

# Kofax Front Office Server

## Administrator's Guide

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The logo for KOFAX, consisting of the word "KOFAX" in a bold, blue, sans-serif font.

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# Preface

This guide is intended for the administrator who will configure and maintain the Kofax Front Office Server installation.

## Related Documentation

In addition to this guide, Kofax Front Office Server includes the following documentation:

### ***Kofax Front Office Server Installation Guide***

The *Kofax Front Office Server Installation Guide* provides installation instructions and other information that helps you successfully set up Kofax Front Office Server.

### ***Multifunction Peripheral (MFP) Administrator's Guides***

These guides show how to make Kofax Front Office Server features available from MFP front panels. Administrator's guides are available for each brand of MFP supported by the product. See the Technical Specifications on the Kofax website for supported brands and models.

### ***Help for Kofax Front Office Server Applications***

Help for Kofax Front Office Server Thin Client (also referred to as the Thin Client) and the Kofax Front Office Server Administration Console (also referred to as the Administration Console) describes how to use the application. To view the Help from the interface, click the **Help** icon. The Help appears in a separate browser window.

### ***Release Notes***

Release notes provides late-breaking product information that may not be included in other Kofax Front Office Server documentation. The release notes are available for viewing or downloading from the Kofax website.

### ***Kofax Capture Documentation***

Kofax Front Office Server is designed to work with Kofax Capture. See the Kofax Capture documentation for instructions about using Kofax Capture features.

## Training

Kofax offers both classroom and computer-based training to help you make the most of your Kofax Front Office Server solution. Visit the Kofax website at [www.kofax.com](http://www.kofax.com) for details about the available training options and schedules.

## Getting help with Kofax products

The [Kofax Knowledge Base](#) repository contains articles that are updated on a regular basis to keep you informed about Kofax products. We encourage you to use the Knowledge Base to obtain answers to your product questions.

To access the Kofax Knowledge Base, go to the [Kofax website](#) and select **Support** on the home page.

**Note** The Kofax Knowledge Base is optimized for use with Google Chrome, Mozilla Firefox or Microsoft Edge.

The Kofax Knowledge Base provides:

- Powerful search capabilities to help you quickly locate the information you need.  
Type your search terms or phrase into the **Search** box, and then click the search icon.
- Product information, configuration details and documentation, including release news.  
Scroll through the Kofax Knowledge Base home page to locate a product family. Then click a product family name to view a list of related articles. Please note that some product families require a valid Kofax Portal login to view related articles.
- Access to the Kofax Customer Portal (for eligible customers).  
Click the **Customer Support** link at the top of the page, and then click **Log in to the Customer Portal**.
- Access to the Kofax Partner Portal (for eligible partners).  
Click the **Partner Support** link at the top of the page, and then click **Log in to the Partner Portal**.
- Access to Kofax support commitments, lifecycle policies, electronic fulfillment details, and self-service tools.  
Scroll to the **General Support** section, click **Support Details**, and then select the appropriate tab.

## Chapter 1

# Overview

Kofax Front Office Server enables documents from a variety of sources—including multifunction peripherals (MFPs), scanners, and mobile devices—to be delivered to email and fax recipients, content management systems such as Microsoft SharePoint, network folders, Kofax Capture, and other destinations. Users can work with documents in a browser-based Thin Client application. They can also install a local version of the Thin Client so they can continue working when the connection with Kofax Front Office Server is not available and synchronize data when the connection is restored.

## Integration with Kofax Capture

Kofax Front Office Server integrates with Kofax Capture and takes advantage of the following features.

### User authentication

Kofax Front Office Server uses the Kofax Capture user profile and group membership authentication on MFP devices and in both the Thin Client and the Administration Console applications. You can configure Kofax Front Office Server so that once users have logged on to the computer where they launch the browser, users will not have to log on to either the Thin Client or the Administration Console (this is also called single sign on). Kofax Front Office Server supports single sign on for Kofax Capture linked users. For details, see [About single sign on](#).

**Note** Access to the Administration Console is restricted to Kofax Capture users who have rights to the Kofax Capture Administration module. All Kofax Capture users can be assigned permission to access the Thin Client without special Kofax Capture rights.

### Licensing

Kofax Front Office Server integrates with the Kofax Capture centralized license management scheme.

- System Licenses
  - Kofax Front Office Server  
System license to run Kofax Front Office Server standard installations using the Microsoft SQL Server Express or Standard database.
  - Kofax Front Office Server Enterprise  
System license to run Kofax Front Office Server Enterprise installations using a SQL Server Enterprise or Oracle database.

- Station Licenses
  - Kofax Front Office Server Thin Client  
Limits the number of concurrent open sessions of the Thin Client. When no more station licenses are available, users cannot log on. You can either have current users log off, or purchase additional licenses.
  - Kofax Front Office Server Device  
Limits the number of devices that can be connected to the Administration Console. When no more device licenses are available, no more devices can be connected. You can either remove or inactivate devices, or purchase additional licenses.
  - Kofax Mobile Device  
Limits the number of mobile devices that can be connected to Kofax Front Office Server. When no more device licenses are available, no more devices can be added. You can either remove devices, or purchase additional licenses.
  - Kofax Mobile Device - Concurrent  
Limits the number of concurrent mobile devices that can be connected to Kofax Front Office Server. When no more licenses are available, users cannot connect. After a period of inactivity, licenses may be released and become available, or you can purchase additional licenses.

**Note** You cannot mix mobile licenses: licensing for a Kofax Front Office Server installation must be all regular or all concurrent.

## Volume licensing and MFPs

Volume licensing for the following Kofax Capture licenses is not affected (the page count is not decremented) for any documents that are scanned at an MFP and come through Kofax Front Office Server directly to Kofax Capture or through the Thin Client:

- Scan/Import page count
- Kofax PDF Image+Text page count

Documents scanned or imported directly into the Thin Client and then submitted to Kofax Capture do decrement page count.

If documents scanned at an MFP are merged, page count is not decremented. However, if any imported pages are added to a scanned MFP document, page count is decremented only for the additional pages that were added.

Volume licensing is still affected by activity from any custom Web services client.

## Shared folder in Kofax Capture server files location

The Kofax Front Office Server installation detects the location of the Kofax Capture server files, and creates a `\KFS<version>` subfolder where images, MFP support files, and configuration files (among other items) are stored.

## Validation

Kofax Capture batch class information is used to validate batches submitted to Kofax Capture from MFPs or the Thin Client.

## Chapter 2

# Starting the Kofax Front Office Server applications

Before starting either of the applications, complete the installation and make sure that the Kofax Front Office Server service has started.

## Starting the Administration Console

You can start the Administration Console from the Kofax Capture Administration module, or from a browser by entering the URL.

Before starting the Administration Console, do the following:

- Make sure that the Web browser is certified by Kofax Front Office Server.
- Enable the browser to use cookies and JavaScript.
- Make sure that Kofax Front Office Server is properly installed and currently running.

Once you start the Administration Console, you can click the Help button for information about the particular tab you are on, and from there you can access the entire Help system or select other items. The Introduction to the Administration Console topic is a good place to start, because it outlines the general steps to configure MFPs and describes the tasks you can perform.

If you install the Administration Console Plug-In, you can access the Administration Console module directly from the Kofax Capture Administration module.

1. Start the Kofax Capture Administration module, and select the **Kofax Front Office Server** tab.
2. On the **Kofax Front Office Server** tab, in the **Menu Items** group, click the item that corresponds to the settings you want to access.  
The Administration Console appears.
3. Update the settings or click other items on the navigation panel to create destinations, shortcuts, add devices, or perform other Kofax Front Office Server management tasks.

## Starting the Administration Console from a browser

1. Be sure your computer can connect to the server where Kofax Front Office Server is installed.

2. Start the Administration Console by doing either of the following:
  - Open a certified Web browser and type the URL for Kofax Front Office Server Administration Console. For the URL, See [Identify URLs for Kofax Front Office Server applications](#) .
  - If you are at the server, on the Start menu, navigate to Kofax Front Office Server and click **Administration Console**.

The Administration Console Log On screen appears. If automatic log on (also called single-sign on) does not occur, the Administration Console Log On screen appears.

**Tip** Bookmark the Administration Console Log On screen to make it convenient to start each time.

3. Type your Kofax Capture user ID and password. Passwords are case-sensitive. After you have logged on successfully, the Administration Console appears.
4. Click any item on the navigation panel to create destinations, shortcuts, add devices, or perform other Kofax Front Office Server management tasks.

## Starting the Thin Client from a browser

Before you can log on to the Thin Client, you need the following:

- The URL of the Thin Client. For the URL, see [Identify URLs for Kofax Front Office Server applications](#) .
- A user name and password if you are prompted for log on credentials.
- A Web browser supported by the Thin Client.
- Cookies and JavaScript enabled on the browser.

**Tip** Bookmark the Thin Client Log On page to make it convenient to start each time.

1. In the browser's Address field, type the URL for the Thin Client. If automatic log on (also called single sign on) does not occur, the Thin Client Log On screen appears.
2. Click **Log On**.
3. Type your Kofax Capture user ID and password and click **Log On**. Passwords are case-sensitive. After you are logged on successfully, the Thin Client appears.

## Identify URLs for Kofax Front Office Server applications

Provide all users of Kofax Front Office Server applications with the URL they need to connect from a Web browser.

For Kofax Front Office Server Administration Console, type the URL as follows:

- If security is not enabled with an SSL certificate:  
`http://<server>/Kofax/KFS/Admin`
- If security is enabled with an SSL certificate:  
`https://<server>:443/Kofax/KFS/Admin`

For Kofax Front Office Server Thin Client, type the URL as follows:

- If security is not enabled with an SSL certificate:  
`http://<server>/Kofax/KFS/ThinClient`
- If security is enabled with an SSL certificate:  
`https://<server>:443/Kofax/KFS/ThinClient`

Where:

<server> is the IP address or host name of:

- The computer with a departmental or Enterprise installation of Kofax Front Office Server
- An NLB cluster or IIS server in an Enterprise installation

Note the following:

**Note** Use the default ports for the type of protocol, 80 for http and 443 for https.

## Security settings for server operating systems

Depending on your browser version and security settings, you may need to add Kofax Front Office Server applications and Help to the Trusted Sites zone.

## Stop and restart Kofax Front Office Server

You may need to stop and restart Kofax Front Office Server for some specific reason or for routine maintenance. The process depends on which type of installation and configuration you use, and the instructions are in the *Kofax Front Office Server Installation Guide*.

## Chapter 3

# About database encryption

By default, index data and images stored in the database are encrypted. Encryption is set by two values in the Administration Console Settings - General tab:

- Encrypt Image Data: When selected, images in the database are encrypted.
- Encrypt Index Data: When selected, index data in the database is encrypted. (Other data remains unencrypted.)

If you change a setting, it is applied to new images or index data. The encryption setting of existing data and images is not affected.

Encryption requires the key file `key3.bin` in the `\KFS<version>\Config` folder. If this file is lost, you cannot access encrypted images and index data. Be sure to back up this file as shown in [Backing up and restoring configurations](#).

If the `key3.bin` file or the database has been compromised, generate new keys by running the Database Utility (`Kofax.KFS.DatabaseUtility.exe`). Go to the folder where Kofax Front Office Server is installed, navigate to the `kfsService` folder, and run the following command:

```
Kofax.KFS.DatabaseUtility.exe /REGENERATEKEYS=1
```

## Chapter 4

# About single sign on

Kofax Front Office Server supports single sign on for Kofax Capture linked users. If users log on to a computer using a user account that is linked in Kofax Capture and have the appropriate access rights, users can start the Administration Console or the Thin Client without being prompted to log on. When authentication fails, or if the user is not authorized to log on, a log on screen appears to allow users to manually enter credentials. This section assumes you are familiar with Group Policy configuration and using and registering a Service Principal Name (SPN).

To use the single sign-on feature, the following conditions have to be met:

- If using IIS, the IIS authentication method must be set to "Enable anonymous access."
- Clients must use a supported browser as documented in the *Kofax Front Office Server 4.3.0 Technical Specification*.
- Internet Explorer must have the Enable Integrated Windows Authentication option turned on.
- If users are using the Fully Qualified Domain Name (FQDN), Internet Explorer must have the Kofax Front Office Server computer added to the "Local intranet" zone or the Trusted zone. To avoid setting this up for each user individually, your domain administrator can create a Group Policy and add it to the desired organizational units.

**Important** When adding to the Trusted zone, the IE Security Settings option "User Authentication, Logon" must be set to "Automatic logon with current user name and password."

- The user you specify with SPN must be in the Administrators group on the computer registered with DNS.

## Enabling single sign on

1. In the Administration Console, click **Settings** on the Navigation panel.
2. Click the **General** tab.
3. Select the **Integrated Windows Authentication** option.
4. Click **Save**.

The change takes effect automatically in less than a minute.

## Registering a DNS entry

In the section [Examples of possible configurations](#), there are some additional configuration tasks listed in the tables to register DNS and SPN. Although it is expected that system administrators will know how to perform those tasks, we include the following instructions.

Use this procedure to register a DNS entry pointing to a machine hosting the physical server.

**Note** Complete this procedure before you register the SPN because you need to use the URL that you will create as part of the SPN command line entry when you register SPN. Note also that you must create a DNS entry for all configurations, including a standalone (Departmental), that will not use the host name in the URL.

1. On your domain controller, open **Administrative Tools** and select **DNS**.
2. Expand **Forward Lookup Zones**, select your domain, and then right-click to select **New Host (A)**.
3. In the **Name** field, type a name that will be the first part of the URL (for example, wwwkfs). This will be the URL address. Be sure the name you enter is not already used on the domain.
4. In the **IP address** field, enter your standalone IP or the IP of your proxy IIS, IBM HTTP for WebSphere, or NLM cluster host.
5. Click **Add Host**.

## Security with the Encrypting File System (EFS)

A number of Kofax Front Office Server capabilities rely on access to local and network resources. If you encrypt files using EFS, there is the potential to prevent Kofax Front Office Server from accessing critical resources. This inability may cause unexpected errors.

The Kofax Front Office Server service user account must have privileges to decrypt all data used by Kofax Front Office Server and the Kofax Capture share, including the Kofax Capture database location. In addition, the Kofax Capture Service user account must have privileges to decrypt to all Kofax Capture data including the Kofax Capture database location.

We recommend either of the following configurations:

- Configure EFS at the domain level, and include the Kofax Front Office Server and Kofax Capture Server services user accounts as members of the group allowed to decrypt encrypted files.
- Encrypt all files with EFS using the Kofax Front Office Server service name and run the Kofax Capture Service with the same user account.

## Registering SPN

Use this procedure to register SPN (Service Principal Name) under the user account running the Kofax Front Office Server service.

The intent is to enable Kerberos authentication: you are using a domain account to run the Kofax Front Office Server service, and that domain user must be registered. (The Local System account is automatically registered by the server.)

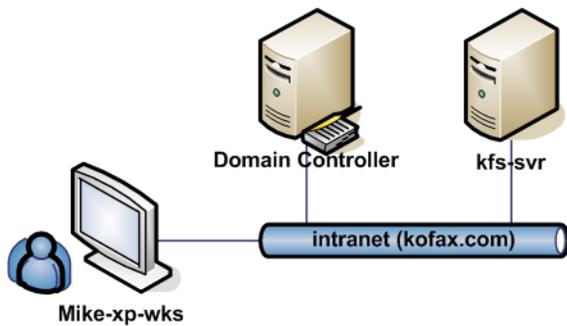
1. On the domain controller machine (where directory service runs), open a Command Prompt and run:  
`Setspn -A <http/DNS name> <domain>\<user>`  
For example, in an domain named domain01 for the account Kfs-service-user, you would run:  
`Setspn -A http/www-kfs domain01\Kfs-service-user`  
This registers SPN for Kfs-service-user.
2. Change the log on account for all your Kofax Front Office Server services to the account you just registered.

## Examples of possible configurations

This section provides examples and lists any additional configuration needed for different installations, log on accounts to run Kofax Front Office Server service, and URLs used to log on to the Thin Client (used in the examples) and the Administration Console.

### Single server installation (department or enterprise)

The figure illustrates a single server installation on a domain (kofax.com). Both the server (named kfs-svr) and client (named Mike-xp-wks) are on the same domain. A domain account Kfs-serviceuser has been created to be used instead of the built-in Local System account. Clients access the server using either host name or a DNS name.



URL Entered by Mike on Mike-xp-wks	Log on Account for Kofax Front Office Server Service	Additional Configuration Required by a Domain Administrator
<code>http://www-kfs/Kofax/KFS/ThinClient</code>	Local System <sup>1</sup>	None
<code>http://kfs-svr.kofax.com/Kofax/KFS/ThinClient</code>	Local System <sup>1</sup>	Add the FQDN (kfs-svr.kofax.com) to the Intranet zone or Trusted zone in Internet Explorer. This can be done individually on each client browser, or it can be done on the domain controller with Group Policies so that the setting will be applied to all clients in the domain.  Note that the DNS and SPN steps in the following configurations are not necessary since they are done automatically for server host names.

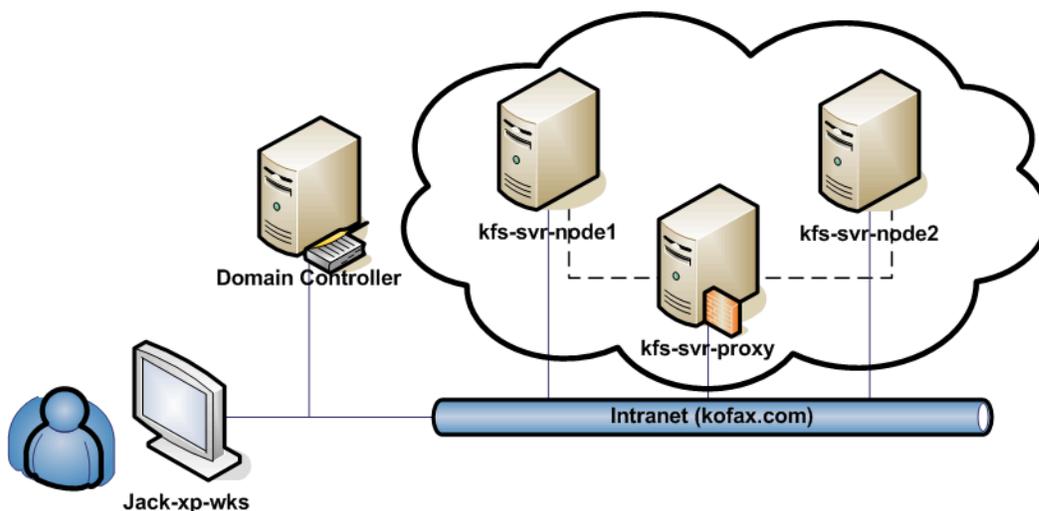
<sup>1</sup> If you need to use a domain user account, then you must use a DNS name. See the next table for information.

Clients can also connect to a server using a DNS name.

URL Entered by Mike on mike-xp-wks	Log on Account for Kofax Front Office Server Service	Additional Configuration Required by a Domain Administrator
<code>http://kfs-svr/Kofax/KFS/ThinClient</code>	Kfs-service-user	None  On the domain controller, register DNS entry pointing <code>www-kfs.kofax.com</code> to host machine <code>kfs-svr</code> .  On the domain controller, register SPN <code>HTTP/ www-kfs-svr.kofax.com</code> under user account <code>Kfs-service-user</code> . Then, configure the computer to use <code>Kfs-service-user</code> as the <code>KofaxService</code> log on account.
<code>http://www-kfs.kofax.com/Kofax/KFS/ThinClient</code>	Kfs-service-user	Same two steps above plus:  Add the FQDN ( <code>kfs-svr.kofax.com</code> ) to the Intranet zone or Trusted zone in Internet Explorer. This can be done individually on each client browser, or it can be done on the domain controller with Group Policies so that the setting will be applied to all clients in the domain.

## Enterprise cluster with proxy server

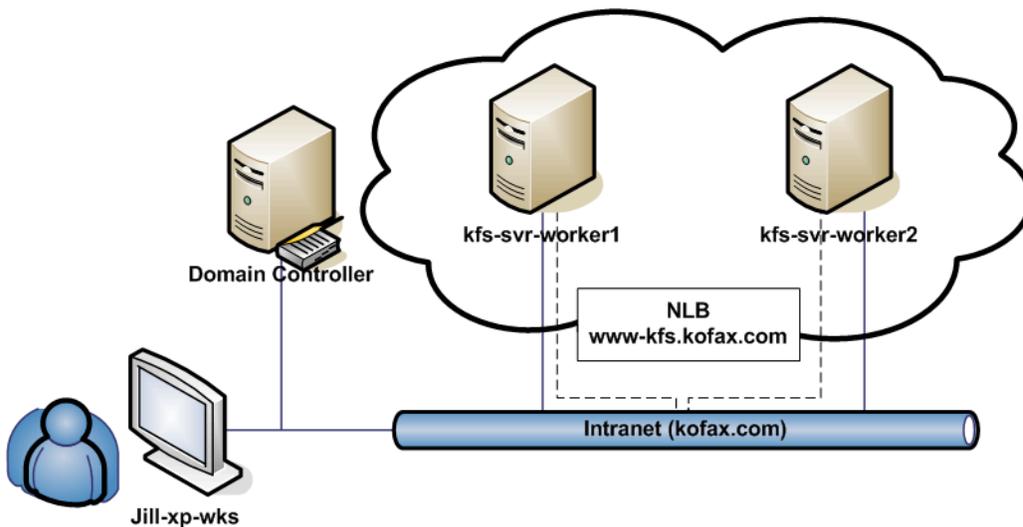
The figure illustrates an Enterprise installation using a proxy. The cluster is configured to include `kfs-svr-node1`, `kfs-svr-node2` and the proxy server `kfs-svr-proxy`. All servers and clients are on the same domain. Clients access the cluster through the proxy server's designated DNS name.



URL Entered by Jack on Jack-xp-wks	Log on Account for Kofax Front Office Server Service	Additional Configuration Required by a Domain Administrator
http://www-kfs/Kofax/KFS/ThinClient	Kfs-service-user	<p>On the domain controller, register DNS entry pointing www-kfs.kofax.com to host machine kfs-svr-proxy.</p> <p>On the domain controller, register SPN HTTP/www-kfs.kofax.com under user account Kfs-service-user. Then, configure every Kofax Front Office Server in the cluster to use Kfs-service-user as the KofaxService log on account</p>
http://www-kfs.kofax.com/Kofax/KFS/ThinClient	Kfs-service-user	<p>Same two steps above plus:</p> <p>Add the FQDN (kfs-svr-proxy.kofax.com) to the Intranet zone or Trusted zone in Internet Explorer. This can be done individually on each client browser, or it can be done on the domain controller with Group Policies so that the setting will be applied to all clients in the domain.</p>

### Enterprise cluster with NLB

This figure illustrates an enterprise installation using NLB. The NLB cluster is configured to include kfs-svr-worker1 and kfs-svr-worker2. The cluster name is www-kfs.kofax.com. All servers and clients are on the same domain. Clients access the cluster through the cluster's DNS name.



URL Entered by Jill on Jill-xp-wks	Log on Account for Kofax Front Office Server Service	Additional Configuration Required by a Domain Administrator
<p>http://www-kfs/Kofax/KFS/ThinClient</p>	<p>Kfs-service-user</p>	<p>On the domain controller, register DNS entry www-kfs.kofax.com as NLB cluster name pointing to the static IP address assigned to the NLB cluster.</p> <p>On the domain controller, register SPN HTTP/www-kfs.kofax.com under user Kfs-service-user. Then, configure every Kofax Front Office Server in the cluster to use Kfs-service-user as the KofaxService log on account.</p>
<p>http://www-kfs.kofax.com/Kofax/KFS/ThinClient</p>	<p>Kfs-service-user</p>	<p>Same two steps above plus:</p> <p>Add the FQDN (www-kfs.kofax.com) to the Intranet zone or Trusted zone in Internet Explorer. This can be done individually on each client browser, or it can be done on the domain controller with Group Policies so that the setting will be applied to all clients in the domain.</p>

## Chapter 5

# Integrating with a RightFax phone book

You can enable users to look up entries in their RightFax phone book. Follow this procedure to set up user credentials and configure the batch class and Kofax Front Office Server to integrate with RightFax.

**Important** For Kofax Front Office Server to make a connection to the RightFax server to retrieve user address information, the RightFax Client Software version 16 must be installed and configured on the Kofax Front Office Server computer.

1. Set up the credentials for RightFax users. When specifying user identification, do the following:
  - For Active Directory users: Select **Use Integrated Windows NT Security?** and specify the domain user account. Then, enter a user ID in the **User ID** field. This does not need to match the Kofax Capture user ID. Because the RightFax ID is associated with the user's domain account, RightFax authentication automatically takes place when the user logs on to the MFP or Thin Client.
  - For Kofax Capture users who are not on a domain: Enter the Kofax Capture user ID in the **User ID** field. These IDs must match.
2. In Kofax Capture, create a batch class with a Fax Lookup field. See [Adding fax number and email address lookup fields](#) for instructions.
3. In the Kofax Front Office Server Administration Console, on the **Settings - RightFax** tab, enter the information for your RightFax server, select **Enable RightFax Integration**, and save the settings.

## Chapter 6

# Backing up and restoring configurations

The steps to back up and restore your data depend on whether you have a departmental or enterprise configuration.

## Backing up departmental configurations

You may want to back up important data before upgrading, and regularly to be able to restore a failed system to a certain state.

Make sure that you have your original Kofax Front Office Server installation media (or installation media of the same version) before proceeding.

1. In the Services console, stop the appropriate service.
  - SQL Server (KOFAXKFS): For SQL Server.
  - Kofax Front Office Server: For the standard database.
2. Create backup copies of the following folders and all subfolders and files contained in them:
  - <root of installation drive>\ProgramData\Kofax\Front Office Server
  - <installation path>\Kofax\Front Office Server <version>
  - <shared folder>\CaptureSV\KFS<version>
  - <root of installation drive>\ProgramData\Kofax\KFS (created if jobs were run through Kofax VRS)
3. Back up the database using the appropriate database utility.
4. Verify that the backup was successful, and store in a safe location.
5. Restart the service you stopped in step 1.

## Restoring departmental configurations

1. Remove the non-functional Kofax Front Office Server installation from the computer. This can be done by uninstalling the software or restoring the computer to a state before Kofax Front Office Server was installed. Be sure that all Kofax Front Office Server software is removed from the computer.
2. Install the same version of Kofax Front Office Server as you previously backed up, because the installer versions must match. If possible, install to the same path as the original installation.
3. In the Services console, stop the following services:
  - Kofax Front Office Server
  - SQL Server (KOFAXKFS)

4. Delete the following folders:
  - <root of installation drive>\ProgramData\Kofax\Front Office Server
  - <installation path>\Kofax\Front Office Server <version>
  - <shared folder>\CaptureSV\KFS<version>
  - <root of installation drive>\ProgramData\Kofax\KFS (created if jobs were run through Kofax VRS)
5. Replace the deleted folders with the backup data folders.
6. Set the Security permissions to grant Full Control to the Windows user that was specified for the Kofax Front Office Server service during installation:
  - <root of installation drive>\ProgramData\Kofax\Front Office Server
  - <installation path>\Kofax\Front Office Server <version>
  - <shared folder>\CaptureSV\KFS<version>
  - <root of installation drive>\ProgramData\Kofax\KFS (created if jobs were run through Kofax VRS)
7. In the Services console, start the following services:
  - Kofax Front Office Server
  - SQL Server (KOFAXKFS)

## Backing up enterprise configurations

You may want to back up important data before upgrading, and regularly to be able to restore a failed system to a certain state.

Make sure that you have your original Kofax Front Office Server installation media (or installation media of the same version) before proceeding.

1. Create backup copies of the following folders and all subfolders and files contained in them:
  - <root of installation drive>\ProgramData\Kofax\Front Office Server
  - <installation path>\Kofax\Front Office Server
  - <shared folder>\CaptureSV\KFS<version>
  - <root of installation drive>\ProgramData\Kofax\KFS (created if jobs were run through Kofax VRS)
2. Back up the database using the appropriate database utility.
3. Verify that the backup was successful, and store in a safe location.

## Restoring enterprise configurations

1. Remove the non-functional Kofax Front Office Server installation from all computers in the cluster. This can be done by uninstalling the software or restoring the computers a state before Kofax Front Office Server was installed. Be sure that all Kofax Front Office Server software is removed from the computer.
2. Install the same version of Kofax Front Office Server as you previously backed up, because the installer versions must match. If possible, install to the same path as the original installation.

3. In the Services console, stop the Kofax Front Office Server service.
4. Delete the following folders:
  - <root of installation drive>\ProgramData\Kofax\Front Office Server
  - <installation path>\Kofax\Front Office Server
  - <shared folder>\CaptureSV\KFS<version>
  - <root of installation drive>\ProgramData\Kofax\KFS (created if jobs were run through Kofax VRS)
5. Replace the deleted folders with the backup data folders.
6. Set the Security permissions of the following folders to grant Full Control to the Windows user that was specified for the Kofax Front Office Server service during installation:
  - <shared folder>\CaptureSV\KFS<version>
  - <root of installation drive>\ProgramData\Kofax\Front Office Server
  - <root of installation drive>\ProgramData\Kofax\KFS (created if jobs were run through Kofax VRS)
7. Restore your backed-up SQL Server or Oracle database state.
8. In the Services console, start the Kofax Front Office Server service.

## Chapter 7

# Changing system configuration

You can change several system configuration options.

## Changing SQL Server database authentication

If your SQL Server database authentication username or password is changed after installation, you need to change the database authentication credentials in Kofax Front Office Server.

1. In the database management console, make the changes to the database credentials.
2. For Kofax Front Office Server, do the following:
  - a. Stop the Kofax Front Office Server service on the local host and, if you have a cluster installation, all other hosts in the cluster.
  - b. On the local host or any host machine in a cluster, go to the folder where Kofax Front Office Server is installed, navigate to the `kfsService` folder, and run `Kofax.KFS.DatabaseUtility.exe`.
  - c. The connection to the database cannot be made, so the **Kofax Front Office Server Utilities - Database Authentication** screen appears, where you enter the new database access credentials.
  - d. Click **OK**.  
A message that the credentials have been changed briefly appears.
  - e. Restart Kofax Front Office Server on the local host and, if you have a cluster installation, all other hosts in the cluster.

## Changing host names

The host name of a computer should not be changed after Kofax Front Office Server has been installed. Changing the host name may cause problems connecting to MFPs or other devices. You can restore connections by changing the host name back to the one you used when you licensed Kofax Front Office Server.

The host name of an MFP or device also should not be changed after it has been added to Kofax Front Office Server. Because the Administration Console does not recognize that the device's host name has changed, it instead recognizes it as a different device. If you add the device with the new host name, the Administration Console will have two records and use two device licenses for the same device.

## Using the Database Utility

The Database Utility is run automatically during an installation or upgrade so that you can set up or upgrade a database. You can also run it by itself to migrate data from one database type to another, such as migrating from a Microsoft SQL Server database to Oracle RAC.

Before migrating data, note the following:

- If you had installed Kofax Front Office Server with a non-standard database and want to move to the Standard database, you need to install SQL Server Express manually before using the Database Utility. To install SQL Server Express, run SQLEXPRESS\_ENU.exe. The file is in the `Prerequisites` folder in the Kofax Front Office Server product files. Specify the database instance name and credentials you want. When you run the Database Utility, select SQL Server and specify the information for the database.
- If you have deployed at least one Local Client, you cannot use the Database Utility to migrate to another database. Contact Kofax Technical Support for assistance.

Run the Database Utility as follows:

1. Stop Kofax Front Office Server on the local host and, if you have a cluster installation, all other hosts in the cluster.
2. On the local host or any host machine in a cluster, go to the folder where Kofax Front Office Server is installed, navigate to the `kfsService` folder, and run `Kofax.KFS.DatabaseUtility.exe`.
3. If prompted, log on with your Kofax Capture user name and password. You must have the "Allow admin utility usage" right in Kofax Capture to use the Database Utility. The Database Utility window appears.
4. The utility comes with its own Help system. Click **Help** and follow the instructions for the task you want to perform.

## Chapter 8

# Setting preferences for the Thin Client

You can use the Administration Console to set preferences related to the Thin Client. On the Administration Console, use the Settings-Advanced tab to locate the `kfsportal.properties` namespace, and then edit the applicable values, as described in the following table.

If you make changes, they go into effect with the next new session of the Thin Client.

See the Administration Console Help for details about accessing the Settings-Advanced tab.

<b>kfsportal.properties namespace Property</b>	<b>Description</b>
<code>paging.page.size</code>	Sets the number of documents that display at one time in the Inbox. If the number of documents in the Inbox exceeds a defined maximum, you can view additional entries on the list. Valid range is 1 to 150.
<code>client.session.timeout</code>	Sets the number of minutes of inactivity before the Thin Client session times out. If the user accesses the Thin Client using single sign on, the Thin Client redirects to the single sign on page. The user clicks on the provided link, the Kofax Front Office Server uses single sign on again automatically.
<code>thumbnail.generator.threads</code>	Sets the number of threads used to generate a thumbnail for each user in the Thin Client. You can increase the number of threads to generate thumbnails more quickly, or decrease the number if thumbnail generation slows down other processes in Kofax Front Office Server. The value must be a whole number greater than 0. Default is 4.
<code>thumbnail.generator.priority</code>	Sets the priority at which thumbnails are generated, relative to other processes. The value must be entered in all capital letters. Select one of the following values, which are listed from highest to lowest: HIGH ABOVENORMAL NORMAL BELOWNORMAL LOW You can increase the priority to generate thumbnails more quickly, or reduce the priority if thumbnail generation slows down other processes in Kofax Front Office Server. Default is BELOWNORMAL.

## Scanning directly from the Thin Client

Users can scan directly from the Thin Client from a TWAIN compatible scanner that is connected directly to their computer. When they scan the document, it appears in the Thin Client Active Jobs list.

See the Thin Client Help for instructions on setting up to scan from the Thin Client.

## Chapter 9

# Data validation and field lookup customization

For the Thin Client and MFPs, any data entered for index fields is validated for an appropriate data type and data length as follows.

- Field validation and selection: Each field value is validated as soon as it has been changed. You can determine which fields to validate, and whether other fields are filled in automatically or provide a selection list after successful validation. For selection lists, you can additionally define whether users have to select a value from the list or whether they can also type a value which is not in the list.
- Form validation: All the field values of a form and their interdependencies can be validated.

You can customize validation and a variety of field lookup options for Kofax Front Office Server by using files located in the `\DeveloperResources\DataValidation\sample.NET` folder.

## Kofax Capture validation script customization

You can create or edit a Visual Basic .NET or Visual C# .NET validation script in Kofax Capture to validate data provided for index fields in the Thin Client or supported MFPs. The data is validated for index fields for documents in a particular Kofax Capture document class. Validation occurs when the user exits the index fields.

The validation script implemented in Kofax Capture is used for both Kofax Capture and Kofax Front Office Server. The validation script determines in which context it was called (Kofax Capture or Kofax Front Office Server), and in which context for Kofax Front Office Server it was called (the Thin Client or an MFP). Kofax Front Office Server supports a subset of the Kofax Capture validation scripting API. For a full listing of supported properties, see the README.txt file in the `sample.NET` folder where Kofax Front Office Server is installed.

See the *Kofax Capture API Reference Guide* for more information about custom scripting.

To create or edit a Visual Basic .NET or Visual C# .NET validation script, go to the Kofax Capture Administration module. Then, on the Scripts menu, select **Document Validation**. (For additional information, see the Kofax Capture user documentation.)

When preparing the validation script, note the following:

- For the scripting language, be sure Visual Basic .NET or Visual C# .NET is selected.
- The Visual Basic .NET or Visual C# .NET project for the validation script contains the following:
  - A class that inherits from `Kofax.AscentCapture.Scripting.DocumentValidationScript`
  - Members for each field in the document class, tagged with an attribute indicating the field name it represents.
- Create or edit the validation script using a sample validation script, and the API reference and Readme.

- To build the existing Kofax Capture 10.2 for Kofax Capture 11, do the following:
  - Set the project to target .NET Framework 4.6.1 or later since the referenced Kofax Capture Scripting Interface (ScriptInterface.dll) in KC 11 is built with .NET Framework 4.6.1. Targeting an earlier .NET Framework version will result in the following project build failure:

```
The primary reference "ScriptInterface, Version=6.0.0.0, Culture=neutral,
PublicKeyToken=2a06c44ecf114f0f, processorArchitecture=MSIL" could not be
resolved because it was built against the ".NETFramework,Version=v4.6.1"
framework. This is a higher version than the currently targeted framework
".NETFramework,Version=v4.6
```

- Add a reference to Kofax.AscentCaptureModule.Interop (C:\Program Files (x86)\Kofax\CaptureSS\ServLib\Bin\Kofax.AscentCaptureModule.Interop.dll).
- Make sure the default constructor exists.
- References must maintain the Copy Local property, to ensure that other validation stations can perform properly if the appropriate version of Kofax Capture is not installed.
- Add the attribute KFSIndexFieldAttribute to each field, specifying the following parameters:  
Validate (true or false)  
ReadOnly (true or false)  
For an example of how to use the KFSIndexFieldAttribute type, see the validation scripts included with either the CitiesSample or the Order Forms sample batch classes located in the `sample.NET` folder where you installed Kofax Front Office Server.
- Add an AssemblyResolve event handler function to the script. This function must return the location of the KFSValidation library. Register the handler in the script's New subroutine. For an example of how to create an AssemblyResolve event handler, see the validation scripts included with either the CitiesSample or the Order Forms sample batch classes. The code from these examples can be copied into your own script as is.
- Optionally, use a static property in the ValidationContext class that indicates if the script is called through Kofax Front Office Server or Kofax Capture validation. For an example of how to use the ValidationContext class, see the Country\_FieldPostProcessing method of the validation script included with the CitiesSample batch class.
- Be aware that only FieldPostProcessing is called from within Kofax Front Office Server. FieldPreProcessing is ignored. For an example of a FieldPostProcessing method, see the Item\_Number\_FieldPostProcessing method of the validation script included with the Order Forms batch class.
- Optionally, implement an event handler from one or both of the following:
  - DocumentPreProcessing: Called each time a new document is opened. See the Cities\_DocumentPreProcessing method of the validation script included with the CitiesSample batch class for an example.
  - DocumentPostProcessing: Called when a document is closed. See the Catalog\_Orders\_DocumentPostProcessing method of the validation script included with the Order Forms batch class for an example.
- When FatalErrorException or RejectAndSkipDocumentException is encountered in your validation script, the exception is handled the same as ValidationErrorException. For an example of a ValidationErrorException being thrown to indicate validation failure, see the Item\_Number\_FieldPostProcessing method of the validation script included with the Order Forms batch class.
- Unique to Kofax Front Office Server, a utility method is provided that allows you to specify value lists for a given field. Currently, dynamic value lists are supported for Kofax Front Office Server only, and

not Kofax Capture. For an example of using the `CreateDynamicValueList` utility method to create a dynamic value list, see the `Country_FieldPostProcessing` method of the validation script included with the `CitiesSample` batch class.

- Be aware of the following about batch fields:
  - You cannot populate or read batch field values in the validation script.
  - In Kofax Front Office Server, the validation script cannot detect that the value of a batch field has changed in Kofax Capture.
  - Validation will not perform as desired if a batch field and document index field have the same name.

## Chapter 10

# Setting up Kofax Capture

If you have defined index fields for a document class, they are retrieved by Kofax Front Office Server. Users can enter values for them in the Thin Client or at the MFP front panel. If you have defined values for these fields, users can select them from a drop-down field in the Thin Client. If you have hidden index fields, they are also hidden in Kofax Front Office Server.

If you are creating global shortcuts in the Administration Console, you can enter default values for the index fields that display when users send documents through a shortcut.

## Setting up user accounts

Kofax Front Office Server uses user accounts and groups defined in Kofax Capture user profiles. In the Administration Console, you can assign these users or groups to Thin Client Permissions to control access to Kofax Front Office Server features. If you remove a user from Kofax Capture, the user's access to Kofax Front Office Server is also removed, but the user's active jobs are not deleted.

For instructions on adding users and groups, including how to link to those from Active Directory, see the Kofax Capture documentation. For information about assigning Thin Client permissions, see the Administration Console Help.

**Note** The following characters cannot be used in user IDs: / \ "

## Active Directory configuration

Make sure that the Active Directory is properly configured. When there are issues, such as when a subdomain is down, logging onto Kofax Front Office Server with a domain user may fail or be delayed. In situations when the forest configuration cannot be corrected, Active Directory Forest Query can be disabled so that users can continue logging on. Limitations with SafeCom SSO may occur when Active Directory Forest Configuration is disabled. When the issue has been resolved, enable Active Directory Forest Query again.

**Note** Disabling Active Directory Forest Query prevents SafeCom SSO to search for user names in subdomains. Users need to include the domain name when logging on in the first format: SUBDOMAIN \username.

## Enable Active Directory Forest query

1. Open the Kofax Front Office Server file, which is located in the following path:
  - For Kofax Capture Server/Workstation: \\<Kofax Capture server computer name>\CaptureSV\KFS4.3\Config
  - For Kofax Capture Standalone: C:\ProgramData\Kofax\Capture\KFS4.3\Config
2. Create the kfslib.properties file if it does not already exist.
3. Open kfslib.properties with a text editor.
4. Insert or add the following setting:

```
kfs.security.forest.query=true
```

5. Save and close the file.
6. Restart the Kofax Front Office Server service and IIS.
7. Check the webapp.log file, which is in C:\ProgramData\Kofax\Front Office Server\Log\WebApp\. It should contain the following:

```
kfslib.properties/kfs.security.forest.query=True
```

## Disable Active Directory Forest query

1. Open the Kofax Front Office Server file, which is located in the following path:
  - For Kofax Capture Server/Workstation: \\<Kofax Capture server computer name>\CaptureSV\KFS4.3\Config
  - For Kofax Capture Standalone: C:\ProgramData\Kofax\Capture\KFS4.3\Config
2. Create the kfslib.properties file if it does not already exist.
3. Open kfslib.properties with a text editor.
4. Insert or add the following setting:

```
kfs.security.forest.query=false
```

5. Save and close the file.
6. Restart the Kofax Front Office Server service and IIS.
7. Check the webapp.log file, which is in C:\ProgramData\Kofax\Front Office Server\Log\WebApp\. It should contain the following:

```
kfslib.properties/kfs.security.forest.query=False
```

## Setting up batch classes, document classes, and form types

Note the following when setting up batch classes, document classes, and form types in Kofax Capture:

- When configuring a batch class, select "Allow import of eDocument files" on the Batch Class Properties - Advanced tab if you are using documents in formats other than TIFF.
- On the Batch Class Properties - Advanced tab, the "Treat imported PDF files as TIFF images" check box should not be selected for PDF files with text. This may cause Kofax Capture to generate an error when it processes a PDF file that contains text.
- Do not use DataStore or Formtype as index field names.

- Do not use the following characters in the names of batch classes, document classes, and form types: / \ "
- If you have defined fields for a batch or document class, they are retrieved by Kofax Front Office Server. Users can enter values for them at the MFP or in the Thin Client. If you have defined values for these fields, users can select them from drop-down fields. Some field types may work differently from one MFP to another. For example, if you configure a field with a data type of "DOUBLE" with a maximum of 15 digits, you may be able to type more than 15 digits on a Ricoh MFP (once the batch is exported to Kofax Capture, the value is displayed at 15 characters). On an HP MFP, you are restricted to typing 15 characters for the same field.

**Important** If your batch class has single document processing enabled with automatic document separation, be sure to only send documents using loose pages. This will prevent users from entering index field data that would be removed if automatic document separation occurs.

If your batch class uses Kofax Fixed Pages for automatic document separation, be sure to only send documents using loose pages. This will prevent users from entering index field data that would be removed if a user scans more pages than is configured for fixed page separation and automatic document separation occurs.

The form type name appears in the Administration Console and the Thin Client as follows:

- If a form type exists in only one batch class, only the form type name appears.
- If a form type exists in multiple batch classes, the batch class name appears in parentheses after the form type name, such as "Form Type (Batch Class)."
- Loose pages, used for submitting documents directly to a batch class, appear as follows: "[Loose Pages] (Batch Class)."

## Information updates to Kofax Capture values

In Kofax Capture, you can view and/or use information about scan jobs that are processed by Kofax Front Office Server. These scan jobs are for documents that are scanned from an MFP or submitted from the Thin Client to Kofax Capture.

The following information generated by document activity in Kofax Front Office Server is updated to the following information in Kofax Capture.

Kofax Front Office Server Document Activity Information	Kofax Capture User Tracking	Kofax Capture Values	Kofax Capture Batch History
MFP host name (if documents are submitted from an MFP) Device Name (if documents are submitted from a source other than an MFP, such as the Thin Client or Thin Client scanning, resolves to MFP or Thin Client Hostname or IP address)	For Batch: Creation station ID	{Batch Creator's Station ID} {Scan Operator's Station ID}	Station ID
User ID (entered for Kofax Front Office Server)	For Batch: Creation user ID Creation user name For Module Launch: User ID User name	{Scan Operator's User ID}	(not applicable)
Number of pages scanned	For Batch Module: Pages scanned	(not applicable)	(not applicable)
Date and time the pages were scanned	For Batch Module and Module Launch: Start date and time	{Batch Creation Date} {Batch Creation Time}	For scan queue: Start date & time End date & time

In addition, the following is true:

- The {Scan Operator's User ID} resolves to:
  - MFP user name if authenticated on the device
  - [Anonymous] if not authenticated on the device
  - Coversheets: the user that created the coversheet
  - User name if originating from the Thin Client (file upload, desktop scan)
- {Scan Operator's Station ID} or {Batch Creator's Station ID} resolve to:
  - MFP host name if the host name is non-empty
  - MFP IP address if the host name is empty (or unattainable)
  - Hostname or client IP address if originating from the Thin Client (file upload, desktop scan)
- {Batch Class Name} returns the name of the selected Kofax Capture batch class.
- {Sequence Number} returns the sequence number of the selected Kofax Capture batch class. It is resolved when a new job is submitted to Kofax Capture.

**Important** If the {Repository Document ID} macro is used in an email notification, all other values and macros are *not* expanded. Remove the {Repository Document ID} macro to enable values and macros to be expanded correctly in Kofax Capture. See the Kofax Front Office Server Administration Console Help for information about setting up email notifications.

If you are upgrading to Kofax Front Office Server from a previous version, and there are existing documents in the Thin Client, information for these documents is not updated to Kofax Capture when the documents are submitted following the upgrade.

**Note** For tracking user information in Kofax Capture, be sure that User Tracking is enabled in Kofax Capture. For more information, see the Kofax Capture documentation.

## Batch Names

Batches are created from documents that are submitted from the Thin Client and MFPs. By default, batches are named in the following formats:

- For documents submitted from the Thin Client:
  - [User name]-[Thin Client host name (or IP address if host name is unavailable)]-[YYYY/MM/DD HH:MM:SS.ms (UTC offset)]
- For documents submitted from an MFP:
  - If user is logged on or a coversheet is used:  
[User name]-[MFP host name]-[YYYY/MM/DD HH:MM:SS.ms (UTC offset)]
  - If there is no user logged on:  
-[MFP host name]-[YYYY/MM/DD HH:MM:SS.ms (UTC offset)]

If you use a coversheet, [User name] indicates the user who created the coversheet.

The time stamp is based on the local time zone of the server where Kofax Front Office Server is installed. The time is followed by the local time UTC offset, such as (-5:00). The time is shown to the nearest millisecond.

For example, if a document is sent from host name "myserver" by user "jill" at 2:45 p.m. on August 18, 2009, the batch is named as follows:

```
[jill]-[myserver]-[2009/08/18 2:45:00.234 PM (-8:00)]
```

If a user name is not provided (such as if you use a global shortcut at an MFP without logging on), it is omitted from the batch name as shown:

```
-[MFP hostname]-[2009/08/18 2:45:00.234 PM (-8:00)]
```

Documents submitted from an MFP to the Thin Client, then from the Thin Client to a final destination are treated as MFP documents, and will have the MFP hostname.

## Custom Batch Names

You can also define your own batch names by setting property values in the Kofax Front Office Server Administration Console Settings - Advanced tab namespace `kc.properties` values for:

- `batchname.kofaxcapture.usedefault`

If this value is set to true, batches are named using the Kofax Capture batch name format (which defaults to false). If this property is enabled, the document tracking entries for `backenddocumentid` are blank, so for reporting statistics, use Kofax Capture User Tracking.

- `batchname.indexfield`

In Kofax Capture, create an index field where users can enter the name for the generated batch. Assign the index field to the batch class, and use the index field name as the value for this property. Note that this property is ignored if `batchname.kofaxcapture.usedefault` is set to true.

**Important** If the batch class contains a batch field with the same name as an index field, the batch field value is used for the batch name instead of the index value.

## Macros

The following Kofax Capture macros are supported by Kofax Front Office Server.

Macro	Resolved when opening shortcut at Thin Client or MFP? (Yes/No)	Resolved when exporting to destination? (Yes/No)	Resolved when sending email Notifications configured on KAC? (Yes/No)	Note
{Current Date}	Yes	Yes	No	
{Current Time}	Yes	Yes	No	
{Current User ID}	Yes	Yes	No	
{Current User Name}	Yes	Yes	No	
{Current User Email}	Yes	Yes	No	
{Scan Operator ID}	Yes	Yes	No	
{Scan Station ID}	Yes	Yes	No	
{Scan Station Language}	Yes	Yes	No	
{Scan Time}	Yes	Yes	No	
{DeviceProfile:<Field name>}	Yes	Yes	No	1
LDAP macros	Yes	Yes	No	2
\${JobID}	No	No	Yes	
\${ShortcutName}	No	No	Yes	
\${BatchClass}	No	No	Yes	
\${FormType}	No	No	Yes	
\${UserID}	No	No	Yes	
\${UserName}	No	No	Yes	
\${Pages}	No	No	Yes	3
\${SubmittedTime}	No	No	Yes	4
\${SubmittedDate}	No	No	Yes	5
{Scan Operator's User ID}	No	No	Yes	

Macro	Resolved when opening shortcut at Thin Client or MFP? (Yes/No)	Resolved when exporting to destination? (Yes/No)	Resolved when sending email Notifications configured on KAC? (Yes/No)	Note
{Scan Operator's Station ID}	No	No	Yes	

1. Custom metadata fields are configured on Custom Metadata Fields tab of a device profile on Kofax Front Office Server Administration Console. To use the custom metadata fields in a shortcut, the device profile must be associated with a working device or the shortcut. The custom metadata field needs to be defined to index field of a shortcut with the macro {DeviceProfile:FieldName}, where FieldName is the name of the custom metadata field. The macro is automatically resolved at indexing or exporting. If the specified metadata field does not exist on the device profile, it is resolved to an empty string.
2. You can create LDAP macros to expand LDAP attribute values in shortcut and destination fields. Add the macro in the following format:

```
{LDAP:<attribute>}
```

Where <attribute> is the name of the attribute. For example, these are common LDAP attribute names:

- {LDAP:mail} returns the user's email address.
- {LDAP:samaccountname} returns the user's logon ID.
- {LDAP:homeDirectory} returns the user's home folder.

You can set the scope of which parent and child domains are searched. In the Administration Console, go to the Settings – Advanced tab. In the kfsportal.properties namespace, enter the following setting in conf.ldap.global.catalog.enabled:

- True: Search in all parent and child domains.
- False: Search in the current parent domain only.

When you send a job to the shortcut or destination, the macro is resolved to value specified by the macro. For a complete list of LDAP attribute names, see the Microsoft website.

3. Total pages received at the server.
4. Time when the transaction was received at the server.
5. Date when the transaction was received at the server.

## Setting up masked fields

You can enable masking for text fields (on password fields, for example), so that the associated field entry on the MFP will be masked with asterisks (\*). Default values will also display masked, and anything the MFP user enters will also be masked. The Masking feature is designed to be used only on text fields.

Enable masking for any field by selecting a check box when you set up shortcuts in the Kofax Front Office Server Administration Console.

## Adding fax number and email address lookup fields

Fax number and email addresses fields can be configured so that they are lookup fields in the Thin Client and MFPs (see the following figure for an example of the Thin Client email Lookup list with returned data).

**Important** When you create index fields in Kofax Capture, be sure that the size definition (number of characters) is sufficient to hold the largest fax or email description and number in your information source.

The Lookup fields retrieve email addresses and/or fax numbers from these sources as follows:

- The customemailfaxlookup table in the Kofax Front Office Server database: users whose records contain data for the particular search (either email address or fax number) will be returned in the results list. This search is automatically enabled: no configuration is needed.
- Users and groups in a connected directory service: records that contain data for the particular search (either email address or fax number) will be returned in the results list. This search is automatically enabled: no configuration is needed.
- The Microsoft Outlook Contacts list of the logged on user: Contacts whose records contain data for the particular search (either email address or fax number) will be returned in the results list. To enable the Contacts search, follow the instructions in Contacts List Lookup below.
- The RightFax Phone Book: when integrated correctly, the user's personal address book is included in the search and the fax numbers will be returned in the results list. See [Integrating with a RightFax phone book](#) for instructions.

The data retrieved from the Kofax Front Office Server database, directory service, Contacts list, and RightFax phone book is combined to create the results list that appears in the Thin Client and MFPs.

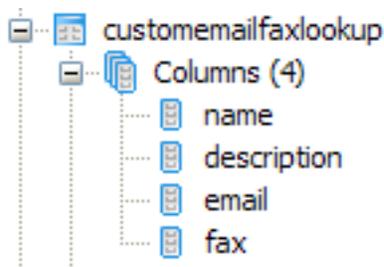
1. In the Kofax Capture Administration module, create a new field type. See the Kofax Capture documentation for instructions.
2. As you complete the information for your field type, select either **CHAR** or **VARCHAR** as the data type, depending on which data type you use in your target database.
3. Enter the maximum number of characters in the "Number of characters" field.
4. In the Subtype field, select **Email Address** or **Fax Number**.
5. When you are finished defining the field type, click **Save**. See the Kofax Capture documentation for instructions on using the field type with batch class or document class fields.

### Database table lookup

You can use the custom lookup table to add email and fax lookup information that is automatically included in searches.

- For enterprise installations:  
As a database administrator, you can either manually edit the customemailfaxlookup table or use a tool to import email addresses and fax numbers.
- For departmental installations:  
When SQL Express is installed, a database user LookupMgr is created, assigned the password kofax123, and given read and write permissions to the database lookup table.

The following figure shows the table columns.



## Active Directory lookup

When searching an Active Directory, the lookup will return user and group entries that contain either email addresses or fax numbers (depending on which one was searched for).

## Contacts list lookup

If Contacts search is enabled, users can search their Microsoft Exchange Contacts list if the user is logged on using their directory service account. When the user attempts to submit or send a document, a log on is attempted using the current credentials used to log on to the Thin Client or MFP. If those credentials fail authentication, the search will not include Contacts.

For example, user Max James logs on to the Thin Client using his sAMAccount name mjames, and his company's Microsoft Exchange log on also uses the sAMAccount name. His Lookup List search will include his Contacts. However, if his company uses the first.last convention for user name, then the search will not include his Contacts. Of course if user mjames were to log on to the Thin Client using another user's credentials, a Lookup List search would not include Max's Contacts list, but would instead include any Contacts from the other user account that is currently logged on.

**Note** For the Contacts list lookup to work, Outlook must be configured with the Microsoft Exchange Server account type, and Use Cached Exchange Mode must be enabled. Any newly added Contacts will become available the next time the user's Outlook client synchronizes with the Exchange Server. Also note that this feature is not available for users who authenticate using single sign on.

1. Start the Administration Console as described in [Starting the Administration Console](#). Log on as a user with administrator rights.
2. On the Settings - Advanced tab, in the namespace kfportal.properties, modify the following Names:  
conf.exchange.domain  
conf.exchange.server
3. Click **Save**.

## RightFax phone book lookup

When searching the RightFax phone book, the lookup will return entries from the personal address book of the user who is logged on.

## Chapter 11

# Advanced notification configuration for Kofax Capture

The Kofax Capture component of the Kofax Front Office Server notification feature has additional configuration settings that can be included in the `ACConfig.xml` file located in the `CaptureSV\Config` folder where Kofax Capture is installed.

Configuration information is optional, and overrides information found in a form type or shortcut that has notifications enabled. Configuration information is read once when the application starts.

### **KFSService Host**

Host, protocol, port, and path information of the Kofax Front Office Server installation where the Kofax Front Office Server service is running.

If either protocol or port is specified, both protocol and port must be specified.

The path attribute defines the path of the notification Web service relative to the Kofax Front Office Server.

### **RetryBackoffSeconds**

`RetryBackoffSeconds` overrides the default 5 minute (300 seconds) failure back-off time listed in item 5 above. Values can be 0 or greater.

### **Enabled**

Allows the administrator to disable the sending of notifications from Kofax Capture to Kofax Front Office Server. Values can be true or false.

### **RetryCount**

The number of notification sending errors which can occur before halting the sending of notifications. Once `RetryBackoffSeconds` have passed, the software will once again attempt to send new notifications. Values can be 0 or greater.

### **ConfigurationUpdateSeconds**

The number of seconds to wait between checks for changes to the `ACConfig` file. Values can be 0 or greater.

## Implementing the properties

Add properties to the `ACConfig.xml` file as a child `<KFSNotification>` element of `<ACConfig>`, as shown in the following example:

```
<?xml version="1.0" encoding="utf-8" standalone="yes"?>
<ACConfig>
  <Services>
    <Licensing>
```

```
<Service Key="Licensing\Licensing Service" Host="SUEKFS35" Protocol="http"
Port="2424" Enterprise="1" />
</Licensing>
<BatchNotification>
  <Service Key="BatchNotification\Batch Notification Service" Host="SUEKFS35"
Protocol="http" Port="2424" />
</BatchNotification>
</Services>
<CurrentVersion>10.0</CurrentVersion>
<KfxDB>
  <DataArchitecture>SQL-Server</DataArchitecture>
  <DBMS>SQL-Server</DBMS>
  <SQL-Server>
    <SqlServerInstance>SXFDB1\SQL2008</SqlServerInstance>
    <Database>suekc9</Database>
    <AuthenticationMode>SqlServer</AuthenticationMode>
    <UserID>sa</UserID>
    <Password>agOgoAeWbzFStvgSe/BvRxg==</Password>
    <IsCreatedDatabase>0</IsCreatedDatabase>
  </SQL-Server>
  <IsDatabaseInstalled>1</IsDatabaseInstalled>
  <BatchStorageOption>1</BatchStorageOption>
</KfxDB>
<KFSNotification>
  <KFSService Port="80" Protocol="http" Host="KFS21-64" Path ="/Kofax/KFS/Legacy/WS/
Notification/" />
  <RetryBackoffSeconds>300</RetryBackoffSeconds>
  <Enabled>true</Enabled>
</KFSNotification>
</ACConfig>
```

**Note** For the <CurrentVersion> element, specify the version of Kofax Capture.

## Chapter 12

# Configure retries

This section contains instructions on how to configure retries related to processing and failover.

## Configuring retries for failed scan jobs

If a scan job fails, a series of retries begins. If you are using the default settings, the retries continue every 30 seconds for a maximum of 3 tries. If a scan job fails on all retries, it is moved to an `Errors` subfolder in the `\scanjobs` folder. To retry failed scan jobs, move the folder for the scan job files from the `\Errors` subfolder to the `\Unprocessed` folder. (For Konica Minolta MFPs, copy the scan job files back to the FTP server for the MFP.) Kofax Front Office Server then starts processing the scan job.

You can change the properties for retry frequency and the maximum number of retries.

1. Start the Administration Console and log on as a user with administrator rights.
2. On the Settings - Advanced tab, in the namespace `shared_resource.properties`, modify the following Names:  
`scanjob.server.retry.frequency`  
`scanjob.server.retry.limit`
3. Click **Save**.

## Configuring database retries

The database retry applies when a database operation (such as insert, query, and update) fails. Based on the retry settings, the failed operation is retried.

You can change the properties for the maximum number of retries and for retry frequency, and you can also change those values specifically for the Thin Client transactions (you may want to make the values smaller so you limit any possible wait time for the Thin Client users).

1. Start the Administration Console as described in [Starting the Administration Console](#). Log on as a user with administrator rights.
2. On the Settings - Advanced tab, in the namespace `shared_resource.properties`, modify the following Names:  
`db.failover.retry.count`  
`db.failover.retry.interval`  
`kfs.db.failover.retry.count`  
`kfs.db.failover.retry.interval`
3. Click **Save**.

## Configuring retries to storage destinations

If a destination folder is not available to receive a document or file, by default a series of retries begins and continues every 500 milliseconds for 30000 milliseconds.

You can change properties for the retry timeout and the interval between retries.

1. Start the Administration Console as shown in [Starting the Administration Console](#). Log on as a user with administrator rights.
2. On the Settings - Advanced tab, in the namespace `shared_resource.properties`, modify the following Names:  
`filesys.retry.timeout.millis`  
`filesys.retry.wait.millis`
3. Click **Save**.

## Chapter 13

# Troubleshooting and maintenance

There are several areas where you can perform troubleshooting tasks, and maintain system processing capabilities.

## Troubleshooting for failed batches

If a batch is not generated from documents submitted from the Thin Client or the MFP, check the `release_errors.log` file in `C:\ProgramData\Kofax\Front Office Server\log` folder. The file includes messages that indicate the type of error. Errors may be caused by the following:

- Users changing batch classes in Kofax Capture while other users are submitting documents in Kofax Front Office Server. For example, a user can delete a batch class or change an index field from optional to required. This would cause a document to fail even if it passed validation at the Thin Client. We recommend that changes to Kofax Capture batch classes take place when users are not actively submitting documents.
- Faint pages being deleted from documents when blank page removal is enabled. Kofax Front Office Server cannot create a batch for a document without images. If a page is too faint to be detected, it will be deleted by blank page removal and could generate a document without images. If you have faint pages to scan, adjust the image quality of the device or disable blank page removal.

## Important information about validation failure

Under certain conditions, Kofax Capture Values will fail validation. Any fields that fail validation are cleared of content and appear blank. However, it is important to note that the Kofax Capture Value link will still remain intact and therefore the field will still resolve to the value of the linked Kofax Capture Value.

To understand why a Kofax Capture Value can fail validation, it is necessary to know that Kofax Front Office Server will interpret Kofax Capture Values as literal strings. For example, the name of the Kofax Capture Value {Site ID} contains 9 characters. If the Field Type defined for the index field limited the number of characters to less than 9, validation would fail, and the value would be cleared in the field as it appears when creating shortcuts in the Administration Console, viewing shortcuts on an MFP, or in the Thin Client indexing panel. However, as mentioned above, the Kofax Capture Value link will still remain intact and the field will still resolve to the value of the linked Kofax Capture Value when the document is submitted to Kofax Capture.

Examples of other cases where you would see Kofax Capture Values failing validation:

- Kofax Capture Value name exceeds the length of the Field Type defined for the index field
- Kofax Capture Value is linked to an index field defined as Numeric, Decimal, Integer, or Small Integer Field Types

- Kofax Capture Value is linked to an index field defined as Date or Time Field Types

Under most circumstances, the intent of using Kofax Capture Values is so that an index field will resolve to a value without user input. Kofax Capture Value links will remain intact unless overwritten manually during Thin Client or MFP indexing. Therefore, you could tell users not to fill out those particular blank fields during Thin Client or MFP indexing. Or, to be less confusing to your users, you could set such index fields to be hidden (either in Kofax Capture or Kofax Front Office Server) so that the blank index fields are not visible to the user during indexing. Either option would allow the Kofax Capture Value to remain linked and resolve properly when the document is submitted to Kofax Capture.

## Getting job history

The dbo.KFS\_JOBHISTORY table in the Kofax Front Office Server database provides information about scan jobs, which appears in the Administration Console. Administrators can use this table to build their own report for all scan job statuses such as cancelled, completed, retrying, pending, abort, and error.

Order	Field name	Type	Description
1	GLOBALID	uniqueidentifier	Randomly generated GUID for the history record. Primary key.
2	JOBID	uniqueidentifier	Foreign key to the Job record in the system.
3	JOBUNIQUEID	nvarchar(256)	Alternate reference to the Job record in the system.
4	JOBNAME	nvarchar(128)	Name of the Job. By default, it is automatically generated in this format: [user name]-[device name]-[datetime] If the job has an inbox destination, the JOBNAME field may be entered by the user.
5	TYPE	nvarchar(50)	The submission type indicated by the following values. <ul style="list-style-type: none"> <li>• 0: Shortcut</li> <li>• 1: Destination</li> </ul>
6	SOURCETYPE	nvarchar(50)	Source type of the job indicated by the following values. <ul style="list-style-type: none"> <li>• 0: THIN_CLIENT</li> <li>• 1: MFP</li> </ul>
7	SOURCE	nvarchar(255)	Deprecated. Replaced by SOURCETYPE.
8	DESCRIPTION	nvarchar(255)	Reserved for future use.
9	PAGECOUNT	int	Number of pages scanned with the job.
10	DEVICEID	nvarchar(255)	Identity of the device where the job was submitted.

Order	Field name	Type	Description
11	STATUS	int	<p>Job status with values:</p> <ul style="list-style-type: none"><li>• -1: Error. A server-side error has occurred processing the job. The job should appear in an error state in Transaction Review in the administration console. See related Retry state.</li><li>• 0: Unknown. Internal use only - this value should not appear at runtime.</li><li>• 1: Pending. The server is aware of a job being created, but has not received any data for the job yet. Currently this state is only applicable to Xerox MFP devices.</li><li>• 2: Uploading. A local client has initiated a job upload to the server. This does not apply to MFP devices.</li><li>• 3: Queued. The job has been queued on the server for processing.</li><li>• 4: Processing. The server is actively processing the job.</li><li>• 5: Inbox. The job is waiting for user input in an inbox. An alternative to Completed state.</li><li>• 6: Merged. The job was merged into another job and no longer exists as a separate entity.</li><li>• 7: Completed. The job was successfully sent to its final destination and is no longer in the system.</li><li>• 8: Retry. The job encountered an error when processing on the server and will be retried automatically. If the job has not succeeded after the configured number of attempts, it is set to Error state.</li><li>• 9: Deleted. The job has been either deleted by the user from their Thin Client inbox, deleted by an administrator from the Transaction Review screen in the Administration Console,</li></ul>

Order	Field name	Type	Description
			<p>or canceled by the user at an MFP device.</p> <ul style="list-style-type: none"> <li>• 10: ValidationError. A validation error prevented the job from being submitted. This state only applies to Konica Minolta MFP devices.</li> <li>• 11: Reserved for future use.</li> <li>• 12: Reserved for future use.</li> <li>• 13: Cancelling. The MFP device is actively canceling the job.</li> <li>• 14: CancelPending. The MFP device has scheduled the job for cancelation, but the process has not completed. Due to timing factors, it is possible for a job to be successfully sent even if a cancel was requested.</li> <li>• 15: RetryPending. The job encountered an error when processing on an MFP device and is scheduled to retry.</li> <li>• 16: Retrying. The job is retrying on an MFP device with the number of retry attempts.</li> <li>• 17: Sending. The job is being sent from an MFP device.</li> </ul>
12	DESTINATIONNAME	nvarchar(256)	The shortcut or destination name displayed on the MFP screen or Thin Client.
13	DESTINATIONID	uniqueidentifier	The shortcut or destination ID in the system.
14	DEVICENAME	nvarchar(256)	Reserved for future use.
15	DEVICEMODEL	nvarchar(256)	Reserved for future use.
16	USERNAME	nvarchar(128)	Reserved for future use.
17	USERID	nvarchar(256)	Reserved for future use.
18	USERIDENTITY	nvarchar(256)	Reserved for future use.
19	DATECREATED	datetime	A timestamp based on when the user created the scan job.
20	DATESUBMITTED	datetime	A timestamp based on when the user submitted or canceled the scan job.
21	UPDATED	datetime	Reserved for future use.
22	UPDATEDBY	nvarchar(50)	Reserved for future use.

Order	Field name	Type	Description
23	CREATED	datetime	Reserved for future use.
24	CREATEDBY	nvarchar(50)	Reserved for future use.

## Turning off verbose error messages

If the sent data does not match the content type, a long error message is displayed that includes the stacktrace. If you would rather include that message in the log, modify web.config for the Kofax Front Office Server as follows.

1. Change the includeExceptionDetailInFaults setting to False. If this setting does not appear in web.config, add the following line:

```
<serviceDebug includeExceptionDetailInFaults="False" />
```

2. Make sure that the server log is enabled. If not, change the settings as shown or add these lines if they are not in web.config:

```
<system.serviceModel>
  <diagnostics>
    <messageLogging logEntireMessage="true" logMalformedMessages="true"
      logMessagesAtServiceLevel="true" logMessagesAtTransportLevel="true" />
  </diagnostics>
</system.serviceModel>
<system.diagnostics>
  <sources>
    <source name="System.ServiceModel"
      switchValue="Information, ActivityTracing"
      propagateActivity="true">
      <listeners>
        <add name="traceListener"
          type="System.Diagnostics.XmlWriterTraceListener"
          initializeData= "C:\Temp\SvcLog\Traces.svclog" />
      </listeners>
    </source>
  </sources>
</system.diagnostics>
```

## Troubleshooting for submission errors

If there is an error submitting a batch, an XML file containing the description of the error and the batch information is created in the `\ProgramData\Kofax\Front Office Server\Log\Service\Release_Error` and `\ProgramData\Kofax\Front Office Server\Log\WebApp\Release_Error` folders, along with subfolders containing any document images.

The XML file is readable by the Kofax Capture XML Import Connector, which can be used to import the batch after any errors are corrected.

To run the XML Import Connector, the user must have rights to the Scan module and the batch classes listed in the XML file. The Scan module must also be added to the batch class. In addition, one of the following must be true:

- You are logged on to the computer as one of the linked users.

- You add the UserID and Password attributes of a Kofax Capture local user to the <ImportSession> element in the XML file.

The example below illustrates the second bullet above: adding an Admin user credentials to the element.

```
<ImportSession xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" DeleteBatchOnError="1"
UserID="Admin" Password="">
```

## Bar code support

Kofax Front Office Server recognizes page-level bar codes on documents sent from MFPs to shortcuts or to the Inbox. If you set up an index field for a page-level bar code, the value of the bar code can be read when the document is scanned.

When indexing on the MFP, the bar code values do not display on the front panel because scanning takes place after indexing. If the user enters a value for an index field with a page-level bar code, the user-entered value is used instead of the recognized bar code value. If the user does not change the default value or clear the index field, the recognized bar code value will be populated at the server.

In the Thin Client, the recognized value of the bar code is displayed and can be changed by the user. As with the MFP, the user-supplied value takes precedence over any recognized bar code value.

To enable bar code support, in the Settings - Advanced tab, set BarEnable in the vrs-default.properties namespace to the appropriate value for the bar code you are using. See the Kofax Capture documentation for more information.

## Changing default VRS settings

Documents scanned into the Thin Client using the scanning component use the settings specified in the Scanner Settings window. Documents scanned or imported using other methods are processed by Kofax VirtualReScan (VRS) based on settings in the vrs-default.properties namespace.

VRS settings also affect the bar codes used on coversheets. Note the following:

- Different bar code types can be used on any page by adding the values specifying the type. For example, to use a Code 128 bar code with a value of 4 and PDF417 with a value of 2048, enter 2052 (4 + 2048).
- Coversheet bar codes must include PDF417 as one of the bar code types. Therefore, the value for the barcode type on the coversheet must be at least 2048.

**Important** Bitonal images will always remain in the DPI that the image is scanned at the MFP. In other words, if the MFP user changes the DPI settings directly at the MFP, that setting will override the settings selected in the shortcut.

1. Start the Administration Console as described in [Starting the Administration Console](#). Log on as a user with administrator rights.

2. On the Settings - Advanced tab, in the namespace vrs-default.properties, modify the values of the properties you want to change. Acceptable values for each property are documented in the comments for each property directly in the Help. For example, the ColorMode property controls the color format of the image:  
# Specifies the color format of the output image.  
# 1=color, 2=grayscale, 3=black/white (Bitonal)  
ColorMode=3  
So, if you want to change to color scanning and your scanner supports color, change the value to 1.
3. Click **Save**. The changes are applied to the next scan.

## Log files

Kofax Front Office Server generates log files when certain events occur. Besides the log files generated during installation (and mentioned in the *Kofax Front Office Server Installation Guide*), log files are generated and updated during processing.

The log files are located in C:\ProgramData\Kofax\Front Office Server\Log in the Service and WebApp folders. Log files can be viewed in any text editor.

The primary log file is kfs.log. It includes a list of activities performed by Kofax Front Office Server. Additional log files are created to track database activities, communication with MFPs (which are located in the WebApp folder), and processes. If there is a system failure, see kfs.log and the log files that were most recently updated for any error messages.

## Changing folders for log files

You can change the folders where log files are located. We recommend storing log files on a separate partition from the application and rotate paths regularly.

1. In the Services application, shut down the Kofax Front Office Server service.
2. In Internet Information Services (IIS) Manager, shut down the Kofax Front Office Server app pool.
3. Navigate to the C:\Program Files (x86)\Kofax\Front Office Server 4.3\bin folder and open the following configuration files in a text editor:
  - log4net.config
  - log4net.worker.config
4. Locate the following line in each of these files:

```
<file type="log4net.Util.PatternString" value="%property{LogFolder}/%property{LogFile}" />
```

Where %property{LogFolder} is a variable used by Kofax Front Office Server to pass the folder name, and %property{ErrorLogFile} is the variable for the log file name. When you are finished, save the file.

**Example** To store logs in D:\ServerLogs, change the value as follows:

```
<file type="log4net.Util.PatternString" value="D:\ServerLogs/%property{LogFile}" />
```

5. Make the same change to the other configuration file.
6. In Internet Information Services (IIS) Manager, restart the Kofax Front Office Server app pool.

7. In the Services application, restart the Kofax Front Office Server service.

## Free drive space

The Kofax Front Office Server database expands in size as it accumulates logs and data. If destination types go offline for a prolonged period of time, requests are queued on the server, which also consumes hard drive space. If the hard drive runs out of space, Kofax Front Office Server may operate unpredictably.

**Tip** You can monitor log files for any drive space errors.

### Request blocking when drive space is limited

When drive space reaches a minimum threshold (the default minimum threshold is 5 GB), Kofax Front Office Server blocks requests until more drive space is made available. You can adjust this amount by editing the properties in the `system.resource.checker.properties` namespace in the Administration Console Settings - Advanced tab.