



GWARC Novell GroupWise Add-On Administrator's Guide

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This manual supports all releases of the Archive Operating System (AOS) until further notice.

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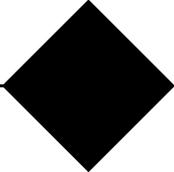
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Installing and Configuring the GwARC Novell GroupWise Add-On

GwARC is a Novell GroupWise add-on product that uses Novell's Trusted Application Interface to collect email from mailboxes in a GroupWise Post Office and send them to an archive. GwARC will either send those messages found in the mailbox folders via SMTP to another administrator defined archive mailbox for the mail archive appliance to retrieve using the IMAP, or GwARC will send them directly to the appliance via the SMTP (RFC 2821) protocols. GwARC searches the Post Office for messages that have not been flagged as archived, sends a copy of the non-archived messages via SMTP, and then flags the messages as archived so they may be deleted from the mailbox.

This manual assumes a working knowledge of the setup and configuration of GroupWise. Instructions on how to install and configure GroupWise is beyond the scope of this manual. For more information on installing GroupWise, see the Novell product documentation.

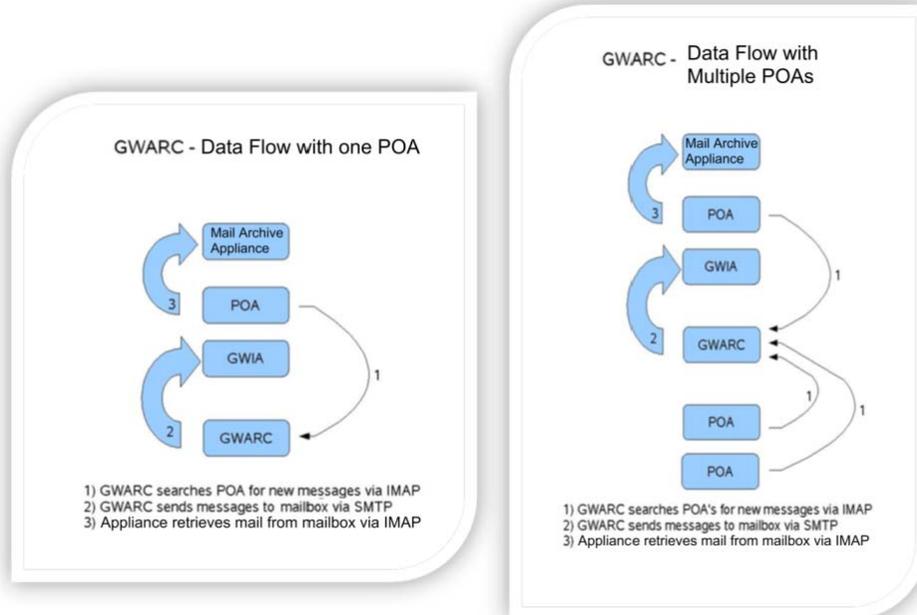
Mirapoint recommends that Network Administrators use this manual as a reference to configure their Novell mail servers to work with the mail archive appliance. This manual is not meant to give specific GroupWise configuration instructions, as the configuration will largely depend on the individual mail server setup.

Installing the GwARC Add-On

You will need to run GwARC for each Post Office you have in GroupWise. For example, if you have multiple GroupWise servers, a copy of the GwARC is needed for each server (if using the Netware Loadable Module (NLM)). If you have two or more Post Offices configured on the same server, a configuration file (.ini file) for each Post Office is required, however, you can use the same GwARC executable file (.exe file).

The placement of the executable is the biggest criterion in planning your installation. Mirapoint recommends that the executable be run on the same server which GroupWise is installed on. Bandwidth of GwARC to the Post Office can be twice as much as the bandwidth between GwARC and the archive host. If bandwidth is a concern, place GwARC as close to the Post Office as possible. If the Post Office is running on a NetWare or Windows server, the executable should go on that server.

Figure 1 GwARC Data Flow



The mail archive appliance can either pull messages from the GroupWise archive mailbox (using IMAP) or it can receive messages directly via SMTP. Regardless of the method you use to place the messages on the appliance, GwARC uses SMTP to send all messages it identifies as needing to be archived. The only difference is the destination (another mailbox on the Post Office for the IMAP method, or the mail archive appliance directly for SMTP delivery). Which method you use is entirely up to you. There is no additional overhead, with the exception of storage space on your GroupWise server.

GwARC can run either as a Windows executable, or a NLM, depending on your version of GroupWise.

Installation Prerequisites

The GwARC Add-On has the following system requirements:

- ◆ Windows workstation (Windows 2000, XP) with NetWare Client
- ◆ GroupWise client version 6.0 SP3 or newer, 6.5 any SP, or 7.0 any SP
- ◆ At least 1 MB of free disk space (a floppy disk can be used, if you have no free disk space)
- ◆ Well-connected to GroupWise system
- ◆ GroupWise version 6.0 SP3 or newer, 6.5 any SP, or 7.0 any SP
- ◆ At least one Post Office
- ◆ At least one Domain
- ◆ At least one GWIA

You will also need to know the following information in order to complete the GWARC Add-On installation:

- ◆ Where will GWARC run for each Post Office (if running more than one)?
 - Will this be an .exe or .nlm?
 - What is the IP address for the post office?
 - What is the IMAP port for the post office (default 143)?
- ◆ Where will GWARC send its output?
 - What is the IP address of the GWIA (GroupWise Internet Agent)?
 - What is the method of archiving email: Push or Pull (SMTP or IMAP)?
 - What is the username of the mailbox created for the mail archive appliance to poll (if archiving to another mailbox on the Post Office)?
 - What is the SMTP port used (default 25)?



If GWIA and a Post Office are on the same server (or same IP Address), the IMAP ports will conflict. In a default configuration, GWIA will take port 143 and GWARC will not work. You have two options:

- ◆ Disable IMAP support for GWIA. In the case you do not use it for client access to mailboxes from the Internet.

or,

- ◆ Select a different port for the Post Office IMAP to use (i.e., port 8143).

Installing the Add-On

To install the Add-On:

1. Create a directory on the Windows workstation and copy the installation files from the Mirapoint CD.

Nothing will be installed on this workstation and this directory can be deleted once the .ini file has been created and copied to its final location

2. Run the Install.exe file.

A dialog box will appear asking for the location of your primary domain database (wpdomain.db). Navigate to the directory containing your primary domain database (wpdomain.db) and click **OK**.

3. This creates the 256-bit key needed for GWARC to access the Post Offices. It writes this key in Base64 format in the GWARC.ini configuration file. This .ini file and key are required for the GWARC utility to run.



This key and .ini file should be kept in a secure location, as it provides access to all mailboxes in the GroupWise system.

If you experience any errors, you can run the installation any number of times you wish. It will prompt you that the Trusted Application has already been installed and if you wish to proceed. Each installation will generate a new 256-bit key and a new `GwARC.ini` file.

4. (Optional) You can skip this step if you use the SMTP push method. For the IMAP pull method only, complete the following steps:
 - a. Create a GroupWise user to act as the holding area for the mail archive appliance to pick up its messages.
 - b. Set a GroupWise password. This user ID/password combination will have to also be entered into the mail archive appliance's email server configuration.

5. Edit the `GwARC.ini` file and fill in the `[SMTP]` section with the appropriate values, for example:

```
[SMTP]
IPAddress=1.2.3.4
IPPort=25
UserName=CV
```

The `IPAddress` is either the IP address of the mail archive appliance (i.e., the SMTP push method) or the IP address of the GroupWise GWIA. The `UserName` should match the username of the GroupWise user account created previously. The username is not needed if using the SMTP push method.

6. Make a copy of `GwARC.ini` file for each Post Office (if applicable).
For each `GwARC.ini`, make sure that you edit the `[GWPOA]` section:

```
[GWPOA]
IPAddress=1.2.3.6
IPPort=8143
```

Make sure that you change the `IPPort` setting correctly, based upon the caveat regarding the GroupWise Post Office Agent (POA) and Internet Agent being installed on the same machine (see [page 5](#)).

7. Create an `include` or `exclude` section (use one or the other). Use a semi-colon (;) to comment out a section. You will want to exclude the mail archive appliance's user account if you are using GwARC to archive messages to a GroupWise account. If you use an include statement, GwARC will only archive those mailboxes specified.

The `include` and `exclude` parameters in the `.ini` file will accept approximately 990 characters in the line. For a longer list of users, create a file with one username per line and no other spaces or punctuation.

```
[Users]
exclude=cv
;exclude=@c:\gwarc\exclude.ini
;include=userAccount1, userAccount2, userAccount3
;include=@c:\gwarc\include.txt
```

8. Copy the executable and the `.ini` files to the appropriate directory.

- For Netware, the `GWARC.nlm` file is required. Mirapoint recommends placing the files in `SYS:SYSTEM`.
- For Windows, Mirapoint recommends placing the files in `\Program Files\GWARC`.



It is not necessary to put the files in these locations because they do not register with the system. If there is only one `.ini` file in a directory (i.e., a single Post Office instance), Mirapoint recommends that it is named `GWARC.ini`, as the program will default to using that configuration filename. If you prefer to use a different name, you will have to specify the name of the `.ini` file at the command-line as a command-line switch.

Turning on the Message Retention Service

You will need to lock the GroupWise system so that users cannot empty their trash until messages are archived.

To turn on the message retention server, complete the following steps:

1. Use **ConsoleOne** with the **GroupWise** snap-in.
2. Highlight each domain, then select **Tools > Client Options > Environment**.
3. Select the **Retention** tab.
4. Select the **Enable Message Retention Service** checkbox.

Repeat for each post office and domain.



Do not lock the configuration.

If using **GWARC** to archive messages to a GroupWise mailbox account, you will need to deselect the retention option (i.e., deselect the **Enable Message Retention Service** checkbox) for the single mailbox where you are archiving mail to.

If using the **IMAP** function, you will need to configure the mail archive appliance per the setup instructions. Use the username and password for your holding account, and the port number and IP address of the Post Office of your archive mailbox.

If using the **SMTP** function of the mail archive appliance, you will need to start the **SMTP Server** on the appliance. On the appliance web user interface, you can find this setting on **Configuration** tab, **SMTP Server** under the **Email Servers** section. For more information, see the appliance's online help.

Running the GwARC Add-On for the First Time

The first time you run GwARC, every email in your Post Office will be backed up. This can take quite a while to complete. On successive runs, only new emails will be backed up. Mirapoint highly recommends that you manually run GwARC for your first run.

To run GwARC manually:

- ◆ Go to a console prompt (in NetWare or Windows) and type:

```
GwARC filename.ini
```

Including the `.ini` file is optional if you used the default file name `GwARC.ini`.

If the `.ini` file is not in the same directory as the executable, you will need its full path. Also, if GwARC is not in a search path, you will need to specify its path.

If GwARC encounters errors during its run, it is commonly a GroupWise database or message corruption issue. A rebuild is recommended (offline preferred).

In the event that you have a rather large Post Office or multiple Post Offices, and you choose the *journal* configuration for archiving, make sure that you set the `IMAPReadLimit` higher than the default setting of 20,000 messages within GroupWise. Otherwise, the mail archive appliance's IMAP fetcher could potentially reach that limit and will be prevented from retrieving more than that limit. For more information on how to configure this setting, see the Novell GroupWise product documentation.



This potential IMAP read limit issue does not apply if you configure GwARC to send archived messages directly to the appliance.

Subsequent Runs

For subsequent runs, use a scheduler program to periodically run the program automatically. On NetWare, you can use CRON. On Windows, you can use the AT command to set up scheduled task. For more information on either scheduler, see the appropriate product documentation.

Troubleshooting

Under normal operating conditions, GwARC will display the name of each user as it starts processing the user. If it finds a message to be archived, it will print plus sign (+).

When GwARC finishes sending the message, it will print a minus sign (-). After it sets the flag which indicates the message was sent, it will print another minus sign. For each message in a search set that has already been backed up, it will print a period (.). Typically, you will see something like:

```
+-----+-----.....+-----+-----+-----+-----.....
```

You can get additional output by adding the following line to the `.ini` file:

```
[DEBUG]
Level=x
```

Where `x` can be one of the following options:

- ◆ 1 - Display the stream being sent to a socket. Date will be enclosed in '<< >>'
- ◆ 2 - Display the stream being received from a socket. Date will be enclosed in '{}'
- ◆ 4 - Miscellaneous information including start date and time, retention date and time, and more.
- ◆ 128 - Waits for a keypress to exit so that the output can be viewed. Do *not* use this option when running GwARC as a scheduled task/CRON job.

The minus signs, plus signs, and periods will only be displayed if options 1 and 2 are off. Generally, option 4, is the best way to begin debugging a problem.

Error Codes

The following are error codes returned by GwARC:

- ◆ 301 ini file not found
- ◆ 302 required parameter missing
- ◆ 401 socket initialization failed
- ◆ 402 socket initialization failed
- ◆ 403 socket connect failed
- ◆ 404 error setting socket timeout
- ◆ 501 error in send - socket error
- ◆ 601 server said bye
- ◆ 602 error in recv - socket error
- ◆ 603 select() socket error
- ◆ 604 timeout

- ◆ 701 error in recv, waiting for return code
- ◆ 801 error in recv, waiting for sequence number
- ◆ 901 error in recv, getting user list
- ◆ 902 Too many users (limit = 999)
- ◆ 903 error opening included user file
- ◆ 904 error opening excluded user file
- ◆ 1001 error in recv, getting folder list
- ◆ 1002 Too many folders for a user (limit = 999)
- ◆ 1003 Folder Path too long (limit = 149)
- ◆ 1101 Unable to get server time
- ◆ 1201 error in recv, getting retention time
- ◆ 1301 error in recv, setting retention time
- ◆ 1501 unable to open folder
- ◆ 1502 error in opening folder (no OK received)
- ◆ 1503 ALERT received from POA (usually too many messages in folder)
- ◆ 1601 login disabled
- ◆ 1801 error opening socket
- ◆ 1802 did not recv 220 after opening socket
- ◆ 1809 unable to open output file
- ◆ 2101 ini file does not exist
- ◆ 2401 POA timeout
- ◆ 2402 error getting capability from POA

GWARC 3.3.6 Limits

GWARC version 3.3.6 has the following maximum user/folder limits and timeouts:

- ◆ Maximum users per Post Office: 5000
- ◆ Maximum folders per user: 2000
- ◆ Timeouts for both SMTP and POA (Post Office Agent) connections: Default is 60 seconds. A timeout will cause the current user mailbox to be aborted, and GWARC will move on to the next user if possible.

To modify these timeout values, you can add the following lines to the GWARC.ini file:

```
[GWPOA]
Timeout=timeout_in_seconds

[SMTP]
Timeout=timeout_in_seconds
```

GWARC Configuration File (INI) Settings

```
Hive, Key, [Default]

DEBUG, Level, 0
DEBUG, Abend, 0
DEBUG, Proc, 0
GW, Encoded,
GWPOA, IPAddress,
GWPOA, IPPort, 0
GWPOA, Timeout, 60
OUT, User, GWARC
OUT, Domain, GWARC
SMTP, IPAddress,
SMTP, IPPort, 25
SMTP, UserName,
SMTP, Timeout, 60
GWPOA, FlagName, CAB
GWPOA, Until,
Users, Included,
Users, Excluded,
LOG, Level, 0
LOG, Path
```

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