



Configuring MailArchiva with Insight Server

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Configuring MailArchiva with Insight Server	3
Introduction.....	3
Software	3
Installation	4
Configuring Insight Server – Milter Option	5
Configuring Insight Server – Journal Account Option.....	7
Configuring MailArchiva	8
Set an encryption password	8
Create a volume.....	8
Add local domains.....	9
Configuring LDAP Authentication.....	10
Configuring the MailArchiva Journal Account.....	12
Migrating Existing Mail Data.....	13
Migrating Existing Mail.....	16
Migration Troubleshooting	16

Configuring MailArchiva with Insight Server

Introduction

This document provides details on configuring MailArchiva to authenticate with Insight Server and archive email to the MailArchiva server.

There are two options to consider when configuring Insight Server to archive email to your MailArchiva server. What is archived will depend on your company's legal requirements and policies.

1. Archive all email including spam
2. Archive email that has been filtered (mostly without spam)

Milter Option:

Insight Server 4.3-1-10086 includes Postfix 2.5.1 which can make use of the Postfix "*milter*" (mail filter) extension to send a copy of all email to the MailArchiva server.

When using the Postfix "*milter*" extension, email is sent "unfiltered" to the MailArchiva server. This means that all email will be archived, including spam. If you would like to filter out spam before it is archived, use the Journaling Account option.

When using the "*milter*" option, the Insight Server sends email directly to the archiving server.

Journal Account Option:

The Journaling Account option uses the "always_bcc" feature to direct a copy of all email arriving at the server to a "specified account". This "specified account" is later used by MailArchiva as a journaling account to archive the email.

When using a Journaling Account, only emails that are delivered to the "always_bcc" account is archived. If you have enabled the content filter on your Insight Server, any email blocked by the filter will not be archived.

When using the Journaling Account option, the Insight Server stores the email to be archived and MailArchiva retrieves it.

Software

The Insight Server must be installed prior to configuring the MailArchiva server. Insight Server installation instructions are found in the Insight Server Admin Guide.

Insight Server:

(Debian package) <http://www.bynari.net/public/products/InsightServer/latest/deb>

(RedHat package) <http://www.bynari.net/public/products/InsightServer/latest/rpm>

Insight Server Admin Guide: <http://www.bynari.net/images/documentation/server/insightserver43-adminguide.pdf>

MailArchiva Server: <http://www.bynari.net/public/products/mailarchiva/latest/server>

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The MailArchiva Admin Guide is included with the MailArchiva software download tar ball. It can also be downloaded individually.

MailArchiva Admin Guide:

http://www.bynari.net/public/products/mailarchiva/mailarchiva_enterprise_edition_admin_guide_v1.9.pdf

NOTE: The MailArchiva Admin Guide contains useful information pertaining to general configuration and product usage.

Installation

The MailArchiva server software is very easy to install and runs within minutes.

1. To install the server, type the following command in the same directory as the downloaded source file:
`tar -xvzf mailarchiva_enterprise_edition_server_1_9_6_linux.tar.gz <enter>`

NOTE: Use the correct file name of the software you downloaded when installing MailArchiva. This file name is for example purposes only.

2. Change directories to the un-tarred "mailarchiva_dist" directory by typing:
`cd mailarchiva_dist <enter>`
3. Execute "install.sh" by typing:
(Debian-type servers) `sudo install.sh <enter>`
(RedHat-type server) `./install.sh <enter>`

NOTE: After the install.sh script has been run, the server executables will be installed under /usr/local/mailarchiva/server.

4. Change to the "mailarchiva/server" directory by typing the following command:
`cd /usr/local/mailarchiva/server <enter>`
5. MailArchiva uses ports 8090, 8091, and 8092 by default. Verify that these ports are available by typing the following commands:
`netstat -vatn | grep 8090 <enter>`
`netstat -vatn | grep 8091 <enter>`
`netstat -vatn | grep 8092 <enter>`

If port 8090 is currently being used, a different port can be configured for MailArchiva. To change the default port for MailArchiva, the "server.xml" file must be edited. To edit this file, follow these steps:

- a. `cd /usr/local/mailarchiva/server/conf <enter>`
- b. Using a text editor (like vi), open the "server.xml" configuration file for editing:
`vi server.xml <enter>`
- c. Locate all references to port 8090 and change them to the desired alternate port.
- d. Save the changes to the configuration file.
- e. Exit the text editor.

If ports 8091 and 8092 are being used by another application, these can be changed in the MailArchiva admin console by following these steps:

NOTE: The MailArchiva admin console listens for web (http) requests on port 8090. If this port is being used by another application, an alternate port must be selected and the "server.xml" file edited to make this change. Changes to ports 8091 and 8092 can only be made from within the MailArchiva admin console.

- a. Log into the MailArchiva web admin console:
<http://localhost:8090/mailarchiva>

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- b. Select the “Listeners” link on the left navigation.
- c. 8091 is the default SMTP port. Enter the new port number in the input field.
- d. 8092 is the default Postfix port. Enter the new port number in the input field.
- e. Select “Save” to save these changes.

Figure 1 – MailArchiva – Changing Default Listening Ports

6. Install the license key.
 - a. A license key file will be sent to you. This file must be copied to the server in the /usr/local/mailarchiva/server/webapps/mailarchiva/WEB-INF/classes directory. The existing demo key can be discarded.
7. The MailArchiva services will automatically start when the installation is complete.
8. The MailArchiva web console is now accessible. Log into the web console by entering, <http://localhost:8090/mailarchiva>, into your Internet browser.

NOTE: MailArchiva is now in operation and waiting for mail to be sent to it from Insight Server. Once Insight Server is configured, mail will automatically be archived to the MailArchiva system.

Configuring Insight Server – Milter Option

1. Log into the Insight Server on a command line as the user “root”.
2. Using the text editor of your choice, edit the config.xml file located in the following directory:
/opt/insight/htdocs/is4web/xml/config.xml
3. Locate the “postfix” section in the config.xml file.
4. Within the “postfix” section, locate the “Preferences” item. In a default installation, this section should look like this:

```
<item option="#---">
  Preferences
</item>
<item option="#disable_dns_lookups">
  yes
</item>
```
5. Edit this section to look like this:

```
<item option="#---">
  Preferences
</item>
<item option="milter_default_action">
  tempfail
```

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```

</item>
<item option="smtpd_milters">
inet:192.168.30.66:8092
</item>
<item option="#disable_dns_lookups">
yes
</item>

```

The figure below shows the entire "Preferences" item from an Insight Server config.xml file. The area bordered in red represents the edit made in the previous step.

```

<section name="postfix" file="/opt/insight/etc/postfix/main.cf" spacechar=" " >
Postfix MTA
<item option="#---" >
Networking
</item>
<item option="myhostname" >
mail.example2.net
</item>
<item option="mydomain" >
example2.net
</item>
<item option="myorigin" >
$mydomain
</item>
<item option="mydestination" >
$myhostname,$mydomain,example.net
</item>
<item option="mynetworks" >
127.0.0.1,192.168.30.30
</item>
<item option="relay_domains" >
$mydestination
</item>
<item option="#relayhost" >
</item>
<item option="#---" >
Preferences
</item>
<item option="milter_default_action" >
tempfail
</item>
<item option="smtpd_milters" >
inet:192.168.30.66:8092
</item>
<item option="#disable_dns_lookups" >
yes
</item>
<item option="#soft_bounce" >
yes
</item>

```

Figure 2 – MailArchiva – Insight Server – Config.xml

1. Save the config.xml configuration file and exit the text editor.
2. Login to the Insight Server management Interface.
3. Click Configuration > Services > Postfix.
4. Click Restart.

NOTE: The Postfix server must be restarted from within the is4web Admin GUI. Restarting it from the GUI writes the changes made in the config.xml file to the main.cf. Restarting Postfix from the command line will not write the changes made to config.xml.

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Configuring Insight Server – Journal Account Option

1. Create an always_bcc account that will be used for archiving.
e.g. archive-a1
2. Make note of the username and password for the always_bcc account. This username will be used later when configuring the MailArchiva server.
3. Log into the Insight Server is4web Admin GUI
4. Select **Configuration > Services > Postfix**.
5. Locate the always_bcc option.
6. Enter the email address of the Account you created in step 1.
7. Select the **Restart** button at the bottom of the page.

Configuring MailArchiva

There are three basic options that need to be configured in MailArchiva before it will begin archiving mail.

1. Set an encryption password
2. Create a volume
3. Add local domains

Set an encryption password

- Log into the MailArchiva web console using the default admin username and password.
<http://localhost:8090/mailarchiva>
username: "admin"
password: "admin"
- Select the "Configuration" link at the top of the browser window.
- Select the "Volumes" tab.
- Enter a password for "Email Encryption Password".

Create a volume

- Select "New Volume"
- Select "Save"

Volume	Status	Created	Closed	Store Path	Max Size (MB)
0	ACTIVE	2009-04-27		/var/store/store0	30000
1	UNUSED			/mnt/md3/mailarchiva	30000

Figure 3 – MailArchiva – Create New Volume

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NOTE: A “Volume” consists of an “index” and a “store”. The “index” is used for queries while the “store” contains the actual data.

Add local domains

- Select the “Domains” tab.
- Enter your server domain information.
- Select “Save” when finished.

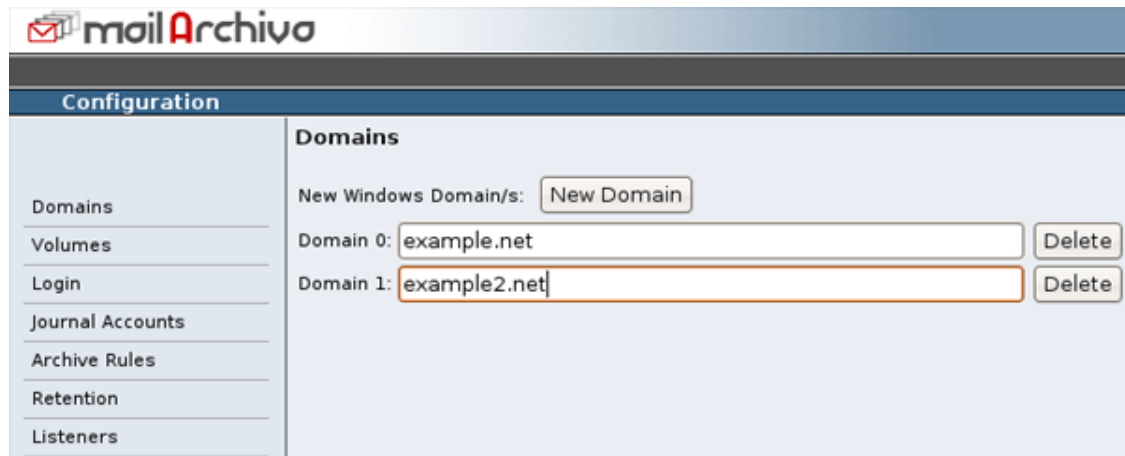


Figure 4 - MailArchiva – Configuration – Domains

Configuring LDAP Authentication

To configure MailArchiva to authenticate with your Insight Server, you will need to know the “Insight Service Account” password.

To find the password for the “Insight Service Account”, type the following command on a command line:

```
cat /opt/insight/etc/postfix/ldap-mailhost.cf | grep bind
```

This command will provide output similar to this:

```
bind_dn= cn=Insight Service Account  
bind_pw= waKsHW7K
```

The output next to “bind_pw=” is the “Insight Service Account” password.

NOTE: The Insight Service Account password is randomly generated and is different for each server installed. The example above will not work with your server. It is intended as an example only.

The following steps will configure the server LDAP information and a MailArchiva administrator account.

1. Select the “Login” tab.
2. Select “LDAP” from the “Console Login Method” pull down menu.
3. Enter the hostname or IP Address of the Insight Server in the “LDAP Server Address” field in this manner:
192.168.30.31:389

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4. Enter "cn=Insight Service Account" in the "Service DN" field.
5. Enter the "Insight Service Account" password in the "Service Account Password" field.
6. Enter "mail" in the "Bind Attribute" field.
7. Enter "mail" in the "Email Attribute" field.
8. Select the "New Role Assignment" button.
9. In the "Role" pull down menu, select "administrator".
10. In the "LDAP Attribute" field, enter "objectClass".
11. In the "Match Criterion" field, enter "insightAdmin".
12. Select "Save".

NOTE: Setting the "Match Criterion" field to "insightAdmin" will automatically grant any Insight Server "admin" account "administrator" rights to MailArchiva.

Figure 5 – MailArchiva – Insight Server – LDAP Authentication

The following steps will add "user" level accounts for each authenticated Insight Server user account. Individual account creation is not needed because of the LDAP authentication between MailArchiva and Insight Server.

1. Select the "Login" tab from within the MailArchiva web console.
2. Select the "New Role Assignment" button.
3. Select "user" from the "role" pull down menu.
4. Enter "objectClass" in the "LDAP Attribute" field.
5. Enter "insightPerson" in the "Match Criterion" field.
6. Select "Save".

To test LDAP authentication, select the "Test Login" button on the "Login" tab. Enter the email address and password of the user account to be tested and select "Lookup". When finished, select "Close" to close the window.

NOTE: Setting the "Match Criterion" field to "insightPerson" will automatically grant any Insight Server "user" account "user" rights to MailArchiva.

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Test Login	
Username	<input type="text" value="testuser1@example.net"/> (e.g. username@company.com)
Password	<input type="password"/> <input type="button" value="Lookup"/>
Authentication success. Role user is assigned.	
<input type="button" value="Close"/>	

Figure 6 – MailArchiva – LDAP Authentication Test

Repeat the test using the “admin” email address and password.

Test Login	
Username	<input type="text" value="admin@example.net"/> (e.g. username@company.com)
Password	<input type="password"/> <input type="button" value="Lookup"/>
Authentication success. Role administrator is assigned.	
<input type="button" value="Close"/>	

Figure 7 – MailArchiva – LDAP Authentication Test

NOTE: Testing the LDAP Authentication is an important step in configuring MailArchiva. Without proper authentication, mail archiving is not possible. User authentication is also necessary for user login and queries against their archived mail.

The configuration of the Insight Server and MailArchiva server is now complete. Users can log into the MailArchiva web console by opening a web browser and typing the following address: <http://<yourdomain>:8090/mailarchiva>.

NOTE: Replace “<yourdomain>” with the IP address or Fully Qualified Domain Name (FQDN) of your MailArchiva server. For example, <http://mail.example.com:8090/mailarchiva>

Users will use their entire email address when logging into MailArchiva. Because of the integration of the Insight Server’s LDAP with MailArchiva, user rights will automatically be granted according to the rights they have on Insight Server. A user with “user” rights in Insight Server will have “user” rights in MailArchiva. A user with “administrator” rights in Insight Server will have “admin” rights in MailArchiva.

NOTE: If you are using the “*milter*” option for archiving email, your configuration is complete. If you are using a Journaling Account, follow the below section.

Configuring the MailArchiva Journal Account

This step is only necessary if you are using the journaling account option. MailArchiva uses IMAP Idle to determine when new mail is present in the journaling account inbox. When new mail is present, MailArchiva retrieves the email from the journaling account and indexes it.

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1. Log into the MailArchiva Admin Console with administrator credentials.
<http://localhost:8090/mailarchiva>
2. Select "Configuration".
3. Select "Journal Accounts".
4. Select "New Journal Account".
5. Enter the IP Address or hostname in the "Server" field.
6. Enter the journal account username in the "Username" field. In this example, the journal account is "archiver-a1".
7. Enter the journal account password in the "Password" field.
8. Place a check in the box beside "Listen for message arrival notifications from server" (IMAP Idle).

Enabled:

Polling Schedule: Any Time

Protocol: IMAP

Server: 192.168.30.66

Port: 143 SSL Port: 993

Username: archive-a1

Password: ●●●●●●

Connection Mode: TLS, when available

During IMAP retrieval, process unread messages only (enable recommended)

Listen for message arrival notifications from server (IMAP Idle)

Authenticate server x.509 certificate

Actions: Delete Test Journal Account Connection

Figure 8 – MailArchiva – Journal Account

Migrating Existing Mail Data

MailArchiva starts archiving all "new mail" data (sent and received) immediately after all of the previous steps have been completed. Migrating existing or old mail data requires the use of an additional tool. The "ex2mailarchiva.sh" tool migrates, ".eml", ".msg", "mbox", or almost any file.

The MailArchiva utilities rely upon certain library files that come with the MailArchiva server. For this reason, it is necessary to download the MailArchiva server software to the Insight Server.

<http://www.bynari.net/public/products/mailarchiva/latest/server>

Once the software is downloaded, unzip the file by typing:

```
tar -xvzf mailarchiva_enterprise_edition_server_1_9_6_linux.tar.gz <enter>
```

After the file extraction is finished, execute the install shell script:

(Debian-type servers) `sudo install.sh <enter>`

(RedHat-type server) `./install.sh <enter>`

NOTE: This step will only place the appropriate files in the `/usr/local/mailarchiva` directory. These files are needed by the `ex2mailarchiva.sh` utility to export existing mail to the archiving server. Once the export is complete, these files can be removed.

Once the MailArchiva server software has been installed on the Insight Server, the utilities can also be downloaded.

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<http://www.bynari.net/public/products/mailarchiva/latest/utilities>

Once the utilities file has been downloaded and unzipped, there are a few files that will need to be configured. The following files can be found in the “utilities” directory:

- make-ex2-run.sh
- ex2mailarchiva.properties
- ex2mailarchiva.excludes

Configure make-ex2-run.sh

The make-ex2-run.sh script is a wrapper that calls the ex2mailarchiva.sh script and utilizes the parameters in both the ex2mailarchiva.properties and ex2mailarchiva.excludes files.

There are four parameters that need to be defined in make-ex2-run.sh.

1. Open make-ex2-run.sh for editing in a text editor.
2. Locate the “USERS=” parameter. The default value is:

```
USERS=`find /opt/insight/var/spool/imap/*/user -maxdepth 1 | grep -v -E  
"user$"`
```

The default value will recursively scan through each of the user directories. This value should be acceptable for most applications.

3. Locate the “EXCLUDEFILE=” parameter. The default value is:

```
EXCLUDEFILE=ex2mailarchiva.excludes
```

The default value will look for a text file named ex2mailarchiva.excludes. This text file will contain paths specific IMAP folders that should not be exported.

4. Locate the “MOUNTPOINT=” parameter. This value will direct the script to the specific path of the mail data for the Insight Server.

The default value is:

```
MOUNTPOINT=/opt/insight/var/spool/imap/
```

5. Locate the “REMOTEHOST=” parameter. This is most likely the only parameter that will need to be changed. Enter the hostname or IP Address of the MailArchiva server.

```
REMOTEHOST=192.168.30.66:8091
```

or

```
REMOTEHOST=mail.example.com:8091
```

Configure ex2mailarchiva.properties

The ex2mailarchiva.properties file tells the ex2mailarchiva.sh script which directories to include as well as which IMAP folders to exclude, e.g. Contacts, Calendar, Tasks, and Notes. It also defines which files are to be exported.

The ex2mailarchiva.properties file contains the following parameters:

- include.dir
- exclude.dir
- include.file

The default ex2mailarchiva.properties file will look similar to this:

```
include.dir.1 = *  
exclude.dir.1 = Contacts  
exclude.dir.2 = Calendar  
exclude.dir.3 = Tasks  
exclude.dir.4 = Notes  
exclude.dir.5 = Deleted Items  
include.file.1 = *
```

The first line, “include.dir.1 = *” tells ex2mailarchiva.sh to include all directories.

The “exclude.dir.1 = Contacts” through “exclude.dir.5 = Deleted Items” parameters tell ex2mailarchiva.sh what IMAP directories to exclude.

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The "include.file.1 = *." defines "what" items are to be exported. For Insight Server, all mail items are represented by a numeric value followed by a period (.). For example, a mail item may look like 1234. or it may look like 89. This script tells ex2mailarchiva.sh to collect everything that ends with a period.

Configure ex2mailarchiva.excludes

The ex2mailarchiva.excludes file tells the ex2mailarchiva.sh script which "specific" directories to exclude while going through the mail store. Here is an example of what this file may look like:

```
a/user/admin
p/user/Public
s/user/Public
f/user/freebusy
```

In this example, the path is relative to the path defined in make-ex2-run.sh under the "MOUNTPOINT=" parameter. The default path for the MOUNTPOINT is defined as: /opt/insight/var/spool/imap/

The first line of the ex2mailarchiva.excludes example above is:

```
a/user/admin
```

When make-ex2.run.sh includes the relative path to the defined MOUNTPOINT path, the exclusion is translated as:

```
/opt/insight/var/spool/imap/a/user/admin
```

Using the full ex2mailarchiva.excludes example above, make-ex2-run.sh tells ex2mailarchiva.sh to exclude the following directories:

```
/opt/insight/var/spool/imap/a/user/admin
/opt/insight/var/spool/imap/p/user/Public
/opt/insight/var/spool/imap/s/user/Public
/opt/insight/var/spool/imap/f/user/freebusy
```

The ex2mailarchiva.excludes file can be used to define specific users that you do not want archived.

Migrating Existing Mail

Execute the make-ex2-run.sh script by typing the following on the Insight Server command line from within the "utilities" directory:

```
(Debian-type servers) sudo make-ex2-run.sh <enter>
(RedHat-type server) ./make-ex2-run.sh <enter>
```

The command line output will show the users that have been processed followed by the number of messages that have been exported to the MailArchiva server.

When the script has finished processing old mail items, you will be returned to a command prompt.

NOTE: The make-ex2-run.sh script must be executed from within the same directory as it resides.

While the script is processing all of the old mail data, MailArchiva indexes and stores it in an archive volume. This is an automated process and requires no input from the administrator. When the script is finished, the old mail data is fully archived into MailArchiva.

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Migration Troubleshooting

There are a few things that could cause the make-ex2-run.sh script to fail. These items must be resolved in order for the make-ex2-run.sh script to run properly.

NOTE: Many of the items that can cause a failure in the migration process are covered in the installation and configuration process of both MailArchiva and Insight Server.

- Firewall rules blocking port 8091 between the machine running make-ex2-run.sh and the MailArchiva Server.
- The SMTP listener is not enabled on the MailArchiva Server.
- The machine running make-ex2-run.sh is not accepting connection requests from the IP address of the MailArchiva Server.
- A new volume has not been created on the MailArchiva Server yet.
- An encryption password has not been set on the MailArchiva Server yet.
- You are attempting to execute make-ex2-run.sh from outside of the directory the script resides.