

Kofax Front Office Server

Installation Guide

Version: 4.3.0

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The KOFAX logo is displayed in a bold, blue, sans-serif font. The letters are thick and closely spaced, with a clean, modern appearance.

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Preface

This guide includes general instructions and instructions on installing and upgrading Kofax Front Office Server. Read this guide completely before using the software. This guide was written with the assumption that you have a thorough understanding of Microsoft Windows and network configuration.

Related documentation

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

Kofax Front Office Server Administrator's Guide

The *Kofax Front Office Server Administrator's Guide* shows you how to change the configuration by modifying properties files and performing other administration tasks to keep Kofax Front Office Server working properly.

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 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.

Product documentation

By default, the Kofax Front Office Server documentation is available online. However, if necessary, you can also download the documentation to use offline.

Default online documentation

The product documentation for Kofax Front Office Server 4.3.0 is available at the following location.

<https://docshield.kofax.com/Portal/Products/KFS/4.3.0-ugsc6qbedi/KFS.htm>

To launch the online help for the Kofax Front Office Server site in the Administration Console, Thin Client, and Database Utility click **Help**.

Configure offline documentation

To access the documentation offline, download the documentation .zip files from the [Kofax Fulfillment Site](#) and extract them on a local drive available to your users.

The compressed English file, KFSDocumentation-4.3.0_EN.zip, includes both `help` and `print` folders. The `print` folder contains all guides, such as the Installation Guide and the Administrator's Guide. The localized .zip files, KFSDocumentation-4.3.0_*.zip, include a `help` folder with localized Thin Client help. In addition to English, the following .zip files are provided:

Documentation File	Language
KFSDocumentation-4.3.0_DE.zip	German
KFSDocumentation-4.3.0_ES.zip	Spanish
KFSDocumentation-4.3.0_FR.zip	French
KFSDocumentation-4.3.0_IT.zip	Italian
KFSDocumentation-4.3.0_JA.zip	Japanese
KFSDocumentation-4.3.0_pt-BR.zip	Portugese (Brazilian)

You can configure Administration Console, Thin Client, and Database Utility to access offline help from the application by following these steps after installing Kofax Front Office Server.

1. Extract the contents of the documentation .zip files.
2. Copy the contents of the extracted files to the following folders where Kofax Front Office Server is installed. Create the folders if necessary.
 - a. From the extracted English .zip file, copy the contents of the `help\AC` folder to the `Kofax\Front Office Server 4.3\bin\Administrative\help` folder.
 - b. In the `Kofax\Front Office Server 4.3\bin\ThinClient\help` folder, create a subfolder for each language available for Thin Client.

Folder	Language
de_DE	German
en_US	English
es_ES	Spanish
fr_FR	French
it_IT	Italian
ja_JA	Japanese
pt_BR	Portugese (Brazilian)

Example You would have a `Kofax\Front Office Server 4.3\bin\ThinClient\help\en_US` folder for English and `Kofax\Front Office Server 4.3\bin\ThinClient\help\de_DE` folder for German.

- c. From each of the extracted .zip files, copy the contents of the `help\TC` folder to the appropriate language folder.

Example From the extracted KFSDocumentation-4.3.0_EN.zip file, copy the contents of `help\TC` to `Kofax\Front Office Server 4.3\bin\ThinClient\help\en_US`. For German, copy the contents of `help\TC` in the extracted KFSDocumentation-4.3.0_DE.zip file to `Kofax\Front Office Server 4.3\bin\ThinClient\help\de_DE`.

- d. From the extracted English .zip file, copy the contents of the `help\DB` folder to the `Kofax\Front Office Server 4.3\kfsService\Databaseutility_Help` folder.

3. Go to the folder where Kofax Front Office Server is installed and do the following:

- a.** Open the web.config file in a text editor.
- b.** Locate the following attribute, `OnlineHelpURL`.
- c.** Clear the value of `OnlineHelpURL` as follows:

```
OnlineHelpURL=""
```

- d.** Save and close the file.
- e.** Open the Kofax.KFS.DatabaseUtility.exe.config file in a text editor.
- f.** Repeat steps 3.b-3.d to modify the URL for `OnlineHelpURL`.

4. Open each of the Kofax Front Office Server applications.

5. Click **Help**.

The help should open, and the browser's address field indicates the URL where the help is installed.

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 destinations, such as email and fax recipients, content management systems like 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 that they can continue working when the connection with Kofax Front Office Server is not available and synchronize their data when the connection is restored.

You can install Kofax Front Office Server by using an interactive installation or by using a command-line interface for silent installation. The silent installation enables you to install Kofax Front Office Server on multiple computers using the same settings.

Kofax Front Office Server must be installed with Kofax Capture. You can use Kofax Front Office Server in a number of configurations supported by Kofax Capture, including a single server, a load-balanced cluster of multiple servers for maximum scalability and availability, or a distributed processing configuration. See [Scaling and high-availability options](#) for more information.

Types of Kofax Front Office Server configurations

The configuration you can use for Kofax Front Office Server depends on the type of license you have. An Enterprise license enables you to use Kofax Front Office Server in a clustered environment. A Departmental license enables you to use the product on a single computer.

You must also install the appropriate database for use with the configuration. Information about supported databases is on the Kofax website.

Both Enterprise and Departmental configurations of Kofax Front Office Server use the same installation program. The license installed with Kofax Capture determines whether the product functions as an Enterprise or Departmental configuration.

Upgrade process

If you are upgrading, run the Kofax Front Office Server installation on each server where Kofax Front Office Server is installed. If you have a cluster, run the Kofax Front Office Server installation on all servers of the cluster to make sure that older versions of the executable files have been upgraded.

During the upgrade, the Database Utility migrates the data to the new version of Kofax Front Office Server. The upgrade process does not remove information from your existing system.

Settings that were in configuration files are also moved into the database. You can then manage settings through the Administration Console instead of locating and editing individual configuration files manually.

Location for product files

Kofax products may be downloaded from the Kofax Electronic Delivery site or provided as a package that includes electronic media. If you downloaded Kofax Front Office Server from the Kofax Electronic Delivery site, see the instructions provided with the ISO file to prepare it for use. In this guide, we see both the extracted files and the electronic media as the product files.

Note You can run the installation from a UNC path or mapped network drive.

System requirements

The primary source of information about supported operating systems and other Kofax Front Office Server requirements is the Technical Specifications document, which is available on the Kofax website at www.kofax.com.

Note If you are upgrading Kofax Front Office Server, note that some platform configurations supported by your current version might not be supported by Kofax Front Office Server 4.3.0. Review the system requirements in the Technical Specifications document and plan any updates to your production environment.

This section lists additional system requirements.

Port configuration

The ports listed in the following table must be available for use by Kofax Front Office Server. If another application (such as IIS or a Web server) uses these ports, reconfigure it to use different ports. If an application cannot be reconfigured, disable or uninstall it or install Kofax Front Office Server on another computer.

Port	Protocol	Direction	Description
80	HTTP	Incoming	For the Administration Console, the Thin Client, and other browser-based applications.
443	HTTPS	Incoming	Secure communications between Kofax Front Office Server and browser-based applications.
1434	UDP	Outgoing	UDP discovery port and a dynamic port for SQL Server.
1521	TCP	Outgoing	Required for Oracle databases.
5353	Bonjour	Outgoing	UDP port for device discovery.
8888	HTTP	Outgoing	Required for network connections to some MFPs (see the MFP administrator guide).

Note If you are using Skype, clear its option to use ports 80 and 443 as alternatives for incoming connections to avoid conflicts with Kofax Front Office Server.

Domain requirements

All computers and user accounts used for Kofax Front Office Server must be on the same domain or on domains that have a two-way trust relationship.

Kofax Capture requirements

Kofax Front Office Server must be installed on the same computer with Kofax Capture server or workstation. Kofax Front Office Server connects directly with Kofax Capture by using an in-process COM object and input scripts, which are installed and configured automatically. During installation, Kofax Front Office Server retrieves information about the Kofax Capture configuration and uses it to establish the connection to Kofax Capture.

When using Kofax Capture with Kofax Front Office Server, note the information in this section.

Manual restarts for a computer with Kofax Capture

If you installed Kofax Front Office Server on a Kofax Capture workstation (not a server), a manual restart of the workstation is required if you are unable to log on to the Thin Client and documents fail to be submitted to Kofax Capture. The following error appears in the log files:

```
Creating an instance of the COM component...from the IClassFactory failed due to the following error: 800a01ad.
```

After restarting the computer, restart the failed job with the Kofax Front Office Server Administration Console transaction review.

Kofax Capture Administration Plug-In

You can install the Kofax Capture Administration Plug-In, which enables you to launch Kofax Front Office Server Administration Console directly from the Kofax Capture Administration module by selecting commands on the Kofax Front Office Server tab.

If you are using Kofax Capture as part of a cluster with a shared folder, you can install the plug-in by itself on any Kofax Capture installation that uses the same shared folder. The plug-in opens the Administration Console for the Kofax Front Office Server specified in a configuration file in the shared folder.

Note The Kofax Capture Administration Plug-In uses HTTP or HTTPS based on the ProxyServerProtocol setting in the Advanced Setting tab in the Administration Console.

Version requirements for Notification

The notification feature that allows users to receive an email indicating the status of the documents and any errors that occur requires Kofax Capture 10 or higher.

User accounts and groups

Kofax Front Office Server uses groups and user accounts defined in Kofax Capture, including those linked from Active Directory and other directory services. Users who are Administrators in Kofax Capture have access to the Kofax Front Office Server Administration Console. You must also enable user profiles in Kofax Capture.

It is also a requirement that the built-in Kofax Capture user "Admin" has rights to the Scan module and all batch classes that will be used in Kofax Front Office Server.

SecurityBoost

SecurityBoost is not certified with Kofax Front Office Server. If you are using SecurityBoost with Kofax Capture, it is recommended that you disable it.

Upgrading Kofax Capture after installing Kofax Front Office Server

If you upgrade or install patches to Kofax Capture after Kofax Front Office Server has been installed, stop Kofax Front Office Server first. See [Stopping and restarting Kofax Front Office Server](#) for instructions. You can restart Kofax Front Office Server after the upgrade or patch installation for Kofax Capture is complete.

Installing Kofax Front Office Server with KCN Server

If you are installing Kofax Front Office Server with KCN Server, make sure that a supported version of KCN Server has been set up and is working properly. Note the following:

- You can install Kofax Front Office Server at the central site or at a remote site. Only one installation of Kofax Front Office Server can be installed on each computer.
- Batch classes, form types, licensing, users, groups, and .NET validation scripts are set up at the central site and shared by all Kofax Front Office Server installations in KCN Server.

Note You assign license units for devices and number of concurrent users of the Thin Client to each remote site using the Kofax Capture Remote Site Manager.

- Kofax Front Office Server installations on each site have their own devices, shortcuts, permissions, and validation scripts. These are configured through the Administration Console. Kofax Front Office Server installations in KCN Server are independent and do not share non-Kofax Capture information.
- Kofax Front Office Server uses KCN Server to send data to the central and remote sites. If the central site is unavailable, Kofax Front Office Server at remote sites can continue processing and upload data to alternate central sites as defined in KCN Server.

User account for the Kofax Front Office Server service

Kofax Front Office Server uses a Windows service called Kofax Front Office Server. You need to specify a user account during installation for starting the Kofax Front Office Server service. Depending on the Kofax Capture configuration, you have the following options:

- For a Standalone Kofax Capture system, select either the Local System account or specify a domain user account and password.

Note When selecting a Windows User Account, do not use a local user ID and password. Doing so keeps the Kofax Front Office Server from accessing the domain account to verify the user. An unverified user cannot access the application.

- For a Server/Workstation Kofax Capture system, specify a domain user account and password.

If you specify a domain user account, that account must meet the following requirements:

- Be in the Administrators group on the computer where Kofax Front Office Server is installed.
- Have full access to the folder containing the Kofax Capture server files. See the administrator's guide for more information.
- Have full access to folders used by Kofax Capture batch classes for images and other data.
- If you are connecting to a SQL Server database using Windows Authentication, select a user account that has rights for reading and creating tables for that database.
- Have permission to access Active Directory for all domains and subdomains linked by users of Kofax Capture.

You can change the domain user account after installation. See [Changing the user account for the Kofax Front Office Server service](#) for instructions.

Note Kofax Front Office Server supports User Account Control (UAC).

Licensing requirements

Kofax Front Office Server is licensed through the license utility used by Kofax Capture. Before using Kofax Front Office Server, activate the appropriate Kofax Front Office Server licenses. See the *Kofax Front Office Server Administrator's Guide* for information about licensing.

Database requirements

The Kofax website lists supported databases. Also note the following information:

- The standard database is not supported on all versions of Windows. See the *Kofax Front Office Server Technical Specifications* for supported versions.
- If Kofax Capture uses the standard database or IBM DB2, Kofax Front Office Server is installed with the standard database by default. If Kofax Capture is installed with any other database that is not supported by Kofax Front Office Server, the standard database is used by default.
- After installation, you can use the Kofax Front Office Server Database Utility to change to another type of database. See the *Kofax Front Office Server Administrator's Guide* for information.

- The database should also match the type of license. If you are using Kofax Front Office Server and Kofax Capture in an Enterprise configuration, you should use an Enterprise database such as Microsoft SQL Server Enterprise or Oracle Real Application Cluster (RAC). The standard database can only be used in a Departmental configuration.
- Oracle databases must use a Unicode character set, such as AL32UTF8. This setting is required for new installations and upgrades.

Chapter 2

Preparing for installation and upgrade

This chapter describes information you need before installing and upgrading Kofax Front Office Server.

Preparing for new installations

Before installing Kofax Front Office Server, follow these instructions to prepare your computer and avoid potential problems.

Network configuration requirements

Kofax Front Office Server uses the IP address of the first network connection listed in the connection order. If there are multiple network cards in the server, you may need to change the order of network connections so that the connection used by devices is first. See the Microsoft Windows Server documentation for instructions on changing the connection order.

Local drive installation requirement

Kofax Front Office Server must be installed on a local drive, which can be any drive letter. Do not install Kofax Front Office Server on a network drive, including a mapped drive.

Net.Pipe Listener Adapter requirement

The Net.Pipe Listener Adapter must be running and the Named Pipe Activation must be installed. See the Windows documentation for instructions.

Requirement for free hard drive space

Make sure that there is sufficient space on the hard drive for the database. A minimum of 25 GB is recommended as an initial amount of free hard drive space for the database. Additional space will be needed as the database grows. You can manage the database size by periodically purging old records. Kofax Front Office Server can also block database requests if the free drive space reaches a specified threshold. For information about freeing hard drive space, see the *Kofax Front Office Server Administrator's Guide*.

Web server setup

Kofax Front Office Server requires IIS as a web server. Both HTTP and HTTPS are supported.

The Kofax Front Office Server installation can install, enable, and configure IIS for you. If you already have IIS installed or want to control its configuration, you can use the SKIP_IIS parameter so that the Kofax Front Office Server installation does not change IIS settings. For information about installation parameters, see [Silent installation parameters](#).

If you set up IIS yourself, make sure that you do the following after you install Kofax Front Office Server. See the Microsoft documentation for instructions.

- Install and enable a supported version of IIS. See [IIS settings](#) for a list of settings used by the Kofax Front Office Server.
- Create a web site. Make sure that the protocols "http" and "net.pipe" are enabled.
- Create an application under the website and name it "Kofax". Set its physical path to the installation directory of Kofax Front Office Server.
- Create an application pool and name it "KfsAppPool." Configure it as follows:
 - Have it run under .NET CLR Version 4.0.
 - For Managed Pipeline Mode, select Integrated.
 - Set the Kofax application to use this application pool.

If you are using HTTPS, the binding needs to be configured on the website before installing Kofax Front Office Server. For information on installing certificates and configuring IIS for HTTPS, see the Microsoft documentation.

User profile requirement

User profiles must be enabled on Kofax Capture in order to use Kofax Front Office Server.

Registry access

Kofax Front Office Server needs to modify the Registry during installation. If you are using software that restricts changes to the Registry, turn it off while installing Kofax Front Office Server.

Restriction on server restarts

Do not restart the server manually while the installer is running. Restarting the server will cause the installation to fail.

Invalid drive path

If you change the default path during installation, you must select an install path that includes a valid local drive letter. An error appears if you select a drive letter that does not exist.

Prerequisite software

If you use the installation program or perform a silent installation using setup.exe, the following prerequisite software is automatically installed if it is not already on the computer:

- Bonjour
- VC2012 Runtime Redistributable (32- and 64-bit)
- VC2013 Runtime Redistributable (32- and 64-bit)

- Microsoft .NET Framework 4.7

If you are performing a silent installation using the `msiexec` command, you need to install these programs on each computer where you are installing Kofax Front Office Server before installing.

Install the appropriate connector software for the destinations you plan to use. For example, FileNet requires IBM CMIS for FileNet Content Manager, and SharePoint 2010 requires the CMIS connector.

Browser configuration

Installing the Kofax Front Office Server Local Client using a Web browser requires that you have the following installed on your local computer:

- The Kofax Web Capture Service
- Microsoft .NET Framework 4.7
- For Mozilla Firefox, the .NET Framework Assistant extension
- For Google Chrome, the ClickOnce for Google Chrome extension

Security settings for browsers

If a browser is set to the highest security setting, the Administration Console and the Thin Client may not work correctly. These applications depend on JavaScript, and they must be able to communicate with the server. Therefore, you should configure the Administration Console, the Thin Client, and their Help systems in your browser as follows:

- Set Kofax Front Office Server as a trusted site.
- Enable JavaScript and cookies.
- Set user authentication to "Automatic logon with user name and password" so that you can log on automatically to the Administration Console or the Thin Client.

Text resizing in browsers

Panels and scroll bars are not resized automatically when the text size changes. This can cause enlarged text to appear outside the borders of a panel. It can affect automatic scrolling. To cause resizing, use the browser's Refresh command so the panels and scroll bars are resized to fit the text.

Required database information for installation

The Installer detects the type of database that is installed with Kofax Capture and configures the Kofax Front Office Server to work with that database. You are prompted to provide the following information about your database.

Note the following:

- If you are using an Oracle or Microsoft SQL Server database, you need to provide connection information as shown in the following sections.
- For Oracle, Oracle RAC, and SQL Server, your database administrator must create a database for Kofax Front Office Server and provide the database name to you. The database must be created before you begin installation, because you need to specify the database name on the setup screen.

Microsoft SQL Server connection and authentication information

Provide the following information during Kofax Front Office Server installation:

- Instance name, which is the name of the server where Microsoft SQL Server is installed followed by the instance name (for example, mydbserver01\MSSQLSERVER)
- Name of the database provided by your database administrator

You are also prompted to select the type of authentication you want to use, either SQL Server or Windows. If you select Windows, the account you used to log on to the computer where you are installing Kofax Front Office Server is used to connect to the SQL Server. Make sure that the database administrator has granted rights for reading and creating tables to this user account.

If you select SQL Server authentication, ask the database administrator for a user name and password of an account that has rights to read and create tables on the SQL Server.

Oracle connection information

Provide the following information:

- Host name of the Oracle server
- Port number (usually 1521)
- SID or service name

Oracle RAC connection information

Enter the description portion of the RAC definition in the `tnsnames.ora` file. This file is located in the `\network\admin\` folder where Oracle is installed. Locate the description, which looks similar to this example:

```
RAC=(description=
  (address_list=
    (load_balance=on)
    (failover=on)
    (address=(protocol=tcp) (host=2k3rac1-vip) (port=1521))
    (address=(protocol=tcp) (host=2k3rac2-vip) (port=1521)))
    (connect_data=(service_name=kfsrac)
  )
)
```

When you are prompted during installation to provide the Oracle RAC connection, copy the description for your RAC and paste it into the field. If you are typing the string manually, remove line breaks and extra spaces.

```
(description=(address_list=(load_balance=on) (failover=on) (address=(protocol=tcp)
(host=2k3rac1-vip) (port=1521)) (address=(protocol=tcp) (host=2k3rac2-vip) (port=1521)))
(connect_data=(service_name=kfsrac)))
```

Preparing for upgrade

Before migrating to this version of Kofax Front Office Server, review the information in this section.

Supported upgrades

The following versions of Kofax Front Office Server can be migrated to version 4.3.0.

Source Configuration	Target Configuration		
	Version 4.3.0 with Microsoft SQL Server Express	Version 4.3.0 with Microsoft SQL Server	Version 4.3.0 with Oracle and Oracle RAC
Version 4.0 and 4.1 with Microsoft SQL Server Express	X		
Version 4.0 and 4.1 with Microsoft SQL Server		X	
Version 4.0 and 4.1 with Oracle and Oracle RAC			X

Note the following:

- If you need to migrate from version 3.5, you must first upgrade to version 4.X. Then, you can migrate from version 4.X to 4.3.0. See the *Kofax Front Office Server Installation Guide* for version 4.0 or 4.1 for instructions on upgrading from version 3.5.
- If you need to change from one type of database to another, you can migrate data from the database after upgrading. See the *Kofax Front Office Server Administrator's Guide* for instructions.

Uninstalling IIS components for load balancing

If you are upgrading a clustered environment, uninstall the version of IIS Components for Load Balancing before installing Kofax Front Office Server 4.3.0.

ProxyServer value for upgrades

If you are upgrading in a clustered environment, be aware of the ProxyServer value, which is used by Local Client installations. An upgraded server may retain the default ProxyServer value in the original database. When installing a Local Client after the upgrade, make sure that the ProxyServer value on the server is correct and as intended.

Migrated user accounts and data

If the Kofax Front Office Server installation you are upgrading to also has a new installation of Kofax Capture, you can use the import and export features in the Kofax Capture Administration module to migrate your existing Kofax Capture users and groups to the new installation. See the Kofax Capture documentation for instructions.

User accounts and data that are retained

During migration, the following are retained:

- Configured devices and image quality settings.

- Custom permissions for the Thin Client.
- Scanner profiles from WebScan, which are used by the Thin Client scanning component. See the *Kofax Front Office Server Administrator's Guide* for more information about migrated scanner profiles.
- Jobs in the Active Jobs List for users if you are upgrading from 4.0 and 4.1. Jobs in progress should be completed before migration to avoid the risk of being lost.
- If you had used .ini files to configure image settings for specific MFP models, you can continue to use these files if you define mappings in the Administration Console. Use the Device VRS Settings Mapping tab as shown in the Administration Console Help.

User accounts and data that are not retained

The following are not retained during migration:

- Personal shortcuts associated with users that are not migrated. Group shortcuts for groups that are not migrated are changed to global shortcuts.
- Files in inbox and scanjobs folders.
- Document tracking data.
- Database configuration information.
- Default permissions for the Thin Client.
- Shortcuts to Kofax Capture batch classes that do not exist or have not been published.
- Initial administrator user name and password.
- Fax input and output settings.

Scanner profiles

Review the settings for the scanner profiles after migration and verify that the settings you need have been transferred. See the *Kofax Front Office Server Administrator's Guide* for instructions on editing scanner profile files.

Preliminary tasks before migration

Before starting migration, do the following.

Backup before upgrade

Before upgrading Kofax Front Office Server, do the following:

- Back up your data and settings.
- Make sure that all scan jobs from devices and other inputs have been sent to the server. Any scan jobs that have not arrived at the server are lost during the upgrade.

Preparation for a cluster installation

Before you start migrating data from or to a cluster, shut down Kofax Front Office Server on each computer of the cluster. See [Stopping and restarting Kofax Front Office Server](#) for instructions. You can restart Kofax Front Office Server when the export or import is finished.

Upgrade notes for attached devices

Before upgrading a Kofax Front Office Server with attached devices, make sure that all jobs from those devices have been sent to the server. Any jobs that have not arrived at the server are lost during the upgrade.

Client software on the devices must be upgraded for version 4.3.0. Kofax Front Office Server is not backward compatible with earlier versions of client software. Uninstall the current version of the client software, and install the new client software.

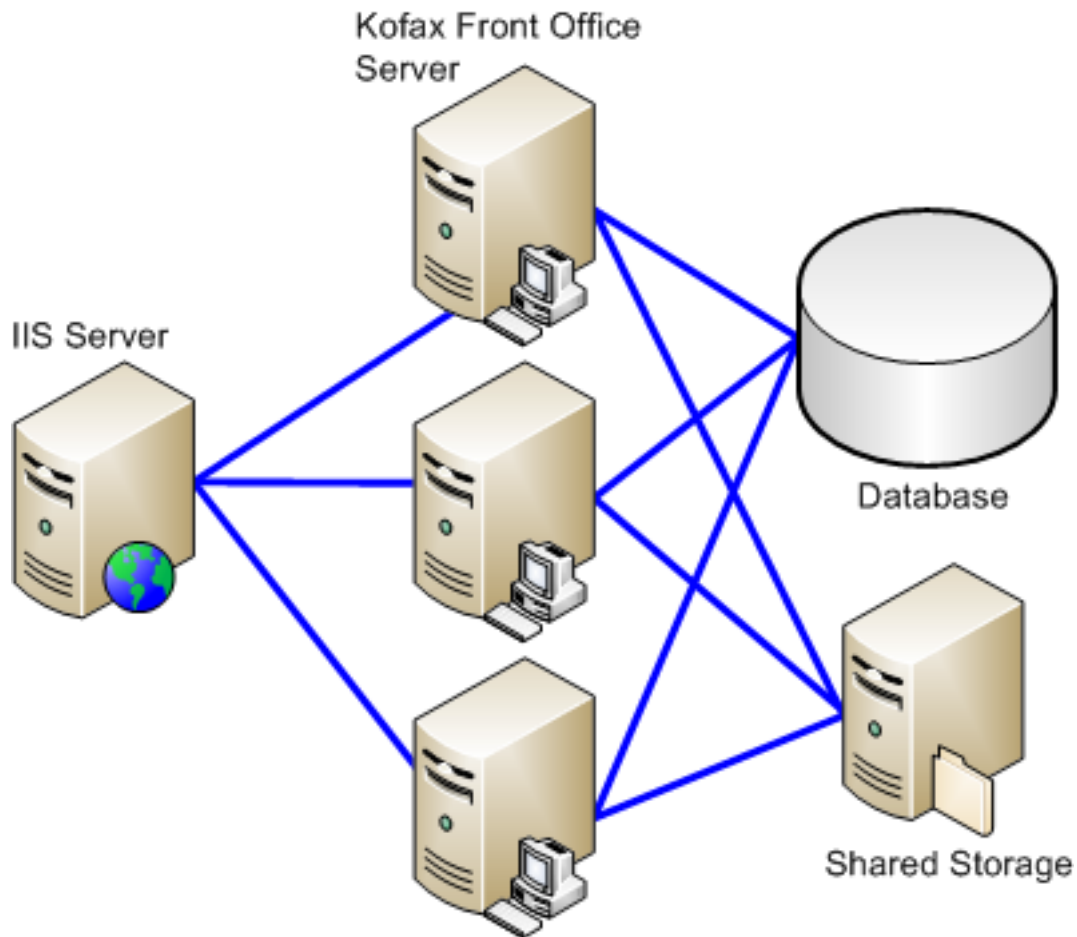
Scaling and high-availability options

You can implement a variety of enterprise options that will provide scalability and high availability. With an enterprise installation, there are many load balancing options available. This section describes the following options:

- IIS and IIS with NLB Cluster
- Microsoft Windows Network Load Balancer (NLB)

Load balancing with IIS components for Kofax Front Office Server

Use IIS with Windows Server and Microsoft Application Request Routing to distribute requests among multiple Kofax Front Office Server nodes.



The IIS server and Kofax Front Office Server must be on separate computers, and the IIS server must have ports 80, 443, and 8888 free.

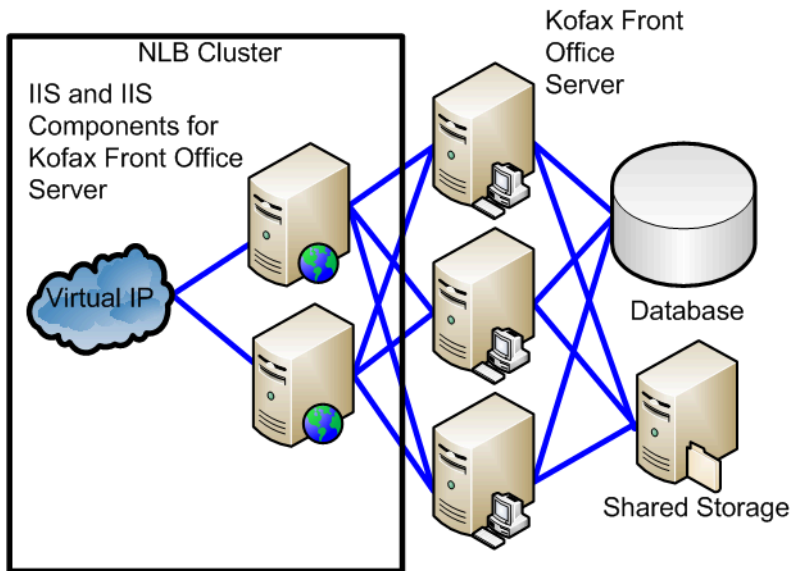
Important IIS Authentication Method must have anonymous authentication enabled.

Scaling IIS servers

You can add more IIS servers and use a load-balancer such as NLB to create a cluster and add all the IIS servers as hosts in the cluster. Use the URL of the NLB cluster to log on to the Administration Console and the Thin Client.

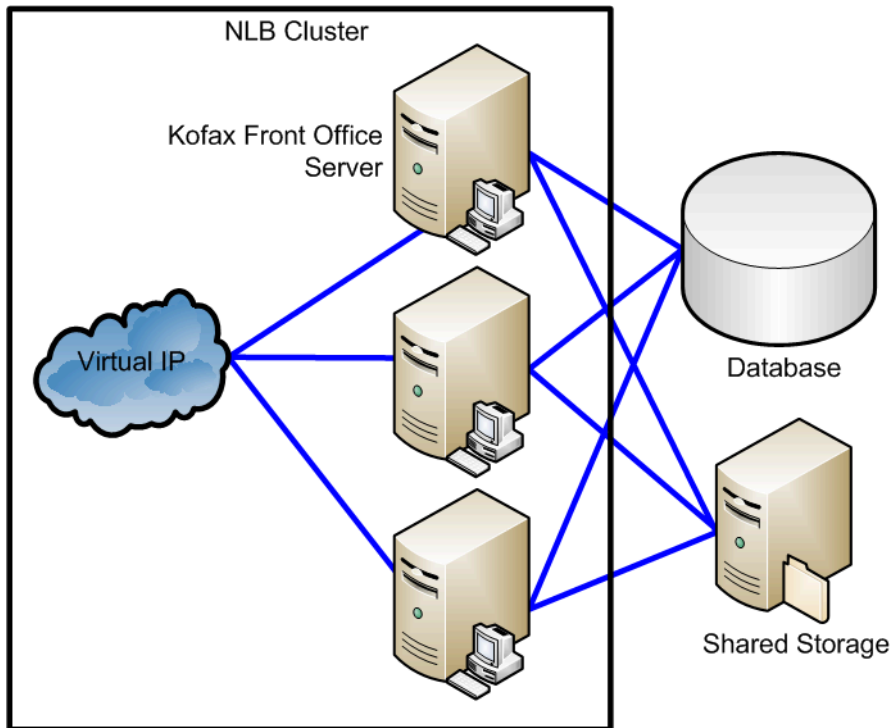
To create the NLB cluster, the following must be true of each IIS server:

- Each IIS server must use a static IP address.
- Each computer's network adapter must have a unique adapter GUID.



Load balancing with Microsoft NLB

You can use NLB to create a load-balanced cluster, which will redirect Kofax Front Office Server client HTTP traffic to all nodes in the cluster. If a node fails, convergence is initiated to redistribute the load among the remaining nodes. However, the NLB nodes will not replicate HTTP sessions, so if a user is logged on to the Administration Console or the Thin Client and that node fails, the user will have to log back on.



You can have up to 32 nodes in an NLB cluster, so the Kofax Front Office Server installations are scalable. In an NLB cluster, all servers monitor each other with a heartbeat signal, so there is no single point of failure.

To implement NLB, the following must be true of each Kofax Front Office Server node:

- All nodes share the same scan jobs and inbox folders.
- All nodes share the same database.
- Each node must use a static IP address.
- Each node's network adapter must have a unique adapter GUID.

To create an NLB cluster, start the Network Load Balancing Manager by doing either of the following:

- At the Command Prompt window, enter the `nlbmgr` command.
- Select Load Balancing Manager from the Administrative Tools.

Important When setting up the cluster Port Rules, you must select the default Affinity setting of Single.

Distributed processing option

You can use Kofax Front Office Server with supported versions of KCN Server for distributed processing. You can install Kofax Front Office Server at the central site or a remote site. For information about KCN Server, see the Kofax Capture documentation.

Chapter 3

Installing Kofax Front Office Server

Follow the instructions in this section to install Kofax Front Office Server on a computer with Kofax Capture or a central or remote site of a KCN Server installation. This procedure also installs Kofax Capture Administration Plug-In for Kofax Capture on that computer. To install the plug-in on another computer that has Kofax Capture but not Kofax Front Office Server, see [Installing the Kofax Capture Administration Plug-In](#).

If you are installing Kofax Front Office Server in a Kofax Capture server/workstation configuration, repeat this installation procedure on each computer where Kofax Capture is installed.

You can install Kofax Front Office Server by using the installation program or silent installation. The installation program takes you step-by-step to set installation options. The silent installation uses a command to install the software, and you can also create a text file with installation settings. Use the silent installation to do any of the following:

- Generate a detailed installation log.
- Install without displaying any prompts on screen.
- Install on more than one computer at the same time.

Before you begin the installation, do the following.

- Gather the information you need about your configuration:
 - Type of database
 - Options for the database
 - User name and password to authenticate with the Kofax Front Office Server service
- Log on to the computer as a user with administrator rights.
- Close Kofax Capture Administration on all workstations. You can reopen it when the procedure is finished.

Using the installation program

Follow the instructions in this section to install Kofax Front Office Server using the installation program.

Important Before starting the installation, you must log on to the computer as a user with administrator rights.

1. Start the installation by running AutoRun.exe from the root of the product files. See [Location for product files](#) for the location of these files. If you are running the installation from removable media, the installation should automatically start.

The main installation menu appears.

2. On the main installation menu, click **Install Kofax Front Office Server** or run setup.exe, which is located in the product files in the `Install` folder.
3. There are some prerequisite programs that need to be installed before installing Kofax Front Office Server. (See [Prerequisite software](#) for more information.) If these programs need to be installed, a window appears that lists them and prompts you to install them. Click **Install** to continue.
When the prerequisite software has finished installing, the installer starts. Click **Next**.
4. Review the Kofax Front Office Server license agreement and select "I accept the terms of the License Agreement". Click **Next**.
5. Select the path where Kofax Front Office Server will be installed.
Use the default folder or change it by clicking **Browse** and selecting the path from the window that appears. The install path must be on a local drive and have a maximum of 65 characters. Click **OK** when you have selected the folder.
Click **Next** to continue.

Note You must install Kofax Front Office Server on a local drive. You cannot install it on a network drive or a UNC path.

6. Select the type of database to use and click **Next**.
7. Specify the Windows user account used for starting the Kofax Front Office Server service. See [User account for the Kofax Front Office Server service](#) for information about which user account to use and the requirements for using a domain user account. Click **Next**.
8. Click **Install**.
9. When prompted, select the website on your server where Kofax Front Office Server will be installed. Complete the window as follows:
 - a. Select an existing website or select **Create New Website** and enter a name and port for the new site.

Note The installation program identifies the type of binding (http or https) of the selected website and configures the setting automatically. You can change this binding after installation. See [Changing the HTTP binding for Kofax Front Office Server](#).

- b. Select the **Install OpenAPI application** option in situations when OpenAPI is needed, such as using a Konica Minolta MFP.

When you are finished, click **OK**. The installation continues.

10. When the installation has completed, you may be prompted to perform additional steps. Click **Continue**.
11. If you select a database other than Standard, the Kofax Front Office Server Database Utility starts. Select the type of database you are using. Fields appear for specifying connection and authentication information for the database. See [Required database information for installation](#) for more information about information required for these fields.

Note If you select **Standard** as the database, the Kofax Front Office Server Database Utility does not appear. The SQL Server Express and the database are installed automatically.

12. When you are finished entering the information, click **Apply**.
When the database setup is complete, the Kofax Front Office Server Database Utility window closes.

13. The installation program indicates when the Kofax Front Office Server installation is complete. Click **Close**.

Using the silent installation

Use the silent installation to install Kofax Front Office Server. This feature enables you to install Kofax Front Office Server on multiple computers at one time using a batch file.

You have two options for running the silent installation:

- Run `setup.exe` with additional parameters and switches. The file is located in the product files in the `Install` folder. This installs the prerequisite software before Kofax Front Office Server.
- Use the `msiexec` command to install `Kofax Front Office Server.msi`. Use this option if you already have the prerequisite software installed. See [Prerequisite software](#) for information about which software you need to install.

The parameters for each command consist of installation settings. This is the same information that you enter when running the installation program. You can add this information to the `setup` or `msiexec` command or provided in an `.ini` text file. You can use both command-line parameters and the `.ini` file, but the command-line parameters take precedent. The same parameters are used for both `setup` and `msiexec`.

Syntax of silent installation commands

The `setup` and `msiexec` commands have different syntaxes. In the examples in this section, both commands are shown. Use the format that is appropriate for the type of installation you want to perform:

- The `setup` command has the following syntax:

```
setup.exe /s /v"<parameters> INIFILE=<full path to .ini file> /qn"
```

Notice that the parameters and `INIFILE` reference are enclosed by quotation marks, and there is no space between the `/v` switch and the opening quotation mark.

- The `msiexec` command has the following syntax:

```
msiexec.exe /I <full path to msi> <parameters> INIFILE=<full path to .ini file> /qn
```

Note If a value has spaces, including the path to the `.msi` and `.ini` file, enclose it with double quotation marks (such as "Oracle RAC"). For `setup.exe`, if you add parameters to the `/v` switch, escape the quotation marks with `\` (such as `\\"Oracle RAC\"`). Quotation marks in the `.ini` file do not need the escape character.

Silent installation parameters

You must specify parameters for authenticating the Kofax Front Office Server service, configure the connection to the website used by Kofax Front Office Server, and setting up the database you are using. See the following tables. For an explanation of database parameters, See [Required database information for installation](#).

The following parameters for the Kofax Front Office Server service.

Parameter	Description
KFS_SVC_USER	Full domain name of the user in this format: domain1\user1
KFS_SVC_PWD	Password for the user.

Note If you do not use the KFS_SVC_USER and KFS_SVC_PWD parameters, the Local System Account is used instead.

The following parameters for IIS and the website connection.

Parameter	Description
WEBSITE	Specify the name of the website used by Kofax Front Office Server. If the website name matches an existing website, it is used. If it does not match the name of an existing website, a new one is created with that name.
HTTP_PORT	Specify the port used for the http connection to the website. If you specify an existing website with WEBSITE, this value is ignored.
OPENAPI	Add this parameter and set the value to 1 to install the OpenAPI application.
SKIP_IIS	Add this parameter and set the value to 1 to skip the installation and configuration of IIS by the installer. Use this option if you want to configure IIS manually. See Web server setup for instructions. If this option is used, the other IIS and website options are ignored.

Use the WEBSITE and HTTP_PORT parameters as follows:

- To use an existing website: Specify the name of the website with the WEBSITE parameter. It automatically uses the port that is assigned to it. If you specify HTTP_PORT when WEBSITE specifies an existing website, HTTP_PORT is ignored.
- To create a new website and specify the port number: Specify the name of the new website with WEBSITE and the port number with HTTP_PORT.
- To create a new website with the default port 80: Specify the name of the new website and omit the HTTP_PORT parameter.
- To use Default Web Site and default port 80, omit both the WEBSITE and HTTP_PORT parameters. If Default Web Site does not exist, it is created and uses port 80.

For example, the following parameters create a website called KFSIIS that uses port 85.

```
setup /s /v"WEBSITE=KFSIIS HTTP_PORT=85 ... /qn"
```

If you intend to install and set up IIS yourself, use the SKIP_IIS parameter as shown.

```
setup /s /v"SKIP_IIS=1 ... /qn"
```

Note the following when using these parameters:

- HTTP_PORT cannot be used without WEBSITE. If HTTP_PORT is specified without WEBSITE, an error is generated and the installation stops.

- Any combination of parameters causes a conflict with existing websites and bindings also causes an error.
- If you use SKIP_IIS=1, validation of the website name and port does not occur.

The following parameter is for all databases.

Parameter	Description
KFS_DBCONFIG	Specify the type of database. Valid values for silent installation are: Microsoft SQL Server, Oracle, and Oracle RAC.

Note The Standard database cannot be used for silent installation.

The following parameters are for a Microsoft SQL Server database.

Parameter	Description
SQLSERVER_NAME	Server name.
SQLSERVER_DBNAME	Database name.
SQLSERVER_WINAUTH	Specify 1 if Windows authentication is used. If set, the setting for SQLSERVER_SQLAUTH is ignored.
SQLSERVER_SQLAUTH	Specify 1 if SQL Server authentication is used, and if 1 is <i>not</i> specified for SQLSERVER_WINAUTH. If neither SQLSERVER_WINAUTH nor SQLSERVER_SQLAUTH is set to 1, SQLSERVER_SQLAUTH is used.
SQLSERVER_LOGIN	User name for SQL Server authentication.
SQLSERVER_PWD	Password for SQL Server authentication.

The following parameters are for an Oracle database.

Parameter	Description
ORA_HOST	Host name.
ORA_PORT	Port number. If this is not specified, 1521 is used by default.
ORA_SERVICE	If you are using a service, specify its name for this parameter and do not use ORA_SID.
ORA_SID	If you are using a SID, specify it for this parameter. Any setting for ORA_SERVICE is ignored.
ORA_USER	User name for Oracle authentication.
ORA_PWD	Password for Oracle authentication.

The following parameters are for Oracle RAC.

Parameter	Description
RAC_CONNSTRING	Connection string.
RAC_USER	User name for Oracle RAC authentication.

Parameter	Description
RAC_PWD	Password for Oracle RAC authentication.

Important Keep batch and .ini files containing passwords in a secure location.

Example: Installation for Microsoft SQL Server

You are performing an installation with the following settings:

- The service user is domain1\user1 with the password 12345.
- You are using a Microsoft SQL Server database on server dbserver\mssql08. The database name is kfsdb1. You are using Windows authentication.

Assuming that you are running the command from the root of the product files, enter either of the following at the command prompt:

- setup command:

```
setup /s /v"KFS_SVC_USER=domain1\user1 KFS_DBCONFIG=\"Microsoft SQL Server\"
KFS_SVC_PWD=12345 SQLSERVER_NAME=dbserver\mssql08 SQLSERVER_DBNAME=kfsdb1
SQLSERVER_WINAUTH=1 /qn"
```

- msixexec command:

```
msiexec /I "Kofax Front Office Server.msi" KFS_SVC_USER=domain1\user1
KFS_DBCONFIG="Microsoft SQL Server" KFS_SVC_PWD=12345 SQLSERVER_NAME=dbserver
\mssql08 SQLSERVER_DBNAME=kfsdb1 SQLSERVER_WINAUTH=1 /qn
```

Using an .ini file for silent installation

If you use the same parameters in all installations, you can specify them in a .ini file. In the msixexec command, you can specify the .ini file instead of adding each parameter. The .ini file uses the same parameters as the command line.

Create the .ini file in a text editor in the following format:

```
[KFS]
parameter1=value1
parameter2=value2
```

For example, if you are specifying a Microsoft SQL Server database, the .ini file would contain the following.

```
[KFS]
KFS_SVC_USER=domain1\user1
KFS_SVC_PWD=12345
KFS_DBCONFIG=Microsoft SQL Server
```

The parameters can be any order, but they must be listed after [KFS] and include all required commands.

Example: Using an .ini file for an Oracle installation

You are performing an installation on several computers to connect with an Oracle RAC database. You are using the following settings:

- The service user is domain1\user1 with the password 12345.
- The user name for Oracle RAC authentication is odbuser, and the password is odbpass.
- The connection string is the same as the example in [Oracle RAC connection information](#).

You create the following .ini file and name it oracleracinstall.ini.

```
[KFS]
KFS_SVC_USER=domain1\user1
KFS_SVC_PWD=12345
KFS_DBCONFIG="Oracle RAC"
RAC_CONNSTRING=(description=(address_list=(load_balance=on) (failover=on)
(address=(protocol=tcp) (host=2k3rac1-vip) (port=1521)) (address=(protocol=tcp)
(host=2k3rac2-vip) (port=1521))) (connect_data=(service_name=kfsrac)))
RAC_USER=odbuser
RAC_PWD=odbpas
```

To perform the installation with the .ini file, you enter the following at the command line, assuming that you are running the command from the root of the product files and copied the .ini file to that folder as well:

- setup command:

```
setup /s /v"INIFILE=oracleracinstall.ini /qn"
```

- msixexec command:

```
msiexec /I "Kofax Front Office Server.msi" INIFILE=oracleracinstall.ini /qn
```

Using the .ini file with command-line parameters

Use both the .ini file and command line parameters when installation settings apply to most systems, but you want to override parameters for different computers. For example, if some computers require a different user account for the Kofax Front Office Server service, you can add the KFS_SVC_USER and KFS_SVC_PASSWORD parameters to the command line for that computer. Command-line parameters override settings in the .ini file.

Example: Overriding the .ini file with command-line parameters

You are using the oracleracinstall.ini file shown in [Using an .ini file for silent installation](#). The computer you are installing requires a different user account for the Kofax Front Office Server service:

- User name: domain1\user2
- Password: 67890

Add the KFS_SVC_USER and KFS_SVC_PASSWORD parameters to the command line to override the parameters in oracleracinstall.ini. Use the following commands:

- setup command:

```
setup /s /v"KFS_SVC_USER=domain1\user2 KFS_SVC_PWD=67890
INIFILE=oracleracinstall.ini /qn"
```

- msixexec command:

```
msiexec /I "Kofax Front Office Server.msi" KFS_SVC_USER=domain1\user2
KFS_SVC_PWD=67890 INIFILE=oracleracinstall.ini /qn
```

Input during installation

There are situations when you want an administrator to enter information into fields in the installation program, but you still want to provide preset values. To do this, create a batch file for the setup or msixexec command with silent installation parameters, but omit the /s and /qn switches. This is called interactive mode.

Suppose you want to supply administrators with the database information, but you want them to specify the user account and password for the Kofax Front Office Server service. You also want to run the setup command to install all of the prerequisite software. Create a batch file with the following command:

```
setup /v"KFS_DBCONFIG=\"Microsoft SQL Server\" SQLSERVER_NAME=dbserver\mssql08  
SQLSERVER_DBNAME=kfsdb1 SQLSERVER_WINAUTH=1"
```

When the administrator runs the batch file, the installation program displays the values specified in the parameters.

Because you did not use the KFS_SVC_USER and KFS_SVC_PWD parameters in the setup command to specify a user name and password for the Kofax Front Office Server service, those fields will not be filled in the installation program, and the administrator will need to provide that information.

The preset values also appear when the installer launches the Kofax Front Office Server Database Utility from the installation program.

Results of the silent installation

When the silent installation is complete, a setup.log file is created in the folder where you ran the installation. If it contains a result code of 0, the installation was successful. Any other result code indicates an error. This is typically accompanied with a description of the error. You can generate a detailed log by using the switches shown in [Generating the installation log file](#).

If a silent installation fails, it is rolled back and any files that were installed are cleaned up and removed.

If the setup.log file was not created, the installation failed before the file can be created. Typically, this is caused by an installation command that is incorrectly formatted. See [Syntax of silent installation commands](#) for the correct syntax for the setup or msixexec command.

Generating the installation log file

You can generate a detailed log file from the installation that lists each action that is performed. You may find this helpful in resolving any issues that occur during installation. To use this feature, add the /L*v switch to the command line followed by the path and name you want to use for the log file. The syntax is:

- For setup:

```
setup /s /v"<other parameters> /L*v <path and file name> /qn"
```

- For msixexec:

```
msiexec <other parameters> /L*v <path and file name> /qn
```

Example: Generating a detailed log file for setup

You want to generate a detailed log file for a SQL Server installation that you want to name kfsinstall.log and save it to the root of your C drive. Your complete command would be as follows:

```
setup /s /v"KFS_SVC_USER=domain1\user1 KFS_DBCONFIG=\"Microsoft SQL Server\"  
KFS_SVC_PWD=12345 SQLSERVER_NAME=dbserver\mssql08 SQLSERVER_DBNAME=kfsdb1  
SQLSERVER_WINAUTH=1 /L*v C:\kfsinstall.log /qn"
```

Database Utility log file

The Database Utility generates a DatabaseUtility.log file in the C:\ProgramData\Kofax\Front Office Server\Log\kfsService folder. This log is updated during initial database creation or setup, upgrade, or migration. Use this log to identify any errors.

Configuring SQL Server failover clustering

If you are using Kofax Front Office Server with Microsoft SQL Server Always-On Failover Clustering, run a command to enable the feature and specify the name and port of the group listener.

1. On the local host or any host machine in a cluster, open a Command Prompt window.
2. Change to the <installation path>\kfsService folder.
3. Run the following command:

```
Kofax.KFS.DatabaseUtility.exe /MULTISUBNETFAILOVER=<true or false> /AG_LISTENER_NAME=<Group Listener Name> /AG_LISTENER_PORT=<Group Listener Port>
```

Where:

- Set /MULTISUBNETFAILOVER to true to enable the feature or false to disable it.
- Set /AG_LISTENER_NAME to the name of an availability group listener or a SQL server if the availability group listener is disabled.
- Set /AG_LISTENER_PORT to the port number of an availability group listener.

A message appears indicating whether or not the command succeeded.

4. Close the Command Prompt window.

Installing the Local Client from the server

The Local Client enables users to work with documents in the Thin Client when the connection to Kofax Front Office Server is unavailable. Users can install the Local Client themselves if they have administrator rights and the necessary prerequisite software. The Local Client can also be installed automatically from the server by using group policy objects.

Regardless of method, you need to do the following:

- The following software must be installed on users' computers. The installation programs are in the Prerequisites folder.
 - Visual C++ Runtime files for the user's version of Windows. For 32-bit Windows, deploy vcredist2012_x86.exe and vcredist2013_x86.exe. For 64-bit Windows, deploy all of the following: vcredist2012_x64.exe, vcredist2012_x86.exe, vcredist2013_x64.exe, and vcredist2013_x86.exe
 - Microsoft .NET Framework 4.7. Deploy Net47-FullInstall-x86-x64.exe.
- A Local Client only works properly if there is an HTTP binding on the server. The Local Client can use an HTTP connection if the port used by the HTTP binding on the server is properly configured. See [Configuring the port for HTTP binding](#).

If you plan to install the Local Client remotely by using group policy objects, see the instructions provided with Windows Server to create a group policy object and assign or publish a package. The group policy objects must do the following:

- Add Kofax Front Office Server to the user's trusted sites.
- Install SQL Server Express.
- Install the Local Client using the Kofax Front Office Server.msi installer.

Prepare group policy objects for the SQL Server Express and Local Client installation need by doing the following:

1. Prepare the SQL Server Express installer, which is SQLEXPRESS_ENU.exe in the `Prerequisites` folder. Create an .ini file as documented in the Microsoft documentation. The .ini file needs to specify the following:
 - The instance name must be KofaxKFS.
 - The sa password can be anything that meets your security requirements. Make a note of the password because you will use it in the Local Client installation.
 - The host of the database installation is the host name for Kofax Front Office Server.
2. Specify the command to install Local Client with Kofax Front Office Server.msi. You can add command-line parameters to an .ini file as shown in [Using an .ini file for silent installation](#).

The msixec command has the following syntax and parameters:

```
msiexec /I "Kofax Front Office Server.msi" KFS_STD_SAPWD="<password defined for SQL Server>" LOCALCLIENT=1 SERVERURL="<host name of the Kofax Front Office Server>"
```

The value for KFS_STD_SAPWD must match the password you defined for SQL Server Express. If the host name for Kofax Front Office Server is kfserver1, the msixec command would look similar to the following:

```
msiexec /I "Kofax Front Office Server.msi" KFS_STD_SAPWD="dsfs=au433Td" LOCALCLIENT=1 SERVERURL="kfserver1"
```

Configuring the port for HTTP binding

If you are using the Local Client that was installed through an HTTPS connection to the server, the port for the server's HTTP binding must be configured correctly on the local client. If the HTTP binding is using default port 80, no changes need to be made. If the HTTP binding uses a different port, edit web.config to specify the correct port. This task is required for synchronization to work properly. Follow these steps to configure the server's binding information on the local client.

1. Locate web.config. For the Local Client, the default location is `C:\ProgramData\Kofax\Front Office Server 4.3`.
2. Edit web.config in a text editor.
3. Locate the `<KfsSettings>` element:

```
<KfsSettings ParentSite="https://<server>/Kofax/KFS/" ServerHttp="80" PingInterval="10" StandaloneIIS="true" />
```

Where `<server>` is the server host name or IP address.

4. Locate the `ServerHttp` attribute and specify the port number for the HTTP binding on the server. For example, if HTTP is bound to port 85, modify the `KfsSettings` element as shown:

```
<KfsSettings ParentSite="https://<server>/Kofax/KFS/" ServerHttp="85"  
PingInterval="10" StandaloneIIS="true" />
```

5. Save and close the file.

Installing the Kofax Capture Administration Plug-In

Follow this procedure to install the Kofax Capture Administration Plug-In. For more information about this feature, see [Kofax Capture Administration Plug-In](#).

Note The Kofax Capture Administration Plug-In uses HTTP or HTTPS based on the `ProxyServerProtocol` setting in the Advanced Setting tab in the Administration Console.

1. On the main installation menu, click **Install Kofax Capture Administration Plug-In**, or run `KFSAdmin.exe` from the `\Install\KCAdminPlugIn` folder in the product files.
2. Select the language of your Kofax Capture installation. Note that Kofax Front Office Server Administration Console is available in English only.
3. The introduction screen appears. Click **Next**.

Important Do not close the installer window until the installation is complete. Interrupting the installation can leave the installation in an unrecoverable state.

4. A screen appears to indicate when the installation is finished. Click **Finish** to close the installer.

Chapter 4

Installing and maintaining load balancing systems

If you are using Kofax Front Office Server in a clustered environment, use the procedures in this section to set up the load balancing system. See the section that applies to your system. For information about load balancing, see [Scaling and high-availability options](#).

IIS and IIS with NLB Cluster

If you are using IIS for load balancing, Kofax Front Office Server provides a batch file to help you set up a server farm using Microsoft Application Request Routing (ARR), an extension of IIS. If you need more information about installing and using ARR, see Microsoft documentation.

1. Install Kofax Front Office Server on the servers you want to include in the cluster.
2. Locate `KFS_ARR_config.bat` in the `bin` folder where Kofax Front Office Server is installed and do the following:
 - a. Remove the read-only attribute.
 - b. Open the file in a text editor for editing.
3. Edit the first lines with the SET commands for parameters with the following information:

- **HOSTS:** Enter the host names of the servers in the cluster separated with commas (and without spaces). For example:

```
SET HOSTS=kfs-svr7,kfs-svr8,kfs-svr9
```

- **FARM_NAME:** Enter the name of you want to use for the server farm. For example:

```
SET FARM_NAME=KFSServerFarm
```

- **REWRITERULE_NAME:** This is the name for the set of rewrite rules to route all Kofax Front Office Server HTTP requests to the server farm. You can use the default name, `ARR_KFS_loadbalance`. If you want to change the name, enter it as in this example:

```
SET REWRITERULE_NAME=ARR_MyCompany_loadbalance
```

- **MOBILE_REWRITERULE_NAME:** This is the name for the rewrite rules used by Kofax Mobile Capture and other clients that require KFS to be the root URL. This name must be different from

the one defined for REWRITERULE_NAME. You can use the default name, ARR_KFS_Root. If you want to change the name, enter it as in this example:

```
SET MOBILE_REWRITERULE_NAME=ARR_MyCompany_Mobile
```

- **PORT_IMAGETRANSFER:** This is only used for Konica Minolta MFPs, and it indicates the port bound to the port used by WebDAV for image transfers. If you are using port 1443 for HTTPS, set the value as in this example.

```
SET PORT_IMAGETRANSFER=1443
```

This port must match the binding specified for the default website used by WebDAV. See the *Kofax Front Office Server Administrator's Guide for Konica Minolta MFPs*.

Save the file.

4. Copy your edited KFS_ARR_config.bat to the IIS server.
5. On the IIS server, open a Command Prompt window with administrator privileges and change the directory to the folder where you copied KFS_ARR_config.bat.
6. At the command prompt, run KFS_ARR_config.bat.

Removing Kofax Front Office Server nodes from an IIS Cluster

To remove a node, delete the node information in the workers.properties.minimal file, and copy the file to and restart all IIS servers in the cluster. Then use the Control Panel to remove Kofax Front Office Server on the removed node.

Microsoft NLB

Once your NLB cluster is configured, you need to specify the cluster information as the ProxyServer value in the Administration Console. This will identify the cluster as the host address URL for connection to the Kofax Front Office Server applications.

You can add Kofax Front Office Server nodes to an existing NLB cluster at any time.

1. Install Kofax Front Office Server on a computer that you want to add as a node on the cluster.
2. In NLB Manager, add the new node as a new host to the NLB cluster.

Removing Kofax Front Office Server nodes from an NLB Cluster

To remove a node, delete the host from the NLB cluster first to ensure outgoing requests to the server are stopped. Then, use the Control Panel to remove Kofax Front Office Server from the node.

IBM HTTP Server

If you are using IBM HTTP Server and WebSphere for load balancing, modify httpd.conf to enable the use of mod_proxy to direct requests to Kofax Front Office Server. Before you begin, make sure that you have installed a supported version of IBM HTTP Server and WebSphere. See the product documentation for more information.

1. Go to the folder where IBM HTTP Server is installed. In the conf folder, locate httpd.conf.

2. Open `httpd.conf` in a text editor.
3. Uncomment the following lines:

```
LoadModule proxy_module modules/mod_proxy.so
LoadModule proxy_http_module modules/mod_proxy_http.so
```

4. Add the following lines to the end of the file:

```
#Reverse Proxy for KFS server
ProxyPass /KFS <url to the Thin Client>
ProxyPassReverse /KFS <url to the Thin Client>
ProxyPass /OpenAPI <url to the OpenAPI application>
ProxyPassReverse /OpenAPI <url to the OpenAPI application>
ProxyPass /KonicaMinolta <url to the ImageTransfer KonicaMinolta folder>
ProxyPassReverse /KonicaMinolta <url to the ImageTransfer KonicaMinolta folder>
```

For example, if the URL to the Thin Client is `http://KC10/Kofax/KFS/ThinClient`, enter the lines as shown:

```
#Reverse Proxy for KFS server
ProxyPass /KFS http://KC10:444/KonicaMinolta
ProxyPassReverse /KFS http://KC10:444/KonicaMinolta
ProxyPass /OpenAPI http://KC10/OpenAPI
ProxyPassReverse /OpenAPI http://KC10/OpenAPI
ProxyPass /KFS http://KC10:444/KonicaMinolta
ProxyPassReverse /KFS http://KC10:444/KonicaMinolta
```

5. Restart the service for IBM HTTP Server. The proxy will take effect and handle requests.

Other load balancing solutions

Kofax Front Office Server supports third-party load balancing solutions that provide persistent connections. Kofax Front Office Server sessions are not stateless, and the load balancing solution must ensure that all transmissions from a single Kofax Front Office Server session are routed to the same Kofax Front Office Server server.

Kofax Front Office Server has been successfully tested using persistence based on Source IP Address and persistence based on HTTP Cookies. We recommend that the persistence timeout value be set to match the value specified in the `client.session.timeout` property in the Administration Console.

Chapter 5

Upgrading Kofax Front Office Server

Follow the instructions in this section to upgrade Kofax Front Office Server. Before proceeding, note the following:

- Review the information in [Preparing for upgrade](#) and make sure that you have performed all necessary steps.
- Close Kofax Capture Administration on all workstations. You can reopen it when the procedure is finished.
- If you are using the standard database on an operating system version that is no longer supported, the database is upgraded in place.

When you are ready, perform the upgrade as follows.

1. Start the Kofax Front Office Server version 4.3.0 installation on the same computer where version 4.0 or 4.1 is installed. See [Installing Kofax Front Office Server](#) for instructions.
2. A window appears indicating that an existing version of Kofax Front Office Server and asks if you want to upgrade. Click **Yes**.
3. Continue with the installation program and respond to the prompts on the screen. See [Using the installation program](#) for more information.

After starting the upgrade, you have the option of canceling and rolling it back.

Note During an upgrade from 4.0, the Kofax Front Office Server service you are upgrading may be removed. If it has been removed, it cannot be restored during the rollback. If you want to run that version of Kofax Front Office Server again, manually recreate the Kofax Front Office Server service.

4. The installation program indicates that Kofax Front Office Server has been installed successfully. Click **Finish**.

Chapter 6

Post-installation and upgrade notes

When the installation or upgrade is complete, note the following regarding additional tasks and folders and logs to check.

Kofax Front Office Server applications

See the *Kofax Front Office Server Administrator's Guide* for the URLs of Kofax Front Office Server applications and instructions for starting them.

By default, Kofax Front Office Server inherits the authentication and privileges defined in Kofax Capture. You will need to change these settings to grant permissions to other destinations, such as email and SharePoint, and to override permissions set in Kofax Capture. Use the Administration Console to set these permissions. See *Kofax Front Office Server Administrator's Guide* and the Administration Console Help.

Licensing

Kofax Front Office Server licenses are activated and managed through the license utility used by Kofax Capture. See the Kofax Capture documentation for instructions on activating licenses.

Shared folders created by the installer

The installer automatically sets permissions to shared folders created during installation. Do not share any other folders in the folder where Kofax Front Office Server is installed. Users other than administrators do not need to have rights to the folders in order to use Kofax Front Office Server.

Data validation and field lookup customization

See the *Kofax Front Office Server Administrator's Guide* for information and instructions on customizing with a Kofax Capture validation script, based on Visual Basic .NET.

Client software installation for MFPs

Your device may require additional software to display Kofax Front Office Server shortcut buttons on the front panel. These are provided in the MFP Administrator's Guide for your device. See [Product documentation](#) for information about accessing these guides. For information about supported models, see the Kofax website.

Changing the HTTP binding for Kofax Front Office Server

The installation program identifies the type of binding (http or https) of the selected website and configures the setting automatically. Kofax Front Office Server uses this binding for the links to applications like Administration Console and Thin Client. You can change this binding after installation by using KfsConfig.exe. Follow these steps:

1. Open a Command Prompt window.
2. Change to the folder where Kofax Front Office Server and then change to the `kfsService` folder. This folder contains KfsConfig.exe.
3. At the command prompt, enter the following command:

```
KfsConfig.exe /CONFIGURECOMPATIBILITY=value
```

Where value is either http, https, or both. For example, to set the binding to http, enter the following command:

```
KfsConfig.exe /CONFIGURECOMPATIBILITY=http
```

Other configuration tasks

See the *Kofax Front Office Server Administrator's Guide* for instructions for modifying properties files and making other configuration changes.

Chapter 7

Stopping and restarting Kofax Front Office Server

You may need to stop and restart Kofax Front Office Server for routine maintenance or when needed to change the configuration. Kofax Front Office Server is installed as a Windows service named Kofax Front Office Server. You can start and stop the service when needed from the Services console. Let all currently running processes finish before stopping the Kofax Front Office Server service.

Using the Services console

Use the Services console to start and stop the Kofax Front Office Server service, or you can configure it to start manually or automatically. For more information about using the Services console, see its Help.

Controlling Kofax Front Office Server through the Services console

1. In Administration Tools, click **Services**. Depending on the version and configuration of Windows, the Administration Tools are in the Control Panel or Programs.
2. Locate Kofax Front Office Server in the Services console.
3. Do either of the following to start or stop the Kofax Front Office Server service:
 - Right-click Kofax Front Office Server and select the command.
 - Select Kofax Front Office Server and use the toolbar buttons.

Depending on the status, you can start, stop, or restart the service. Pause and Resume are not supported.

Selecting automatic or manual startup

1. Locate Kofax Front Office Server in the Services console and do either of the following:
 - Right-click Kofax Front Office Server and select **Properties**.
 - Select Kofax Front Office Server and click the **Properties** button in the toolbar.

The Kofax Front Office Server **Properties** window appears.

2. Select the **General** tab.
3. In the "**Startup type**" field, select **Automatic** or **Manual**.

Kofax WebCapture Worker process

When a user scans using Thin Client, a new process is created in the Windows Process Explorer named Kofax WebCapture Worker.

While Kofax WebCapture is running, no other applications can use the scanner. This process is not terminated when the user closes Internet Explorer.

This applies to all versions of Internet Explorer versions. This does not affect the next scanning session. Kofax WebCapture Worker is cleaned up when the user logs off from the Thin Client or when the process times out after five minutes.

Changing the user account for the Kofax Front Office Server service

The Kofax Front Office Server service logs on using the user account you specified during installation. You can change this user account in the Services console.

See [User account for the Kofax Front Office Server service](#) for information about which user account to use and requirements for a domain user account. The user account must have read access to the Kofax Capture share and read/write access to the `c:\ProgramData\Kofax\Capture\CaptureSV\KFS4.x` folder and the image folder of Kofax Capture batch classes.

Note Do not select the Local System account when installing to a workstation/server Kofax Capture configuration. Use a Windows user account that has administrator rights and full access to the Kofax Capture shared folder.

1. In Administration Tools, click **Services**. Depending on the version and configuration of Windows, the Administration Tools are in Control Panel or Programs.
2. Locate Kofax Front Office Server in the Services console.
3. Right-click Kofax Front Office Server and select **Properties**.
4. Click the **Log On** tab.
5. Under **Log on as**, select **This account**. Select the user account and type the password for it. Click **OK**.
6. Right-click Kofax Front Office Server and select **Restart**. When the Kofax Front Office Server service restarts, close the Services console.

You can now use Kofax Front Office Server with the new user account.

Uninstalling Kofax Front Office Server

Before uninstalling Kofax Front Office Server

- Make sure that you have backed up your data and closed all Kofax Front Office Server files.
- Remove any Kofax Front Office Server plug-in applications or updates that may be installed.

You must log on to the computer as a user with Administrator rights to uninstall Kofax Front Office Server. Use Add or Remove Programs or Programs and Features in the Control Panel to remove Kofax Front Office Server and all software installed with it.

When Kofax Front Office Server is installed on only one computer, the uninstallation shuts down the service, deletes all user data from the shared folder, and restarts the server. If you had saved files and settings that are preserved during migration, they are also deleted.

In a cluster, see the following sections to remove the server as a node:

- IIS: [Removing Kofax Front Office Server nodes from an IIS Cluster](#)
- Microsoft NLB: [Removing Kofax Front Office Server nodes from an NLB Cluster](#)

Then, uninstall Kofax Front Office Server using the procedure that follows. Note that the shared folder containing user data is preserved after uninstalling an Enterprise server so that you can reinstall Kofax Front Office Server later.

Note A system restart may be required before uninstalling Kofax Front Office Server. If you are prompted to restart, save your unsaved data and close applications before restarting.

1. From the Control Panel, select **Add or Remove Programs** or **Programs and Features**, depending on your version of Windows.
2. Locate Kofax Front Office Server in the list of installed programs.
3. Right-click on Kofax Front Office Server and select **Uninstall**.
4. Follow the prompts to uninstall Kofax Front Office Server.

Appendix B

IIS settings

If you are installing and configuring IIS yourself, the following lists the settings that are used when Kofax Front Office Server installs IIS automatically during installed. See the Microsoft documentation for instructions on setting these options for your version of operating system and IIS.

Settings for all supported versions of Windows

- IIS-ClientCertificateMappingAuthentication
- IIS-IISCertificateMappingAuthentication
- IIS-WebServer
- IIS-WebServerRole
- IIS-CommonHttpFeatures
- IIS-StaticContent
- IIS-DefaultDocument
- IIS-CustomLogging
- IIS-DirectoryBrowsing
- IIS-HttpErrors
- IIS-HttpRedirect
- IIS-HttpLogging
- IIS-HttpTracing
- IIS-HttpCompressionDynamic
- IIS-HttpCompressionStatic
- IIS-Security
- IIS-DigestAuthentication
- IIS-WindowsAuthentication
- IIS-BasicAuthentication
- IIS-ISAPIExtensions
- IIS-ISAPIFilter
- IIS-ServerSideIncludes
- IIS-HealthAndDiagnostics
- IIS-LoggingLibraries
- IIS-RequestMonitor
- IIS-ODBCLogging
- IIS-URLAuthorization
- IIS-RequestFiltering
- IIS-IPSecurity
- IIS-Performance
- IIS-WebServerManagementTools
- IIS-ManagementConsole
- IIS-ManagementScriptingTools
- WAS-WindowsActivationService
- WAS-ProcessModel
- WAS-NetFxEnvironment
- WAS-ConfigurationAPI
- WCF-HTTP-Activation
- WCF-NonHTTP-Activation
- IIS-ApplicationDevelopment

- IIS-ASPNET
- IIS-NetFxExtensibility
- IIS-ASP

Settings specific to Windows Server 2012 and 2012 R2

- IIS-ASPNET45
- NetFx4Extended-ASPNET45
- WCF-HTTP-Activation45

Setting specific to Windows Server 2012

- IIS-NetFxExtensibility45