



## **Redline 3.5**

### **Administration Guide**

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## About Redline

Redline is a reporting and monitoring solution for Novell GroupWise® that provides a Dashboard for quick access to the most critical areas of GroupWise®. Redline produces real time alerts, reports for system analysis, capacity planning, and security auditing.

## Obtaining Redline

Redline can be downloaded for trial at the main GWAVA website: [www.gwava.com](http://www.gwava.com)

Or the direct link to the download form: [http://www.gwava.com/products/dev\\_downloadform.php](http://www.gwava.com/products/dev_downloadform.php)

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## Minimum System Requirements

### Core Requirements:

GroupWise 5.5EP, 6.0, 6.5, 7, and 8 (GW 7 or 8 are recommended for full functionality)

**Agent:** 10MB Hard Drive Space and 5MB free system memory.

**Control Center:** Minimum 30 MB Hard Drive Space. DB storage will require additional space, (see specific instructions below).

—There is a bug in GroupWise 6.5 SP2 preventing correct operation of Redline. This version is NOT supported.—

### Specific Operating System requirements:

**Netware:** NW 6.5 with SP 6. (There is a known issue with the Redline Agent and/or Control Center running protected memory with 6.5 SP7 & SP8) --Older NetWare systems which may work but are no longer tested or supported: 5.1 with SP 8; 6.0 with SP5 and the latest FTF LibC update

**Linux:** SLES 10 all SP on 32/64 bit; SLES 11 32/64 bit; Linux OES2 32/64 bit

**Windows Agent:** Windows 2000 SP4, 2003, 2008

### Servers running the Redline Control center should have free memory based on this calculation:

40MB + 4MB for every agent + largest GWCheck file \* 1.5. Example:

A system with 100 GW Agents registered and GWCheck file with up to 1GB:

$40MB + (100 * 4) + (1000 * 1.5) = 1940MB$ .

Ensure the system has enough disk space for the Control Center database. The DB can grow to several GB depending on how the GroupWise system is used.

### Supported internet browser

Linux, Windows or Mac. (IE6 or 7, Firefox, Mozilla suite, Konqueror)

It is recommended, that wherever possible, the Redline Control Center be run from a dedicated server.

### The following component integrations are supported

- GroupWise Exchange Gateway
- GroupWise Notes Gateway
- GroupWise API Gateway
- GroupWise Messenger 1.0 SP4 or higher
- GroupWise Messenger Archive Agent 1.0 SP4 or higher
- Guinevere 3 or higher
- GWAVA 3.60 or higher
- GWAVA 4/5
- GWAVA Reveal 1.1
- GWAVA Reload 1.x and 2.x
- GroupWise Domain
- GroupWise Post Office
- GroupWise Internet Agent
- GroupWise WebAccess Agent
- GroupWise Document Viewer Agent
- GroupWise WebAccess Application
- GroupWise Mobile Server 1 and 2 (Windows and Linux)
- GroupWise Async Gateway 2.0
- GWAVA Retain Server and Worker
- GWAVA Vertigo
- Notifylink 4
- BlackBerry Enterprise Server 4.0 SP2 all versions for GroupWise
- Advansys Archive 2 Go
- Linux, NetWare and Windows Host
- Redline Self monitoring including the Redline Database

## Understand How Redline Works

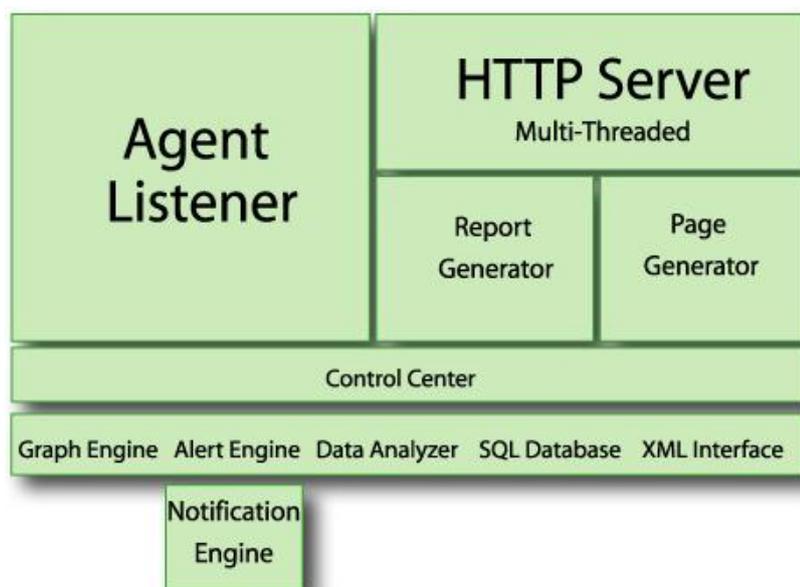
Because each and every component requires specific instructions for integration, it is recommended that administrators read through this manual before installing the Redline Program to avoid frustration and confusion.

Redline provides reliable monitoring, analysis, and audit tools for GroupWise systems of any size. Redline collects information and combines it together in a central location. To collect this information from separate locations of any GroupWise system, Redline is comprised of two separate programs, the Redline Agent and the Redline Control Center.

The **Redline Agent** (also referred to as RLAGENT) connects to the GroupWise agents, and any other supported programs, to gather information regularly. The information is then forwarded to the Redline Control Center. The Redline Agent reads configuration from the configuration file, (RLAGENT.CONF in Linux or NetWare, RLAGWIN.CONF for Windows), which tells the agent how to connect to the Redline Control Center, which holds all configuration for the Agent.

The **Redline Control Center** (also referred to as RLCENTER) takes the information from one or more Redline Agents through the Agent Listener and stores it in SQL database files. The RLCENTER also stores graphs and alerts in the same manner. For easy administration access, the RLCENTER contains an embedded HTTP web server. The RLCENTER also contains a report and page generator that work with an alert engine, a notification engine, and graph generators to analyze and organize the data that is collected.

In all Redline system installations, regardless of how large or small your GroupWise system is, there must be at least one RLAGENT and one RLCENTER. (There are three exceptions: Reveal, Vertigo, and Advansys Archive2Go does not require or use RLAGENT to communicate with RLCENTER. They communicate directly to the Control Center.)



In a typical system, one RLCENTER is installed for a GroupWise system, and every server running a monitored component of the system will have one RLAGENT installed. (While it is possible to have each RLAGENT report to multiple RLCENTERS, it is not recommended or practical in most cases.)

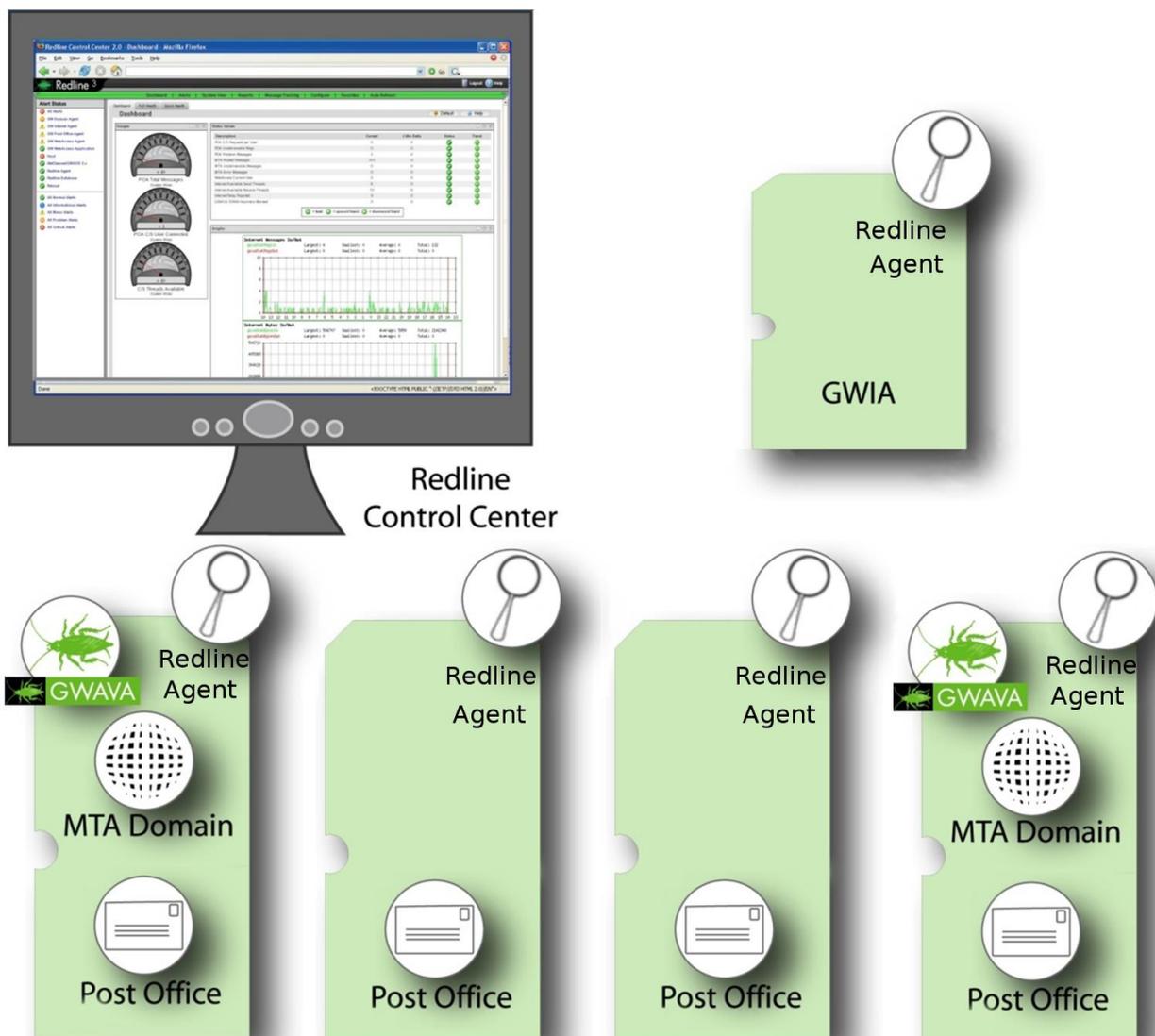
The RLCENTER serves as a central repository for information gathered and for administration. RLAGENT

communicates via TCP/IP to RLCCENTER in order to send the collected data. This means that a RAGENT does not need to be installed on the same machine as an existing RLCCENTER.

RLAGENT communicates to the monitored system via both TCP/IP and direct file access, depending on the component integration. While, theoretically, administrators can install RLAGENTS on servers separate from the GroupWise agents and collect some of the information needed, administrators would not be able to generate all of the desired reports. **For all reports, local access is necessary.** The Linux Agent in Redline 3.5 can be used to gather all data remotely, but requires file access through network mount points. (The option is discouraged, but possible.) In that case no agent is required on NetWare or Windows.

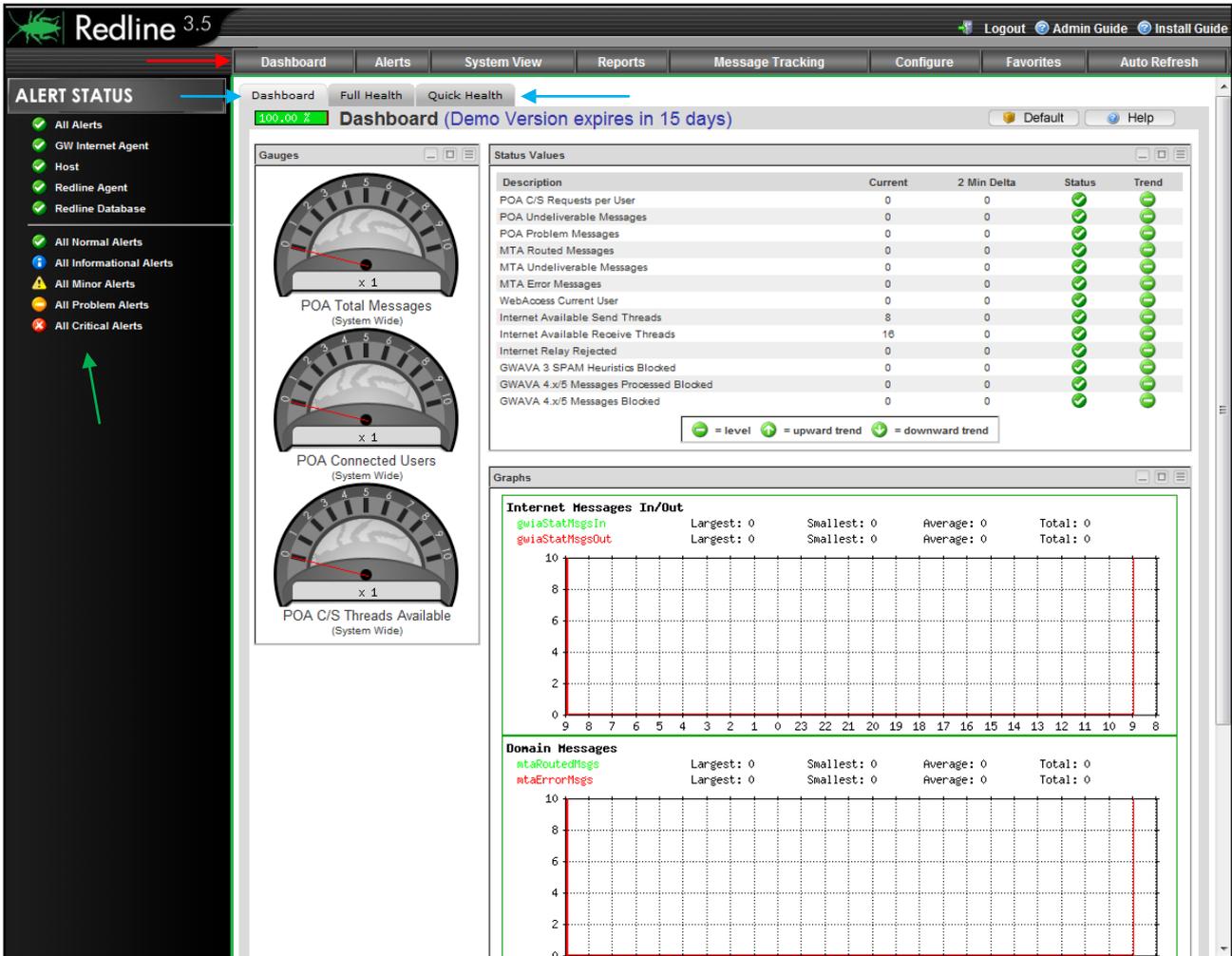
The RLAGENT automatically tries to connect to each of its configured components every two minutes.

The RLCCENTER runs only on Netware and Linux, while the RLAGENT runs on Netware, Linux, and Windows. It is recommended to run the Control Center on a dedicated Linux box due to database file size limitations on NetWare. Only extremely small organizations should consider running the Control Center on NetWare.



# Redline Control Center

The Redline Control Center is the information and management interface for Redline. The Control Center is organized into **main sections** along the top, **tabs** under each section, and a **system object** or **information tree** window on the left. The main window displays information according to the selected main section and tab.



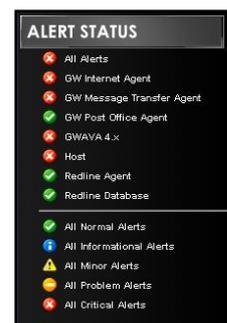
Through navigation of the main sections, administrators have access to information about their entire GroupWise systems including: alerts, reports, system details (called System View), as well as Redline configuration screens. There are buttons for configuring the automatic refresh rate for the screen, logging out, and a link to the online manual.

The default page of the Redline Control Center displays all major alerts, warnings, and system statistics for a quick general system health overview at a glance.

## Dashboard

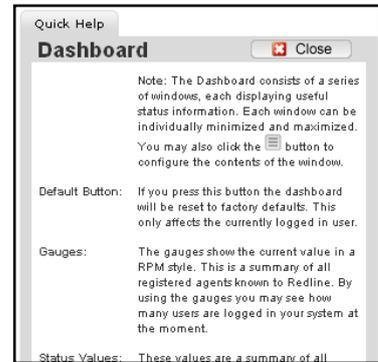
Dashboard is the default section of the Redline Control Center. The Dashboard shows a quick overview of the system, a full system health view, and a quick health view. There is also a total system health bar just below the tabs, showing a percentage health status.

The main dashboard window contains an alert display on the left side of the window, showing the current status of all known agents, both for GroupWise and Redline systems, as well as a legend at the bottom of the window, listing the severity of all alerts and situations.



If the graphs, gauges, or status values have been incorrectly configured, selecting the 'Defaults' button will reset the gauges, graphs, and status values to their default settings.

The 'Help' button provides quick access to contextual help for any main section currently displayed. The quick help window opens in the information panel. By clicking on the "Close" button the contextual help window will be closed and the full Dashboard is visible again.



## Dashboard

This page is called the Dashboard, because it uses gauges and graphs to display vital system information and health status. The Dashboard tab shows levels of message movement at the GWIA and Domain, open and user thread levels and total system wide messages passing through the Post Office Agent or Agents. By default, the graphs and gauges are updated every 4 minutes.

The Graphs present on the Dashboard, along with all stats, can be configured and changed through Redline Configuration section.

## Full Health

The Full Health Dashboard lists all agents known to Redline, including Uptime, Version and Platform information.

The icons are color-coded on the Health pages as well as the Alerts and Status pages:

Green = Online and Reporting

Orange = Redline Agent is down, status unknown

Red = Offline, mouse over for time of last contact.

Blue = Agent not reporting, but monitored item only reports when used. (Some monitored systems are intermittent use and do not have full uptime or has constant reporting applicable. Ie. Vertigo, Reveal, etc...)

Mousing over the plug icons at any time will display the time data was last received.

### Uptime:

Every agent's uptime (when available) is shown here.

### Not Connected:

All agents that are not reporting any data are listed at the top. The "plug" icon turns red in this case. Agents with a blue '+' are also listed here when not reporting to Redline

### Connected:

All agents actively sending data are listed in the second table.



### Version and Platform:

The currently installed Version of an agent and the platform where it is running on is listed here. That way you can get a very quick overview if there are agents which need to be updated to the latest version.

If you click on an agent name you will be directed to the System View with all the details of this agent.

## Quick Health

The Quick Health Dashboard lists all agents known to Redline in a very compact format. The goal is to list as many agents as possible on one screen.

### Not Connected:

All agents that are not reporting any data are listed at the top. The “plug” icon turns red in this case. (Agents with a blue '+' also listed when not reporting)



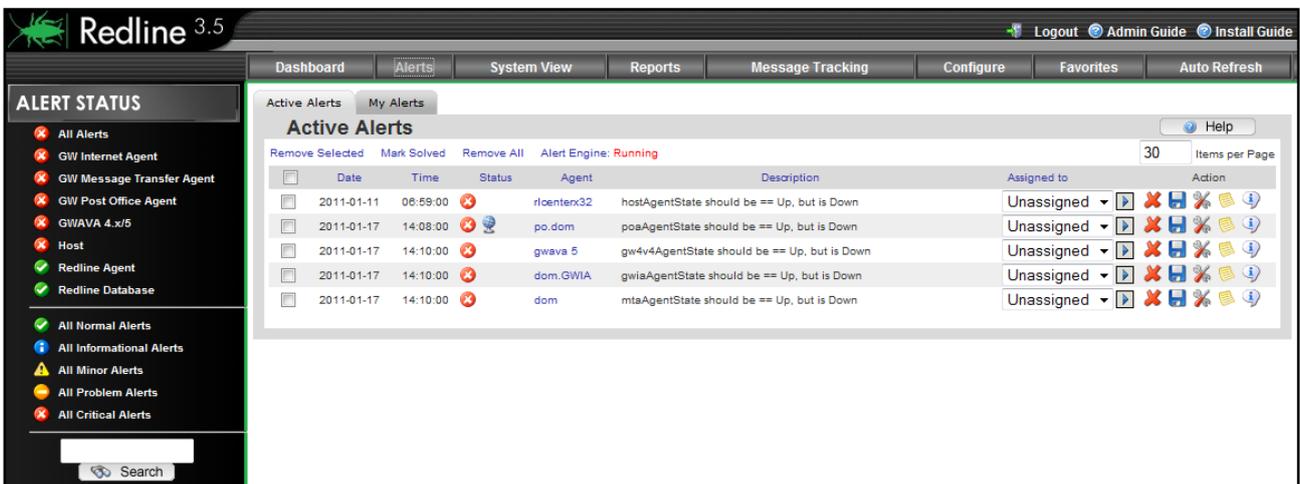
### Connected:

All agents actively sending data are listed in the second table.

If you click on an agent name you will be directed to the System View with all the details of this agent.

## Alerts

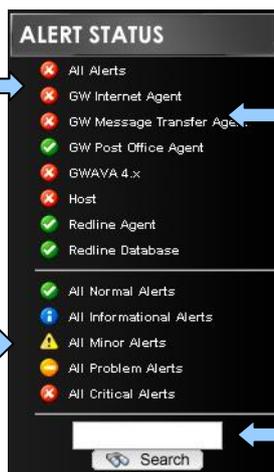
All active alerts are listed on the Redline alerts page. Redline allows you to examine these alerts in detail, giving you a rich understanding of what is taking place in your messaging system. The alerts can be filtered by agent type, severity or any free definable search criteria. A built in knowledgebase explains in more detail what an alert could mean.



### Alert Status

#### Status Icons:

The currently highest alert of an agent type is shown here. If you click on a row, you see all alerts of this agent type.



#### Known Agents:

The Alert Status List is expanded automatically as soon as an agent of a particular type is known to the Control Center. If there is no agent of a specific type known, the line doesn't show up at all.

#### Status Agenda:

All available severities are listed here. If you click on one of these icons, you will see all alerts with the selected severity.

#### Search Alerts:

All alerts are searchable. Input keywords here, such as the agent name, type, or monitored agent to search for alerts specific to that agent.

The following severities are available in Redline:

- Normal Alerts
- Informational Alerts
- Minor Alerts
- Problem Alerts
- Critical Alerts

### Active Alerts

Enable/Disable Alert Date and Time

Alert Engine Status

Description

Maximum number of Alerts per page

Check/Uncheck all alerts

Severity and notification status

Agent Name

Assign alert to a person

Actions

Date	Time	Status	Agent	Description	Assigned to	Action
2007-07-27	00:01:01	🟡	douli	mtaClosedGateways should be == 0, but is 1	Unassigned	🗑️ 🔄 📄 📧
2007-07-27	00:01:01	🟡	polinux douli	poaCS_OVER_SSL should be == Enabled, but is Disabled	Unassigned	🗑️ 🔄 📄 📧
2007-07-27	00:01:02	🟡	WEBAC70A.douli	webaccClientServeroverSSL should be == Enabled, but is Disabled	Unassigned	🗑️ 🔄 📄 📧
2007-07-27	00:01:02	🟡	WEBAC70A.douli	webaccProcessorUtilization should be <= 85, but is 100	Unassigned	🗑️ 🔄 📄 📧
2007-07-27	00:06:30	🔴	gwlinux	hostAgentState should be == Up, but is Down	Unassigned	🗑️ 🔄 📄 📧
2007-07-27	00:48:30	🟡	douli.GWIA	gwiasmpdErrorsTCPRead should be <= 3, but is 4	Unassigned	🗑️ 🔄 📄 📧

### Actions

It is possible to remove alerts and mark alerts as solved.

Click on "Running" or "Not Running" to enable or disable the alert engine

Click on one of the columns to sort the alerts list based on the column title

- Remove Selected:** Remove all selected Alerts from the database.
- Mark Solved:** Mark all selected alerts as solved. Solved alerts disappear from the list of open alerts
- Remove All:** This will remove all unsolved alerts from the database
- Alert Engine:** Enable or Disable the alert engine. If the alert engine is not running, no new alerts and notifications will be generated. This can be helpful when working on a problem that may create alerts due to work being done. Such alerts are not necessary and can be annoying to receive.

All solved alerts can be viewed in the System View on the agent's alerts page. To access this page, select System View, <select desired agent>, and select the 'Alerts' tab.



The Date and Time when the alert was solved is also displayed. All open alerts for the selected agent are also displayed, and can be marked as solved or deleted from the database.



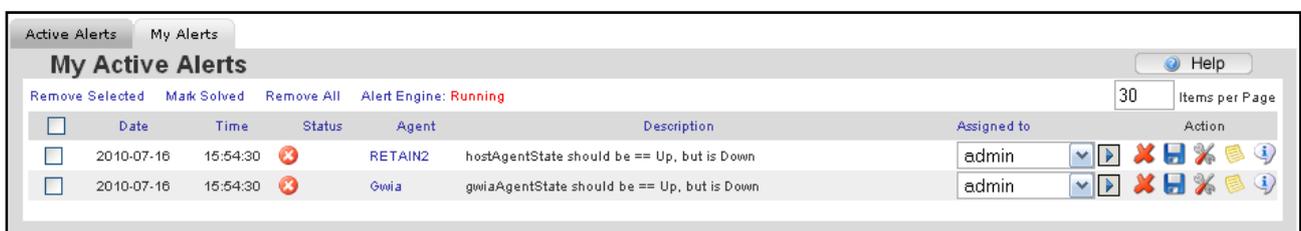
**Assign alert:** Every alert provides some additional options. You can assign an alert to a user. This avoids potential problems where multiple people are working on the same issue.

**Solve Alert:** You can mark an alert as solved with a single mouse click.

**Configure:** If you think that this isn't a valid alert, you can reconfigure your recommendation or threshold from here.

**Info:** Redline has a built in Knowledgebase with a lot of information about important values in your GroupWise system. Here you can read what Redline has to tell you.

## My Alerts



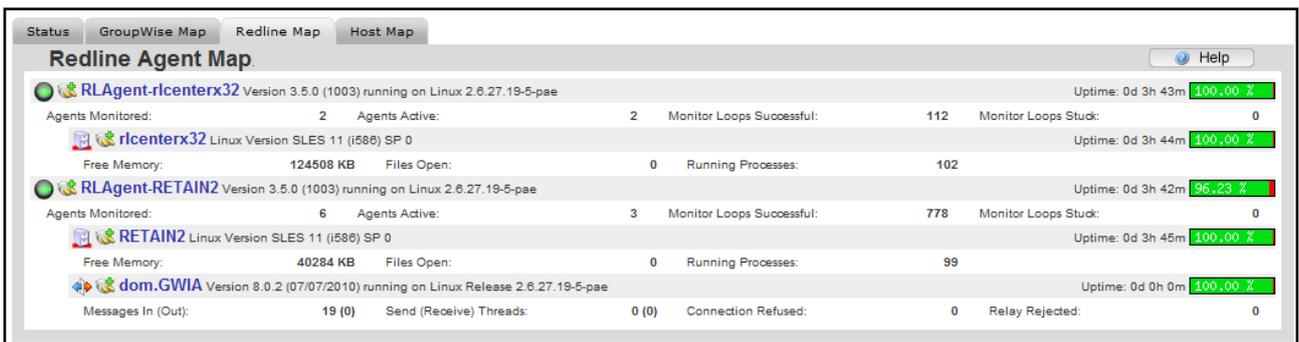
The My Alerts page lists unsolved alerts that have been assigned to the user currently logged in. Alerts assigned here can be reassigned, solved, deleted, or configured.

## System View

Redline's System View shows all known agents in your GroupWise environment. On the main System View page, you can see the version, uptime, platform where the agent is running on and a couple of other values. If you click on one of the agents, Redline displays all known settings, status values, graphs, etc. in great detail of this agent.



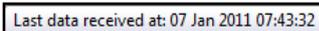
This allows you to see which agents a Redline Agent is monitoring, or which server they are on. These views, particularly the Host Map will not be of large benefit if remote monitoring is being used.



The plug icon indicates if an agent is actively receiving data or not. If you mouse over the plug, a small window appears showing when the agent last received and reported any data.

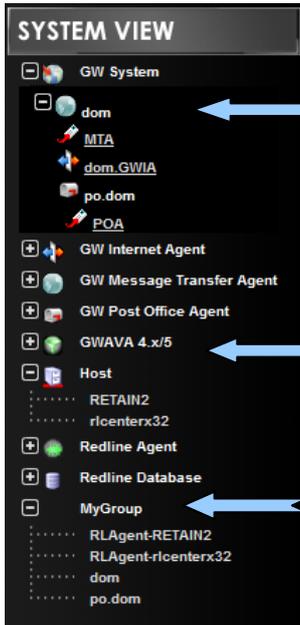


Wherever you see a "plug" icon in Redline, you can mouse over it, pause a second, and this information is displayed.



## Menu

The menu contains the System Tree which looks similar to what you are familiar from ConsoleOne. All agents of a particular type can be listed by clicking on the row with the agent type, and you can define your own groups. In the group only the agents you want will be shown.



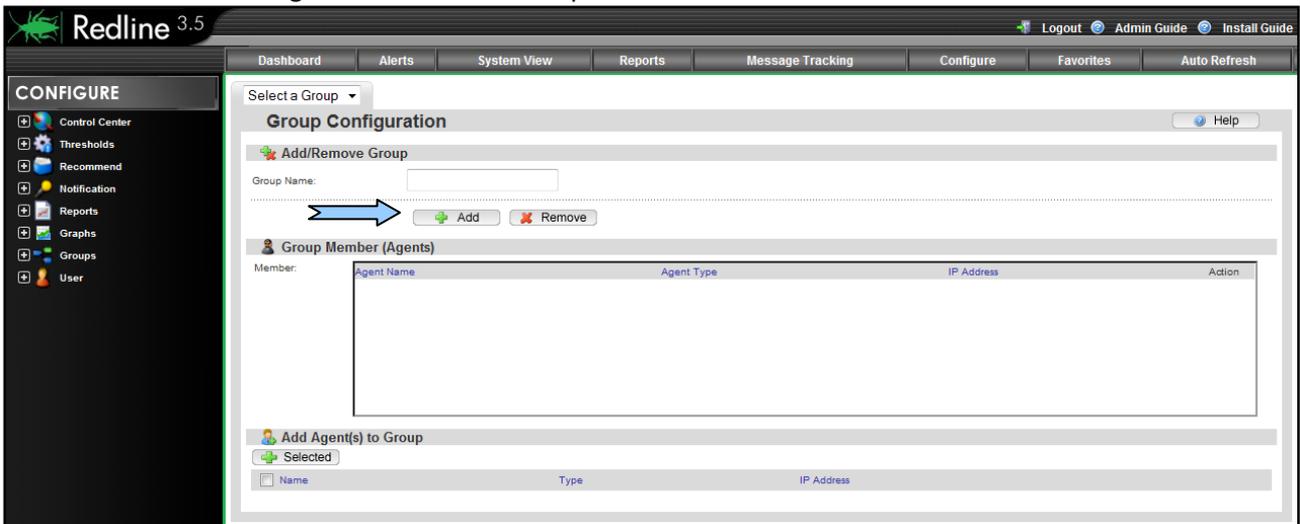
**System Tree:** Lists all agents similar to what is known from ConsoleOne. If you click on an agent, you can see all the details.

**Agent Type Groups:** Shows all agents of a specific type. If you click on the icon, all agents of that type will be listed in the tree. If you click on the "Name" of the agent type, the window on the right side shows the status of the agents of that type only.

**User defined Group:** It is possible to define groups with the agents you want. This can be helpful to group agents of a type or from a physical location.

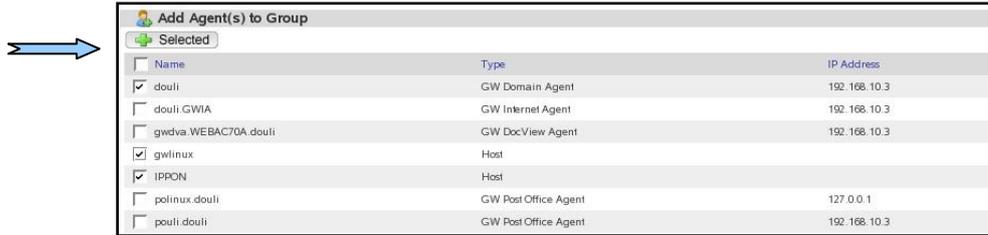
## How to define a Group

1. Browse to Configure and click on "Groups"



2. Specify a Group Name and click "Add"

3. Mark the agents you want in this group and click "+ Selected"



4. Browse back to System View
5. Click on the group in the menu

You can add or remove agents to user defined groups at any time.

### Viewing an Agent

Everywhere where you click on an Agent Name in Redline you will see the details from the System View. It doesn't matter where you click on the agent name (Dashboard, Alerts List, and System View). Every agent has information on 8 different pages.

- Summary
- Status
- Settings
- Alerts
- Reports
- Graphs
- Configure
- Manage

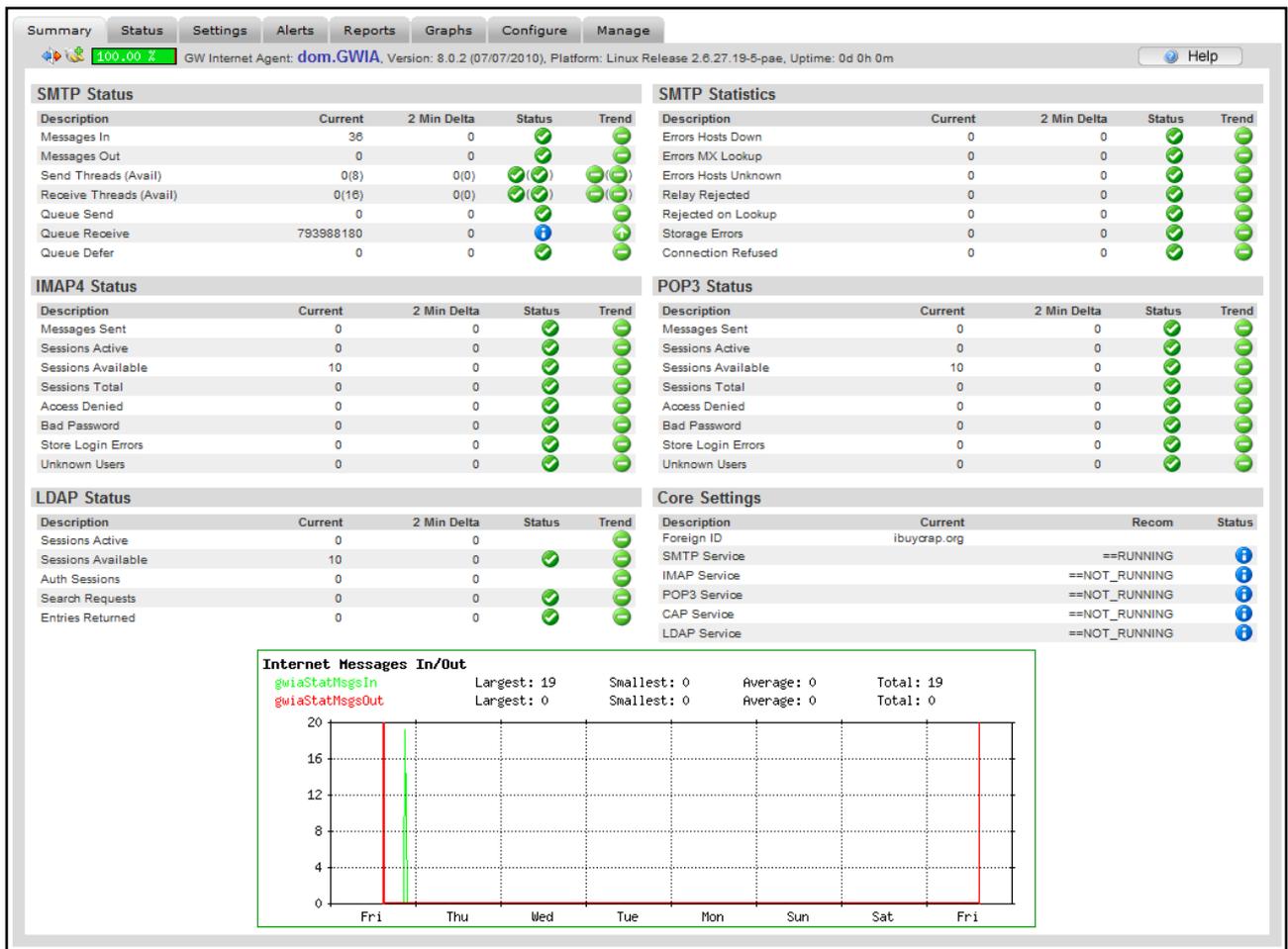
These pages can be accessed from the menu.



In the title of every page the agent name, version, platform and uptime is shown. This is the same for all agents known to Redline. If you mouse over the plug icon, you can see at what time and date the last data for this agent was received.

## Summary

The Summary page is unique to every agent in Redline. The summary page is used to display the most important status values and settings for an agent on a single page.



**Status:** The status icons indicate if a threshold or recommendation is defined for the value and if the value is in the defined range or not. The icon depends on the severity of the defined threshold or recommendation.

**Trend:** A trend is indicated if a value is generally going up or down for at least 10 points of measurement, and not simply an indication of a simple change. A single high or low peak is also not enough to force the 'trend' in a direction, instead a generally significant and overall movement in one direction is required to cause a 'trend'.

## Status

The status page shows all values which can change during normal operations. Examples are “Users Connected”, “Messages Sent”, “Threads available” etc. Redline collects these values from many different sources and presents them on a single page.

The screenshot shows the Redline Status page for a GW Message Transfer Agent. The top navigation bar includes Summary, Status, Settings, Alerts, Reports, Graphs, Configure, and Manage. The main content is divided into two sections: Core Status Values and General Status Values.

Description	Value	Threshold	Status
Domain Path	/mail/dom/		
Work Path	/mail/dom/mslocal		
Message Log Path	/mail/dom/mslocal/msglog		
Log File Path	/var/log/novell/groupwise/dom.mta		
Logfile accessible	OK	==OK	✓
Current Log File	/var/log/novell/groupwise/dom.mta/		
Previous Log File			
Global Unique ID (GUID)	4994D282-11DB-0000-B1DB-F15CE5F2B5EF		
Agent IP Address	192.168.1.104		
GW Domain DC (Dictionary) Version	8.0.0	>=8.5.0	✓
GW Post Office DC (Dictionary) Version	8.0.0	>=8.5.0	✓
WP Domain DC (Dictionary) Version	4.1.0	==4.1.0	✓
WP Post Office DC (Dictionary) Version	4.1.0	==4.1.0	✓

Description	Current	2 Min Delta	Threshold	Status	Trend
Domains Total	1	0			↔
Domains Closed	0	0	==0	✓	↔
Post Offices Total	1	0			↔
Post Offices Closed	0	0	==0	✓	↔
Gateways Total	1	0			↔
Gateways Closed	0	0	==0	✓	↔
Routed Messages	56	0	<=40/2 Min	✓	↔
Routed Messages last 10 Min	34	0	<=100/2 Min	✓	↑
Undeliverable Messages	0	0	<=5/2 Min	✓	↔
Undeliverable Messages last 10 Min	0	0	<=5/2 Min	✓	↔
Error Messages	0	0	<=3/2 Min	✓	↔
Error Messages last 10 Min	0	0	<=3/2 Min	✓	↔
Complelet Admin Messages	2	0	<=20/2 Min	✓	↔
Error Admin Messages	0	0	<=3/2 Min	✓	↔
Local Queue Count	0	0	<=10	✓	↔
Local Queue Size	0	0	<=1000	✓	↔
Internet Queue Count	0	0	<=5	✓	↔

For some agents like the Post Office, Domain or Internet Agent, the file system is monitored, and the number of files, the size of all files, the oldest, and the largest file are presented.

The screenshot shows the Redline File System Status page, which displays a table of folders and their associated file system metrics.

Folder	Files	Size	Oldest	Largest	2 Min Delta	Thresh.	Status	Trend
MSLOCAL								
GWINPROG								
0	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
1	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
2	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
3	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
4	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=60	✓	↔
5	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
6	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
7	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
MIME								
TMP	0	0 B	(, 0 B, 12-31-1989 17:00:00)	(, 0 B, 12-31-1989 17:00:00)	0	<=20	✓	↔
GWVSCAN								
0	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
1	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
2	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
3	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
4	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=50	✓	↔
5	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
6	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
7	1	0 B	(xNStore, 0 B, 01-07-2011 13:35:57)	(xNStore, 0 B, 01-07-2011 13:35:57)	0	<=20	✓	↔
MIME								
TMP	0	0 B	(, 0 B, 12-31-1989 17:00:00)	(, 0 B, 12-31-1989 17:00:00)	0	<=20	✓	↔
wpsin								

You can define thresholds for the number of files, size of the folder, largest and oldest file. By default thresholds are defined to make sure not too many files are in the folder. If a folder is queuing up, usually a problem exists in your GroupWise system.

## Settings

The settings page shows configuration settings appropriate to the monitored agent. The recommendation, threshold and status shown here are based on the current GroupWise best practices and defaults. The recommendations and thresholds can be changed to accommodate your installation. See [how to configure a threshold or recommendation](#) to change recommended and threshold values.

**Core Settings**

Description	Current	Recommended/Threshold	Status
Domain Path	/mail/dom/		
Work Path	/mail/dom/mslocal		
Message Log Path	/mail/dom/mslocal/msglog		
Log File Path	/var/log/novell/groupwise/dom.mta		
Logfile accessible	OK	==OK	✓
Current Log File	/var/log/novell/groupwise/dom.mta/0222mta.001		
Previous Log File	/var/log/novell/groupwise/dom.mta/0111mta.003		
Global Unique ID (GUID)	4994D282-11DB-0000-B1DB-F15CE5F2B5EF		
Agent IP Address	192.168.1.104		
GW Domain DC (Dictionary) Version	8.0.0	>=8.5.0	✓
GW Post Office DC (Dictionary) Version	8.0.0	>=8.5.0	✓
WP Domain DC (Dictionary) Version	4.1.0	==4.1.0	✓
WP Post Office DC (Dictionary) Version	4.1.0	==4.1.0	✓

Description	Setting	Recom	Status
DN Name	MTA.dom.GroupWise.bitter		
Preferred GWIA	dom.GWIA		
Default Route			
Force Route	no		
Display Active Log Window	no		
Simple Network Management Protocol	disabled	==Enabled	ⓘ
NetWare Cluster		==No	ⓘ
Protected Address Space	enabled	==No	ⓘ
Incoming TCP Port	7100	==7100	✓
HTTP TCP Port	7180		
Today's eDir Sync Time	01:00	==01:00	✓
Log Level	VERBOSE		
Message Logging	yes	==Yes	✓
Max. Message Log Age	2	>=14	ⓘ
Max. Message Log Size	1	<=1024	✓

Description	Setting	Recom	Status
Direct Send	no	==No	✓
Error Mail to Admin	no	==No	✓
eDir Authenticated	yes	==Yes	✓
eDir User Sync	yes	==Yes	✓
Admin Task Processing	yes	==Yes	✓
Database Recovery	yes	==Yes	✓
Max TCP Connections	40	<=40	✓
HTTP Refresh Rate	60	>=5	✓
TCP Conn Timeout	5	==5	✓
TCP Data Timeout	20	==20	✓
Additional High Prio Thread	yes	==No	ⓘ
Additional Mail Prio Thread	yes	==No	ⓘ
Low Priority Cycle	15	==15	✓
High Priority Cycle	5	==5	✓
MTP over SSL	disabled		
HTTP over SSL	disabled		

Redline and GWAVA Reload agents can be managed in part from this page. Click the 'OK' button to save any changes made. The Agent Actions allow for a seamless way to update the Redline Agent software. (See the [Online Update](#) section.) Unloading an agent requires the agent to be started again from the server it resides on. Removing an agent unregisters the selected agent from the Redline Control Center.

## Alerts

On the agent specific alerts page, all alerts for the agent are listed. All solved alerts, including date and time when the problem was solved, are also listed. You can delete and mark alerts as solved from this page.

Remove or Solve an alert

**Active Alerts**

Date	Time	Severity	Description	Action
2011-01-07	16:17:30	✖	gwiaAgentState should be == Up, but is Down	✖ ⚙️ ⓘ

**Solved(Saved) Alerts**

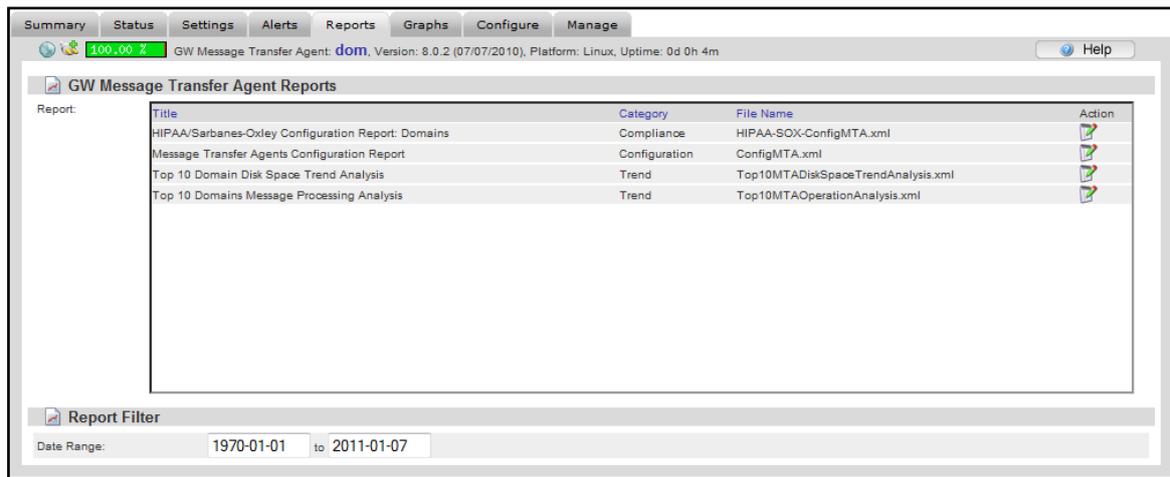
Date	Time	Severity	Date/Time Saved	Description	Action
2011-01-07	16:08:30	✖	2011-01-07 16:10:42	gwiaAgentState should be == Up, but is Down	✖ ⚙️ ⓘ

Date and Time when Problem was solved

Configure actions or display more information about the alert

## Reports

All reports which can be run on the selected agent type may be run from this page. If you want to know more about report definitions, designing reports, etc, please refer to the next chapter in this manual.

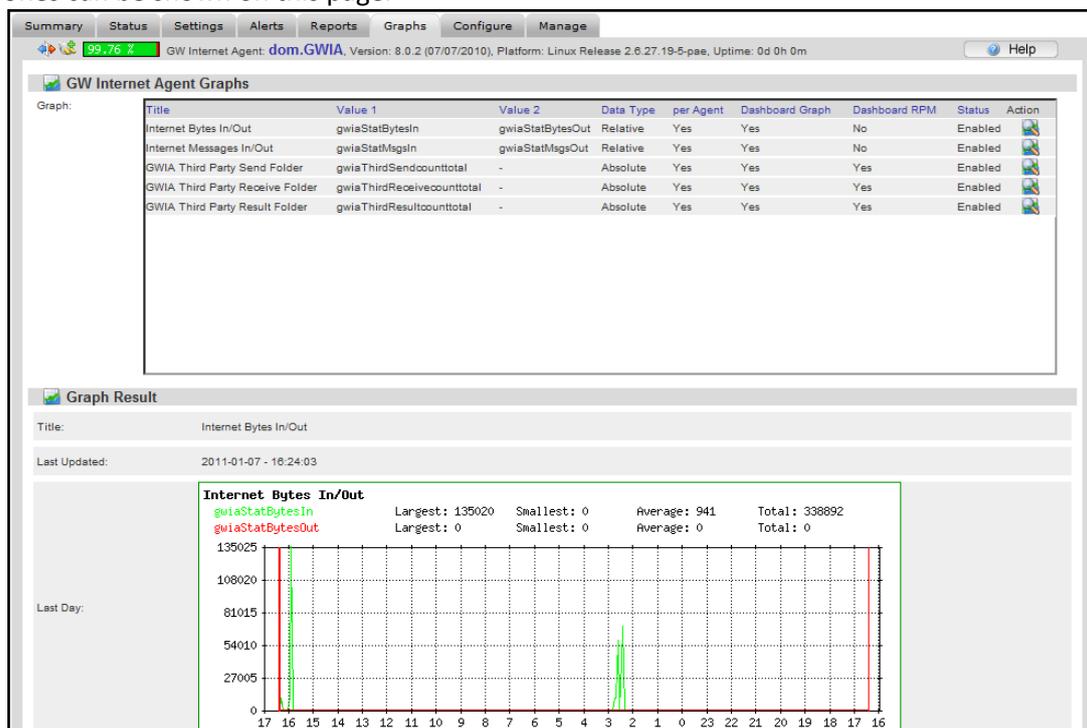


**Date Range:** For some reports it is possible to specify the date range. Not all reports have this capability because a date range doesn't apply to the report type. For example, a 30 day report does not honor a date range, as it is already implied in the report.

**Action Icon:** If you click on the Action icon, the report is executed and will be displayed in a new browser window. From there it is easy to print the report.

## Graphs

Graphs are a very powerful tool to look at data in a visual way. Think about graphs which show how your disk size get's smaller over time, your memory get's less or if there is an unusually large amount of messages that are coming in from the internet. All these kinds of graphs can be defined and the agent specific ones can be shown on this page.



For Graph explanation see the [Graphs section](#).

## Configure

It is possible to define thresholds, recommendations and graphs which will be used for only the selected agent. Sometimes it is necessary to have different thresholds and recommendations for some or just one agent. In that case you need to configure the thresholds and recommendations here.

Description	Sum	Severity	Compare	Threshold	Low	High	Back to Normal	Multi Fire	Status	Action
Files in Folder: [GWIAHOME]/000.pr/	No	Normal	<=	30	0	0	No	No	Disabled	

**Add or Edit Threshold**

Status:  Enabled

Description:  (optional)

Value:

Should be:  =  or between:  and   2 Minutes delta

Severity:

MultiFire Alert:  Enabled

Back to Normal Alert:  Enabled

(Optional) E-Mail to:

(Optional) Broadcast to:

Many values are already defined in the 'browse' button. Name the threshold desired and then select the desired value from the 'browse' menu. To select a value, click on the action icon in the right column.

Description	Value Name	Value Type	Action
Files in Folder: [GWIAHOME]/000.pr/	gwia000prcounttotal	int	
Date of largest File in: [GWIAHOME]/000.pr/	gwia000prodstelargest	date	
Date of oldest File in: [GWIAHOME]/000.pr/	gwia000prdateoldest	date	
Name of largest File in: [GWIAHOME]/000.pr/	gwia000prnamelargest	string	
Name of oldest File in: [GWIAHOME]/000.pr/	gwia000prnameoldest	string	
Size of largest File in: [GWIAHOME]/000.pr/	gwia000prsizelargest	int	
Size of oldest File in: [GWIAHOME]/000.pr/	gwia000prsizeoldest	int	
Folder Size: [GWIAHOME]/000.pr/	gwia000prsize total	int	
Reset Statistics	gwiaActionResetStats	int	
Restart Gateway	gwiaActionRestartGateway	int	
Agent Status	gwiaAgentState	int	

(The value and the name have been set the same for simplicity in the example.)

Specify the desired threshold level and click 'OK' to save the new threshold. **Remember**, a threshold or report will not be active unless it is **enabled**.

## Manage

While every agent has a manage tab, only Redline Agents allow configuration. From the manage tab you can configure all agents monitored by the selected Redline agent or add new agents to be monitored.

Summary Status Settings Alerts Reports Graphs Configure Manage

100.00 % Redline Agent: RLAgent-rlcenterx32, Version: 3.5.0 (1003), Platform: Linux 2.6.27.19-5-pae, Uptime: 0d 12h 37m Help

### Agent Information

Description	Value
Global Unique ID (GUID)	2

### Monitored Agents

Type	Description	Unique ID	Agent Name	Status	HTTP IP Address	HTTP IP Port	SSL	Action
APIGW	GW API Gateway	12	-	disabled	-	-	disabled	
HOST	Host	3	-	enabled	-	-	-	

### Add or Edit Monitored Agent

Agent Type:

Status:  Enabled

Agent Path:

Agent Name:

Agent Name Suffix:

For details about how to manage all the monitoring features, please refer to the Redline Installation Guide.

All other agents, (monitored agents), can be removed from the Redline system from this page.

Summary Status Settings Alerts Reports Graphs Configure Manage

99.76 % GW Internet Agent: dom.GWIA, Version: 8.0.2 (07/07/2010), Platform: Linux Release 2.6.27.19-5-pae, Uptime: 0d 0h 0m Help

### Agent Information

Description	Value
Registering Redline Agent ID	4
Global Unique ID (GUID)	6

### GW Internet Agent Actions

Remove Agent

## GroupWise Map

The GroupWise map tab under the System View displays the monitored system in a top-down map showing how components in the GroupWise system are connected and their hierarchy.

The screenshot shows the 'GroupWise Link Map' interface. It features a navigation bar with 'Status', 'GroupWise Map', 'Redline Map', and 'Host Map'. The main content area displays a tree view of GroupWise components. The top-level component is 'dom' (Version 8.0.2) running on Linux, with an uptime of 0d 0h 28m and 100.00% uptime. Below it are 'dom.GWIA' (Version 8.0.2) and 'po.dom' (Version 8.0.2), both running on Linux. Each component shows its home directory, hold directory, last opened/closed times, current status (e.g., OPEN), and message counts. The 'po.dom' component also shows MTP status and addresses.

The display is informational only, but displays status, uptime, and overall uptime percentage reported to the Redline Control Center.

## Redline Map

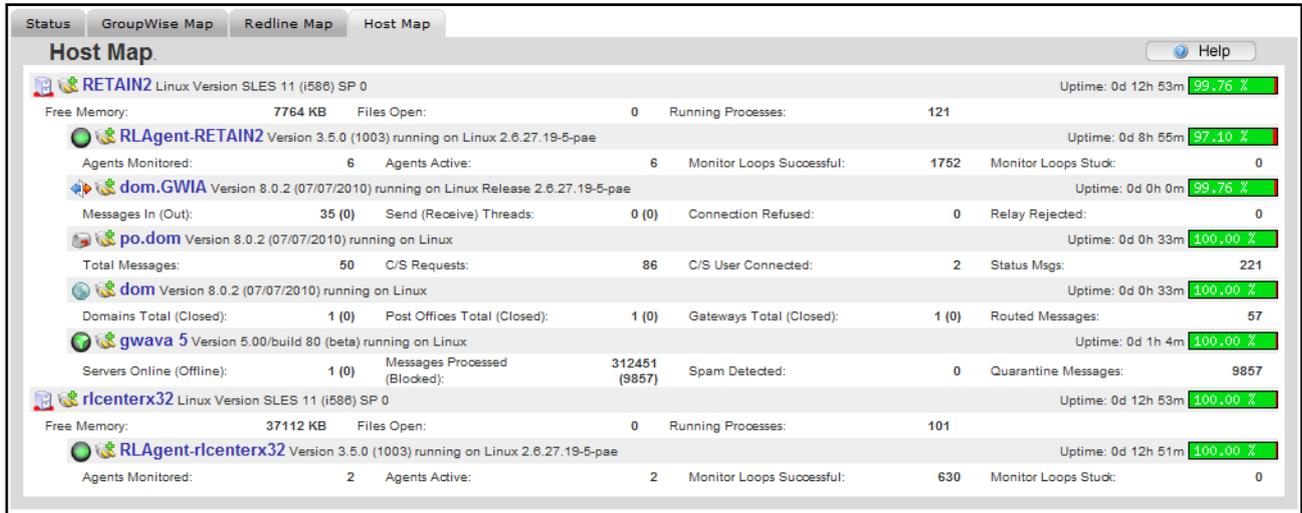
The Redline Map displays all agents in the system that are monitored by a Redline Agent. The monitored agents are displayed beneath their parent Redline Agent.

The screenshot shows the 'Redline Agent Map' interface. It features a navigation bar with 'Status', 'GroupWise Map', 'Redline Map', and 'Host Map'. The main content area displays a list of monitored agents. The top-level agent is 'RLAgent-rlcenterx32' (Version 3.5.0) running on Linux, with an uptime of 0d 12h 48m and 100.00% uptime. Below it are 'rlcenterx32' (Linux Version SLES 11) and 'RLAgent-RETAIN2' (Version 3.5.0) running on Linux. Each agent shows its free memory, files open, running processes, and monitor loop statistics. The 'RLAgent-RETAIN2' agent also shows a list of monitored agents, including 'dom.GWIA', 'po.dom', 'dom', and 'gwava 5'.

Uptime, basic vital statistics for each monitored agent, and overall percentage uptime are displayed. The Redline Agent Map is a quick and easy tool to visualize and track down outages in a system.

## Host Map

The Host Map displays the different agents and systems, according to which physical systems they are connected to. This page will not work correctly unless all reporting Redline Agents are locally installed on the systems they are monitoring; remote monitoring by agents will not show hosted agents correctly.



Essential statistics for the different physical servers including free memory, system uptime, percentage of total uptime reported, and vital stats for present agents are reported.

## Reports

With reports you can get a lot of information out of your GroupWise environment. Redline provides 5 different categories of reports, including direct queries of the database tables, a report designer, report scheduler, and a report API to create specialized reports. To quickly facilitate access to the information that Redline gathers, Redline ships with a large number of predefined reports.

All reports require that the Redline agents must have file access to monitored agents and systems. The reports require access to files, logs, and additional information stored on the host server for each monitored system. It is best to run a Redline agent on each server running a monitored agent to provide accurate results.

## Run Reports

The Run Reports tab contains all the pre-defined and configured reports which ship with Redline 3.5. Though these reports come default, any newly defined or user-created and saved reports will be listed here as well. To run a report, select the desired report from the list and click on the action button from the far right column. Take care not to delete a desired report in the haste to run it.

Run report

Title	Category	Agent Type	File Name	Action
All Agents Configuration Report	Configuration	All	ConfigAll.xml	[Run] [X]
BlackBerry 30 Day Message Summary	Business	RIM BlackBerry Server	BES30DayMsgSummary.xml	[Run] [X]
BlackBerry Message Summary	Business	RIM BlackBerry Server	BESMessageSummary.xml	[Run] [X]
BlackBerry Top 20 Users by Incoming Message Count	List	RIM BlackBerry Server	BESTop20IncomingCount.xml	[Run] [X]
BlackBerry Top 20 Users by Outgoing Message Count	List	RIM BlackBerry Server	BESTop20OutgoingCount.xml	[Run] [X]
BlackBerry Top 50 Users by Incoming Message Count	List	RIM BlackBerry Server	BESTop50IncomingCount.xml	[Run] [X]
BlackBerry Top 50 Users by Outgoing Message Count	List	RIM BlackBerry Server	BESTop50OutgoingCount.xml	[Run] [X]
BlackBerry Users	List	RIM BlackBerry Server	BESUserList.xml	[Run] [X]
BlackBerry Users with Pending Messages	List	RIM BlackBerry Server	BESUserPendingList.xml	[Run] [X]
GroupWise 7.0.2/6.5.6 Vulnerability Check	Business	All	Vulnerability702VersionCheck.xml	[Run] [X]
Guinevere Configuration Report	Configuration	Guinevere	ConfigGUIN.xml	[Run] [X]
GW Mobile Server Connection Analysis	List	GW Mobile Server 2.x/3.x	GMSCConnectionAnalysis.xml	[Run] [X]
GW Mobile Server Most Active Users	List	GW Mobile Server 2.x/3.x	GMSCMostActiveUser.xml	[Run] [X]
GW Mobile Server Top 50 Active Users	List	GW Mobile Server 2.x/3.x	GMSUserActivity.xml	[Run] [X]
GWAVA 3 Configuration Report	Configuration	GWAVA 3.x	ConfigGWAVA.xml	[Run] [X]
GWAVA 4.x/5 Configuration Report	Configuration	GWAVA 4.x/5	ConfigGW4V4.xml	[Run] [X]
GWAVA 4.x/5 Message Processing Analysis	Business	GWAVA 4.x/5	GW4V4OperationAnalysis.xml	[Run] [X]
HIPAA/Sarbanes-Oxley Account Audit	Compliance	GW Post Office Agent	HIPAA-SOX-AccountAudit.xml	[Run] [X]

Specify Filter  
 Date from: 1990-01-01 to 2011-01-07  
 Agent Name: All Agents

To restrict a report's information to a specific agent or time period, use the Filter option at the bottom of the window. Specific agents, such as a single bloated post office, may have a report created for just the last week, instead of every post office, or agent in the system.

## List Reports

All list reports are predefined database queries, sometimes represented as a graph. Usually they show information from a single database table with some defined filters and sorting. This example lists the largest mailboxes in a GroupWise system.

User Name	Full Name	Post Office	Size (KB)	Limit (KB)	Threshold
admin		po.dom	130096	0	0%
david	mason	po.dom	18789	0	0%
craig	Jamison	po.dom	18789	0	0%
james	blufish	po.dom	850	0	0%
chris	Bastula	po.dom	430	0	0%

Report generated with Redline 3.5.0. © Copyright 2004-2010, Beginfinite Inc.

Some reports support additional filtering based on date and agent.

Specify Filter  
 Date from: 1990-01-01 to 2007-08-15  
 Agent Name: All Agents

## Compliance Reports

Many countries require regular documentation of their IT infrastructure by regulations like HIPAA or Sarbanes Oxley. Redline provides predefined reports to show all settings of your Post Offices, Domains, Internet Agents, WebAccess etc. These built in reports make it much easier to report on the system.


**Novell Self Audit Report (CLA)**
Fri, 07. Jan 2011, 17:53:17

### Novell Master License Agreement (MLA) Self-Audit Form

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Please Note: This form must be filled out in its entirety and sent to Novell within 30 days after the end of each MLA Annual Period. For questions regarding this form and other self-audit information please visit our web-site at <http://www.novell.com/licensing/compliance/>. Mail or fax the completed form to: Novell Customer Compliance, 1800 South Novell Place, MailStop PRV-D-222, Provo, UT, 84606, Fax: 801-961-2559. Use multiple forms if necessary.

This self-audit covers the Maintenance period ending on \_\_\_\_\_ (Day/Month/Year)

MLA Number: _____	Address: _____
Parent Company Name: _____	City, State, Zip Code: _____
Division: _____	Phone: _____
Purchase Order Number: _____	Fax: _____
	Email: _____

Novell Product Description (name, version, node/server)	Previously Purchased Node/Copies	Count Total from Audit (number installed)	Variance	Date New Software Installed
Novell GroupWise (Full License)		1		
Novell GroupWise (Limited License)		0		

Instructions:

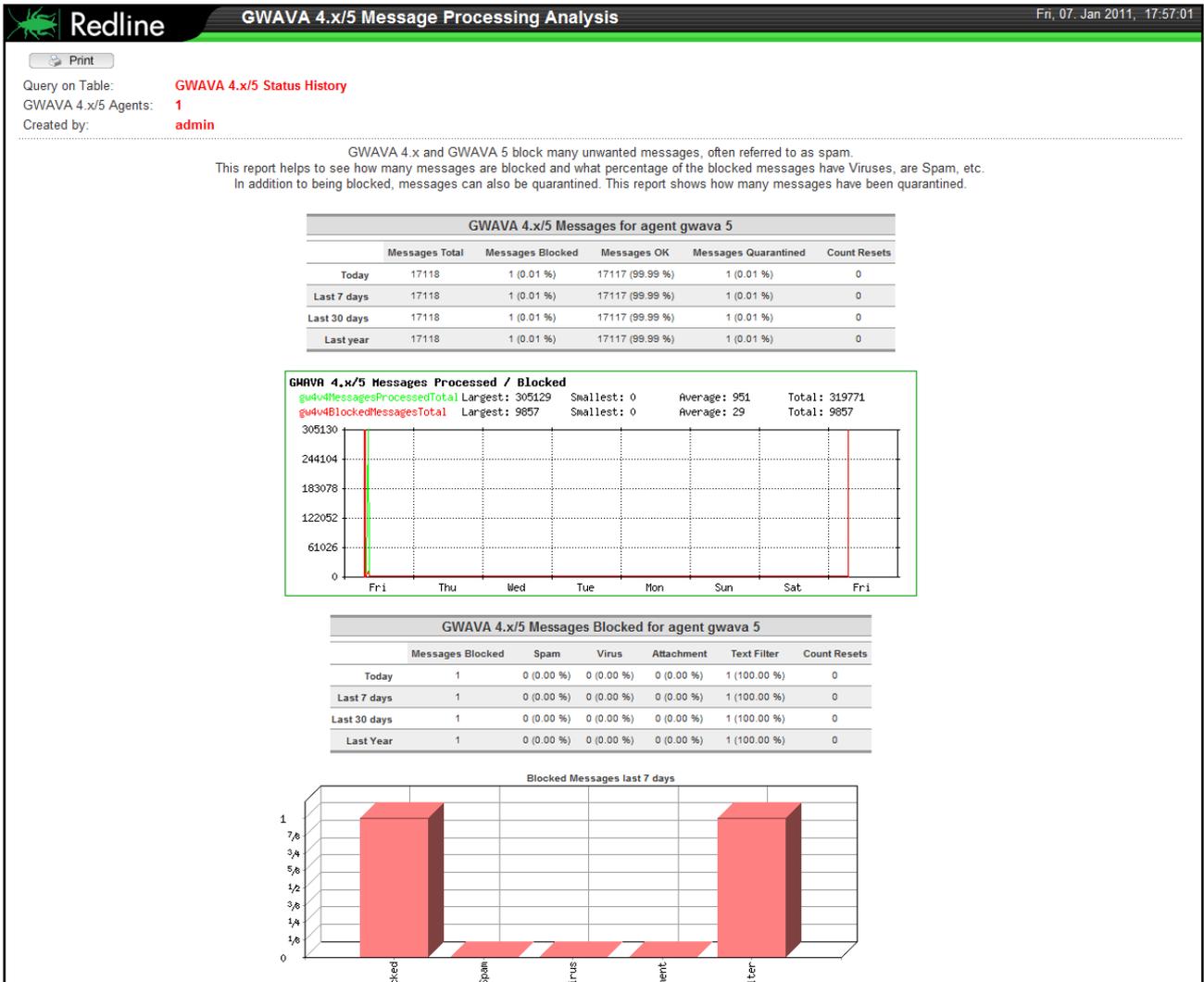
1. List total number of Previously Purchased Nodes/Copies to Date- the total node count for product that has been purchased through or grandfathered into the MLA.
2. List total number of licenses currently installed on the network under Count Total. Maintenance must be paid on all these nodes/copies.
3. Variance between purchase amount and installed amount is the number of Licenses to be purchased. Both licenses and maintenance fees must be paid on increases.

\*Include a copy of your purchase order with this self-audit form. The original should be submitted through your normal channels. Please reference "MLA Self-Audit" on all submitted purchase orders to ensure proper credit to your account.

Another very useful report is the Novell CLA self audit report required by Novell.

## Business Reports

More advanced reports with in depth data analysis and data from multiple tables are put together in the Business Reports category.



## Comparison Reports

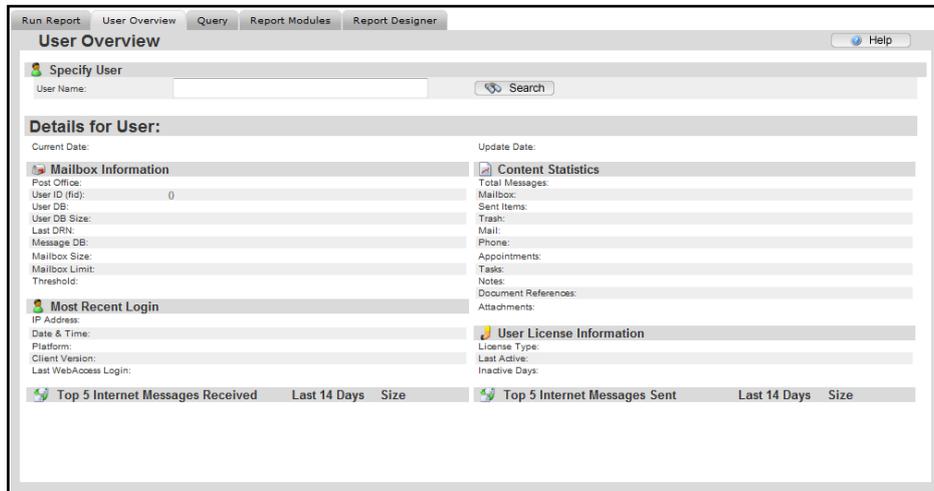
The Redline Comparison Report helps evaluate the ongoing return on investment of your existing GroupWise System—as calculated based on information collected by Redline—against another messaging platform. This report incorporates six key areas of analysis that evaluate the ongoing costs of operating your GroupWise system against the costs of migrating to another platform.

There are three informational categories: General Information, Current System, and Alternative System. These are broken down into software and hardware costs, personnel and consulting costs, as well as training and other expenses.

This report performs an ROI Cost comparison analysis based upon the costs to maintain the existing system when compared to the migration and maintenance costs of an alternate system. Based on your existing system, an analysis is performed using comparative data from the software manufacturers and third party data. We have provided recommended values in each field where possible. Please feel free to update this information as appropriate. This analysis is in US dollars and calculates the first year only.

## User Overview

The User Overview displays essential information on any selected user. Detailed use and account statistics can be quickly and easily obtained for any user in the system. However, in order for the User overview to display any users the GWcheck files must first be obtained. See the Redline Install Guide section 'Creating the GWCHECK Events'.

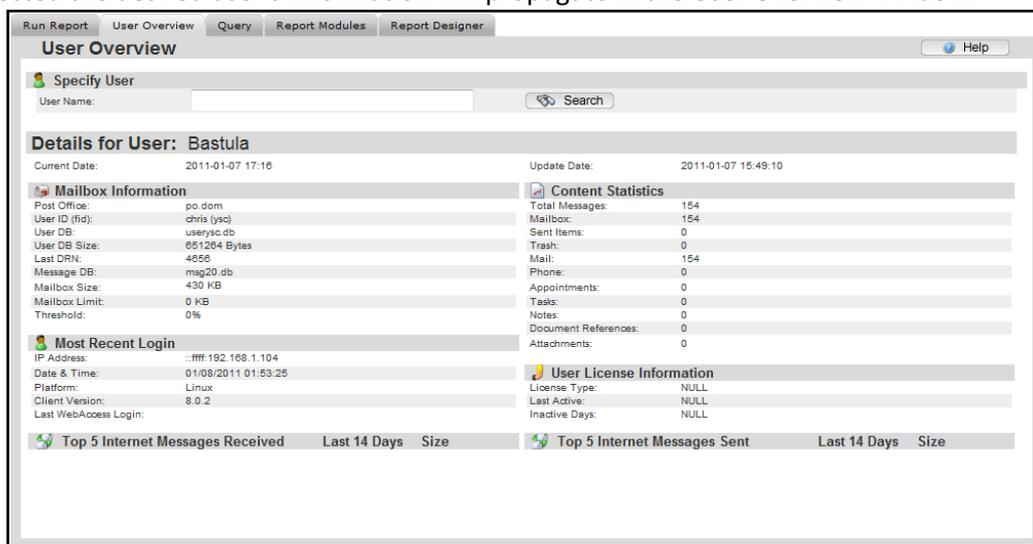


To select a user, place a user name in the user name search box and select 'search'. All users matching the search criteria will be displayed. If the search window is left blank, the system will produce a list of every user account in the system.

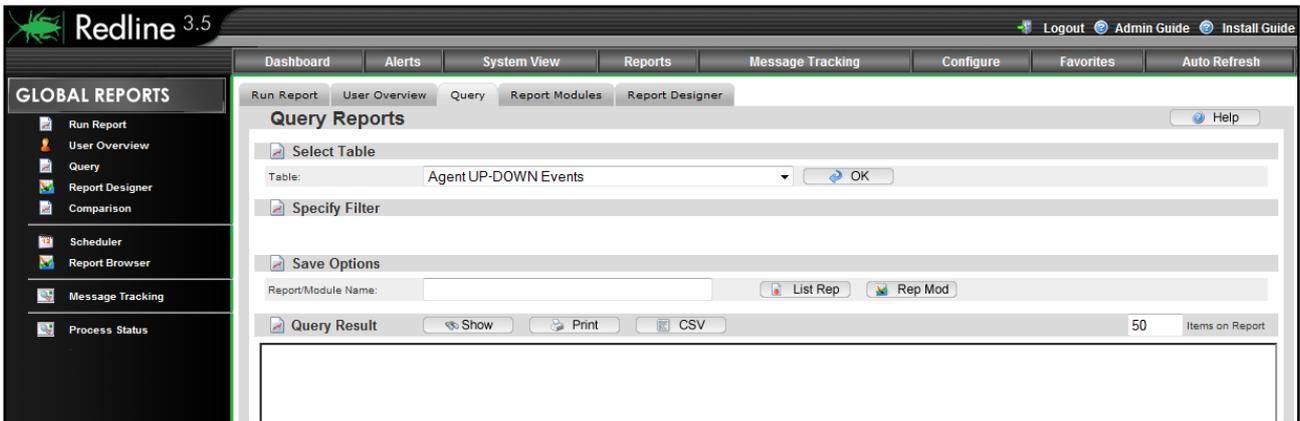
User Name	Post Office	Full Name	Mailbox Size	Action
chris	po.dom	Bastula	430	[Show User]
craig	po.dom	Jamison	18789	[Show User]
admin	po.dom	[]	138096	[Show User]
james	po.dom	blufish	850	[Show User]
david	po.dom	maston	18789	[Show User]

Select the appropriate user from the search results by selecting the 'Show User', or action icon in the far right column for the desired user. (The search results window will not close, but allows for user's to be switched in rapid succession. When finished, close the search results window.)

Once selected the desired user's information will propagate in the User Overview window.



## Query



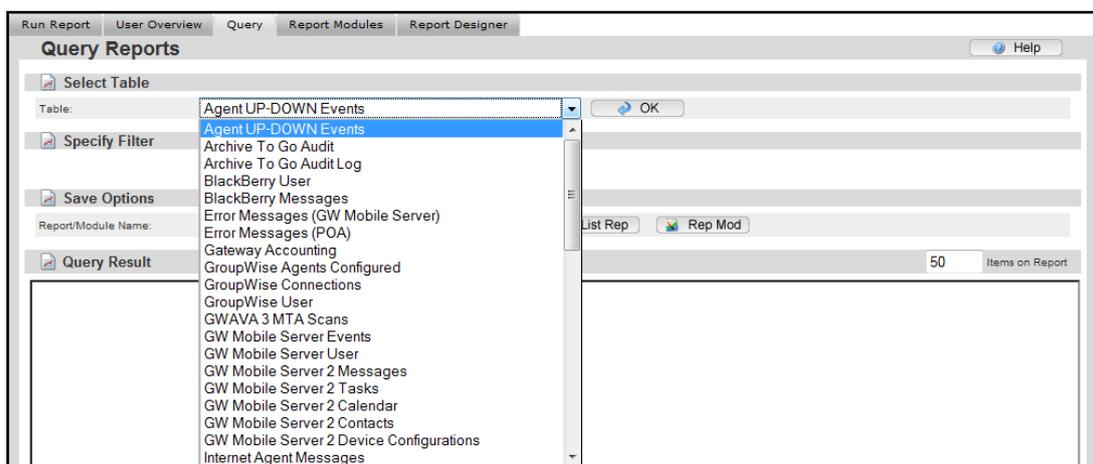
It is possible to query all database tables directly, or run predefined Reports, which are categorized in the following form:

- **List** – Predefined queries with lists like largest Mailboxes or Post Offices, most used Domains etc.
- **Compliance** – Reports required meeting regulations enforced by laws or other rules.
- **Business** – More complex reports which analyze the data in more detail.
- **Comparison** – Compare your environment with alternative messaging systems.

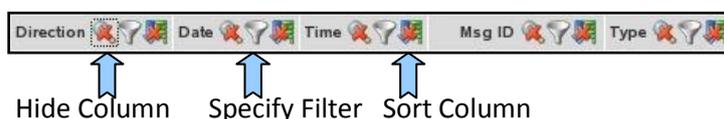
Running the predefined List, Compliance, Business or Comparison reports is very easy, but you need to understand how the query reports work in order to build your own reports.

### *Query the Redline database*

Redline stores its data in multiple databases. With the query interface you can access all database tables without any restriction. The database is defined in the file tables.xml. Every time you start Redline, the database tables are checked based on the information found in tables.xml. If a new table is added to tables.xml, Redline will create this table automatically for you.



After you've selected a table and clicked on 'OK', the table is loaded and filters appear. From the results window header, filters may be specified. You can hide columns, sort the data and specify filter on any column desired. Every column has three icons to do this:



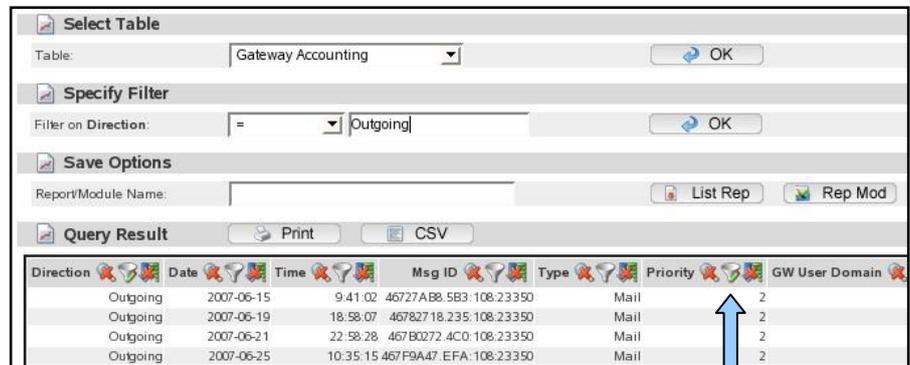
**Hide Column:** If you hide a column, the icons for the column are still visible on the screen, but the title

and the data is not shown any more. If you print or export the report, these columns are not on the report.

**Sort Column:** You can sort based on every column you want. If you click the sort button the second time, the sort direction is reversed. A third click disables sorting on this column. If you enable sorting on multiple columns, the order is based on what column was selected first. That way you can sort a table on as many columns as you want.

**Filter:** You can specify a filter on every column, not on just one column. As soon as a filter is specified, the filter icon has a small tool on it.

Specify filter for the selected column



Column with a filter

Column with a filter

If you need more or less items on the screen, you can specify the number of rows.



When you are happy with the result, you can print the report or export it as a CSV file which can be imported into OpenOffice or Microsoft Excel. If you need this report on a regular basis, you can save it as a List Report. Specify a Name for this Report and click the "List Report" button.

1. Specify Report Name

2. Save Report as List Report



If you have specified some filters etc for a query report, browse to another place in Redline and come back, all filters, sorting, etc. are still present. All defined filters, sorting and hidden columns will be reset every time a new table is selected.

## History database tables

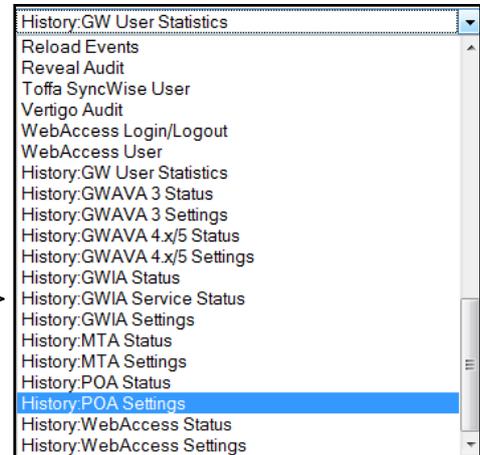
Redline has several database tables which contain snapshots of settings and status values. In the file `/opt/beginfinite/redline/conf/database.conf` the snapshot intervals are defined. By default, all settings will be stored every day and a snapshot of all status values is taken every hour.

Based on this information it is possible to look back when a setting was changed and what the setting was before the change. Example:

### How to check if and when IMAP was enabled on the Post Office:

1. Select the table History:POA Settings.
2. Specify a filter on the column "Post Office Name" and type the name of the Post Office you want to check.
3. Specify a filter on the column "IMAP Agent" and type "enabled" as the text to search for.
4. Sort the table based on "date".
5. Now you see when the IMAP agent was disabled the last time.

History tables



## Index tables

Database index tables are very important to speed up queries and as a result executing the reports is much faster. If you define a filter in a query report and the response after defining the filter is slow, you might need to define a table index on this column.

To access the SQL Database Configuration window, select the 'Configure' section, and then the 'Database' tab.

Description	Table Name	DB File	Max Age	Max Records	Index 1	Index 2	Index 3	Index 4	Index 5	Action
Agent UP-DOWN Events	aguptime	global.db	0	0	evdate	evtime				
Archive To Go Audit	a2go_audit	a2go.db	0	0						
Archive To Go Audit Log	a2go_audit_log	a2go.db	0	0						
BlackBerry User	besuser	besuser.db	0	0						
BlackBerry Messages	besmsgs	besmsgs.db	0	0						
Error Messages (GW Mobile Server)	gwmerrors	gwmoberr.db	0	0						
Error Messages (POA)	errors	alerts.db	90	0	User	ErrorDate	ErrorTimeAgentName			
Gateway Accounting	accounting	acct.db	90	0	MsgSubject	GWUserID	MsgDate			
GroupWise Agents Configured	gwagents	gwagents.db								
GroupWise Connections	gwconn	global.db			LoginName	poaName				
GroupWise User	gwuser	global.db			Name	poaName				
GWAVA 3 MTA Scans	gwavamta	gwavamsgs.db	90	0	ScanStartDate	ScanStartTime				

You can define up to 5 index tables for every table in Redline. Make sure you define index tables for columns where it makes sense only. Index tables which are not needed will slow down report generation.

Click to edit table settings

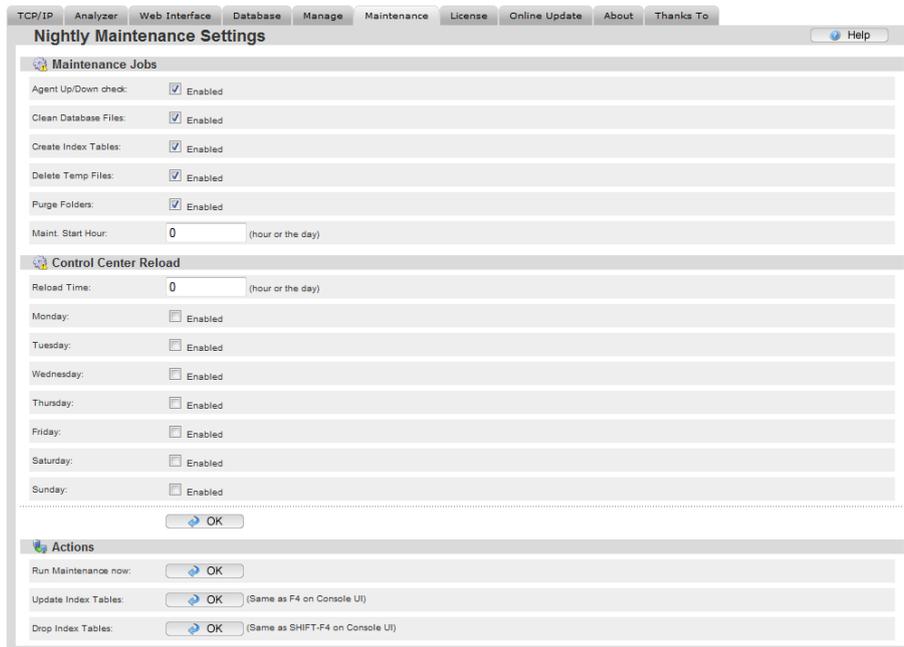
## How to define a table index:

1. Assume you need an index on the column "E-Mail" of the table "Blackberry User"
2. Look for the table "Blackberry User" and click on the "Edit" icon
3. Mark the checkbox for "Index 1" and select the column "E-Mail"
4. Click OK

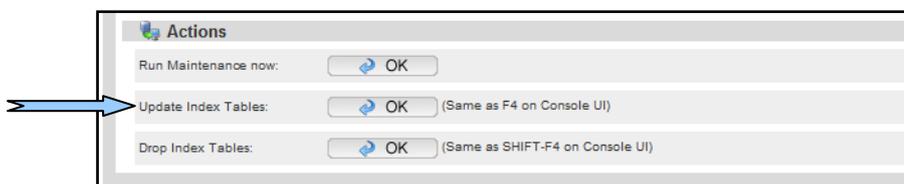
Index tables are not generated immediately after they are defined. Every midnight Redline is doing a database check which includes the creation of missing table indexes. Index tables which are not defined any more will be removed during the nightly database check as well. If you look into the rlcc.log file you can see when and how long the check runs. During that time it is not possible to login to the Web UI of Redline.

```
07-28-2007³00:00:28³Nightly Database Check started.
07-28-2007³00:00:32³Create/Update index tables.
07-28-2007³00:00:33³Create/Update index tables done.
07-28-2007³00:00:33³Delete Redline temp files.
07-28-2007³00:00:33³Delete Redline temp files finished.
07-28-2007³00:00:33³Purge all deleted files...
07-28-2007³00:00:33³Purged 2 items: /mnt/posix/redline/opt/beginfinite/redline/logs
07-28-2007³00:00:33³Purged 0 items: /mnt/posix/redline/opt/beginfinite/redline/imp
07-28-2007³00:01:10³Purged 12642 items: /mnt/posix/redline/opt/beginfinite/redline/db
07-28-2007³00:01:11³Purged 272 items: /mnt/posix/redline/opt/beginfinite/redline/imp/cache
07-28-2007³00:01:11³Purged 1 items: /mnt/posix/redline/opt/beginfinite/redline/imp/acct
07-28-2007³00:01:11³Purged 0 items: /mnt/posix/redline/opt/beginfinite/redline/db/cmd
07-28-2007³00:01:11³Purged 0 items: /mnt/posix/redline/opt/beginfinite/redline/db/graphs
07-28-2007³00:01:11³Purge all deleted files done.
07-28-2007³00:01:11³Nightly Database Check finished.
```

You can force this process if you browse to the "Maintenance" tab in the main configuration area and click on the button "Update Index Tables" from the 'Actions' section at the bottom of the page.



Be aware that this can take some time if a new index needs to be created on a large table.

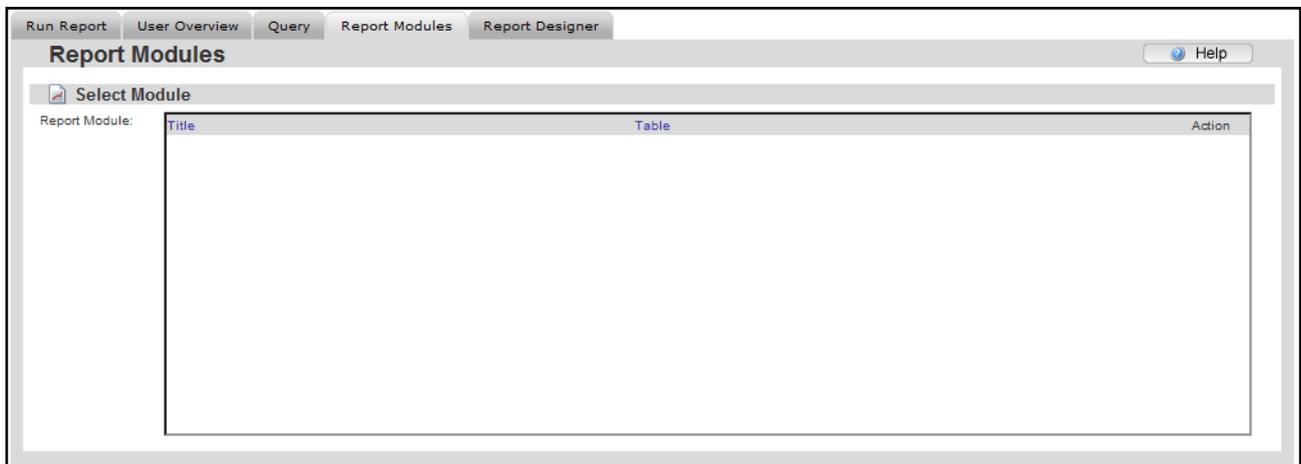


## Report Modules

Report Modules are created by the user; Redline does not come with existing modules to use in custom report creation. Existing report modules saved in this list may be edited and combined to use in report creation to meet any specified criteria or demand. Report modules must be first created before they can be used to create an entirely new report in the Report Designer.

Report Modules are made by creating a database query, modifying, honing, or filtering results, then saving the resulting information into a designated format; query, graph, or table.

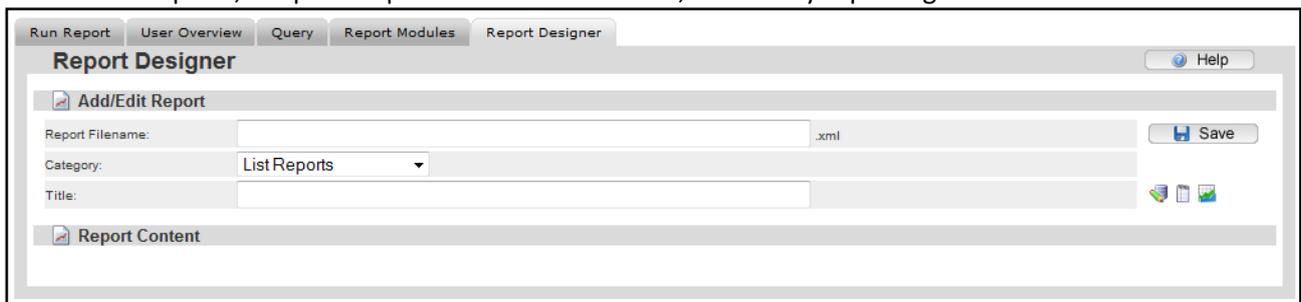
Unless a report module has been saved, this window will remain empty.



Please see the [Custom Report Creation](#) section for examples of use.

## Report Designer

Redline provides the user with the ability to create custom Reports as desired, in either a hybrid collection of different reports, or specific queries on the databases, to suit any reporting needs.



To create a report, a filename and title must be supplied, as well as a category for the designed report: List, Business, Comparison, or Compliance. (The initial information may be changed at any time during report creation.) Each report is a combination of Report Modules placed in a desired order.

To add a saved module to a report, select the appropriate module button. The icons, in order from left to right, are: add text, add table, add chart. Each added field will allow the selection of the appropriate module. If no modules have been saved, no module choices will be offered.

Custom reports are created from a single, or multiple report modules created through the Query process. For more information, examples and specific use, please see the [Custom Report Creation](#) section.

## Scheduler

The report **Scheduler** is accessed through the left-hand navigation pane while the Reports section is selected.

To get a scheduled report run and sent to the desired recipient, the scheduler needs to be configured first. Click on the second tab, the **Configure Scheduler** tab, and input the appropriate information for your system.

The Report sender default is the source server for information loaded in the report, but not sent, in the report email. The default setting is 'home', 127.0.0.1, but for the embedded graphs and tables to work, this section MUST be set to the Redline

Control Center's IP address. If it is desirable to relay the reports, specify the relay server's IP address. If left blank, the system will perform an MX lookup. The Fallback option tells Redline to try an MS lookup if there is a problem with the relay. The browser cleanup option removes all saved embedded graphs and information from the Reload server after the specified amount of days. It is not enabled or set by default as saved reports are system specific. For example, if a system has daily reports, it is not recommended to save a full year of reports for the sheer number, yet monthly reports may need to be saved for a year. Select a setting which works best for the system.

Section	Field	Value
Report sender defaults	Report Server	127.0.0.1
	Report Sender	report@redline.com
Relay Server	Relay Server IP	192.168.1.104
	Relay Server Port	25 (Default: Port 25)
	Fallback	<input checked="" type="checkbox"/> Enabled (Try direct sending when relay server is not available.)
Report Browser Cleanup	Cleanup	<input type="checkbox"/> Enabled
	Delete after	0 Days

After the Scheduler is configured, a regular report job list may be created and scheduled. All List, Compliance and Business reports can be used in the report scheduler. It is possible to schedule a report based on hours, days, weeks and months. If a report supports specifying a date range, it is possible to define what date range the scheduled report should take into account.

Job Name	Report	Start Date/Time	Repeat every	Action
Daily Agents report	ConfigAll.xml	01-10-2011/16:00	24 h	

**Add/Edit Job**

Job Name:

Report:

Start Date (MM-DD-YYYY):  Start Time:

Repeat every:

Data Since:

E-Mail Report to:

Public accessible:

**Job Name:** A unique name for this scheduled report

**Report:** Select the report from one of the predefined list, compliance or business reports.

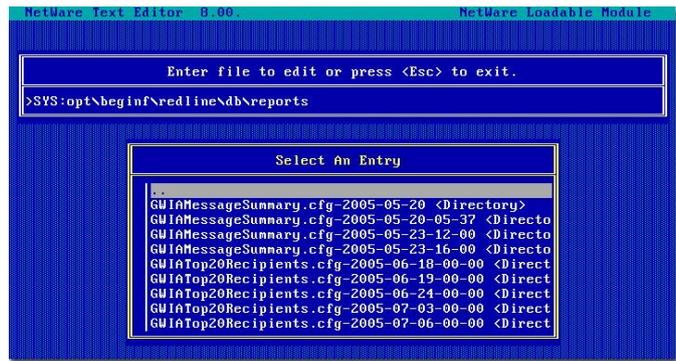
**Start Date/Time:** The time and date when the report runs the very first time

**Repeat every:** The interval when the report will be executed.

**Data since:** The timeframe which will be used for the report to generate tables, graphs etc.

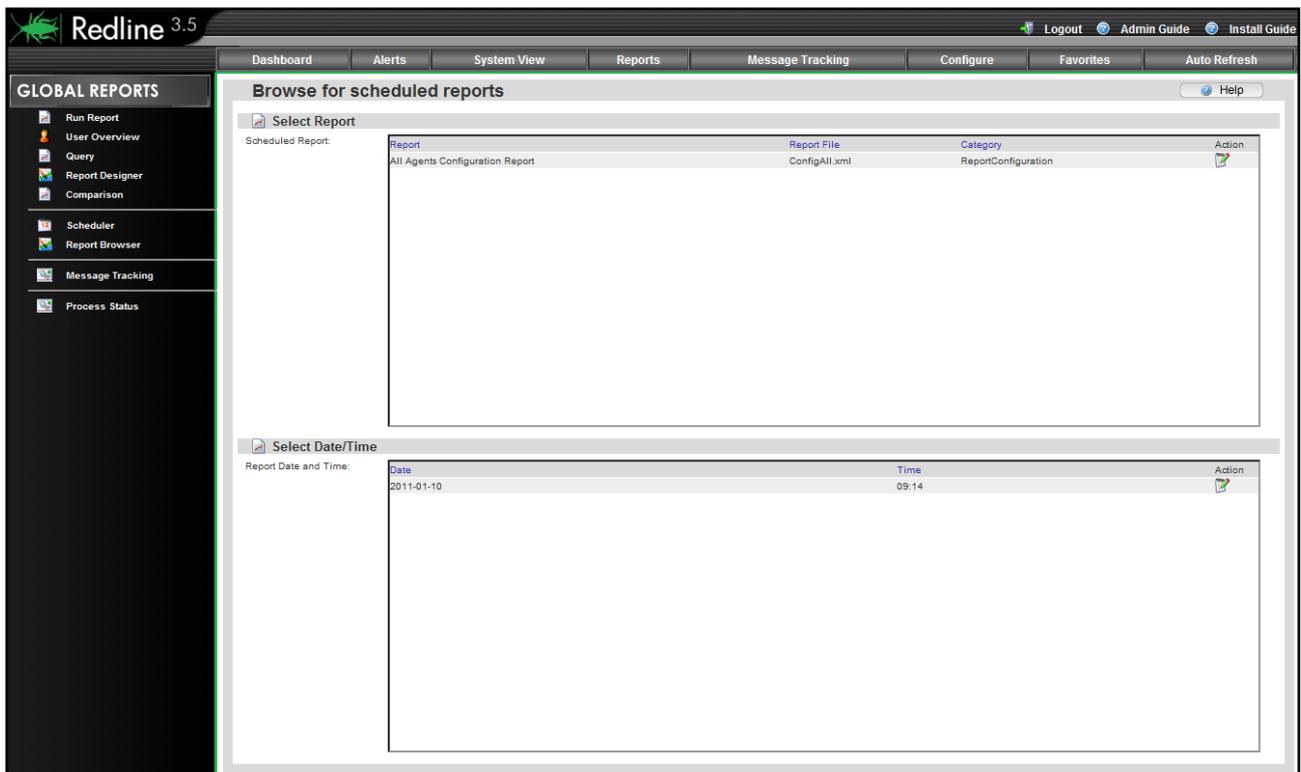
When the scheduler runs, reports are generated automatically then saved to (redline Path)\db\reports directory. I.e.: opt\beginfinite\redline\db\reports.

On NetWare you can browse with the Novell Editor to the report folder. You can view the reports with any html browser like Firefox, Opera, Internet Explorer etc.



## Report Browser

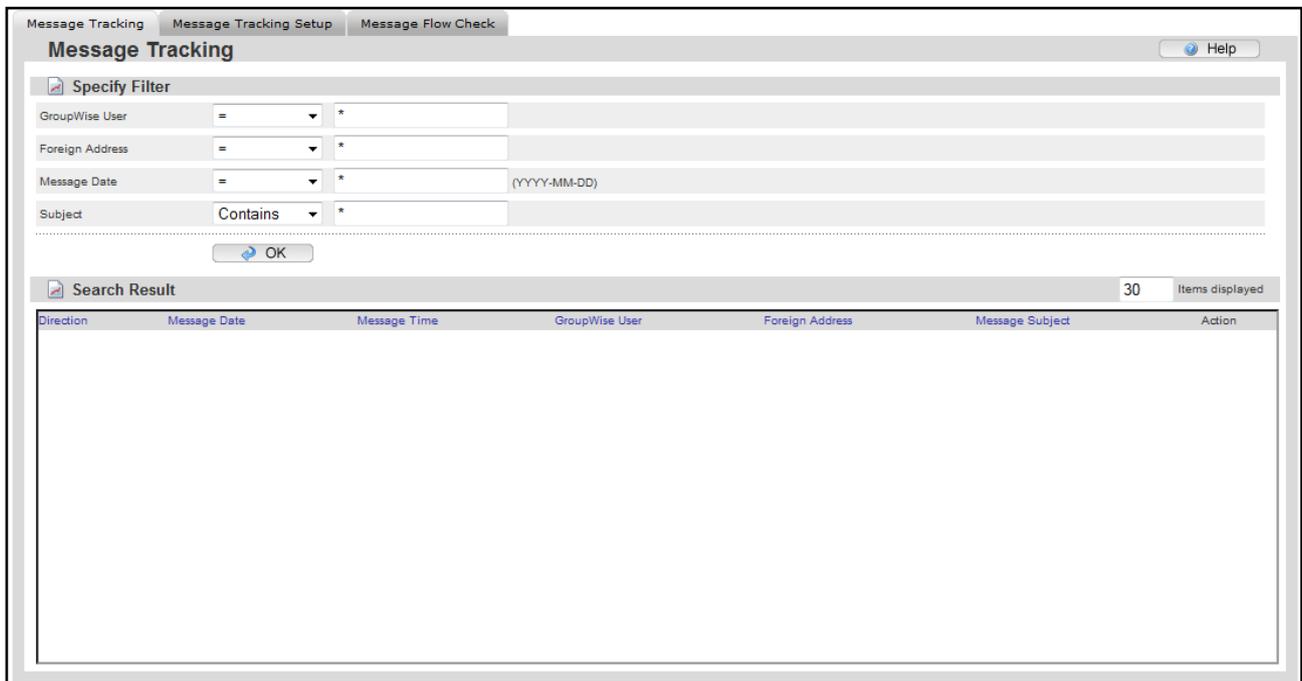
The **Report Browser** lists the current list of scheduled reports, and allows the viewing of each scheduled and run report. Scheduled reports do not need to be emailed to a recipient in order to be viewed; they may be viewed through the report browser at any time as long as they have been run and generated.



To view a scheduled report, select the desired report from the top selection window by selecting the action icon from the far right then choose the specified generated report by date from the bottom selection window. Clicking on the action icon next to the desired report date opens the specified report for viewing. Reports purged from the system by the report expiry date in the Configure Schedule report tab will no longer be available or listed.

## Message Tracking

With Redline Message Tracking it is possible to track every message that is coming in to GroupWise or leaving GroupWise through a gateway like the Internet Agent. From there you can see through which domain(s) and at the end to which post office and user the message was delivered to or sent from. Status messages are tracked as well.



The screenshot shows the 'Message Tracking' section of the Redline interface. It includes a 'Specify Filter' section with the following fields:

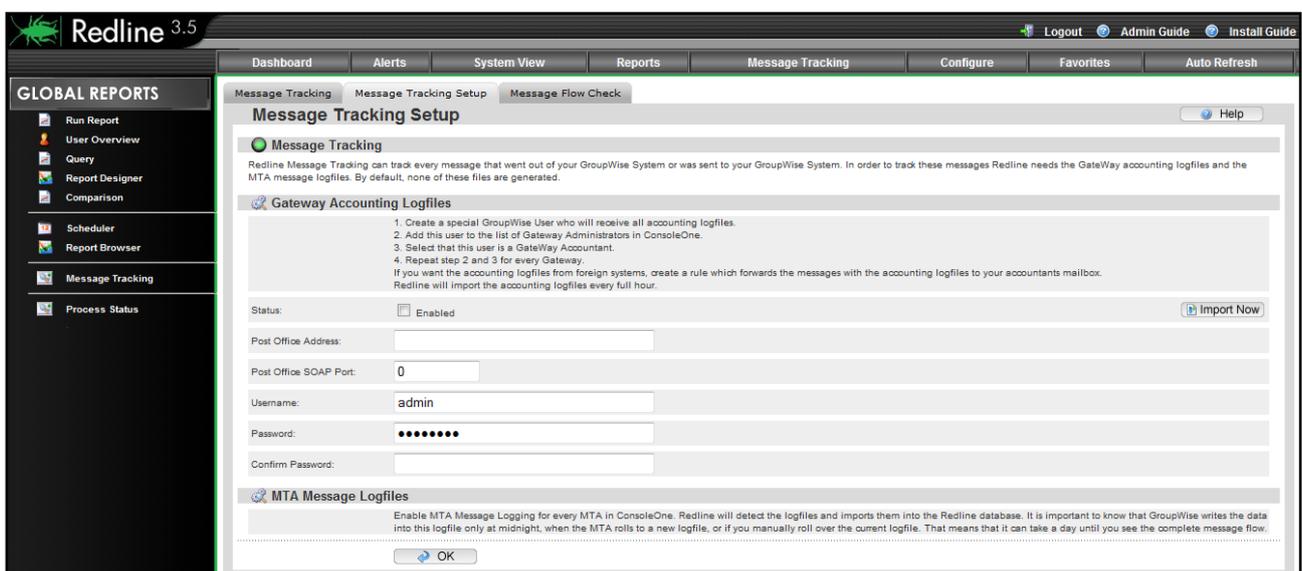
- GroupWise User: [dropdown] = [input] \*
- Foreign Address: [dropdown] = [input] \*
- Message Date: [dropdown] = [input] \* (YYYY-MM-DD)
- Subject: [dropdown] Contains [input] \*

Below the filters is an 'OK' button. The 'Search Result' section shows a table with 30 items displayed. The table headers are: Direction, Message Date, Message Time, GroupWise User, Foreign Address, Message Subject, and Action. The table body is currently empty.

**Before** you can use Message tracking, it is necessary to set up accounting for your gateways and import the accounting log files into Redline.

## Message Tracking Setup

Message tracking works by pulling the audit information from the GWIA and MTA. Redline detects and pulls these log files automatically, but they must first be generated by GroupWise. After accounting has been setup in the GWIA, the appropriate information must be provided: POA address, SOAP port, Audit account, and password. Message tracking will not function unless the setup is set to enabled.



The screenshot shows the 'Message Tracking Setup' section of the Redline interface. It includes a 'Gateway Accounting Logfiles' section with the following instructions:

1. Create a special GroupWise User who will receive all accounting logfiles.
2. Add this user to the list of Gateway Administrators in ConsoleOne.
3. Select that this user is a GateWay Accountant.
4. Repeat step 2 and 3 for every Gateway.

If you want the accounting logfiles from foreign systems, create a rule which forwards the messages with the accounting logfiles to your accountants mailbox. Redline will import the accounting logfiles every full hour.

The 'Status' section has a checkbox for 'Enabled' which is currently unchecked. There is an 'Import Now' button.

The 'Post Office Address' field is empty.

The 'Post Office SOAP Port' field has the value '0'.

The 'Username' field has the value 'admin'.

The 'Password' field is masked with dots.

The 'Confirm Password' field is empty.

Below the setup fields is an 'MTA Message Logfiles' section with the following instructions:

Enable MTA Message Logging for every MTA in ConsoleOne. Redline will detect the logfiles and imports them into the Redline database. It is important to know that GroupWise writes the data into this logfile only at midnight, when the MTA rolls to a new logfile, or if you manually roll over the current logfile. That means that it can take a day until you see the complete message flow.

At the bottom of the setup section is an 'OK' button.

## How to setup accounting for the GroupWise Internet Agent

1. Select the GWIA where you want to setup accounting
2. Click on the Tab “GroupWise“ and the sub tab “Gateway Administrators“
3. Add a user to the GroupWise Admin
4. Check that this user is an accountant for this gateway

After that GroupWise will send accounting messages to this user. Check how large the attachments of these messages can be. If they are larger than 1MB, for example 6MB, you need to specify the /soapsizelimit=8192 in your Post Office startup file. Possible entries for /soapsizelimit are:

- 4096
- 8192
- 16384
- 32768
- 65536

## Automatic import of accounting files into Redline

1. Ensure that accounting import is enabled.
2. Specify the IP address of your Post Office.
3. Specify the SOAP Port of the Post Office.
4. Specify the Username and Password of the User assigned as the Gateway Accountant.

Import Accounting  
files now

Message Tracking Setup

**Message Tracking**

Redline Message Tracking can track every message that went out of your GroupWise System or was sent to your GroupWise System. In order to track these messages Redline needs the GateWay accounting logfiles and the MTA message logfiles. By default, none of these files are generated.

**Gateway Accounting Logfiles**

1. Create a special GroupWise User who will receive all accounting logfiles
2. Add this user to the list of Gateway Administrators in ConsoleOne.
3. Select that this user is a GateWay Accountant.
4. Repeat step 2 and 3 for every Gateway.

If you want the accounting logfiles from foreign systems, create a rule which forwards the messages with the accounting logfiles to your accountant's mailbox. Redline will import the accounting logfiles every full hour.

Status:  Enabled **Import Now**

Post Office Address: 192.168.10.3

Post Office SOAP Port: 7291

Username: juli

Password: \*\*\*\*\*

Confirm Password: \*\*\*\*\*

**MTA Message Logfiles**

Enable MTA Message Logging for every MTA in ConsoleOne. Redline will detect the logfiles and imports them into the Redline database. It is important to know that GroupWise writes the data into this logfile only at midnight, when the MTA rolls to a new logfile, or if you manually roll over the current logfile. That means that it can take a day until you see the complete message flow.

OK

If you want to import all available accounting log files from the specified mailbox, click on the button “Import Now“. After a few moments the log files should be imported.

In order to have message tracking through the domains and to the Post Office, you need to enable the MTA Message Log files for every MTA in your environment. Redline will find and read these log files automatically. After that Message Tracking can be used.

## Track a Message

Browse to Message Tracking and specify some filter. If you don't specify any filter, all messages will be listed if you click on OK.

Specify one or more filter.

Start search

Search Result

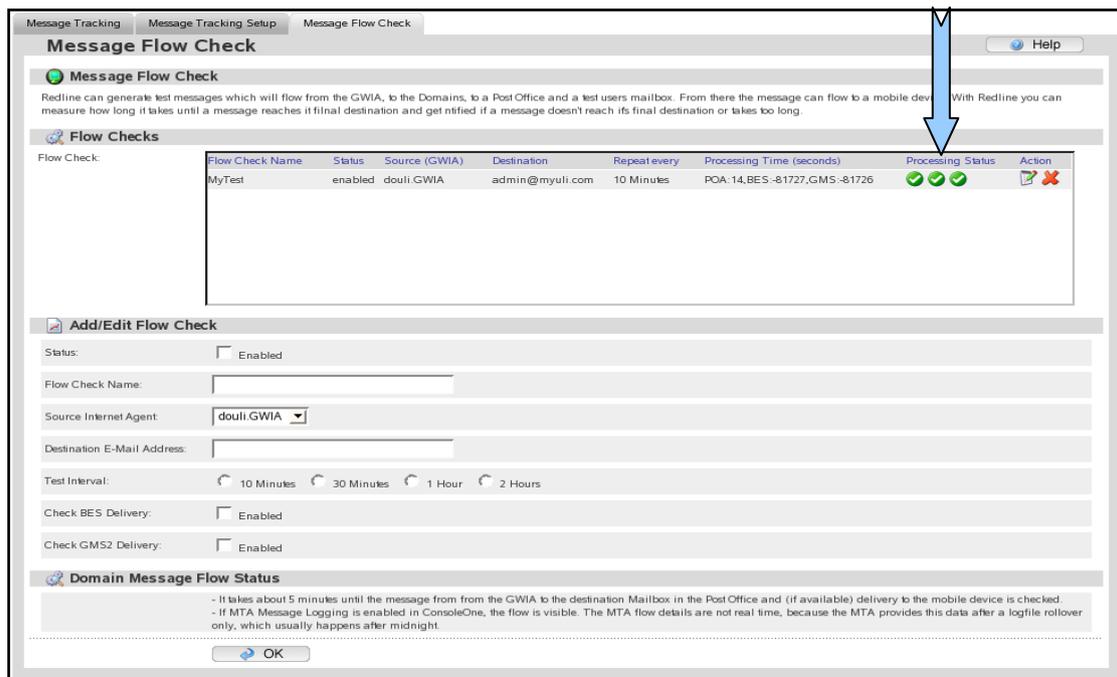
More details

Redline lists 50 messages only, so it is important to specify the correct filter or sorting to find the message you are looking for. If you've found the message, you can click on the "Details" button to see through which Domains the messages was routed and which was the destination or source Post Office and User.

Message Tracking											
<b>Message flow through Gateways:</b>											
Direction	Message Date	Message Time	GroupWise User	Foreign Address	Message Subject						
Incoming	2007-06-14	13:20:01	uli	redline@myuli.com	Alert: (4)-POULI.DOULI->BackToN						
<b>Message flow through Domains:</b>											
Agent Name	Message Date	Time Received	Time Delivered	Message Type	Message Size	Source Agent	Dest Agent	Sender Name	Sender Domain	Total Recipients	Agent Recipients
douli	2007-06-14	15:20:02	15:20:11	Message	10284	GWIA	douli.pouli	redline	myuli.com	1	1

## Message Flow Check

Redline monitors message flow by creating a test message and sending it through the system via a relay. The test message never is external to the system. Redline monitors the time that the Message is accepted by the GWIA, by monitoring the GWIA log file, and then checks the time that the message makes it through the POA, by monitoring the POA log file. Through comparison of these two times, Redline will know if the message takes more than the allotted time, (default is 20 seconds), to move through the system, and will generate an alert if the system is slow or unresponsive. The allotted time for this test is specified in the *Post Office Threshold* called *Message Flow Processing Time*. This test is performed according to the interval specified. From the Post Office, the message can flow to a BlackBerry device, with the help of the BlackBerry Enterprise Server, or to another mobile device through a GroupWise Mobile Server.



The screenshot displays the 'Message Flow Check' configuration window. At the top, there are tabs for 'Message Tracking', 'Message Tracking Setup', and 'Message Flow Check'. Below the title bar, there is a 'Help' button. The main content area is divided into several sections:

- Message Flow Check:** A descriptive paragraph explaining the functionality.
- Flow Checks:** A table listing existing flow checks. A blue arrow points to the 'Processing Status' column.
- Add/Edit Flow Check:** A form for configuring a new flow check.
- Domain Message Flow Status:** A section providing additional information about the status of message flow.

Flow Check Name	Status	Source (GWIA)	Destination	Repeat every	Processing Time (seconds)	Processing Status	Action
MyTest	enabled	douli.GWIA	admin@myutil.com	10 Minutes	POA:14,BES:-81727,GMS:-81726	✓✓✓	✕

**Add/Edit Flow Check**

Status:  Enabled

Flow Check Name:

Source Internet Agent:

Destination E-Mail Address:

Test Interval:  10 Minutes  30 Minutes  1 Hour  2 Hours

Check BES Delivery:  Enabled

Check GMS2 Delivery:  Enabled

**Domain Message Flow Status**

- It takes about 5 minutes until the message from from the GWIA to the destination Mailbox in the Post Office and (if available) delivery to the mobile device is checked.  
- If MTA Message Logging is enabled in ConsoleOne, the flow is visible. The MTA flow details are not real time, because the MTA provides this data after a logfile rollover only, which usually happens after midnight.

OK

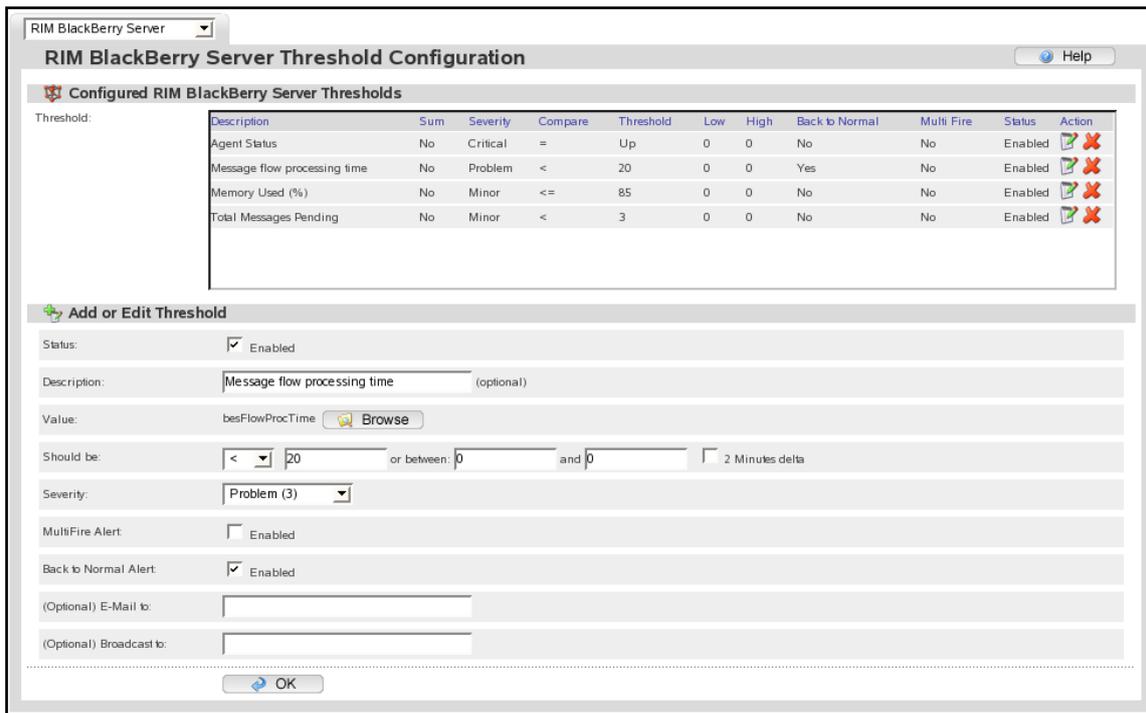
Status of Message Flow

In order to test message delivery to a BlackBerry device, it is possible to set up a virtual device which is connected to the BlackBerry server. The BlackBerry server doesn't see any difference between the virtual device and a real device. For more information about setting up a BlackBerry Enterprise Server and a Virtual Device, check out the Documentation of your BlackBerry Enterprise Server.

## How to set up message flow check

1. Specify a Name for the flow check.
2. Select the Internet Agent where the message starts.
3. Specify a username who will receive the message.
4. Specify the interval how often a message will be sent.
5. Check if delivery to a mobile device should be checked.
6. Create a rule in the destination mailbox, that incoming messages will be deleted automatically.

If a message couldn't be delivered in 30 seconds, an alert is generated. The time until a message needs to be delivered can be configured based on a threshold called "Message Flow processing time". This threshold exists for the Post Office agents and the GroupWise Mobile Server as well. (Found under configured thresholds for each agent. I.e. **System View** | <desired agent> | **Configure** tab, thresholds section.)

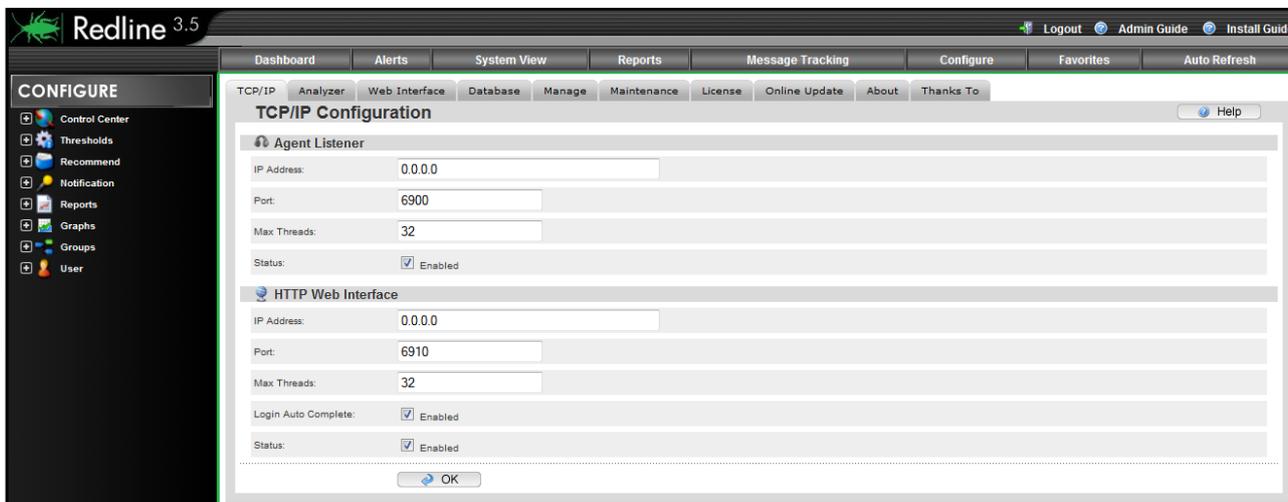


## Configure

The Configure section provides base configuration for the entire Redline system. (Configuration of individual agents, graphs, and sections are found in the individual agent's configure tab.) The different tabs listed under configuration deal with system-wide control and general information.

## TCP/IP

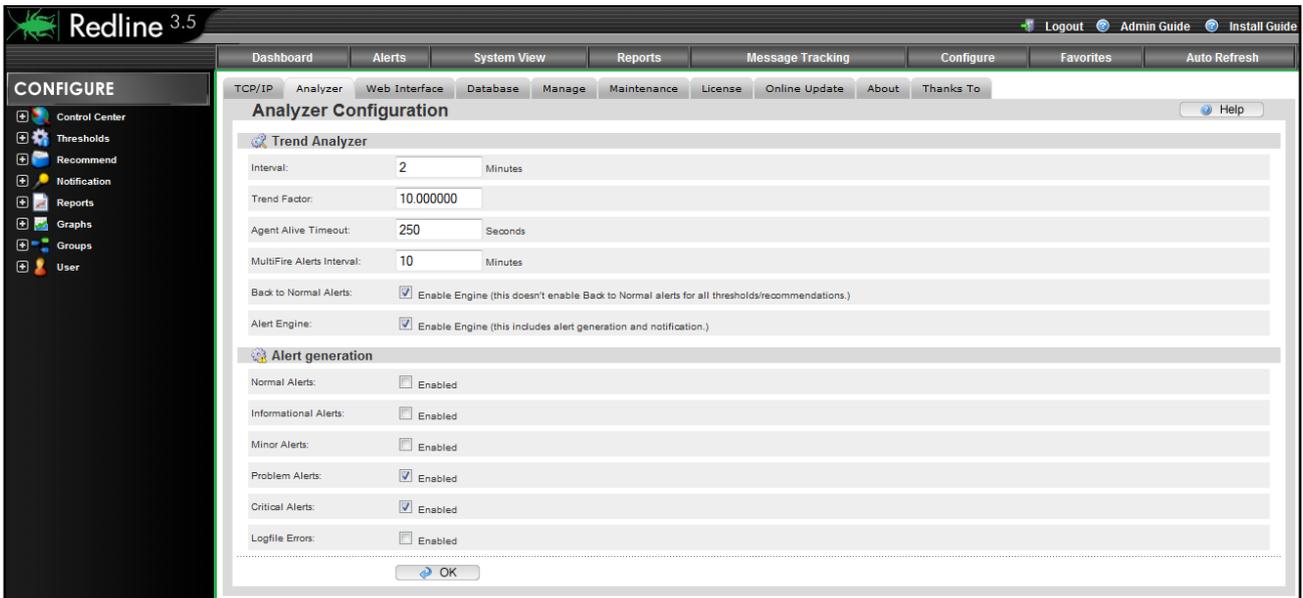
The IP address which the Redline Control Center is bound to, what port it listens on, and how many listening threads is controlled through this tab, for agent and web interface connections. These settings are usually not modified.



By default, the address settings are all 0.0.0.0. If multiple addresses and interfaces are present on the host server and a single address is desired, or perhaps a different port, this is where it is specified. After any changes have been made, clicking 'OK' saves changed settings.

## Analyzer

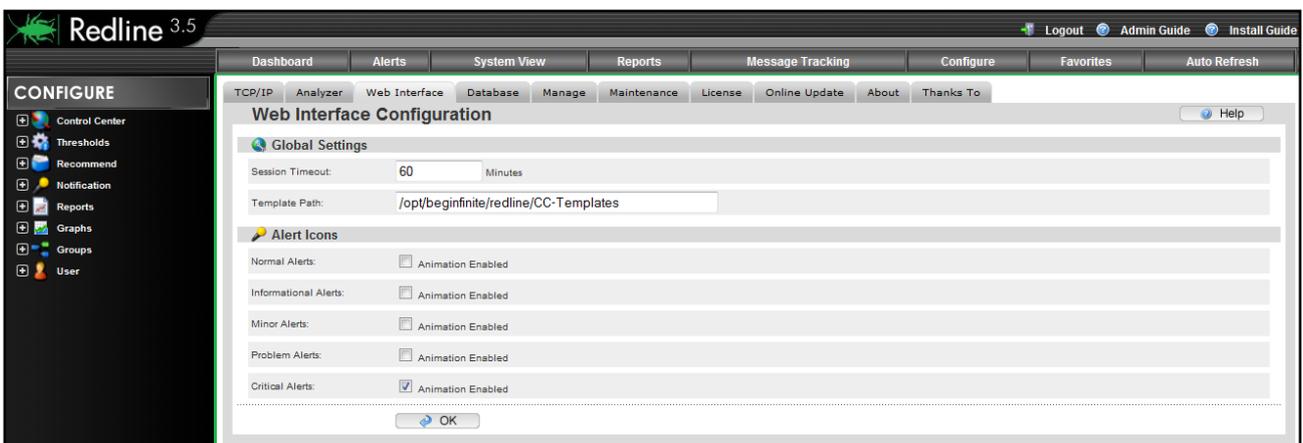
Part of the core of the Redline system is the analyzer. The analyzer settings control the module of Redline which analyzes and interprets the incoming data from registered agents. Changing settings here modifies how notifications and alerts through the system are defined and triggered. For instance, if a lower trend setting is desired in order to notice smaller bumps and dips in traffic, activity, or inactivity.



Select the 'help' informational button for individual breakout and explanation of different settings. Default settings are shown.

## Web Interface

While the TCP/IP tab enabled the web interface and controlled the connection listening address and threads, the Web Interface tab controls the behavior of the web interface itself; session timeout, templates, and the animation of alert icons. The template path is for customizing the web interface, and is usually left at default. Do not change it unless sure of operation.



## Database

Access to information about, and cleaning and re-indexing of the Redline database is provided here. In certain large environments, the Redline database may become slow or bogged down when used to generate reports. If a report is taking an inordinately long time in generation, it may be necessary to clean and index the database tables sourced in the report. This does become critical in large systems.

Different tables are listed, and may be sorted simply by clicking on the headings. Sorting the databases by heading may be done in ascending or descending order simply by clicking on the heading name a second time. Once the desired table has been located, it may be selected for cleaning and indexing by clicking on the action icon.

The screenshot displays the Redline 3.5 web interface. The main content area is titled 'SQL Database Configuration'. It features a 'Database Vacuum' section with a checkbox for 'Enabled', a 'Day' dropdown set to 'Friday', and an 'Hour' dropdown set to '04:00'. Below this is a 'Database Tables' section containing a table with columns for Description, Table Name, DB File, Max Age, Max Records, and five Indexes (Index 1 to Index 5), along with an Action column. The table lists various database tables such as 'Agent UP-DOWN Events', 'Archive To Go Audit', 'BlackBerry User', etc. Below the table is an 'Edit Database Cleanup and Indexing' section with fields for 'Table Name', 'Database File', 'Max Records', 'Max Age' (in Days), and five 'Index' checkboxes, each with a dropdown menu.

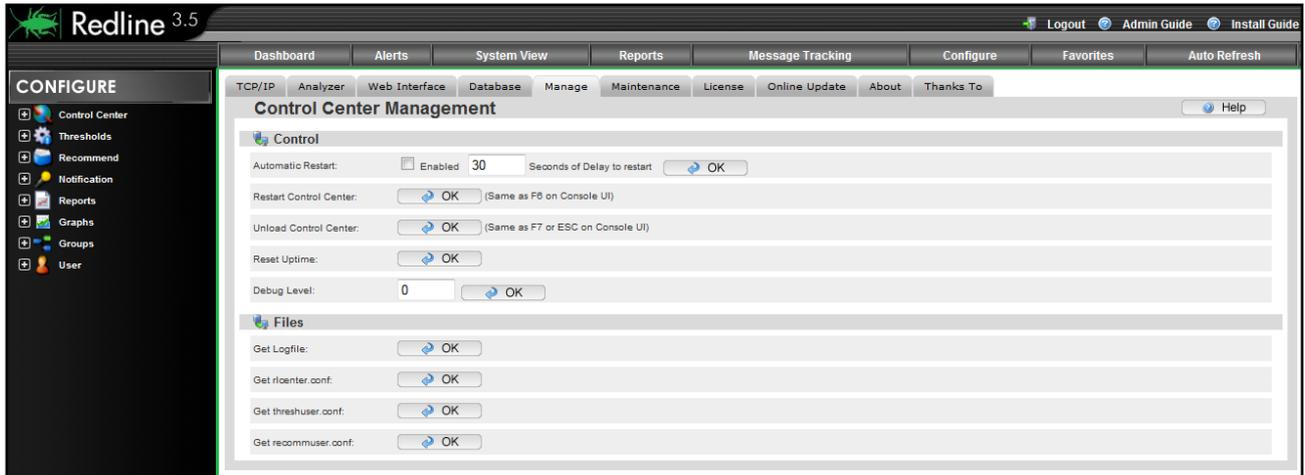
Description	Table Name	DB File	Max Age	Max Records	Index 1	Index 2	Index 3	Index 4	Index 5	Action
Agent UP-DOWN Events	aguptime	global.db	0	0	evdate	evtime				[Action Icon]
Archive To Go Audit	a2go_audit	a2go.db	0	0						[Action Icon]
Archive To Go Audit Log	a2go_audit_log	a2go.db	0	0						[Action Icon]
BlackBerry User	besuser	besuser.db	0	0						[Action Icon]
BlackBerry Messages	besmsgs	besmsgs.db	0	0						[Action Icon]
Error Messages (GW Mobile Server)	gwmerrors	gwmoberr.db	0	0						[Action Icon]
Error Messages (POA)	errors	alerts.db	90	0	User	ErrorDate	ErrorTime	AgentName		[Action Icon]
Gateway Accounting	accounting	acct.db	90	0	MsgSubject	GWUserID	MsgDate			[Action Icon]
GroupWise Agents Configured	gwapents	gwapents.db								[Action Icon]
GroupWise Connections	gwconn	global.db			LoginName	pcName				[Action Icon]
GroupWise User	gruser	global.db			Name	pcName				[Action Icon]
GWAVA 3 MTA Scans	gwavamta	gwavamsgs.db	90	0	ScanStartDate	ScanStartTime				[Action Icon]
GW Mobile Server Events	gwmobevents	gwmobile.db	0	0						[Action Icon]

Once selected, a table's information is loaded into the cleanup and indexing section; where default cleaning options are propagated. If further cleaning of additional index tables is desired, enable an open index option and use the dropdown menu to select the desired index to clean. Click 'OK' to begin cleaning.

The cleaning of the database is not needed on a regular basis unless the report generation begins to lag. Standard maintenance will take care of normal or smaller sized systems. See the maintenance section for details.

## Manage

Control Center Management shows settings for the log levels, basic control of the Control Center, (loading, reloading, unloading, and automatic reset), and access through the web interface to the configuration files.



Automatic restart of the Control Center should not be used unless in coordination with Support as part of a troubleshooting measure. Restart of the Control Center is helpful if the configuration has changed and a re-load of the Control Center is desired. Unloading the Control Center will shut down Redline.

The Debug Level determines the amount of information in the log file. Acceptable settings are 0 - 6. (Additional levels are available to Support, but should not be attempted without support's instruction.) Default is '2', and all practical use in a production environment are the settings: 0, 2, 6. A setting of '6' is for debugging purposes, '2' is for normal work, and '0' is minimalist. Selecting 'OK' saves changes or begins the indicated action.

## Maintenance

The Maintenance tab grants access to the basic cleaning and up-keep operations that maintain the speed and usability of the Redline system and interface. Maintenance runs nightly, and should not need to be triggered manually unless the Redline Control Center was not running at the specified maintenance time.

Most of these settings do not need to be modified from default, but can be adjusted to suit the particular needs of every system.

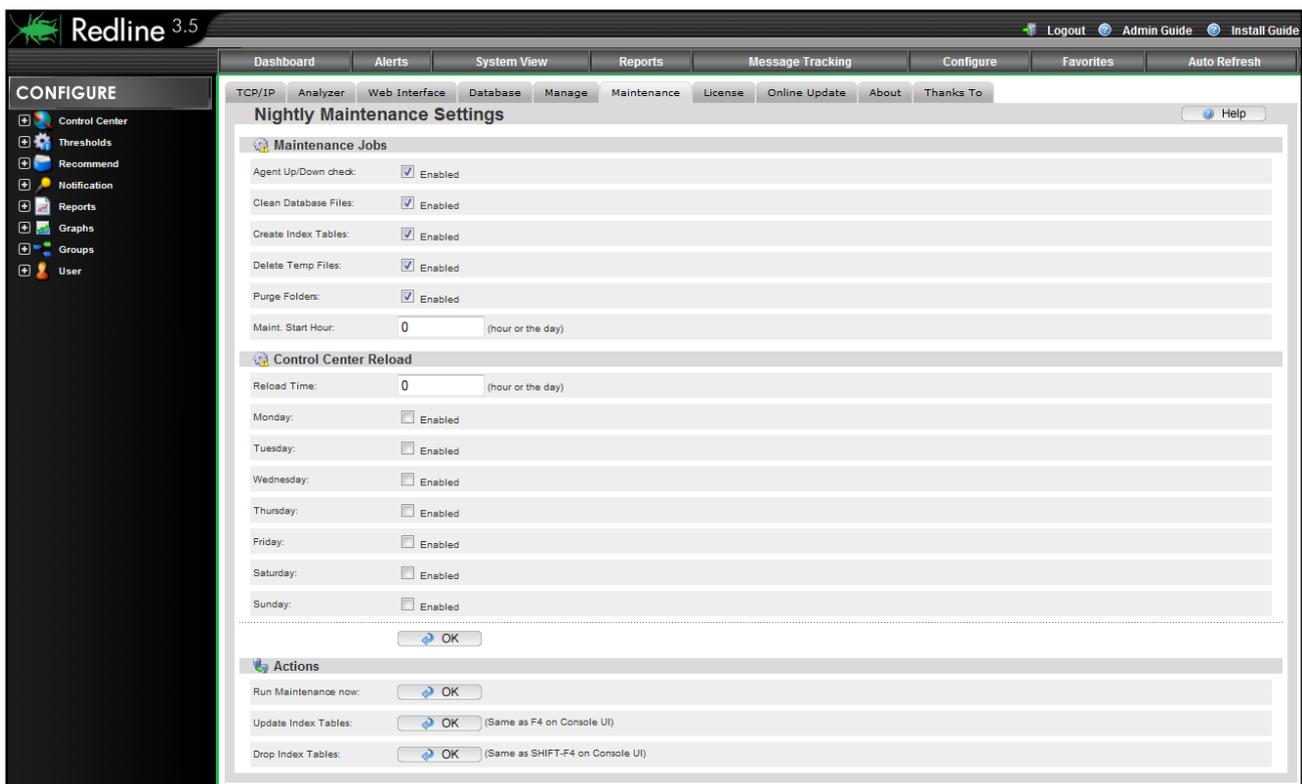
Nightly maintenance jobs include: checking the availability of the agents, cleaning the database files and index tables, deleting temporary files, and purging folders. These steps are usually enough to keep Redline from becoming bloated or bogged-down in all but the largest system implementations. If more than usual maintenance is needed, maintenance can be triggered immediately from this page, or targeted cleaning of specific tables in the database maybe completed through the Manage tab.

Nightly maintenance may be configured to exclude or include specific parts of the default procedures. To enable or disable the procedures, place or remove a check in the appropriate 'Enabled' checkbox for the desired procedure.

The maintenance start time is set in a 24-hour clock, and is a time-sensitive event that does not queue. If the Redline Control Center is not running at the specified maintenance time, the maintenance job will not be run until the next maintenance cycle. If the default time of '0' is not an appropriate time to have the maintenance cycle run, select an appropriate time when system load is low and no reports or other system maintenance which might interfere is scheduled.

Changed settings must be saved **before** maintenance is manually triggered. click the 'OK' button above the Actions menu to save changes before triggering manual maintenance or browsing away from the page, or the changes will not be implemented.

If the host server needs to be shutdown during the set maintenance time, manually triggering a maintenance cycle will become necessary, especially if the shutdown is routine.



The Control Center may be set to automatically reload itself, restart, at a specific hour and day. This is also not a normally necessary procedure, but may be necessary for specific host server needs. It is recommended to only use the Control Center Reload function under instruction from Support.

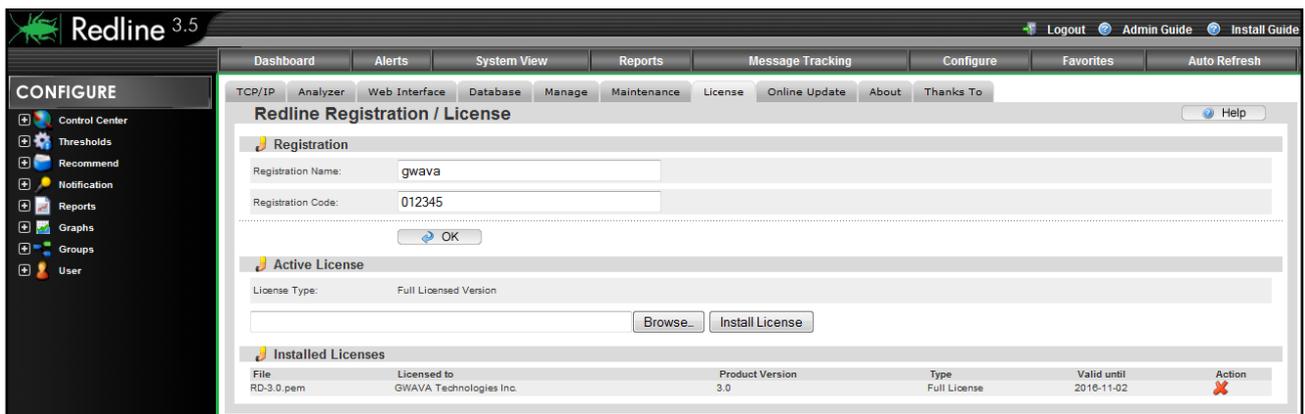
The Actions menu allows for the manual triggering of a maintenance job, as well as specific maintenance jobs not regularly scheduled. Redline can become bogged with information in the database which is no longer current, or pertinent information to the system. Dropping index tables and updating index tables will clean out the system and allow Redline to pull all new information into the system. However; these actions will not be beneficial and may cause harm if the information removed from the system will simply be repopulated back in by monitored agents. This should ONLY be used under the advisement of Support, and if the system becomes bloated or the DB becomes stuck.

## License

The Redline registration name, code, and license files are controlled and listed here. The Registration name and code are used for verification and as a data encryption key for communication between Redline Agents and the Control Center. The registration name and code must be manually specified in the configuration file for each Redline Agent. Changing the registration information would prohibit any agent from connecting to the Control Center until each agent's configuration file had been modified to reflect the new information.

After initial setup, do not change the registration code or name unless absolutely necessary to avoid connection problems. If changed, the registration code and name must be manually modified for each Redline Agent.

The registration information does not need to be anything in particular and is not connected to the license file; it may be anything desired. Though the registration code is recommended to be a mixture of numbers and letters, for security reasons.



Installed licenses are listed along with their expiration date and type. Licenses may be added or removed from this location.

To obtain a license contact the GWAVA sales representative in your area, or visit <https://licenses.gwava.com/> to use a Validation key and claim a license for your system and find contact information for sales representatives in your area.

## Online Update

The Online Update system connects to either the GWAVA download server or a specified server and checks for updated software. The **current version** the system is running and the **available versions** for download and update are listed. New updates are listed in black while downloaded updates are grayed out.

The screenshot displays the Redline 3.5 Online Update interface. The top navigation bar includes Dashboard, Alerts, System View, Reports, Message Tracking, Configure, Favorites, and Auto Refresh. The left sidebar shows the CONFIGURE menu with options like Control Center, Thresholds, Recommend, Notification, Reports, Graphs, Groups, and User. The main content area is titled 'Online Update' and shows the current version as 'Running Version 3.5.0 (Build 1003)'. Below this, the 'Update Server' section shows the 'Server Location' set to 'download.gwava.com' with 'Refresh' and 'Default' buttons. The 'Packages Available for Download' table lists various components with their current version (3.5.0, build 1003) and release date (2010-12-17). The 'Downloaded Control Center Packages' table shows that these packages are currently 'Not available'. A note indicates that the Control Center will be restarted after updates. There are 'Update Now' buttons for both sections.

Package	Version	Release Date	Update Details
<input type="checkbox"/> Control Center Binaries	3.5.0, build 1003	2010-12-17	<a href="#">↓</a>
<input type="checkbox"/> Web Interface	3.5.0, build 1003	2010-12-17	<a href="#">↓</a>
<input type="checkbox"/> Reports	3.5.0, build 1003	2010-12-17	<a href="#">↓</a>
<input type="checkbox"/> Schema	3.5.0, build 1003	2010-12-17	<a href="#">↓</a>
<input type="checkbox"/> Help/Knowledgebase	3.5.0, build 1003	2010-12-17	<a href="#">↓</a>
<input type="checkbox"/> Data Definitions	3.5.0, build 1003	2010-12-17	<a href="#">↓</a>
<input type="checkbox"/> Linux Agent (32Bit SLES)	3.5.0, build 1003	2010-12-17	<a href="#">↓</a>
<input type="checkbox"/> Linux Agent (64Bit SLES)	3.5.0, build 1003	2010-12-17	<a href="#">↓</a>
<input type="checkbox"/> NetWare Agent	3.5.0, build 1003	2010-12-17	<a href="#">↓</a>
<input type="checkbox"/> Windows Agent (32Bit)	3.5.0, build 1003	2010-12-17	<a href="#">↓</a>
<input type="checkbox"/> Windows Agent (64Bit)	3.5.0, build 1003	2010-12-17	<a href="#">↓</a>

Package	Version	Release Date	Download Date	Update History
<input type="checkbox"/> Control Center Binaries	Not available	Not available	Not available	<a href="#">↓</a>
<input type="checkbox"/> Web Interface	Not available	Not available	Not available	<a href="#">↓</a>
<input type="checkbox"/> Reports	Not available	Not available	Not available	<a href="#">↓</a>
<input type="checkbox"/> Schema	Not available	Not available	Not available	<a href="#">↓</a>
<input type="checkbox"/> Knowledgebase / Help	Not available	Not available	Not available	<a href="#">↓</a>
<input type="checkbox"/> Data Definitions	Not available	Not available	Not available	<a href="#">↓</a>

Package	Version	Release Date	Download Date	Update History
<input type="checkbox"/> Linux Agent (32Bit SLES)	Not available	Not available	Not available	<a href="#">↓</a>
<input type="checkbox"/> Linux Agent (64Bit SLES)	Not available	Not available	Not available	<a href="#">↓</a>
<input type="checkbox"/> NetWare Agent	Not available	Not available	Not available	<a href="#">↓</a>
<input type="checkbox"/> Windows Agent (32Bit)	Not available	Not available	Not available	<a href="#">↓</a>
<input type="checkbox"/> Windows Agent (64Bit)	Not available	Not available	Not available	<a href="#">↓</a>

Before packages can be installed, they must be downloaded from the download server. The default download server points to the official GWAVA download server, and will carry the appropriate available version. If a separate server is required or desired for download, it may be specified in the 'Server Location' option. After specifying the new download server, click 'Refresh' to check for available versions. Clicking the 'Default' button will return the download server to the GWAVA default.

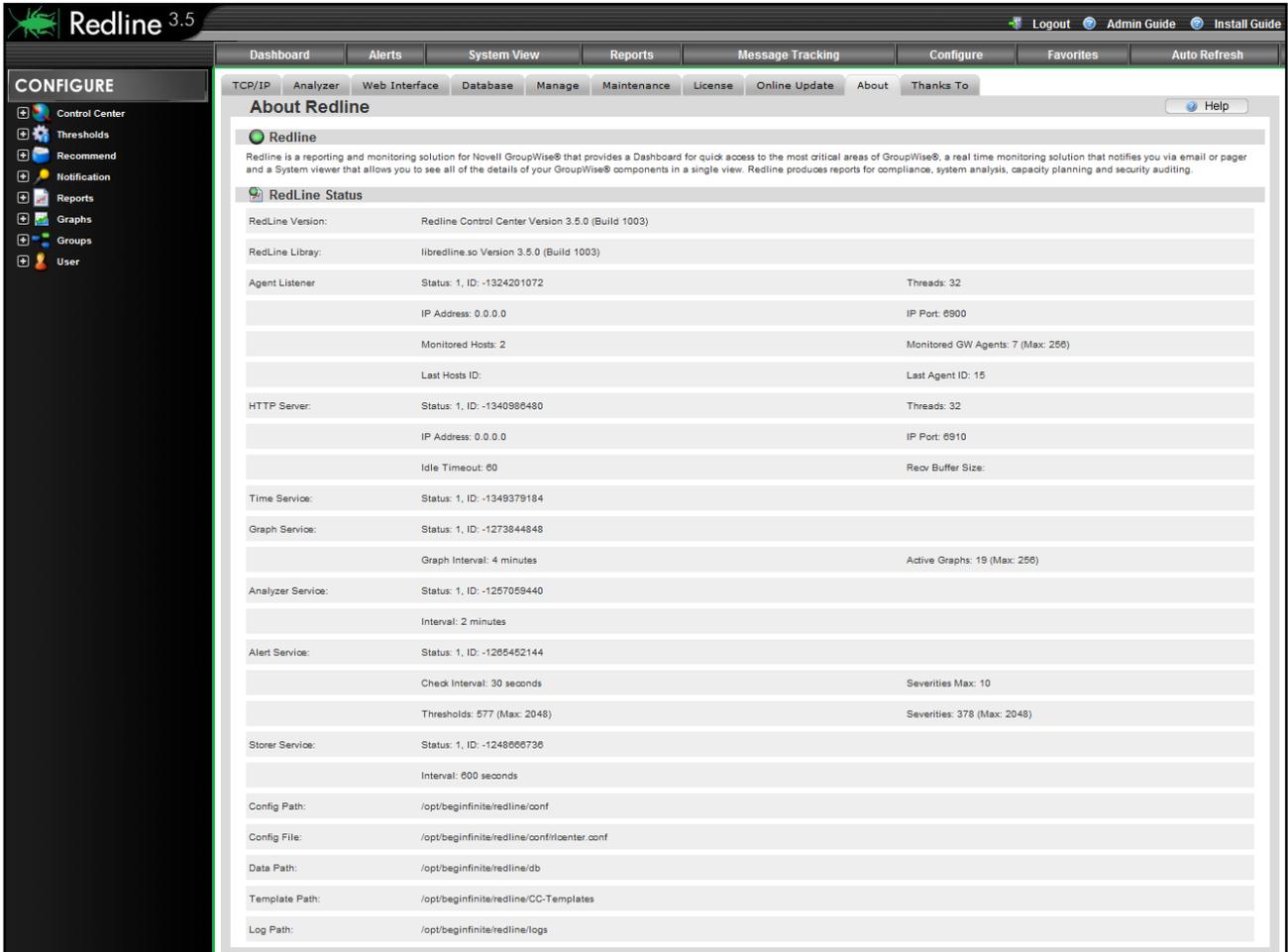
*The Control Center must always be updated first.* Select the appropriate, desired, or globally select the packages for download from the top, packages available, section, then select 'OK' to have the system automatically connect and download the specified version. After the packages have been downloaded to the Control Center, they are then available to be installed by the system. Select, either globally or separately, the desired systems to update, and then click on the 'Update Now' button to update the specified modules. Any update to the Control Center requires the Control Center to restart. After clicking the 'Update Now' button, allow sufficient time for the system to restart before attempting to login.

For Agents, the update is a little different, as the agents must connect to the Control Center and copy the appropriate binary package for each platform. Agents do not maintain constant contact with the Control Center, and as such, the update may not be immediate. The default contact cycle for the Agents is every 2 minutes, and as such, several minutes may pass before the system is updated. Agents copy the new binary down, install it, and then restart and reconnect with the Control Center.

The update history information icon will provide further details about the updates offered.

## About

The 'About' page contains information on the running versions, server contact information analyzer information, working threads, etc... Because of the wealth of information on the server displayed on this page, the About page is an excellent quick-glance to find configuration information on multiple systems at a glance. The About page is purely informational and each system is configured through its respective page.



**Redline**

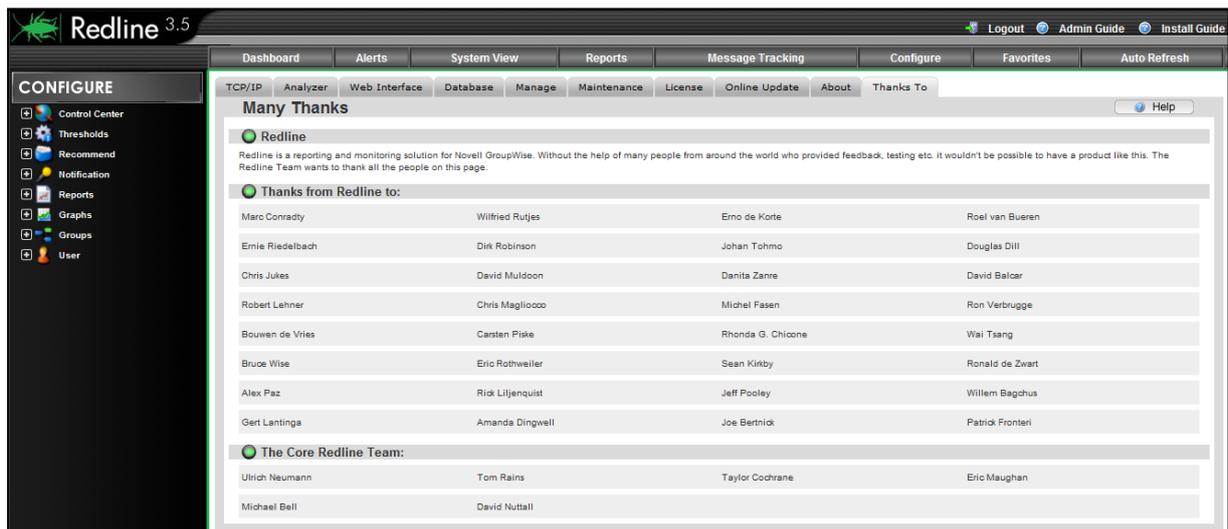
Redline is a reporting and monitoring solution for Novell GroupWise® that provides a Dashboard for quick access to the most critical areas of GroupWise®, a real time monitoring solution that notifies you via email or pager and a System viewer that allows you to see all of the details of your GroupWise® components in a single view. Redline produces reports for compliance, system analysis, capacity planning and security auditing.

**RedLine Status**

RedLine Version:	Redline Control Center Version 3.5.0 (Build 1003)		
RedLine Library:	libredline.so Version 3.5.0 (Build 1003)		
Agent Listener	Status: 1, ID: -13424201072	Threads: 32	
	IP Address: 0.0.0.0	IP Port: 6900	
	Monitored Hosts: 2	Monitored GW Agents: 7 (Max: 256)	
	Last Hosts ID:	Last Agent ID: 15	
HTTP Server:	Status: 1, ID: -1340986480	Threads: 32	
	IP Address: 0.0.0.0	IP Port: 6910	
	Idle Timeout: 60	Recv Buffer Size:	
Time Service:	Status: 1, ID: -1349379184		
Graph Service:	Status: 1, ID: -1273844848		
	Graph Interval: 4 minutes	Active Graphs: 19 (Max: 256)	
Analyzer Service:	Status: 1, ID: -1257059440		
	Interval: 2 minutes		
Alert Service:	Status: 1, ID: -1265452144		
	Check Interval: 30 seconds	Severities Max: 10	
	Thresholds: 577 (Max: 2048)	Severities: 378 (Max: 2048)	
Storer Service:	Status: 1, ID: -1248666736		
	Interval: 600 seconds		
Config Path:	/opt/beginfinite/redline/conf		
Config File:	/opt/beginfinite/redline/conf/loenter.conf		
Data Path:	/opt/beginfinite/redline/db		
Template Path:	/opt/beginfinite/redline/CC-Templates		
Log Path:	/opt/beginfinite/redline/logs		

## Thanks To

Acknowledgments page.



**Many Thanks**

Redline is a reporting and monitoring solution for Novell GroupWise. Without the help of many people from around the world who provided feedback, testing etc. it wouldn't be possible to have a product like this. The Redline Team wants to thank all the people on this page.

**Thanks from Redline to:**

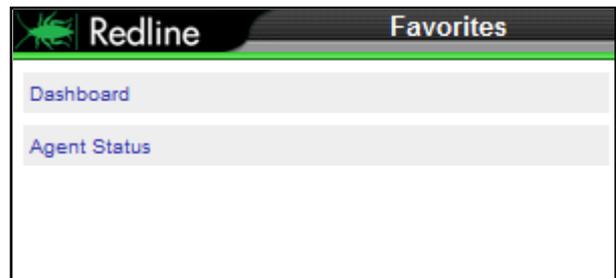
Marc Conrady	Wilfried Rutjes	Erno de Korte	Roel van Bueren
Ernie Riedelbach	Dirk Robinson	Johan Tahmo	Douglas Dill
Chris Jukes	David Muldoon	Danits Zanne	David Balcar
Robert Lehner	Chris Magliocco	Michel Fassen	Ron Verbrugge
Bouwen de Vries	Carsten Piske	Rhonda G. Chicoane	Wai Tsang
Bruce Wise	Eric Rothweiler	Sean Kirkby	Ronald de Zwart
Alex Paz	Rick Lijjenquist	Jeff Pooley	Willem Bagdus
Gert Lantinga	Amanda Dingwell	Joe Bertrick	Patrick Frontieri

**The Core Redline Team:**

Ulrich Neumann	Tom Rains	Taylor Cochrane	Eric Maughan
Michael Bell	David Nuttall		

## Favorites

The Favorites menu button provides quick links to access the most frequently visited pages in the system. It is provided as a convenience. Redline maintains a separate favorites page for each individual user.



## Auto Refresh

Redline can automatically refresh the main page for status and general update of system information on the selected interval. This allows the Dashboard to be left up on the desktop and maintain updated information on the system statistics and trends. As each agent updates every 2 minutes by default, the '2 minutes' option makes the most sense, yet agents may be set for higher refresh rates.



# Application

## How to configure Agents and Agent settings

### How to configure a new agent specific threshold or recommendation

1. We want to make sure that for one Internet Agent the number of items in the GWHOLD queue doesn't exceed more than 30 items.
2. Browse to System View and select an Internet Agent of your choice.
3. Click on the "Configure" tab.
4. Select the value "GWHOLD Queue".
5. Click the status enabled checkbox
6. Specify the threshold "Should be" "<=" "30".
7. Set the severity to Minor
8. We want the alert to solve itself as soon as the hold queue has less or equal 30 items.. Check "Back to Normal Alert".
9. Click OK to save the new threshold.

Recommendations are defined in the exact same way as thresholds, and located on the same page, directly below the threshold configuration area.

Description	Sum	Severity	Compare	Recommendations	Low	High	Back to Normal	Multi Fire	Status	Action
CAP Threads	No	Normal	>=	4	0	0	No	No	Enabled	

**Add or Edit Recommendation**

Status:  Enabled

Description: CAP Threads (optional)

Value: gwiaCAPThreads

Should be:  2 Minutes delta

Severity:

MultiFire Alert:  Enabled

Back to Normal Alert:  Enabled

(Optional) E-Mail to:

(Optional) Broadcast to:

Defining agent specific graphs is very helpful in large environments. It avoids the generation of many unnecessary images, if a graph is only needed for one specific agent. Other than being agent specific, defining an agent specific graph is exactly the same as the global graph configuration.

Title	Value 1	Value 2	Data Type	Current Value	per Agent	Dashboard Graph	Dashboard RPM	Status	Action
CAP Threads	gwiaCAPThreads	-	Absolute	right	Yes	No	No	Enabled	

**Add or Edit Graph**

Status:  Enabled

Title: CAP Threads

Value: gwiaCAPThreads

Second Value: -

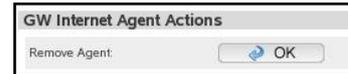
Timeframe:  Day  Week  Month  Year

Type:  Relative  Absolute

Direction: Current Value is on  left  right side of the graph

Specials:  Average  Peak High  Peak Low  Total

Sometimes it is necessary to remove an agent from Redline. At the bottom of the manage page for each agent is a button which will remove that agent from the list of active monitored components.

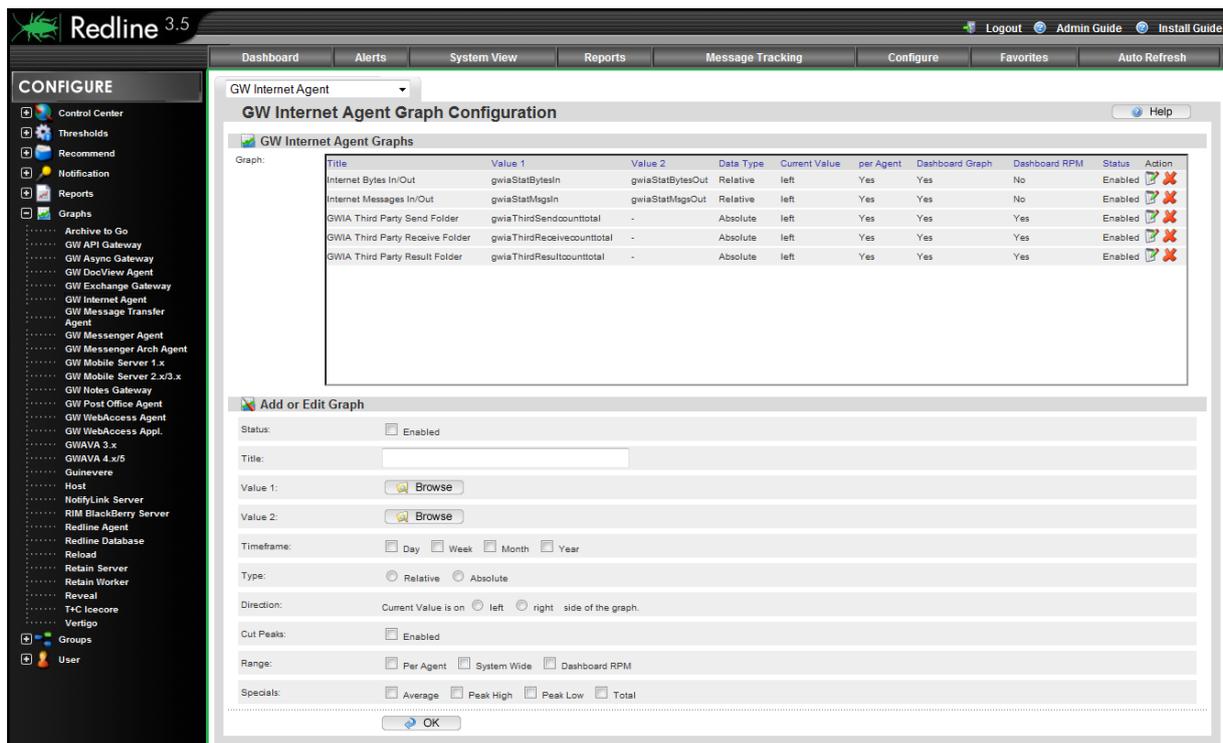


The agent will no longer show up on Dashboard, Alerts List or System View, however, all data about this agent will stay in the database for reporting. It is important to keep this data for tools like Message Tracking, message analysis reports, etc.

## Items in the system tree navigation pane

### Configure graphs

The Configure main toolbar selection brings up a 'Configure' section in the left hand navigation pane. The items here allow for global configuration not set for particular agents. Individual graphing or other options, such as Reports, Notifications, Thresholds, and Recommended settings, have their corresponding configuration listed underneath each specific agent. The Configure menu and page shown below is a global configuration for the entire Redline system.



Every value that Redline monitors can be used to generate graphs. Configuring graphs can be done in two places: Configuration, for global settings, and in the System View for separate, individual agents. If you define a graph in the Configuration area and not in the System View on the agent, you can generate graphs for every agent by configuring one graph setting. The disadvantage is that all the graphs are stored on the disk drive. If the system has many agents, global graph creation can create a lot of files.

Elements that can be customized in graphs include:

- Status: Enabled/Disabled
- Title: A human readable name for the graph
- Value 1: Any value that Redline can monitor
- Value 2: Any value that Redline can monitor
- Timescale; Day, Week, Month, Year
- Type: Relative or Absolute
- Direction: Current value is on the left or right side.
- Range: Per Agent, System Wide, Dashboard RPM.
- Specials: Average, Peak High, Peak Low, Total.

## Status

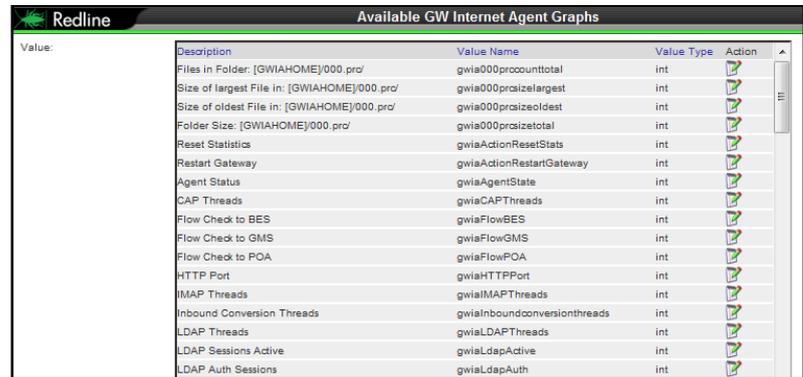
Instead of removing a graph configuration it is possible to disable a graph. That way you can enable the graph later.

## Title

The title is a human readable description which will show up as the title in the charts. This can be any text you want.

## Value 1/Value 2

You can browse for all available values. The window lists all values including description, value name defined by GroupWise and value type. The available values are defined with the Redline schema files.



Value	Description	Value Name	Value Type	Action
	Files in Folder: [GWIAHOME]\000.pra\	gwia000procounttotal	int	[icon]
	Size of largest File in: [GWIAHOME]\000.pra\	gwia000prosizeoflargest	int	[icon]
	Size of oldest File in: [GWIAHOME]\000.pra\	gwia000prosizeofoldest	int	[icon]
	Folder Size: [GWIAHOME]\000.pra\	gwia000prosizeoftotal	int	[icon]
	Reset Statistics	gwiaActionResetStats	int	[icon]
	Restart Gateway	gwiaActionRestartGateway	int	[icon]
	Agent Status	gwiaAgentState	int	[icon]
	CAP Threads	gwiaCAPThreads	int	[icon]
	Flow Check to BES	gwiaFlowBES	int	[icon]
	Flow Check to GMS	gwiaFlowGMS	int	[icon]
	Flow Check to POA	gwiaFlowPOA	int	[icon]
	HTTP Port	gwiaHTTPPort	int	[icon]
	IMAP Threads	gwiaIMAPThreads	int	[icon]
	Inbound Conversion Threads	gwiaInboundconversionthreads	int	[icon]
	LDAP Threads	gwiaLDAPThreads	int	[icon]
	LDAP Sessions Active	gwiaLdapActive	int	[icon]
	LDAP Auth Sessions	gwiaLdapAuth	int	[icon]

## Timeframe

Graphs can be generated for different timeframes. For every timeframe a separate image will be generated. Available timeframes are:

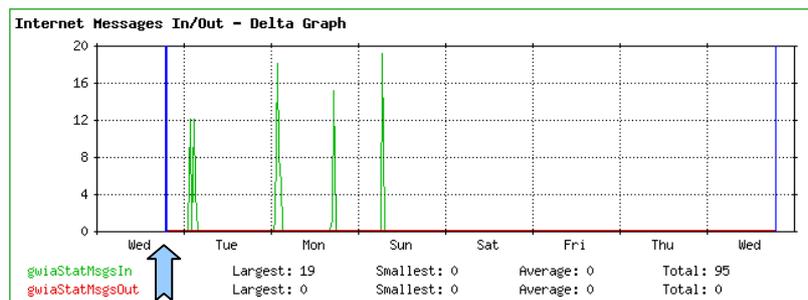
- Last day
- Last week
- Last month (Last 4 weeks)
- Last year

## Type (Relative and Absolute)

Relative values are used for counters that rise while absolute values are used for values which show a current state (for example users connected). Relative values can be used to draw charts with counting values, like the total number of messages processed. Relative values draw the difference between the values. Think about Messages Received from the internet. Redline reads this value every 2 minutes, and it could look like this: 120, 150, 180, 200, and 220. If you would draw the chart with absolute values, it would just go from the bottom left to the top right corner. A relative graph draws a line which shows that in 2 minute intervals 30, 30, 20, 20 messages have been received, which is more useful.

## Direction

The current value in a graph can be on the left or the right side of a graph. There are two blue lines which show the timeframe specified. The thick blue line indicates where the current value is.



Thick Blue line

## Range

The range of collected data can be set for each graph.

- **Per agent** – A separate graph is generated for every agent.
- **System Wide** - Adds all values of the agent types into one graph, and this graph will be selectable on the Dashboard.
- **Dashboard RPM** – If selected the summary of the value of all agents of the same type will be drawn in a RPM graph which can be selected on the dashboard.

Other selectable characteristics include **Average, Peak High, Peak Low** and **Total**.

## How to create a new graph with two values

Assume we need a Dashboard graph with the MTA values “Routed Messages” and “Error Messages”.

1. Click Configure / Graphs / GW MTA.
2. Check the Status Enabled checkbox.
3. Give the new graph a name, for example: Domain Messages.
4. Click on the “Browse” button for the first value and click on the column title “Description” to sort the table based on that column.
5. Click on the icon for “Routed Messages”.
6. Close the Window with all the available values.
7. Click on the “Browse” button for the second value and click on the column title “Description” to sort the table based on that column.
8. Click on the icon for “Error Messages”.
9. Check the checkbox for the timeframe “Day”, “Week”, and “Month”.
10. Select Type “relative”, because the values count messages.
11. Select Direction “Current value on the left side”.
12. Check the checkbox for “per Agent” in order to have a graph available in the System View.
13. Check all checkboxes for the 4 special values.
14. Click “OK” to save the settings.
15. Go to the System View and select a Domain.
16. Go to the “Graphs” tab and select the new graph.

Title	Value 1	Value 2	Data Type	Current Value	per Agent	Dashboard Graph	Dashboard RPM	Status	Action
Closed Domains	mtaClosedDomains	-	Absolute	left	Yes	No	Yes	Enabled	
Closed Post Offices	mtaClosedPostOffices	-	Absolute	left	Yes	No	No	Enabled	
Domain Messages	mtaRoutedMsgs	mtaErrorMsgs	Relative	left	Yes	Yes	No	Enabled	

**Add or Edit Graph**

Status:  Enabled

Title:

Value 1:

Value 2:

Timeframe:  Day  Week  Month  Year

Type:  Relative  Absolute

Direction: Current Value is on  left  right side of the graph.

Cut Peaks:  Enabled

Range:  Per Agent  System Wide  Dashboard RPM

Specials:  Average  Peak High  Peak Low  Total

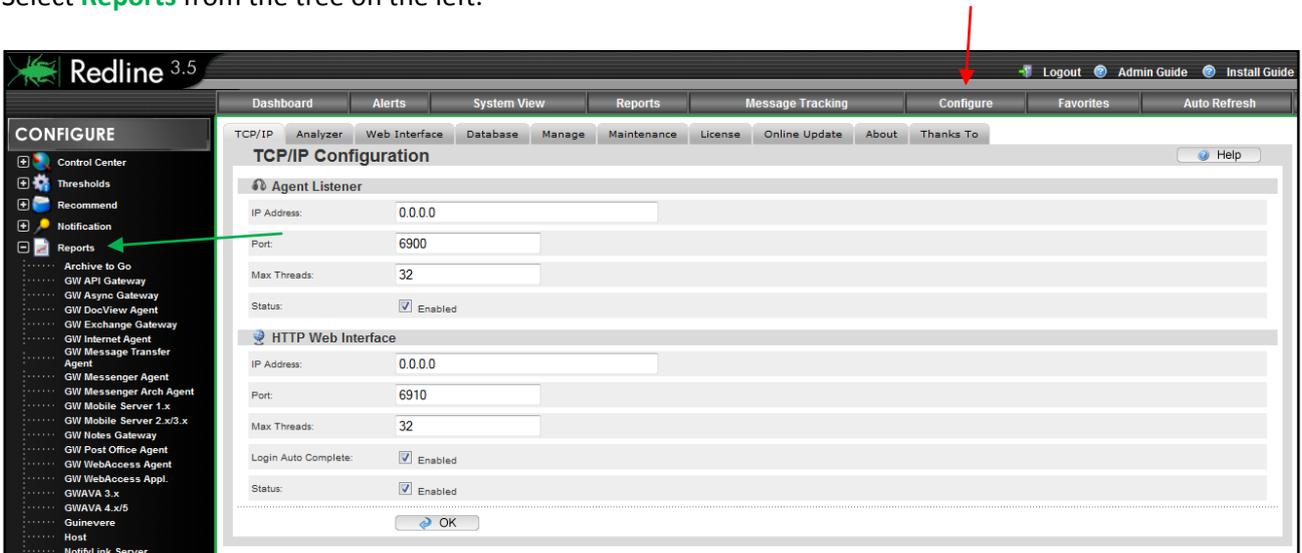
It is possible to configure a graph for this agent only, if you define the graph on the agent’s configuration page.

# Report Generation and Custom Reports

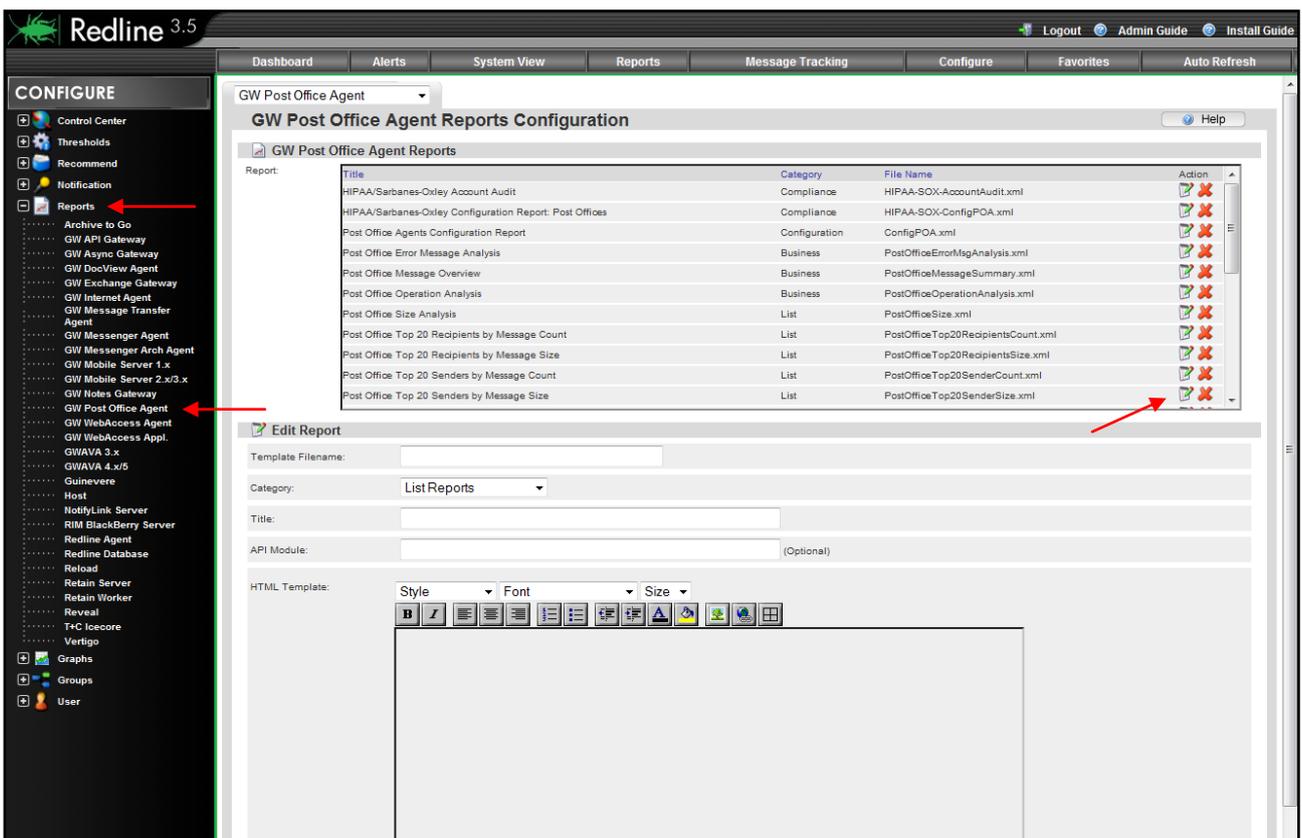
## Modifying Reports

Select **Configure** from the top toolbar

Select **Reports** from the tree on the left.



To edit a report you need to first select it. You can either select the report from the drop down menu in the Configure page, or you can expand and select the desired report by clicking on **Reports** from the tree on the left and selecting the object and agent with the desired report source.



For our purposes, we will be creating a new report on the top 100 messages over 5 MB. From a very similar report: top 100 messages over 500Kb. This report is generated at the Post Office level.



Locate the sql query in the report field. This usually starts with "ccscript dbquery". Edit the sql query to provide the desired effect.

Query on Table: **Post Office Messages**  
 Post Office Agents: **\$repcountPOA\$**  
 Date Range: **\$repstartdate\$ to \$rependdate\$**  
 Created by: **\$repusername\$**

---

This Report is a list of the 50 largest messages send in your GroupWise Post Offices.

Sender	Recipient	Size (Bytes)
<pre>&lt;?ccscript dbquery("SELECT MsgSender,MsgRecipient,MsgSize FROM msgspoa WHERE MsgDate&gt;='\$repstartdate\$' AND MsgDate&lt;='\$rependdate\$' AND \$repagentfilter\$ AND MsgSize&gt;'500000' AND MsgSender&lt;&gt;'unknown' ORDER BY MsgSize DESC LIMIT 100", "poamsgs.db", "&lt;tr bgcolor=\$RowColor\$&gt;&lt;td align="right"&gt;&lt;font face="Arial, Helvetica, sans-serif" font size="-2"&gt;," &lt;/font&gt;&lt;/td&gt;&lt;td align="right"&gt;&lt;font face="Arial, Helvetica, sans-serif" font size="-2"&gt;," &lt;/font&gt;&lt;/td&gt;&lt;/tr&gt;","#EEEEEE", "#FFFFFF"); ?&gt;</pre>		

For this report change, we only want to change the message size parameter.

Sender	Recipient	Size (Bytes)
<pre>&lt;?ccscript dbquery("SELECT MsgSender,MsgRecipient,MsgSize FROM msgspoa WHERE MsgDate&gt;='\$repstartdate\$' AND MsgDate&lt;='\$rependdate\$' AND \$repagentfilter\$ AND MsgSize&gt;'500000' AND MsgSender&lt;&gt;'unknown' ORDER BY MsgSize DESC LIMIT 100", "poamsgs.db", "&lt;tr bgcolor=\$RowColor\$&gt;&lt;td align="right"&gt;&lt;font face="Arial, Helvetica, sans-serif" font size="-2"&gt;," &lt;/font&gt;&lt;/td&gt;&lt;td align="right"&gt;&lt;font face="Arial, Helvetica, sans-serif" font size="-2"&gt;," &lt;/font&gt;&lt;/td&gt;&lt;/tr&gt;","#EEEEEE", "#FFFFFF"); ?&gt;</pre>		

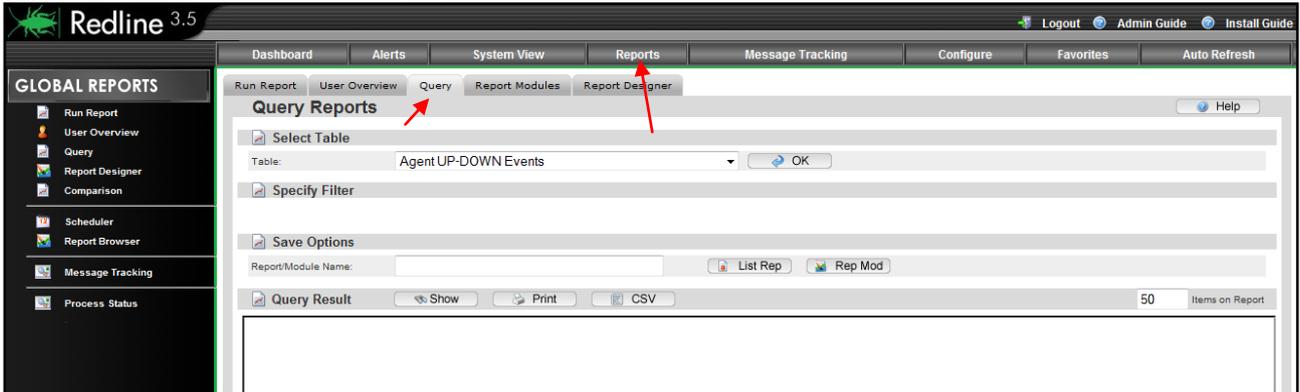
The size limit is listed in bytes, (500000 = 500KB). We wish to generate a report that shows messages over 5MB. Edit accordingly.

Sender	Recipient	Size (Bytes)
<pre>&lt;?ccscript dbquery("SELECT MsgSender,MsgRecipient,MsgSize FROM msgspoa WHERE MsgDate&gt;='\$repstartdate\$' AND MsgDate&lt;='\$rependdate\$' AND \$repagentfilter\$ AND MsgSize&gt;'5000120' AND MsgSender&lt;&gt;'unknown' ORDER BY MsgSize DESC LIMIT 100", "poamsgs.db", "&lt;tr bgcolor=\$RowColor\$&gt;&lt;td align="right"&gt;&lt;font face="Arial, Helvetica, sans-serif" font size="-2"&gt;," &lt;/font&gt;&lt;/td&gt;&lt;td align="right"&gt;&lt;font face="Arial, Helvetica, sans-serif" font size="-2"&gt;," &lt;/font&gt;&lt;/td&gt;&lt;/tr&gt;","#EEEEEE", "#FFFFFF"); ?&gt;</pre>		

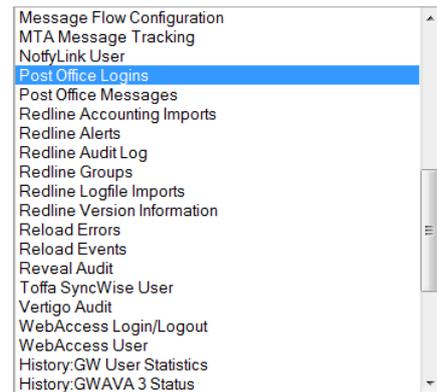


## Custom Report Creation

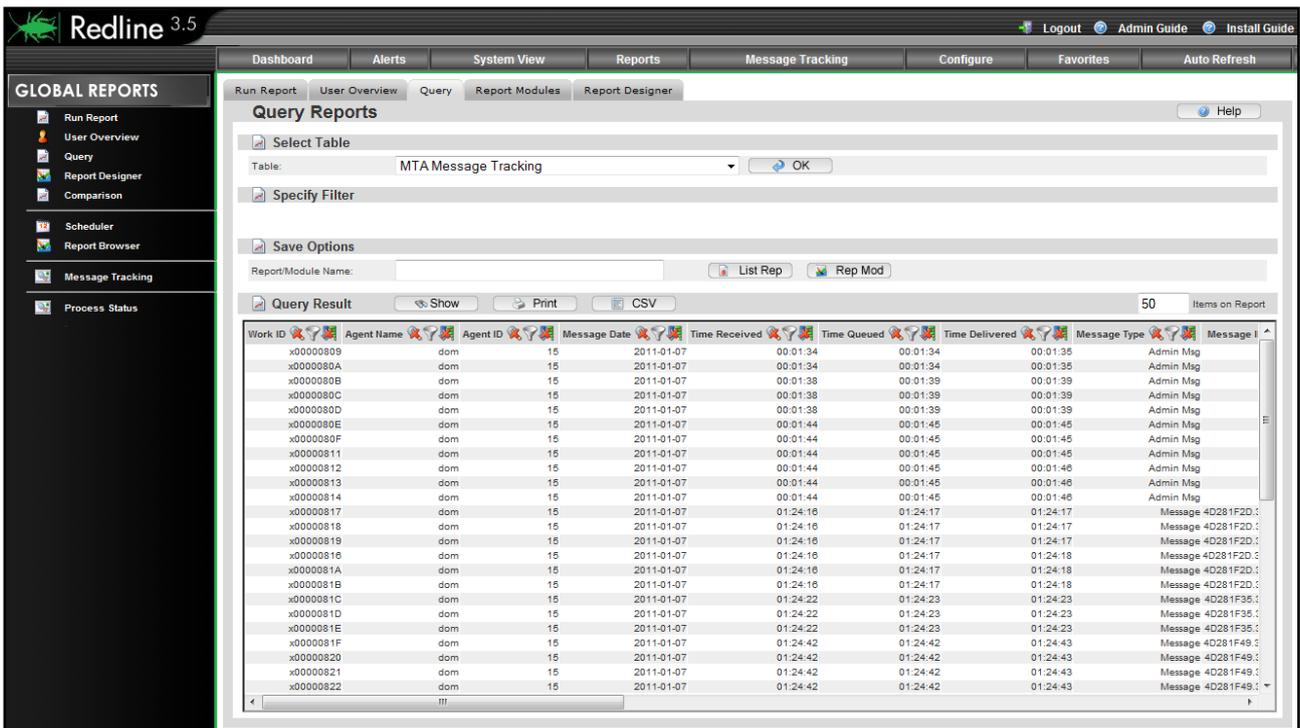
To create a new or custom report without modifying an existing report, Select **Reports** from the top toolbar. We need to create a data module for this report. To do this, we start with a query. Select the **Query** tab, or the Query option from the tree menu on the left.



Select the table you wish to run a query on from the **Select Table** drop down menu. Select **OK**.



The results will be displayed in the **Query Result** window.



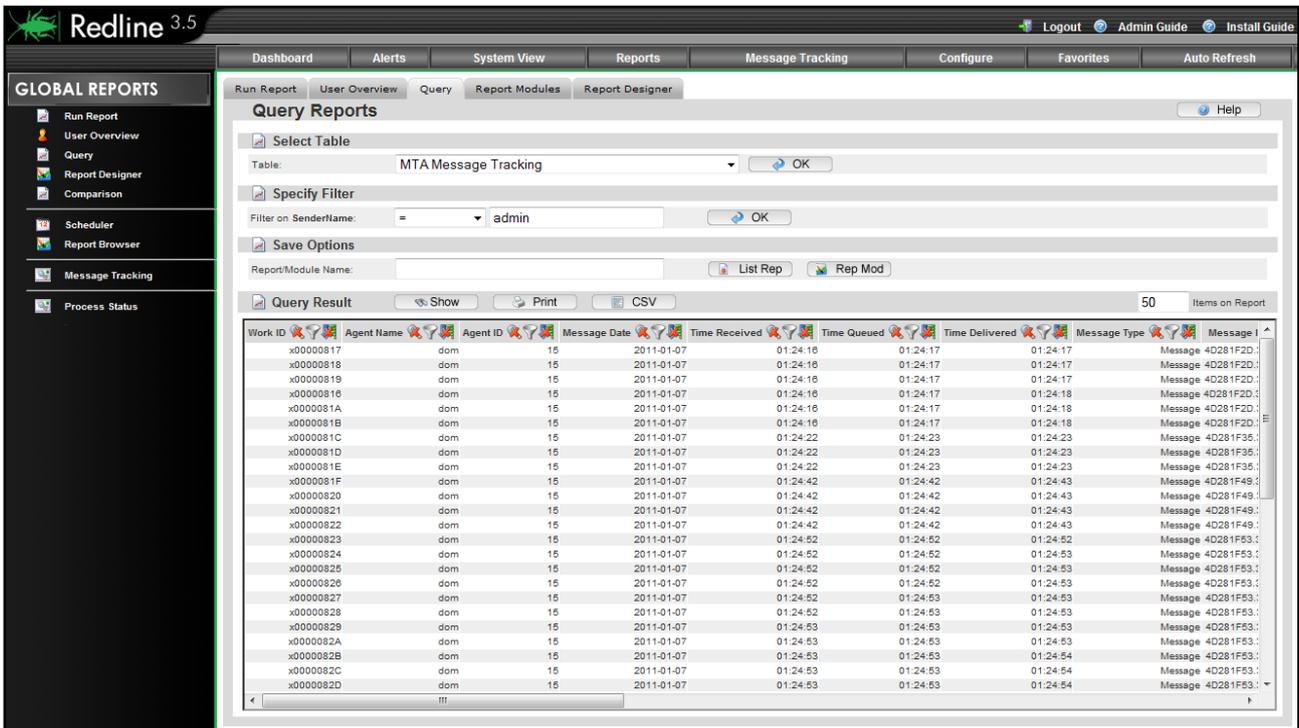
You may wish to limit the output of this report to tune the results. To do this, use the filter option. To set a filter, chose a column header and click on the cone icon.



A new field will appear, named Specify Filter, which allows you to specify the filter parameter. The drop down tab allows several options to manipulate the filters.



**NOTE:** The filter parameter is CASE SENSITIVE and DOES NOT allow wildcards. To effectively specify a working filter, you need to be able to see the query results, so you can specify a filter *exactly* as the result is seen by Redline. A typo will cause the filter to exclude all results.

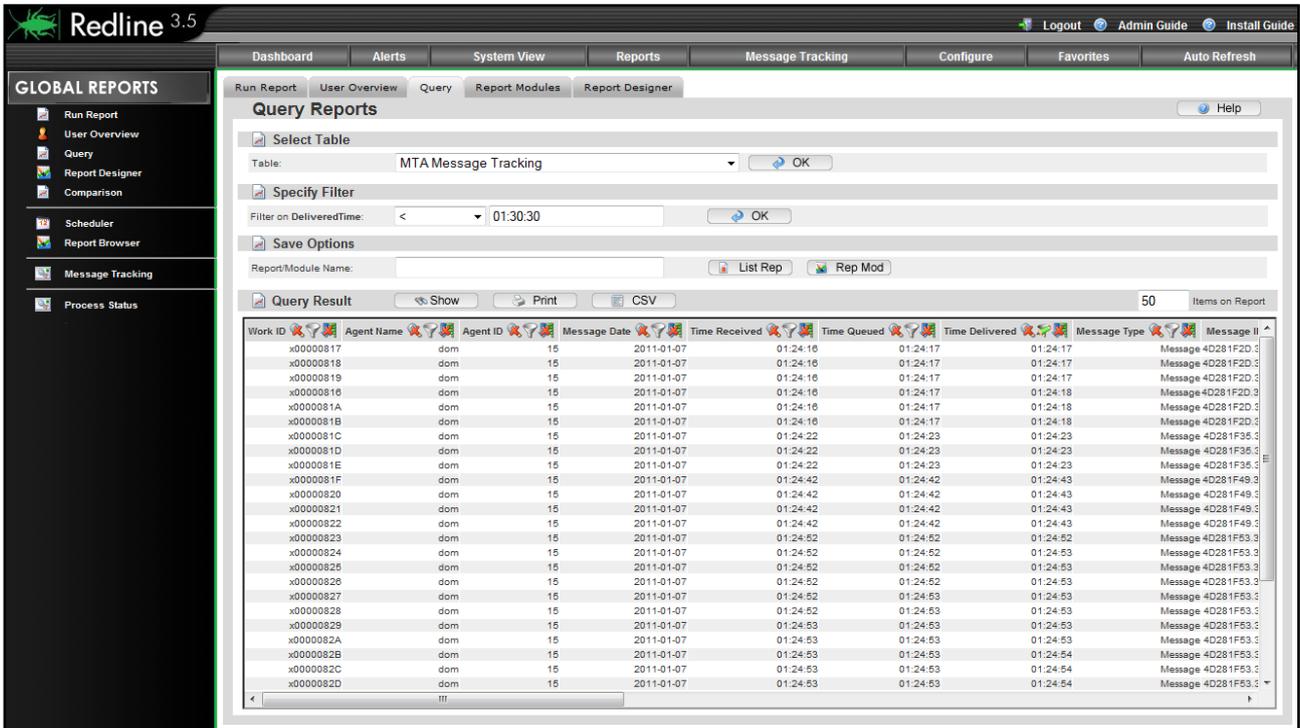


The filter becomes active when you select the OK button and the query results are loaded. A column with an active filter is noted by a pencil on the cone, shown in the column header.



To clear any filter, select the active filter cone in the column header and clear the parameter specified in the Specify filter field, then click OK and the results will reload without the filter.

There may be several filters active at the same time. When several filters are active, the Specify Filter field will still only show one entry.

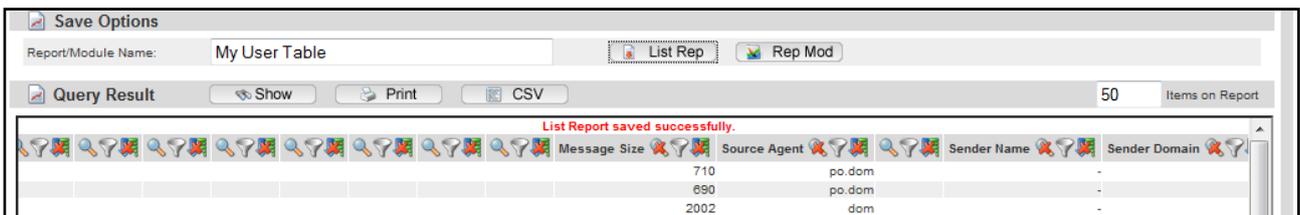


In this screenshot, both the *Sender Name* and the *Time delivered* columns have filters active on them, but the Specify Filter option only shows one active filter. Active filters are indicated by a green pencil over the cone icon for the active column.



To remove these filters, select the filter cone from the active filtered headers and clear the filter parameter by selecting 'OK' without specifying any parameters. Repeat for as many filters you wish to remove, in the order you wish to remove them.

To save your query results as a module, specify a Report or a Module name, and select the **List Rep**, or **Rep Mod** buttons. (If you select the **Rep Mod** button, your query will be saved as a Module which can be used to build a custom report with multiple queries, graphs, or tables. The **List Rep** button simply saves the query as a full report which can be run later. See the [Report Designer](#) section.)



The query has been successfully saved when the red notification appears.

Saved queries can be accessed, run, or modified just as the other reports. The saved query is also listed with the rest of the reports or modules under the report or module name you specified.

**Run Report**

Select Report

Report:	Title	Category	Agent Type	File Name	Action
	All Agents Configuration Report	Configuration	All	ConfigAll.xml	
	BlackBerry 30 Day Message Summary	Business	RIM BlackBerry Server	BES30DayMsgSummary.xml	
	BlackBerry Message Summary	Business	RIM BlackBerry Server	BESMessageSummary.xml	
	BlackBerry Top 20 Users by Incoming Message Count	List	RIM BlackBerry Server	BESTop20IncomingCount.xml	
	BlackBerry Top 20 Users by Outgoing Message Count	List	RIM BlackBerry Server	BESTop20OutgoingCount.xml	
	BlackBerry Top 50 Users by Incoming Message Count	List	RIM BlackBerry Server	BESTop50IncomingCount.xml	
	BlackBerry Top 50 Users by Outgoing Message Count	List	RIM BlackBerry Server	BESTop50OutgoingCount.xml	
	BlackBerry Users	List	RIM BlackBerry Server	BESUserList.xml	
	BlackBerry Users with Pending Messages	List	RIM BlackBerry Server	BESUserPendingList.xml	
	example list module	List	GW Message Transfer Agent	example_list_module.xml	
	GroupWise 7.0.2/6.5.6 Vulnerability Check	Business	All	Vulnerability702VersionCheck.xml	
	Guinevere Configuration Report	Configuration	Guinevere	ConfigGUIN.xml	
	GW Mobile Server Connection Analysis	List	GW Mobile Server 2.x/3.x	GMSConnectionAnalysis.xml	
	GW Mobile Server Most Active Users	List	GW Mobile Server 2.x/3.x	GMSMostActiveUser.xml	
	GW Mobile Server Top 50 Active Users	List	GW Mobile Server 2.x/3.x	GMSUserActivity.xml	
	GWAVA 3 Configuration Report	Configuration	GWAVA 3.x	ConfigGWAVA.xml	
	GWAVA 4.x/5 Configuration Report	Configuration	GWAVA 4.x/5	ConfigGW4V4.xml	
	GWAVA 4.x/5 Message Processing Analysis	Business	GWAVA 4.x/5	GW4V4OperationAnalysis.xml	

Specify Filter

Date from: 1990-01-01 to 2011-01-11

Agent Name: All Agents

To run your custom report, select the notepad to the far right of the report name in the list. The report will be generated and displayed.

**Redline** example%20list%20module.xml Tue, 11. Jan 2011, 13:45:44

Print

Query on Table: **MTA Message Tracking**

Registered Agents: **7**

Date Range: **1990-01-01 to 2011-01-11**

Created by: **admin**

This is a user defined list report.

Work ID	Agent Name	Agent ID	Message Date	Time Received	Time Queued	Time Delivered	Message Type	Message ID	Message Queue	Queue Type	Message Size	Source Agent	Destination Agent	Sender Name	Sender Domain	Total Recipients	Agent Recipients	MTA Command
x00000817	dom	15	2011-01-07	01:24:16	01:24:17	01:24:17	Message	4D281F2D.371:148:9073	4	OFS	11064	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000818	dom	15	2011-01-07	01:24:16	01:24:17	01:24:17	Message	4D281F2D.372:149:9074	4	OFS	11762	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000819	dom	15	2011-01-07	01:24:16	01:24:17	01:24:17	Message	4D281F2D.373:150:9075	4	OFS	11056	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000081E	dom	15	2011-01-07	01:24:16	01:24:17	01:24:18	Message	4D281F2D.36E:146:9070	4	OFS	11088	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000081A	dom	15	2011-01-07	01:24:16	01:24:17	01:24:18	Message	4D281F2D.36F:148:9071	4	OFS	11064	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000081B	dom	15	2011-01-07	01:24:16	01:24:17	01:24:18	Message	4D281F2D.370:147:9072	4	OFS	11060	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000081C	dom	15	2011-01-07	01:24:22	01:24:23	01:24:23	Message	4D281F35.375:152:9077	4	OFS	11060	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000081D	dom	15	2011-01-07	01:24:22	01:24:23	01:24:23	Message	4D281F35.374:151:9076	4	OFS	11064	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000081E	dom	15	2011-01-07	01:24:22	01:24:23	01:24:23	Message	4D281F35.376:153:9078	4	OFS	11072	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000081F	dom	15	2011-01-07	01:24:42	01:24:42	01:24:43	Message	4D281F49.37A:157:9082	4	OFS	11456	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000820	dom	15	2011-01-07	01:24:42	01:24:42	01:24:43	Message	4D281F49.379:156:9081	4	OFS	11468	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000821	dom	15	2011-01-07	01:24:42	01:24:42	01:24:43	Message	4D281F49.378:155:9080	4	OFS	11456	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000822	dom	15	2011-01-07	01:24:42	01:24:42	01:24:43	Message	4D281F49.377:154:9079	4	OFS	11468	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000823	dom	15	2011-01-07	01:24:52	01:24:52	01:24:52	Message	4D281F53.37B:158:9083	4	OFS	11464	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000824	dom	15	2011-01-07	01:24:52	01:24:52	01:24:53	Message	4D281F53.37C:159:9084	4	OFS	11464	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000825	dom	15	2011-01-07	01:24:52	01:24:52	01:24:53	Message	4D281F53.37D:160:9085	4	OFS	11464	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000826	dom	15	2011-01-07	01:24:52	01:24:52	01:24:53	Message	4D281F53.37E:161:9086	4	OFS	11464	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000827	dom	15	2011-01-07	01:24:52	01:24:53	01:24:53	Message	4D281F53.37F:162:9087	4	OFS	11464	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000828	dom	15	2011-01-07	01:24:52	01:24:53	01:24:53	Message	4D281F53.380:163:9088	4	OFS	11464	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x00000829	dom	15	2011-01-07	01:24:53	01:24:53	01:24:53	Message	4D281F53.382:165:9090	4	OFS	11460	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000082A	dom	15	2011-01-07	01:24:53	01:24:53	01:24:53	Message	4D281F53.383:166:9091	4	OFS	11468	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000082B	dom	15	2011-01-07	01:24:53	01:24:53	01:24:54	Message	4D281F53.384:167:9092	4	OFS	11468	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000082C	dom	15	2011-01-07	01:24:53	01:24:53	01:24:54	Message	4D281F53.386:169:9094	4	OFS	11460	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000082D	dom	15	2011-01-07	01:24:53	01:24:53	01:24:54	Message	4D281F53.385:168:9093	4	OFS	11468	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000082E	dom	15	2011-01-07	01:24:53	01:24:53	01:24:54	Message	4D281F53.381:164:9089	4	OFS	11460	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message
x0000082F	dom	15	2011-01-07	01:24:53	01:24:53	01:24:54	Message	4D281F53.38A:173:9098	4	OFS	11776	GWIA.dom	dom.po	admin	gwava.com	1	1	Deliver Message

## Report Editor

Redline provides several ways to create new reports. The easiest way to create reports is to save them as list reports from the database query page, as described above. There also is a Report Designer and a Report Editor available in Redline. The Report Editor is an html editor you can use to add text, images, commands, etc to any report you want. Browse to **Configure | Reports** and select an agent type you want. You can also modify and delete reports.

The screenshot shows the Redline 3.5 interface. The top navigation bar includes 'Dashboard', 'Alerts', 'System View', 'Reports', 'Message Tracking', 'Configure', 'Favorites', and 'Auto Refresh'. The 'Configure' tab is active, showing the 'GW Post Office Agent Reports Configuration' page. A table lists various reports with columns for Title, Category, File Name, and Action. The 'Post Office Operation Analysis' report is selected, and the 'Edit Report' form is open. The form includes fields for Template Filename, Category, Title, and API Module. The HTML Template section shows a query on the 'Post Office Status History' table and a description of the report's content.

Title	Category	File Name	Action
HIPAA/Sarbanes-Oxley Account Audit	Compliance	HIPAA-SOX-AccountAudit.xml	[Edit] [Delete]
HIPAA/Sarbanes-Oxley Configuration Report: Post Offices	Compliance	HIPAA-SOX-ConfigPOA.xml	[Edit] [Delete]
Post Office Agents Configuration Report	Configuration	ConfigPOA.xml	[Edit] [Delete]
Post Office Error Message Analysis	Business	PostOfficeErrorMsgAnalysis.xml	[Edit] [Delete]
Post Office Message Overview	Business	PostOfficeMessageSummary.xml	[Edit] [Delete]
Post Office Operation Analysis	Business	PostOfficeOperationAnalysis.xml	[Edit] [Delete]
Post Office Size Analysis	List	PostOfficeSize.xml	[Edit] [Delete]
Post Office Top 20 Recipients by Message Count	List	PostOfficeTop20RecipientsCount.xml	[Edit] [Delete]
Post Office Top 20 Recipients by Message Size	List	PostOfficeTop20RecipientsSize.xml	[Edit] [Delete]
Post Office Top 20 Senders by Message Count	List	PostOfficeTop20SenderCount.xml	[Edit] [Delete]
Post Office Top 20 Senders by Message Size	List	PostOfficeTop20SenderSize.xml	[Edit] [Delete]

**Edit Report**

Template Filename:

Category:

Title:

API Module:  (Optional)

HTML Template:

Style  Font  Size

Query on Table: **Post Office Status History**

Post Office Agents: **\$repcountPOA\$**

Date Range: **\$repstartdate\$ to \$rependdate\$**

Created by: **\$repusername\$**

This report shows the message traffic for your Post Offices. Included at the end of this report is the total number of error messages. Lots of error messages could indicate a problem. This list shows the total number of messages processed.

<?cscript r/chart("18", "SELECT poaName,TotalMsgs FROM poastatus WHERE

You can use the Report Editor as a simple way to copy a report for modification:

1. Select a report which is similar to what you need
2. Click on the "Edit" icon
3. Specify a new Template Filename and a new Title
4. Click "OK" to save the report.

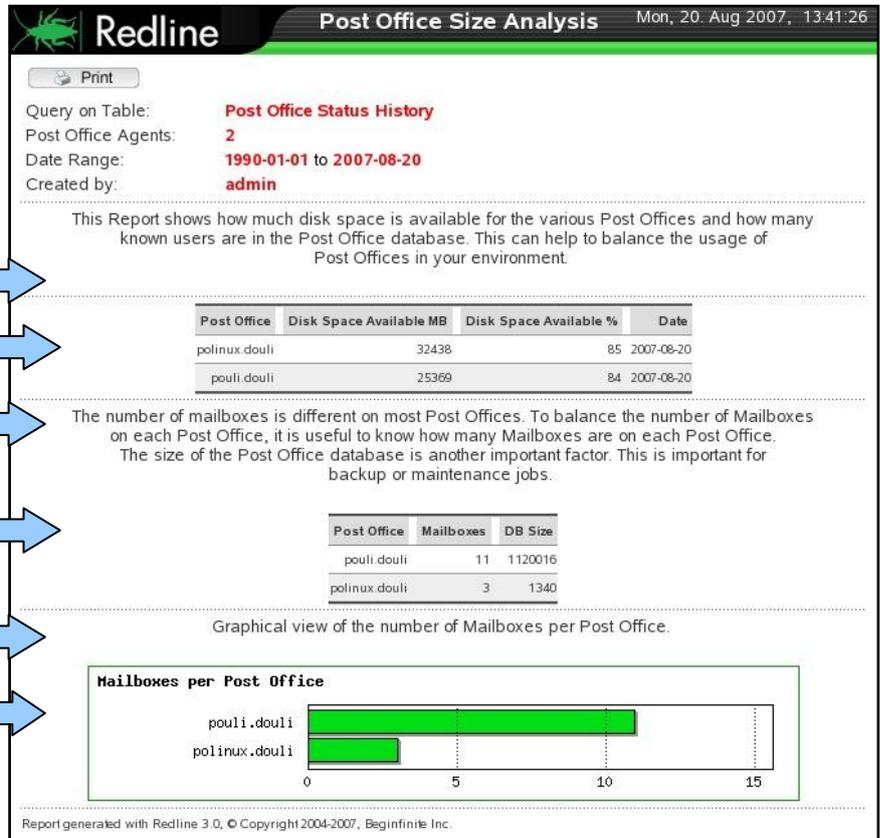
Instead of creating all reports with the Report Editor you can use the Report Designer. With the Report Designer it is not necessary to know about all variables and commands you can use in a Report. You don't need to know about any SQL statements as well.

## Report Designer

The Redline Report Designer helps to create new reports with tables, graphs, text and other elements and it is not necessary to know anything about XML, HTML, SQL or other languages. Before you start with the first report, you need to understand the concept of how to build reports out of Report Modules. A typical report can look like this:

This report contains text, tables and a chart. Every part of this report is a different “module” of a report. Before you create a new report, you need to create the tables and charts as report modules, which can be used to create a report later.

- Text Module
- Table Module
- Text Module
- Table Module
- Text Module
- Chart Module

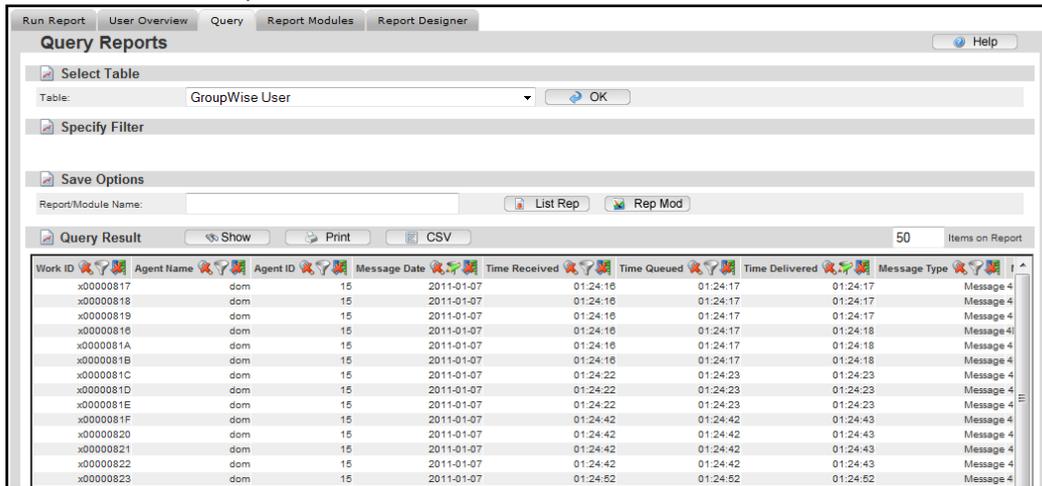


Before you start with a new report, it can help to draw concept of the report on a piece of paper. Once the concept is drawn, it is much easier to create the tables you need. Every chart is a table as well, but a table with 2 columns only: description and value. The above chart is from a table with the first column as the Post Office Name and the second table as Number of Mailboxes.

Make sure you understand the concept of Report Modules, before you continue to read.

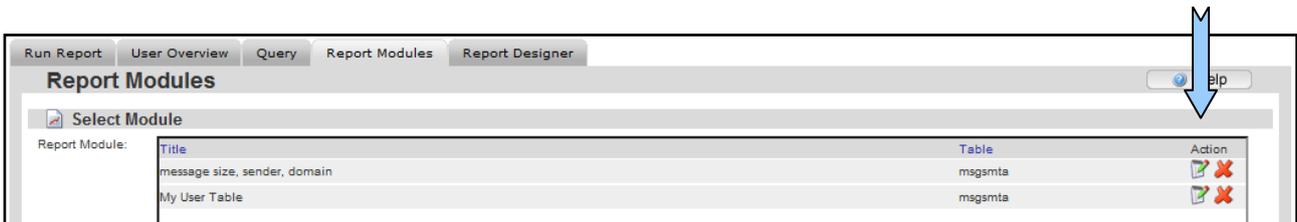
## How to create a Report Module for a table

1. Assume we want a table with Username, number of messages in the mailbox, mailbox size, last access date.
2. Browse to **Reports | Query**.
3. Select the table "GroupWise User" and click OK.



4. Hide all columns except Name, Last Active, Msgs Total, and Mailbox Size by clicking on the magnifying glass in the column header.
5. Specify a module name in the field "Report/Module Name" and click on **Rep Mod**. In our case we use "My User Table".

The report module is saved, named, and can be seen if you click on the tab "Report Modules". Edit or remove report module

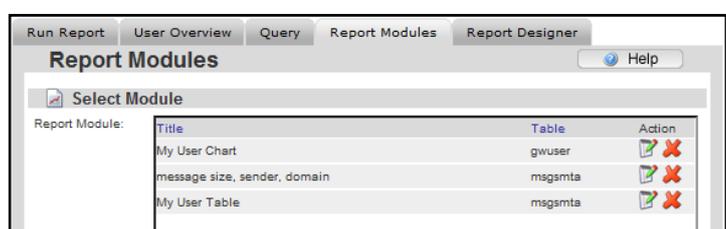


If you have specified some filters etc for a Report Module, browse to another place in Redline and come back. All filters, sorting etc. are still present. All defined filters, sorting and hidden columns will be reset every time a new table is selected. If you click on the edit icon in the Report Modules list, you can modify the Module at any time you want. It is important to know that this DOES NOT change fully designed reports which use this module. They use a copy of the Report Module from the time when the Report was designed.

## How to create a Report Module for a chart

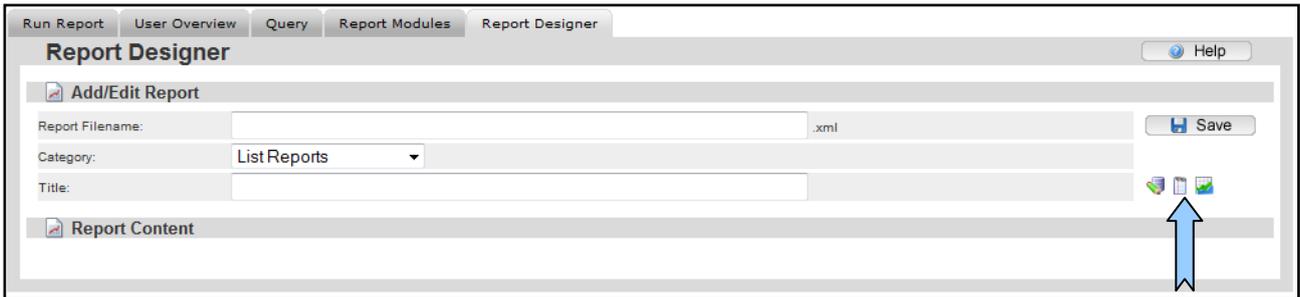
1. Assume we want a chart with Username as the description and the number of messages.
2. Browse to **Reports | Query**.
3. Select the table "GroupWise User" and click "OK".
4. Hide all columns except "Name" and "Msgs Total"
5. Specify a module name in the field "Report / Module Name" and click on **Rep Mod**. In our case we use "My User Chart".

The Report Module for the Chart is done now.



## Build the Report

Now that all required modules have been created, it is possible to design the final report with the report designer. Browse to Reports and click on Report Designer.

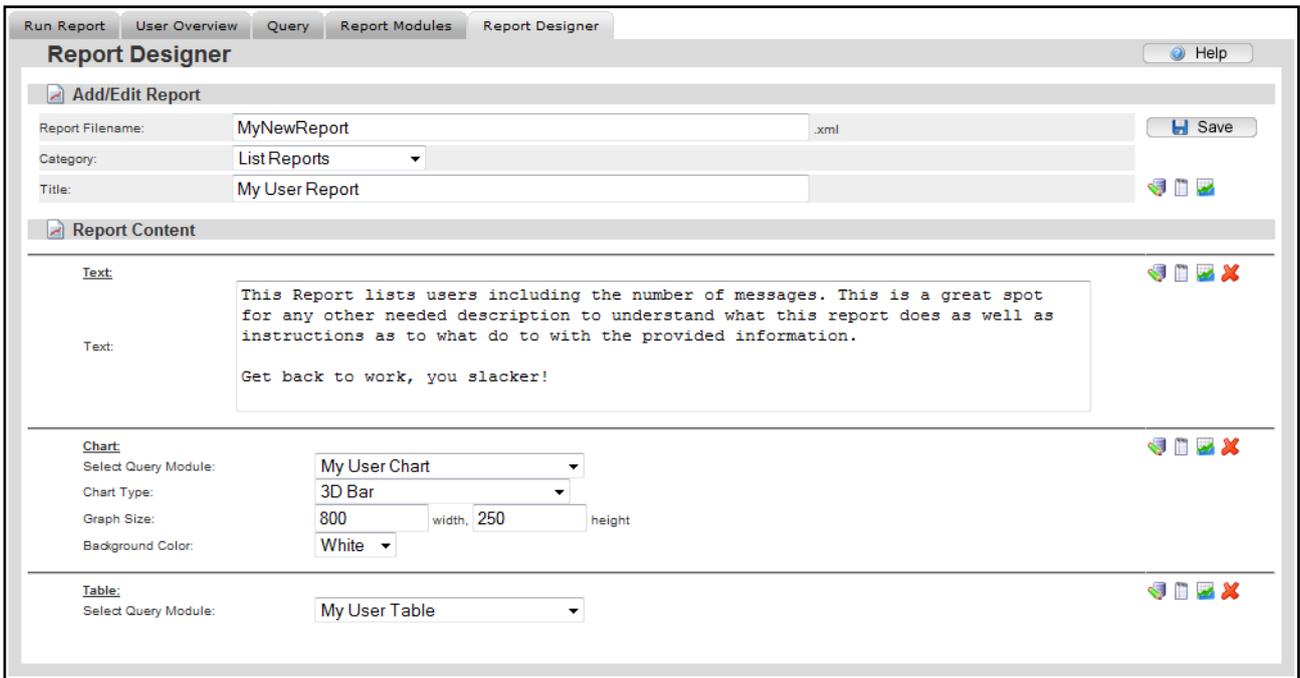


Add Text, Table,  
or Chart

Every report is stored as a XML file in the folder /opt/beginfinite/redline/conf/reports. Avoid special characters like .,=,!,ö,a,ü etc. for the Report Filename. This can cause problems.

### How to create a new report with the two Report Modules we've created

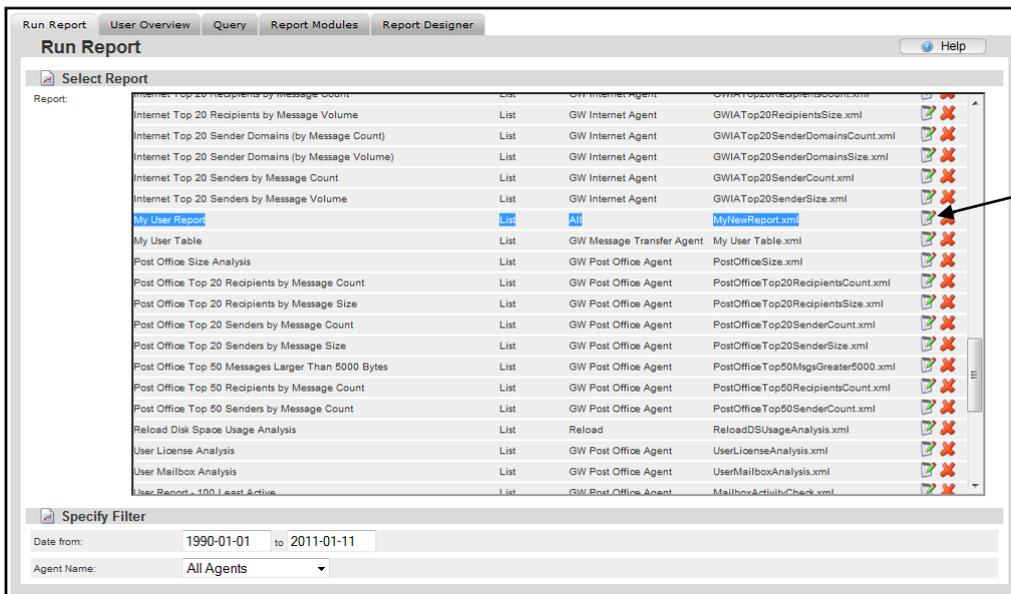
1. Specify a report filename; in our case we use MyNewReport.
2. Specify a category. Our Report is just a list of users with some numbers, so we choose "List Reports".
3. Specify a title, for example "My new user report".
4. Click on the Icon for "Add Table" and select the Report Module "My User Table".
5. Click on the icon for "Add Chart" and select the Report Module "My User Chart".
6. Click on the Icon for "Add Text" and write some lines of what the report will show.
7. Select a chart type, for example "3D Bar".
8. Click on "Save" to save the new report.



Reports will appear in the order that their modules do in this list. Newly added modules are added to the top of the list. Plan your report appropriately; if the text is desired to be on the top of the report, add it last.

## Execute the new report

Now you can browse to **Reports | Run Report** and look for the new report “My new user Report”. If you click on the action icon, the report is shown and can be printed.



Redline
**My New User Report**
Tue, 11. Jan 2011, 14:38:39

Print

Registered Agents: **7**  
Created by: **admin**

This text shows up on the report header, and is a great place for a short description as well as recommended action or instructions to make the report information useful, such as a course of action.  
Get back to work, you slacker!

| Name  | Inactive Days | Msgs Total | Mailbox Size (KB) |
|-------|---------------|------------|-------------------|
| david | 277           | 4536       | 18769             |
| craig | 9999          | 4536       | 18769             |
| james | 277           | 340        | 850               |
| admin | 9999          | 8794       | 139826            |
| chris | 0             | 0          | 0                 |

**My User Chart**

Report generated with Redline 3.5.0, © Copyright 2004-2010, Beginfinite Inc.

It is possible to add as many tables, charts and text modules in any order into a report. If needed, the report can be modified with the Report Editor later on, to put in special SQL statements etc.

If all this is not enough to create the report you need, Redline provides an API for Reports, which can be used to create very specific reports, but requires some programming skills and detailed knowledge of SQL.

## Log file Import

Many reports in Redline are based on data in the Redline database. Usually Redline is installed in existing GroupWise environments where lots of old log files exist. It is possible to import these log files into the Redline database. On the Server where the Control Center is running the folders:

**/opt/beginfinite/redline/imp**  
**/opt/beginfinite/redline/imp/acct**

...are checked every minute if there are files that can be imported. Some log files have enough data to detect to which agent they belong to, some don't. The following table shows what is necessary to import the different log files.

|                                 |  |
|---------------------------------|--|
| API Gateway log files           | -> Copy the file into the imp folder   |
| Blackberry Enterprise log files | -> Copy the file into the imp folder   |
| Gateway accounting log files    | -> Copy the file into the imp/acct folder                                    |
| GWAVA 3 log files               | -> Copy the file into the imp folder   |
| GW Mobile Server 1 log files    | -> Rename the file to SERVERNAME_logfilename and copy it into the imp folder |
| GWIA log files                  | -> Copy the file into the imp folder   |
| MTA log files                   | -> Copy the file into the imp folder   |
| MTA Message log files           | -> Rename the file to DOMAINNAME_logfilename and copy it into the imp folder |
| Post Office log files           | -> Copy the file into the imp folder   |
| Post Office GWCheck log files   | -> Copy the file into the imp folder   |
| WebAccess log files             | -> Copy the file into the imp folder   |

## Appendix

### POSIX, UNC, and NetWare Paths

There are four common file path formats that Redline uses.

- UNC (Universal Naming Convention) is used commonly on Windows and occasionally on NetWare. An Example of UNC is [\\servername\volumename\path](#)
- Mapped Drive format is used exclusively on Windows. An example is driveletter:\path1\path2
- NetWare path format is used exclusively on NetWare. An Example is volumename:\path1\path2, or server/volume:\path1\path2
- POSIX is used on Linux, but also is used on NetWare by Redline. A POSIX example is /path1/path2

Although Redline gathers the majority of its information via HTTP (and thus is file system independent), there are several circumstances when file paths must be specified (and hence the specific format used is important):

- The RLAGENT and RLCENTER configuration files specify directory paths for internal Redline directories such as the Database or Reports locations.
- The RLAGENT file may contain PATH specifications for integrated components such as BES, Guinevere, and the API Gateway that do not have HTTP servers.
- Behind the scenes, Redline gathers log file information from many agents. These log files must be located in an accessible location.

On Linux and Windows systems, the rules are fairly straight forward:

- For Linux boxes, all paths must be POSIX format. UNC, mapped drive, or NetWare paths will not function. When first installed, all your paths will be in POSIX, and you must keep them that way.
- For Windows, you may use either mapped drive or UNC format. POSIX, NetWare paths will not function correctly. When first installed, all your paths will be in mapped drive format, and you may alter them between mapped drive and UNC as desired.

On NetWare the situation is a bit more complicated. As long as Redline is installed in its default location, and all of the component agents are on the SYS volume, all should work perfectly. Otherwise:

- Regarding issue 1, if you actually need to change these paths (and in normal operation, even when moving Redline to another volume, this is not needed), POSIX format is required. See below for the POSIX and NetWare path discussion
- Regarding issue 2: POSIX, NetWare, and UNC paths are all accepted in the PATH section. Hence, it is recommended that you use NetWare or UNC paths, and avoid the POSIX path issues described below
- Regarding issue 3: Redline will automatically deal with NetWare Log File paths read from the HTTP server and convert them to POSIX format internally, creating mount points as needed (under sys:\mnt\posix\volumename). So, no extra configuration is normally needed. If you wish to understand more about mount points, read on.

### NetWare and POSIX Path Conversion

Consider a standard Netware server, named MJBSEVER, with 2 volumes, SYS and DATA1. Now let's take the example of GroupWise being installed on this server, first on the SYS volume and then the DATA1 volume. For simplicity, we'll assume the GroupWise agents are all installed under a directory right off the root of the volume named GRPWISE.

Start with the GRPWISE directory on SYS, the Netware path is volume:\path, so in this case it is the straight forward SYS:\GRPWISE. POSIX format is /path1/path2. In this case it is simply /grpwise. The only change is to eliminate the volume name and change to forward slashes.

Other examples of path conversions on SYS would be SYS:\system vs. /system, or SYS:\novell\webacc vs. /novell/webacc. It may be clear that an issue will arise, namely, that POSIX paths don't include volume names.

Let us move the GroupWise system to the volume DATA1

The NetWare path will still be straight forward. It will be DATA1:\grpwise. But what is the POSIX path? The way that Novell solved this problem was to allow users and programs to provide a "mapping" between POSIX paths and Netware volumes. More specifically, there is a file (which doesn't exist by default) in SYS:\ETC called PATHTAB which contains entries such as: POSIXPath<space>NetwarePath  
You may specify as many as you wish, using any text editor you please. So the first thing an administrator might do is create an entry like this: /mygw<space>DATA:\

One might then expect that I could use /mygw/grpwise to refer in POSIX format to DATA1:\grpwise. Similarly, if another directory was off the root of DATA1 called EXAMPLE, I could refer to it in NetWare format as DATA1:\example and in POSIX as /mygw/example .

There is one complication, that isn't so obvious: NetWare is really using a "mount point" to represent the NetWare volume. **The "mount point" must always exist on SYS**, and can be more or less arbitrarily named, (but shouldn't collide with other directories on SYS). This is a roundabout way of saying that whatever POSIX path specified in PATHTAB must have a corresponding directory structure on SYS. Let's take another step-by-step example.

- Create a POSIX path, and I have a directory named ANOTHEREXAMPLE off my GOOGLE volume. The NetWare path would be GOOGLE:\ANOTHEREXAMPLE .
- Open SYS:\etc\pathstab, and add a mount point. Remember that I can name it how I want. In this case I'm going to decide that I want a POSIX path of /mnt/myothervol/anotherexample in the end.
- Add: /mnt/myothervol<space>GOOGLE:\
- I'll save PATHTAB, and then I will create off SYS the following: SYS:\mnt, SYS:\mnt\myothervol. The directory with which you are mapping to must be blank with no files in it. A POSIX compliant program should now be able to use /mnt/myothervol/example and be redirected to GOOGLE:\anotherexample.

*How is this relevant to Redline?*

- If you must change the internal configuration paths of Redline, they must be valid POSIX paths, constructed as above.
- If you have integrations that use the PATH entry in RLAGENT.CONF, and for some reason WANT to use POSIX, you can, but you must follow these guidelines.
- Redline handles the issue of log files transparently. All it does is create mount points named sys:\mnt\posix\volume name and create a PATHTAB entry for you. This is done behind the scenes, so normally you don't need to worry about it.

## Report generation table

Redline Reports are generated from information that the Agents gather from your different system components. This information can be stored inside Redline databases found at *../redline/db*, and referenced by redline reports found at *../redline/conf/reports*. To aid in custom report generation, the information sources are detailed below with their companion reports and files.

| Report Name source                             | Report File Name    | File or Database            | Information   |
|--|---------------------|-----------------------------|---|
| GroupWise / Exchange Comparison                | CompareExchange.xml | -                           | Redline Internal  |
| Configuration Report: All Agents               | ConfigAll.xml       | reports_object_content.html | Various Sources, Config files, HTTP/XML data, logfiles... |
| Configuration Report: Guinevere                | ConfigGUIN.xml      | reports_object_content.html | Guinevers settings.ini                                    |
| Configuration Report: GWAVA 4                  | ConfigGW4V4.xml     | reports_object_content.html | HTTP/XML data   |
| Configuration Report: GWAVA 3                  | ConfigGWAVA.xml     | reports_object_content.html | Various Sources, Config files, HTTP/XML data, logfiles... |
| Configuration Report: Internet Agents          | ConfigGWIA.xml      | reports_object_content.html | Various Sources, Config files, HTTP/XML data, logfiles... |
| Configuration Report: Domains                  | ConfigMTA.xml       | reports_object_content.html | Various Sources, Config files, HTTP/XML data, logfiles... |
| Configuration Report: Messenger Archive Agents | ConfigNMAA.xml      | reports_object_content.html | Various Sources, Config files, HTTP/XML data, logfiles... |
| Configuration Report: Messenger Agents         | ConfigNMMA.xml      | reports_object_content.html | Various Sources, Config files, HTTP/XML data, logfiles... |
| Configuration Report: Post Offices             | ConfigPOA.xml       | reports_object_content.html | Various Sources, Config files, HTTP/XML data, logfiles... |

|  |   |                                    |  |
|--|---|------------------------------------|--|
| <b>Configuration Report: WebAccess</b>                         | <b>ConfigWEBACC.xml</b>                   | <b>reports_object_content.html</b> | <b>Various Sources, Config files, HTTP/XML data, logfiles...</b> |
| <b>GW Mobile Server Connection Analysis</b>                    | <b>GMSConnectionAnalysis.xml</b>          | <b>gwmobile.db</b>                 | <b>HTTP/XML data</b>   |
| <b>GW Mobile Server most active User</b>                       | <b>GMSMostActiveUser.xml</b>              | <b>gwmob2ca.db<br/>gwmob2m.db</b>  | <b>HTTP/XML data</b>   |
| <b>Top 50 GMS User Activity</b>                                | <b>GMSUserActivity.xml</b>                | <b>gwmobile.db</b>                 | <b>HTTP/XML data</b>   |
| <b>GWAVA 4 Message Processing Analysis</b>                     | <b>GW4V4OperationAnalysis.xml</b>         | <b>gwava4.db</b>                   | <b>HTTP/XML data</b>   |
| <b>System Wide Current User List</b>                           | <b>GWCurrFullUserList.xml</b>             | <b>global.db</b>                   | <b>GWCheck files</b>   |
| <b>System Wide Current User List</b>                           | <b>GWFullUserList.xml</b>                 | <b>global.db</b>                   | <b>GWCheck files</b>   |
| <b>Internet Agent/Gateway Data Transfer during last 4 days</b> | <b>GWIAData.xml</b>                       | <b>gwiamsgs.db</b>                 | <b>GWIA Logfiles and History tables</b>                          |
| <b>Internet Agent Message Summary</b>                          | <b>GWIAMessageSummary.xml</b>             | <b>gwiamsgs.db</b>                 | <b>GWIA Logfiles</b>   |
| <b>Internet Top 100 Recipients by Message Count</b>            | <b>GWIATop100RecipientsCount.xml</b>      | <b>acct.db</b>                     | <b>GWIA Logfiles</b>   |
| <b>Internet Top 100 Recipients by Message Count</b>            | <b>GWIATop100SenderCount.xml</b>          | <b>acct.db</b>                     | <b>GWIA Logfiles</b>   |
| <b>Internet Top 20 Recipient Domains by Message Count</b>      | <b>GWIATop20RecipientDomainsCount.xml</b> | <b>gwiamsgs.db</b>                 | <b>GWIA Logfiles</b>   |

|  |                                  |                             |   |
|--|----------------------------------|-----------------------------|---|
| Internet Top 20 Recipient Domains by Message Volume  | GWITop20RecipientDomainsSize.xml | gwiamsgs.db                 | GWIA Logfiles   |
| Internet Top 20 Recipient Domains by Message Volume  | GWITop20RecipientsCount.xml      | acct.db                     | GWIA Logfiles   |
| Internet Top 20 Recipients by Message Volume         | GWITop20RecipientsSize.xml       | acct.db                     | GWIA Logfiles   |
| Internet Top 20 Sender by Message Volume             | GWITop20SenderCount.xml          | acct.db                     | GWIA Logfiles   |
| Internet Top 20 Sender Domains by Message Count      | GWITop20SenderDomainsCount.xml   | gwiamsgs.db                 | GWIA Logfiles   |
| Internet Top 20 Sender Domains by Message Volume     | GWITop20SenderDomainsSize.xml    | gwiamsgs.db                 | GWIA Logfiles   |
| Internet Top 20 Sender by Message Volume             | GWITop20SenderSize.xml           | acct.db                     | GWIA Logfiles   |
| Internet Agent/Gateway Messages count per User       | GWIAUser.xml                     | acct.db                     | GWIA Logfiles   |
| HIPAA/Sarbanes-Oxley Account Audit                   | HIPAA-SOX-AccountAudit.xml       | global.db                   | GWCheck files   |
| HIPAA/Sarbanes-Oxley Configuration Report: Guinevere | HIPAA-SOX-ConfigGUIN.xml         | reports_object_content.html | Guinevers settings.ini                                    |
| HIPAA/Sarbanes-Oxley Configuration Report: GWAVA 4   | HIPAA-SOX-ConfigGW4V4.xml        | reports_object_content.html | HTTP/XML data,  |
| HIPAA/Sarbanes-Oxley Configuration Report: GWAVA 3   | HIPAA-SOX-ConfigGWAVA.xml        | reports_object_content.html | Various Sources, Config files, HTTP/XML data, logfiles... |

|   |                                   |                             |   |
|---|-----------------------------------|-----------------------------|---|
| HIPAA/Sarbanes-Oxley Configuration Report: Internet Agents          | HIPAA-SOX-ConfigGWIA.xml          | reports_object_content.html | Various Sources, Config files, DC files, HTTP/XML data, logfiles... |
| HIPAA/Sarbanes-Oxley Configuration Report: Domains                  | HIPAA-SOX-ConfigMTA.xml           | reports_object_content.html | Various Sources, Config files, DC files, HTTP/XML data, logfiles... |
| HIPAA/Sarbanes-Oxley Configuration Report: Messenger Archive Agents | HIPAA-SOX-ConfigNMAA.xml          | reports_object_content.html | Various Sources, Config files, DC files, HTTP/XML data, logfiles... |
| HIPAA/Sarbanes-Oxley Configuration Report: Messenger Agent          | HIPAA-SOX-ConfigNMMA.xml          | reports_object_content.html | Various Sources, Config files, DC files, HTTP/XML data, logfiles... |
| HIPAA/Sarbanes-Oxley Configuration Report: Post Offices             | HIPAA-SOX-ConfigPOA.xml           | reports_object_content.html | Various Sources, Config files, DC files, HTTP/XML data, logfiles... |
| HIPAA/Sarbanes-Oxley Configuration Report: WebAccess                | HIPAA-SOX-ConfigWEBACC.xml        | reports_object_content.html | Various Sources, Config files, DC files, HTTP/XML data, logfiles... |
| Mailbox Activity Check  | MailboxActifityCheck.xml          | global.db                   |   |
| Novell Self Audit Report (CLA)                                      | NovellSelfAuditMLA.xml            | global.db                   | GWCheck logfiles  |
| Post Office Error Message Analysis                                  | PostOfficeErrorMsgAnalysis.xml    | alerts.db                   | Post Office Logfiles  |
| Post Office Message Overview  | PostOfficeMessageSummary.xml      | poamsgs.db                  | Post Office Logfiles  |
| Post Office Operation Analysis                                      | PostOfficeOperationalAnalysis.xml | poa.db                      | Post Office Logfiles, data in History tables and recalculated       |

|  |   |                             |  |
|--|---|-----------------------------|--|
| <b>Post Office Size Analysis</b>                       | <b>PostOfficeSize.xml</b>                 | <b>poa.db<br/>global.db</b> | <b>Redline Internal</b>  |
| <b>Post Office Top 20 Recipients by Message Count</b>  | <b>PostOfficeTop20RecipientsCount.xml</b> | <b>poamsgs.db</b>           | <b>Post Office Logfiles</b>  |
| <b>Post Office Top 20 Recipients by Message Volume</b> | <b>PostOfficeTop20RecipientsSize.xml</b>  | <b>poamsgs.db</b>           | <b>Post Office Logfiles</b>  |
| <b>Post Office Top 20 Sender by Message Count</b>      | <b>PostOfficeTop20SenderCount.xml</b>     | <b>poamsgs.db</b>           | <b>Post Office Logfiles</b>  |
| <b>Post Office Top 20 Sender by Message Volume</b>     | <b>PostOfficeTop20SenderSize.xml</b>      | <b>poamsgs.db</b>           | <b>Post Office Logfiles</b>  |
| <b>Post Office Top 50 Messages larger 5000 bytes</b>   | <b>PostOfficeTop50MsgsGreater5000.xml</b> | <b>poamsgs.db</b>           | <b>Post Office Logfiles</b>  |
| <b>Post Office Top 50 Recipients by Message Count</b>  | <b>PostOfficeTop50RecipientsCount.xml</b> | <b>poamsgs.db</b>           | <b>Post Office Logfiles</b>  |
| <b>Post Office Top 50 Sender by Message Count</b>      | <b>PostOfficeTop50SenderCount.xml</b>     | <b>poamsgs.db</b>           | <b>Post Office Logfiles</b>  |
| <b>Problem Analysis</b>                                | <b>ProblemAnalysis.xml</b>                | <b>alerts.db</b>            | <b>Alerts fired in Redline</b>                                       |
| <b>Redline Table Query Report</b>                      | <b>QueryDBTable.xml</b>                   | <b>-</b>                    | <b>This is just a help file for the Query Reports</b>                |
| <b>Redline Query Report</b>                            | <b>QueryReport.xml</b>                    | <b>-</b>                    | <b>This is just a help file for the Query Reports</b>                |
| <b>Reveal Usage Analysis</b>                           | <b>RevealUsageAnalysis.xml</b>            | <b>reveal.db</b>            | <b>Reveal database populated with data send directly from Reveal</b> |

|   |   |                                  |   |
|---|---|----------------------------------|---|
| <b>Top 10 Domain Disk Space Trend Analysis</b>    | <b>Top10MTADiskSpaceTrendAnalysis.xml</b> | <b>mta.db</b>                    | <b>Redline internal</b>                           |
| <b>Top 10 Domain Message Processing Analysis</b>  | <b>Top10MTAOperationAnalysis.xml</b>      | <b>mta.db</b>                    |   |
| <b>Top 10 Largest Post Office Database</b>        | <b>Top10POADatabaseSizeAnalysis.xml</b>   | <b>poa.db</b>                    | <b>Redline internal</b>                           |
| <b>Top 20 Largest Mailboxes</b>                   | <b>Top20MailboxSize.xml</b>               | <b>global.db</b>                 | <b>GWIA Logfiles</b>                              |
| <b>Top 50 Largest Mailboxes</b>                   | <b>Top50MailboxSize.xml</b>               | <b>global.db</b>                 | <b>GWIA Logfiles</b>                              |
| <b>Trend Mobile Server Data Transfer/Duration</b> | <b>TrendGMSMsg.xml</b>                    | <b>gwmobile.db</b>               | <b>GWIA Logfiles, POA Logfiles, GMS2 Logfiles</b> |
| <b>Trend Internet Messages</b>                    | <b>TrendGWIAMsgs.xml</b>                  | <b>gwiamsgs.db</b>               | <b>GWIA logfiles and History tables</b>           |
| <b>Trend Messages / Mailbox Size per User</b>     | <b>TrendMBSizeHistory.xml</b>             | <b>global.db<br/>gwustats.db</b> | <b>GWCheck and History tables</b>                 |
| <b>Trend Post Office Logins/Usage</b>             | <b>TrendPOALogins.xml</b>                 | <b>poalgin.db</b>                | <b>Post Office logfiles</b>                       |
| <b>Trend System Uptime</b>                        | <b>TrendUptime.xml</b>                    | <b>global.db</b>                 | <b>Redline internal</b>                           |
| <b>User Mailbox Analysis</b>                      | <b>UserMailboxAnalysis.xml</b>            | <b>global.db</b>                 |   |
| <b>GroupWise 7.0.2/6.5.6 Vulnerability Check</b>  | <b>Vulnerability702VersionCheck.xml</b>   | <b>-</b>                         | <b>POA HTTP/XML interface</b>                     |

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**WebAccess User  
Login Analysis**

**WebAccUserLoginAnalysis.xml**

**webacc.db**

**WebAccess logfiles**

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