivers it to the Retain Server.

Worker Configuration Options



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

Worker Configuration

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

Workers

migrator
new worker

Add Worker
Edit Worker
Remove Worker

No jobs are associated with this worker.

Enter new worker below

Worker new worker

Polling Logging Connection Module specific

Interval

How often should the worker poll for configuration changes, and how many messages should the worker send before updating status?

Poll for configuration every 10 minutes
Update status every 500 messages.

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

Polling Logging Connection Module specific

Server Connection

The worker will need to know how to connect to the Server. It is highly recommended that you use a DNS host name for the Host Name. It's important to note that you are specifying the URL from the point of view of the **Worker contacting the Server**, which may or may not match the URL you'd use from your browser to reach the Worker or Server.

For administrators using the Reload interface, note the worker password assigned must be the same for each worker that contacts the Reload Server. As part of setting of the Reload Server, you must know this password.

Server Protocol http
Server Host Name 192.168.1.106
Server Port 48080
Server Path /RetainServer
Worker Password

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

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

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

It is vitally important that the connection information is correct before you save the worker.

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

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

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

Depending on the modules you have configured, you will need to provide additional configuration information here.

GroupWise SOAP Access

When using GroupWise, the Retain Worker needs to connect via SOAP to a initial default POA (preferably one local to the Worker) to gather job membership information. Initially this is set to the default you specified in the Groupwise Module Configuration, but it can be changed on a per worker basis.

POA Host Name: 192.168.1.104

SOAP Port: 7191

Enable SSL:

Exchange

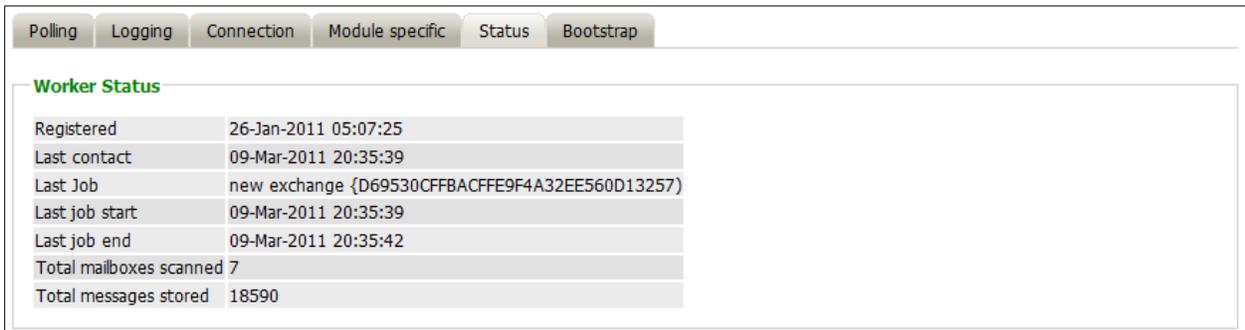
As the worker processes each mailbox, it performs an auto-discovery process to find the "best" server to connect to. Providing an Active Directory Site improves the accuracy of the algorithm, although this is optional.

Active Directory Site (case sensitive):

- 5) After you have checked and set your settings, click **"Save Changes"** before browsing to another page to finish creating and to save your worker.

After the worker has been saved, two additional tabs become visible for settings on the worker. You **MUST** save changes on a newly created worker before the 'Bootstrap' tab is available to be used.

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



Worker Status	
Registered	26-Jan-2011 05:07:25
Last contact	09-Mar-2011 20:35:39
Last Job	new exchange {D69530CFFBACFFE9F4A32EE560D13257}
Last job start	09-Mar-2011 20:35:39
Last job end	09-Mar-2011 20:35:42
Total mailboxes scanned	7
Total messages stored	18590

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

Create a Job to archive data

Jobs are how the Retain system archives data. A Job brings together a Schedule, a Profile, and a Worker to collect data from the Retain Router and input it into the Retain Archive.

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

A job:

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

Jobs look and act differently depending on which module they are configured under. Select the Mobile module from the Job menu to configure the mobile job.

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

Core Settings

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

The screenshot shows the 'Core Settings' tab selected. The 'Job enabled' checkbox is checked. Below it, a note states 'Each Job must have the following assigned to it:' followed by a list: 'schedule - How often to run', 'profile - What to do when running', and 'worker - Where to run the job'. Three dropdown menus are visible: 'Schedule' set to '(none)', 'Profile' set to 'mobile_profile', and 'Worker' set to '(none)'. A section titled 'Items archived with this job can optionally be set with an "expiration timestamp" which the Deletion Manager can use to remove obsolete items. The expiration timestamp can only be extended, never reduced.' contains an 'Enable data expiration' checkbox (unchecked), an 'Expire in' field set to '0' with a 'Days' dropdown, and a 'Base Expiration Time on' dropdown set to 'Date Item is stored in Retain (recommended)'.

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

Notification

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

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

The screenshot shows the 'Notification' tab selected. A note reads: 'You can have Retain e-mail a summary of errors that occurred after a device is processed. You may also specify the hour of the day to send the summary of activity.' Below this are several input fields: 'SMTP Mail Server' (192.168.100.102), 'SMTP Mail From Address' (retaindemo@demo.gwava), 'SMTP To Address' (gwadmin@demo.gwava), 'SMTP Username' (empty), and 'SMTP Password' (empty, with '(Password is not set)' in parentheses). There are two checked checkboxes: 'Mail when errors occur' and 'Enable summary reports'. The 'Hour to send summary report (0-23)' field is set to '0'. A 'Test Connection' button is at the bottom.

Status

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

Core Settings	Notification	Status	
Status [Refreshes in 3]			
Job: Mobile Job (301acdda20554dbe92e7aaa4e6239da6)			
	Current	Last	Overall
Job began	---	07-Sep-2013 12:56:44	---
Job ended	---	07-Sep-2013 12:56:46	---
Mailboxes	0	1	5602
Messages	0	0	419
Errors	0	0	3
	Current	Last	Error
Mailbox			
MS			
Error			---

This tab is informational only for the Mobile module.