Kofax Capture

Installation Guide

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KOFAX

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Preface

This guide contains essential information and procedures that you need to successfully install Kofax Capture or Kofax Capture Network Server (KCN Server).

This guide assumes that you have a thorough understanding of Windows standards, applications, and interfaces. It also assumes, if you are installing KCN Server, that you have a thorough understanding of the Internet, Web servers and your Web server software, your network configuration, and Kofax Capture.

Note The sample paths in this guide reflect the most current versions of a Windows 64-bit operating system. Your paths may vary from the samples in the guide, depending on your operating system and installation type (client/server or standalone).

If you downloaded Kofax Capture from the Kofax Electronic Delivery site, refer to the instructions on the site to extract the installation files from the ISO file. If you received Kofax Capture as a package, the installation files are included on your electronic media.

Related Documentation

The full documentation set for Kofax Capture is available here:

http://docshield.kofax.com/Portal/Products/KC/11.1.0-40hy9nfk91/KC.htm [1]

In addition to this guide, the Kofax Capture documentation set includes the following items.

Kofax Capture Administrator's Guide
The *Kofax Capture Administrator's Guide* contains essential information about configuring Kofax Capture and Kofax Capture Network Server (KCN Server).

Help for Kofax Capture

Kofax Capture online Help provides online assistance for system administrators and operators.

Kofax Capture Developer's Guide

The *Kofax Capture Developer's Guide* provides guidance and instructions for customizing Kofax Capture. Several examples and code segments are provided to demonstrate how to create custom panels, Ribbon tabs, workflow agents, modules, and scripts to enhance Kofax Capture processing.

Kofax Capture API References

The *Kofax Capture API Reference* (APIRef.chm) is an online guide that provides the details of each API library needed to customize Kofax Capture. The *Kofax Capture Export Type Library API Reference* (APIRefExport.chm) gives details needed to customize an export connector. Both *API References* are

[1] You must be connected to the Internet to access the full documentation set online. If the security policy for your organization requires offline access (without an Internet connection), see Offline documentation.

intended to be used alongside the *Kofax Capture Developer's Guide* as primary resources for customizing Kofax Capture.

Kofax Capture Technical Specifications

Contains system and technical requirements that must be met to run the software: memory capacity, operating system, environment, and more.

Kofax Capture Release Notes

Late-breaking product information is available from release notes. We encourage you to read the release notes carefully, as they contain information that may not be included in other Kofax Capture documentation.

Offline documentation

If the security policy for your organization restricts Internet access and requires you to access offline documentation while working with Kofax Capture, you can download the compressed documentation files from the Kofax Fulfillment site.

The English .zip file includes both help and print folders. The print folder contains Kofax Capture guides and the help folder contains the online help files. The .zip files for other languages contain only the localized help files. The following documentation files are available for offline use:

- KofaxCaptureDocumentation_11.1.0_EN.zip
- KofaxCaptureDocumentation_11.1.0_DE.zip
- KofaxCaptureDocumentation_11.1.0_SV.zip

To configure the offline help, you can use one of the procedures described below.

Use the Capture folder for documentation

1. Navigate to `C:\ProgramData\Kofax\Capture`.
2. Within this folder, create the `Help` folder and then add language code sub-folders. For different languages, use the paths below.

   For English: `C:\ProgramData\Kofax\Capture\Help\en_US`

   For German: `C:\ProgramData\Kofax\Capture\Help\de_DE`

   For Swedish: `C:\ProgramData\Kofax\Capture\Help\sv_SE`
3. Extract the contents of the compressed documentation file KofaxCaptureDocumentation_11.1.0_<language code>.ZIP. Copy the extracted help files to the corresponding `Help\<language code>` folder created in the previous step.
4. Repeat this procedure for all Kofax Capture stations.
5. Restart all Kofax Capture modules to apply the configured offline documentation.

Use "System Info" for the help path

1. Create `<Help>` folder either on your machine or as a shared network folder. Within this folder, create a language code sub-folder.

   For different languages, use the paths below.

   For English: `<Help folder name>\en_US`

   For German: `<Help folder name>\de_DE`

   For Swedish: `<Help folder name>\sv_SE`

2. Extract the contents of the compressed documentation file KofaxCaptureDocumentation_11.1.0_<language code>.ZIP. Copy the extracted help files to the corresponding `<Help folder name>\<language code>` folder created in the previous step.

3. If you use a local folder, duplicate it on all Kofax Capture stations and copy help files to the corresponding folders. The path must be set as in the example: `<local path>\KC_Help`.

   If you use a network shared folder, ensure that all Kofax Capture stations can access it. A sample path is the following: `<network path>\KC_Help`.

   Note In order to use the help system in the offline mode, it is recommended to strictly follow the rules for setting the path to the help files.

4. Open Batch Manager and click the **About** icon.
5. Click **System Info** and in the Help path field, enter the path to the `<Help>` folder.
6. Click **OK**, confirm your changes and close the window.
7. Restart all Kofax Capture modules to apply the configured help system path.

Training

Kofax offers both classroom and computer-based training that will help you make the most of your Kofax Capture solution. Visit the Kofax website at www.kofax.com for complete 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.

Technical assistance for your Kofax product

Support for your Kofax product is provided by your primary application support provider, that is specified as part of the maintenance agreement associated with your purchase. Please contact your Kofax application support provider for technical assistance with your Kofax product.

Before contacting your Kofax application support provider, please gather the following information where applicable:

- Product name, version, and serial number
- Log files
- Product license
- Exact error messages
- Reproduction scenario

Chapter 1

Introduction

Kofax Capture is designed to support both document capture and data capture in a single application. Both structured and non-structured documents can be scanned in a single batch. The system can automatically recognize each document in the batch and process it based on characteristics that you have predefined. The definition process is simple, quick, and provides an extraordinary amount of control over how your documents are processed.

Kofax Capture Network Server (KCN Server) extends the capabilities of Kofax Capture by allowing inexpensive Kofax Capture remote workstations to assist in the capture and processing of documents and data. With Internet (or intranet) capabilities, Kofax Capture workstations can be connected to a central site to assist in the document and data capture process.

This guide provides important information about installing and upgrading to Kofax Capture and KCN Server, including:

- System requirements that must be met to successfully install Kofax Capture and KCN Server
- Database management requirements
- Preparations, decisions, precautions, settings, and tips to help you successfully and efficiently install Kofax Capture and KCN Server
- Instructions for installing Kofax Capture in interactive mode or in automatic mode in a client/server or standalone configuration
- Instructions for installing KCN Server and creating remote sites
- Information about installing other Kofax products used with Kofax Capture
- Information on performing automatic installations

Chapter 2

Kofax Capture System Requirements

The primary source of information about supported operating systems and other Kofax Capture requirements is the *Technical Specifications* document, which is available on the Kofax Capture documentation site. This chapter provides supplemental information about Kofax Capture system requirements, and recommendations for installing and using Kofax Capture.

The use of Encrypted File System (EFS) to encrypt user-generated data stored by Kofax Capture on an NTSF file system is supported for all listed Microsoft operating systems that also support EFS.

The use of Internet Protocol Security (IPsec) in a client/server environment is supported for all listed Microsoft operating systems that also support IPsec.

Supported Operating Systems

Although not explicitly tested, Kofax offers technical support for all supported operating systems.

In general, the Kofax Capture server files and software should be installed on the same computer. However, some existing sites may have legacy issues that require server files to be kept on a computer that is not running any of the Kofax Capture certified operating systems. See File Locations for more information about Kofax Capture server files and server software. See Setting Up Distributed Server Configurations for information about installing Kofax Capture server files on a computer that is not running an operating system certified for use with Kofax Capture.

If you upgrade the Windows operating system while Kofax Capture is installed, Kofax cannot ensure successful results.

Server Requirements

In addition to the hardware requirements listed in the Technical Specifications document, we recommend that you use a dedicated server for Kofax Capture. In particular, we strongly recommend that you do not use the server computer for scanning or importing documents.

Recommended requirements for a Kofax Capture server system are purposely not listed here, as each implementation varies in capacity, load and processing. We do recommend that you try your Kofax Capture processing workload in a test environment before moving it into production.

Windows Server Installation Messages

When installing Kofax Capture on Windows Server, you may see a series of warning messages saying that some files can harm your computer.

Because the warnings may occur repeatedly and cause automatic/silent installations to fail, you can temporarily relax the security settings during the installation, and restore them afterward.

For more information and instructions on changing security settings, find article 182569 in the Microsoft Knowledge Base, and refer to the "1806 Launching applications and unsafe files" DWORD setting.

Do not attempt to edit the registry unless you have the necessary knowledge and experience. Damaging the registry may make your system inoperative.

Configuration Requirements

This section contains information on several required system configuration settings for Kofax Capture.

Kofax Capture License Management

Kofax Capture supports a centralized license management scheme. Activation occurs with your Kofax serial number and product code. With the hardware key licensing option, you must attach the hardware key to the Kofax Capture server at the central site, and to standalone workstations.

The key features of the license management scheme:

- Licenses can be delivered and upgraded through the Internet.
- Licenses must be activated before you can use Kofax Capture permanently.

Activation typically occurs during installation of a Kofax Capture server or standalone station, but it can also occur after installation.

- **During installation:** Near the end of the installation process, the installation contacts the Kofax license server to activate the licenses for the options you purchased. If you selected the hardware key license option, the installation may prompt you to attach a hardware key to the server or standalone station.

  See the *Kofax Capture Administrator's Guide* for details about activating licenses.

  Note You need Internet access to automatically activate your license during the Kofax Capture installation on a server or standalone station. If the station does not have Internet access, you can install Kofax Capture and then use the Kofax License Utility to activate your licenses afterward.

- **After Installation:** If license activation fails during the installation, you can use your purchased Kofax Capture options for a period of three days. To use the purchased options on a permanent basis, you must use the Kofax License Utility installed with Kofax Capture to activate your licenses after installation.

After activation, you can use the Kofax License Utility to view the status of activated licenses and to activate new or additional licenses for your system. See the Kofax Capture Help for details about using the License Utility.

Note For more information about the options purchased for your company, contact your system administrator or Kofax Certified Solution Provider.

Network Components

Kofax Capture requires that TCP/IP protocol be installed and running in your Windows network configuration settings. Prior to installing Kofax Capture, ensure that the following are installed and functioning properly:

- Client for Microsoft Networks and File and Printer Sharing for Microsoft Networks
- TCP/IP protocol (IPv6 and IPv4 are supported)
- A NIC with an active network connection

Contact your network administrator or see your Microsoft documentation for more information about these components.

Note Not having the TCP/IP protocol may be a problem in standalone installations that have never been connected to the Internet, or a network, or where the TCP/IP protocol has been removed or disabled. If you attempt to install a standalone version of Kofax Capture on a computer without TCP/IP, the installation may fail with an "Unable to Initialize Batch Catalog" error message. The batch catalog is the Kofax Capture database.

Database Support

For new Kofax Capture installations, you can select a database configuration (as listed in this section) at the start of the installation process. You can also switch database configurations any time after installation.

For upgrades from Kofax Capture 11.0, 10.x or 9.0, the existing database configuration is maintained. No option to switch databases is provided during an upgrade; however, you can switch any time after the upgrade. If your current installation is using the Standard database configuration, either SQL Server Express 2014 or SQL Server Express 2019 is installed automatically, depending on your operating system.

Standard

Depending on the current operating system, either SQL Server Express 2014 or SQL Server Express 2019 is installed automatically.

The Standard database cannot be installed using the Windows Installer (MSI) to deploy Kofax Capture on your computers. Therefore, a database instance must already be in place before you proceed with an MSI-based deployment.

SQL Server

In a high-volume processing environment, you can use SQL Server to actively administer the database, or for scalability and availability purposes.

Kofax Capture does not ship with or install SQL Server.

Oracle

In a high-volume processing environment, you can use an Oracle Database to actively administer the database, or for scalability and availability purposes.

To use Oracle Database, create an empty schema for storing Kofax Capture information. The user name provided when you installed Kofax Capture must have this schema set as the default schema for that user. The user must also have user rights to create objects in that schema.

See Kofax Capture Database Management Requirements for information about Oracle requirements. Kofax Capture does not ship with or install Oracle.

IBM DB2

In a high-volume processing environment, you can use IBM DB2 to actively administer the database, or for scalability and availability purposes.

To use IBM DB2, create an empty schema where you want to store Kofax Capture information. The user name provided when you installed Kofax Capture must have this schema set as the default schema for that user. The user must also have user rights to create objects in that schema.

For IBM DB2 installations running on Windows, the database must be configured as a Unicode database prior to installing Kofax Capture.

See Database Management Requirements for information about IBM DB2 requirements. Kofax Capture does not ship with or install IBM DB2.

Database Validation and Export Support

Kofax Capture supports the following databases: Microsoft SQL, Oracle, Microsoft Access, Microsoft Excel, PostgreSQL, MySQL, and IBM DB2.

Note If you are using Microsoft Access .accdb files for database validation and export, Microsoft Access Database Engine 2010 (English) Service Pack 1 (32-bit version) is required.

Kofax Capture also supports other ODBC Level 3 compliant database connectors. Although ODBC is a standard, variances (such as allowable syntax) could prevent operation with another database, even when using an ODBC Level 3 compliant connector. Kofax will make a reasonable effort to troubleshoot issues if they are identified.

Kofax Capture does not provide ODBC drivers for target databases.

Database Management Components

For managing batches during processing, Kofax Capture uses SQL Server Express 2014 or SQL Server Express 2019, which is installed automatically during a standalone installation, based on the current operating system. When installing the Kofax Capture server software or a Kofax Capture standalone installation, the required database management components are also installed.

Kofax Capture will install correctly and coexist with existing installations of SQL Server Express 2014 or SQL Server Express 2019, provided Kofax Capture is installed in a folder under the same parent directory as these products, usually `C:\Program Files (x86)\Microsoft SQL Server`.

For example, if SQL Server is installed in `C:\Program Files (x86)\MSSQL`, the Kofax Capture server software should be installed in a folder such as `C:\Program Files (x86)\<Kofax Capture installation folder>`.

Required Folder Permissions

This chapter describes the permissions that are required to install and run Kofax Capture, including the permissions to use when the SecurityBoost feature is in effect.

Required Permissions for Installing Kofax Capture

The user who performs the installation must be a member of the local Administrator's group, and the account must have Full Control for the Kofax share and its subfolders on the Kofax Capture Server.

Required Permissions for Running Kofax Capture

This section lists the required permissions for running Kofax Capture.

Client/Server Required Permissions

The following table lists the permissions required to run Kofax Capture in a client/server installation.

Client/Server Required Permissions

Client/Server Requirements	Permissions
TEMP Folder	Full Control
Installation Folder	Read & Execute
Server Software Folder	MODIFY+Delete Subfolders and Files permission for the License Server and SQL Server Express 2014 (if applicable). This is not used by server utilities or a workstation installation on a server. The SQL Server (KOFAXCAP2014, KOFAXCAP2012, KOFAXCAP2008R2, KofaxCapture, KofaxCap111 or ASCENTCAPTURE) service must be run as a user that has MODIFY+Delete Subfolders and Files permission to the folder. The Kofax Capture Service must be run as a user that has MODIFY+Delete Subfolders and Files permission to the folder. Both of these services run as "Local System" by default. If you run the KCN Service on the same computer, the service must also have MODIFY +Delete Subfolders and Files permissions for the folder.
Server Files Folder	MODIFY+Delete Subfolders and Files
<AppData>\Kofax	MODIFY+Delete Subfolders and Files
Batch Class Image Folder	MODIFY+Delete Subfolders and Files

Standalone Required Permissions

The following table lists the permissions required to run Kofax Capture in a standalone installation.

Standalone Required Permissions

Folder or File	Permissions
TEMP Folder	Full Control
Installation Folder	Read & Execute
<AppData>\Kofax	MODIFY+Delete Subfolders and Files
Batch Class Image Folder	MODIFY+Delete Subfolders and Files

General Permissions

This section lists the permissions required to run Kofax Capture and Kofax VRS.

Required Permissions for Using Kofax Capture and Kofax VRS

Folder or File	Typical Location	Permissions
Kofax folder and all subfolders, if present	`C:\Program Files (x86)\Kofax`	Read & Execute
Kofax share and its subfolders on the Kofax Capture Server	`\\server\CaptureSV`	MODIFY+Delete Subfolders and Files
System and user Temp folder	`C:\Users\UserName\AppData\Local\Temp or C:\Windows\Temp`	Full Control
Temporary image folder	Below the Kofax share, or elsewhere. For a new batch, the default path is `<Kofax Capture Server file folder>\Images`. For an imported batch, the path specified for the batch class is used.	MODIFY+Delete Subfolders and Files
Calera.ini	C:\Windows	Read, Read & Execute, Modify
kpmsw.ini	C:\Windows	Read, Read & Execute, Modify
Kfxisis.ini	C:\Windows	Read, Read & Execute, Modify
odbc.ini	C:\Windows	Read, Read & Execute, Modify
Kofax200.ini	C:\Windows	Read, Read & Execute, Modify
odbcinst.ini	C:\Windows	Read, Read & Execute, Modify
Kofaxkim.ini	C:\Windows	Read, Read & Execute, Modify
pixcache.ini	C:\Windows	Read, Read & Execute, Modify
Kpm.ini	C:\Windows	Read, Read & Execute, Modify
setscan.ini	C:\Windows	Read, Read & Execute, Modify
Kpmadr.ini	C:\Windows	Read, Read & Execute, Modify
vcdem32p.ini	C:\Windows	Read, Read & Execute, Modify
Kpmcache.ini	C:\Windows	Read, Read & Execute, Modify

Folder or File	Typical Location	Permissions
vrsinput.ini	C:\Windows	Read, Read & Execute, Modify
Kpmcolpr.ini	C:\Windows	Read, Read & Execute, Modify
Kpmcrtnt.ini	C:\Windows	Read, Read & Execute, Modify

Registry Permissions

The following table lists the registry permissions required to run Kofax Capture.

If you are using SecurityBoost, see Minimum Permissions for the SecurityBoost User.

Registry Permissions

Registry Key	Permissions
HKEY_CURRENT_USER\Software\Kofax Image Products	Full Control
HKEY_LOCAL MACHINE\Software\Kofax Image Products	Read
HKEY_LOCAL_MACHINE\Software\Kofax	Read (Kofax VRS users require Full Control)

KCN Server Required Permissions

The following tables list the permissions required to run Kofax Capture Network Server with IIS or WebSphere.

KCN Server Required Permissions for IIS

Folder or File	Permissions
Program Files (86)\KCN Server\Bin\Web	IIS user: Read & Execute IIS user: Read & Execute
<AppData>\Kofax\CaptureSV	KCN Service user account: MODIFY+Delete Subfolders and Files
File Cache Folders	IIS user: Full Control KCN Service user account: Full Control

KCN Server Required Permissions for WebSphere

Folder or File	Permissions
Error Log Path (if not default)	WAS user account: Full Control
File Cache Folder	WAS user account: Full Control KCN Service user account: Full Control
<AppData>\Kofax\CaptureSV	KCN Service user account: MODIFY+Delete Subfolders and Files

SecurityBoost Permissions

Use SecurityBoost to protect critical Kofax Capture files. You must first set minimum system permissions for your operators so they cannot access critical Kofax Capture files and folders. Then you create a special SecurityBoost user with permissions that do allow access to these files and folders.

Note To use the Administration module, the SecurityBoost user must be a member of the local Administrators group. Otherwise, the Administration module cannot be started.

If SecurityBoost is enabled and you encounter an issue that prevents a module from running, the following error may occur:

```
<Module_Name> is already running on this workstation. Only one instance is allowed.
```

You can resolve the error by updating the Local Security Policy.

1. In Control Panel, select **Administrative Tools** > **Local Security Policy**.
2. On the list of policies, select **Local Policies** > **User Rights Assignment**.
3. On the Policy list, double-click **Impersonate a client after authentication**.
4. As applicable, add the operator's user account and/or user groups to this privilege.
5. Click **OK** and restart the computer.

Minimum Permissions for the SecurityBoost User

To run Kofax Capture with SecurityBoost, the SecurityBoost user must have minimum permissions that are the equivalent of the required permissions described in Client/Server Required Permissions and Standalone Required Permissions. In a client/server installation, the SecurityBoost user must be a domain user.

If SecurityBoost is used strictly to protect the batch image folder, the SecurityBoost user needs the following permissions for the batch image folder:

File system:

- List folder / read data
- Create folders / append data
- Read permissions

Share:

- Full control

With SecurityBoost, additional permissions may be required, based on your Group Policy settings. The SecurityBoost account should be granted full control for the HKEY_CURRENT_USER Registry hive for all interactive users. As a result, the SecurityBoost account is permitted to access the current user's settings so that Windows can continue processing the credentials.

Note The SecurityBoost user must have access to all operator TEMP files.

The SecurityBoost user is shared by the entire installation. SecurityBoost users must be either local (for standalone installations) or part of a Windows domain (for client/server or standalone installations).

Minimum Permissions for Operators

This section describes the minimum permissions to assign to operators when SecurityBoost is in effect. These permissions are considerably more restrictive than the permissions for the SecurityBoost user.

If you are not planning to use SecurityBoost, then your operators require minimum permissions that are the same as those listed in Client/Server Required Permissions and Standalone Required Permissions.

Permissions for Client/Server Installations

Location	Item	Permissions	Example
Server	`TEMP` folder	Full Control	Path specified in environment variables
Server	`Config` subfolder	Read-only	`C:\ProgramData\Kofax\CaptureSV\Config`
Server	`Logs` subfolder	Read/Write	`C:\ProgramData\Kofax\CaptureSV\Logs`
Client	Installation folder	Read & Execute	`C:\Program Files (x86)\Kofax\CaptureSS`

Permissions for Standalone Installations

Folder or File	Permissions	Example
`TEMP` folder	Full Control	Path specified in environment variables
Installation folder	Read & Execute	`C:\Program Files (x86)\Kofax\Capture`
`Config` subfolder	Read-only	`C:\ProgramData\Kofax\Capture`
`Logs` subfolder	Read/Write	`C:\ProgramData\Kofax\Capture`

Permissions for the Scan and Export Modules

In certain cases, it may be advisable to avoid using SecurityBoost with the Scan or Export modules, especially if you can run the modules on an otherwise secure workstation.

While running these applications with SecurityBoost, you may need to take extra precautions when setting up the permissions for your operators and the SecurityBoost user.

Scan Module

When using the Scan module to import image files, both the SecurityBoost user and the operator need Read permission to the folder or folders containing those files.

Note This concern does not apply if you are using the Scan module to scan paper documents.

Do not use SecurityBoost if you are using mapped drives. Mapped drives cannot be used for temporary image paths for a batch class. An error occurs after you click **Scan** in the Scan module.

Export Connectors

When exporting with the standard text and database export connectors that come with Kofax Capture, the SecurityBoost user needs Read and Write permissions for the following folders:

- Text file index storage location folders
- Export image file folders
- OCR full text output folders
- Kofax PDF output folders

For information regarding SecurityBoost compatibility with other export connectors, see the export connector documentation.

Optional Components

This section contains information about optional components to consider for use with your Kofax Capture installation. While potentially useful, they are not required.

Development Environment

Kofax Capture supports the development languages described here.

For export and import connectors, custom modules, OCX panels, validation scripts, and recognition scripts, the following developer tools are recommended:

- Visual Basic .NET 2019, 2017 or 2015 (recommended for use with .NET Framework 4.8)

  To use earlier versions of Visual Basic .NET, you must install .NET Framework 4.8 Developer Pack and Language Packs.
- Visual C# .NET 2019, 2017 or 2015

Note Earlier versions of Visual Basic .NET or Visual C# .NET cannot be used to edit components or scripts generated by Kofax Capture 11.1.0, which is based on .NET Framework 4.8. However, any existing scripts compiled with the earlier versions are supported in a Kofax Capture 11.1.0 environment.

Scanners

Kofax Capture supports an extensive list of scanners that offer different levels of throughput, ranging from low- and mid-volume to production level, high-volume scanning.

For a current list of supported scanners, visit the Kofax Knowledge Base. Select the Scanner Configurator and follow the instructions presented on the screen.

Kofax VRS Elite

Kofax Capture includes and automatically installs Kofax VRS Elite 5.2.0.4. However, additional licensing is required to activate Kofax VRS Elite for use with Kofax Capture.

For a complete description of Kofax VRS Elite, visit the Kofax website at www.kofax.com.

Kofax Capture 11.1.0 has not been tested or certified with Kofax VRS 4.5 or earlier.

Kofax Capture Report Viewer

The system requirements for the Report Viewer module are the same as those for Kofax Capture.

Terminal Servers and Citrix

You can operate Kofax Capture via a Terminal Services or Citrix session. Once logged in to the Terminal Services or Citrix session, Kofax Capture operates as if it were installed on your local computer. However, you should be aware of the station licensing conditions described in this section.

Citrix supports all Kofax Capture modules except for the Scan module.

Running Multiple Modules in a Session

Station licenses apply to the session rather than the computer. As a result, you can run multiple licensed applications in one session. Licensed applications running within the same session share the same station license. For example, if you are running the Recognition Server, Validation, and Quality Control modules at the same time, on the same computer, and in the same Terminal Services or Citrix session, only one Kofax Capture concurrent station license is required.

However, licensed applications running within different sessions do not share the same station license. For example, if you are running the Recognition Server, Validation, and Quality Control modules at the same time, on the same computer, but each is running in a different Terminal Services or Citrix session, three Kofax Capture station licenses are required.

Running a Mix of Session and Client-Based Modules

Kofax Capture applications that run as services are part of the same session as the console. For example, if Recognition Server is running as a service and a user at the console is running the Validation module, then a single Kofax Capture concurrent station license is used. However, if Recognition Server is running as a service and a user connects remotely (via Terminal Services or Citrix) and runs the Validation module, two Kofax Capture concurrent station licenses are required.

Tracking Terminal Services and Citrix Session Usage Statistics

In order to track individual sessions running on a single station, the station ID for the session includes both the station ID and the session ID. Example:

StationID = ScanStation: Sess 42

Disconnecting and Logging Out Terminal Services and Citrix Sessions

When a Terminal Services or Citrix session is disconnected, the session state becomes "Disconnected." All running applications remain running in an idle state, and any consumed Kofax Capture station licenses remain consumed. When the user logs in again and reconnects, the session becomes active again, and the running applications resume their prior states.

If a licensed Kofax Capture module is running within a disconnected session and the administrator forces a logoff for that session, or the application terminates abnormally for any reason, the consumed Kofax Capture station license is released within the timeout period (20 minutes by default) or after the Kofax Capture licensing service has been manually restarted.

When a Terminal Services or Citrix session is logged out, the session is closed and any consumed Kofax Capture licenses are released. The session no longer appears in the Management Console.

VMware

For a list of VMware products certified and supported for use with Kofax Capture 11.1.0, see the *Technical Specifications* on the Kofax Capture documentation site.

Chapter 3

Kofax Capture Network Server System Requirements

Kofax Capture Network Server (KCN Server) is installed in a distributed way, meaning the software is usually installed in more than one place. The central site portion of it is installed on a supported Web server at your central site. At the remote locations, you must also install Kofax Capture and convert those installations to remote sites.

Specific system requirements and preparations should be considered when you plan your KCN Server installation. This chapter includes the following:

- Components that must be installed or enabled on the central site, and those that must be installed or running at the remote locations
- System requirements, including the supported hardware and system software, and configurations

KCN Server Components

This section contains information about the various KCN Server components at the central and remote sites.

Central Site

The following components must be available at the central site.

- A supported operating system must be installed on both the Web server and the Kofax Capture server. The operating system requirements are the same as the supported operating systems for server, client, and standalone systems. See Kofax Capture System Requirements for information about the supported operating systems.
- Kofax Capture must be installed in either a client/server configuration or a standalone configuration.
- File cache folder locations must be available to the Web Server and the KCN Service.
- KCN Server software must be installed on a supported Web Server at your central site. The Web Server's Anonymous User account must have access to the KCN Server file cache folder locations and the anonymous user account.
- Licenses for using KCN Server must be enabled.
- Website must be available for routing requests and data between the KCN Server remote sites and the central site. The website must already exist when you begin installing the KCN Server components.
- KCN Service must be enabled with network access to the file cache folder locations; also, it must be on a computer running Kofax Capture.

- ASP.NET must be enabled and registered in IIS, and Microsoft .NET Framework 4.0 or later must be configured for the Web server before the KCN Server installation is performed. The application pool that KCN Server is using must be configured with the .NET Framework 4.0 runtime; otherwise, KCN Server will not work. The .NET Trust Level for the IIS Web Server should be set to Full. See the Microsoft documentation for more information about registering ASP.NET and configuring the .NET Framework with your IIS server.

Remote Sites

The following components must be available at remote sites.

- Kofax Capture must be installed or upgraded to the current version at your remote sites. You do not have to upgrade all remote sites at the same time. See Installing Kofax Capture for the installation steps.
- Remote Synchronization Agent (RSA) must be running. In each remote client/server configuration, the RSA must be running on at least one workstation to upload batches automatically. The RSA can also be installed as a service.

Web Server System Requirements

The following lists the Web server system requirements needed to use KCN Server.

System Requirements

The following lists the system requirements for installing and using the Web server:

- Microsoft Internet Information Services (IIS), WebSphere 7.0 or later
- IIS .NET Trust Level set to Full
- TCP/IP protocol (user configurable, default is port 80)
- SSL is optional (user configurable, default is port 443)
- Network access to the file cache folder locations from the Web server
- Network access (during installation) to the Kofax Capture server files folder

See the *Technical Specifications* on the Kofax Capture documentation site to view the supported operating systems for Kofax Capture 11.1.0.

Although not explicitly tested, Kofax offers technical support for all supported operating systems. Operating systems marked as certified have been explicitly tested against Kofax Capture functionality.

KCN Service System Requirements

The following lists the KCN Service system requirements.

System Requirements

- Kofax Capture 11.1.0 client workstation or standalone

- TCP/IP Protocol through port 2424 (KCN Service to Web Server)
- Network access to the file cache folder locations

Remote Site Station Requirements

This section contains information about remote site station software requirements.

System Requirements

The following are the system requirements for installing KCN Server.

- Operating system requirements are the same as the supported operating systems for server, client, and standalone systems. See Kofax Capture System Requirements for information about the supported operating systems.
- TCP/IP protocol
- Internet or intranet access to your Web server

KCN Server License Requirements

KCN Server requires the appropriate licenses. If you selected the hardware key license option, the KCN Server remote site workstations do not require hardware keys.

See the Kofax Capture Help for more information on licensing.

Chapter 4

Kofax Capture Database Management Requirements

This chapter provides information about Kofax Capture database management requirements, including supported database management systems, operating systems, database permissions, and settings.

Supported Database Management Systems

For the list of database management systems certified for use with Kofax Capture server files and software, see *Technical Specifications* document, which is available on the Kofax Capture documentation site.

SQL Server Express Limitations

If you are considering the Kofax Capture Standard database (SQL Server Express) for your installation, be aware of the limitations that can potentially impact performance. For example, if you expect to accumulate more than 10 GB of information while using features such as User Tracking or reporting, you may want to use one of the supported enterprise-level database management systems. For more information about SQL Server Express limitations, see the Microsoft website at www.microsoft.com.

Also, when you use the Standard database, batch information is stored in a Microsoft Access database (with one database per batch). Because the Standard database offers no option to store batches in SQL Server, disk space utilization is affected. While storing batches in Microsoft Access, all Kofax Capture stations and servers cache a local copy of the batch database for local processing, and then update the copy on the CaptureSV share when processing is finished. With SQL Server, the caching process is eliminated because batch databases are stored directly in the SQL Server database.

Standard Database Password

If you plan to install Kofax Capture for use with the Standard database, the database password by default does not comply with the United States Government Configuration Baseline (USGCB) requirements for password complexity and encryption.

You can optionally use the /USGCBCompliant switch during the Kofax Capture installation to ensure that the Standard database password is USGCB compliant. For details, see Installing Kofax Capture with the /USGCBCompliant Switch.

SQL Server (Enterprise edition)

The following features are supported:

- SQL Server Database with Transparent Data Encryption (TDE) configuration enabled.
- AlwaysOn for external SQL Server database configuration.

Database Management Requirements

This section contains information on Kofax Capture database management system configuration requirements.

Supported Operating Systems

Visit the Kofax website support page at www.kofax.com to check for the list of supported operating systems for database management systems used with Kofax Capture 11.1.0.

This list represents the minimum requirement for each operating system family and edition. This list does not specify each version and service pack available.

License Requirements

SQL Server Enterprise Edition, Oracle, and IBM DB2 require a Kofax Capture Enterprise License or Evaluation License.

If you use SQL Server Standard Edition or your own instance of SQL Server Express, you have the ability to store batches in SQL Server instead of Microsoft Access. In this case, an additional license is not required.

Database Client Software Requirements

Kofax Capture requires the use of Microsoft .NET data providers for Oracle and IBM DB2 database management systems. The Microsoft .NET data providers for Oracle and IBM DB2 are installed by the client software on each workstation. The following versions of the client software are supported:

- 32-bit Oracle ODAC 10.2.0.2.21 or higher
- IBM DB2 Client V9.7 Fix Pack 3 - 32 bit client or higher

Oracle and IBM DB2 Installation

This section contains requirements for Oracle and IBM DB2 databases.

Oracle

You must create an empty database schema in Oracle where the Kofax Capture information is stored. The user name provided at installation must have this database schema set as the default schema for the user. The user must also have rights to create objects in that schema.

Kofax Capture requires the use of the Microsoft .NET data provider for Oracle, which relies upon Oracle client Interfaces provided by the Oracle client software: Oracle Data Access Components (ODAC). For details, see the Technical Specifications document.

Note Kofax Capture creates multiple Oracle sessions per service and module. Four sessions are created per Kofax Capture service and eight sessions are created per Kofax Capture module.

IBM DB2

You must create an empty database schema in IBM DB2 where the Kofax Capture information is stored. The user name provided at installation must have a default database schema that is empty. The user must also have rights to create objects in that schema.

For IBM DB2 installations running on Windows, the database must be set up as a Unicode database prior to installing Kofax Capture.

The IBM DB2 database must be configured prior to installing Kofax Capture. The following list specifies these configuration settings.

- Unicode database
- At least one buffer pool with a page size of at least 8K
- At least one regular table space with a page size of at least 8K
- At least one system temporary table space with a page size of at least 8K
- Size of the log file configuration parameter (logfilsiz) should be at least 4000 pages

Kofax Capture requires the use of the Microsoft .NET data provider for IBM DB2.

If you use Kofax Capture with an IBM DB2 database, performance issues or "statement is too long or too complex" errors may occur if you attempt to perform complex operations, or large quantities of operations. To prevent these issues, see Database Configuration.

Database Permissions

This section gives you information about permissions required for use with the following databases:

- SQL Server
- Oracle
- DB2

SQL Server Database Permissions

This section gives you information about SQL Server database permissions for use with Kofax Capture and explains the database login's membership in the db_owner database role.

Configuration Overview

Kofax Capture does not natively support differing security permissions for different uses, such as installation, maintenance, and general use. A SQL Server administrator can use the procedures outlined here to change database permissions according to the current intended use of Kofax Capture.

Here are the basic requirements, which are followed by details.

- During installation, Kofax Capture (with “Create new database” selected) creates the SQL Server database. Therefore, the database login provided during installation must be a member of the db_owner role, and it requires permissions to create a database.
- You can also move to an existing SQL Server database after installation, in which case the database login does not need permissions to create a database.
- For everyday Kofax Capture use, the database login does not need to be a member of the db_owner role.
- During upgrades and service pack installations, the database login must be a member of the db_owner role.

Changing the Database Login from db_owner

The following describes the process required for removing the db_owner privileges from the database login and replacing them with the minimally required privileges.

1. Use SQL Server Management Studio to do the following:
   a. Connect to the database server instance.
   b. Navigate to the Databases\Database Name\Security\Roles\Database Roles section of the tree, and then select the **db_owner role**.
   c. Right-click and select **Properties**.
   d. Select the database login from the "members of this role" list.
   e. Click **Remove**.
2. Assign the impersonation permission to the database login.
   Execute the following query while connected to the database.
   ```
   GRANT IMPERSONATE ON USER::KCSystemDbUser TO <database_login>
   ```
3. Add the database login to ACStatsRole. If users want to run Report Viewer, the database login must a member of ACStatsRole.
4. Use SQL Server Management Studio to do the following:
   a. Connect to the database server instance. Navigate to the Securities\Logins section of the tree and select the database login.
   b. Right-click and select **Properties**.
   c. In the "Select a page" section, click **User Mapping**.
   d. In the "Users mapped to this login" section, make sure the Kofax Capture database (such as ACSystem) is selected.
   e. In the "Database role membership for: ACSystem" section, select the **ACStatsRole** check box.

New Kofax Capture Installations

When you perform a new Kofax Capture installation (with the “Create new database option” selected), the database login must have permission to create a database. After the installation is complete, the login no longer needs this permission.

Note If you do not use the “Create new database” option in Kofax Capture, the database login does not need permission to create the database.

Before applying a service pack or upgrade, you must add the database login to the db_owner role again.

Oracle Database Permissions

This section gives you information about Oracle database permissions for use with Kofax Capture.

Tablespace Creation

Kofax Capture does not require a specific Oracle tablespace. However, due to the nature of the data, we recommend that you have a dedicated tablespace for Kofax Capture database objects. You need to identify this tablespace as the default tablespace for the Kofax Capture user. Additionally, the Kofax Capture user needs adequate quota on the tablespace to maintain the application schema.

Kofax Capture does not currently support separation of object types into separate tablespaces. All Kofax Capture application objects are stored in a single tablespace. The separation of tables and indexes may be included in a future release.

Note Be sure that your tablespace configuration complies with best practices for Oracle. See the Oracle website for more information.

Tablespace Usage Information

The following sizing information is intended as a guideline for preparing your database to hold Kofax Capture data.

Sample create tablespace statement:

```
create tablespace <tablespace name>
datafile '<tablespace file name and path>'
size <size>;
```

An installation that gathers and stores user tracking information for historical trending should allow additional space for stats tables.

Creating User Privileges

To use Kofax Capture with an Oracle database, the application owner must already exist in the database. This user requires certain privileges to ensure that Kofax Capture is installed properly and operates successfully after installation. After installation, Kofax Capture uses this database user account to connect to the database for all subsequent database-related operations.

1. Verify that the user has database level authentication.
2. Verify that the user has quota on the appropriate tablespace for the Kofax Capture data.
3. Verify that the user has the Kofax Capture data tablespace identified as the default tablespace.

4. Verify that the user has the following system privileges to install and use Kofax Capture:
   - CONNECT: System role that enables the Kofax Capture database user to create a connection to the Oracle database.
   - CREATE TABLE: Allows creation of all Kofax Capture tables and supporting objects, including indexes and Large Object (LOB) types.
   - CREATE SEQUENCE: Allows creation of all sequences needed by Kofax Capture.
   - CREATE PROCEDURE: Gives the database user permission to create all procedures and functions needed by Kofax Capture.
   - CREATE VIEW: Allows the user to create the views on top of the Kofax Capture tables.

Sample create user and grant statement:

```
CREATE USER <username>
IDENTIFIED BY <password>
DEFAULT TABLESPACE <tablespacename>
QUOTA UNLIMITED ON <tablespacename>;
/
grant CONNECT, CREATE TABLE, CREATE VIEW, CREATE SEQUENCE, CREATE PROCEDURE
to <user name>;
/
```

IBM DB2 Database Permissions

This section gives you information about IBM DB2 database permissions for use with Kofax Capture.

Database Creation

The IBM DB2 database must be Unicode-enabled for use with Kofax Capture. Create an IBM DB2 database as follows:

```
CREATE DATABASE <databasename> USING CODESET UTF-8 TERRITORY US
```

Database Configuration

To ease the system load during batch processing, set the internal heap parameters to the following minimum values:

```
UPDATE DB CFG FOR <databasename> USING APP_CTL_HEAP_SZ 1024;
UPDATE DB CFG FOR <databasename> USING APPLHEAPSZ 768;
```

Kofax Capture uses large records, and therefore it needs tablespaces and buffer pools at least 8 KB in width. If you already have buffer pools and tablespaces that meet the minimum size requirement, you do not need to change the sizes. If not, change the sizes using the following commands:

```
CREATE BUFFERPOOL bigpool IMMEDIATE SIZE 250 AUTOMATIC PAGESIZE 8 K;
CREATE REGULAR TABLESPACE userspace2 PAGESIZE 8 K MANAGED BY AUTOMATIC
STORAGE EXTENTSIZE 16 OVERHEAD 10.5 PREFETCHSIZE 16 TRANSFERRATE 0.14
BUFFERPOOL bigpool;
GRANT USE OF TABLESPACE userspace2 TO PUBLIC;
CREATE REGULAR TABLESPACE systoolspace PAGESIZE 8 K MANAGED BY AUTOMATIC
STORAGE EXTENTSIZE 16 OVERHEAD 10.5 PREFETCHSIZE 16 TRANSFERRATE 0.14
BUFFERPOOL bigpool;
GRANT USE OF TABLESPACE systoolspace TO PUBLIC;
CREATE SYSTEM TEMPORARY TABLESPACE tempspace2 PAGESIZE 8K MANAGED BY
AUTOMATIC STORAGE EXTENTSIZE 16 OVERHEAD 10.5 PREFETCHSIZE 16 TRANSFERRATE
0.14 BUFFERPOOL bigpool;
```

Note If you change the heap parameters, tablespaces, or buffer pools, you must stop and then restart IBM DB2.

Adjusting the Heap Size and Page Size

If you use Kofax Capture with an IBM DB2 database, performance issues or "statement is too long or too complex errors" may occur if you attempt to perform complex operations, or large quantities of operations. These problems may occur because the heap size (STMTHEAP) for the database is too small. You can prevent problems by setting the heap size value to 20480 KB, or more.

Also, performance may be adversely impacted for large quantities of batches if the page size (PAGESIZE) for the database is too small. You can prevent the performance issue by setting the page size value to 32768 KB.

See your IBM documentation for information on changing the database heap size or the database page size.

Limiting Permissions After Installation

Use the procedure in this section to specify the user permission for IBM DB2 objects.

1. On the left panel in the Control Center, within the desired database tree, select **User and Group Objects**.
2. Select **DB Users**.
   The DB users list appears in the right panel.
3. Right-click the name of the user that was used to create the Kofax Capture schema and select **Change User Privileges**.
   The Change User <user name> window appears.
4. Click the **Database** tab. You can remove the permissions for the following items:
   - Create tables
   - Create packages
   - Register routines to run in the database manager's process
   - Database administrator authority
   - Create external routines
   - Connect to quiesced database

   Instead of using the IBM Control Center, you can also specify these permissions using the following command:

```
REVOKE DBADM, CREATETAB, BINDADD, CREATE_NOT_FENCED_ROUTINE,
CREATE_EXTERNAL_ROUTINE, QUIESCE_CONNECT ON DATABASE FROM USER
<username>;
```

   Note Do not remove permissions from the following items in the list: Connect to database, Create schemas implicitly, Access to the load utility, and Security administrator authority. These are needed for daily Kofax Capture batch processing.

Database Installation

As you proceed through the Kofax Capture server, standalone, or KCN Server remote site installation, the Database Configuration window appears. This window does not appear during an upgrade.

From the Database Configuration window, you can select which database configuration to use with Kofax Capture. "Standard" is the default selection, in which case the Standard database, SQL Server Express 2014 or SQL Server Express 2019, is installed (be sure to review SQL Server Express Limitations). The other options are SQL Server, Oracle, and IBM DB2.

Note Oracle and IBM DB2 are enabled for selection only if the respective data provider is installed and a Kofax Capture Enterprise license is activated.

If you select an option other than "Standard," SQL Server Express is not installed. As you continue through the installation, your Kofax Capture license is activated and the Database Utility appears. You can then configure the database option that you selected at the start of the installation. Unless the database is configured successfully, you cannot use Kofax Capture.

Information about backing up and restoring the Standard database is available in the *Kofax Capture Administrator's Guide.*

To switch to the Standard database after selecting another option during the initial installation, you must manually install SQL Server Express 2014 or SQL Server Express 2019 depending on the current operating system.

Important Upgrade Notes

When upgrading your Kofax Capture installation, be aware of the following:

- You cannot change the Kofax Capture database configuration during an upgrade. After the upgrade is complete, use the Database Utility application (DBUtil.exe) to make changes. See the Kofax Capture Help for more information about the Database Utility.
- You cannot install or upgrade to Kofax Capture 11.1.0 with the Standard database if an existing SQL Server instance uses a name that is reserved, such as KofaxCap111, KofaxCap2014, KofaxCap2012, KofaxCapture, KofaxCap2008R2 or AscentCapture. If you have any of these SQL Server instance names stored in the system, follow Microsoft instructions for the SQL Server to change the instance name or reinstall the SQL Sever with a different instance name before installing Kofax Capture 11.1.0.

Installing SQL Server Express

Use this procedure to install SQL Server Express 2014 or SQL Server Express 2019 depending on the current operating system.

1. On the Windows taskbar, select **Run**.
   The Run window appears.
2. In the **Open** box, type the path to Setup.exe in your Kofax Capture installation files, or click **Browse** to navigate to Setup.exe.
3. In the Open box, add the /InstallDB option. Example:
   `<setup path>\Setup.exe/InstallDB`

4. Follow the instructions on your screen to perform the installation. When the installation is completed, the instance name is listed as **MSSQL12.KOFAXCAP111** or **MSSQL15.KOFAXCAP111** in the **Server** folder in your Kofax Capture installation, such as: `C:\Program Files (x86)\Kofax\CaptureSS\Server\<instance name>`.

   Note SQL Server Express is always installed as a named instance.

Chapter 5

Planning Your Kofax Capture Installation

Planning the installation in advance ensures that your deployment proceeds efficiently, and that each site is set up according to the needs of your company.

This chapter begins with general installation notes regarding your Kofax Capture environment, and continues with a discussion of decisions that need to be made before installing and using Kofax Capture.

Setting Up Your Environment

Before installing Kofax Capture, set up your system environment as described in this section.

Privileges and Permissions

At each site, set up the following privileges and permissions:

- The logged-in user must have full administrative privileges on the local computer.
- The users who are installing and/or using the client workstations must have Full Control permissions for the Windows folder on the client workstation.
- If the Kofax Capture server files are being installed on an NTFS partition, the users who are installing and/or using the client workstations must have Full Control permissions for the server folder that will contain the server files. The default name for this folder is `CaptureSV`.

The folder permissions required to install and run Kofax Capture are summarized in Required Folder Permissions. You can set folder permissions by right-clicking a folder name in Windows Explorer and selecting the Security tab on the Properties window. See your Windows documentation for more information.

Environment Variables

During installation, Kofax Capture needs to access the `TEMP` and `TMP` folders on the local drive. You **must** set up the `TEMP` and `TMP` folders as follows:

- Define environment variables for both.
- Verify that the paths for the `TEMP` and `TMP` environment variables do not exceed 100 characters.

Use Control Panel to access the Environment Variables settings, where you can edit the TEMP and TMP paths on the user variables list.

Important If the `TEMP` and `TMP` environment variables are not set up as described here, Kofax Capture cannot be installed or used.

Planning Your Installation

Before installation, use the planning information in this section to ensure that you make informed decisions about your Kofax Capture configuration.

You have several options to consider before configuring your installation, including the following:

- Installation type
- High availability capabilities
- File locations
- Running modules as services
- Station and site identification
- Updating the default Administrator account during installation
- Optional enhanced bar code engine
- Optional Kofax VRS station licenses
- Optional exclusion of Kofax VRS Elite from installation
- Optional exclusion of VB6 components from installation
- Restart login mode
- Installation mode
- Deployment methods
- Port requirements

After the installation is complete, you need to make decisions about the following:

- Database configuration
- Security configuration

Pre-Installation Decisions

This section covers decisions that you need to make before installing Kofax Capture.

Installation Type

You can install Kofax Capture in a standalone or a server configuration.

Standalone

A standalone configuration is a good choice if you expect to perform all of your scanning and processing, including the export of data and images, on the same computer at a single location.

Server

In a server configuration, the client applications and server components are installed on the same local computer. The client files that are required to support client workstations are installed and the server can run Kofax Capture client applications. For example, you might want to use the server to run a Kofax

Capture client application that does not require user input, but that could take advantage of the power of the server computer, such as Recognition Server.

High Availability Installations

Regardless of the installation type, you can take advantage of one or more Kofax Capture High Availability capabilities, which include support for Web farms (using Microsoft Network Load Balancing), Windows Server Failover Clustering (WSFC), Oracle Real Application Clusters (RAC), SQL AlwaysOn, Oracle backup license servers, and more.

File Locations

Determine whether to install your server software and server files at the default locations or at custom locations. If you are using a storage area network (SAN) or other mass storage devices, be sure to run them in online mode rather than nearline, due to the high volume of file input and output.

Server Software

Server software includes the Kofax Capture system database (SQL Server Express 2014 or SQL Server Express 2019), also known as the Standard database or batch catalog, and supporting files used by Kofax Capture to manage the batches.

During installation, the server software must be installed on a local, unmapped non-UNC drive. Only components that must run on the server computer are installed to this location.

Default location:

```
C:\Program Files (x86)\Kofax\Capture\Server\MSSQL12.KOFAXCAP111
```

or

```
C:\Program Files (x86)\Kofax\Capture\Server\MSSQL15.KOFAXCAP111
```

Server Files

Server files include such items as the client workstation setup program, batch classes, and batches.

For these files, you can specify a shared folder on the same computer as the server software (strongly recommended), or a folder on a different computer.

Default location:

```
C:\ProgramData\Kofax\CaptureSV
```

Running Modules as Services

You can run the unattended Kofax Capture modules as services, including Kofax Capture Import Connector - XML, Recognition Server, Kofax PDF Generator, OCR Full Text, Remote Synchronization Agent (RSA) and/or Export. As services, these unattended modules can be configured to start automatically at system startup, without any user intervention.

However, services do not support mapped network drives. Therefore, for client/server installations, you must specify a UNC path for your Kofax Capture installation folder.

Station and Site Identification

You need to determine the names to use to identify your stations and your sites. A site can consist of one or more workstations in any of the supported configurations.

Station ID

Use the Station ID to assign an ID to the station and to identify where batches are created or processed. The station ID can range from 1 to 32 characters with any combination of letters and numbers, except those listed in the following table.

Invalid Characters for Station ID or Site Name

-	“	$	`	=	\	{	}	;	>
'	,	.	/	~	!	@	#	^	?
&	*	(	)	_	+	|	:	<	%

The station ID defaults to the computer name. You should choose a name that is meaningful, such as a name that reflects the location or functions of the workstations. For example, the third client workstation being used for scanning at the Irvine facility of a company might be named IrvineScan3.

Site ID

Use the site ID to assign a numeric value to the site. The site ID can be from 1 to 4 digits and range from 1-9999.

Site Name

Use the site name to assign a name to the site. The site name can be from 1 to 32 characters. The site name defaults to the computer name. You should choose a name that is meaningful to you. The site name can include any combination of letters and numbers except the characters listed in the preceding table.

Updating Default Administrator Account During Installation

During the installation process, you have the option of changing the user ID and password for the default Administrator account. You can use a command prompt to set the user ID and password, similar to the following examples:

- `Setup.exe /AdminID=MyName /AdminPw=password`
- `Setup.exe /AdminPw=password`
  where MyName is the user ID and password is the password associated with the user ID

When setting the AdminID, type the Kofax Capture login name for the user. The field length must be from 3 to 85 alphanumeric characters (or 3 to 128 for non-linked users), and the entry is not case-sensitive. Unicode characters, commas and periods are accepted.

When setting the password, the entry must be from 4 to 14 alphanumeric characters, and the entry is case-sensitive. Unicode characters are accepted, along with the following special characters: comma, period, exclamation point, ampersand, pound sign, dollar sign, percentage sign, slash, and question mark.

If you specify the AdminID, you must also specify the AdminPW. If you specify only the AdminPW, the value for the Admin ID is "Admin." If either of these options is set during the installation, the User Profiles feature is automatically turned on.

Note If you edit the built-in Administrator account, it may impact existing settings that are dependent on an existing Administrator profile, such as add-ons, custom modules, or modules running as services.

Optional Enhanced Bar Code Engine

Determine whether you want to upgrade to the Enhanced Bar Code Engine, which supports the following capabilities:

- Color bar code processing directly from color images
- Color bar code processing at DPIs as low as 100 DPI
- Support for one- and two-dimensional (2-D) bar code types from color, grayscale, or bitonal images

Depending on the setup parameters, Kofax Capture usually performs bar code recognition within the Scan module.

However, in the following cases, it is necessary to defer bar code recognition to the Recognition Server module. If you plan to use the Enhanced Bar Code Engine in these cases, the computer running the Recognition Server module must have the appropriate license.

- If automatic index zones of any kind exist in the document class, all bar codes, including page level bar codes, are processed by the Recognition Server module.
- If more than one type of bar code exists per document class (including all page level or zonal bar codes), all bar codes are processed by the Recognition Server module.
- If any recognition scripts exist, all bar codes are processed by the Recognition Server module.
- If more than one form type exists, all bar codes are processed by the Recognition Server module.

The following table shows the licensing requirements for various configurations using the Enhanced Bar Code Engine.

Module	Processing Activity	Enhanced Bar Code Hardware Key Licensing[1]	Enhanced Bar Code Software Licensing[2]
Administration	Testing zone-level or page-level bar code recognition with QuickZones	X	X
Scan and Quality Control	Bar code recognition when scanning with a scanner	X	X
	Bar code recognition when importing documents	X	X
Recognition Server	Bar code recognition	X	X

1. Requires that an Enhanced Bar Code hardware key be installed on every workstation. If you are using this hardware key, you must shut down all Kofax Capture modules before attaching the Enhanced Bar Code Engine hardware key. Failure to do so will yield unpredictable processing results.

2. Requires that Enhanced Bar Code be added to your Kofax Capture licensing. In a standalone configuration, only one Enhanced Bar Code station license is required; but in a client/server configuration, a license can only be used by one workstation at a time. In a client/server configuration, if a module attempts to use a license while another workstation is using it, the module either uses a second license or, if a second license is unavailable, the values that require the Enhanced Bar Code Engine are left blank. To avoid this situation, we recommend that you purchase multiple Enhanced Bar Code station licenses.

   Note that Scan, Quality Control, and Recognition Server use an Enhanced Bar Code station license while a batch invokes the Enhanced Bar Code Engine. In these cases, the license becomes available to other workstations again when the batch closes. However, the Administration module uses an Enhanced Bar Code station license when the Enhanced Bar Code Engine is invoked through a zone test's recognition profile. In this case, the license does not become available to other workstations until the Administration module is closed.

Optional Kofax VRS Station Licenses

You need to determine if you want to use Kofax VRS.

Using Kofax VRS, Kofax Capture can repair badly scanned images without the need to physically rescan the documents. To take advantage of Kofax VRS, you need to obtain one or more Kofax VRS station licenses.

Installing Kofax Capture Without Kofax VRS Elite

During the installation of Kofax Capture 11.1.0, Kofax VRS Elite 5.2 is automatically installed. In certain situations, you may need to suppress the automatic installation of Kofax VRS Elite so that you can use Kofax Capture 11.1.0 with a version of Kofax VRS (5.1 or earlier) that already exists on your computer. To suppress the installation of Kofax VRS Elite, use the /NoVRS switch, as described in the procedure.

The /NoVRS switch may be appropriate in the following situations:

- You want to retain Kofax VRS 5.1 or an earlier version for your scanner and use an OEM license.
- Your scanner is not certified for use with Kofax Capture 11.1.0 or Kofax VRS Elite 5.2.0.4.

  For a complete list of certified devices, use the Kofax Scanner Configurator on the Kofax website.

1. Verify that Kofax VRS 5.1 or earlier already exists on your computer.
2. On the Start menu, click **Run**.

   The Run window appears.
3. In the Run window, type the path to Setup.exe, or click **Browse** to select the file.
   The path to Setup.exe is the location where you extracted the contents of the Kofax Capture installation files.

4. Do one of the following to add the /NoVRS switch, according to your installation type:
   - Standalone (where <path> is the location of your Kofax Capture installation files):
     <path>\Setup.exe /L /NoVRS
   - Server (where <path> is the location of your Kofax Capture installation files):
     <path>\Setup.exe /NoVRS
   - Client workstation (where <Server> is the network server path):
     \\<Server>\CaptureSV\WrkInst\Setup.exe /NoVRS

   Note If the path contains spaces, format the path to setup.exe with quotation marks, as in this example:
   "\\<Server Name>\CaptureSV\WrkInst\setup.exe" /NoVRS
   If you are using electronic media that contains the installation files, format the path as in this example, where <DVD> is the location of the electronic media:
   "<DVD>:\Kofax Capture\Setup.exe" /NoVRS
5. Click **OK** to start the installation.
   - Standalone: When the installation wizard appears, verify that Standalone is the selected installation type, and then click **Next**.
   - Server: When the installation wizard appears, verify that Server is the selected installation type, and then click **Next**.
   - Client workstation: The installer detects the server name on the network share and does not prompt you to select the installation type.
6. Follow the instructions on the screen to proceed with the Kofax Capture installation.
   When installing Kofax Capture on a workstation where an older version of Kofax VRS is installed, the **VRS Detected** window appears. You can dismiss the window by clicking **Continue** and then clicking **OK** to proceed with the installation.

Installing Kofax Capture Without VB6 Components

The Kofax Capture installer adds several Visual Basic 6 (VB6) components to your computer. If your organization's policy does not permit installation of VB6 components, use the following procedure to exclude them from your Kofax Capture installation.

With this procedure, the following VB6 components are excluded from your installation:

- AcAdMod.dll
- ACModule.dll
- ACWFLib.dll
- DBLite.dll
- DBLiteOpt.dll
- Kofax.ACWFLib.Interop.dll
- Kofax.AscentCaptureAdminMod.Interop.dll
- Kofax.DBLite.Interop.dll

- Kofax.DBLiteOpt.Interop.dll

1. On the Start menu, click **Run**.
   The Run window appears.
2. In the Run window, type the path to Setup.exe, or click **Browse** to select the file.
   The path to Setup.exe is the location where you extracted the contents of the Kofax Capture installation files.
3. Do one of the following to add the /NoVB6 switch, according to your installation type:
   - Standalone (where `<path>` is the location of your Kofax Capture installation files):
     `<path>\Setup.exe /L /NoVB6`
   - Server (where `<path>` is the location of your Kofax Capture installation files):
     `<path>\Setup.exe /NoVB6`
   - Client workstation (where `<Server>` is the network server path):
     `\\<Server>\CaptureSV\WrkInst\Setup.exe /NoVB6`

   Note If the path contains spaces, format the path to setup.exe with quotation marks, as in this example:
   `"\\<Server Name>\CaptureSV\WrkInst\setup.exe" /NoVB6`
   If you are using electronic media that contains the installation files, format the path as in this example, where `<DVD>` is the location of the electronic media:
   `"<DVD>:\Kofax Capture\Setup.exe" /NoVB6`
4. Click **OK** to start the installation.
   - Standalone: When the installation wizard appears, verify that Standalone is the selected installation type, and then click **Next**.
   - Server: When the installation wizard appears, verify that Server is the selected installation type, and then click **Next**.
   - Client workstation: The installer detects the server name on the network share and does not prompt you to select the installation type.
5. Follow the instructions on the screen to continue with the Kofax Capture installation.

Installing Kofax Capture with the /USGCBCompliant Switch

If you plan to install Kofax Capture for use with the Standard database, the database password by default does not comply with the United States Government Configuration Baseline (USGCB) requirements for password complexity and encryption.

You can use the /USGCBCompliant switch during the Kofax Capture installation to ensure that the Standard database password is USGCB compliant, which may be necessary if:

- Your organization's policy requires USGCB password compliance.
- You plan to use Kofax Capture with Kofax add-in components that require USGCB password compliance.

When making a decision about USGCB password compliance, it is essential to consider the impact on add-in components. For example, in an upgrade situation, do not select USGCB compliance if you are working with Kofax add-ins that depend upon an existing, non-compliant database password.

For more information about password compliance requirements for Kofax add-in products, see the *Cross Product Compatibility Matrix* on the Kofax support page.

An another option, you can use the Database Utility after installation to change the setting for USGCB compliance for the Standard database password. For details, see the Kofax Capture Help.

1. On the Start menu, click **Run**.
   The Run window appears.
2. In the Run window, type the path to Setup.exe, or click **Browse** to select the file.
   The path to Setup.exe is the location where you extracted the contents of the Kofax Capture installation files.
3. Do one of the following to add the /USGCBCompliant switch, according to your installation type:
   - Standalone (where `<path>` is the location of your Kofax Capture installation files):
     `<path>\Setup.exe /L /USGCBCompliant=1`
   - Server (where `<path>` is the location of your Kofax Capture installation files):
     `<path>\Setup.exe /USGCBCompliant=1`

   Note The value for USGCBCompliant can be **1**, **yes**, or **true**. In the preceding examples, the value of 1 is used.
   Also, if the path contains spaces, format the path to setup.exe with quotation marks, as in this example:
   `"<path>\setup.exe" /USGCBCompliant=1`
   If you are using electronic media that contains the installation files, format the path as in this example, where `<DVD>` is the location of the electronic media:
   `"<DVD>:\Kofax Capture\Setup.exe" /USGCBCompliant=1`
4. Click **OK** to start the installation.
   - Standalone: When the installation wizard appears, verify that Standalone is the selected installation type, and then click **Next**.
   - Server: When the installation wizard appears, verify that Server is the selected installation type, and then click **Next**.
5. Follow the instructions on the screen to proceed with the Kofax Capture installation.

Restart Login Mode

Determine how you prefer to respond to requests for logon information. At various points during the installation process, the computer has to restart, requiring you to log on. As a convenience, you can select to have the logon information automatically reused each time the computer is restarted.

Installation Mode

You can install Kofax Capture in the interactive mode or the automatic mode.

Interactive Mode

This mode requires you to respond to prompts from the installation, including where to store files. As Kofax Capture is installed, an initialization file is created containing your responses. This file is called ACInsOut.ini, which is located in the `TEMP` folder. You can modify and reuse the initialization file for

automatic installations. However, the file should not be stored as `%TEMP%\ACInsOut.ini`. You should move or rename the file.

Automatic Mode

This mode does not require you to respond to prompts. The automatic installation can use built-in default values, or values that you provide in an initialization file.

You may want to provide your own initialization file, if you prefer to centrally control your installations to ensure consistency, or if you do not have staff on site to respond to installation prompts.

Automatic installations are described in more detail in Automatic Installations.

Deployment Methods

You need to determine how you want to deploy Kofax Capture. There are a number of ways that you can deploy Kofax Capture.

- Installation media
- Network (for client/server installations)
- Kofax Capture Deployment Utility
- Network Management software available from a third-party supplier
- Windows Installer (MSI)

Kofax Capture Port Requirements

Kofax Capture requires that the following ports be open. These requirements may affect your firewall or other security settings.

- Kofax Capture uses port 2424 for managing licenses and volume usage. Port 2424 must be open between the client and server. If you are using Kofax Capture Network Server (KCN Server), port 2424 must also be open between the KCN Service(s) and the KCN Web Server.
- The Kofax Capture server uses TCP ports for communication between clients and the server. The Standard database configuration (SQL Server Express 2014 or SQL Server Express 2019) also requires a specific UDP port for name resolution of Named Instances:
  - UDP port 1434
  - TCP ports 1433, 1434, and a dynamically assigned port. The dynamically assigned port is available in the System Registry:

    ```
    HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
       Server\KofaxCap2014\MSSQLServer\SuperSocketNetLib\
       Tcp\TcpPort
    ```
- If you are using Server Message Block (SMB) for file sharing with User Datagram Protocol (UDP) or Transmission Control Protocol (TCP), ports 135-139 must be open.

Note If your database configuration is SQL Server, Oracle, or IBM DB2, consult your database or network administrator for port requirements.

Post-Installation Decisions

Decisions about your database and security configuration should be made before you use Kofax Capture to process batches. You can make these decisions after installation.

Database Configuration

Kofax Capture is installed with SQL Server Express 2014 or SQL Server Express 2019 database components. You can, however, use SQL Server, Oracle Database, or IBM DB2 for scalability and availability purposes, or to actively administer the database.

Note Kofax Capture does not ship with or install a full-featured version of SQL Server, Oracle Database, or IBM DB2. As noted previously, you have the option of installing SQL Server Express during the Kofax Capture installation.

When user tracking is enabled, Kofax Capture may require large amounts of memory to query or update the database.

We recommend that Kofax Capture be the only application installed on the Kofax Capture server computer. Furthermore, if you plan to enable user tracking, we also recommend that SQL Server, Oracle Database or IBM DB2 be used as the database for Kofax Capture.

To update the database selection to help improve performance, use the Database Utility.

Security Configuration

You can use SecurityBoost to protect critical Kofax Capture files.

To use SecurityBoost, you must set minimum system permissions for your operators so that they cannot access critical Kofax Capture files and folders. You must also create a special SecurityBoost user with permissions that allow access to these files and folders.

See the section SecurityBoost Permissions for more information. You can also find information about SecurityBoost in the Kofax Capture Help.

Custom Modules and Workflow Agents

If you plan to use custom modules and workflow agents, install them *after* you complete the Kofax Capture installation. Otherwise, errors occur if they are installed in the wrong order.

If you plan to use Kofax Capture 11.1.0 with a custom module or workflow agent based on Microsoft .NET Framework 3.5 or earlier, a configuration file is required. See the next section for details.

Note Ensure that workflow agents do not display a user interface while batches are being processed through any unattended modules. If the workflow agent attempts to invoke a user interface in certain modules (such as the Recognition Server module when it is running as a service), that module will fail.

See the *Kofax Capture Developer's Guide* for more information on custom modules and workflow agents.

Configuration File Requirements for Custom Components

Kofax Capture 11.1.0 is based on Microsoft .NET Framework 4.8. To use Kofax Capture 11.1.0 successfully with custom modules, export connectors, OCX/custom panels, or workflow agents based on earlier versions of the .NET Framework, a special-purpose configuration file is required.

Use the following procedure to incorporate the configuration file into your installation.

1. Locate the sample configuration files located here:
   - Server: `ProgramData\Kofax\CaptureSV\Source\Sample Configurations`
   - Standalone: `Program Files (x86)\Kofax\Capture\Source\Sample Configurations`
2. As applicable to your custom component, make a copy of the sample configuration files you need:
   - Custom module: Sample.exe.config
   - Custom export connector setup or runtime: ExportConnector.dll.config
   - Custom OCX / panel or workflow agent: MyOCX.dll.config
3. Rename the sample file so that the base file name exactly matches the base file name for your custom component. See the following examples:
   - Custom module: If your custom module or file name is Customization.Capture.exe, rename Sample.exe.config to Customization.Capture.exe.config.
   - Export connector setup: If your custom export connector setup file name is Customization.ExportSetup.dll, rename ExportConnector.dll.config to Customization.ExportSetup.dll.config.
   - Export connector runtime: If your export connector runtime name is Customization.ExportRuntime.dll, rename ExportConnector.dll.config to Customization.ExportRuntime.dll.config.

     Note If the export connector setup and runtime are designed in a single assembly, you can use a single configuration file. If the setup and runtime are designed as separate assemblies, the extra configuration file is required so the Export module can load the custom export connector runtime correctly.

   - Custom panel /OCX or workflow agent: If your custom workflow agent name is MyWorkflowAgent.dll, rename MyOCX.dll.config to MyWorkflowAgent.dll.config.
4. Copy the renamed file to one of the following locations:
   - `<Kofax Capture installation>\Bin`
   - Custom component installation folder

Reducing System Reboots During Installation

When performing a new installation or upgrade, the following two switches are available to reduce the number of system reboots during installation.

- `Setup.exe /vrssysfile`: Installs the required software prerequisites, including VRS
- `Setup.exe /installstddb`: Installs the standard database

Use each switch in the order listed. If you attempt to use both switches at the same time, "installstddb" is ignored. After running each switch, you may need to restart your system.

Chapter 6

Planning Your Kofax Capture Network Server Installation

There are various ways to configure your Kofax Capture Network Server (KCN Server) installation. The information in this chapter can help you make informed decisions to ensure that your installation is set up to meet the needs of your company.

This chapter includes general installation notes regarding your KCN Server environment, followed by a discussion of decisions to make before proceeding with the installation.

Setting Up Your Environment

For Kofax Capture and KCN Server to be successfully installed, the installation environment needs to be set up correctly. Be sure to carefully review the following information.

Privileges and Permissions

Before performing the installation, ensure that the logged-in user has full administrative privileges.

You can set folder permissions by right-clicking a folder name in Windows Explorer, selecting Properties, and clicking the Security tab. See your Windows documentation for additional information.

UNC Support

At your central site, if you install Kofax Capture and your Web server software on different computers, you must specify the path to the Kofax Capture server files and the path to the file cache folder locations in UNC format.

Example: `\\<ServerName>\Capture Share`

If you install Kofax Capture and your Web server software on the same computer, the KCN Server setup application determines the path automatically.

Proxy Server Support

KCN Server can run in a proxy server environment. KCN Server remote sites can communicate with the Internet through a proxy server. The KCN Web Server can communicate with the Internet through a proxy server.

Note The connection through the proxy server to the KCN Server with HTTPS (SSL/TLS) configured is not supported.

To use a proxy server with KCN Server remote sites, you must enable and configure the proxy server address and port number in the browser for every computer that uses a proxy server.

To configure proxy server settings in Internet Explorer, use the Tools menu to open the Internet Options window. Then, on the Connections tab, click **LAN Settings**.

Note KCN Server has been tested and certified to work with Microsoft ISA Server 2000. Other proxy servers may work, but they have not been tested or certified by Kofax.

Web Server Port Numbers

KCN Server allows remote sites to communicate with the Web server on ports other than port 80 for HTTP and 443 for SSL. Although you can specify any port number from 0 to 65535, you should keep in mind that possible conflicts with other processes that may be using communication ports. If you want to use alternate ports, be sure to first consult with your administrator.

In general, these port numbers are divided into three ranges:

- Well Known Ports ranging from 0 through 1023
- Registered Ports ranging from 1024 through 49151
- Dynamic and/or Private Ports ranging from 49152 through 65535

For the most part, ports in the first two ranges are used, either by convention or registration, for specific purposes. The dynamic and private ports are open for general use.

When selecting an alternate port, your primary concerns should be ensuring that the port is free, and that your firewall (if any) will allow its use.

Custom Module and Workflow Agent Support Considerations

KCN Server supports Kofax Capture custom modules and workflow agents. A workflow agent is a custom program that allows custom routing of batches.

If you plan to use a custom module or workflow agent at your remote sites, you must register the custom module or workflow agent at your central site and at each remote site (that requires it), after you install KCN Server.

Activating KCN Server on a remote site will disable the Kofax Capture Administration module on that site. Therefore, to register custom modules or workflow agents at remote sites, you must use the command line method. For more information on workflow agents and custom modules, see the Kofax Capture Help.

Note Ensure that workflow agents do not display a user interface while batches are being processed through any unattended modules and the KCN Service. Displays from a workflow agent will stop the KCN Service from inserting batches into the Kofax Capture workflow. In that case, you have to manually restart the KCN Service.

Planning Your Installation

There are several ways to configure your installation. The following information can help you make informed decisions.

Before installing KCN Server, ensure that you have a working knowledge of the following:

- Your network configuration
- Kofax Capture
- The Internet
- Your Web server software

Before installing KCN Server, ensure that you have first read Planning Your Installation for Kofax Capture. Then, plan your installation in light of the decisions you made for Kofax Capture, and the decisions you make in the following sections.

Planning decisions to make prior to installing KCN Server include the following:

- KCN Service locations
- KCN Service ("Log on as") user account
- KCN Server software component configurations
- File cache folder locations
- Web server software location and the website
- KCN Server Anonymous User Account
- Remote site name
- Alternate Web server port number, if necessary
- High Availability requirements (if any)

Note The Deployment Utility cannot be used to deploy KCN Server installations.

Pre-Installation Decisions for KCN Server

This section includes information to help you make informed decisions before you install KCN Server.

General Considerations

To achieve the best performance from your KCN Server installation, review the following important considerations.

- For each Web server at the central site, you should have at least one KCN Service (on a client workstation, not the Web server).

- In general, you should have at least one KCN Service per 50 remote sites. This recommendation may vary, depending on factors such as the following:
  - Size of batches and batch classes.
  - Batch volume.
  - Workflow: as the number of batch transfers is increased, it affects the load on KCN services.
  - Integration with a Kofax Transformation Modules project.
  - Total number of remote sites.
  - Frequency of synchronization for all remote sites.
  - User tracking: if selected, additional data is generated and uploaded with every synchronization.
  - Dedicated KCN Service nodes; running other processes can have an adverse impact on throughput.
  - Number of RSA services running per remote site.
  - Network: Latency can impact KCN Service throughput. The KCN Service communicates with the following components: CaptureSV, upload cache folders, licensing servers, Web servers, and database server.
  - Remote database validation via the KCN Service
- One KCN Server file cache can exist on each computer hosting a KCN Service. For high availability and fault tolerance purposes, you may opt to host the upload cache folders on a qualified system such as a Storage Area Network (SAN) or Network Attached Storage (NAS).
- Typically, KCN Service computers should not have other software (Kofax Capture or other) running on them. Because the KCN Service can be very I/O intensive, even multiprocessor computers may not be satisfactory for running the KCN Service along with other software.

KCN Service Locations

The KCN Service is responsible for responding to requests from the remote sites. Specifically, the KCN Service performs the following operations:

- Inserting batches into Kofax Capture on the Kofax Capture server asynchronously one batch at a time
- Extracting batch class and other remote site profile information
- Verifying and updating license information

The KCN Service must reside at the Kofax Capture central site on a standalone installation, a server with a client workstation installed, or a separate client workstation.

We recommend that you run one KCN Service for every 50 remote sites. You can run only one KCN Service per central site workstation. Therefore, if you anticipate having more than 50 remote sites uploading batches (see General Considerations), you should install Kofax Capture and enable the KCN Service on more than one workstation at your central site.

To verify that the KCN Service is running, use Control Panel Administrative Tools to view the list of services.

KCN Service (Log on as) User Account

Select a user account that has access permissions on the CaptureSV share, the license server, and the file cache folder locations.

You must have Full Control permissions to the Kofax Capture and KCN Server file cache folder locations.

KCN Server Software Component Configurations

The KCN Server software components can be configured to reside on one or more computers. The following are examples of minimal, recommended, and highly scalable configurations. The configuration that you use depends on various factors, such as your available hardware and your security policy.

- **Minimal configuration**, consisting of one computer for Kofax Capture, the KCN Server file cache folder location, the Kofax Capture license server, the KCN Service, and the KCN Web server components.
- **Recommended configuration**, consisting of:
  - One computer for Kofax Capture, the KCN Server file cache folder location, and the Kofax Capture license server
  - One Kofax Capture workstation for the KCN Service
  - One computer for the single instance of the KCN Web server components
- **Highly scalable configuration**, consisting of:
  - One computer for Kofax Capture and the Kofax Capture license server
  - One computer for the KCN Web server components
  - At least two Kofax Capture workstations for the KCN Services
  - At least two computers for the KCN Server file cache folder locations

KCN Server remote sites can run in an environment consisting of client/server installations, standalone installations, or a mix of client/server and standalone installations.

File Cache Folder Locations

The file cache folder locations, which are accessed by both the KCN Service and the Web server, are used to hold batches uploaded from remote sites until the data can be inserted into Kofax Capture at the central site.

The file cache folder resides, by default, on the Kofax Capture server. The folders can be deployed anywhere on your network as long as there is network access (using UNC paths) between the following:

- Web server and the file cache folder locations
- KCN Service and the file cache folder locations

Multiple file cache folders can be created on one or more computers. You might want to create multiple file cache folders so that if one file cache folder location fails, the remote sites can continue to synchronize using the remaining file cache folder locations.

If you have cache folders in multiple locations, a KCN Service will "prefer" to use its local cache directory (if there is one) rather than the other caches, provided other factors (such as batch priority) are equal. This "cache affinity" reduces network overhead and may increase performance.

Note The cache folders must be accessible to the Web Server's Anonymous User account, but you may wish to limit or prohibit direct access by users through the NTFS security settings.

Web Server Software Location and the Website

The website is used to route requests and data between the KCN Server remote sites and the central site. The website must be accessible to the remote site.

The Web server requires network access to the file cache folder locations.

If you want to use a website that does not currently exist on your KCN Web Server, create the website before starting the installation of KCN Server. If you are using IIS, it creates a default website, which you can use for your KCN Server installation.

During installation of KCN Web Server components on a domain controller that is also running the IIS Web Server, an error is logged to the event log when the aspnet_wp.exe attempts to run. This is a known Microsoft issue.

For more information on how to resolve this issue, see the support section of www.kofax.com and search the knowledge base for QAID (KB Article ID) number 587.

KCN Server Anonymous User Account

The KCN Server anonymous user account is used by KCN Server remote sites through the KCN Web Server to automatically upload batches and statistics and download batch classes from the Kofax Capture central site without requiring a logon.

The KCN Server anonymous user account must have the permissions listed in the "to do" list. If the permissions are not set correctly, you are not able to upload batches. After the installation is finished, the "to do" list can be found here:

```
<KCN Server installation folder>\Logs\ACICfgWzToDo.log
```

The permissions include the following:

- Full Control permission to the file cache folder location (including share permissions, if applicable)
- Read and Execute permission to the KCN Server installation folders
- Full Control permission to the log file path folders

The selected account must also have "Log on locally" rights to the Web server.

In addition to the preceding rights, the permissions listed in the following table apply to the KCN Server anonymous user account:

Anonymous User Account Requirements

Location of Web Server Software	Anonymous User Account Permissions and Access Required
On a domain controller (not recommended because of Microsoft issues)	The account must be a domain account in this domain.
On a member server (rather than on a domain controller)	Account must be a domain-wide account.
Not installed within a domain	Account must exist on both the Web server and the server where the file cache folder locations reside at the central site. The account must have the same password on both servers.

If you plan to use SSL and require a secure channel to the website for KCN Server, you must set up the secure communications before installing the KCN Web Server components (see the Microsoft online Help for help with setting up secure communications). If you require a secure channel after installing the KCN Web Server components, you may be presented with a prompt to set a new password on the KCN Server

virtual folders. Do not set a new password. If you do, your remote sites will be unable to synchronize with the central site.

If you do accidentally set a new password, rerun the configuration wizard to reconfigure the anonymous user account. Your remote sites will be able to synchronize with the central site.

Remote Site Name

The remote site name defaults to the computer name. Since the remote site name is used to identify the remote site in the central site Administration module, you should select a name that is meaningful to you.

With KCN Server, you can create profiles to assign to the remote sites. The profiles specify settings, such as which modules and batch classes, that are accessible to a remote site. If you create the profiles before creating the sites, be sure to name the sites the same as their profiles. This facilitates automatic assignment of the profiles to the sites, depending on whether the following rule is specified for the new remote site behavior:

"Assign to site profile matching site name if it exists, otherwise assign (Default)"

The new remote site behavior is specified in the Remote Site Manager window available from the Administration module.

The site name can range from 1 to 32 characters, and it cannot include the characters listed in the table.

-	“	$	`	=	\	{	}	;	>
'	,	.	/	~	!	@	#	^	?
&	*	(	)	_	+	|	:	<	%

If you change the site name, the change is not reflected in the Remote Synchronization Agent (RSA) Status display until the RSA is stopped and restarted at the remote site.

Web Server Port Number

By default, all HTTP communications use port 80, and all SSL communications use port 443. If you do not want to use the default KCN Web Server ports, you can assign alternate ports either before or after installation. See the section Setting Your IIS Port Configuration for more information.

You can change the port number at any time; however, if possible you should make this decision prior to installation of your remote sites. This will allow you to set the new port number in the initialization file for use during a Kofax Capture automatic installation.

When selecting alternate ports, you must ensure that the ports you assign are not being used by other applications or services. If there are port conflicts, you may experience intermittent and unpredictable problems.

Furthermore, if you later change the port number, you lose contact with all remote sites and they all have to update the Web Server URL before they can upload files.

High Availability Installations

You can take advantage of one or more Kofax Capture High Availability capabilities, which include support for Web farms (using Microsoft Network Load Balancing), Windows Server Failover Clustering (WSFC), Oracle Real Application Clusters (RAC), SQL AlwaysOn, Oracle backup license servers, and more.

See Installing Kofax Capture Enterprise for information about the Kofax Capture high availability support in conjunction with KCN Server.

Chapter 7

Installing Kofax Capture

This chapter provides step-by-step instructions for installing Kofax Capture. The instructions do not describe every installation screen you may see, nor do they cover every decision you may be asked to make. Instead, the focus is on major milestones, key decisions, and possible areas of confusion.

Note Depending on your equipment and options, it may take approximately 30 minutes to install Kofax Capture.

Before you install Kofax Capture:

- See Kofax Capture System Requirements for information about requirements and recommendations for installation.
- See Planning Your Kofax Capture Installation for information about ensuring the installation is smooth and accurate.

Installing Kofax Capture the First Time

The following is an overview of the major steps for installing Kofax Capture. Depending on the products you have, it may not be necessary to perform all of these steps. Each of the major steps is explained in detail following the overview.

You must follow the steps in the order shown, but not all steps are required.

Step 1. Install Kofax Capture. Start here to install Kofax Capture.

Step 2. Install Language Packs. Perform this step only if you want to install language packs on your workstation.

Step 3. Install VRS Scanner Drivers. Perform this step only if you want to install VRS scanner drivers on your workstation.

Step 4. Install the Report Viewer Module. Perform this step to generate, view, print, and export reports based on the user tracking data collected by Kofax Capture.

Step 1: Install Kofax Capture

This section includes the steps for installing Kofax Capture.

You can also install Kofax Capture in automatic mode. See Automatic Installations for more information.

You must have 1.5 GB of free space (or more) available on the drive you select for the installation. See Kofax Capture System Requirements for more information.

Installing Kofax Capture on a Server

Before installing Kofax Capture on client workstations, you must install Kofax Capture on a server.

Note Deployment of a client/server installation across a WAN is not supported.

1. Verify that your Windows updates are current.
   The installer may fail if Windows updates are missing.
2. On the server, shut down any applications (including Control Panel, virus detection software including its automatic update service, DEP software, or toolbars) that may be running, and turn off UAC.
3. Start the installation by running AutoRun.exe. If you are running the installation from removable media, the installation should be automatically started.
4. On the main installation menu, click **Install Kofax Capture**.
5. Follow the instructions on your screen to install the software. Be sure to read them carefully before proceeding with each step.

As you proceed through the instructions, note the following:

- When prompted for the type of installation, select **Server**.
- When prompted for application languages, select the check box for each language to install (English is always installed automatically). If necessary, you can add a language later by running any language pack installer in the `Updates` folder.
- When prompted for the destination folder for the server software, select a path on a local, unmapped, non-UNC drive. The default location is `C:\Program Files (x86)\Kofax\CaptureSS`.
- When prompted for the destination folder for the server files, select an installation path that is accessible to all your client workstations as a permanently mapped, shared drive or a UNC path. The method (UNC or mapped drive) used here dictates how your client workstations are installed. The default location is `C:\ProgramData\Kofax\CaptureSV`. See Planning Your Kofax Capture Installation for more information on default installation locations.
- Do not install the server software and the server files to the same folder.
- Verify that the destination path lengths for both the server software and server files do not exceed 100 characters.
- When prompted for the database configuration, select which database configuration to use with Kofax Capture. "Standard" is the default selection, in which case the Standard database, SQL Server Express 2014 of SQL Server Express 2019, is installed. The other options are SQL Server, Oracle, and IBM DB2. If you select an option other than Standard, SQL Server Express is not installed. See Database Installation for more information.
- If you select the Standard database, password complexity should be temporarily disabled until the installation is finished. Doing so ensures that any group policy that enforces specific password requirements does not prevent the installation of SQL Server Express.
- Ensure that the server files are accessible to all Kofax Capture client workstations, either through a UNC path (recommended) or a mapped drive. The path specified from each workstation must be the same and must be in the same format (UNC path or a mapped drive).
- At various points during the installation process, you have to restart your system and log on. You can select to log on after each restart or have the installation log on for you after each restart. If you manually log on after each restart, be sure to use the same user account when logging on again.

- To have the installation log on for you, select **Automatically Reboot** and log in. The installation automatically resumes once your workstation has been restarted.
- After the software is installed, you may be prompted to restart your computer. Follow the on-screen instructions to complete activation with your Kofax serial number and product code.
- If you selected the hardware key licensing option, you are prompted to attach the appropriate hardware key. If the New Hardware Key Detected message appears, dismiss it. After detecting the hardware key, the installation activates the license. If activation is successful, Kofax Capture is fully installed. If the license cannot be activated during installation, you are able to use Kofax Capture for a limited period of time. See the Kofax Capture online Help for more information on licensing.
- After installing Kofax Capture, do not change the name of your computer. Changing the name will cause your installation to become unstable.

The server is now installed. Next, you can install Kofax Capture on your client workstations.

Installing Kofax Capture on a Client Workstation

Use this procedure to install Kofax Capture on a client workstation. If you are planning to run unattended modules as services, see the "Kofax Capture Services" chapter of the *Kofax Capture Administrator's Guide* for installation instructions.

To install Kofax Capture 11.1.0 successfully, Microsoft .NET Framework 4.8 must be installed and activated. If you have an active Internet connection during the Kofax Capture installation, .NET Framework 4.8 is added automatically if it doesn't already exist. Otherwise, the installation will fail if .NET Framework 4.8 is not installed and activated **before** you start the installation process. The same requirement applies to any Windows version that does not preinstall Microsoft .NET Framework 4.8.

You also need to verify that the security settings do not prevent you from running setup.exe from the `WrkInst` folder. You may need to use the Local Group Policy Editor to specify that .exe, .msi, and msp files can be run successfully.

1. Type **gpedit.msc** in the Run window.
   The **Local Group Policy Editor** appears.
2. Navigate to **User Configuration** > **Administrative Templates** > **Windows Components** > **Attachment Manager**.
3. On the **Settings** list, double-click **Inclusion list for low file types**.
   The "Inclusion list for low file types" window appears.
4. Select **Enabled**.
5. In the Options section, list the extensions for file types that should be considered low risk. Include the leading period for each file extension, and separate each one with a semicolon: **.msi; .exe.; msp;**
6. Click **OK**.

Running Setup.exe

1. Verify that the Windows updates are current on the client workstation.
   The installer may fail if Windows updates are missing.

2. At the client workstation, shut down any applications (including Control Panel, virus detection software including its automatic update service, DEP software, or toolbars) that may be running, and turn off UAC.

   Note You must initiate the client installation from the client workstation.

3. From the Windows taskbar, select **Run** and browse to the shared folder where you installed the Kofax Capture server files.
4. Run setup.exe from the `WrkInst` subfolder.

   You must use a UNC path to access setup.exe. The path must be exactly the same on each workstation, and it must match the path used to install the Kofax Capture server files folder.
5. Follow the instructions on your screen to install the software. Be sure to read them carefully before proceeding with each step.

   As you proceed through the instructions, respond to the prompt for the destination folder by selecting an installation path on a local, unmapped UNC drive.

   Note At various points during the installation process, you may have to restart your workstation and log on again. If you log on manually, be sure to use the same user account each time.

   To have the installation log on for you, select **Automatically Reboot** and log on. The installation is automatically resumed each time your workstation is restarted.

Installing Kofax Capture on a Standalone Workstation

Follow these steps to install Kofax Capture on a standalone workstation.

To install Kofax Capture 11.1.0 successfully, Microsoft .NET Framework 4.8 must be installed and activated. If you have an active Internet connection during the Kofax Capture installation, .NET Framework 4.8 is added automatically if it doesn't already exist. Otherwise, the installation will fail if .NET Framework 4.8 is not installed and activated **before** you start the installation process. The same requirement applies to any Windows version that does not preinstall Microsoft .NET Framework 4.8.

1. Verify that your Windows updates are current on the standalone workstation.

   The installer may fail if Windows updates are missing.
2. At the standalone workstation, shut down any applications (including Control Panel, virus detection software including its automatic update service, DEP software, or toolbars) that may be running, and turn off UAC.
3. Start the installation by running AutoRun.exe. If you are running the installation from removable media, the installation should automatically start.
4. From the main installation screen, select **Install Kofax Capture**.

5. Follow the instructions on your screen to install the software. Be sure to read carefully and note the following:
   - When prompted for the type of installation, select **Standalone**.
   - When prompted for application languages, select the check box for each language to install (English is always installed automatically). If necessary, you can add a language later by running any language pack installer in the `Updates` folder.
   - When prompted for the destination folder for the server software, select a path on a local, unmapped, non-UNC drive. The default location is `C:\Program Files (x86)\Kofax\Capture`.
   - When prompted for the database configuration, select which database configuration to use with Kofax Capture. "Standard" is the default selection and it installs SQL Server Express 2014 or SQL Server Express 2019 depending on the current operating system. The other options are SQL Server, Oracle, and IBM DB2. If you select an option other than Standard, SQL Server Express is not installed. See Database Installation for more information.
   - If you select the Standard database, password complexity should be temporarily disabled until the installation is finished. Doing so ensures that any group policy that enforces specific password requirements does not prevent the installation of SQL Server Express.
   - At various points during the installation process, you have to restart your system and log on. You can select to log on after each restart or have the installation log on for you after each restart. If you manually log on after each restart, be sure to use the same user account when logging on again.
   - To have the installation log on for you, select **Automatically Reboot** and log in. The installation automatically resumes once your workstation has been restarted.
   - After the software is installed, you may be prompted to restart your computer. Follow the on-screen instructions to complete activation with your Kofax serial number and product code.
   - If you selected the hardware key licensing option, you are prompted to attach the appropriate hardware key. If the New Hardware Key Detected message appears, dismiss it. After detecting the hardware key, the installation activates the license. If activation is successful, Kofax Capture is fully installed. If the license cannot be activated during installation, you are able to use Kofax Capture for a limited period of time. See the Kofax Capture online Help for more information on licensing.
   - After installing Kofax Capture, do not change the name of your computer. Changing the name will cause your installation to become unstable.

Step 2: Selecting Languages

The language selections made during installation determine which languages are available for your Kofax Capture workstation. The language goes into effect once you follow the procedure in Setting the Language for Kofax Capture Applications.

Note If you use Microsoft Windows Installer (MSI), each available language pack is included in a separate Windows Installer patch file (.msp), which must be installed individually. The language pack files are available in the `Kofax Capture\Updates` folder on the installation media.

Setting the Language for Kofax Capture Applications

1. If the language pack is already installed, open one of the following Kofax Capture modules.
   - Administration
   - Batch Manager
   - Scan
   - Quality Control
   - Validation
   - Verification
2. Click the **Kofax Button** to open the Kofax menu.
3. Click **Options** and then select a language.
4. Click **OK**.
5. Exit and then start any module.

   All Kofax Capture applications switch to the selected language. If any Kofax Capture application is left open when you change the language, you must close and restart it before the new language goes into effect.

Installing New Language Packs

After installation, you can add a language by running any language pack installer in the `Kofax Capture \Updates` folder on the installation media.

As additional language packs become available, you can download them from the Kofax Fulfillment site.

1. Go to Kofax Fulfillment site and download a new language pack.
2. Double-click the downloaded file to start the installation and follow the on-screen instructions.

Uninstalling Language Packs

1. Use Control Panel to open the Programs and Features utility.
2. Click **View installed updates**.
3. On the list of installed updates, in the Kofax Capture 11.1.0 section, select the language pack to remove.
4. Right-click and select **Uninstall**.

   Follow the onscreen instructions to remove the language pack.

Step 3: Installing Kofax VRS Scanner Drivers

Use the Scanner Configuration Utility to configure your scanner source. See the *Kofax Capture Administrator's Guide* for information about using the Scanner Configuration Utility.

Step 4: Installing the Report Viewer Module

Perform this step to use the Report Viewer to generate, view, print, and export reports based on the user tracking data collected by Kofax Capture.

The Report Viewer and Kofax Capture are installed separately; you can install or remove the Report Viewer without affecting Kofax Capture, and vice versa.

1. Shut down any applications (including Control Panel, virus detection software including its automatic update service, and toolbars) that may be running.
2. In the `Report Viewer Components` folder, start the installation by running Setup.exe.
3. Click **Next**, and then follow the instructions on your screen to install the software. Be sure to read them carefully before proceeding with each step.

Installing From a Network

Kofax Capture and its components can be installed from a network, rather than from the installation media. This option makes it easier to complete installations on multiple computers that have access to a single network folder.

1. Copy the contents of the Kofax Capture installation media into a single folder on your network.
2. From any computer attached to your network, browse to the folder where you copied the contents of the installation media and double-click AutoRun.exe.
3. Complete the installation, as described earlier in this chapter.

As another option, you can also install individual Kofax Capture components (such as KCN Server or the Report Viewer) by copying the contents of the installation media to a network folder, and then browsing to the Setup.exe file associated with each component.

Upgrading and Repairing Kofax Capture

The Kofax Capture installation supports upgrading and repairing.

Differences Between Upgrading and Repairing

The differences between upgrading and repairing are summarized below:

- Upgrading to Kofax Capture 11.1.0
  - Updates all files to the latest version
  - Preserves your current batch classes, profiles, and other settings during the upgrade
  - Preserves your site and station IDs
  - Preserves active batches
- Repairing Kofax Capture 11.1.0
  - Updates the non-data files and replaces corrupted or missing files
  - Preserves your current batch classes, profiles, and other settings
  - Preserves your site and station IDs
  - Preserves active batches

Important Notes

Please read the following before you upgrade or repair your Kofax Capture installation.

Administrative Privileges Required

The logged in user must have administrative privileges for the local computer.

Close All Applications

Before upgrading the server or standalone workstation to Kofax Capture 11.1.0, you must close all applications. This means that all of the modules on every workstation must be closed, including services and any third-party applications. You must also stop all modules running as services.

If you upgrade from Kofax Capture 11.0, 10.x or 9.0, the SQL Server service (KofaxCap2012, KofaxCap2014, KofaxCapture, KofaxCap2008R2, KofaxCap111 or ASCENTCAPTURE) must continue running for the installation to complete successfully.

Windows Operating System

If your previous version was installed on a Windows operating system that does not comply with the system requirements for this version of Kofax Capture, you must first upgrade your Windows operating system. Refer to Kofax Capture System Requirements for more information.

If you upgrade the Windows operating system while Kofax Capture is installed, Kofax cannot ensure successful results.

Batches

You can perform an upgrade while batches still exist in the system. However, all modules, including custom modules and services, must be shut down while the upgrade is in progress. You can resume batch processing after the upgrade is successfully completed.

Client/Server Configurations

When upgrading in a client/server configuration, you must upgrade the server software and files from the installation files. Then, you can upgrade the client workstations.

For a server installation, the upgrade or update must be performed on the computer where the server software is installed. Client workstation and standalone installations must be upgraded on the computers where the current installation exists. You cannot upgrade a Kofax Capture server from a client workstation.

SQL Server, Oracle, or IBM DB2

Before performing an upgrade, back up the database and create a cabinet file (.cab) for all batch classes. To back up the database, follow the instructions from your SQL Server, Oracle, or IBM DB2 provider.

If you are upgrading from Kofax Capture 10.x, and if you moved the Batch Catalog database from the Standard database, you do not need to convert back to Standard when upgrading to Kofax Capture 11.1.0.

User Tracking Statistics

Before proceeding with an upgrade, consider the size of your existing statistics tables where user tracking data is stored. If the size of the tables is significantly high, it may prolong the time it takes to finish the upgrade process. We recommend that you purge unnecessary data from the tables before starting the upgrade. For example, you could delete any rows from the StatsFormType table that contain a value of zero.

Reserved Database Instance Names

When upgrading an installation that uses a SQL Server database, the database must not be assigned any of the following names that are reserved for the Standard database instance:

- KofaxCap2014
- KofaxCap2012
- KofaxCapture
- KofaxCap2008R2
- AscentCapture
- KofaxCap111

If one of the reserved names is assigned to a SQL Server database, an error such as the following may occur in the Administration module:

```
The current action cannot be completed because an item has been modified or
deleted by another user.
```

If your current database uses one of the reserved names, do the following:

1. Clear batches out of the system.
2. Use the Database Utility to update the instance name.
3. Perform the upgrade.

Standard Database

If you are using the Standard database, you should back it up before upgrading your Kofax Capture installation. The Standard database contains information about User Tracking and batches that are currently in the system waiting to be processed.

The instructions here are intended for use with Microsoft SQL Server Express Edition.

Backup Procedure with Kofax Capture 9.x, 10.x or 11.0

If you are using the Standard database with Kofax Capture 9.x, 10.x or 11.0, use the procedure in this section to back up the database.

1. Stop the SQL Server service (KofaxCap 2014, KofaxCap2012, KofaxCapture, KofaxCap2008R2, KofaxCap111 or AscentCapture).
2. For the same service, change the startup type to "**Automatic (Delay Start)**."

3. Copy **ACSystem.mdf** and **ACSystem.log** from one of the following locations to a backup folder:

   `\Users\All Users\Kofax\Capture\Server\DB\MSSQL.1\MSSQL\Data`

   `\Documents and Settings\All Users\Application Data\Kofax\Capture\Server\DB\MSSQL11.KOFAXCAP2012\MSSQL\Data`

   `\ProgramData\Kofax\Capture\Server\DB\MSSQL11.KOFAXCAP2012\MSSQL\DATA`

   `\ProgramData\Kofax\Capture\Server\DB\MSSQL11.KOFAXCAP2012\MSSQL\DATA`

   `\ProgramData\Kofax\Capture\Server\DB\MSSQL15.KOFAXCAP111\MSSQL\DATA`

   `\ProgramData\Kofax\Capture\Server\DB\MSSQL12.KOFAXCAP2014\MSSQL\DATA`

4. Restart the SQL Server service that was stopped in the first step.

Restore Procedure

Use the procedure in this section to restore the Standard database. If you restore the Standard database, also restore the full Kofax Capture file structure to ensure a complete installation.

1. Stop the SQL Server service (KofaxCap20124, KofaxCap2012, KofaxCapture, KofaxCap2008R2, KofaxCap111 or AscentCapture).
2. Navigate to one of the following locations, as applicable:

   `\Users\All Users\Kofax\Capture\Server\DB\MSSQL.1\MSSQL\Data`

   `\Documents and Settings\All Users\Application Data\Kofax\Capture\Server\DB\MSSQL11.KOFAXCAP2012\MSSQL\Data`

   `\ProgramData\Kofax\Capture\Server\DB\MSSQL11.KOFAXCAP2012\MSSQL\DATA`

   `\ProgramData\Kofax\Capture\Server\DB\MSSQL15.KOFAXCAP111\MSSQL\DATA`

3. Rename ACSystem.mdf and ACSystem_log.ldf to ACSystem_Orig.mdf and ACSystem_log_Orig.ldf, respectively.
4. Copy ACSystem.mdf and ACSystem_log.ldf from the backup folder to the current folder.
5. Start the SQL Server service that was stopped in the first step.

Kofax VRS

If you are upgrading an installation that also has Kofax VRS version 3.5 or later, your current version of Kofax VRS is overwritten by Kofax VRS Elite 5.2. You can use Kofax VRS Elite after the upgrade, but you cannot use the VRS QC Later feature unless you have the proper license.

To suppress the upgrade to Kofax VRS Elite 5.2, see Installing Kofax Capture Without Kofax VRS Elite.

If you have a version of Kofax VRS earlier than 3.5, you must remove or upgrade it before upgrading to Kofax Capture 11.1.0.

OmniPage Recognition Engine

When upgrading to Kofax Capture 11.1.0, your current ABBYY Fre recognition engine is replaced by OmniPage. The new engine is stored at `\Program Files\Kofax\Capture\Bin\OmniPage` and is used for recognition and export. See also Using the OmniPage Recognition Engine.

Upgrade and Repair Methods

The installation supports upgrading to version 11.1.0 from Kofax Capture 11.0, 10.x or 9.0. If you have an earlier version, you must first upgrade to an intermediate version. See the table below to determine your upgrade path.

If the installation detects that Kofax Capture 11.1.0 is already installed, it prompts you to confirm repairing the program files.

Upgrade Methods

Existing Version	Upgrade Method
Kofax Capture 11.0, 10.x or 9.0	Upgrade directly to Kofax Capture 11.1.0. You are not required to export batches before starting the upgrade, unless you are upgrading a remote site. For remote sites only, export all batches before performing the upgrade. Otherwise, a message appears during the upgrade, and you cannot proceed until the batches are exported.
Ascent Capture 8.x	You cannot upgrade directly to Kofax Capture 11.1.0. Upgrade Ascent Capture to Kofax Capture 9.0 or later, and then to Kofax Capture 11.1.0.

Preserving Your Settings

If you are upgrading an existing installation, we strongly recommend that you back up your server folders and the database containing your batch classes and scripts.

Reinstalling or Repairing Kofax VRS

If you need to reinstall or repair Kofax VRS within an existing Kofax Capture installation, use the procedure below. Before you proceed, note the following:

- A reboot is required if you reinstall Kofax VRS.
- This procedure only applies to updating an existing Kofax Capture installation. It has no effect on Kofax Capture upgrades or new installations.
- This procedure cannot be used with the auto or silent switch.

1. From the Windows taskbar, select **Run**.
   The Run window appears.
2. In the **Open** box, type the path to Setup.exe on the installation media or file location, or click **Browse** to navigate to the file.
3. In the **Open** box, add the /VRSReinstall option and click **OK**. Example:
   `E:\<setup path>\Setup.exe /VRSReinstall`
4. Follow the instructions on your screen to perform the installation. Be sure to read them carefully before proceeding with each step.

Upgrading Client/Server Installations

The procedures in this section describe the upgrade process for client/server installations. You must upgrade your server first, followed by the client workstations.

Note If you selected the hardware key licensing option, remove your hardware key prior to the upgrade. During license activation, you are prompted to reattach the hardware key.

Upgrading a Server

Follow this upgrade procedure if your existing Kofax Capture server version is 11.0, 10.x or 9.0.

Important After upgrading an installation, do not change the name of your computer. Changing the name will cause your installation to become unstable.

1. Read Important Notes before you upgrade.
2. Shut down any applications (including Control Panel, virus detection software including its automatic update service, and toolbars) that might be running (see Close All Applications).
3. Start the installation by running AutoRun.exe. If you are running the installation from removable media, the installation should start automatically.
4. On the main installation menu, select **Install Kofax Capture**.
5. Follow the instructions on your screen to upgrade the software. Be sure to read them carefully before proceeding with each step.

As you proceed through the installation, note the following:

- The installation searches for the currently installed version to determine which method to use to upgrade.
- If a previous version is detected, an upgrade is performed. See Upgrade and Repair Methods for additional information.

If you moved the Batch Catalog (database) temporarily to Standard before the upgrade, you can move it to SQL Server, Oracle, or IBM DB2 using the Database Utility (provided with Kofax Capture) after the upgrade is finished.

To switch the Batch Catalog (database) to a different database, use the Database Utility after the upgrade is finished.

Upgrading Client Workstations

Once the server has been upgraded, you can proceed to upgrade your client workstations.

Depending on your current configuration, you may not be able to upgrade directly to Kofax Capture 11.1.0. See Upgrade and Repair Methods.

1. Read Important Notes before you upgrade or update your installation.
2. At the client workstation, shut down any applications (including Control Panel, virus detection software including its automatic update service, and toolbars) that might be running.

3. On the Windows taskbar, select **Run** and browse to the shared folder where you installed the server files. Then, run Setup.exe from the `WrkInst` subfolder on the server.
4. Follow the instructions on your screen to proceed with the upgrade.
   The installation instructions contain additional information to guide you through the installation process. Be sure to read them carefully before proceeding with each step.

Upgrading Standalone Installations

This procedure describes upgrading a standalone installation to Kofax Capture 11.1.0.

Depending on your current configuration, you may not be able to upgrade directly to Kofax Capture 11.1.0. See Upgrade and Repair Methods.

Important After upgrading your installation, do not change the name of your computer. Changing the name will cause your installation to become unstable.

1. Read Important Notes before you upgrade.
2. Shut down any applications (including Control Panel, virus detection software including its automatic update service, and toolbars) that might be running.
   If you selected the hardware key licensing option, remove your hardware key prior to the upgrade. During license activation, you are prompted to reattach the hardware key.
3. Start the installation by running AutoRun.exe. If you are running the installation from removable media, the installation should start automatically.
4. On the main installation menu, select **Install Kofax Capture**.
5. Follow the instructions on your screen to upgrade. Be sure to read them carefully before proceeding with each step.

If you moved the Batch Catalog (database) to Standard before the upgrade, you can move it to SQL Server, Oracle, or IBM DB2 through the Database Utility when the upgrade is finished.

To switch the Batch Catalog (database) to a different database, use the Database Utility after the upgrade is finished.

Repairing an Existing Kofax Capture Installation

Follow these instructions if you need to repair the current installation of Kofax Capture. For example, you may need to do this if some files have become corrupted or were inadvertently deleted.

Important After repairing your installation, do not change the name of your computer. Changing the name will cause your installation to become unstable.

1. Shut down any applications (including the Control Panel, virus detection software including its automatic update service, and toolbars) that might be running.
2. Start the installation by running AutoRun.exe.
   If you are running the installation from removable media, the installation should start automatically.

3. On the main installation menu, select **Install Kofax Capture**.
   The existing installation is detected and a repair is assumed.
4. Follow the instructions on your screen to perform the repair. The installation instructions contain additional information to guide you through the repair process. Be sure to read them carefully before proceeding with each step.

Repairing a Client Workstation

1. At the client workstation, shut down any applications (including Control Panel, virus detection software including its automatic update service, and toolbars) that might be running.
2. On the Windows taskbar, select **Run** and browse to the shared folder where you installed the server files. Then, run Setup.exe from the `WrkInst` subfolder.
   The current installation is detected and a repair is assumed.
3. Follow the instructions on your screen to perform the repair. Be sure to read them carefully before proceeding with each step.

Uninstalling Kofax Capture

Use the following procedure to uninstall Kofax Capture 11.1.0.

Note You must remove all plug-ins before you uninstall Kofax Capture.

Uninstalling Plug-ins

1. From Control Panel, select **Programs and Features** or **Add or Remove Programs**, depending on your Windows version.
2. On the list of installed programs, select the plug-in to remove, and then right-click and select **Uninstall**.
3. Follow the instructions on the screen to complete the process.
4. Repeat the procedure for each installed plug-in.

Uninstalling Kofax Capture

Use this procedure to remove Kofax Capture.

Note When removing a Kofax Capture server installation, the user who uninstalls the program must have Write/Full Control permissions for the local CaptureSV folder.

1. If you are running a module as a service, uninstall the service before uninstalling Kofax Capture.
2. From Control Panel, select **Programs and Features** or **Add or Remove Programs**, depending on your Windows version.
3. On the list of installed programs, select Kofax Capture 11.1.0, and then right-click and select **Uninstall**.

4. Follow the instructions on the screen to complete the process.
   A prompt may appear if locked files are detected. In this case, you should reboot to delete the files.

Chapter 8

Installing Kofax Capture Network Server

This chapter provides step-by-step instructions for installing Kofax Capture Network Server (KCN Server). The instructions do not describe every installation screen you may see, nor do they cover every decision you may be asked to make. Instead, the focus is on major milestones, key decisions, and possible areas of confusion. It is important that you follow the installation steps exactly in the order given.

If you are upgrading KCN Server, see Upgrading/Repairing.

KCN Server Installation Steps

The following is an overview of the major steps for installing KCN Server. All of the steps must be performed in the order listed. Each of the major steps is detailed after the overview.

Step 1: Check your environment at the central site.

Step 2: Enable the Kofax Capture Network Service (KCN Service) at the central site.

Step 3: Install the KCN Web server components at the central site.

Step 4: Install Kofax Capture at the remote sites.

Step 5: Convert Kofax Capture remote installations to remote sites.

Step 1: Check Your Environment at the Central Site

Check the following to ensure that they have been configured correctly before proceeding with your KCN Server installation.

Kofax Capture Check Points

Check the following:

- Ensure that the central site meets the operating and license requirements for Kofax Capture. Refer to Kofax Capture System Requirements for information about system requirements and licensing requirements.
- See Planning Your Installation for information about ensuring the installation is smooth and accurate.
- See Installing Kofax Capture for information about installation instructions if Kofax Capture is not already installed at your central site. There are no special requirements for installing Kofax Capture when it will be operating with KCN Server.

KCN Server Check Points

Check the following:

- Ensure that the central site meets the operating and license requirements for KCN Server. See Kofax Capture Network Server System Requirements for information about the KCN Server operating and licensing requirements.
- If your Web server software is not already installed at your central site, follow the manufacturer's instructions that came with your Web server software.
- If you have not already done so, create or use an existing website. Verify that you can contact the website by typing in the address area of your browser: http://computername. Example: `http://MySite`.

  The website must exist before you proceed with the installation,. Otherwise, you will be prompted to exit the installation to create the website.
- By default, all HTTP communications use port 80, and all SSL communications use port 443.

When selecting alternate ports, you must ensure that the ports you assign are not being used by other applications or services. If there are port conflicts, you may experience intermittent and unpredictable problems.

Changing the port configuration will also require changing the port specification at your remote sites. See Setting Your IIS Port Configuration for more information.

Note If you are not using IIS as your Web server, see the manufacturer's instructions for operational details.

Step 2: Enable the KCN Service at the Central Site

To enable the KCN Service at the central site, the logged in user must have administration rights.

1. At the command line at the central site, enter: `<Kofax Capture installation folder>\CaptureSS\ServLib\Bin\aciscfg.exe`

   The **Enable Kofax Capture Network Service** window appears.

   The notes in the **Enable Kofax Capture Network Service** window also specify that you must have Full Control permissions to the specified server files and KCN Server file cache locations.

2. In the Log on as area, do one of the following:
   - Select **Local System** account, and then click **OK**. The local system account is used. Only select this option if both the Kofax Capture folder and the file cache folder locations are on the local computer.
   - Select the **User name** option. Then, enter the user name, password and domain, and click **OK**. The user specified must have Full Control permissions to both the Kofax Capture folder and the file cache folder locations.

   Note On a standalone computer or the Kofax Capture Server computer, the specified user must have access to all KCN Server resources and all resources required by the licensing service.

   - Select the **User name** option. Then, browse to select the user name and click **OK**. The user name and domain boxes are automatically populated after you make your selection. The user must have Full Control permissions to both the Kofax Capture folder and the file cache folder locations.

   The KCN Service is added to the Kofax Capture Service description as an enabled service.

   To verify that the service was added, from Control Panel select Administrative Tools | Services. Then, view the **Description** column for Kofax Capture Service.

If any problems are found while enabling the KCN Service, a window appears and lists errors or warnings. In the case of errors, click OK, correct the errors, and enable the KCN Service again. In the case of warnings, the KCN Service is successfully enabled.

Note We recommend that the KCN Service be installed on any workstation other than the Kofax Capture Server.

Some examples of common errors are listed in the following table.

Sources of Errors or Warnings when Enabling the KCN Service

Error/Warning Message	Possible Cause	Possible Resolution
KCN Service not found	Logon user name, password, or domain was incorrectly entered	Retype logon user name, password, and domain.
KCN Service cannot connect to cache folder	Incorrect permissions for the folders, or the folders do not exist	Modify the permissions to be (Full Control) for the file cache folder, or select a different user.
File cache folder path was longer than 138 characters	Path to file cache folders contains too many characters	Modify the length to 138 characters, or fewer.
Evaluation or temporary license about to expire Evaluation or temporary license expired Licensing has expired No Kofax Capture Network Server Remote Site Station License	Licensing issues may have the following possible sources: One or more licenses are not installed One or more licenses expired	Licensing issues may have the following possible resolutions: Run the License Utility and verify you have sufficient licenses. Obtain the necessary KCN Server licenses. If this is an initial installation, ensure you have obtained an activation code and have activated the licenses using the code within three days of receiving your software.

Error/Warning Message	Possible Cause	Possible Resolution
Insufficient quantity of remaining disk space	Not enough disk space remains on the device	Verify that there is enough disk space, and free some disk space, if necessary.

Step 3: Installing KCN Web Server Components on IIS

The following instructions are for IIS only.

If you are using WebSphere, see WebSphere, and then continue with Step 4: Installing KCN Server Remote Sites.

The KCN Web server components are installed to your Web server from the Install Web Server Components option on the Kofax Capture installation menu. Selecting the option initiates the KCN Web Server installation.

This configures typical Web server settings for KCN Server. For example, you need to specify the anonymous user account and the locations for the KCN Server components. The installation configures anonymous access for each of the KCN Server virtual folders. See KCN Server Anonymous User Account for more information about anonymous user accounts.

If necessary, the installation also displays a "to do" list of tasks that must be completed before you run KCN Server the first time. For example, you must ensure that the anonymous user account has read/write permissions for certain folders. If the permissions are not set correctly, you cannot upload batches.

The "to do" list can be found here: `<KCN Server installation folder>\Logs \ACICfgWzToDo.log` after the installation completes.

Follow the installation procedure exactly, and read all instructions carefully. The procedure includes many important notes about settings you must change if your computer varies from the typical configuration.

1. Start the installation by running AutoRun.exe. If you are running the installation from removable media, the installation should start automatically.
2. From the main installation menu, select Install Web Server Components for IIS.
   This menu item is for use with IIS only. Do not select it if you are using another Web server application.

3. Follow the instructions during the installation. When prompted, reboot your Web server. Then, the installation will continue. It will assist you in setting up the following:
   - KCN Server website
   - File cache folder location

     If you plan to use more than one file cache folder location, you only specify one at this point. The instructions for adding more file cache folders are provided later in this chapter.
   - Anonymous user account

     The user name specified for the anonymous user account must have "Log on locally" permission for the Web server, or must be a member of a group that has this permission. This is a Microsoft security requirement for anonymous or basic authentication.

     To determine whether the anonymous user account has "Log on locally" permission, see Anonymous User Account. See also KCN Server Anonymous User Account for more information on the Anonymous User Account.

   Note If you installed KCN Server and/or Kofax Capture on NTFS partitions, see Setting Up Distributed Server Configurations for additional information.

4. If generated, the "to do" list appears. Complete all the items in the "to do" list.

   An example of a "to do" list is provided below. The contents of the list vary, depending on your equipment and settings.

```
======= Kofax Capture Network Server Configuration Wizard: Tuesday, January 15,
 2008 3:32:17 PM
You may ignore entries referencing local FAT or FAT32 path statements. These are
 provided for your information only.
For user: 'DJVM2K3\sqaadmin' do the following:
Grant 'Read and Execute' permission to the KCN Server install folder:
C:\Program Files (x86)\KCN Server\Bin\Web (NTFS)
Grant 'Full Control' permission to the following file cache folder location
 (including share permissions, if applicable):
\\DJVM2K3\ACIUpload (NTFS)
Grant 'Full Control' permission to the log file path folder:
C:\Documents and Settings\All Users\Application Data\Kofax\KCN Server\Logs (NTFS)
Verifying that Kofax Capture Network Server can create files in its file cache
 folders.
Current user account: DJVM2K3\sqaadmin
Write test successful for all file caches.Proceed to Step 4: Install KCN Server
 Remote Sites.
```

Step 4: Installing KCN Server Remote Sites

1. At the remote workstation, shut down any applications (including the Control Panel, virus detection software including its automatic update service, and toolbars) that might be running.
2. Start the installation by running AutoRun.exe. If you are running the installation from removable media, the installation should start automatically.
3. On the main installation screen, select **Install Remote Site**.

   The installation is started, and Kofax Capture is installed or upgraded on the remote site.
4. Follow the instructions on your screen to install the software.

   The installation screens contain additional information to guide you through the installation process. Be sure to read them carefully before proceeding with each step. See Installing Kofax Capture for more information.

Step 5: Convert Kofax Capture Remote Installations to Remote Sites

Next, you need to convert the Kofax Capture installation to a remote site.

1. At the remote installation, open Batch Manager.
2. On the **Remote Site tab**, in the **RSA** group, click **Convert to Remote Site**.
   A message appears to warn you that the Administration module will be unavailable, and all batch classes created at the remote site will be deleted if you continue converting the installation.
3. Select **Yes** to acknowledge the warning.
   The Web Server URL window appears.
4. Specify the Web server URL (such as `http://<Web server>`), and click **Next**.
   The KCN Server remote site validates the specified URL by attempting to contact the website. It appends the KCN Server folder name (such as `http://<Web server>/acis`).
   If you are not using the default port number, specify the Web Server URL and the new port number using the following syntax: `<http protocol>://<Web server>[:port]/acis`. For example, if the alternate TCP port number is 8080, the URL would be similar to `http://www.Mysite.com:8080/acis`.
   See Setting Your IIS Port Configuration for more information.

   Note If the website requires SSL, you must specify the URL with "https" instead of "http" (such as `https://<Web server>`).

5. If the Web server URL validation is successful, you are prompted to activate the RSA. Use the RSA to upload batches and download batch classes without maintaining an ongoing connection to the Kofax Capture server. When you are prompted to confirm the activation, select either **Yes** to confirm the activation, or select **No** to defer activation. Selecting **Yes** causes a shortcut to the RSA to be installed as an icon in the Windows system tray. You must activate the RSA on at least one station at each remote site.
   If you select **No**, see Activating the RSA when you are ready to activate the RSA. The remote station initiates polling through the RSA, so polling does not occur until the RSA is activated.

Remote Synchronization Agent (RSA) Icon

Note Converting a Kofax Capture installation to a remote site causes the latest versions of batch classes to be downloaded from the central site to the remote site. Any existing batch classes at the remote installation are lost.
If you want to keep these batch classes, export them to .cab files first. You can then send the .cab files to your central site, where they can be imported.

The RSA can optionally be installed as a service, which allows it to upload batches and synchronize with the central site without having any user logged on. If you install RSA as a service, it cannot be run interactively; as a result, you would remove the RSA shortcut and deactivate the RSA from the system tray.

6. From the central site you can assign profiles to the remote sites at this point. Using remote site profiles, you can easily assign various attributes to your remote sites. See Setting Up Remote Site Profiles for more information.

   All remote sites are initially assigned a default remote site profile, depending on the central site settings. You can assign a different profile to a remote site at any time. See Assigning Remote Site Profiles to Remote Sites for more information.

Configuration Tasks

Various configuration tasks are performed at the central site, and other configuration tasks are performed at the remote site. Some configuration tasks can be performed at any time. Other configuration tasks can be performed only after certain installation steps are finished.

Examples of central site configuration tasks:

- Setting up your remote site profiles
- Converting user profiles into remote site profiles
- Assigning remote site profiles to remote sites
- Sharing scanner profiles
- Configuring additional file cache folder locations
- Enabling KCN Services
- Disabling KCN Services
- Stopping KCN Services
- Starting KCN Services
- Configuring KCN Services port

Examples of remote site configuration tasks:

- Converting a remote installation to a remote site
- Specifying the Web server URL
- Activating the RSA
- Set polling intervals

Web Server Settings

This chapter contains important information on configuring your web server to work with Kofax Capture Network Server (KCN Server).

For information about the supported and certified web server versions, see the *Technical Specifications* document, which is available on the Kofax Capture documentation site.

IIS Web Server

KCN Server requires certain IIS web server property settings for your ACIS and ACIUpload0 virtual folders. IIS settings are set by the KCN Server installation. The installation also generates a "to do" list. Be sure to complete all the items on the list before using KCN Server. For a sample "to do" list, see Step 3: Installing KCN Server Components.

You can enable additional settings. The following sections identify the minimum IIS and NTFS security settings required by KCN Server. Refer to your Microsoft documentation for details on additional settings.

IIS Settings

This section describes the minimum IIS settings required by KCN Server.

Note We strongly recommend that you allow the installation program (configuration wizard) to set the properties for you.

IIS Settings for KCN Server

Requirements	Settings
Handler Mappings	transfer.acis upload.acis config.acis service.acis action.acis
Handler Mapping Permissions	Read, Script, and Execute permissions
ACI Upload Virtual Directory	Anonymous access with Write permissions
File Cache Folders	See Adding or Editing File Cache Folder Locations
IIS Port	See Setting Your IIS Port Configuration
Directory Security	Supports Anonymous, Basic, and Integrated Windows authentication

KCN Server Virtual Folder Properties

The KCN Server virtual folder stores the KCN Server web pages and associated program files. The KCN Server installation program (configuration wizard) sets the KCN Server virtual folder properties for you. If you need to set the properties yourself, follow the instructions below.

Setting the KCN Server Virtual Folder Properties

1. On the **KCN Server Properties** window, make sure the following settings are selected:
   - For permissions, select **Read**.
   - For Application name, enter **KCN Server**.
   - For Execute Permissions, select **Scripts and Executables**.

   Note The default value for Application Protection is "High (Isolated)." This value is recommended, but not required.

2. Configure the .acis application extension.

   The aspnet_isapi.dll file should be mapped to the .acis application extension, and the HTTP verbs passed to the application should be limited to GET and POST. This creates a mapping between the file name extension (.acis) and the program or interpreter that processes those files (the dll file).

   a. From the **KCN Server Properties** page, click **Configuration** and then **Add**.

   b. For the Executable, enter the following:
   `C:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet_regiis.exe -i.`

   c. For the Extension, enter **.acis**.

   d. For the Verbs, select **Limit to**, and then enter the HTTP verbs **GET** and **POST (GET, POST)**.

   e. Ensure that the **Script** option is selected. This option allows the executable to run.

ACIUpload Virtual Folder Properties

The ACIUpload virtual folder temporarily stores batches as they are uploaded to the central site. The ACIUpload virtual folders point to the actual locations of the file cache folders. Generally, you have only one virtual folder where batches are temporarily stored. That virtual folder is named ACIUpload0. The KCN Server installation program (configuration wizard) sets the KCN Server virtual folder properties for you.

Note If you need to set the properties yourself, follow the instructions in Setting the KCN Server Virtual Folder Properties. We strongly recommend that you let the configuration wizard perform this task for you.

If you add ACIUpload virtual folders, you need to number them consecutively (ACIUpload0..ACIUpload*n*).

You must ensure that the properties are correct for each ACIUpload folder.

On each ACIUpload Properties window, make sure the following settings are selected:

- For permissions, select **Write**.
- For Execute Permissions, select **None**.

Note The KCN Server installation enables anonymous access with write permission for the ACIUpload0 virtual folder defined during installation. This allows completed batches to be uploaded to the central site without remote users having to log on to the IIS web server.

Adding or Editing File Cache Folder Locations

To change the location or number of file cache folders, run the KCN Server configuration wizard. If you choose to configure the KCN web server components without using the configuration wizard, you need to modify the Web.config file after configuring the ACIUpload folders. The additional ACIUpload folders are configured as virtual folders through the Microsoft Management Console. The additional virtual folders must be numbered sequentially when created (ACIUpload1..ACIUpload*n*). The contents of the file that you might need to change are listed below.

Most of the settings in this file should not be changed, except as described below.

```
<appSettings>
 <!-- Forwarder time out value is represented in seconds -->
     <add key="forwardertimeout" value="180"/>
```

```
    <add key="errorlogpath" value=""/>
<!-- filecachefolder = the number of configured file cache
folders AciUpload0 = 1; AciUpload0 & AciUpload1 = 2;
etc.
Written by the KCN Server Configuration Wizard -->
    <add key="filecachefolder" value="1"/>
<!-- Written by the KCN Server Configuration Wizard -->
    <add key="webconfigversion" value="1"/>
<!-- Status retry time for old remote sites. AC 5.x
  This value is specified in seconds. -->
    <add key="tidstatusretry" value="90"/>
</appSettings>
```

The only values you should change are as follows. Change the value assigned to the "filecachefolder" key to set the value to the number of file cache folders you have. This is typically 1. Also, change the value assigned to the "webconfigversion" key to increment by 1 any time you change the "filecachefolder" value.

Setting Your IIS Port Configuration

You can change your IIS port configurations at any time, either before or after installation.

By default, all HTTP communications use port 80, and all SSL communications use port 443. If you change the port configuration in IIS prior to installing KCN Server, you must specify the proper URL at the remote site after installation.

If you change the port number after installation, you must change the port number at both the central and remote sites before processing batches can resume.

At the central site, run the Internet Information Services administration tool. Refer to your Microsoft documentation for details.

At the remote site, use Batch Manager to open the Options window, and then click the **KCN Server** tab. Specify the Web Server URL and the new port number using the following syntax:

<http protocol>://<Web server>[:port]/acis

For example, if the alternate TCP port number is 8080, the URL would be similar to *http://www.Mysite.com:8080/acis*.

Note When selecting alternate ports, you must ensure that the ports you assign are not being used by other applications or services. If port conflicts occur, you may experience intermittent and unpredictable problems.

IIS Authentication Configuration

The following section contains important information on configuring authentication for your web server. The following authentication schemes are supported:

- Anonymous User Account
- Basic Authentication
- Integrated Windows Authentication

Anonymous User Account

The anonymous user account is used as the logon account for remote users. You may use any anonymous user account, but be sure to consider the following when doing so:

- If IIS is installed on a domain controller, ensure the anonymous user account has permissions on the stations where the file cache folders are located. This is not recommended.
- If IIS is installed on a member server (rather than a domain controller), ensure the anonymous user account is a domain-wide account that has permissions on the IIS web server and the stations where the file cache folders are located.
- If IIS is not installed within a domain, ensure the anonymous user account exists on both the IIS web server and the stations where the file cache folders are located, and that it has the same password.

Note The user name specified for the anonymous user account must have the "Log on locally" permission for the IIS web server or be a member of a group that has this permission.

You can install multiple file cache folders, each on a separate station. If you install multiple file cache folders, ensure that the anonymous user account has the appropriate permissions described above for each station on which a KCN Server file cache folder is installed.

Displaying Users with Log on Locally Rights

1. In Control Panel, use the Administrative Tools to select **Local Security Policy**.
   If your computer is a domain controller, select Domain Controller Security Policy, rather than the Local Security Policy.
2. In the Local Security Policy window, in the Security Settings pane, expand **Local Policies**, and then click **User Rights Assignment**.
3. In the Local Security Policy window, in the righthand pane, right-click **Log on locally** right and select **Security.**
   The users with "Log on locally" rights are specified in the "Assigned To" list.

Allow IIS to Control Password Settings

The KCN Server Configuration Wizard disables the "Allow IIS to control password" setting for all KCN Server virtual folders (ACIS and ACIUpload0).

This setting should always remain disabled. If you change the password for your anonymous user account, you must also change the password in IIS to match. See your Microsoft IIS documentation for more information on changing passwords.

Configuring KCN Server for Basic Authentication on IIS

Use this procedure to configure KCN Server for Basic Authentication on IIS 10. This configuration is recommended only in conjunction with SSL.

1. From Control Panel, use Administrative Tools to select **Internet Information Services**.
2. Expand the Internet Information Services tree to display the website.
3. Right-click the website folder and select **Properties**.
   The **Website Properties** window appears.
4. Select the **Directory Security** tab and click **Edit**.
   The Authentication Methods window appears.

5. Clear the "**Anonymous access**" check box.
6. Select the **Basic authentication** check box.
7. When the Internet Service Manager message box appears, click **Yes**.
8. Enter a domain name in the Default domain field.
9. Click **OK** on the **Authentication Methods** window.
10. Click **OK** on the **Website Properties** window.

Configuring KCN Server for Integrated Windows Authentication on IIS

Use this procedure to configure KCN Server for Integrated Windows Authentication on IIS 10.

1. From Control Panel, use Administrative Tools to select **Internet Information Services**.
2. Expand the Internet Information Services tree to display the website.

IIS and File Cache Permissions Configuration

The following sections provide important information for configuring file cache permissions for IIS.

Disabling Impersonation

When using Basic or Windows Integrated authentication, for file cache accessibility, we recommend that you turn off impersonation. This prevents you from having to configure file access permissions for every authenticated user.

1. Modify the web.config file in the `<KCN Server>\Bin\Web` folder.
   Example

```
<system.web>
  <identity impersonate="false"/>
  ...
</system.web>
```

2. Restart IIS.

Configuring File Cache Write Permissions

Turning off impersonation causes IIS to use the account specified by the .NET framework when it accesses the file cache. By default, the web server's worker thread operates under the <Local Machine> \ASPNET user account. Therefore, you must determine the name of this account and give it write access to the KCN Server file caches.

1. Use one of the following methods to determine the account used by the web server:
   - Open the machine.config file in the `<Windows>\Microsoft.NET\Framework\<.NET Version>\Config folder` and view the <processModel> element.
   - Use the "config.acis?config=user" KCN Server configuration parameter. This parameter produces data output similar to the following:

     Current Windows identity: TJAMES-WKS-XP\ASPNET

     Note The "config.acis?config=user" KCN Server configuration parameter is an existing KCN Server parameter on IIS. The ASPNET account is created during the .NET framework installation and is an account local to the web server.

2. Give the account determined in Step 1 write access to the KCN Server file caches.

NTFS Security Settings

If KCN Server and the file cache folder locations are installed on NTFS partitions, verify that the folders (not virtual folders) have the minimum required permissions documented in this section. These folders may be located on separate computers.

Note A restart is only required for NTFS security setting changes, if the changes do not take effect.

Displaying Folder Permissions

1. Run Windows Explorer.
2. Right-click the applicable folder and select **Properties**.
3. Select the **Security** tab to display folder permissions.

KCN Server Installation Folder Permissions

On the computer where KCN Server is installed, this is the default location:

```
C:\Program Files (x86)\KCN Server
```

If located on an NTFS partition, the KCN Server\Bin\Web folder must have Read and Execute permissions for the anonymous user account used for the KCN Server virtual folder.

Logs Folder Permissions

On the computer where KCN Server is installed, this is the default location:

```
C:\Program Files (x86)\KCN Server\Logs
```

The Logs folder, if located on an NTFS partition, must have Full Control permissions for the anonymous user account used for the ACIS virtual folder.

ACIUpload Folder Permissions

On the computer where Kofax Capture is installed, this is the default location:

```
C:\ProgramData\Kofax\CaptureSV\KCN Server Cache\Upload
```

The ACIUpload folder, if located on an NTFS partition, must have full control permissions for the anonymous user account used for the ACIS and the ACIUpload virtual folders, and for the KCN Server user account.

WebSphere

KCN Server currently supports versions 9.0, 8.x, and 7.0 of IBM WebSphere. The following sections provide important information for configuring this product for use with KCN Server.

Note WebSphere installation should be performed by the Kofax Professional Services department, or a specialist with equivalent knowledge and experience. This document does not provide information on installing WebSphere.

Install KCN Server Components on WebSphere

After WebSphere and IBM HTTP Server have been installed and are running correctly, your web server administrator can install the KCN Server components to WebSphere.

This procedure should be performed only by your Web server administrator.

Although a Kofax Capture installation is required at the central site, Kofax Capture is not required on the web server.

Step 1: Creating a Cache Folder

Create a file cache folder that is accessible from the WebSphere Application Server and Kofax Capture. Since KCN web server components reside on the application server, it must have write access to the file cache. File cache folders do not need to be accessible from the HTTP web server.

For Solaris, we recommend that the cache folder be located on a Solaris server. The path to the cache folder cannot exceed 138 characters.

Once the cache folder is created, you must create the following subfolders: "services" and "Upload" (these names are case-sensitive).

Step 2: Edit ACConfig.xml

Specify the cache folder location (138 characters or fewer) by modifying ACConfig.xml.

Locate the ACConfig.xml file in the following folder:

```
C:\ProgramData\Kofax\CaptureSV\Config
```

Then, add the KCNServer element to the file.

For Windows:

```
<ACIServer>
   <Cache Number=”<Cache folder #>” Path=”<unc path for cache
    folder>”/>
</ACIServer>
```

For example (note that the first cache folder is 0, and subsequent cache folders must be numbered sequentially):

```
<ACIServer>
   <Cache Number=”0” Path=”\\Eng1\kcncache\”/>
</ACIServer>
```

For Solaris:

```
<ACIServer>
   <Cache Number=“<Cache folder #>” Path=“<path for cache folder>”/>
</ACIServer>
```

For example (note that the first cache folder is 0, and subsequent cache folders must be numbered sequentially):

```
<ACIServer>
   <Cache Number=“0” Path=“sharename”/>
</ACIServer>
```

You can create multiple cache folders. Refer to Creating Multiple Cache Folders for more information about how to do this.

Step 3: Installing KCN Server Components

Use the following procedure to install the KCN Server components to WebSphere. Note that entries are case-sensitive. Before beginning, make sure that the application server is running. See the IBM documentation for instructions on starting and stopping the application server.

1. Start the WebSphere Administrative Console. Select **Profiles** and **<Server Name>** where <Server Name> is the name of your server.

   The Integrated Solutions Console, which is used to administer WebSphere, appears.
2. Enter your WebSphere user name and password to log on.
3. Add acis.war as a WebSphere application:
   a. On the left side of the **Integrated Solutions Console** window, expand **Applications**. Then, click **New Application**.
   b. On the New Application screen, click **New Enterprise Application**.
   c. Under "**Path to the new application**," select "**Local file system**" and then click **Browse**. Navigate to the KCN Server\WebSphere folder on the Kofax Capture installation media and select **acis.war**.
   d. Click **Next**.
4. Complete the "Preparing for the application installation" screen:
   a. Select **Detailed**.
   b. Expand "Choose to generate default bindings and mappings."
   c. Select **Generate Default Bindings**.
   d. Select **Use default virtual host name for Web and SIP modules** and leave the "Host name" field set to the default of "default_host".
   e. Click **Next**.
5. On the "Select installation options" screen, change the Application name to **ACI Server**. Leave the other settings unchanged. Click **Next**.
6. On the "Map modules to server" screen, select **Kofax Capture Request Forwarder.** Click **Next**.
7. On the "Initialize parameters for servlets" screen, type the KCNS cache file location as the path for all "aciupload0" fields. Click **Next**.
8. On the "Map context roots for Web modules" screen, type **/acis** as the path of the context root. Click **Next**.
9. Review the **Summary** screen and click **Finish**.
10. Click **Save** to save the master configuration.
11. On the left side of the Integrated Solutions Console window, expand Application Types and select **WebSphere enterprise applications**.
12. Restart WebSphere and the Integrated Solutions Console.
    a. Click **ACI Server** application and click **Start**.
    b. Open the **Integrated Solution Console** window and log on again as shown in steps 1 and 2.

13. Update the global Web server plug-in configuration as follows:
    a. Expand **Environment**.
    b. Click **Update web server plugin configuration**.
    c. Under "Update global Web server plug-in configuration," click **OK**.
14. Start the KCN Server application as follows:
    a. Expand **Applications**.
    b. Expand **Application Types**.
    c. Click **WebSphere enterprise applications**.
    d. If acis_war has not already started, select it and then click **Start**.
15. Close the Integrated Solutions Console window and then restart the IBM Application Server. ACI Server.ear is now installed as a subfolder under the WebSphere InstalledApps folder.

Step 4: Edit KCN Server Deployment Descriptor

You can also view or update the Web application deployment descriptor (Web.xml) to be sure the aciupload0 parameter value specifies the correct location for the file cache folder you created in Step 2 above.

Also, confirm that the *com.kofax.acis.ErrorLogPath* parameter specifies a suitable location for the error log file. If you don't specify a location, WebSphere stores the error log in its default location.

For Windows, Web.xml is located here:

<*IBM WebSphere*>\AppServer\profiles\default\ config\cells\<*machine name, node cell*>\applications\ACI Server.ear\deployments\ACI Server\acis.war\WEB-INF\Web.xml

For Solaris, Web.xml is located here:

<*IBM WebSphere*>/AppServer/config/cells/DefaultNode/applications/ACI Server.ear/deployments/ACI Server/acis.war/WEB-INF/Web.xml

Edit the *bold italic* values as shown in the following sample. Extra comments are removed from the sample.

```
<web-app>
 <display-name>Ascent Capture Request Forwarder</display-name>
 <context-param>
   <param-name>com.kofax.acis.ErrorLogPath</param-name>
   <param-value> <your log path> </param-value>
 </context-param>
 <servlet>
   <servlet-name>ForwardServlet</servlet-name>
   <display-name>ForwardServlet</display-name>
   <description>Forwards the request to the KCN Service.</description>
   <servlet-class>ForwardServlet</servlet-class>
 </servlet>
 <servlet>
   <servlet-name>ServiceConfigServlet</servlet-name>
   <display-name>ServiceConfigServlet</display-name>
   <description>Return the HTTP body as a string containing the URL of the KCN Service
 to use (http://serviceserver:port).</description>
   <servlet-class>ServiceConfigServlet</servlet-class>
  init-param>
```

```
   <param-name>aciupload0</param-name>
   <param-value> <your cache folder path> </param-value>
 </init-param>
 </servlet>
 <servlet-mapping>
 <servlet-name>ForwardServlet</servlet-name>
   <url-pattern>/service.acis</url-pattern>
   </servlet-mapping>
 <servlet-mapping>
   <servlet-name>ServiceConfigServlet</servlet-name>
   <url-pattern>/config.acis</url-pattern>
 </servlet-mapping>
</web-app>
```

Step 5: Configure Web Server

To allow the KCN Server component to function properly in WebSphere, the following line must be added to the *<IBM HTTP Server>\conf\httpd.conf* configuration file:

```
BrowserMatch ".NET CLR" downgrade-1.0 force-response-1.0
```

Step 6. Configure Basic Authentication

Enabling Basic Authentication on the HTTP web server involves creating a password file and optionally creating a group.

1. Open a Command Prompt window.
2. Navigate to the <IBM HTTP Server Bin> folder.
3. Run the following command:

   ```
   htpasswd -c -b <password file location> <user name> <user password>
   ```

   When adding users to the password file, omit the "-c" option. This is the same command for both Windows and Solaris versions of WebSphere.
4. Create a group file with the following format:

   ```
   <group name>: <user1> <user2> … <userN>
   ```
5. Add the following lines to the httpd.conf file:

   ```
   <Location /acis>
    AuthType Basic
    AuthName "<Domain name hint to display>"
    AuthUserFile "<location of password file>"
    AuthGroupFile "<location of group name file>"
    Require [entity type] [entity value]
   </Location>
   ```

   Basic Authentication is not recommended unless it is in conjunction with SSL.

Note Integrated Windows Authentication is not supported by the IBM HTTP Server.

Uninstalling KCN Server Components

Use the following procedure to uninstall the KCN Server components from WebSphere.

1. From the WebSphere Administration Console welcome page, expand the Applications node on the left side of the screen, and select **Enterprise Applications**.
2. Select the check box next to **KCN Server** and click **Stop**.
3. Click the **Uninstall** button. When the next screen appears, click **OK**.

4. Click the **Save** link at the top of the page to save the configuration changes to the Master Configuration.
5. If any files were manually edited during the installation process, they may need to be manually edited to complete the uninstallation process.

Central Site Configuration Tasks

This section contains information about items you may want to configure at the central site.

Setting Up Remote Site Profiles

You can perform this step at any time after enabling the KCN Service.

You may want to set up remote site profiles to assign to remote sites. Remote site profiles allow you to specify:

- Which Kofax Capture modules to run at the sites sharing the profile
- Which batch classes to share with the sites assigned to the profile
- Which site (central or remote) is controlling the polling settings
- Polling settings, if centralized polling has been selected

1. From the Administration module at the central site, on the **Tools** tab, in the **Distributed Capture** group, click **Remote Site Profiles**.
   The **KCN Server Remote Site Profiles** window appears.
2. Select an existing remote site profile.
3. Select or type information on the tabs on the **KCN Server Remote Site Profiles** window.
4. Select either **Save** to save the changes to the selected profile, or **Save As** to save the changes to a new profile. If you choose Save As, provide a name for the new profile that matches your expected remote site names.
   If you edit a profile that is assigned to several sites, all sites sharing the same profile are affected by the changes.

Assigning Remote Site Profiles to Remote Sites

You can perform this step at any time after installing KCN Server, and as often as necessary.

By default, new remote sites are assigned either the profile that matches the site name or the remote site profile named "(Default)".

You can assign a different remote site profile to each remote site. The same profile can be assigned to two or more remote sites.

1. Open the Administration module at the central site.
2. On the **Tools** tab, in the **Distributed Capture** group, click **Remote Site Manager**. The KCN Server Remote Site Manager window appears.
3. On the list of remote sites, select the remote site.
4. On the list of remote site profiles, select the remote site profile to assign to the selected remote site.

Sharing Scanner Profiles

You can save profiles to a shared location on the network and make them available to other users.

To share scanner profiles, on the Scan panel, select **Share the current profile**.

Note If User Profiles is enabled, make sure that you have selected the "Allow admin utility usage" setting. Only users with rights to access Administrative Utilities can save local profiles as shared.

Scanner Profile Locations

The profile storage location is a hierarchical set of folders organized by scan source. Scanner profiles, including VRS profiles, are stored in a folder specific to the scan source and can either be local or shared. Local profiles are stored in the "ScannerProfiles" folder under the Kofax Capture<LocalPath> folder. Shared profiles are stored in the "SharedScannerProfiles" folder under the Kofax Capture <ServerPath> folder.

On a standalone installation, shared profiles are not enabled and the shared profiles folder does not exist.

Creating Multiple Cache Folders

You can perform this step at any time after installing KCN Server. For more information on why you might want to use more than one file cache folder location, see File Cache Folder Locations.

If you have cache folders in multiple locations, a KCN Service will "prefer" to use its local cache folder. This "cache affinity" reduces network overhead and may increase performance.

However, a number of other settings can override the KCN Service's natural affinity for its local cache. The rules by which the KCN Service processes work queued at the central site include the following (in order):

- All caches are processed; however, local caches are processed before remote caches.
- "Interactive" requests are processed first. If you specifically upload a particular batch from Batch Manager, it is processed before work that was uploaded through the RSA.
- Batches are processed in order of priority. Batches of a particular priority are processed from the local cache first and then from remote caches.
- Batches are processed on a first in, first out basis. Batches are processed in order of creation, first from the local cache and then from remote caches.
- Batches are processed before statistics data. Statistics data is inserted only after all batches have been inserted.

If you decide to use more than one file cache folder location, you must do the following:

1. Create the shared file cache folder locations on the computers that will contain the file cache folders. Ensure that the folder locations are accessible to both the anonymous user account on the Web server and the "Log on as" user running your KCN Service.
2. Shut down all Kofax Capture applications and services.

3. Then, modify the KCN Server section in `C:\ProgramData\Kofax\CaptureSV\Config\ACConfig.xml` to add a line containing the unique number to assign to the new file cache folder location and the path to the folder location.

   Example of how to specify the file cache folder number and location:

   ```
   <Cache Number="1" Path="\\Mfg1\acis\"/>
   ```

   The first file cache folder is assigned the cache number "0" by default when you install KCN Server. Use a consecutive number starting with 1 when you specify the cache number. You cannot have two or more file cache folder locations with the same cache number. The path must not exceed 138 characters.
4. Restart the services that you shut down.
5. Run the KCN Server configuration wizard (AciCfgWz.exe) from the KCN Server installation `\Bin` folder. You do not need to make any changes while the configuration wizard is running. You should see the additional file cache folder locations listed.

   Important When creating or removing cache folders in an environment with multiple KCN web servers, you must run the configuration wizard on every KCN web server to ensure that the configuration file for each one reflects the correct number of available cache folders.

Enabling Additional KCN Services

You can perform this operation at any time. To enable the KCN Service at the central site, the logged in user must have administration rights.

We recommend that you run one KCN Service for every 50 remote sites. You can run only one KCN Service per central site workstation. Therefore, if you anticipate having more than 50 remote sites uploading batches (see General Considerations), you should install Kofax Capture and enable the KCN Service on more than one workstation at your central site.

To enable additional KCN Services, refer to Step 2: Enable the KCN Service at the Central Site.

Stopping the KCN Service

You can perform this operation after KCN Service has been enabled.

Stopping the KCN Service causes the service to be temporarily unavailable. It does not remove the service. To resume using the KCN Service, you must restart it or reboot.

Use Control Panel to access Administrative Tools, and then select Services to locate the Stop control for the KCN Service.

Removing the KCN Service

To remove the KCN Service from a computer, you need to stop it. After stopping the KCN Service, you cannot use it again until it is restarted.

To remove the KCN Service, run the following from the command line:

```
<Kofax Capture installation folder>\CaptureSS\ServerLib\Bin\aciscfg.exe /d
```

Note If you attempt to uninstall Kofax Capture and a KCN Service is running, the uninstall program will automatically stop the KCN Service.

Starting the KCN Service

If you stopped the KCN Service, you need to start it to use KCN Server.

Use Control Panel to access Administrative Tools, and then select **Services** to locate the Start control for the KCN Service.

Remote Site Configuration Tasks

This section contains tasks you may need to perform when configuring your remote sites.

Specifying the Web Server URL

You can perform this operation after converting an installation to a remote site if the URL has changed.

You can also use this to switch central sites. Ensure that you have no batches in process, if you switch central sites. You will lose the batch classes and licensing from the old central site. Batch classes and licensing from the new central site will be downloaded to the remote site based on the remote site profile assigned to this remote site.

1. Open the Batch Manager module.
2. On the **Remote Site** tab, in the **RSA** group, click **Web Server URL**.
   The Web server URL window appears.
3. Specify the Web server URL (for example, http://Web server).
   If you are not using the default port number, specify the Web Server URL and the new port number using the following syntax: *<http protocol>://<Web server>[:port]/acis*. Http protocol includes both http and https. For example, if the alternate TCP port number is 8080, the URL would be similar to *http://www.Mysite.com:8080/acis*.
4. Click **OK** to validate the URL.

   Note If the website requires SSL, you must specify the URL with "https" instead of "http." For example, *<http>://<Web server>[:port]/acis*.

Activating the RSA

You can activate the RSA after converting an installation to a remote site.

1. Start Batch Manager.
2. On the **Remote Site** tab, in the RSA group, click **Activate RSA**.
   Using the RSA, you can upload batches and download batch classes without maintaining an ongoing connection to the Kofax Capture server. When you are prompted to confirm the activation, select **Yes** to confirm the activation, or select **No** to defer activation. Selecting **Yes** adds the RSA to the Windows system tray (see Figure 1: Remote Synchronization Agent (RSA) Icon). You must activate the RSA on at least one station at each remote site.
   Once you activate the RSA, you can also choose to install it as a service.

Configuring Remote Site Authentication

When you convert a Kofax Capture installation to a remote site, it must establish a connection with the central site web server. If an authentication scheme has been enabled, the RSA Authentication Settings window appears, prompting you for a user name and password.

Once proper credentials are provided, they are saved to the database and the conversion is continued. If proper credentials are not provided, nothing is saved and the remote site conversion process does not continue.

Configuring a Client Certificate

If the KCN Web Server is configured to require client certificates, in order to connect, remote sites must also be configured with a valid client certificate. You configure the client certificate by adding an entry to the remote site registry.

During operation, if a valid client certificate is found in the registry, the RSA automatically uses the client certificate when connecting to the KCN Web Server.

Kofax Capture 11.1.0 supports the use of client certificates for authentication only where the KCN Web Server is running IIS. Currently, there is no support for the use of client certificates for authentication on WebSphere.

1. Import the client certificate to the remote site computer in one of the following ways:
   - In Internet Explorer, open the Internet Options window and click the **Content** tab. Click **Certificates** to open the Certificates window, and then click **Import**.
   - In the Microsoft Management Console, on the File menu, select **Add / Remove Snap-in**. Then select **Add**, **Certificates**, and **Add**.
2. Copy the Thumbprint entry for the client certificate. This is typically represented as a hexadecimal string.
3. Start the Windows Registry Editor (regedit).
4. Navigate to the following registry key: `HKLM\SOFTWARE\Kofax Image Products\Kofax Capture\3.0`
5. Create a new binary registry entry named Thumbprint and set the value to the previously copied Thumbprint value in step 2.
6. Close the Windows Registry Editor.
7. Stop the RSA and then restart it.

The RSA automatically reads and uses the client certificate when connecting to the KCN Web Server.

Sharing Scanner Profiles

You can save scanner profiles to a shared location on the network and make them available to other users.

To share scanner profiles, on the Scan panel, select "Share the current profile."

If User Profiles is enabled, make sure that you have selected the "Allow admin utility usage" setting. Only users with rights to access Administrative Utilities can save local profiles as shared.

Scanner Profile Locations

The profile storage location is a hierarchical set of folders organized by scan source. Scanner profiles, including VRS profiles, are stored in a folder specific to the scan source and can either be local or shared. Local profiles are stored in the `ScannerProfiles` folder under the Kofax Capture `<LocalPath>` folder. Shared profiles are stored in the `SharedScannerProfiles` folder under the Kofax Capture <ServerPath> folder.

On a standalone installation, shared profiles are not enabled and the shared profiles folder does not exist.

Upgrading/Repairing

The steps for upgrading or repairing are the same as installing for the first time. However, note the following:

- Upgrade at the central site and alternate central sites first, and then upgrade remote sites.
- When upgrading Kofax Capture and KCN Server to version 11.1.0 at the central site, first upgrade Kofax Capture and then upgrade KCN Server.

  Note Until both Kofax Capture 11.1.0 and KCN Server 11.1.0 have been installed at the central site, remote sites cannot synchronize.

- You must stop the website before upgrading. The website must remain stopped until KCN Server 11.1.0 is installed.
- When upgrading to version 11.1.0 from Kofax Capture and KCN Server, it is not necessary to complete processing batches at the central site prior to upgrading. However, batches in progress are not allowed to be downloaded to remote sites.
- You do not need to change or adjust your scanner, source devices, or accelerator settings.

Converting Batches From Previous Releases

After the central site has been upgraded, remote sites can continue to create and process Kofax Capture 10.x and 11.0 batches to send to the central site. When these batches are uploaded to the central site, the batches are converted to 11.1.0 batches.

Depending on the size and number of batches that require conversion, you may experience significant KCN Server overhead during the conversion process. You might want to enable the KCN Service on more computers for better performance and while remote sites running older versions still exist.

Upgrading Your Central Site

You must upgrade the central site before the remote sites. Also, you must prohibit remote sites from synchronizing with the central site until the central site upgrade process is finished.

ASP.NET must be enabled and registered in IIS, and Microsoft .NET Framework 4.0 or later must be configured for the Web server before the KCN Server upgrade is performed. The application pool that KCN Server is using must be configured with the .NET Framework 4.0 runtime (or later); otherwise, KCN Server will not work. See the Microsoft documentation for details about registering ASP.NET and configuring the .NET Framework with your IIS server.

Important If your existing central site license has an expiration date, make sure it is set to a future date that allows sufficient time to upgrade **all** remote sites. Otherwise, any remote sites not upgraded before the expiration date will not be able to refresh the date, and they will stop functioning until the upgrade is performed.

When upgrading your central site, follow these steps in the order listed:

Step 1: Stop the website.

Step 2: Upgrade Kofax Capture.

Step 3: Enable the KCN Service.

Step 4: Upgrade KCN Server.

Step 5: Restart the website.

Step 1: Stopping the Website

You must stop your website on your Web server before you upgrade your central site. Stopping the website prohibits remote sites from attempting to synchronize during the central site upgrade process.

You must stop the website for the duration of the entire central site upgrade process. If you do not, and a remote site attempts to synchronize with your central site before Kofax Capture, and Kofax Capture Network Server are upgraded, the remote site loses all published batch classes and cannot function. If this occurs, you must complete the upgrade at the central site. Then, you must upgrade the remote site to restore its functionality.

Do not stop the website while remote sites are uploading batches. This may cause batches to become unusable or lost. One way to check the upload activity is to use the Windows Performance monitor. Under Active Service Pages, view the Requests Executing statistic. For more information on performance monitoring, see your Microsoft documentation.

Step 2: Upgrading Kofax Capture

Upgrade your Kofax Capture software at your central site. In addition, make sure that you have sufficient licenses. Also, if you selected the hardware key license option, make sure the necessary hardware key is attached to your server at your central site. See the Kofax Capture Help for more information on licensing.

- For standalone installations, upgrade your standalone station.
- For client/server installations, first upgrade the server.

Step 3: Enabling the KCN Service

You must enable the KCN Service at the central site. To enable KCN Services at the central site, the logged in user must have administration rights.

To enable the KCN Service, refer to Step 2: Enable the KCN Service at the Central Site.

Step 4: Upgrading Kofax Capture Network Server

Upgrade the software at your central site. Any previously defined configuration settings will be preserved during the upgrade process.

1. Make certain that your website on your Web server is stopped. To do so, refer to Step 1: Stopping the Website.
2. Start the installation by running AutoRun.exe. If you are running the installation from removable media, the installation should be automatically started.
3. Select Install Web Server Components for IIS.
4. Follow the instructions on your screen to upgrade the software.
5. When prompted to do so, reboot your Web server computer.

Step 5: Restarting the Website

After upgrading Kofax Capture and RSA at your central site, you must restart the website.

1. On an IIS Web server:
   a. On your Web server, use the Administrative Tools to start Internet Services Manager.
   b. Expand the Internet Information Services tree to display the website.
   c. Right-click the website folder, and select Start, if it is not already started.
2. On a WebSphere server:
   a. In your Windows Services manager, locate the "IBM WebSphere Application Server " service. The following name format is used for the service name: `IBM WebSphere Application Server V<version number> - <node agent service name>`.
   b. Restart the service.
   c. Start WebSphere Application Server, typically from the program group or a shortcut.

Upgrading Your Remote Sites

Follow these steps for each remote site.

Step 1: Process all batches at the remote site and upload them.

Step 2: Upgrade your Kofax Capture software at your remote site.

Note The central site must be upgraded before the remote installations are upgraded. You must not delete, modify, or republish any batch classes, or modify any central or remote site profiles, until the upgrade process is finished at all remote sites.

Step 1: Process All Batches at the Remote Site and Upload Them

Finish processing any batches at the remote installation before you upgrade at a remote installation. All completed batches must be uploaded to the central site.

Step 2: Upgrade at Your Remote Site

Upgrade the Kofax Capture software on your remote installation. To do so, use the Install Remote Site from the Autorun menu. If you are upgrading a client/server installation, see Upgrading Client/Server Installations.

Deactivating a Remote Site

There is no way to explicitly uninstall or deactivate a KCN Server remote site. If you have a remote site that you want to convert to a Kofax Capture-only installation, use the following procedure.

Note Deactivating or uninstalling a remote site permanently removes all batches at the remote site. Be sure to complete all batches and upload them to your central site before you execute the following procedure.

Converting a Remote Site to a Kofax Capture Installation

1. If the RSA is open, close it. To do so, right-click the RSA system tray icon and select **Close**.
2. Open the Programs and Features utility, which is available from the Windows Control Panel.
3. Select **Kofax Capture 11.1.0** and click **Uninstall/Change**.
   Kofax Capture is removed.
4. Reinstall Kofax Capture.
5. In the Administration module, be sure to use the **Remote Site Manager** to remove the remote site from the central site.

Uninstalling KCN Server Software

Please note that uninstalling the KCN Server does not:

- Remove or change the Web server settings previously configured for KCN Server. For example, it does not remove your KCN Server virtual folder or change its properties.
- Affect KCN Server remote site profile settings. Remote sites retain their profile settings that were already downloaded. If you subsequently reinstall the KCN Server software at the central site, the remote sites and central site may no longer have the same settings. A remote site will download new settings the next time it synchronizes.

The remote sites automatically receive the new settings from the central site the next time the remote sites synchronize, provided you have reinstalled the KCN Server.

Uninstalling KCN Server on IIS

If you want to uninstall the KCN Server software at your central site, use the following procedure.

1. From Windows Control Panel, select Add or Remove Programs.
2. Select "Kofax Capture Network Server 11.1.0" and click Change/Remove.

Uninstalling KCN Server on WebSphere

Refer to Uninstalling KCN Server Components for more information about uninstalling KCN Server components on WebSphere.

Chapter 9

Installing Kofax Capture in a Web Browser

Kofax Capture can be installed as a standard application or within an Internet Web browser such as Internet Explorer. An Internet Web Browser installation eliminates the need for an administrator to push an MSI-based installation to each client workstation. Installing and using Kofax Capture from a Web browser provides no functional advantage but makes it easier to deploy.

Before you can use Kofax Capture in a Web browser, the system administrator must install a central Kofax Capture Server to function as a server or central site (for KCNS). This is not a requirement if Web deployment is used to deploy many standalone sites. The system administrator must also define the types of configurations required by users and then configure the Web server to deploy those configurations. Kofax Capture

Configuring the Web Server

The administrator must have an available supported Web server before installing Kofax Capture in a Web browser.

1. Copy all the files from the `KCWebDeploy` folder on the Kofax Capture installation media to a virtual folder on the Web server.
2. For IBM HTTP Server 7, configure the following MIME mappings. This is not a requirement for IIS 7.x or later.

File Name Extension	Content Type
.application	application/x-ms-application
.manifest	application/x-ms-manifest
.deploy	application/octet-stream
.msu	application/octet-stream
.msp	application/octet-stream
.ini	application/octet-stream
.dll	application/octet-stream

3. Update the ACInsIn.ini file. Refer to Using Initialization Files. You do not need to update the initialization file if you plan to use the default installation values.
4. Run the following command, specifying the URL where files are located: `Setup.exe -url=<web server url>`.

5. Run the following command from the Web server folder: `KCWebDeploy.exe`

   Note Workstation installations are not supported over a WAN. In this case, use a KCNS remote site installation.

6. Distribute the URL to users who want to run Kofax Capture in a Web browser. Example: `http://<web server URL>`.

Installing and Launching Kofax Capture in a Web Browser

After configuring the Web server and distributing the URL, follow these steps to install and use Kofax Capture in a Web browser.

Note .NET Framework 4.8 must be installed on the Kofax Capture workstation prior to installing Kofax Capture in a Web browser.

1. Click the URL or enter the URL in the browser address bar.

   The **Verifying Application Requirements** message appears in the browser and the required components are downloaded to the system. When the file download is finished, the **Application Run - Security Warning** window appears.

   Note If this download is cancelled and restarted, the download starts over from the beginning.

2. Click **Run**.

   The **Install Programs as Other User** window (or similar window) appears.

   Note If you used the built-in Administrator account to log in, or if you logged in with an account that belongs to the local Administrator group, this window does not appear.

3. Enter the **User name** and **Password** for a user with administrative privileges on the installation computer.

   The **Capture Setup** window appears.

4. Click **Install**.

   A message window appears, and the required files start to download.

   Note The file size of the download is approximately 1400 MB or 1.3 GB.

5. If the **User Account Control** (UAC) window appears, enter the Administrator password and click **Yes** to continue.

6. When the installation is finished, Kofax Capture appears.

   Note If Windows Installer 4.5 is not installed, a reboot may be required during the installation.

   When the installation is complete, the selected application is displayed in the browser. If no application was specified on the URL, you are presented with a list of applications to run. In a .NET 4.6 environment, an Application Deployment error may appear instead of the list. In this case, you can ignore the error and then refresh the browser to view the list.

The following applications do not appear in the browser:

- Remote Synchronization Agent
- XML Auto Import
- License Utility
- Report Viewer
- Database Utility
- Separator Sheet Utility
- All sample applications, including the SNMP Monitoring Sample application that is installed to the bin folder
- All command line utilities, including:
  - ACDeployUtil
  - ACSysInfo
  - KcnsRemoveCentralSite
  - KcnsRestoreBatches
  - KcnsRsaActivator
  - KcnsSiteSwitch
  - RegAscCM
  - RegAscEx
  - RegAscSc

Launching Kofax Capture in a Web Browser

You can launch a specific application such as Scan or go directly to the menu and select from a list. Enter the URL in the browser address as indicated below:

- Kofax Capture menu: `http://<server>/Capture.xbap`
- Specific application: `http://<server>/Capture.xbap?app=application`, where `app=application` launches the specific application. For example, if `app=scan`, then the Scan module is launched. Following is a list of parameters for specific applications:
  - Administration: `admin`
  - Batch Manager: `ops`
  - Export: `release`
  - OCR Full Text: `ocr`
  - PDF Generator: `kfxpdf`
  - Quality Control: `qc`
  - Recognition Server: `fp`
  - Scan: `scan`
  - Validation: `index`
  - Verification: `verify`

Chapter 10

Installing Kofax Capture Enterprise

Kofax Capture Enterprise is identical to Kofax Capture, with the addition of several features specifically designed for enterprise-level installations.

The installation procedure is the same for Kofax Capture (see Installing Kofax Capture for details). In addition to the standard installation, further configuration may be necessary for the various features that are available with Kofax Capture Enterprise.

High Availability Support

Kofax Capture Enterprise's High Availability Support feature is covered in detail later in this chapter.

Use the Multiple Instance Support feature to install multiple instances of any Kofax Capture service. This improves the capabilities of multi CPU computers, so they can take full advantage of their potential processing throughput.

Terminal Services and Citrix Support

Terminal Services and Citrix server technology can be used to run instances of Kofax Capture modules remotely.

See Terminal Servers and Citrix for more information about configuring this feature.

WebSphere Support

Kofax Capture Enterprise users have the option of installing and deploying Kofax Capture Network Server (KCN Server) components on IBM WebSphere. WebSphere can be implemented either on Solaris or Windows operating systems.

See Web Server Settings for more information about installing and configuring WebSphere for use with KCN Server.

Backup Licensing Option

Backup license keys (used with High Availability Support) are available by contractual agreement. Contact your sales representative or your Certified Solution Provider for more information about this alternate licensing option.

High Availability Essentials

The Kofax Capture Enterprise High Availability Support feature consists of a number of independent components that, when deployed in a highly available computer system, result in a robust, fault-tolerant operation. Although fault-tolerant systems are primarily intended for very large "enterprise scale" organizations, even the smallest company may benefit from some of these components.

Many high availability features apply to both Kofax Capture Enterprise and Kofax Capture Network Server. For convenience, in this chapter only, the term "Kofax Capture" refers to both Kofax Capture Enterprise and KCN Server, unless otherwise noted.

This chapter includes basic information about fault-tolerant systems in general, specific information about Kofax Capture support for high availability, and specific installation guidelines.

Configuring and optimizing a fault-tolerant system can be a complex, time-consuming and expensive task. This chapter includes only information related to Kofax Capture, and it is not intended to be a complete analysis or guide to creating such systems. Depending on the size and complexity of your installation, as well as the skills and experience of your staff, it may be best to retain a consultant who specializes in high availability systems.

What is High Availability?

A high availability (resilient) system, at the most fundamental level, is capable of performing its tasks with virtually no downtime. Any complex system has many components, any of which can fail or degrade at any moment. A highly available system continues to function even if one or more of its components fail.

The key idea behind high availability is that a system is only as good as its weakest component (also known as a fault domain). A system is made more resilient by providing redundancy for the fault domains most likely to fail, starting with the weakest and moving up.

Kofax Capture and High Availability

Kofax Capture is only one link in the chain of high availability. It has features that are intended to work within, and take advantage of, a high availability computer system. Some of these features, even if used in a normal environment, will nonetheless improve the performance and reliability of Kofax Capture.

Common Terms

You may find it helpful to familiarize yourself with the following terms.

Failover

In case of a problem, failover is the act of automatically switching to redundant or standby equipment upon the failure or abnormal termination of the currently active equipment. Failover happens without human intervention.

Scalability

Scalability is the ability to respond to increased demand by adding additional equipment, processes, or other capabilities.

Recover (a batch)

In case of a problem with a batch, recovery is the process of restoring the state of the batch to whatever it was prior to the batch being opened, and recovering all changes made to the batch that would otherwise have been lost due to the problem. After recovery, the batch becomes available to Kofax Capture applications running on any station, including the crashed station. In many cases, recovery happens invisibly to the user.

Rollback (a batch)

In case of a problem with a batch, rollback involves only restoring the state of the batch to whatever it was prior to the batch being opened. Changes made to the batch may be rolled back to what the data was prior to the batch being opened. After rollback, the batch becomes available to Kofax Capture applications running on any station, including the crashed station. In many cases, rollback happens invisibly to the user.

What Makes Kofax Capture Resilient?

Kofax Capture incorporates a number of individual components that give you the ability to select a degree of fault-tolerance that is suitable for your business.

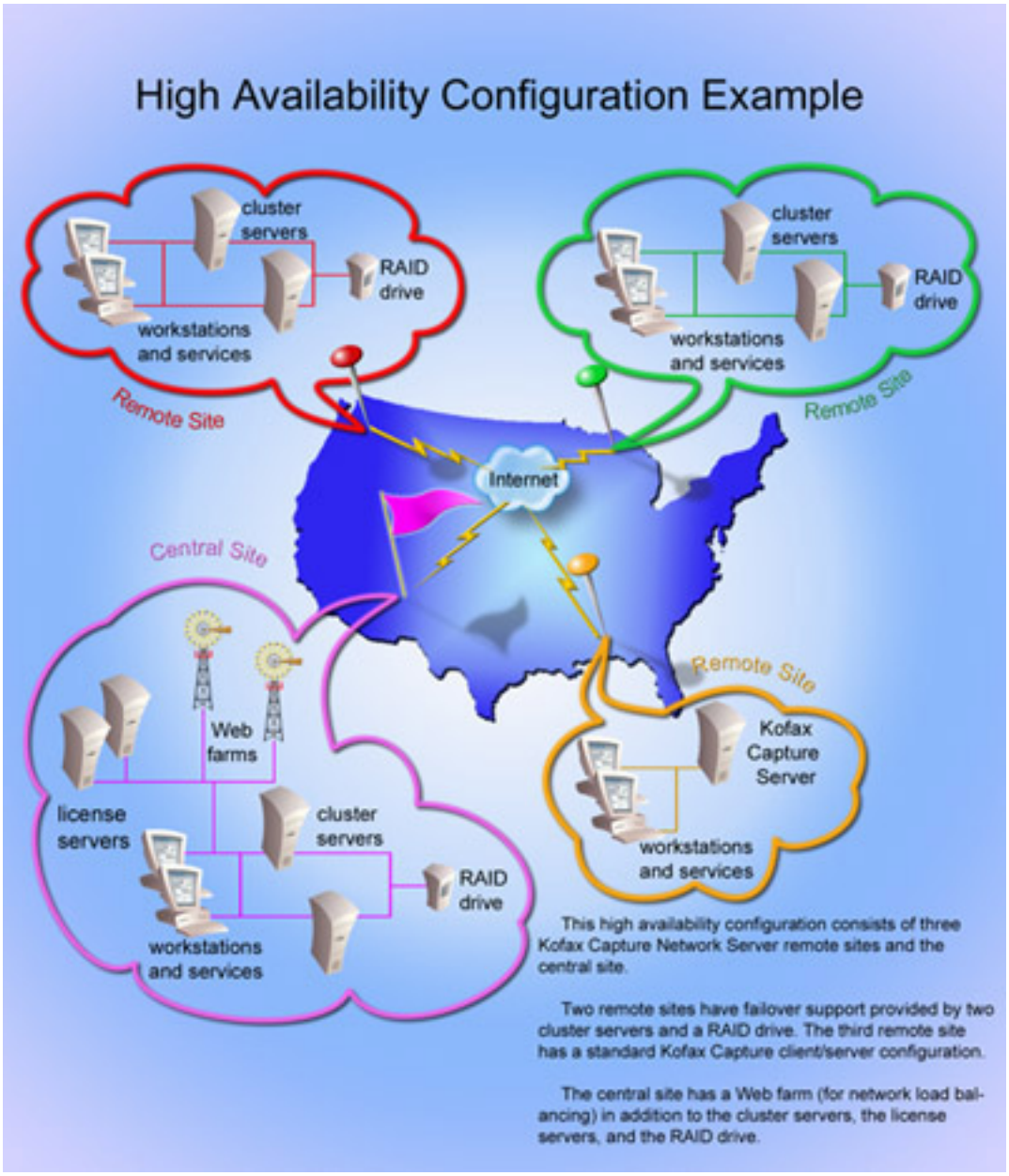
Because the degree of resilience for Kofax Capture can be readily scaled, organizations of any size or complexity can find a level of high availability that matches their needs and budget.

To ensure that a Kofax Capture installation meets the criteria for high availability, it should:

- Use Windows Server Failover Clustering (WSFC).
- Run multiple license servers at the central site, providing automatic failover.
- Use Web farms for installations with KCN Server (based on Microsoft Network Load Balancing).
- Built-in automatic batch recovery of in-progress batches if a workstation or application fails.
- Run multiple instances of all the Kofax Capture modules. If one instance fails, the other instances can continue working. Also known as *scalability*.

Combined, these steps allow Kofax Capture to continue processing batches even if specific points in the system fail.

The following figure shows an example of a high availability configuration, including KCN Server remote sites.



Kofax Capture High Availability Configuration Example

Windows Server Failover Clustering

Windows Server Failover Clustering (WSFC) provides the ability for a group of independent servers to be managed as a single system for higher availability and greater scalability.

Note Kofax Capture supports SQL Server Failover Cluster and Always On Availability Groups, as well as Oracle Real Application Clusters (RAC).

A minimum configuration would consist of two servers connected by a network, a mechanism for sharing their disk data, and cluster software (in this case, WSFC). This software provides failure detection and recovery, as well as the ability to manage the servers as a single system.

WSFC also provides software routing of incoming network requests to a shared IP address. With Kofax Capture, performance and throughput do not scale as more nodes are added to the cluster, since each cluster resource can be active on only one node at a time.

WSFC does not protect a system from application failures on a particular computer (where the application crashes, but the computer continues to run). However, SQL Server Enterprise is "cluster aware" and automatically forces a failover if one of the SQL Server applications fails (even if the computer continues running).

Although Windows Server Failover Clustering and SQL Server Enterprise provide automatic failover, client applications may receive errors during the time needed to complete the failover process. While Kofax Capture hides most errors, some may be exposed to the user.

Move Standard database instance to AlwaysOn availability group

Use AlwaysOn availability groups to configure failover for one database, a set of databases, or the entire instance. The general steps are listed here. See your Microsoft documentation for additional details.

1. Successfully set up an AlwaysON availability group. Take note of the SQL Listener name or IP address for the Availability group.
2. Create a blank database and add it to the AlwaysON availability group set up in the previous step.
3. Move the Kofax Capture database to the SQL server instance of the AlwaysOn group. Specify "SQL Listener" as the Server name. Follow the standard procedure for migrating a database to SQL Server.

License Server Failover

Kofax Capture uses a license server to manage all licensing requests. Your Kofax serial number and product code are locked to the computer. If you select the hardware key option, the license server uses the hardware key to lock the activation code to a particular serial number.

Kofax Capture supports multiple license servers—a primary and one or more backups. When multiple license servers are available, each license server needs its own activation code and license configuration. If you select the hardware key option, each license server needs its own hardware key.

Note that volume usage in the backup license servers can be very low (needing only enough volume to last until the primary license server is restored).

If the primary license server fails, the system automatically switches to another license server. The system can use this backup license server until it runs out of volume. When the primary system is restored, Kofax Capture automatically resumes using it.

There are no performance gains from installing multiple backup license servers, so there is no performance-based reason to have more than one backup license server.

To the contrary, the introduction of multiple backup license servers requires proportionally more work by the system administrator. If you plan to have more than one backup license server, you might want to weigh any perceived benefits against this additional overhead.

Automatic Batch Recovery

Kofax Capture can automatically recover a batch if a failure occurs while the batch is being processed.

The Automatic Batch Recovery feature is built-in and does not require any special installation or configuration.

For Kofax Capture to detect a failure and recover batches, some other Kofax Capture application must be running. The other Kofax Capture application will eventually detect the failure and initiate the batch recovery process. This discovery and subsequent recovery usually take no longer than 15 minutes, and in many cases significantly less time (a matter of seconds). The delay depends on the exact timing and sequence of events.

If a Kofax Capture application detects a failure on another station and restores a batch to its last known good state, changes made to the batch after it was opened on the station where the failure occurred may be lost if you do not have your batches in SQL Server, Oracle, or IBM DB2.

The ability of Kofax Capture to completely roll back or recover a batch without data loss depends, in part, on the batch database option you have selected.

SQL Server option:

- If the "Store batches in SQL Server" option is enabled, a failed batch is set (rolled back) to its last good state, and then becomes available to Kofax Capture applications. In the majority of cases, no data is lost.
- If the "Store batches in SQL Server" option is not enabled, no data is lost if the batch is opened on the *same* workstation where the problem occurred.
- If the "Store batches in SQL Server" option is not enabled, data is lost if the batch is opened on some workstation *other* than the one where the problem occurred.

Oracle or IBM DB2 options:

- If your batches are stored in Oracle or IBM DB2, a failed batch is set (rolled back) to its last good state. The batch then becomes available to Kofax Capture applications. In the vast majority of cases, no data is lost.

Batch recovery and rollback events are logged to the error log (Err_YYMM.txt).

If you discover a problem before a batch is automatically recovered, you may decide to attempt to initiate recovery of the batch by manually restarting the application. If at all possible, you should restart that application on the same station. This maximizes chances for a full recovery of the batch.

KCN Server Web Farm Support

KCN Server supports the Microsoft NLB (Network Load Balancing) Web farm technology with multiple nodes (servers).

Network load balancing allows a Web server-based application to distribute its workload across multiple Web servers. This not only improves performance, but also provides failover support because if one Web server fails, other Web servers in the network will take over.

Such configurations are known as "Web farms."

Configuring Kofax Capture for High Availability

This section includes instructions for configuring Kofax Capture for high availability. You can skip the steps that do not apply to your installation.

Note that the Automatic Batch Recovery feature is an integral part of Kofax Capture, so there are no specific steps required to implement or configure it.

Step 1. Install and configure Kofax Capture. We recommend that you initiate the installation of Kofax Capture Server from one of your cluster nodes.

Step 2. Set up one or more backup license servers. Perform this step only if you intend to install one or more backup license servers. In general, there is no advantage to having more than one backup server.

Step 3. Set up your Web farm for use with KCN Server. Perform this step only if you want to use Microsoft NLB to set up a Web farm for use with KCN Server.

Step 1: Installing and Configuring Kofax Capture in a WSFC Environment

Before you install Kofax Capture in a high availability environment, you must satisfy the following prerequisites:

- Configure Windows Server Failover Clustering (WSFC). For specific installation details, see your Microsoft documentation.
- Install SQL Server on the cluster. For specific installation details, see your Microsoft documentation.
- Create the Kofax Capture shared folder from within the Cluster Administrator. This folder is used for the Server Files and so it requires Full Control permissions. See File Locations for more information about the shared folder. Do not share the folder in Windows Explorer as you normally would for a file share.

Note High availability goals may conflict with the desire for optimal performance. For example, RAID drives often provide greater availability, but perform more slowly than standard drives. Additionally, you may prefer to install multiple applications on your KCN Service computers to reduce costs. You need to weigh all of these issues when configuring or optimizing your system.

Installing Kofax Capture in a WSFC Environment

The following steps provide a recommended installation procedure for Kofax Capture that takes full advantage of a high availability environment.

1. Install Kofax Capture as you normally would and select the Standard database.
2. When asked to specify a server file folder to store data files, be sure to use the file share you created as one of the preceding prerequisites.
3. When the installation is complete, run DBUtil.exe and change the database configuration so that it uses the SQL Server instance installed on the cluster. Then, enable the "Store batches in SQL Server" option.

4. All external shared files must be placed in the cluster file share folder, including:
   - **Image Files**. The folder holding image files is configured with the "Image folder" setting from the **General** tab on the **Batch Class Properties** window in the Administration module.
   - **OCR Full Text Dictionary**. This dictionary is configured with the "Dictionary" setting on the **OCR** tab of the **Document Class Properties** window.
   - **PDF Dictionary**. This dictionary is configured with the "Dictionary" setting on the **PDF** tab of the **Document Class Properties** window.
   - **Field Type Dictionary**. This dictionary is configured with the "Dictionary" setting on the **Field Type Properties** window.
   - **Text export connector folders**. Include the default storage, index storage, and export folders.
   - **Database export connector folders**. Include the Access file (if applicable) and export folders.
5. By default, when file operations fail, they are retried every 0.5 seconds for a total retry time of 2 minutes. You can configure these parameters by updating ACConfig.xml in the Kofax Capture Server files Config subfolder. The ReliableFileSystem element must be added as a direct child of the ACConfig element.

   ```
   <ACConfig>
     <ReliableFileSystem>
     <Retry MaxRetrySeconds=”120” MilliSecondsBetweenTries=”500”/>
     </ReliableFileSystem>
   </ACConfig>
   ```

   For details about the ReliableFileSystem element, see the "Kofax Capture Configuration File: ACConfig.xml" chapter in the *Administrator's Guide.*

Step 2: Setting Up One or More Backup License Servers

Kofax Capture includes a single license server, which is automatically installed when you install the Kofax Capture server. To make the system more resilient, you can start multiple license servers on additional client workstations, provided that the required licenses are obtained.

Usually, it is easier to configure a successful system by keeping the license servers on dedicated computers. As another option, you can run other server-based applications on the same computer as the license server. For example, you could run unattended modules such as OCR Full Text or Export on the license server computer. However, overall system performance may be impacted because the license server requires frequent network transmissions, low to medium CPU usage, and occasional disk access.

Configuring a Backup License Server

1. Install a Kofax Capture workstation on an additional computer.
2. Run ACLicSrvCfg.exe from this location: `<Kofax Capture installation folder>\Bin`
3. Leave the default user set to "Local System" and click **OK**.

   If you are also using KCN Server on this computer, a different user is necessary. This user must have access to the folder specified for the Licensing Service, along with the necessary KCN Service resources.

   The **Enable Licensing Service** success message appears.
4. Click **OK** to clear the success message.

5. To activate the backup server, invoke the license utility with appropriate command line parameters that connect it to the backup license server:
   `<Kofax Capture installation folder>\Bin\KSALicenseUtility.exe /S <ServerName>`
   For example, to run the License Utility against the license server named "LicBackup," you might use this command:
   `C:\Program Files (x86)\Kofax\Capture\ServLib\Bin\KSALicenseUtility.exe /S LicBackup`
6. Click **OK** to clear the message that appears as the license utility is starting.
   Although the message appears to indicate a problem, you can safely ignore it.
7. Finally, use the License Utility to activate your backup license server, as described in the next section.

Activating the Remote Backup License Server

When the remote synchronization agent (RSA) synchronizes from any station, it automatically configures the backup remote site license server. Licenses are based on the primary remote site license server and have the same system and station licenses. The system automatically configures the volume on the backup remote site license server, with an expected availability of five days.

1. On the backup remote site license server, run ACLicSrvCfg.exe from `<Kofax Capture installation folder>\Bin\ ACLicSrvCfg.exe`.
   The **Enabling License Server** window appears.
2. Click **OK**.
   The backup license server is activated.
3. Run the Remote Synchronization Agent (RSA) to synchronize the remote site backup license server with the central site.

You can also view the status of licenses on the remote backup license server by running the License Utility from the Start menu on any station where Kofax Capture is installed. Use the following command line parameters to cause it to connect to the remote backup license server:

`<Kofax Capture installation folder>\Bin\KSALicenseUtility.exe /S <ServerName>`

The License Utility status bar displays the name of the server.

Note To reset your volume, contact your Kofax sales representative or your Certified Solution Provider.

Step 3: Setting Up Your KCN Server Web Farm

If you want to use a KCN Server central site with a Web farm, use the procedure in this section. Following the procedure, each step is explained in more detail.

The Kofax Capture system must include at least two Kofax Capture workstations that host KCN Services. The system must also include at least two KCN file cache folders on any two computers.

Before installing your KCN Server Web farm, you must satisfy the following prerequisites:

- You must have two or more computers without Kofax Capture installed on them. They will function as the Web farm.

- You must install at least two Web servers on at least two of these computers. You also need to install IIS. See your IIS documentation for details.

  Note WebSphere is not supported for use with Kofax Capture in a Web farm.

- You must configure these Web servers as part of a Web farm using Microsoft Network Load Balancing (NLB).

  The specific Web farm technology used by KCN Server is Microsoft NLB. See your Microsoft documentation for details.

  When setting up the NLB port, the port range must include the port for which the Web server is configured. By default, the KCN Web Server listens on port 80.

Note Only IIS and KCN Web Server components are allowed on the Web farm nodes. You cannot install any Kofax Capture workstation components, KCN Server file caches, or Kofax Capture Services on them.

Setting Up a KCN Server Web Farm

1. Enable the first service.
2. Configure the Web servers as part of a Web farm.
3. Install the Web Server components on the Web servers.
4. Enable additional services.
5. Configure KCN Server Cache Folders.

The Kofax Capture server, the KCN Server cache folders, and all Web servers in the configuration must belong to the same domain.

Enable the First Service

Next, you must enable the first Service at the central site. See Installing Kofax Capture Network Server for information about installing KCN Server (and enabling the service).

In subsequent steps, you will change the default KCN Server file cache folder and create new ones on each KCN Service computer. If installing KCN Server for the first time, you can skip the parts about configuring the cache folder. See Step 3: Installing KCN Web Server Components on IIS for information about the cache folder.

Install Web Server Components on the Web Servers

You need to install the Web Server components on every Web server in the Web farm.

The same Kofax Capture server and the same cache folder location(s) must be used for all Web servers. See Step 3: Installing KCN Web Server Components on IIS for information about installing these components.

Enable Additional Services

You need to enable at least one additional Service on an Kofax Capture client workstation. You can also add more Services. This not only provides greater reliability, but may also improve performance.

See Step 2: Enable the KCN Service at the Central Site for information about installing Services.

You cannot install KCN Services on the Web servers.

Configure KCN Server Cache Folders

By default, all Kofax Capture Network Server Services use a KCN Server cache folder located within the Kofax Capture Server files folder.

Assuming that you have implemented the configuration as described in this chapter, this folder will be highly available.

However, because there are additional KCN Services deployed on workstations, then the default KCN Server File cache folder should be disabled and a local cache folder added on each client workstation running a KCN Service. Each local cache folder must be accessible by all KCN Services. This will reduce network overhead and may improve performance.

See Creating Multiple Cache Folders for information about adding multiple cache folders. Remember that it is necessary to run the KCN Server Wizard on all the Web servers after making the changes.

Optimize Your Web Farm

With NLB, client requests are load-balanced among the different Web servers. Adding additional Web servers theoretically improves performance, if the current Web server is the bottleneck.

In order to obtain these performance benefits, all the components involved with KCN Server batch upload and insertion must be optimized. In addition, you should ensure that all points in your network have sufficient bandwidth to handle your projected loads.

High Availability for Smaller Installations using WSFC

The minimum requirements for Kofax Capture high availability cluster configurations are as follows:

- Microsoft SQL Server 2008 R2 Service Pack 1 Enterprise x32 Edition (32-Bit)
- Microsoft SQL Server 2008 R2 Service Pack 1 Enterprise x64 Edition (64-Bit)

If you are able or willing to accept a somewhat diminished level of high availability and performance, you can use some of the following configuration variations to reduce the number of computers you need. These variations represent a trade-off between high availability, performance, and hardware costs.

You can install Kofax Capture on one of the cluster computers. If you decide to do this, you should use the node that has the least load. Install the Kofax Capture workstation on the remaining cluster computer using the workstation installation program (setup.exe in the WrkInst folder).

During the installation, be sure that the other cluster computer is powered on. This is required to ensure that the shared disk resource is available during the installation.

Keeping in mind that this will have a negative impact on performance, you may choose to run any of the following Kofax Capture server applications on the cluster computers.

- KCN Service
- Custom modules with no user interaction (such as Xtrata)

- License server
- OCR Full Text module
- PDF Generator module
- Recognition Server module
- Export module
- Remote Synchronization Agent
- XML Import Connector

Chapter 11

Automatic Installations

This chapter describes disconnected workstation installations, automatic installations, initialization files, and Windows Installer (MSI).

Disconnected Workstation

You can perform a disconnected workstation installation where the workstation is disconnected from the server. You perform a disconnected workstation installation with the following types of installations:

- Silent
- Non-interactive

The minimum properties to set in the initialization file for disconnected workstation installations are the following:

- InstallType=Workstation
- ServerFilesPath=<path to server shared folder>

See The Main Element and The Path Element for more information about these properties.

Although the workstation has no access to the server, you must specify the server and location of the server files.

Automatic Installations

There may be occasions when you do not want to perform an interactive installation of Kofax Capture. In those cases, you can use an automatic installation, which gives you the ability to complete an installation with minimal involvement from operators.

You might want to use an automatic installation if you have many sites to install with similar configurations or at specific times. You might also want to use an automatic installation to avoid the inconvenience of having administrators respond to prompts on every computer.

Types of Automatic Installations

You can perform either of the following types of automatic installations:

- Silent: Does not display configuration, progress, feature information, or warning windows. Error messages do appear.
- Non-interactive: Displays configuration, progress, feature information, warning windows, and error messages.

Automatic installations look for an initialization file from which they obtain the values that define the installation environment. To use the default values, you do not need to provide an initialization file.

Initiating Automatic Installations

To perform an automatic installation of Kofax Capture, navigate to the `Kofax Capture` folder and enter setup options at a command prompt.

Automatic Installation Options

The following table lists the options that can be used when initiating an automatic installation. The options are not case-sensitive.

Automatic Installation Options

Option	Description
/s or /silent	Initiates a silent automatic installation. This type of installation suppresses progress and feature information, and warning messages. Error messages are still displayed. You do not, however, need to respond to prompts, except optionally, when logging in after restarts.
/a or /auto	Initiates a non-interactive automatic installation. This type of installation displays progress and feature information, warning messages, and error messages. You do not, however, need to respond to prompts except optionally, when logging in after restarts.
/i:<*initialization file path*>	Specifies the path and name of the initialization file if you will not be using the default initialization values, file name, or file location. If the path to the initialization file contains spaces, the path must be enclosed in quotation marks. Example: "`C:\Initialization Files\Scan3RP.ini`".

An example of initiating an automatic installation with an initialization file is shown below:

`Setup.exe /s /i:"C:\Initialization Files\Scan3RP.ini"` initiates a silent installation using the specified initialization file.

Deploying Automatic Installations

You have a number of ways to deploy automatic installations:

- By providing an optional initialization file on removable media along with the installation media.
- By providing an optional initialization file in an email message to be used with the installation media.
- By creating a batch file that starts the installation from the installation media, and stores the optional initialization files in the appropriate locations for use by the installation.
- By installing both the Kofax Capture software and optional initialization files through Network Management software available from a third-party supplier.

Changing Credentials for the Admin User Account During Installation

During installation, the Administrator can change the logon credentials for the built-in Admin user account. When the credentials are set during installation, the User Profiles feature is automatically enabled.

If the Admin user account is not changed during installation, the default account credentials are used.

Admin User Account Options

Option	Description
/AdminID	Sets the User ID for the built-in Admin user account. Must be 3-64 alphanumeric characters. Unicode characters, commas, and periods are accepted.
/AdminPw	Sets the password for the built-in Admin user account. Must be 4-14 alphanumeric characters. Unicode characters are accepted, along with the following characters: comma, period, exclamation point, ampersand, pound sign, dollar sign, percentage sign, slash, and question mark.

Valid command lines:

- `Setup.exe /AdminPw=password`
- `Setup.exe /AdminID=MyName /AdminPw=password`

If AdminID is used, the AdminPw must also be specified.

Using Initialization Files

As you respond to prompts during interactive installations, Kofax Capture records your choices as attribute values in an initialization file. The resulting initialization file is named ACInsOut.ini and saved in your `TEMP` folder. Each time you reinstall the product on the same computer, the file is overwritten.

Note You do not need an initialization file if you are using the default installation values only.

To retain the attribute values from any installation, you must move the initialization file to another folder before the next installation on the same computer so the file is not overwritten.

The initialization file can be modified and reused to install Kofax Capture on other workstations. However, it should not be stored as %TEMP%\ACInsOut.ini. You should move or rename that file.

See Planning Your Kofax Capture Installation for information about customizing an initialization file.

Assigning Values in the Initialization File

The initialization file is divided into sections. Each section contains attributes for which you can provide values. The values are not case-sensitive.

If you do not provide a value, and a default value exists, it is used.

If the attribute is not applicable to the type of installation, any value you assign to that attribute is ignored. For example, the attribute WorkstationOnServer is ignored for client installations.

You can assign values to the attributes any time before you initiate the installation.

Note If you assign values to the workstation attributes in the initialization file before installing Kofax Capture on the server, create the `Wrkcnfg` folder under the Kofax Capture folder, and then insert the initialization file in the `Wrkcnfg` folder. When you deploy Kofax Capture, ensure that the initialization file is in the `Wrkcnfg` folder. See Planning Your Installation for possible deployment methods.

Initialization File Elements

The initialization file elements, attributes, and default values are described below.

In the initialization file, you specify a value for an attribute by entering the attribute followed by an equal (=) sign, followed by the value. Example: InstallType=server.

The table describes the general structure of the initialization file.

Initialization File Structure

Element	Description of Element
[Main]	Attributes specify the installation type, program folder name, application languages, any switches (such as the user interface color scheme) needed for the executable, and other related attributes.
[SystemFiles]	Attributes specify whether only system files are installed, and other related attributes.
[Path]	Attributes specify the various paths required by the installation.
[Identification]	Attributes specify the station ID, site ID, site name, the user ID, and other related attributes.
[ACIS]	Attributes specify information used with KCN Server.
[SecurityBoost]	Attributes specify the name, password, and other attributes related to SecurityBoost.
[Database]	Attributes specify information related to SQL Server, Oracle, or IBM DB2 databases.
[Software Licensing]	Attributes specify the serial number and product code for software-based licensing.
[Services]	Attributes specify information for each Kofax Capture service installed and configured by the WebDeploy installer.

The [Main] Element

The [Main] element is required and supports the following attributes.

[Main] Attributes

Attribute Name	Value	Default	Description
InstallType	Server, Workstation, or Standalone	Server	Type of installation; ignored if you run the setup from the `Wrkinst` folder to install a client.
SuppressFinalReboot	Yes or No	No	Specify Yes to skip the final reboot, and reboot later. Create and execute a script to reboot the computer to complete the Kofax Capture installation.
LaunchExe	Executable name	none	Name of a custom program or script to be launched at the end of the installation. The relative or absolute path to the program must be included, if the path is different from that of the setup executable.
LanguagePacks	Available application languages	none	Names of the language packs to install. The valid language packs appear in the `Updates` folder on the installation media. You can specify multiple languages, separated by commas. Example: `LanguagePacks=Czech, French, German, Portuguese Brazilian`
LaunchExeArguments	Names of switches	none	Names of the switches used by the custom program or script to launch at the end of the installation. If you need to pass a quoted string, the string must be enclosed in a second pair of quotation marks and a space. Example: `" "C:\Test\Test.doc" "` You can use a switch to set the color scheme. See Setting the Color Scheme.

Setting the Color Scheme

You can specify the application color scheme using the "ColorScheme=x" command switch in the custom .ini file, where x is either an integer or string value listed in the following table.

Application Color Schemes

Number	Theme	Integer Value	String Value
1	Windows XP look	0	XP
2	Blue	1	Blue
3	Black	2	Black

Number	Theme	Integer Value	String Value
4	Silver	3	Silver
5	Aqua	4	Aqua

The default application color scheme is Blue, which is applied if the "ColorScheme=x" switch is not specified, or if an invalid value is specified.

The specified color scheme is translated to an integer value and stored in the Windows Registry under the key HKCU\Software\Kofax Image Products\Workflow Independent Capture\ApplicationLook.

The [SystemFiles] Element

The [SystemFiles] element is required and supports the following attributes.

[SystemFiles] Attributes

Attribute Name	Values	Default	Description
SystemFilesOnly	Yes or No	No	Upgrades system files only. Use this option with a custom installation script to manually control when a reboot will occur. You should use this option with the SuppressSystemFilesReboot option.
SkipSystemFiles-Update	Yes or No	No	Skips system files update, if system files are already current. Use only after updating the system files.
SuppressSystemFiles-Reboot	Yes or No	No	Skips reboot after system files have been installed. You are required to reboot to continue the installation at a later time.

The [Path] Element

The [Path] element is required and supports the following attributes.

[Path] Attributes

Attribute Name	Value	Default	Description
ServerSoftwarePath	Path information	Program Files (x86)\ Kofax\CaptureSS	Path to the server software. For server installations only.

Attribute Name	Value	Default	Description
ServerFilesPath	Path information	ProgramData\ \Kofax\ CaptureSV	Path to the server files. For server installations only. If you include the location of a previous version of Kofax Capture for this option, and you run the setup file with the /u option, an upgrade is performed.
StandalonePath	Path information	Program Files (x86)\ Kofax\Capture	Path to the program files. For Standalone installations only.
WorkstationPath	Path information	Program Files (x86)\ Kofax\Capture	Path to the workstation files. For client workstation installations only.

The [Identification] Element

The [Identification] element is required and supports the following attributes.

[Identification] Attributes

Attribute Name	Value	Default	Description
StationID	Alphanumeric from 1-32 characters; cannot include the following characters: - “ $ ` = \ { } ;' , . / ~ ! @ # ^ & * ( ) _ + : <> ? %	computer name	Name of the station. Computer names longer than 32 characters are truncated to 32 characters.
SiteID	From 1-4 digits; from 1-9999	1	ID of the site for server installations.
SiteName	Alphanumeric from 1-32 characters; cannot include the following characters: - “ $ ` = \ { } ;' , . / ~ ! @ # ^ & * ( ) _ + : <> ? %	computer name	Name of the site. Computer names longer than 32 characters are truncated to 32 characters.
RebootUserID	user ID	none	ID of the user that is used during the installation.
RebootUserPassword	password	none	Password associated with the ID provided for the RebootUserID.
RebootUserDomain	domain	none	Domain associated with the ID provided for the RebootUserID.

The [ACIS] Element

The [ACIS] element is optional and supports the RSAURL attribute. If the RSAURL attribute is specified, you are required to run the setup with the /RemoteSite switch to have the installer bypass the license information check and automatically convert the Kofax Capture system to a remote site.

Attribute Name	Value	Default	Description
RSAURL	Full KCN Server URL path Web server port number	none none	Turns a particular client workstation into a KCN Server remote site, enables the KCN Server RSA utility, and automatically activates the RSA. You must provide the URL for the Web server that is running KCN Server. Optionally allows you to specify the Web server port number. If you specify a port, use the following syntax: `<http protocol>://<Web server>[:port]/acis` Note that "http" and "https" are the only supported protocols. If the port is not specified, the default ports are assumed: port 80 is used for http and port 443 is used for https. If you do not use the ACIS attribute, you can manually convert a site to a remote site from the Batch Manager module.
WebServerUserName	User name	none	A user name that has the ability to log on to the central site web server. Use to specify authentication information when the remote site conversion step takes place.
WebServerPassword	Password	none	The password associated with the WebServerUserName parameter.

The [SecurityBoost] Element

The [SecurityBoost] element is optional and supports the following attributes. See *Help for Kofax Capture* for more information on SecurityBoost.

[SecurityBoost] Attributes

Attribute Name	Values	Default	Description
SecurityBoostUserName	User name	none	Enables the SecurityBoost option, and specifies the SecurityBoost user name used for the SecurityBoost user. You must provide the SecurityBoost user name, password, and domain. The SecurityBoost parameters are only used for server or standalone installations.
SecurityBoostPassword	Password	none	Password of the SecurityBoost user. Ignored if the SecurityBoostUserName is empty.
SecurityBoostDomain	Domain name	local	Domain of the SecurityBoost user. Ignored if the SecurityBoostUserName is empty.

The [Database] Element

The [Database] element is required to configure a SQL Server, Oracle, or IBM DB2 database during a silent installation. The element supports the following attributes.

[Database] Attributes

Attribute Name	Values	Default	Description
Configuration	Standard, SQL Server, Oracle, or IBM DB2	Standard	Database configuration.
ServerName	SQL Server or IBM DB2 server name	none	Name of the SQL Server or IBM DB2 database server. This attribute is required if the Configuration value is SQL Server or IBM DB2. Ignored if the ServerName is empty.
ServiceName	Oracle service name	none	Name of the Oracle service. Required if the Configuration value is Oracle.
DatabaseName	Database name	none	Name of the SQL Server or IBM DB2 database. Required if the Configuration value is SQL Server or IBM DB2. Ignored if the Configuration value is Standard or Oracle.

Attribute Name	Values	Default	Description
CreateNewDatabase	Yes or No	Yes	Specify Yes to create a new database using the database name. Specify No if the database name refers to an existing database. Required if the Configuration value is SQL Server; otherwise, the value is ignored.
Authentication	SQL Server or Windows	SQL Server	Specifies the authentication method for SQL Server. If the value is SQL Server, a value for LoginID is required. Ignored if the Configuration value is not SQL Server.
LoginID	Database login ID	none	Login ID used to connect to the database. Required if the Configuration value is Oracle or IBM DB2, or if the Configuration value is SQL Server and the Authentication value is SQL Server. Ignored if the LoginID is empty.
Password	Database login password	empty	Password for the database login ID. Use this option if the Configuration value is Oracle or DB2, or if the Configuration value is SQL Server and the Authentication value is SQL Server. Ignored if the Configuration value is Standard or if it is SQL Server and the Authentication value is Windows.
BatchesInSqlServer	Yes or No	No	Specify Yes if batches are stored in SQL Server. Specify No if batches are stored in Microsoft Access. Ignored if the Configuration value is not SQL Server.

The [Software Licensing] Element

The [Software Licensing] element supports the following attributes.

[Software Licensing] Attributes

Attribute Name	Values	Default	Description
SerialNumber	SerialNumber	none	Serial number for software-based licensing.
ProductCode	ProductCode	none	Product number for software-based licensing.

The [Services] Element

The [Services] element supports attributes related to each Kofax Capture service installed and configured by the WebDeploy installer.

The table lists the [Services] element attributes for one service. If you need to install multiple services, use the same attribute name format shown in the table, and change only the number.

Examples:

- Service2Name
- Service2Installation
- Service2InstallArgs
- Service2User

[Services] Attributes

Attribute Name	Values	Default	Description
Service1Name	Service name	Kofax Capture Deployment Service	Name of service to be installed and configured by the WebDeploy installer.
Service1Installation	Path to .NET InstallUtil	%SystemRoot% \Microsoft.NET\Framework \v4.0.30319\installutil.exe	Path to the Microsoft .NET 4.0 installer.
Service1InstallArgs	Arguments for the service installation	/unattended KCDeploymentService.exe	Arguments to be passed to the service installation.
Service1User	Username	Empty	Username with rights to run Kofax Capture; must also be an administrator on the computer where Kofax Capture is being installed. Prompt for the password for this account appears when the KcWebDeploy.exe command is run. Username format is `domain \username`.

Using Windows Installer (MSI)

You can use standard Windows Installer (MSI) properties and parameters to configure your Kofax Capture installation and deploy Kofax Capture to computers.

To deploy the MSI package in silent mode on an operating system with User Account Control (UAC) turned on, open the Command Prompt window as an administrator and launch the MSI package.

Note You cannot use the Windows Installer to install or upgrade the Kofax Capture standard database.

You'll find the files required to use Kofax Capture Windows Installer in the following locations on the installation media:

- Capture.msi and Capture1.cab in the `Kofax Capture` folder
- Software prerequisites (described in the next section) in `Kofax Capture\Prerequisites`
- Language packs in the `Kofax Capture\Updates` folder

Windows Installer (MSI) Software Prerequisites

The following software, which must be installed *before* you run the Windows Installer, is available from your installation files in the `Kofax Capture\Prerequisites` folder.

- Kofax VRS Elite 5.2.0.4
- Sentinel Driver 7.6.6
- Visual C++ 2019 Runtime (32-bit version) [1]
- Visual C++ 2013 Runtime (32-bit version) [1]
- Visual C++ 2012 Runtime (32-bit version) [1]
- .NET Framework 4.8
- Visual Basic 6.0 Runtime Service Pack 6
- Supported database (See Database Support)
- Microsoft Access Database Engine 2010 (English) Service Pack 1 (32-bit version) [2]

[1] If you are using a 64-bit operating system, be sure to install the 32-bit version of the applicable service pack, rather than the 64-bit version.

[2] Required for database validation and export if you are working with .accdb files.

Kofax Capture Windows Installer (MSI) Properties

With Windows Installer, you can configure the software installation by using the values of variables defined in the installation package. The following properties are defined for use with the Kofax Capture .MSI package.

You can also perform a disconnected workstation installation using the .MSI file. The minimum properties to set are INSTALL_TYPE=Workstation and SERVERDIR=location of the server files folder.

Kofax Capture Properties for Use with Windows Installer (MSI)

Property Name	Value	Description
DB_AUTHENTICATION Required: No	SQL Server, Windows	Specifies the authentication method for SQL Server. Use this property if the DB_CONFIGURATION value is SQL Server. Otherwise, the property is ignored. If the preceding condition is met and you do not specify this property, you will be prompted to do so at the end of the installation process.
DB_BATCHES_IN_SQL_SERVER Required: No	0 (false), 1 (true)	Specify 1 if you want batches stored in SQL Server, or specify 0 if batches are stored in Microsoft Access. Use this property if the DB_CONFIGURATION value is SQL Server. Otherwise, the property is ignored.
DB_CONFIGURATION Required: See description.	SQL Server, IBM DB2, Oracle	Database configuration. This property is required only for server installations; it is not required for workstations.
DB_CREATE_NEW_DATABASE Required: No	0 (false), 1 (true)	Specify 1 to create a new database using the database name, or specify 0 if the database name refers to an existing database. Use this property if the DB_CONFIGURATION value is SQL Server. Otherwise, the property is ignored. If the preceding condition is met and you do not specify this property, the new database is created by default.
DB_DATABASE_NAME Required: No	Database name	Name of the SQL Server or IBM DB2 database. Use this property if the DB_CONFIGURATION value is SQL Server or IBM DB2. Otherwise, the property is ignored. If the preceding condition is met and you do not specify this property, you are prompted to do so at the end of the installation process.
DB_LOGIN_ID Required: No	Database login ID	Login ID used to connect to the database. Use this property if the DB_CONFIGURATION value is Oracle or IBM DB2, or if the DB_CONFIGURATION value is SQL Server and the DB_AUTHENTICATION value is SQL Server. Otherwise, the property is ignored. If the preceding condition is met and you do not specify this property, you are prompted to do so at the end of the installation process.

Property Name	Value	Description
DB_PASSWORD Required: No	Database login password	Password used to connect to the database. Use this property if the DB_CONFIGURATION value is Oracle or IBM DB2, or if the DB_CONFIGURATION value is SQL Server and the DB_AUTHENTICATION value is SQL Server. Otherwise, the property is ignored. If the preceding condition is met and you do not specify this property, you are prompted to do so at the end of the installation process.
DB_SERVER_NAME Required: No	Database server name	Name of the SQL Server or IBM DB2 database server. Use this property if the DB_CONFIGURATION value is SQL Server or IBM DB2. Otherwise, the property is ignored. If the preceding condition is met and you do not specify this property, you are prompted to do so at the end of the installation process.
DB_SERVICE_NAME Required: No	Database service name	Name of the Oracle service. Use this property if the DB_CONFIGURATION value is Oracle. Otherwise, the property is ignored. If the preceding condition is met and you do not specify this property, you are prompted to do so at the end of the installation process.
INSTALL_TYPE Required: Yes	Standalone, Server, Workstation	Type of installation.
INSTALLDIR Required: No Default: `C:\Program Files (x86)\Kofax\CaptureSS`	Path information	The folder where Kofax Capture is installed. For upgrades, the default value is the path specified for the previous installation.
LAUNCH_EXE Required: No	Executable name	Name of a custom program or script to be launched at the end of the installation. The relative or absolute path to the program must be included if the path is different from that of the setup executable.
LAUNCH_EXE_ARGS Required: No	Switch names	Names of the switches used by the custom program or script to launch at the end of the installation.
PRODUCT_CODE Required: No	Product code	Product number for software-based licensing.

Property Name	Value	Description
REMOTE_SITE Required: No	0 (disabled), 1 (enabled)	Indicates whether the installation is to be used as a remote site for KCN Server. If you do not specify this property, the default behavior is to disable the remote site.
RSAURL Required: No	KCN Server URL path	Specifies the Web server URL that is running KCN Server to perform a remote site installation. Use the WEBSERVER_USERNAME and WEBSERVER_PASSWORD properties (described in this table) if the authentication information for the Web server is required. You can optionally specify the Web server port number. If you specify a port, use the following syntax: `http protocol://Web server[:port]/acis` The only supported protocols are “http” and “https." If the port is not specified, the default ports are assumed: port 80 for http and port 443 for https.
SECURITYBOOST_DOMAIN Required: No	Domain name	Domain of the SecurityBoost user. This property is ignored if no value is specified for SECURITYBOOST_USERNAME.
SECURITYBOOST_PASSWORD Req: N	Password	Password of the SecurityBoost user. This property is ignored if no value is specified for SECURITYBOOST_USERNAME.
SECURITYBOOST_USERNAME Required: No	User name	Enables the SecurityBoost option and specifies the SecurityBoost user name for the SecurityBoost user. You must provide the SecurityBoost user name, password, and domain. The SecurityBoost parameters are used only with server installations.
SERIAL_NUMBER Required: No	Serial number	Serial number for software-based licensing.
SERVERDIR Required: See description.	Server files path, usually mapped drive or UNC	Path to the server files. This property is required for server and workstation installations.
SITE_ID Required: No Default: 1	Numeric	ID of the site (for server installations).
SITE_NAME Required: Alphanumeric characters	Current Machine name	Name of the site. Computer names that exceed 32 characters are truncated.

Property Name	Value	Description
STATION_ID Required: No Default: Current machine name	Alpha-numeric characters	Name of the station. Computer names that exceed 32 characters are truncated. The default station ID is the machine name without the following special characters: - " $ ` = \ { } ; ' , . / ~ ! @ # ^ ? & * ( ) _ + | : %
UPGRADE Required: No	0 (false), 1 (true)	Use this property for upgrades. Set the value to 1. Database and all other properties not identified in the following list are ignored. You can use the following properties. If values are not provided, any existing values are used. Remote site activation properties: - REMOTE_SITE - RSAURL - WEBSERVER_PASSWORD - WEBSERVER_USERNAME Launch exe: - LAUNCH_EXE - LAUNCH_EXE_ARGS SecurityBoost: - SECURITYBOOST_USERNAME - SECURITYBOOST_PASSWORD - SECURITYBOOST_DOMAIN Licensing: - SERIAL_NUMBER - PRODUCT_CODE Also, SERVERDIR can be changed for a workstation installation only; it is ignored when upgrading a server installation.
WEBSERVER_PASSWORD Required: No	Password	Use this property to specify the Web server password when the RSAURL property is specified and the authentication information is required.
WEBSERVER_USERNAME Required: No	User name	Use this property to specify the Web server user name when the RSAURL property is specified and the authentication information is required.
AdminID Required: No	A valid username used for renaming the default built-in Admin account.	Sets the User ID for the built-in Admin user account. Must be 3-64 alphanumeric characters. Unicode characters, commas, and periods are accepted.

Property Name	Value	Description
`AdminPW` Required: Yes if AdminID is specified	A valid password used for the default built-in Admin account.	Sets the password for the built-in Admin user account. Must be 4-14 alphanumeric characters. Unicode characters are accepted, along with any of the following: , . ! & # $ % / ?
`INSTALL_LEGACY` Required: No Default: 1	A value of 0 or 1.	0: Does not allow VB6 components to be installed. 1: Allows VB6 components to be installed.

Chapter 12

Setting Up Distributed Server Configurations

In general, the server components (server files and server software) should be installed on the same computer. However, some existing sites may have legacy issues that require server files be kept on a computer that is not running any of the Kofax Capture certified, supported operating systems. If you have such a requirement, you can use separate computers for the server software and the server files.

This chapter provides information about installing the server software and server files on separate computers.

See Installing Kofax Capture on a Server and Installing Kofax Capture on a Client Workstation for more information about the server components.

System Requirements for Server Software

For the list of minimum hardware requirements, see the Technical Specifications document.

System Requirements for Server Files

The following requirements are for the server files.

Recommended Hardware

Processor:	Intel Core 2 Duo/AMD Athlon 64 X2, or equivalent
Disk space:	5 GB or more for working space during processing. You may need more if you have many image files or a large database.
Long file names:	Normally, server files are installed on a file system that supports long file names, and their default paths make use of long names.
NIC:	100 Mbps
Network access:	Server files must be accessible to all Kofax Capture client workstations using any operating system that allows access to shared folders across the network using either a UNC path or mapped drive.

Novell NetWare Limitations

Kofax Capture must be installed on a drive that supports long file names, and the default paths for Kofax Capture make use of long names.

Installing Server Software and Server Files on Separate Computers

1. At the server software computer, shut down any applications (including the Control Panel, virus detection software including its automatic update service, and toolbars) that might be running.
2. Create or select a folder to be shared during installation of Kofax Capture.
3. Start the installation by running AutoRun.exe. If you are running the installation from removable media, the installation should automatically start.
4. From the main installation menu, select one of the installation options.
5. Follow the instructions on your screen to install the software. Be sure to read them carefully before proceeding with each step.

   Note In most cases, system files may need to be updated and you may be prompted to restart the workstation. If this occurs, choose to restart the workstation and *be sure to use the same user account when logging back on*. The installation process automatically resumes once your workstation has been restarted.

6. After the server installation is complete, you can install your client workstations.

As you progress through the preceding instructions, note the following:

- When prompted for the installation type, select **Server**.
- When prompted for a destination for the server software, specify a local folder on your server software computer. Make sure you select an installation path on a local, unmapped, non-UNC drive.
- When you are prompted for a destination for the server files, select a location for them. Since this will be on a different computer than the server software, make absolutely certain that you select an installation destination path that is accessible to the server software computer and all client workstations. Use either a UNC path (recommended) or a permanently mapped drive. The method (UNC or mapped drive) that you use here dictates how your client workstations are installed.

Upgrading or Repairing Distributed Configurations

For a description of the differences between upgrading and repairing a Kofax Capture installation, see Upgrading and Repairing Kofax Capture.

Upgrading an Existing Distributed Configuration

Follow these instructions if you are upgrading an existing distributed configuration.

Kofax Capture 11.1.0 supports Windows Server 2019, Windows Server 2016, and Windows Server 2012. If you want to upgrade your operating system to these versions, you should do so prior to upgrading to Kofax Capture 11.1.0.

Read Important Notes before you upgrade.

1. Shut down any applications (including the Control Panel, virus detection software including its automatic update service, and toolbars) that might be running.

   If you moved the Batch Catalog (database) to your SQL Server, IBM DB2, or Oracle in a previous version, you can continue using the same database.
2. Start the installation by running AutoRun.exe. If you are running the installation from removable media, the installation should automatically start.
3. From the main installation menu, select **Install Kofax Capture**.

   The upgrade process detects the previous version of your server software.
4. Follow the instructions on your screen to upgrade the software. Be sure to read them carefully before proceeding with each step.
5. After the server installation is upgraded, you can proceed to upgrade your client workstations.

Repairing an Existing Distributed Server Configuration

Follow these instructions if you are repairing an existing Kofax Capture 11.1.0 distributed server configuration.

- To repair your distributed server, see Repairing an Existing Kofax Capture Installation.
- To update your client workstations, see Repairing a Client Workstation.

Chapter 13

Monitoring Kofax Capture Services

Kofax Capture provides a solution for remote, real-time monitoring of an installation. This chapter describes how to install, enable, and configure the Kofax Capture monitoring solution which uses Simple Network Management Protocol (SNMP). It also describes how to start and use the provided sample monitoring application.

Kofax Capture Monitoring Requirements

The following lists the network and licensing requirements for installing and using the monitoring feature.

Network Requirements

The Kofax Capture monitoring feature uses SNMP as the underlying communication protocol. SNMP uses 161/udp and 162/udp.

Licensing Requirements

The Kofax Capture monitoring feature requires one of the following licenses:

- Enterprise
- Evaluation
- Temporary

Installed Components

The typical Kofax Capture installation process installs the following monitoring related files to the executable folder.

Installed Monitoring Components

File Name	Description
SnmpExtensionAgent.dll	The extension agent provides the interface and a database for the information that is used to monitor network devices and processes that are using SNMP. It collects and returns information as requested by a management system. At SNMP service startup time, the SNMP service (Snmp.dll) invokes the appropriate extension-agent DLL, which in turn implements the appropriate MIB (Management Information Base).
WmiProvider.dll, WmiProviderCOM.dll	WMI schema
SiteMonitorService.exe	This is a Windows service that exposes Kofax Capture site information to SNMP. This includes information about the configured queues, the site ID, site name, and site GUID.
Monitor.exe	The provided sample monitoring application.

Installing the Monitoring Feature

An administrator must initially execute a command script to install the key monitoring components.

Run the following command script from the Capture executable folder:

```
Install_Monitoring.cmd
```

Note This step is required to install the monitoring feature, but is not required for the normal operation of Kofax Capture.

The Install_Monitoring command script performs the following:

- Attempts to programmatically install the Windows SNMP service. This process may prompt you for a Windows CD to complete the installation. For more information, see Configuring the SNMP Service.
- Installs the extension agent (SnmpExtensionAgent.dll).
- Installs the WMI schema (WmiProvider.dll and WmiProviderCOM.dll).
- Updates the ACConfig.xml configuration file.
- Optionally installs the site monitor service (SiteMonitorService.dll). You are prompted to install this service. If you decline, you can install it later using InstallUtil.exe.

Verification of Installed Components and License

The installation process checks to see if the Windows SNMP service is installed and Kofax Capture is configured with an Enterprise, Temporary, or Evaluation license. If the service is not installed or the appropriate license is not found, an error window appears.

You can suppress error windows using the "/unattended" switch with InstallUtil.exe.

Site Monitor Service Credentials

If you install the site monitor service (SiteMonitorService.exe) during the initial Monitoring feature (Install_Monitoring.cmd) installation, you are prompted to enter credentials to use the service. To continue, enter a valid user name and password.

Permissions for Monitoring Feature

After installing the Monitoring feature, you must manually add the Partial Write permission for the authenticated user (the login user and/or the SecurityBoost user). However, if the user already belongs to a group that grants the required permissions (such as local Administrators), it is not necessary to add the Partial Write permission.

1. Open a Command Prompt window and type **MMC** to open the Microsoft Management Console.
2. Add the WMI control snap-in, right-click the **WMI Control** in the left pane, and select **Properties**.
3. On the **Security** tab, find the **Kofax Capture WMI** namespace, and click **Security**.
   The full path should be `Root\Kofax\capture`.
4. Select the login user, or the group to which the login user belongs, and select the **Partial Write** permission.

Configuring the SNMP Service

After installing the monitoring feature, you must configure the SNMP service. For more information about configuring the SNMP service, see the Microsoft documentation.

1. Use the Control Panel Administrative Tools to select **Services**.
2. In the Services window, right-click **SNMP service**, and then click **Properties**.
3. Click the **Traps** tab.
4. Enter a community name (typically "public" or "Public") to use for monitoring. The value is case-sensitive and must be consistently entered on all monitored computers.
5. Click the **Security** tab.
6. On the **Security** tab, select the **Send authentication trap** check box.
7. On the **Security** tab, select **Accept SNMP packets from any host**.
   If security requirements do not permit this selection, use the alternate setting, "Accept SNMP packets from these hosts," to include the community name used for sending traps.
8. Click **OK**.
9. Restart the SNMP service.

Separate Site Monitor Service Installation

If you select not to install the site monitor service (SiteMonitorService.exe) during the initial Monitoring feature (Install_Monitoring.cmd) installation, you can install it later using the InstallUtil.exe utility.

Site Monitor Service Credentials

When this service is installed, it prompts you to enter credentials to use the service. You can enter a valid user name and password.

You can also supply valid credentials using the "/username" and "/password" switches to InstallUtil.exe. When calling InstallUtil.exe, the credentials parameters must be specified before the assembly name. Example:

```
InstallUtil.exe /username=Jsmith /password=Q8642Z SiteMonitorService.exe
```

License Verification

The site monitor service installation also checks to see if Kofax Capture is configured with an Enterprise, Temporary, or Evaluation license. If the appropriate license is not found, an error appears.

You can suppress any windows using the "/unattended" switch with InstallUtil.exe.

Sample Monitoring Application

Kofax Capture includes a sample monitoring application that monitors Kofax Capture services and displays their status. You can use the application "as is" or as a springboard for your custom monitoring application.

The sample application is written in Visual Basic .NET. The provided VB.NET project, which contains all of the source and components necessary to build the application, is located in the following folder.

`Kofax\Capture\Source\VB.Net Samples\Monitor`

For a client/server installation, this folder is located in the `CaptureSV` folder.

The SNMP MIB is located in the same folder as the sample application.

Note The sample application is not Section 508 compliant.

Starting the Sample Monitoring Application

You can start the sample monitoring application from a command prompt and specify which hosts to poll.

Specifying the Default List of Hosts

To poll the default list of Kofax Capture hosts in the ACConfig.xml file, run the application with no arguments:

```
C:\>MONITOR.EXE
```

If Kofax Capture is not installed, the application runs; however, the host list and activity list are empty.

Specifying a List of Hosts

You can also specify the hosts that you want the sample monitoring application to poll by listing them in an XML configuration file and specifying it as a command line argument. Use this syntax:

```
C:\>MONITOR.EXE [<host configuration file>]
```

The host configuration file is an XML file that specifies a list of host servers. This is required if running the sample application on a workstation where Kofax Capture is not present. The XML file should contain Workstation elements with Host attributes for each station that you want to monitor, as shown below.

```
<Workstations>
    <Workstation Host=”SystemName"/>
</Workstations>
```

Chapter 14

Kofax Capture Deployment Utility

Many companies use disk imaging software to quickly install and configure multiple computers. This software makes an exact copy of a hard drive that can then be restored on a second computer, effectively duplicating the entire computer with its installed software. When Kofax Capture is duplicated in this way, configuration issues can occur.

The Kofax Capture Deployment Utility, ACDeployUtil.exe, is a standalone console application that reconfigures the Kofax Capture installation, and allows it to function normally on a duplicated computer. ACDeployUtil.exe resides in <`Kofax Capture installation folder`>`\Bin`. This utility has no graphical user interface, and it is controlled completely via command line parameters.

This utility can be used with Kofax Capture servers, workstations, and standalone installations.

Kofax Capture Deployment Utility must be used on clean installations only.

Kofax Capture Deployment Utility Process Overview

1. Install Kofax Capture on the source computer.
2. Create a disk image of the source computer using a third-party product.
3. Restore the disk image to a second computer.
4. Change the second computer's network Computer Name.
5. Stop all Kofax Capture components, if any are running.
6. Start ACDeployUtil.exe and make the necessary changes to the system.
7. Activate Kofax Capture through KSALicenseUtility.exe.

Command Line Parameters

The Deployment Utility supports several command line parameters to reconfigure the new installation of Kofax Capture.

No Parameters

Displays the current configuration values.

```
ACDeployUtil
```

Usage [/?]

Displays the proper usage of ACDeployUtil, including all of the command line parameters.

```
ACDeployUtil /?
```

Default [/default]

Automatically detects the current configuration and updates it with the default settings.

```
ACDeployUtil /default
```

The following table lists the default settings depending on the detected Kofax Capture configuration.

Default Deployment Settings

Detected Configuration	Available Input Arguments	Default Values	Example Values
Server	ServerPath SiteName SiteID StationID	\\{Computer Name}\CaptureSV {Computer Name} 1 {Computer Name}	\Network\CaptureSV Computer2 1 Computer2
Workstation	ServerPath StationID	Unchanged {Computer Name}	Computer2
Standalone	SiteName SiteID StationID	{Computer Name} 1 {Computer Name}	Computer2 1 Computer2

PrevServerPath [/PrevServerPath:{server path}]

Specifies the previous location of the server files if it has changed.

```
ACDeployUtil /PrevServerPath:\\Network\AscentData
```

ServerPath [/ServerPath:{server path}]

Specifies the location of the server files. This variable does not apply to standalone configurations.

```
ACDeployUtil /ServerPath:\\Network\AscentData
```

SiteName [/SiteName:{site name}]

Specifies the SiteName for the new computer. This variable does not apply to workstation configurations.

```
ACDeployUtil /SiteName:ThisComputer
```

SiteID [/SiteID:{site ID}]

Specifies the SiteID for the new computer. This variable does not apply to workstation configurations.

```
ACDeployUtil /SiteID:12
```

StationID [/StationID:{station ID}]

Specifies the StationID for the new computer. This variable applies to all workstation configurations.

```
ACDeployUtil /StationID:JohnSmith
```

Proper Usage

If you call the Kofax Capture Deployment Utility with the "/?" parameter, the valid parameters appear. If you call it without any parameters, the current configuration settings appear. Use both of these to properly reconfigure the Kofax Capture installation on the new computer.

Error Messages

If the utility fails to reconfigure the Kofax Capture installation, an error message is displayed to explain the problem.

Unsupported Installation Configurations

The Kofax Capture Deployment Utility cannot reconfigure the following installation configurations:

- High Availability
- Kofax Capture Network Server (KCN Server)
- Xtrata
- Kofax Capture Import Connector - Email

Appendix A

Using the OmniPage Recognition Engine

Kofax OmniPage replaces ABBYY FineReader Engine 12 (FRE 12) in Kofax Capture 11.1.0. If you upgrade the system from the previous version, settings currently configured for use with FRE 12 are mapped to OmniPage to achieve consistent results.

Features that are fully available in OmniPage are converted one by one at runtime.

ABBYY FRE Features Partially Converted by OmniPage

Partially available features are converted based on values of the specific settings. The following list includes the OmniPage values for recognition settings after they are converted from ABBYY FRE.

- Languages: If a language previously supported by ABBYY FRE is not supported by the OmniPage engine, it will be converted to English during recognition.
- Non-natural language (characters can be included in a word): The setting is renamed to Character Set/ Custom.
- Resolution for PDF/A:

ABBYY FRE resolution setting	Converted OmniPage resolution setting
72	72
96	100
120	150
200	200
240, 300	300
Others (340, 400, 600)	Original

- JPEG Quality for PDF/A: The setting is renamed to Color image quality.

ABBYY FRE setting	Converted OmniPage setting
100	Lossless
60-99	Good
0-59	Minimal

- Page layout for .rtf, .doc, .docx. files: Full-page Layout is renamed to Retain Original Layout and Retain Paragraphs Only is converted to Retain Paragraphs and Fonts.

ABBYY FRE Features not Supported by OmniPage

Several ABBYY FRE features are not supported by OmniPage, and they are ignored during conversion. You can use other related settings to achieve the required results. The following ABBYY FRE recognition settings are not converted to OmniPage.

Recognition Settings

This section contains the list of unsupported settings in recognition profiles and Advanced OCR Recognition Settings dialogs:

- Regular expression
- Detect tables
- Single line of text per cell
- No hidden separators
- Aggressive table detection mode
- Detect pictures
- Detect bar codes
- Ability to locate all text on the page

Export (Output) Settings

This section contains the list of unsupported settings in the PDF Output Format and Advanced OCR Output Format dialogs:

- Bold
- Italic
- Underline
- Replace uncertain words with images
- Retain text color
- Page layout

Rich Text Format (.rft), Microsoft Word (*.doc), and Microsoft Word 2007 and later (*.docx) Settings

- Bold
- Italic
- Underline
- Replace uncertain words with images
- Retain text color
- Suppress line breaks (for .mht and .csv files, for other file types this setting is converted)
- Use page break as page separator
- Retain text color
- Remove pictures

- Picture resolution
- Remove pictures
- JPEG quality for .mht files.
- Use blank line as paragraph separator
- Tables only
- Convert numeric strings to numbers
- Remove formatting