

IPFX Document Queuing: E-mail & Fax

Product version 4.3 SP4






About This Guide

The purpose of this document is to provide the user with information on how to use this IPFX product.

Typographical Conventions

Before you start using this guide, it is important to understand the terms and typographical conventions used in the documentation.

The following kinds of formatting in the text identify special information.

Formatting convention	Type of Information
Triangular Bullet(∅)	Step-by-step procedures. You can follow these instructions to complete a specific task.
Special Bold	Items you must select, such as menu options, command buttons, or items in a list.
<i>Emphasis</i>	Use to emphasize the importance of a point or for variable expressions such as parameters.
CAPITALS	Names of keys on the keyboard. for example, SHIFT, CTRL, or ALT.
KEY+KEY	Key combinations for which the user must press and hold down one key and then press another, for example, CTRL+P, or ALT+F4.
	Information that applies to the IPFX Director platform only.
	Information that applies to the IPFX for CallManager platform only.
	Information that applies to the IPFX for NEC platform only.

See Also

[About This Guide](#)

About Document Queuing

IPFX Document Queuing - Email and Fax activates Document Routing for Microsoft Exchange and Lotus Notes.

This document explains how to set up Document Queuing on an IPFX Server. It provides an overview of:

- What must be installed on the appropriate Mail Server to configure the Document Routing Service.
- What must be set up on the appropriate Mail Servers.

Important Notes

- The Document Queuing Module **MUST** be installed on the Microsoft Exchange Server for Integration with Outlook.
- For Lotus Notes however, it **CANNOT** be installed on the Lotus Notes Server. We recommend installing this on the IPFX CTServer. A Lotus Notes Client (V5.x) must also be installed with this module on the IPFX CTServer.
- If you have multiple Exchange or Lotus Servers, you can use multiple instances of Document Queueing, but you will require the Document Queuing Module to be running on separate machines, eg:
- You will need to install the Document Queuing Module onto each Exchange Server.
- You will need to install the Document Queuing Module onto separate client machines to access each individual Lotus Server.
- If you intend to use the Document Queuing solution for Fax Options, you must already have the Fax Server Module set up and active.

About Document Routing

A Document is defined as either an e-mail or fax that has been received by a mail account on either a Microsoft Exchange or Lotus Notes Mail Server.

Document Routing enables these documents to be automatically distributed to Queues with the IPFX Contact Centre module or sent directly to other e-mail addresses.

Faxes and e-mails can be routed as a form of multimedia, along with normal phone calls that are delivered to agents in the Contact Centre queue. This in turn enables a Contact Centre to use one system to control all forms of media that comes in and out of their Customer Service Department. It also provides one system to report and analyse all forms of contact to enhance and streamline the business.

Note: Fax messages (other than those created by IPFX Fax Server) are assumed to be in Cisco format, which is to say that the Subject of the e-mail message will contain caller information, as in this example: Subject: Inbound Fax [DNIS=4490][ANI=8483].

If a message cannot be identified as a Fax from a 3rd-party fax solution, it will be treated as a regular e-mail for document queuing purposes.

See Also

[About Document Queuing](#)

[How IPFX Fax Server Module and IPFX Document Queuing can work together](#)

[Supported Platforms](#)

How IPFX Fax Server Module and IPFX Document Queuing can work together

In This Section

[IPFX Fax Server Module](#)

[IPFX Document Queuing](#)

See Also

[About Document Queuing](#)

[About Document Routing](#)

[Supported Platforms](#)

IPFX Fax Server Module

1. Faxes will come in from the PSTN to the Gateway/Router.
2. The fax is passed to the ATA device.
3. The fax is passed to a modem or Brooktrout card.
4. The fax is passed to a Windows Service called MSFAXSERVER.exe which is installed on the Fax Server.

On the IPFX CT Server the IPFX Fax Server Module (PSFAXSERVER.exe) listens for Phone, Fax Events and any events raised by MSFAXSERVER.exe. When an event is raised and a new fax is detected, the Fax will be converted to an e-mail and sent to either a specific e-mail address or the e-mail address of a Public Folder (the later is part of the IPFX Document Queuing Module).

See Also

[How IPFX Fax Server Module and IPFX Document Queuing can work together](#)

[IPFX Document Queuing](#)

IPFX Document Queuing

IPFX Document Queuing can monitor any Public Folders (Microsoft Exchange) or Private Folder (Lotus Domino) so can detect the Fax e-mail and route it to a queue or e-mail address according to the rules configured in an IPFX client application: Configuration, Features, Document Routing.

IPFX Document Queuing can use the Caller Line Identification (CLID) of a Fax to provide more advanced routing options. Use of the CLID is dependent upon the software receiving the Fax.

See Also

[How IPFX Fax Server Module and IPFX Document Queuing can work together](#)

[IPFX Fax Server Module](#)

Supported Platforms

For Microsoft Exchange and Outlook

IPFX Document Queuing is supported on Microsoft Exchange Version 5.5, 2000 and 2003

For Lotus Domino and Notes

IPFX Document Queuing is compatible with the following versions of the Lotus suite:

- Lotus Domino Server version 6.x
- Lotus Notes version 6.x

Note: IPFX Document Queuing is never installed on the Lotus Domino Server. It is installed on another machine (for example, the IPFX CT Server) with a installation of Lotus Notes Version 5.x. The Lotus Notes client must be configured to connect to the Lotus Domino Server and to the mailbox that will be used for Document Queuing.

See Also

[About Document Queuing](#)

[About Document Routing](#)

[How IPFX Fax Server Module and IPFX Document Queuing can work together](#)

Installation

Install the IPFX Document Queuing - Email and Fax software from your installation media.

Notes

- For integration with Microsoft Outlook, the Document Queuing Module MUST be installed on the Microsoft Exchange server.
- For integration with Lotus Notes, it must NOT be installed on the Lotus Domino Server. It is recommended that you install on the IPFX CTServer. Wherever the module is installed, a Lotus Notes v6.x client must also be installed. The Lotus Notes client must be configured to connect to the Lotus Domino Server and to the mailbox that will be used for Document Queuing.
- During the installation process you will be prompted for the Name, Address and Port of your Voicemail server, so you should have this information handy before beginning the install.

Installed Files

The core files installed by the installation process are:

Filename	Location
pstcp.dll	{InstallDir}\Common Files\System\
PStcpcli.dll	{InstallDir}\Common Files\System\
PSLog.dll	{InstallDir}\Common Files\System\
PSExMapi.dll	{InstallDir}\Common Files\System\
PSDSLlink.dll	{InstallDir}\Common Files\System\
Email Routing.chm	{InstallDir}\Mail Server Integration\
PSMailSvrMailer.exe	{InstallDir}\Mail Server Integration\
PSMailSvrLink.dll	{InstallDir}\Mail Server Integration\
PSMailSvrLt.exe	{InstallDir}\Mail Server Integration\
PSMailSvrEx.exe	{InstallDir}\Mail Server Integration\
ConfPSMailSvr.exe	{InstallDir}\Mail Server Integration\
ConfMailSvrEx.exe	{InstallDir}\Mail Server Integration\
ConfMailSvrLt.exe	{InstallDir}\Mail Server Integration\
PSExchInt.dll	{InstallDir}\Mail Server Integration\
Relauncher.exe	{InstallDir}\Mail Server Integration\
PSServerReg.exe	{InstallDir}\Mail Server Integration\RegServer\
MailSvrReg.Dat	{InstallDir}\Mail Server Integration\RegServer\
pthreadVC.dll	{WindowsDir}\
NTSVC.ocx	{WindowsDir}\
MSCOMCTL.OCX	{WindowsDir}\
DartMail.dll	{WindowsDir}\
DartSock.dll	{WindowsDir}\
DartUtil.dll	{WindowsDir}\
MSVCRT.dll	{WindowsDir}\
SCRUN.dll	{WindowsDir}\

Note: {InstallDir} represents the folder you select during the installation process.

{WindowsDir} represents your Windows folder (usually C:\WINNT)

[See Also](#)

[Installation](#)

Configuration

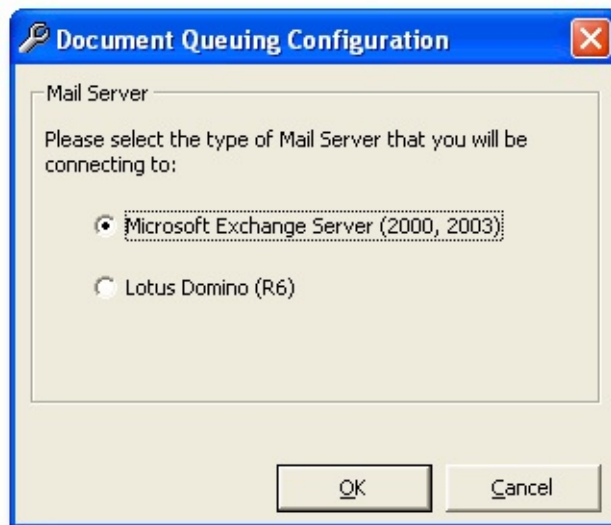
Launch the IPFX Document Queuing - Email and Fax Configuration application

On your Start Menu, under Programs \ IPFX Limited you will find a shortcut called "IPFX Document Queuing Config". Use this shortcut to launch the configuration program.

Note: The file name is ConfPSMailSvr.exe

Configuring the IPFX Document Queuing - Email and Fax application

You will be asked to select the type of mail server to which the application will be connecting, either Microsoft Exchange or Lotus Domino. Select the appropriate mail server and click **OK**.



You will now be presented further configuration options. These are split into two sections:

1. Identifying the CT (Voicemail) Servers with which IPFX Document Queuing will communicate.
2. IPFX Document Queuing configuration (as described below).

General information about module configuration

- Fax and e-mail Document Routing

A Document to be routed may be either an EMAIL or a FAX that has been received in the form of an e-mail. The Document Routing Module monitors folders that you specify (known as Publicized Folders) for these documents.

You configure the physical Routing (that is, what actually happens to a document that has been found in a Publicized Folder) in IPFX Configuration but before you can do that, you must identify your Publicized Folders to the Document Routing Module. You do that in the Mail Server Options dialog.

- Out of Office Assistant (Microsoft Exchange only)

Out of Office Assistant integration allows you to synchronize the status of your Microsoft Outlook Out-of-Office Assistant based on your IPFX Location. For example, when you set your location to "Gone for the Day" your Out-of-Office Assistant can be automatically set ON and similarly, when you return your location to "Office" your Out-of-Office Assistant can be automatically set OFF. This feature is configured by client applications through the Location Settings dialog, no additional configuration is necessary server-side.

Note: While the Out-of-Office Assistant may be set ON/OFF this may not be immediately reflected in the users client application (that is, Microsoft Outlook). See troubleshooting article Out-of-Office Assistant not being set (see "Out-of-Office Assistant not being set" on page 26) for more details.

- SMS

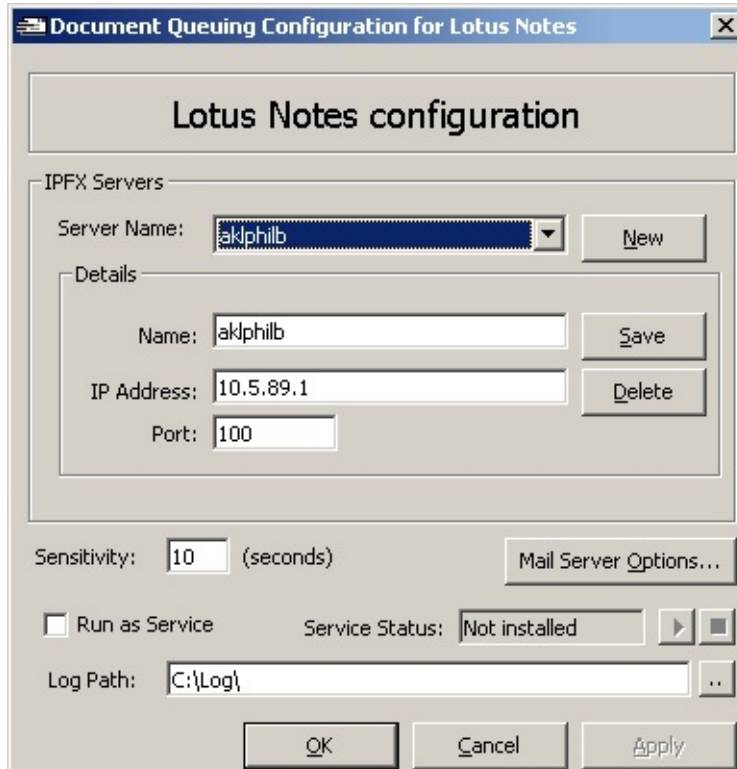
Allows SMS Messaging to be sent/received to and from IPFX Clients. SMS messages are transmitted via e-mail, as such you will need to specify a default e-mail address to be the "From:" address of the message.

Lotus Domino server

The main configuration dialog shows you the CT (Voicemail) Servers with which the Document Queuing Module will communicate. It also allows you to set how often the application should poll for new data (Sensitivity) and whether the application should be run as a Windows Service (Run as Service). You can access further configuration options that are specific to your mail server with the Mail Server Options button.

To Add a CT Server

1. Click the New button. The Name and Address text boxes will become blank, the Server dropdown will show "New Server".
2. Enter the Name of the CT Server.
3. Enter the TCP/IP Address of the CT Server.
4. The Port will default to 100, change this if necessary.
5. Click **Save** to save your changes. The Server dropdown will show the name of your new server.



To Delete a CT Server

1. Select the CT Server that you want to delete from the dropdown.
2. Click the Delete button.
3. You will be prompted for confirmation. Click Yes to proceed with the delete, click No to cancel the operation.

Sensitivity

The Sensitivity setting applies to Document Routing only. It allows you to specify how often the Mail Server Integration application should check for new documents to route.

Mail Server Options

Click the Mail Server Options button to access the configuration options that are specific to your mail server type.

Run As Service

The Document Queuing Module may be run as a Windows Service by checking this box. The service will be installed automatically and is called IPFX Limited Document Queuing.

Service Status

If you are running as a Service, the status of the Service will be displayed here. You can start and stop the service using the Start and Stop buttons to the right of the Service Status. If you make any changes to your configuration when the Service is running, you will need to restart (that is, Stop then Start) the Service before your changes will be applied.

Log Path

The application will write log information to files in the folder you specify here.

In This Section

[Mail Server Options for Lotus Domino](#)

[Changes to Lotus Templates](#)

See Also

[Configuration](#)

[Microsoft Exchange server](#)

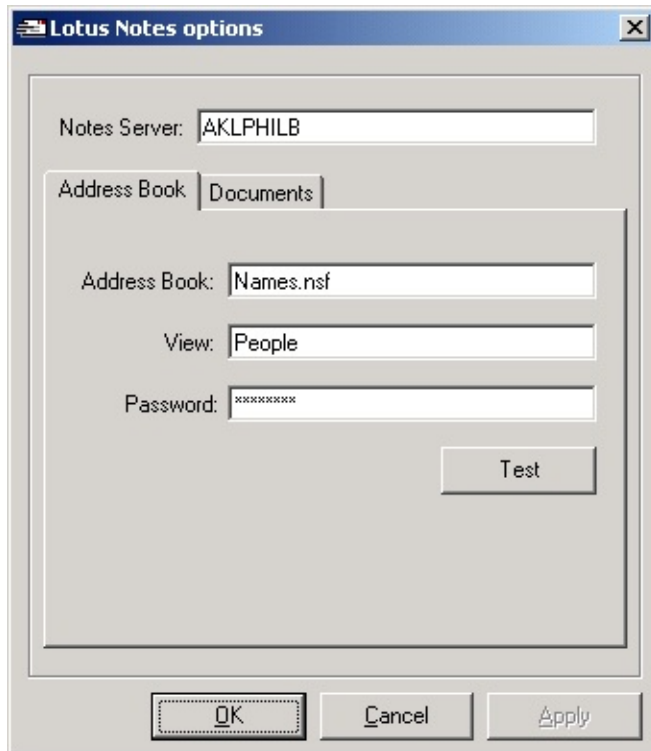
[Document Routing](#)

[Running as a Windows Service](#)

[User Account](#)

Mail Server Options for Lotus Domino

When you click the Mail Server Options button you will be presented with the following dialog:



Document Queuing requires that you identify your organizations address book on the Address Book tab of the dialog. Then you can proceed to identify your Publicized Folders on the Documents tab.

Address Book

To identify your Organization Address Book:

1. Enter the name of your Lotus Domino (Notes) Server into the Notes Server text box.
2. Enter the name of your Address Book database into the Address Book text box (this will default to "Names.nsf").
3. Enter the name of the default View for your Address Book database into the View text box (this will default to "People").
4. Enter the password needed to open the Names database in the Password box.
5. Click the Test button. An attempt will be made to connect to Lotus

using the Names database and password you have supplied. If this fails you will be provided with an error description and can take the appropriate action (re-entering the password to ensure it was entered correctly is usually the first thing to try).

Documents

To identify your Publicized Folders:

1. Select the type of document (EMAIL or FAX) from the Type dropdown.
2. Enter the path to the database that will receive the documents in the Database text box. Note that in most Lotus Domino installations, the database will be located in a mail subfolder (see screenshot below for an example).
3. Enter the password used to open the database into the Password text box.
4. Click the Test button. An attempt will be made to connect to Lotus using the database and password you have supplied. If this fails you will be provided with an error description and can take the appropriate action (re-entering the password to ensure it was entered correctly is usually the first thing to try).
5. Click the Refresh button to retrieve all folders available in the Database.
6. Tick the folders that will contain documents for Routing. When the Mail Server Integration application is run, the folders you have specified will become available as the Publicized Folders and individual document routings may be applied to each folder.

See Also

[Lotus Domino server](#)

[Changes to Lotus Templates](#)

Changes to Lotus Templates

By default IPFX Document Queuing's proxy mailbox (i.e. the mailbox that provides publicised folders) sends messages to an Agent stamped with the **From** address of the proxy mailbox, rather than the original sender's address.

To allow agents to reply directly to the original sender, make the changes described in this section to agents' Lotus templates.

Lotus Template Changes:

Add the following code to the **Queryopen** Sub of the **Memo Form**, **IPM.Note** and **IPM.Note.Voicemail**:

```
If Isnewdoc = False Then
Dim doc As NotesDocument
Dim strIPFXFrom As Variant
Dim strFrom As Variant
Set doc=source.document
strIPFXFrom = doc.GetItemValue( "IPFXFrom" )
strIPFXFrom(0) = Trim$(strIPFXFrom(0))
MessageBox( "IPFXFrom: " & strIPFXFrom( 0 ) )
If Len(strIPFXFrom(0)) > 0 Then
strFrom = doc.GetItemValue( "From" )
MessageBox( "From: " & strFrom( 0 ) )
If strIPFXFrom(0) <> strFrom(0) Then
MessageBox("Replacing From")
doc.ReplaceItemValue "From", strIPFXFrom(0)
doc.RemoveItem "IPFXFrom"
MessageBox("Saving")
```

```
doc.Save False,False
```

```
MessageBox("From replaced - was " & strFrom(0))
```

```
Else
```

```
MessageBox("No change.")
```

```
End If
```

```
End If
```

```
Set doc = Nothing
```

```
End If
```

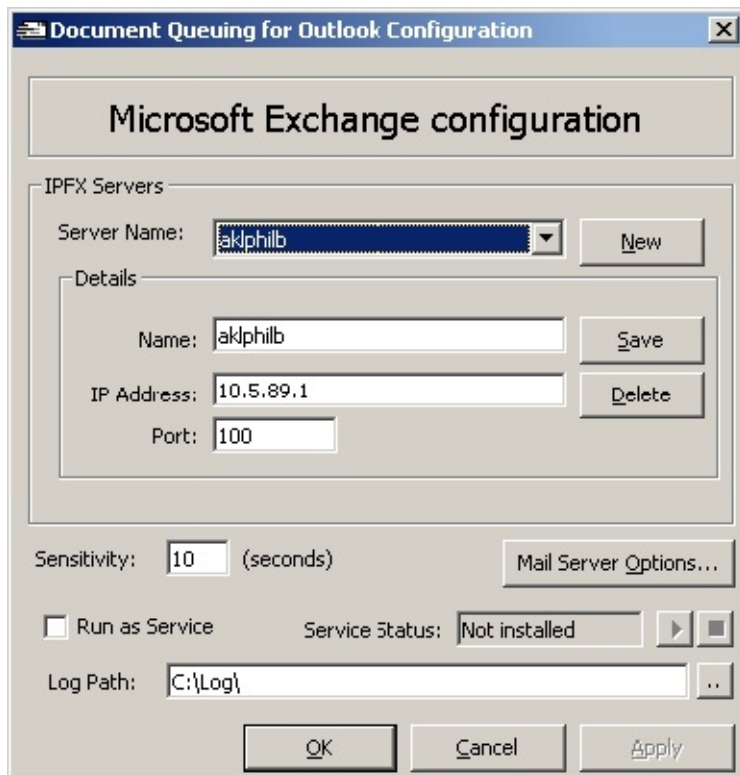
See Also

[Lotus Domino server](#)

[Mail Server Options for Lotus Domino](#)

Microsoft Exchange server

The main configuration dialog shows you the CT (Voicemail) Servers with which the Document Queuing Module will communicate. It also allows you to set how often the application should poll for new data (Sensitivity) and whether the application should be run as a Windows Service (Run as Service). You can access further configuration options that are specific to your mail server with the Mail Server Options button.



To Add a CT Server

1. Click the New button. The Name and Address text boxes will become blank, the Server dropdown will show "New Server".
2. Enter the Name of the CT Server.
3. Enter the TCP/IP Address of the CT Server.
4. The Port will default to 100, change this if necessary.
5. Click Save to save your changes. The Server dropdown will show the name of your new server.

To Delete a CT Server

1. Select the CT Server that you want to delete from the dropdown.
2. Click the Delete button.
3. You will be prompted for confirmation. Click Yes to proceed with the delete, click No to cancel the operation.

Sensitivity

The Sensitivity setting applies to Document Routing only. It allows you to specify how often the Mail Server Integration application should check for new documents to route.

Mail Server Options

Click the Mail Server Options button to access the configuration options that are specific to your mail server type.

Run As Service

The Document Queuing Module may be run as a Windows Service by checking this box. The service will be installed automatically and is called IPFX Limited Document Queuing.

Service Status

If you are running as a Service, the status of the Service will be displayed here. You can start and stop the service using the Start and Stop buttons to the right of the Service Status. If you make any changes to your configuration when the Service is running, you will need to restart (that is, Stop then Start) the Service before your changes will be applied.

Log Path

The application will write log information to files in the folder you specify here.

In This Section

[Mail Server Options for Microsoft Exchange](#)

See Also

[Configuration](#)

[Lotus Domino server](#)

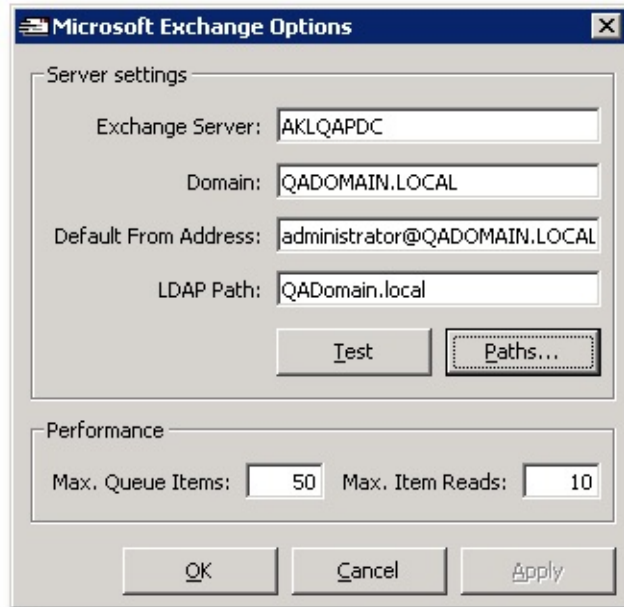
[Document Routing](#)

[Running as a Windows Service](#)

[User Account](#)

Mail Server Options for Microsoft Exchange

When you click the Mail Server Options button you will be presented with the following dialog:



Note that Exchange Server and Domain should be automatically populated with the correct data.

If you intend to use Document Routing:

- Verify the name of your Exchange Server.
- Verify the domain that your Exchange Server resides in.
- Verify the LDAP Path that provides root-level access to your Exchange Server.
- Now click Paths to specify the location of your Publicized Folders.

See [Document Routing Paths](#) for more details about these Paths.

If you intend to use SMS messaging:

- Supply a Default From Address.

Using the Test button

Click the **Test** button to check that Document Routing has been properly configured.

After clicking the **Test** button, the IPFX system will perform the following tests in the given order:

- Sending a test e-mail to the **Default From Address**
- Opening the **Default From Address** mailbox
- Retrieving the test e-mail
- Opening the Public Folders specified for E-mail and Fax objects
- Copying the test e-mail to the Public Folders
- Deleting the test e-mail from the Public Folders
- Deleting the test e-mail from the **Default From Address** mailbox.

Note: Tests will be performed with the privileges of the logged-in user. Ensure that you are logged with the account under which the Document Queuing service is configured to run.

In This Section

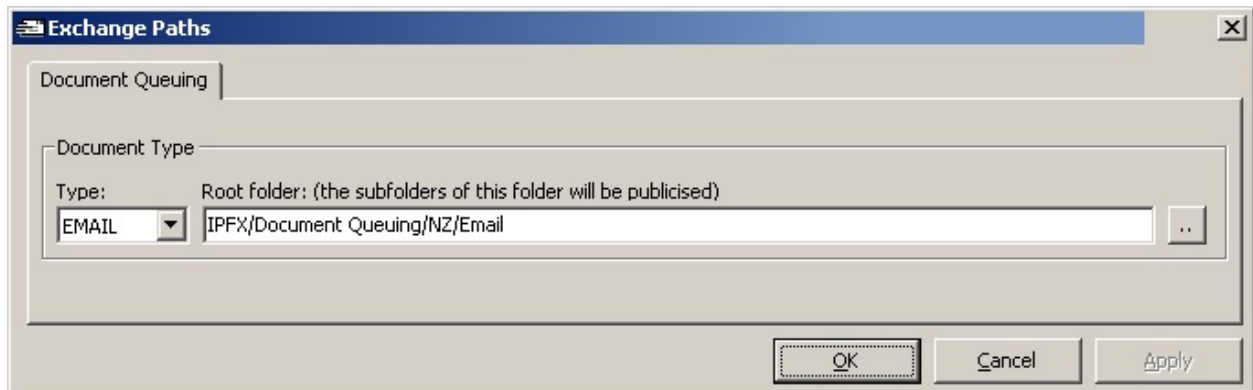
[Paths - Document Routing](#)

See Also

[Microsoft Exchange server](#)

Paths - Document Routing

When you click on Paths you will see the following dialog:



Publicized Folders

Your Publicized Folders are the folders that will receive documents for Routing. It is recommended that you create a Public Folder using Microsoft Outlook for each type of Document that you are intending to Route (for example, you create one folder called "EmailRouting" and one folder called "FaxRouting"). After selecting these folders (using the instructions below) their subfolders will become the Publicized Folders for the document type.

To identify your Publicized Folders

1. Select the Type of Document (EMAIL or FAX) from the Type dropdown.
2. Use the button to the right of the path to browse to the appropriate Public folder:

Now, when the Mail Server Integration application is run, all sub folders found under the folder you have specified will become available as Publicized Folders and individual document routings may be applied to each folder.

See Also

[Mail Server Options for Microsoft Exchange](#)

Document Routing

In This Section

[What is Document Routing?](#)

[Initial Preparation](#)

[Before Configuring Document Queuing](#)

[Configuring Document Queuing](#)

See Also

[Configuration](#)

[Lotus Domino server](#)

[Microsoft Exchange server](#)

[Running as a Windows Service](#)

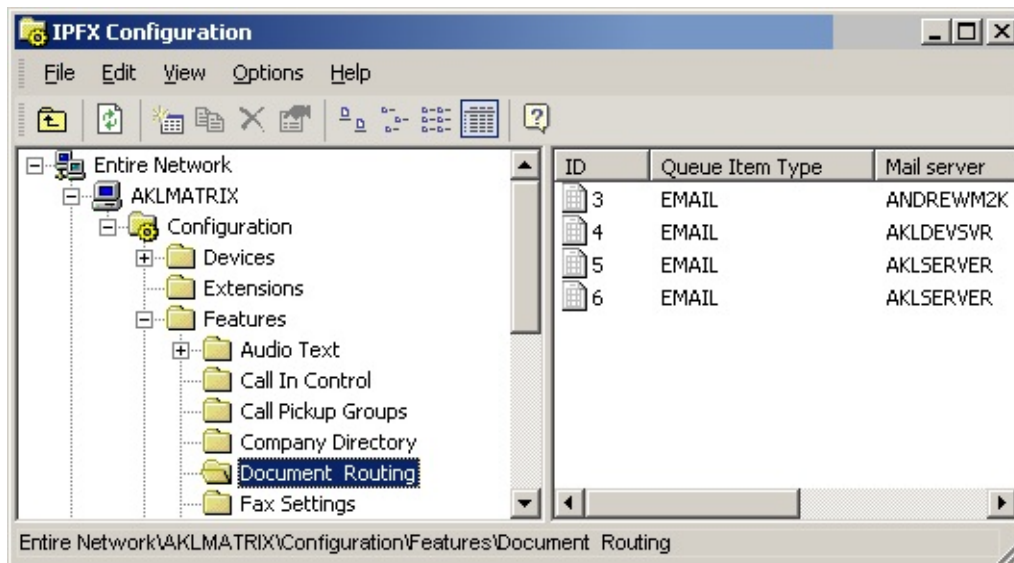
[User Account](#)

What is Document Routing?

A Document is either an e-mail or fax that has been received by a mail account on either a Microsoft Exchange or Lotus Notes mail server.

IPFX Document Routing allows Documents to be routed to Queues as a form of multimedia, along with normal phone call delivery to agents. Fax documents may additionally be routed directly to an e-mail address or to the e-mail address associated with a particular Extension.

For example: an organization will have an account set up on their Exchange or Lotus Notes Server to which all their support e-mails are sent by their customers. These e-mails can be automatically routed to a Queue where agents signed into that Queue can take them, in the same way they take a phone call.



See Also

[Document Routing](#)

[Initial Preparation](#)

[Before Configuring Document Queuing](#)

[Configuring Document Queuing](#)

Initial Preparation

To prepare IPFX for Document Routing via Document Queuing Module:

1. Launch IPFX Live Desktop, IPFX for Outlook or IPFX for Lotus Notes as an Administrator and click the Config toolbar button.
2. Select the appropriate server and open its Configuration options.

Set the Queue Item Type

Note: You will need to contact your Reseller to action this function.

1. In IPFX Configuration, select Queues.
2. Select Queue Item Types. The Queue Item Types will be listed in the right-hand pane.
3. Select the correct Queue Item Type (you must select EMAIL and FAX to enable Document Routing of EMAIL and FAX documents respectively).
4. Double-click to display the properties. Make sure that the the properties are set as below:

Property	Value

Owner	MSI
Application	
Program ID	*
Enabled	Ticked

Click **OK** to close the Properties.

See Also

[Document Routing](#)

[What is Document Routing?](#)

[Before Configuring Document Queuing](#)

[Configuring Document Queuing](#)

Before Configuring Document Queuing

Before Document Queuing can be configured in IPFX:

- the Document Queuing Module installation program must be installed on the appropriate mail server,
- the Document Queuing Module configuration program must have been run on the mail server to configure the Document Queuing service,
- the Document Queuing Module must be running on the mail server.

If these steps have not been performed, you will be unable to configure Document Queuing.

Note: Please speak with your PBX Vendor (Reseller) to have this module installed.

See Also

[Document Routing](#)

[What is Document Routing?](#)

[Initial Preparation](#)

[Configuring Document Queuing](#)

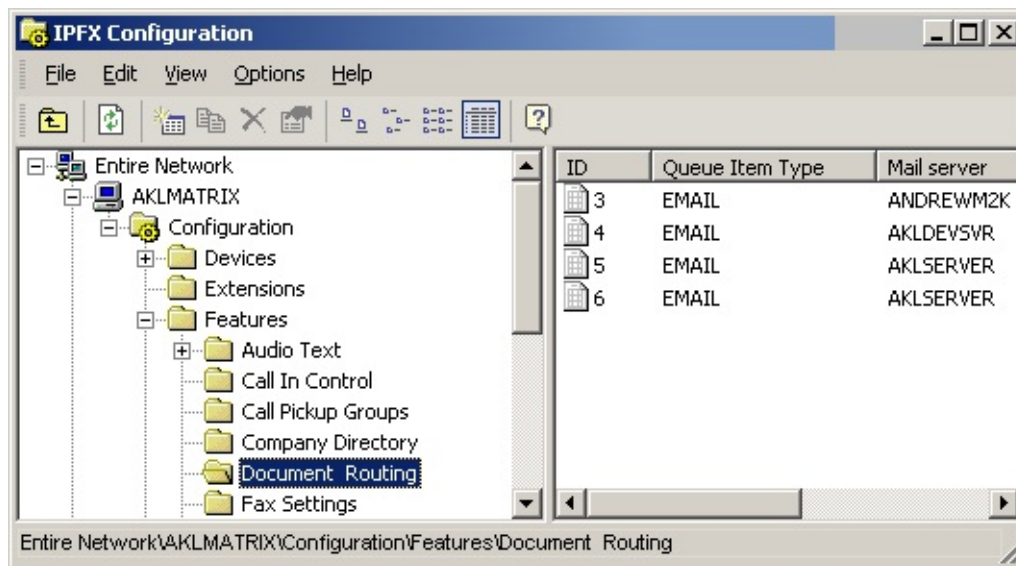
Configuring Document Queuing

IPFX Queuing checks the folders that have been publicized by the Document Queuing Service and routes the documents to the relevant Queues or addresses.

To do this you need to set up a Document Routing for each relevant publicized folder.

To access the Document Routing function

1. Click on the **Config** button in the top menu bar.
The IPFX Configuration screen displays.
2. Open the **Features** folder.
3. Open the **Document Routing** folder.

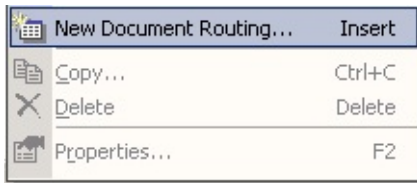


Your existing Document Routings are displayed in the right-hand pane. The columns display -

- the type of document being routed (FAX, EMAIL),
- which Mail Server received the document and
- in which publicized folder the document was found.

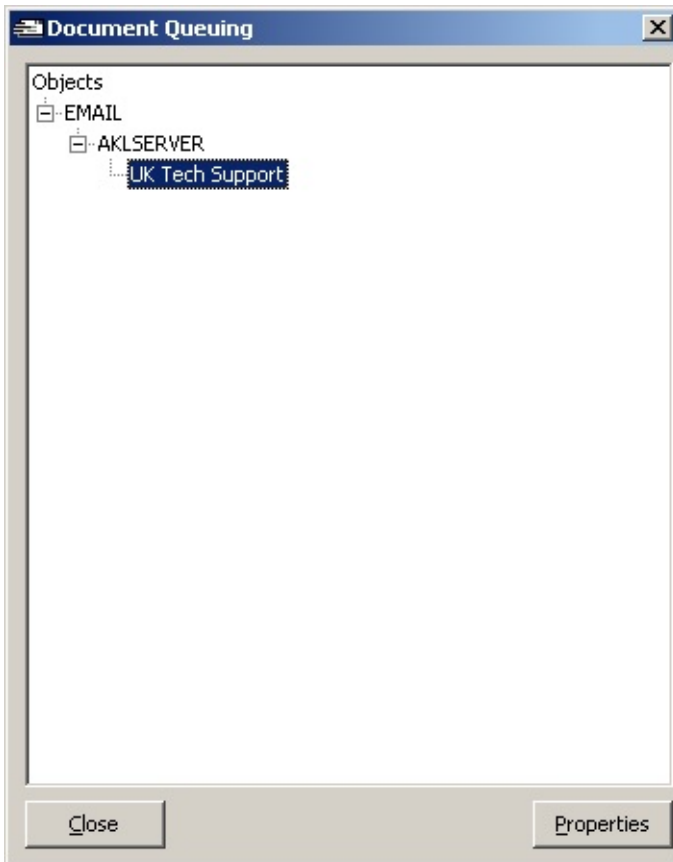
To create a new Document Route

1. Right-click on the right side of screen to display the shortcut menu:



2. Select **New Document Routing**.

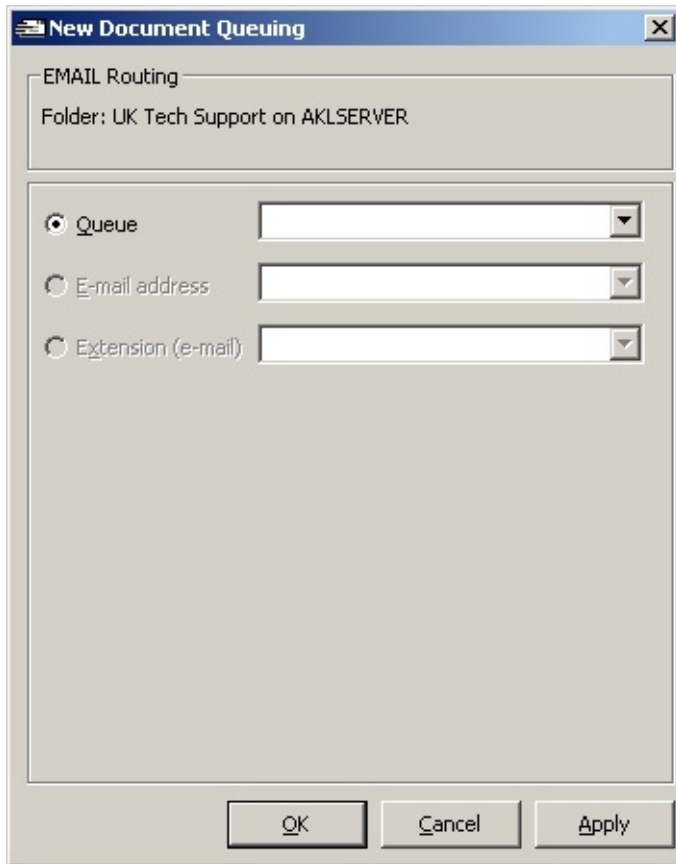
A complete list of all available publicized folders that DO NOT ALREADY have a Document Routing established will be displayed.



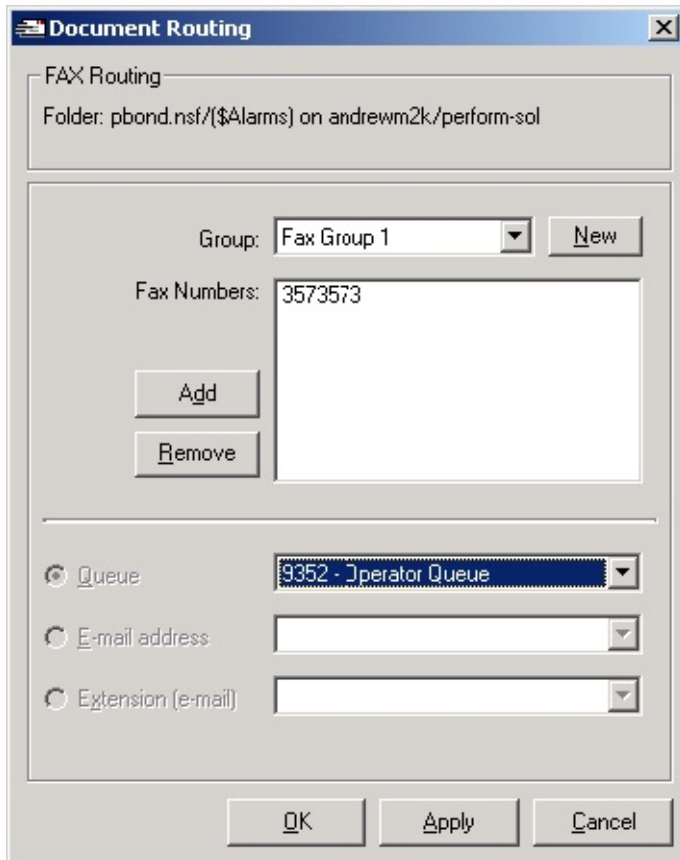
Note: This screen shows the type of document that may be received (EMAIL, FAX), then the mail server that will receive it, and finally the folders that the server is publicizing.

3. Select the relevant publicized folder and click **Properties**. The Document Routing details will be displayed.

An EMAIL Routing will display as follows:



A FAX Routing will display as follows:



Configuring an EMAIL Routing

1. From the Queue dropdown, select the Queue you wish to deliver the document to.
2. Click **OK** to close the dialog and save your changes.

Configuring a FAX Routing

1. To send the document to a Queue, select the Queue from the Queues dropdown.
2. To send the document directly to an e-mail address, select the address from the e-mail address dropdown.
3. To send the document directly to the e-mail address associated with an Extension, select the Extension from the Extension dropdown.
4. Click **OK** to close the dialog and save your changes.

To edit an existing Document Routing

- On the Configuration screen displayed above, double-click on the Document Routing you wish to edit.

The Document Routing details will be displayed exactly as described above for creating a new Document Routing.

View or make changes and click **OK** to close the dialog box.

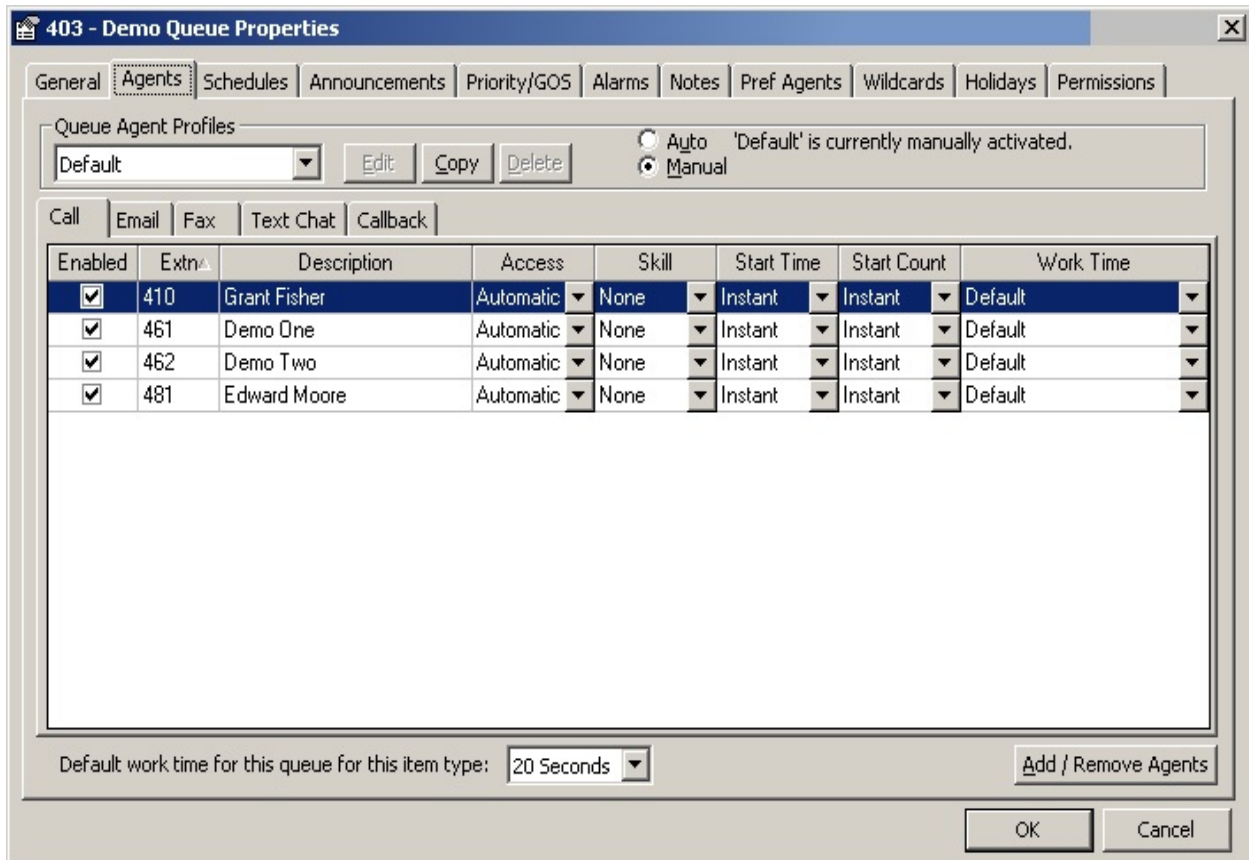
Note: You can have many publicized Folders set to route to a single Queue, eg: Support E-mails and Sales E-mails may all route to the Customer Services Queue 404.

Documents routed to a Queue are presented to Agents who are logged into the queue in the same way a normal phone call would be within the queuing environment.

When the agent within the queue is free, the document will deliver to them and the Accept/Decline Popup will appear. If the agent Declines or does nothing for a period of time, the document will return to the queue and deliver to another agent who is logged in.

If the agent accepts the document, the document is then delivered to the agent's Inbox who should respond accordingly.

To ensure your agents can receive documents you must enable access in the Queue/Agents Tab, shown below.



See Also

[Document Routing](#)

[What is Document Routing?](#)

[Initial Preparation](#)

[Before Configuring Document Queuing](#)

Running as a Windows Service

The Document Queuing Module can be run as a Windows Service. If you check the Run As Service box in the Configuration program, the Service will be installed automatically by the configuration program.

The Windows Service is called IPFX Document Queuing for Outlook or IPFX Document Queuing for Lotus..

Note By default, the Service is installed to Log On as the LocalSystem account, however, it will not be fully functional as LocalSystem. It must be set to log in as a user from the Domain with the appropriate administrative privileges. See [User Account](#) for more information.

See Also

[Configuration](#)

[Lotus Domino server](#)

[Microsoft Exchange server](#)

[Document Routing](#)

[User Account](#)

User Account

For Microsoft Exchange only

The Account that the IPFX Document Queuing Module will log in to the Domain as must have advanced security privileges as it will access public and private mailstores as well as send e-mail on behalf of other persons and adjust individual mailbox settings.

In general, the account must belong to these security groups as a minimum:

- Administrators
- Enterprise Admins (Microsoft Exchange only)

However, some default installations of Windows Server may restrict these groups. In particular, the logon may be denied "Send As" and "Receive As" privilege, the Account MUST have these privileges.

For simplicity, it is recommended that a Security Group called "IPFX Security Permissions" be created and that group be assigned all security privileges. It is further recommended that a user be defined as "IPFX" and it be assigned this privilege group.

Note This assumes a standard installation of Windows Server. If your system administrator has changed the properties of security groups these rules may not apply. If in doubt, contact your system administrator.

Public Folder Permissions for Document Queuing

You must ensure that the service user account has all privileges set on your both the public and private mailstores. This must be performed through the Exchange System Manager (do not use Explorer if your Exchange server has an M: drive). Inspect the Permissions tab of the Properties of each of your publicized folders and grant all privileges to the service user account.

See Also

[Configuration](#)

[Lotus Domino server](#)

[Microsoft Exchange server](#)

[Document Routing](#)

[Running as a Windows Service](#)

Running IPFX Document Queuing

To ensure that the program is running

Inspect your CTServer application either directly on the CTServer machine or via the Configuration screen of an IPFX client application (Configuration, Tools/Other, Application Control, View Server Details).

Here, we see that IPFX Document Queuing instance 1 is running on mail server AKLSBS2003:

Application	Status	Details	Last Event	Filename
> Message Server	Running	26 QD=0 IN=40 OUT=40	05-Jul-2005 20:15:17	C:\VMLocal\MSGSERV...
> Networking	Running	Local C=0 IN=0 OUT=0	05-Jul-2005 20:14:56	C:\VMLocal\NETSERV...
Data Store	Running	OK	05-Jul-2005 20:13:53	C:\VMLocal\DATASTO...
Database Server	Running	OK	05-Jul-2005 20:14:41	C:\VMLocal\DATASER...
Email Server	Running	OK	05-Jul-2005 20:13:36	C:\VMLocal\EMAILSVR...
IPFX Archive	Running	OK	05-Jul-2005 20:12:58	C:\VMLocal\logarchiver...
IPFX Conference Server	Running	IN = 0, OUT = 0, Server Tran...	05-Jul-2005 20:14:10	C:\VMLocal\ConfServer...
IPFX Document Queuing-01	Running	OK, 0 Queued Documents	05-Jul-2005 20:14:43	<n/a> \\AKLSBS2003
IPFX Feature Server	Running	OK	05-Jul-2005 20:13:09	C:\VMLocal\FeatureSer...
IPFX MOH Server	Running	OK, No music is being stream...	05-Jul-2005 20:13:01	C:\VMLocal\MOHServer...
IPFX PA Server	Running	OK	05-Jul-2005 20:13:06	C:\VMLocal\PA Server.exe
IPFX PBX	Running	IN = 0, OUT = 0, Clients = 0, ...	05-Jul-2005 20:14:41	C:\VMLocal\SIPServer.e...

There are three possible statuses that may appear in the Status column:

- Closed The IPFX Document Queuing Module is not running.
- Running The IPFX Document Queuing Module is running.
- Paused The IPFX Document Queuing Module has been paused.

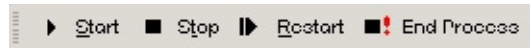
If the program is not running (that is, the Status is "Closed"):

- If you have chosen to run the IPFX Document Queuing Module as a [Windows Service](#), ensure that the Service has been started on the mail server.
- If you have chosen not to run the IPFX Document Queuing Module

as a Windows Service, launch the application on the mail server by clicking Start, Programs, IPFX, IPFX Document Queuing.

Controlling Document Queuing from the IPFX CTServer

From the IPFX CT Server it is possible to control the various applications that make a complete CT Server solution by using the Start, Stop, Restart and Kill Process buttons:



Because the IPFX Document Queuing Module generally runs on a machine other than the IPFX CT Server these buttons have subtly different behaviour for it:

Start	Starts an IPFX Document Queuing Module that has been Paused (see Stop below). The IPFX Document Queuing Module will request its initialization information from the CT Server and commence queuing. Any items discovered in Publicized folders will immediately be placed on relevant Queues.
Stop	Will Pause an IPFX Document Queuing Module. While the program will remain running on the mail server, any items that have been placed on Queues will immediately be removed from those Queues. The IPFX Document Queuing Module will not perform any operations with the CTServer until the Start button is clicked (it will continue to perform services for any other CTServer it may be configured to use).
Restart	The IPFX Document Queuing Module will be instructed to fully shut itself down and will then be restarted. Any items that were being Queued will be removed from those Queues but will be restored after the IPFX Document Queuing Module has received its initialization information from the CT Server.
End Process	Has no effect.

When the IPFX Document Queuing Module is paused or restarted (as described above) several things happen:

- The documents discovered in the publicized folders are removed from their Queues. The documents are still stored in the publicized folders and they will be re-queued when the IPFX Document Queuing Module is started/restarted.
- If an Agent/Supervisor were monitoring the items on a Queue, they would notice that all the Documents queued are removed.
- Queue statistics will not reflect the period that the items were missing from the Queue, but they will reflect the time they had spent Queuing prior to the IPFX Document Queuing Module being paused/restarted and the time thereafter.

See Also

[Running IPFX Document
Queuing](#)

[Reporting](#)

[IPFX Failover Service](#)

Reporting

There are no reports specifically about IPFX Document Queuing but any of the IPFX Reports that support the Item Type parameter can be filtered to only show routed documents.

Those reports are:

Report Group	Report
Agent Teams	All reports
Calls	Call Pullback Report Callback Activity Report Incoming Calls Report Queue Call Type by Extension Report Queue Call Type by Extension Summary Total Call Activity
Extensions	Queue by Extension Report
Performance	All reports
Queue Groups	Queue Group Summary - Overall Queue Summary Queue Group Summary - Queue Summary Queue Group Summary - Queue Summary by Day
Queues	All reports
Wrapup Codes	All reports

See Also

[Running IPFX Document Queuing](#)

[Controlling Document Queuing from the IPFX CTServer](#)

[IPFX Failover Service](#)

IPFX Failover Service

In the event of a failover situation, IPFX Document Queuing will automatically adjust to use the failover server and continue processing.

There is no additional configuration required for facility this in IPFX Document Queuing.

See Also

[Running IPFX Document Queuing](#)

[Controlling Document Queuing from the IPFX CTServer](#)

[Reporting](#)

Troubleshooting

Log files

The log files created by IPFX Document Queuing Module vary depending on the mail server type. The log files are written to a location that can be specified in the IPFX Document Queuing Module Configuration either [Microsoft Exchange](#) or [Lotus Domino](#).

Microsoft Exchange

In an Exchange environment there are 3 components of the Document Queuing Module that log to 3 different files.

The components are:

1. Main, which manages the information received from the other two components and enables them to communicate to each other,
2. Link, which provides the link between the Main component and the CT Server(s) to enable queuing of documents/retrieval of extension data etc., and
3. ExchInt, which provides the link between the Main component and the Exchange Server mailstores.

ExchInt will detect the existence/remove of a document in the published folders and advise Main. Main will pass the document details to the Link which will decide whether/where the document should be queued and manage that process.

Link will advise Main when a document has been accepted by an Agent. Main will pass the document details to ExchInt which will remove the document from the published folder.

The log files generated are:

IPFX Director
Softphone_PSMailSvrEx.log Main log. Overall status of the application.

IPFX Director
Softphone_PSMailSvrLink.log Link log. Communications with CTServer, data received, queuing information.

IPFX Director
Softphone_PSExchInt.log ExchInt log. Details of interactions with Exchange server; can reveal whether mailboxes can be accessed (that is, errors may appear if NT permissions are incorrect); logs details of Out-of-Office Assistant synchronization; indicates what documents have been moved from publicized folders to private mailboxes.

Note IPFX Director Softphone represents the date stamp which is

normally YYMMDD

Lotus Domino

In a Lotus environment there are 2 components of the Document Queuing Module that log to 2 different files.

The components are:

1. Main, which detects documents in the publicized folders, and
2. Link, which provides the link between the Main component and the CT Server(s) to enable queuing of documents/retrieval of extension data etc.

Main will pass the document details to the Link which will decide whether/where the document should be queued and manage that process.

Link will advise Main when a document has been accepted by an Agent. Main will route the document to the appropriate Agent and remove the document from the published folder.

The log files generated are:

IPFX Director
Softphone_PSMailSvrLt.log Main log. Overall status of the application.

IPFX Director
Softphone_PSMailSvrLink.log Link log. Communications with CTServer, data received, queuing information.

Note: IPFX Director Softphone represents the date stamp which is normally YYMMDD

See Also

[Troubleshooting](#)

[Exchange: Documents not being Queued](#)

[Exchange: Documents not being delivered to Agents after Accepting](#)

[Exchange: Documents not being removed from Publicized Folder after](#)

delivered to Agent

Exchange: ExchInt Log file reports "Error -2147217895 Object or data matching the name, range, or selection criteria was not found within the scope of this operation. opening Mailbox"

Exchange: ExchInt Log file reports "Method '~' of object '~' failed opening Mailbox"

Exchange: Log file reports "Error #5, deleting file"

Out-of-Office Assistant not being set

Exchange: Documents not being Queued

If Documents are visible in the Publicized Folders but are not being Queued you should:

1. Verify that the IPFX Document Queuing application is [running](#).
2. Verify the [Document Routing](#) in an IPFX client application Configuration. Ensure that the Publicized Folder containing the documents is configured for Queuing.
3. Verify that the Queue Item Types are [configured correctly](#).
4. Verify that the Queue is [configured](#) to receive e-mail documents.
5. Inspect the ExchInt [log file](#) for errors. It is most likely that there is a [permissions](#) issue.

See Also

[Troubleshooting](#)

[Log files](#)

[Exchange: Documents not being delivered to Agents after Accepting](#)

[Exchange: Documents not being removed from Publicized Folder after delivered to Agent](#)

[Exchange: ExchInt Log file reports "Error -2147217895 Object or data matching the name, range, or selection criteria was not found within the scope of this operation. opening Mailbox"](#)

[Exchange: ExchInt Log file reports "Method '~' of object '~' failed opening Mailbox"](#)

[Exchange: Log file reports "Error #5, deleting file"](#)

[Out-of-Office Assistant not being set](#)

Exchange: Documents not being delivered to Agents after Accepting

If an Agent is Accepting documents but the documents are not being delivered and remaining in the Queue you should:

1. Ensure that the Agent Extension has a valid e-mail address.
2. Ensure the Agent is configured to accept e-mail items.
3. If the Agent Extension has a valid e-mail address, inspect the [ExchInt log](#) for errors relating to the mailbox. There is most likely a permissions problem. Review the [User Account](#) that is running IPFX Document Queuing.

See Also

[Troubleshooting](#)

[Log files](#)

[Exchange: Documents not being Queued](#)

[Exchange: Documents not being removed from Publicized Folder after delivered to Agent](#)

[Exchange: ExchInt Log file reports "Error -2147217895 Object or data matching the name, range, or selection criteria was not found within the scope of this operation. opening Mailbox"](#)

[Exchange: ExchInt Log file reports "Method '~' of object '~' failed opening Mailbox"](#)

[Exchange: Log file reports "Error #5, deleting file"](#)

[Out-of-Office Assistant not being set](#)

Exchange: Documents not being removed from Publicized Folder after delivered to Agent

You need to check the account that is running the Document Queuing Service.

On your Exchange Server:

1. Open Services in the server Administrative Tools.
2. Locate the IPFX Document Queueing for Outlook Service and establish who the Service is set to Log On As.
 1. If Log On As is set to LocalSystem the Service will not run. You must select a user account with appropriate privileges. See Service [User Account](#).
 2. If Log On As is NOT set to LocalSystem you should check the security groups that the user account belongs to and also the folder privileges. See Service [User Account](#).

Note: If you change the Log On As property of the Service or the privileges of the user account, you must stop and start the Service.

See Also

[Troubleshooting](#)

[Log files](#)

[Exchange: Documents not being Queued](#)

[Exchange: Documents not being delivered to Agents after Accepting](#)

[Exchange: ExchInt Log file reports "Error -2147217895 Object or data matching the name, range, or selection criteria was not found within the scope of this operation. opening Mailbox"](#)

[Exchange: ExchInt Log file reports "Method '~' of object '~' failed opening Mailbox"](#)

[Exchange: Log file reports "Error #5, deleting file"](#)

[Out-of-Office Assistant not being set](#)

Exchange: ExchInt Log file reports "Error -2147217895 Object or data matching the name, range, or selection criteria was not found within the scope of this operation. opening Mailbox"

IPFX Document Queuing has been instructed to perform an operation against something that does not exist (for example, a deleted Public Folder or user mailbox).

Examine the ExchInt [log file](#). Following the error message should be entries that resemble this:

```
21:32:32.081 [0] VARLOG: Value of String "Domain" is "myserver.com"
```

```
21:32:32.084 [0] VARLOG: Value of String "Root" is "Public Folders/Email & Fax Queuing/"
```

```
21:32:32.088 [0] VARLOG: Value of String "URL" is "file:///backofficestorage/myserver.com/Public Folders/Email & Fax Queuing/"
```

From this information you can identify the target (in the case of the above, a public folder called "Email & Fax Queueing").

Ensure that the target exists.

- If the target exists, there is most likely a permissions (see "" on page 20) problem.
- If the target does not exist, adjust your IPFX Document Queuing configuration or create the target.

See Also

[Troubleshooting](#)

[Log files](#)

[Exchange: Documents not being Queued](#)

[Exchange: Documents not being delivered to Agents after Accepting](#)

[Exchange: Documents not being removed from Publicized Folder after delivered to Agent](#)

Exchange: ExchInt Log file reports "Method '~' of object '~' failed opening Mailbox"

Exchange: Log file reports "Error #5, deleting file"

Out-of-Office Assistant not being set

Exchange: ExchInt Log file reports "Method '~' of object '~' failed opening Mailbox"

There are several reasons why you might see this error, however the most likely is that the mailbox (private mailbox or public folder) that IPFX Document Queuing has been asked to perform an operation against does not exist.

Examine the ExchInt [log file](#) to see if it contains entries similar to the example below.

```
13:56:42.058 [0] Error -2146105340 Method '~' of object '~' failed opening Mailbox
```

```
13:56:42.063 [0] VARLOG: Value of String "Domain" is "wrongdomain.com"
```

```
13:56:42.066 [0] VARLOG: Value of String "Root" is "Public Folders/EmailRouting/"
```

```
13:56:42.069 [0] VARLOG: Value of String "URL" is "file:///backofficestorage/wrongdomain.com/Public Folders/EmailRouting/"
```

Note: Text above in emphasized font will almost certainly vary in your log files.

1. If the text refers to a private folder ("file:///backofficestorage/myserver.com/myemail@myserver.com/") ensure that the e-mail address is valid.
2. Verify that the Domain and LDAP Path settings that have been assigned in IPFX Document Queuing Configuration.
3. Verify the [permissions](#).

See Also

[Troubleshooting](#)

[Log files](#)

[Exchange: Documents not being Queued](#)

[Exchange: Documents not being delivered to Agents after Accepting](#)

Exchange: Documents not being removed from Publicized Folder after delivered to Agent

Exchange: ExchInt Log file reports "Error -2147217895 Object or data matching the name, range, or selection criteria was not found within the scope of this operation. opening Mailbox"

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You need to check the account that is running the Document Queuing Service.

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2. Locate the IPFX Document Queueing for Outlook Service and establish who the Service is set to Log On As.
 1. If Log On As is set to LocalSystem the Service will not run. You must select a user account with appropriate privileges. See Service [User Account](#).
 2. If Log On As is NOT set to LocalSystem you should check the security groups that the user account belongs to and also the folder privileges. See Service [User Account](#).

Note: If you change the Log On As property of the Service or the privileges of the user account, you must stop and start the Service.

See Also

[Troubleshooting](#)

[Log files](#)

[Exchange: Documents not being Queued](#)

[Exchange: Documents not being delivered to Agents after Accepting](#)

[Exchange: Documents not being removed from Publicized Folder after delivered to Agent](#)

[Exchange: ExchInt Log file reports "Error -2147217895 Object or data matching the name, range, or selection criteria was not found within the scope of this operation. opening Mailbox"](#)

[Exchange: ExchInt Log file reports "Method '~' of object '~' failed opening Mailbox"](#)

[Out-of-Office Assistant not being set](#)

Out-of-Office Assistant not being set

The Out-of-Office Assistant status is not reflected in Microsoft Outlook

When an Extension Location is changed, if the Sync Out of Office option is enabled for the Location then the Out-of-Office Assistant will be set to an appropriate status:

Location	Status
Office, Queue	Off
Any other Location	On

You can inspect the ExchInt Log file for details of the status change. For example:

```
07:57:19.030 [1] Setting Out of Office Assistant OFF for Mailbox "Tony.Hartigan"
```

```
07:57:22.004 [1] Done.
```

However, the status change may not necessarily be reflected in the users' Out-of-Office Assistant dialog in Microsoft Outlook. If you close down and restart Outlook and the Out-of-Office Assistant is switched ON you will see a message asking whether it should be turned OFF.

Note: Manually setting the Out-of-Office Assistant OFF using Outlook will not return the Extension Location to Office/Queue.

See Also

[Troubleshooting](#)

[Log files](#)

[Exchange: Documents not being Queued](#)

[Exchange: Documents not being delivered to Agents after Accepting](#)

[Exchange: Documents not being removed from Publicized Folder after delivered to Agent](#)

Exchange: ExchInt Log file reports "Error -2147217895 Object or data matching the name, range, or selection criteria was not found within the scope of this operation. opening Mailbox"

Exchange: ExchInt Log file reports "Method '~' of object '~' failed opening Mailbox"

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