
GFI FAXmaker for Exchange/SMTP 12: An introduction to the architecture and deployment options

An overview of how GFI FAXmaker works, and how to deploy it

This white paper describes the different ways in which GFI FAXmaker for Exchange/SMTP 12 can be deployed, depending on your mail server type/version and network infrastructure.

Introduction

GFI FAXmaker is a fax server that allows you to send and receive faxes via your email infrastructure. Its email integration is unparalleled, resulting in minimal administration overhead and user training. GFI FAXmaker for Exchange/SMTP integrates with Microsoft Exchange Server 2000/2003/5.5, Lotus Notes and with most popular SMTP/POP3 Mail servers. GFI FAXmaker consists of:

- A fax server service which handles the sending and receiving of faxes via the fax hardware.
- An Email2FAX gateway service that retrieves the faxes to be sent via a sink or POP3 and sends inbound faxes and fax transmission reports via SMTP.
- A fax printer driver and a fax message form which allow users to send faxes via their email client.

The fax message form integrates with the email architecture, i.e. it does not have any direct links with the GFI FAXmaker fax server software. This allows for better scalability and manageability. Other fax servers (including Microsoft fax) have proprietary communication links between the fax client and the fax server, which is much less scalable and results in more administration and troubleshooting.

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How to deploy GFI FAXmaker for Exchange/SMTP 12

GFI FAXmaker has a very flexible SMTP based architecture allowing you to deploy the fax server in a way that best suits your network and type of mail server. You can also choose whether you want to install GFI FAXmaker on your mail server or whether you want to run it on a separate machine (unless you have Exchange 5.5, in which case you must deploy it on a separate machine).

Since GFI FAXmaker does not require many resources, it can run in the background on your mail server machine. However, it is often considered good practice to separate your mail server from fax device hardware such as Brooktrout cards or ISDN cards. The choice will probably depend on the size of your network. Smaller networks can deploy GFI FAXmaker on the mail server, whilst for larger networks it would probably be preferable to deploy GFI FAXmaker on a separate machine. This separate machine does of course not need to be dedicated to GFI FAXmaker.

How GFI FAXmaker works with Exchange 2000/2003

If you have Exchange 2000 or 2003 as your mail server, you can choose to install GFI FAXmaker on the mail server machine itself or on a separate machine.

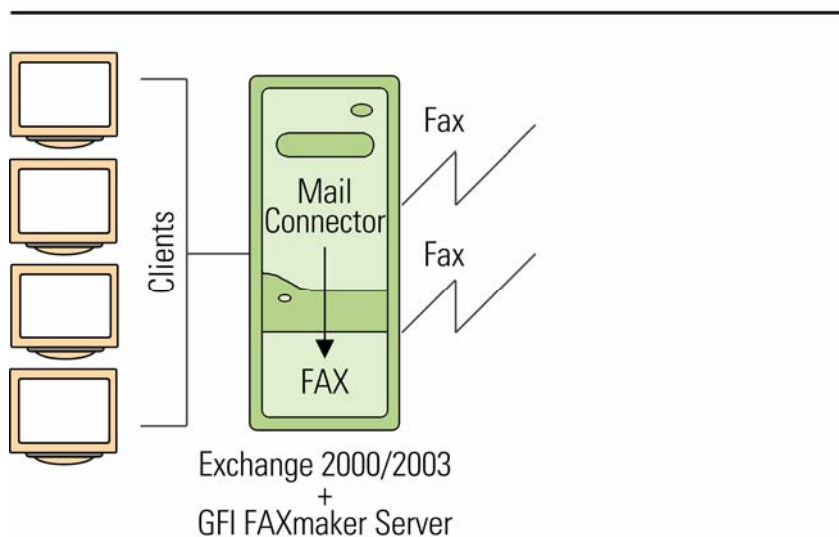


Figure 1 - GFI FAXmaker installed on the Exchange 2000/2003 server

If you install GFI FAXmaker on the Exchange Server machine, GFI FAXmaker will install a standard Exchange SMTP connector and a sink (a program that captures particular messages at mail server level). No further configuration will be needed. The connector will forward all fax messages to GFI FAXmaker via the sink.

How GFI FAXmaker works when it is installed on a separate machine

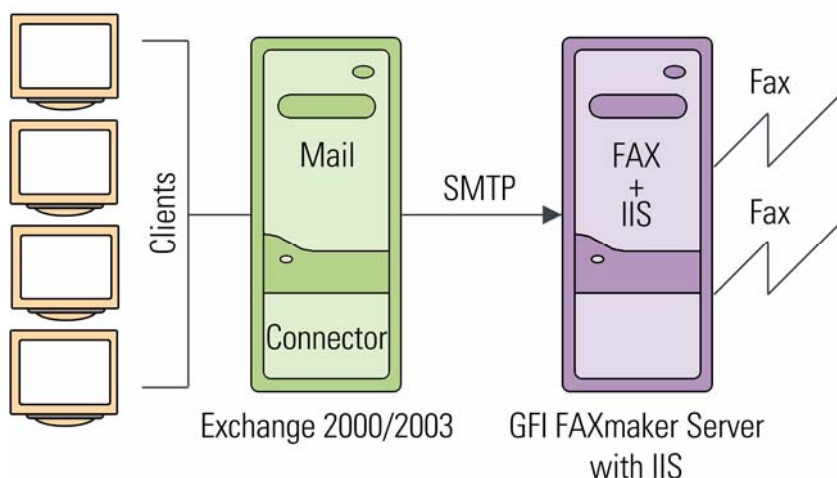


Figure 1 - GFI FAXmaker installed on a separate server

If you want to install GFI FAXmaker on a separate machine, first install GFI FAXmaker on the fax server machine (which will require the IIS SMTP service to be installed). The fax server software and a sink for the IIS SMTP service will be installed. Then run the GFI FAXmaker set-up again on the Exchange server; this will create a standard SMTP connector that will forward the faxes via SMTP to the GFI FAXmaker fax server. If you wish, you can also create this Exchange SMTP connector manually as described in the chapter of the product manual entitled 'The GFI FAXmaker SMTP connector'.

The GFI FAXmaker fax server receives the faxes via SMTP and using the sink, it captures the fax and converts it to fax format and faxes it out. Then it will mail back a delivery report to the user. The same principle is applied to SMS messages.

The installation of GFI FAXmaker on a separate machine leaves Microsoft Exchange Server completely standard – no changes to Active Directory are made and no custom software will be running on your Exchange server.

How it works from the client

All faxes sent by users from the GFI FAXmaker Fax Message form or the New Message form of Microsoft Outlook are sent via Microsoft Outlook using the MAPI format number@faxmaker.com. The standard SMTP connector (which is created by GFI FAXmaker during set-up and is a completely standard Exchange connector) forwards the faxes via SMTP to the GFI FAXmaker Fax server.

How GFI FAXmaker works with Exchange 5.5

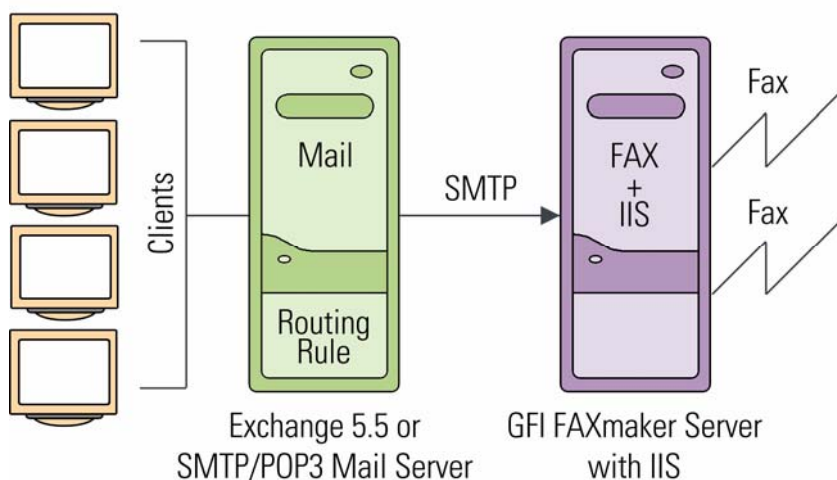


Figure 3 - GFI FAXmaker installed on a separate machine if using Exchange Server 5.5

If you have Microsoft Exchange 5.5, you must install GFI FAXmaker on a separate machine. This separate machine must be running Windows 2000 or higher and the IIS SMTP service. Afterwards you must create a routing rule to forward all mail sent to the domains faxmaker.com and smsmaker.com to the GFI FAXmaker Fax server. Creation of this rule is described in detail in the manual: 'Configuring Exchange Server 5.5 for faxing'.

The GFI FAXmaker fax server receives the faxes via SMTP and using a sink, it captures the fax, converts it to fax format and faxes it out. Then it mails back a delivery report to the user. The same principle is applied to SMS messages.

How it works from the client

All faxes sent by users from the GFI FAXmaker Fax Message form are sent via Microsoft Outlook using the SMTP format number@faxmaker.com. If the user wants to send a fax using the New Message form of Microsoft Outlook, the user has to address the email to number@faxmaker.com. Exchange 5.5 is then configured to forward mails sent to the faxmaker.com domain to the GFI FAXmaker fax server via SMTP.

How GFI FAXmaker works with Lotus Notes/Domino

If you have Lotus Notes or Domino, you can choose to install GFI FAXmaker on the mail server machine itself or on a separate machine.

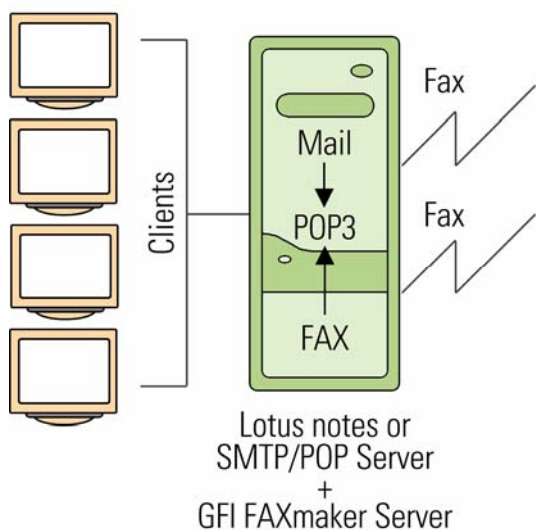


Figure 2 - GFI FAXmaker installed on the Lotus Notes machine

In both cases, GFI FAXmaker will retrieve the faxes via a dedicated POP3 mailbox. You will need to create a dedicated mailbox and configure GFI FAXmaker to retrieve the faxes from that mailbox. This procedure is described in detail in the manual: 'Configuring GFI FAXmaker for Lotus Notes'.

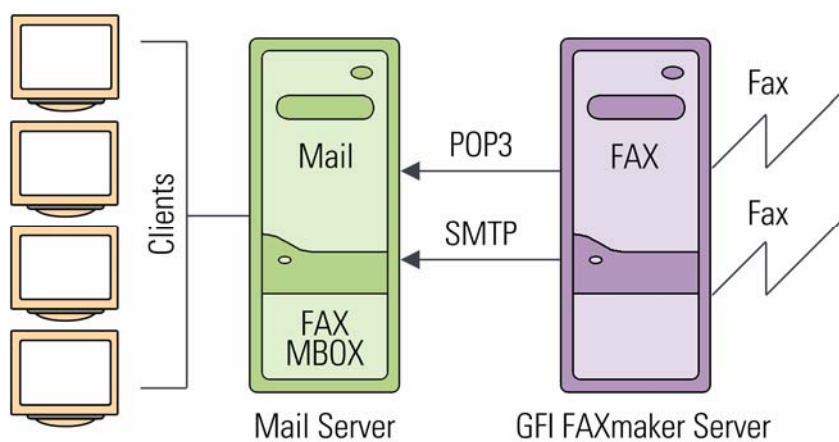


Figure 5 - GFI FAXmaker installed on a separate machine

How it works from the client

All faxes sent by users from the GFI FAXmaker Fax Message form are sent via the email client to the dedicated fax mailbox. If the user wants to send a fax using the new message form of the Lotus Notes client, the user has to address the email to `number@FAX`. Lotus Notes will forward the mail to a POP3 mailbox. This “fax mailbox” must be dedicated to the fax server. GFI FAXmaker will download the email, convert it to fax format and fax it out. Then it will mail back a delivery report to the user. The same principle is applied to SMS messages.

How GFI FAXmaker works with an SMTP/POP3 server

If you have an SMTP/POP3 server such as VPOP3 or Mdeamon, you have to choose whether you want GFI FAXmaker to collect faxes to be faxed out via POP3, or whether you want to configure your mail server to forward the faxes via SMTP to the GFI FAXmaker server.

If you choose the latter, then the machine must be installed on a separate machine (see figure 3). The first option allows you to install GFI FAXmaker on the mail server machine itself (see figure 4); however does not allow users to send faxes directly from their email client.

How it works from the client

If you have configured GFI FAXmaker to retrieve faxes via POP3, all faxes sent by users from the GFI FAXmaker Fax Message form are sent via the email client to the dedicated fax mailbox. GFI FAXmaker will download the email, convert it to fax format and fax it out. Then it will mail back a delivery report to the user. The same principle is applied to SMS messages.

If you have configured your mail server to forward all faxes via SMTP to the separately installed GFI FAXmaker fax server, then all faxes sent by users from the GFI FAXmaker Fax Message form will be sent via the email client using the SMTP format number@faxmaker.com. If the user wants to send a fax from their email client, then the user has to address the email to number@faxmaker.com. The SMTP/POP3 mail server is then configured to forward mails sent to the `faxmaker.com` domain to the GFI FAXmaker fax server via SMTP. The GFI FAXmaker fax server receives the faxes via SMTP and using a sink, captures the fax, converts it to fax format and faxes it out. Then it mails back a delivery report to the user. The same principle is applied to SMS messages.

How GFI FAXmaker works with multiple mail servers

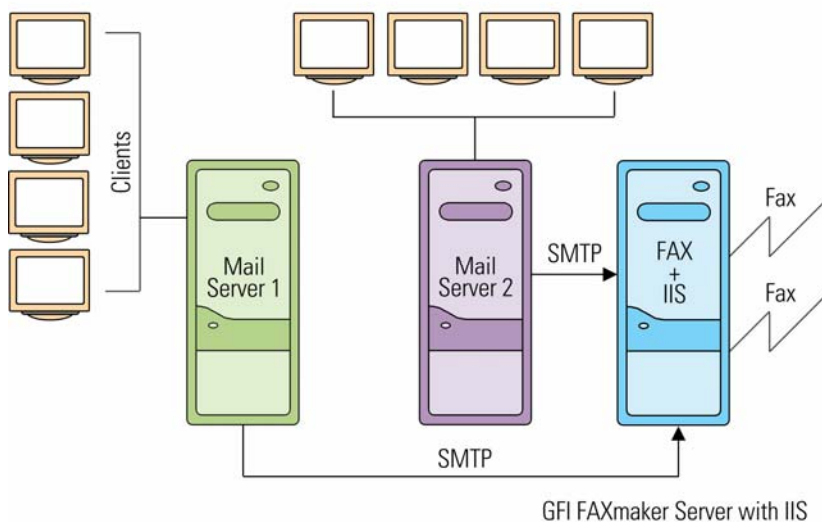


Figure 6 - GFI FAXmaker with multiple mail servers

If you have a large network with multiple mail servers, you can configure your mail servers to forward faxes from all mail servers via SMTP (using the same methods as described above for each type of mail server), independent of what mail server they are running. This allows you to provide fax services to users on several mail servers with a single GFI FAXmaker server.

How GFI FAXmaker works with an ISP-hosted mail server

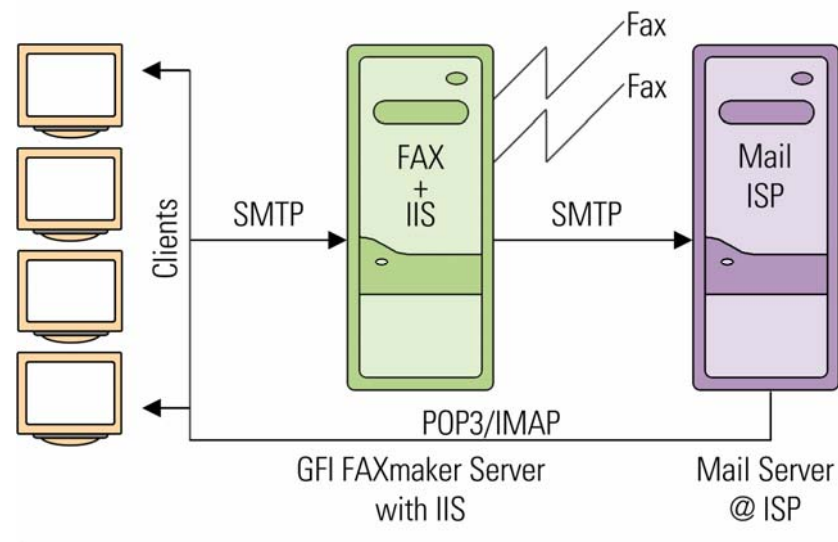


Figure 7 – GFI FAXmaker with hosted mail server

If you have a small network and do not run your own mail server or have a hosted mail server set-up, you can still deploy GFI FAXmaker. You just need to install the IIS SMTP service on the GFI FAXmaker server. The GFI FAXmaker client software will forward all faxes directly to the GFI FAXmaker Fax server via SMTP.

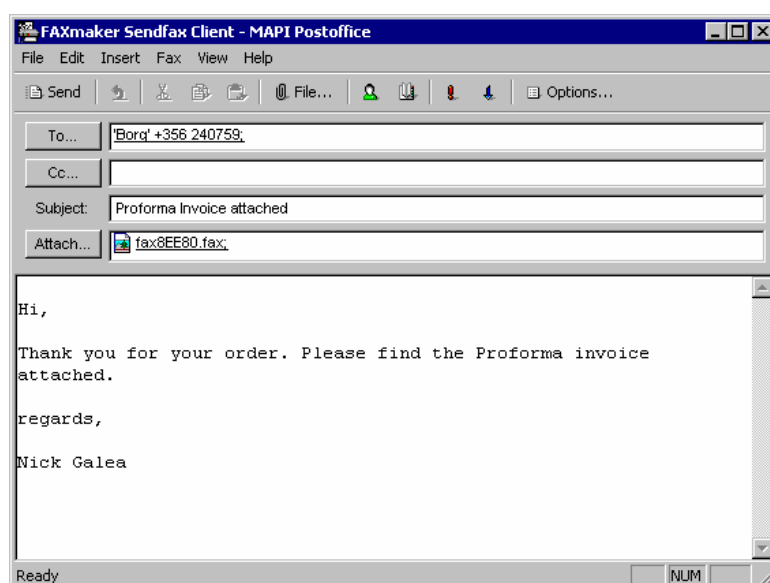
The GFI FAXmaker fax server receives the faxes via SMTP and using a sink captures the fax, converts it to fax format, and faxes it out. The same principle is applied to SMS messages. Delivery reports and inbound faxes will be forwarded to the user's email address at the ISP mail server. Because of the small size of faxes files and relatively small amount of email traffic created by GFI FAXmaker, this will not pose a significant overhead on your Internet link.

How it works from the client

All faxes sent by users from the GFI FAXmaker client will be sent to the SMTP format number@faxmaker.com. The GFI FAXmaker client will know the name of the fax server machine and submit the fax directly to the GFI FAXmaker server. The user cannot send a fax from his email client.

How users send a fax

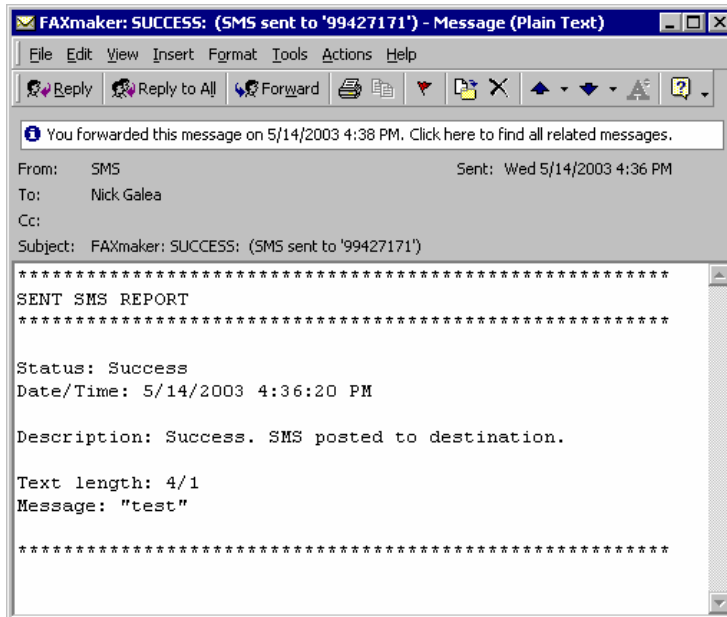
The user can send a fax in the following ways:



Screenshot 1 - The GFI FAXmaker Fax Message form

1. Create or open a document in any Windows application and print it to the 'GFI FAXmaker printer'. This will convert the document to fax format and activate the GFI FAXmaker Fax Message form in which a fax number and other options can be specified.
2. Send directly from the GFI FAXmaker Fax Message form from the GFI FAXmaker program

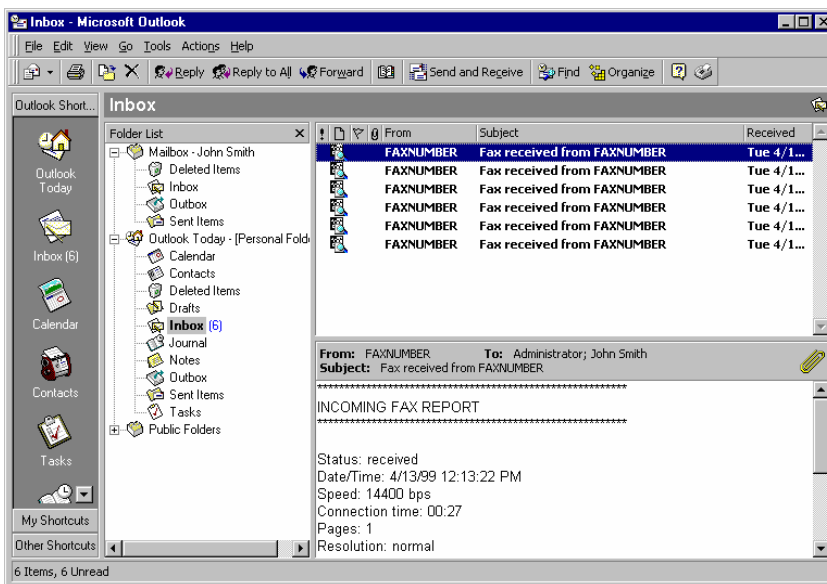
- group.
3. Open their email client, create a new message, enter the text to send, add attachments if needed and address the fax to number@faxmaker.com, or if the user is on Exchange Server, select the recipient from the Microsoft Outlook Contacts.
 4. From any Microsoft Office application, use the Send To command, which can be found in the File menu. This will attach the document created to a new mail message after which the fax can be sent as per option 3.



Screenshot 2 - For each fax or SMS, a transmission report is sent to the user

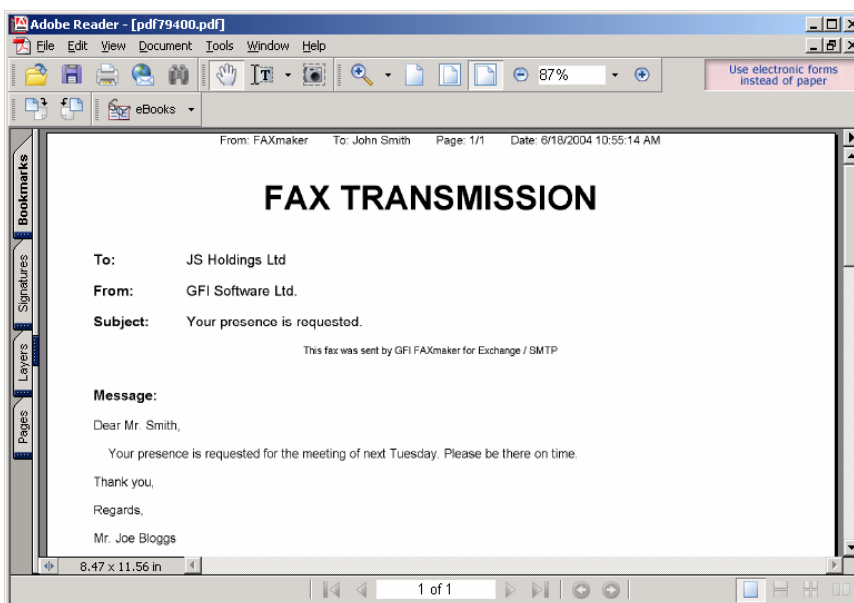
How users view received faxes

All received faxes are forwarded to the user via email. The email will contain a fax report and the fax file included with the email as an attachment.



Screenshot 3 - Faxes are received in the inbox

The faxes can be attached in several formats, of which the GFI FAXmaker fax format or the Adobe PDF format are the recommended options. If using the GFI FAXmaker fax format, the fax viewer is used to view the fax. If using PDF, the fax can be opened in any PDF viewer.



Screenshot 4 - Viewing a fax in the Adobe PDF reader

About GFI

GFI is a leading provider of network security, content security and messaging software. Key products include the GFI FAXmaker fax connector for Exchange and fax server for networks; GFI MailSecurity email content/exploit checking and anti-virus software; GFI MailEssentials server-based anti-spam software; GFI LANguard Network Security Scanner (N.S.S.) security scanning and patch management software; GFI Network Server Monitor that automatically sends alerts, and corrects network and server issues; GFI LANguard Security Event Log Monitor (S.E.L.M.) that performs event log based intrusion detection and network-wide event log management; and GFI LANguard Portable Storage Control that enables network-wide control of removable media. Clients include Microsoft, Telstra, Time Warner Cable, Shell Oil Lubricants, NASA, DHL, Caterpillar, BMW, the US IRS, and the USAF. GFI has offices in the US, the UK, Germany, Cyprus, Romania, Australia and Malta, and operates through a worldwide network of distributors. GFI is a Microsoft Gold Certified Partner and has won the Microsoft Fusion (GEM) Packaged Application Partner of the Year award. For more information about GFI, visit <http://www.gfi.com>.

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