



GFI MailArchiver[™]

Exchange server email archiving, management and compliance

SmartGuide

This SmartGuide is an important tool to enhance your success with the GFI MailArchiver product.

Welcome to GFI MailArchiver™ (“MailArchiver”): The single-source solution for all your email archiving and email management problems on your Microsoft Exchange server.

Introduction

This SmartGuide is an important tool to enhance your success with the product. This SmartGuide includes the following:

1. **GFI MailArchiver Product Overview**
2. **Why Customers Purchase GFI MailArchiver**
3. **Five (5) Major Points to Consider Before Deploying GFI MailArchiver**

GFI MailArchiver is easy to install and get running; however, there are items that need to be understood before installing it. From our experience, if these items are not addressed, there could be situations where configuration issues could impact the performance of the product and, therefore, your success with it.

Through this Guide and a little planning ahead of time, you will be able to deploy an efficient and easy-to-maintain environment. Please take the time to review this document before installing the product.

For additional detailed documentation you can reference GFI’s Knowledge Base, (kbase.gfi.com) and the GFI MailArchiver documentation located [here](#).

If, after reading the SmartGuide, you have questions about any of the issues raised in this document, please contact our support organization at www.gfi.com/company/contact.htm or electronically at support.gfi.com/Support/supportrequest.aspx?lcode=en.

GFI MailArchiver Overview

GFI MailArchiver is used to maintain a copy of corporate email correspondence, manage and reduce the company’s need for PST files.

Let’s start with a review of what GFI MailArchiver does. Simply stated:

1. When someone sends an email to an email user, the email is put into their Microsoft Exchange (Exchange) mailbox and, a copy is also replicated in Microsoft’s Exchange Journaling mailbox.
2. GFI MailArchiver retrieves the email from the Exchange Journaling mailbox and archives it into an easily obtainable and searchable database. The email archive is stored in a database (or a combination of a database and files. The email archive may be located on the Exchange Server or on a separate server.
3. The email users can then simply access their archived copy of the email in one of two ways:
 - a. Directly in Microsoft Outlook in the user’s folder structure “**GFI MailArchiver Mailbox**”. This is accomplished using the **GFI MailArchiver Outlook Connector Plug-in**.
 - or
 - b. Using the GFI MailArchiver Web Interface.

GFI MailArchiver then connects to the Exchange Journaling mailbox to retrieve the emails to be archived. This is discussed in greater detail in the **GFI MailArchiver Server Manual**, Chapter 5.2 “Managing the Mail Servers to Archive” (<http://support.gfi.com/manuals/en/mar2011ac/mar2011acmanual.1.24.html>).

Why do customers purchase GFI MailArchiver?

Based on our experience, below are the top five (5) reasons GFI customers purchase GFI MailArchiver:

1. To significantly **reduce the processing and availability demands on the Exchange Server**
2. To **meet the growing number of regulations on compliance, eDiscovery and other regulations**; legal departments often ask: “search this user, for this date range, on this subject”.
3. As **a self-service recovery of emails** for email users.
4. As **a centralized tool for monitoring the email activity** of email users.
5. To easily **manage and reduce their dependency on** distributed and unmanageable **PST files**.

Before deploying GFI MailArchiver

There are five (5) major aspects of GFI MailArchiver to consider before deployment. It is important that you understand each of them. If after reading the section below you still have any questions or want to discuss any of them, please **contact us**.

1. **Licensing GFI MailArchiver: How to Determine License Count**
2. **System Installation Requirements**
3. **Database Recommendations**
 - a. What database to use? If using Microsoft SQL (MS SQL), which version do we recommend?
 - b. What are the recommended configuration setup and hardware specifications?
4. **Managing and Maintaining Databases through Archive Store Management**
5. **Managing Search Indexes**

1. Licensing GFI MailArchiver: How to determine licence count

For licensing purposes, GFI MailArchiver counts all users in the Active Directory (AD) domain that have email addresses. The number of Active Directory mailboxes is the number of GFI MailArchiver licenses that are required.

There are times, however, where you may not want to archive every person’s email. There are two possible methods through which a user or group can be excluded from archiving – an inclusion list or an exclusion list.

1. Inclusion list – only the Active Directory Users or Groups that you list will be archived
2. Exclusion list – all users will be archived **except** the Active Directory Users and Groups you specify

Note: In the user lists, you will see three possible methods of entry - User, Group, and Email. Using either User or Group for these exclusions will reduce your licensed user count. If you choose to use email addresses in the exclusions, you will not reduce your user count. Therefore, for licensing purposes, it is always recommended to select Users or Groups in your exclusions.

You can read more on the exclusion methods in the **“Mailbox Archive restrictions”** section of the manual.

2. System installation requirements

GFI MailArchiver has a few software prerequisites. These must be installed prior to installing GFI MailArchiver. The most important of these requirements are listed below and the full set can be found **here**.

- » Windows 2003 SP1/2008/2008 R2 or later
- » Windows SBS 2003 or later
- » Microsoft .NET Framework 2.0
- » ASP.Net 2.0
- » Internet Information Services (ISS) – SMTP & World Wide Web services
- » Microsoft Internet Explorer 5.7 or later/Mozilla Firefox

- » Microsoft Exchange Server MAPI Client and Collaboration Data Objects (CDO) 1.2.1 must be installed in the following cases:

Microsoft Exchange Version	GFI MailArchiver installed on the Exchange machine	GFI MailArchiver installed on a separate machine
Exchange 2000/2003	Do Not Install MAPI CDO	Install MAPI CDO
Exchange 2007/2010	Install MAPI CDO	Install MAPI CDO

- » Exchange Journaling has to be enabled
- » GFI MailArchiver will require a database to store emails, if a version of MS SQL is best for your organization then you will want to have this installed prior to installing the product.

3. Database recommendations

Most installations of GFI MailArchiver use MS SQL database to store their archived emails. As MS SQL comes in different versions and editions, it is critical that you are aware of them and plan accordingly before you implement GFI MailArchiver. Plan upfront to avoid issues (e.g., performance) caused because you needed a different version or edition of MS SQL server database. Our customers have had this experience enough times, so we believe it is important to review this with you before you start your installation.

There are two editions of MS SQL that you should be aware of; MS SQL Express and MS SQL Server.

- » SQL Express is the free version of the product. *SQL Express version 2005 or prior has a limitation of 4GB per database. SQL Express version 2008 R2 has a limitation of 10GB per database.* It is therefore a critical variable when planning your implementation of GFI MailArchiver. The number of emails you will be archiving is important to think about. If the size of the database will be or will grow larger than the SQL Express limitations listed above, you should consider the full version of MS SQL Server database.
- » If your archive needs are greater than what SQL Express allows (see the SQL Express limitations listed above), then MS SQL Server is most suitable. GFI recommends this version as this is the one that most of our GFI MailArchiver installations use.
- » MS SQL Server has two licensing models
 1. Per Processor: Per processor pricing model is possibly more expensive. The benefit of this model would be that you would not worry about the number of users and Microsoft does not license a multi-core processor as multiple CPUs.
 2. Server + Per User CAL (Client Access License): "Cheaper" at lower CAL levels, but you pay per user. Note: GFI MailArchiver only requires the Server + Per User CAL license.

If the MS SQL Server is used for other applications, then consideration for those connections must be taken. Below are some links to MS SQL licensing information pages. [SQL 2008](#), [SQL 2005](#), [SQL Express 2008](#)

- **As always you may want to consult with Microsoft or your Microsoft partner for advice.**

After understanding the various MS SQL Server databases available, customers will often ask for any suggested guidelines as to which database to choose. They ask us questions like: if I have 23 email boxes and archive about 2,000 emails per day, can you make any recommendations?

Since GFI MailArchiver is an archiving product and the minimum requirements are only for GFI MailArchiver installation space requirements and not for the storage space to hold archived emails, we think it reasonable to include some guidelines. The chart at Table 2 "[GFI MailArchiver Recommended Hardware Specifications](#)"*, provides direction in your decision.

Recommended configuration

GFI MailArchiver can be configured to run in various hardware set-ups and combinations. It is important that different physical disks are used to host different entities. For example, it is suggested that RAID5 is used for both backend databases and GFI MailArchiver indexes. Ideally both will be on separate controllers to avoid any controller bottleneck. MS SQL Server or MS SQL Express can be used, however, keep in mind that MS SQL Express has the following three limitations:

1. Database size can be up to 4GB for SQL Express version 2005 or prior. SQL Express version 2008 R2 has a limitation of 10GB per database.
2. It uses 1 CPU only.
3. It uses a maximum of 1GB RAM.

Therefore, it is recommended that when MS SQL Express is used, it is used in conjunction with NTFS. That is, the Archive Store is built on the model of MS SQL + NTFS.

Table 2: GFI MailArchiver recommended specifications

Table 2 outlines the minimum requirements for GFI MailArchiver. If the server is to host other services, such as a Domain Controller, Exchange, and MS SQL, extra resources must be added.

These are the minimum requirements for GFI MailArchiver. The requirements for these services should be over and above the specifications below.

SMALL (<50 Mailboxes or 2,500 emails/day)				
Deployment	Exchange 2003	Exchange 2007 SP1/2010	Database*	Hardware*
Installed on Exchange	ExOLEdb	Exchange Web Services (EWS)	GFI MailArchiver Database**: Database file on Disk 1, Binary files on Disk 2, Search Indexes on Disk 3	Intel Xeon 2.33GHz-64-bit 4GB RAM - 3 Physical disks
Installed off Exchange	IMAP	EWS	GFI MailArchiver Database**: Database file on Disk 1, Binary files on Disk 2, Search Indexes on Disk 3	Intel Xeon 2.33GHz-64-bit 4GB RAM - 3 Physical disks
MEDIUM (50 – 100 Mailboxes or 6,000 emails/day)				
Deployment	Exchange 2003	Exchange 2007 SP1/2010	Database*	Hardware*
Installed on Exchange	ExOLEdb	EWS	SQL Express and NTFS: Database file on Disk 1, Binary files on Disk 1, Search Indexes on Disk 2	Intel Xeon 3.2GHz-64-bit (2 processor cores) 4GB RAM – 3 Physical disks
Installed off Exchange	IMAP	EWS	SQL Express and NTFS: Database file on Disk 1, Binary files on Disk 2, Search Indexes on Disk 3	Intel Xeon 3.2GHz -64-bit (2 processor cores) 4GB RAM – 3 Physical disks

LARGE (101 – 500 Mailboxes or 8,000 emails/day)				
Deployment	Exchange 2003	Exchange 2007 SP1/2010	Database*	Hardware*
Installed on Exchange	ExOLEdb	EWS	SQL Express and NTFS; OR SQL Server Full Version: Database file on Disk 1, Binary files on Disk 2, Search Indexes on Disk 3	Intel Xeon 3.2GHz- 64-bit (2 processor cores) 4GB RAM – 3 Physical disks
Installed off Exchange	IMAP	EWS	SQL Express and NTFS; OR SQL Server Full Version: Database file on Disk 1, Binary files on Disk 2, Search Indexes on Disk 3	Intel Xeon 3.2GHz-64-bit (2 processor cores) 4GB RAM – 3 Physical disks

VERY LARGE (500+ Mailboxes or 8,000+ emails/day)***				
Deployment	Exchange 2003	Exchange 2007 SP1/2010	Database*	Hardware*
Installed on Exchange	ExOLEdb	EWS	SQL and NTFS (Full Version): Database file on Disk 1, Binary files on Disk 2, Search Indexes on Disk 3	Intel Xeon 3.2GHz-64-bit (2 processor cores) 8GB RAM – 3 Physical disks
Installed off Exchange	IMAP	EWS	SQL and NTFS (Full Version): Database file on Disk 1, Binary files on Disk 2, Search Indexes on Disk 3	Intel Xeon 3.2GHz-64-bit (2 processor cores) 8GB RAM – 3 Physical disks

*Suggested specifications are for GFI MailArchiver only; if the server hosts other services, such as Domain Controller, Exchange, and MS SQL, extra resources will need to be added.

**In GFI MailArchiver product documentation, also referred to as Firebird

***Possible Roles Deployment with the Data Collection role on the mail server 1. Please contact GFI.

NOTE: GFI does not license or represent Microsoft or any of its products. We also do not know all the ins and outs of your internal systems, applications and data. The charts in this SmartGuide are here to provide some suggestions on issues to consider when choosing database and hardware requirements before implementing GFI MailArchiver.

They are strictly provided as a guideline.

- For 50 seats and under, you can install GFI MailArchiver in any configuration.
- From 1 to 50 seats, Folder Sync and the Outlook Connector should not be enabled if using the GFI MailArchiver Database. To use this feature, SQL Express can be used as the backend database.
- For 150 seats and over, it is recommended to use MS SQL Server as the backend database, and secondly to install GFI MailArchiver on a separate machine other than Microsoft Exchange.

4. Scheduled Archive Stores (Database Management)

The next step is to setup a queue process that will periodically archive emails and the way that you can logically create the “store” so that it can be searched quickly. This is what GFI MailArchiver refers to as “Scheduled Archive Stores” and an “archive store” (database).

Within GFI MailArchiver, the scheduled email archive process is called the Scheduled Archive Stores feature and each database is referred to as an archive store. Through this feature you can define when you want to change archive stores (e.g., quarterly) and GFI MailArchiver will kick off based on the time you set up. This is important. By doing this you are:

1. Automatically keeping the archive store size under control by periodically (e.g., quarterly) archiving emails to a new archive store (“auto rollover”).
2. Creating archive stores for each quarter or year, for example, so that you can better manage which archive stores to allow network users to browse and search.

To take advantage of the Scheduled Archive Stores auto-rollover feature, there are a few things you need to do. If you are using:

1. **MS SQL for your databases** – databases are created as they are needed and automatically roll over to them at the time you specify. This is described in more detail in Chapter 5.10 “Scheduling Archive Stores” of the GFI MailArchiver Server Manual (<http://support.gfi.com/manuals/en/mar2011ac/mar2011acmanual.1.32.html>).
 2. **The built-in GFI MailArchiver database (Firebird)** – databases will be created as you add the archive stores to the Archive Stores Management configuration. This is described in more detail in Chapter 5.10 “Scheduling Archive Stores” of the GFI MailArchiver Server Manual
 3. (<http://support.gfi.com/manuals/en/mar2011ac/mar2011acmanual.1.32.html>).
- The database used for auto rollover should only be added through the Scheduled Archive Stores configuration, not the Archive Stores Section. This is really important.
 - When determining archive store time periods, keep in mind that for faster search performance a database size of less than 30 GB – 40 GB is suggested!
 - Database growth can vary from company to company. It is suggested to monitor the growth for a period of time (a month), then use this to gauge how often to set up your archive store schedule.

5. Managing the search indexes

Many of our customers license GFI MailArchiver for compliance reasons. Our customers are often required to search through all archived emails for specific correspondence on a specific subject, during a specific time period, a specific user, etc. Searching through archived emails is simple with GFI MailArchiver.

In order to search the archived databases, however, search indexes are required. The indexes contain searchable data of archived emails and their attachments. This allows for fast and accurate retrieval of emails. Note that each archive store (database) has its own index.

The Search Index Management feature of the product allows you to set the schedule on which an email is indexed. The Search Index Management feature allows you to rebuild your indexes. As the search feature is generally used by our clients because of compliance reasons, it is a critical feature of the product

- **We highly recommend that you set this schedule to start your indexing immediately!**
- In the event an index needs to be rebuilt, it should only be done under the supervision of a GFI Technical Support Representative.
- Re-indexing a database can be a timely process and while the index is being rebuilt, emails that have not yet been re-indexed will not be available via the search. The emails are re-indexed oldest to newest.

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