

Whitepaper:

How to ensure the  
highest availability  
for your fax needs.

**GFI FaxMaker**™

Network fax server software for Exchange/SMTP/Lotus

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**This document describes the need for high availability fax servers and demonstrates how you can extend the value of your investment in GFI FaxMaker.**

**When fax is a daily part of your business, High Availability is a must have.**

For many companies, sending and receiving information via fax is essential. GFI FaxMaker makes that process simple, secure, and above all, efficient.

However, consideration for peak times is often overlooked and during these times all lines can be tied up and become unavailable for receiving faxes or cause outbound faxes to queue. In addition, unplanned or even planned server downtime can significantly impact your business operation.

Many documents such as purchase orders, dispatch requests, invoices, quotations, bills of sale, applications and application approvals, lab results, scripts, doctors notes are time sensitive and cannot afford to be delayed due to abnormal volumes or unplanned downtime. Any disruption to your business can be significant, and damage to your reputation with trading partners can seriously impact your bottom line.

### **What is the solution?**

Implementing a high availability solution can significantly reduce the risk of these factors and enhance the benefits of your GFI FaxMaker solution. Putting redundancy measures in place could reduce your spend and avert potential loss should the worst happen.

A key licensing option available to you is the GFI FaxMaker additional server license.

An additional server license:

- allows you to install an additional GFI FaxMaker instance in the same location as your existing installation
- comes as standard with support for four lines
- gives you the flexibility to choose more connectivity options for the greatest amount of throughput and availability.

It is possible to run two GFI FaxMaker servers at the same time, and balance the work load between these two servers. In a redundant or high availability configuration, when the primary fax server becomes unavailable, the sending mail server will direct the traffic to the secondary fax server, allowing your business to continue to operate without disruption to your workflow.

In peak load times or server unavailability, the second server shares or takes over the work, giving you greater throughput and line availability.

You can also use a mix of analog, digital, fax over IP or internet fax service connectivity across one or more servers.

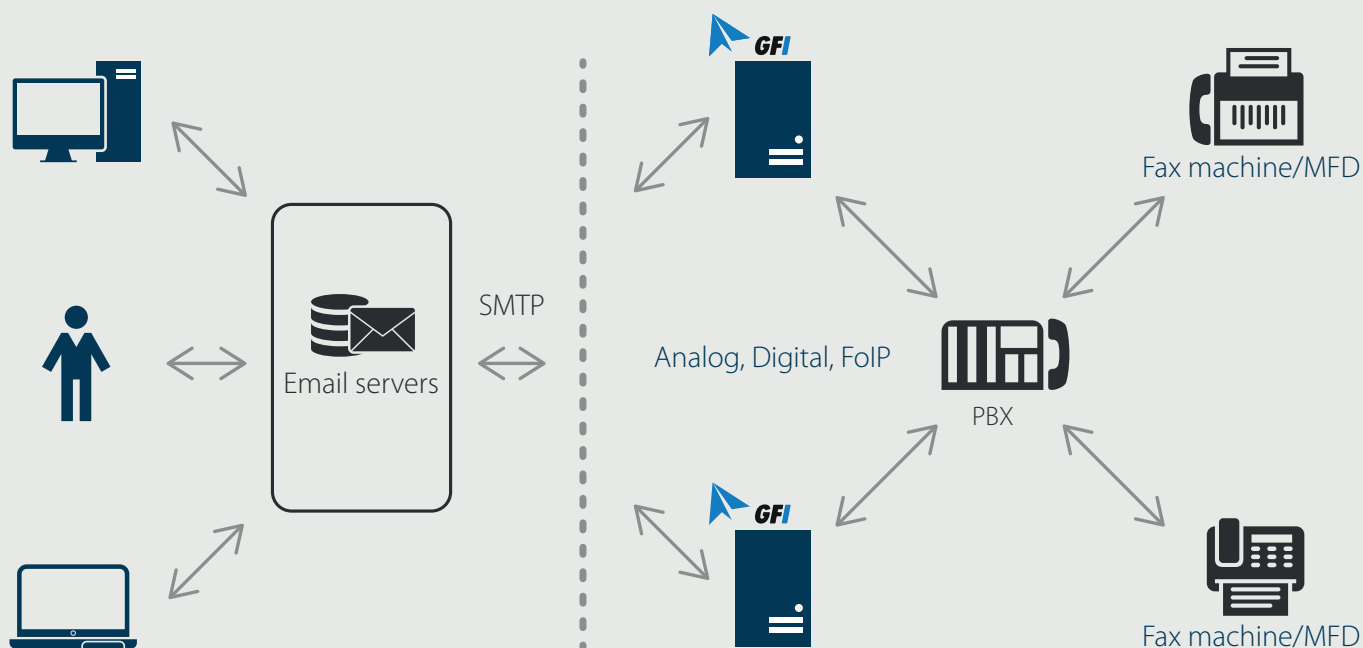
**Figure 1** on the next page is an example of a high availability implementation of GFI FaxMaker for faxing using a company's existing telephony system and email infrastructure. In this scenario the outbound faxes are directed to one of two GFI FaxMaker servers. The email servers are Microsoft Exchange and the SMTP connector costs are set the same so the mail server(s) will send email to the fax servers on an alternating basis. If the costs are set differently, then the fax server with the lowest cost will receive all email destined to be faxed until that fax server becomes unavailable. Inbound faxes will be sent to either of the fax servers, the method by which is determined by the PBX.

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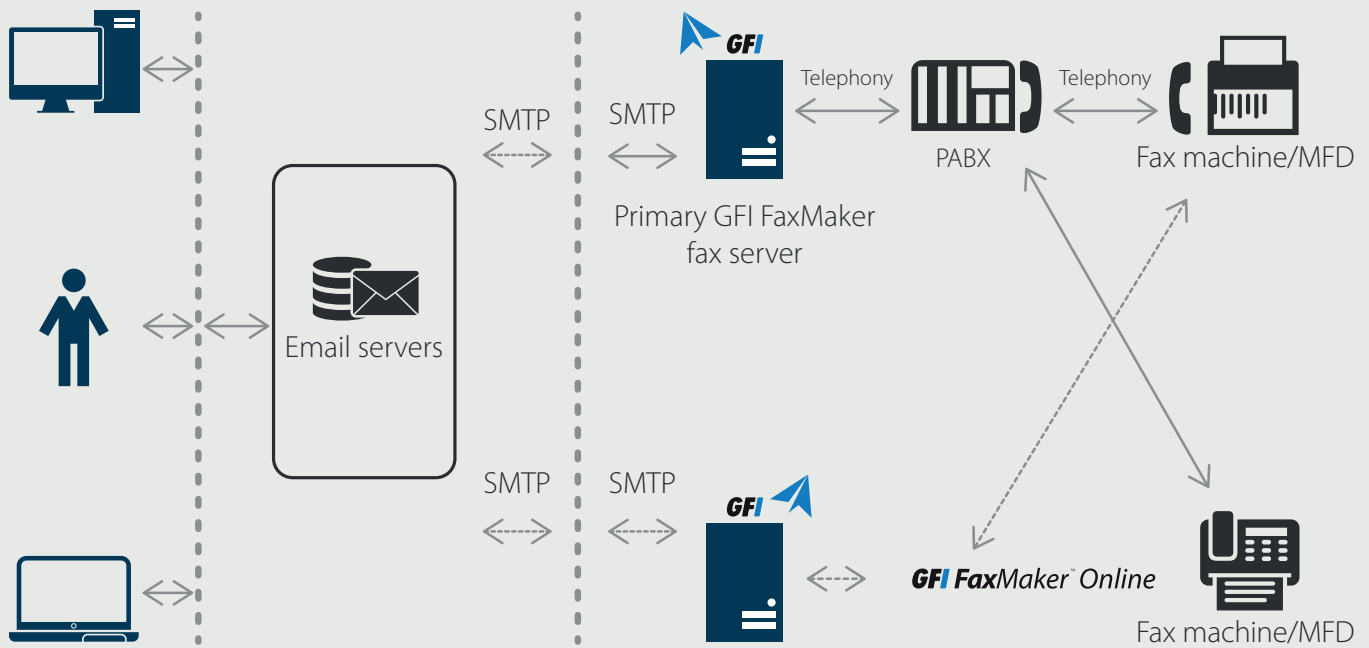
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Note, it is important to monitor line and fax server operation and to automatically stop the SMTP service on a fax server that presents a problem to ensure all outbound faxes are routed to the other server in the event of a communication problem with the server.



**Figure 2** on the next page gives an example of high availability for inbound and outbound faxing using online fax services to give extra capacity for receiving AND sending faxes. This option works on the fact that inbound faxing capacity is far greater with a fax service, and when the fax server connects to the fax service to retrieve faxes, these are pulled down far more efficiently across a secure https connection. For outbound, the fax service acts as a back up to your telephony infrastructure, as long as you have internet connectivity, you can fax. The secondary fax server would have a higher cost entered into the SMTP connector of the company's sending email server(s). The secondary fax server can be fully installed in a virtual environment as no fax hardware or phone lines are required when using the GFI FaxMaker online fax service.

Figure 1:  
Example HA deployment of GFI FaxMaker



## Outbound

You can achieve **fax load balancing** and **high fax availability** by using multiple installations of GFI FaxMaker servers. There are several ways to achieve this for outbound faxing:

- Using MX records
- Using 2 IP's in the SMTP Connector of your email server used for GFI FaxMaker
- Using Microsoft or third party load balancing with GFI FaxMaker's APIs for integrated HA fax submission from third party applications

For a detailed explanation of how to configure your second server licence for high availability please see: <http://www.gfi.com/support/products/gfi-faxmaker/KBID002630>

**Note:** If you configure the "costs" on your SMTP connectors to be different, e.g. higher cost on your second server, the second server will only be used when the first server is unavailable.

Figure 2:  
Example HA deployment of GFI FaxMaker  
using GFI FaxMaker online fax service as  
secondary connectivity option

This scenario is ideal for outbound faxing using fax services as the backup method of sending. A low cost entry level fax page plan gives you piece of mind that you will always be able to send faxes. It also means that you do not have to worry about adding more analog or ISDN lines for your second high availability server.

## Inbound

High availability for inbound faxing relies on having more than one server installation of GFI FaxMaker and your telephony setup. If your PBX has the capability to send different inbound calls to a hunt group, and both GFI FaxMaker servers are in those hunt groups, then your PBX will send calls to both GFI FaxMaker servers on a rotational basis. If one server is unavailable, it will never answer the calls and hence the other GFI FaxMaker server will take that load.

Where you wish to include HA for the event your PBX is unavailable and you are using the GFI FaxMaker Online fax service with one of the GFI FaxMaker fax servers, you would need to forward your fax numbers to the online numbers, in the event of a PBX failure.

**Note:** Ask your PBX system vendor or your telephony provider how to configure high availability for ISDN/Analog or FoIP lines.

## Conclusion

If faxing is a critical part of your communication work flow, then using GFI FaxMaker in a high availability configuration just makes sense. Accounts receivable, legal documents, specifications, proposal requests, diagnostics, appointments, and scripts are just a few examples of items that may be time sensitive in your workplace. Disruption to the transmission of these documents can cause systemic failure and have a major adverse impact on your business.

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### **How to get your second server licence**

For more information on a licensing of GFI FaxMaker in a high availability environment please speak with your GFI reseller or call GFI directly.

### **About GFI Software**

GFI Software™ develops quality IT solutions for small to mid-sized businesses with generally up to 1,000 users.

GFI® offers two main technology solutions: GFI MAX™, which enables managed service providers (MSPs) to deliver superior services to their customers; and GFI Cloud™, which empowers companies with their own internal IT teams to manage and maintain their networks via the cloud. Serving an expanding customer base of more than 200,000 companies, GFI's product line also includes collaboration, network security, anti-spam, patch management, faxing, mail archiving and web monitoring. GFI is a channel-focused company with thousands of partners throughout the world. The company has received numerous awards and industry accolades, and is a longtime Microsoft® Gold ISV Partner.





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