

Kofax Front Office Server

4.1.0

Web Services Connector SDK Developer's Guide



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Kofax Front Office Server Web Services Connector SDK Developer's Guide

Preface

This guide provides an overview and instructions for developing inputs with the Web Services Connector Software Developer Kit (SDK). Along with this guide, the SDK provides documentation for the Web services.

Related Documentation

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

Kofax Front Office Server Installation Guide

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

Kofax Front Office Server Administrator's Guide

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

Multifunction Peripheral (MFP) Administrator's Guides

These guides show how to make Kofax Front Office Server features available on MFP front panels. Administrator's guides are available for the following MFPs (for information about the specific models supported, see the *Kofax Cross-Platform Compatibility Matrix* on the Kofax web site):

- Canon
- Fujitsu
- Hewlett Packard
- Konica Minolta
- Kyocera
- Lexmark
- Ricoh
- Xerox
- Kofax Front Office Server MFP Emulator

Help for Kofax Front Office Server Applications

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

Release Notes

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

Developer Resources

The developer resources include documentation, code samples, API references, and other aids that developers can use to customize or add functionality to the Kofax Front Office Server product.

Getting Help for Kofax Products

Kofax regularly updates the Kofax Support site with the latest information about Kofax products.

To access some resources, you must have a valid Support Agreement with an authorized Kofax Reseller/Partner or with Kofax directly.

Use the tools that Kofax provides for researching and identifying issues. For example, use the Kofax Support site to search for answers about messages, keywords, and product issues. To access the Kofax Support page, go to www.kofax.com/support.

The Kofax Support page provides:

- Product information and release news
Click a product family, select a product, and select a version number.
- Downloadable product documentation
Click a product family, select a product, and click **Documentation**.
- Access to product knowledge bases
Click **Knowledge Base**.
- Access to the Kofax Customer Portal (for eligible customers)
Click **Account Management** and log in.

To optimize your use of the portal, go to the Kofax Customer Portal login page and click the link to open the *Guide to the Kofax Support Portal*. This guide describes how to access the support site, what to do before contacting the support team, how to open a new case or view an open case, and what information to collect before opening a case.

- Access to support tools
Click **Tools** and select the tool to use.
- Information about the support commitment for Kofax products
Click **Support Details** and select **Kofax Support Commitment**.

Use these tools to find answers to questions that you have, to learn about new functionality, and to research possible solutions to current issues.

Training

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

System Requirements

- Adobe Reader (to view the Developer's Guide)
- HTML Help Viewer and Internet Explorer (to view the API documentation)

Accessing the SDK

The SDK is found in the Kofax Front Office Server product files, and is copied to a `\DeveloperResources\WebServicesConnector` folder where Kofax Front Office Server is installed by the setup process.

For easy access to the materials in the SDK, use the Kofax Front Office Server Developer Resources page. To view the welcome page, go to `\DeveloperResources\WebServicesConnector\wscindex.html`.

Kofax Front Office Server Developer Resources Page



Kofax Front Office Server Developer Resources

Kofax Front Office Server provides the following documentation and code samples that developers can use to customize or add functionality to the product. Before installing and using Kofax Front Office Server, read the release notes, which you can download from the Kofax Web site.

- [Web Services Connector SDK](#)
Contains a developer's guide and WSDL references.
- [Data Validation and Lookup Customization](#)
Contains developer and API documentation.
- [Web API Sample](#)
Provides a reference and sample code for the Web API.

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Use the links on this page to view the API documentation and the Web Services reference. Save the .chm file to your local drive. The content of .chm files may not appear properly if copied to a network drive.

Developer Recommendations

This section provides recommendations for developing with the Web Services Connector.

Supporting Global Shortcuts

In the Administration Console, the administrator defines destinations and shortcuts, which can be assigned to a device profile. When the device profile is deployed to a licensed Web Services Connector client, the global shortcuts associated with the device profile are made available to that client.

To obtain the list of global shortcuts in the device profile deployed to the client, call the `getProfile` method of the `ProfileService`. Make sure that you only send to destinations obtained from a global shortcut in the client's current profile.

- 1 Start a new document submission job by calling the `startJob` method of the `StartJobService`.
- 2 Repeat the following steps for each image:

- a Copy the destination information from the global shortcut's `WscDestination` object into the `WscDestination` object of a `WscSendImageRequest`, including the index fields of the `WscDestination` object.
 - b Complete the appropriate index field information.
 - c Send the `WscSendImageRequest` and the image by using the `sendImage` method of the `SendImageService`.
- 3 Complete the document submission job by sending a final `sendImage` request with the `done` field in the `WscSendImageRequest` set to `true`.

Using RESTful Web Services

Kofax Front Office Server provides RESTful Web services. These are documented in the Kofax Front Office Server RESTful API Reference, which is located in `\DeveloperResources\WebAPISample`. Copy `restfulapireference.chm` to a local drive.

Note The content of `.chm` files may not appear properly if copied to a network drive.

The `\DeveloperResources\WebAPISample` folder also contains a sample Visual Studio project.

RESTful APIs support requests and responses to URIs in JSON format. The base address of the RESTful Web services is `http://<server>:<port>/kofax/kfs/api/v1`. (If you are using SSL, replace `http` with `https`.) Applications that use RESTful Web services follow this basic flow.

- 1 Register the client to Kofax Front Office Server by using the service endpoint URI: `http://<server>:<port>/kofax/kfs/api/v1/client/{id}`
- 2 Get global destinations and shortcuts by using the service endpoint URI: `http://<server>:<port>/kofax/kfs/api/v1/client/{id}?sessionID={sessionID}&locale={locale}`
- 3 Get personal destinations and shortcuts by using the service endpoint URI: `http://<server>:<port>/kofax/kfs/api/v1/users/{userID}/forms?sessionID={sessionID}&clientID={clientID}&locale={locale}`
- 4 Get index fields of a destination or shortcut by using the service endpoint URI: `http://<server>:<port>/kofax/kfs/api/v1/form/{id}/fields?sessionID={sessionID}`
- 5 Validate a value of an index field of the destination/shortcut by using the service endpoint URI: `http://<server>:<port>/kofax/kfs/api/v1/form/{id}/fields?currentField={fieldName}`
- 6 Validate values of all index fields of the destination/shortcut using the service endpoint URI: `http://<server>:<port>/kofax/kfs/api/v1/form/{id}/fields`
- 7 Start submitting a job by using the service endpoint URI: `http://<server>:<port>/kofax/kfs/api/v1/transaction`
- 8 Send images of the job to Kofax Front Office Server by using the service endpoint URI: `http://<server>:<port>/kofax/kfs/api/v1/transaction/{transactionID}/page/{pageID}`
- 9 End submitting the job by using the service endpoint URI: `http://<server>:<port>/kofax/kfs/api/v1/transaction/{transactionID}`

Supporting Personal and Group Shortcuts

A user's list of personal and group shortcuts is returned by the login method of the UserLoginService. Only the personal shortcuts and the group shortcuts associated with the logged on user are retrieved.

Once you have retrieved the shortcuts, follow the appropriate steps for sending images to the shortcut. Note the following:

- A user ID and password are required when sending to a personal or group shortcut.
 - Make sure that you only use destinations obtained from a personal or group shortcut in the list returned by the login call.
- 1 Obtain the index field information for the shortcut by calling the `getIndexFields` method of the `GetIndexFieldsService`. When setting values of the `WscIndexFieldsRequest`, note the following:
 - Set the `shortcutName` and `shortcutTypeOrdinal` fields to the corresponding values from the selected shortcut.
 - Set the user name and password.

Note The `backendId`, `dataStoreName`, `formTypeId` fields are no longer required and will be ignored if you set values for them.

- 2 Start a new document submission job by calling the `startJob` method of the `StartJobService`.
- 3 Send the image by doing the following:
 - a Copy the destination information from the shortcut's `WscDestination` object into the `WscDestination` object of the `WscSendImageRequest`.
 - b Fill in the associated index field array from the `WscIndexFieldResponse` obtained in step 1.
 - c Set the appropriate index field values.
 - d Set the user name and password in the `WscSendImageRequest`.
 - e Send the `WscSendImageRequest` and the first image by using the `sendImage` method of the `SendImageService`.
- 4 Repeat step 3 for each image.
- 5 Send a final `sendImage` request with the "done" field in the `WscSendImageRequest` set to true, to complete the document submission job.

Requirement for Unique Job IDs

Every job submitted to Kofax Front Office Server must have a unique job ID that is different from any job ID used by any other Web Services Connector client or input device (such as MFPs and scanners). Use a randomly generated GUID for each job because a timestamp does not guarantee uniqueness, especially across multiple devices.

Completing Document Submission Jobs

After you have initiated a document submission job with `StartJobService`, images and metadata files remain in the Kofax Front Office Server `scanjobs` folder until the job is done, canceled, or aborted. To make sure that incomplete document submissions jobs do not take up too much space on the server, make sure all jobs are completed.

When sending to a shortcut, the job is completed by calling the `SendImageService` with a `WscSendImageRequest` where the `done`, `canceled`, or `aborted` field is set to `true`. Similarly, one of the `done`, `canceled`, or `aborted` fields would be set to `true` in the last `WscSendToKDEInboxRequest` or `WscSendWithCoversheetRequest`, to complete a job when sending to a Thin Client Inbox or sending with a coversheet, respectively.

Web Services Connector Client Licensing

The Web Services Connector client is licensed through the Kofax Front Office Server Device license. RESTful Web services are licensed as mobile. Clients that use the following legacy or RESTful Web services decrement the Scan/Import and PDF Image+Text page counts.

- Legacy Web services:
 - `SendImageService`
 - `SendToKDEInboxService`
 - `SendWithCoversheetService`
- RESTful Web service endpoint URIs:
 - `http://<server>:<port>/kofax/kfs/api/v1/transaction/{transactionID}/page/{pageID}`
 - `http://<server>:<port>/kofax/kfs/api/v1/transaction/{transactionID}/page/{pageID}/part/{partID}`
 - `http://<server>:<port>/kofax/kfs/api/v1/transaction/{transactionID}/pagestream/{pageID}`
 - `http://<server>:<port>/kofax/kfs/api/v1/transaction/{transactionID}/pagestream/{pageID}/part/{partID}`

Adding a Web Services Connector Client

In the Administration Console, add the Web Services Connector client manually as shown in the Administration Console Help. Some fields on the Add Device tab need to be entered differently from other devices, as listed in this section. After adding the Web Services Connector client, associate a device profile to it as you would with any other device.

IP

This field is required by the Administration Console. If the client does not have an IP address, enter a fictional IP address that is not the same as any other IP addresses licensed on Kofax Front Office Server. Make sure it is in the correct format for an IP address.

Device name

Enter any name to identify the Web Services Connector client.

Host name

Enter the name for the client if it does not have a host name. This name must not correspond to any real host.

Device model

Enter "other" (without quotation marks) for a Web Services Connector client.

MAC address

This field is required by the Administration Console. It is also required by Web Services Connector as the Device ID for invoking Web services.

If the client does not have a MAC address, enter a fictional address that is not the same as any other MAC address licensed on Kofax Front Office Server. Make sure it is in the correct format for a MAC address:

xx-xx-xx-xx-xx-xx

Where x is a hexadecimal digit and digits must be separated with dashes.

Note When invoking a Web service that requires a Web Services Connector client ID, make sure you use dashes in the MAC address that you pass in as the Web Services Connector client ID, as shown in the format above. Using colons instead of dashes as separators will result in an error.

Description

Enter a description of the Web Services Connector client. This field is optional.

Device Profile

After you have saved the device, select a device profile. In a device profile, you can specify whether Kofax licensing applies. See [Web Services Connector Client Licensing](#).

